

TB 381-5-06
TECHNICAL BULLETIN

FOREIGN MATERIEL CATALOG
FOMCAT VOL. 6

FUZES



HEADQUARTERS, DEPARTMENT OF THE ARMY

DISTRIBUTION LIMITED TO US GOVERNMENT AGENCIES ONLY
(FOREIGN INFORMATION); APRIL 1977; OTHER REQUESTS
FOR THIS DOCUMENT MUST BE REFERRED TO THE ASSISTANT
CHIEF OF STAFF FOR INTELLIGENCE (DEPARTMENT OF THE ARMY)

UNCLASSIFIED

TB 381-5-06

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

FOREIGN MATERIEL CATALOG

(FOMCAT)

19 April 1977

This bulletin supersedes TB 381-5-06, 7 April 1975.

VOLUME 06. FUZES

Distribution limited to US Government Agencies only (foreign information); April 1977. Other requests for this document must be referred to the Assistant Chief of Staff for Intelligence (Department of the Army).

HEADQUARTERS, DEPARTMENT OF THE ARMY

UNCLASSIFIED

UNCLASSIFIED

THIS PAGE INTENTIONALLY BLANK

UNCLASSIFIED

FOREWORD

The automated Foreign Materiel Catalog (FOMCAT), published in the TB 381-5 series, is a standard US Army reference covering, on an item-by-item basis, materiel of foreign ground forces. Members of the intelligence community in general and many other elements of the Armed Forces will find here information on foreign weapons and equipment of direct value to their respective missions.

The FOMCAT is issued in 24 volumes which, collectively, include most categories of foreign materiel of primary interest to the US Army. Volumes 1 through 8, 10 through 22, and 24 are confidential or unclassified. Volume 9 is secret, and Volume 23 is a secret supplement containing secret information on items covered in the confidential or unclassified volumes. The volume numbers and titles are listed below.

Volume 1	. . . . .	Infantry Weapons
Volume 2	. . . . .	Artillery and Fire Control Equipment
Volume 3	. . . . .	Armored Combat Vehicles
Volume 4	. . . . .	Ammunition
Volume 5	. . . . .	Explosives, Pyrotechnics, and Demolition Material
Volume 6	. . . . .	Fuzes
Volume 7	. . . . .	Chemical, Biological, and Radiological Equipment
Volume 8	. . . . .	Communications Equipment
Volume 9	. . . . .	Radar
Volume 10	. . . . .	Electronic and Electro-optical Equipment (Except Radar and Communications Equipment)
Volume 11	. . . . .	Aerial Delivery Equipment
Volume 12	. . . . .	Gap Crossing Equipment
Volume 13	. . . . .	General Engineer Equipment
Volume 14	. . . . .	Construction Equipment
Volume 15	. . . . .	Power Generating Equipment
Volume 16	. . . . .	Engines
Volume 17	. . . . .	General Equipment
Volume 18	. . . . .	Clothing and Individual Life Support Equipment
Volume 19	. . . . .	Materials Handling Equipment
Volume 20	. . . . .	Military Subsistence
Volume 21	. . . . .	POL Handling Equipment
Volume 22:		Surface Transport Equipment
22A	. . . . .	Surface Transport Equipment (ECC)
22B	. . . . .	Surface Transport Equipment (Free World)
22C	. . . . .	Special-Purpose Vehicles
Volume 23	. . . . .	Secret Supplement
Volume 24	. . . . .	Army-Type Aircraft (Rotary and Light Fixed Wing)--Foreign

The FOMCAT is compiled on the basis of information in an automated data bank that is created, maintained, and continuously updated by Department of the Army intelligence research analysts. The automated FOMCAT system replaced the previous procedure in which numerous periodic changes were published to supplement and update the four basic FOMCAT volumes initially disseminated in 1965 and 1966. The 24 FOMCAT volumes are revised and republished annually or biennially, but continuous maintenance keeps the computer data bank current and comprehensive at all times. Volumes 1 through 4, 7 through 10, and 23 are republished annually; Volumes 5 and 6, 11 through 22, and 24 are republished biennially.

The introduction to this volume describes the scope and arrangement of the catalog, the methods used to denote reliability of the data, and how the FOREIGN MATERIEL (FOM) number is used. In addition, reference tables are provided for the convenience of catalog users. The catalog proper consists of illustrations and computer-produced data sheets that generally describe and present technical data on items of materiel.

UNCLASSIFIED

All comments, recommendations, corrections, or requests for information about the catalog and the automated system should be forwarded to the Commander, US Army Foreign Science and Technology Center, 220 Seventh Street, NE, Charlottesville, VA 22901 (ATTN: DRXST-PO).

During the 12- or 24-month periods between publication of the various volumes, users may obtain computer printouts for particular items of materiel. These requests, which should be limited to those for which there is a significant requirement for the information, will be filled as quickly as possible, within the constraints of available time, money, and manpower. Requests should be sent to the Commander, US Army Foreign Science and Technology Center, ATTN: DRXST-MC.

Requests for copies of the catalog should be submitted to the Commander, US Army AG Publications Center, 1655 Woodson Road, St. Louis, MO 63132. Requests for changes in the distribution list should be submitted on DA Form 12-34A through the Assistant Chief of Staff for Intelligence, Department of the Army, Washington, DC 20310.

UNCLASSIFIED

FOREIGN MATERIEL CATALOG

VOLUME 06. Fuzes

CONTENTS

	<u>Page</u>
FOREWORD -----	iii
Part One. Introduction	
Scope -----	vii
Reliability of Data -----	vii
Arrangement of Catalog -----	vii
The Automated FOMCAT System -----	vii
The Foreign Materiel (FOM) Number -----	vii
Explanation of Index of Materiel Items -----	ix
Abbreviations -----	ix
Reference Tables -----	ix
Table 1. Conversion Formulas -----	xi
Table 2. Materiel Item Group Class Coverage in FOMCAT Volumes -----	xiii
Table 3. Alphabetic Index of Group Classes Contained in FOMCAT Volumes -----	xvii
Part Two. Catalog	
Index of Materiel Items -----	xxi

UNCLASSIFIED

UNCLASSIFIED

THIS PAGE INTENTIONALLY BLANK

UNCLASSIFIED

CATALOG OF FOREIGN MATERIEL (FOMCAT)

VOLUME 06. FUZES

PART ONE. INTRODUCTION

1. SCOPE

This catalog, published in 24 volumes, has been designed to include pertinent characteristics and illustrations of individual items of foreign materiel. It is intended as a supporting publication for the intelligence community and the Department of the Army. It will be of particular value in providing technical characteristics of materiel mentioned in scientific and technical intelligence studies, as an adjunct to Defense Intelligence Agency collection guides, and as an aid in making comparative analyses of foreign and United States materiel.

2. RELIABILITY OF DATA

Reliability of the data in the catalog is indicated by the presence or absence of a question mark (?). If there is no question mark, the data are accepted as accurate. Data followed by a question mark are regarded as "possibly true" but requiring confirmation. A question mark standing alone means "unknown." The abbreviation N/A (not applicable) indicates that a particular characteristic does not apply to the item being described. For example, if a weapon is not equipped with a rear-type sight, the notation would be "rear-type sight ----- N/A."

3. ARRANGEMENT OF THE CATALOG

Each of the 24 volumes is divided by group class, which is subdivided by country of manufacture and into sections, each section representing a category or subcategory of materiel.

4. THE AUTOMATED FOMCAT SYSTEM

a. The catalog is published on the basis of information in an automated FOMCAT data bank, a comprehensive file of data on foreign materiel items maintained on removable mass data storage devices. This data bank was originally created from inputs from the four original FOMCAT volumes (on conventional ordnance materiel; atomic, biological, and chemical materiel; communications and electronics materiel; and general equipment and transport materiel) published in 1965 and 1966, and from the periodic changes to these four volumes published since then. Items included in the original volumes and changes were reviewed by experienced analysts before publication in new volumes.

b. Department of the Army intelligence research analysts maintain the data file continuously (except during the annual or biennial publication cycle) by entering new items of materiel and updating or deleting old items as appropriate. Thus, although the 24 volumes are republished annually or biennially, there is constant review and maintenance of the data file.

5. THE FOREIGN MATERIEL (FOM) NUMBER

a. The US Army classifies all foreign ground-force materiel by the foreign materiel (FOM) number. All foreign materiel stock numbers bear the prefix "FOM-," followed by a series of separated numerical components. Assignment of FOM numbers to individual items of foreign materiel is carefully regulated; under no circumstances should an intelligence collector or other unauthorized person attempt to assign a new FOM number.

UNCLASSIFIED

TB 381-5-06

b. The first component of the FOM number represents the 4-digit group class. The first two digits represent the Defense Supply Agency's Federal Supply Classification (FSC) System, and the last two digits identify the class division within the group. Only those FSC groups and classes anticipated as being involved in Army intelligence interests are utilized for foreign materiel, and some group classes have been modified in order to be applicable specifically to foreign materiel.

c. The second component represents country of manufacture. "0" indicates materiel of United States origin used by a foreign country or countries, which is not used as standard materiel by US forces. "1" represents materiel for which the country of origin is unidentified. For further differentiation, "1A" signifies that the country is completely unidentified; "1B" denotes the belief that the item was produced in one of the Communist countries; and "1C" indicates the belief that the item is of free world origin. The other numbers are used to identify specific countries.

d. The third component represents the initial subcategorization of the class, or, if there are no subdivisions of the class, the next sequential number assigned to the item of materiel.

e. The remaining components arrange the items of materiel in a logical order within the subclass and identify the assigned sequential number. Variations occur within the subclass in the number of numerical components required to pinpoint further the specific item. For example, a component may or may not require an indication of caliber, and a component may or may not be required to show a variation of the original design of model.

f. The following example details the composition of a typical FOM number:

FOM	-	2350	-	2	-	1	-	85	-	1
Component		1st		2d		3d		4th		5th

The first component after the FOM acronym, 2350 in the above example, places the item in the group class for combat tanks and armored recovery vehicles.

The second component, 2, identifies the country that manufactured the item, in this case, USSR.

The third component, 1, places the item in the first subclass of group class 2350 (combat tanks).

The fourth component, 85, indicates caliber for conventional ordnance materiel such as infantry weapons or artillery. For other items of materiel, the fifth component indicates the sequence of the item. For example, a 7 assigned in a FOM number for radio receivers would indicate that the item is the seventh receiver of this type to be given a FOM number.

The fifth component, 1, indicates that the item is the first variant of the basic category, or, if the fourth component indicates caliber, the fifth component reports sequence (and a seventh component is added, if necessary, to indicate a variant of a basic category).

UNCLASSIFIED

6. EXPLANATION OF INDEX OF MATERIEL ITEMS

a. Computer-printed indexes have been prepared for each FOMCAT volume to indicate the materiel items covered and the placement of items in the volume.

b. In many cases, materiel items are arranged by group class by country. For example, all items in group class 5805 (telephones and telegraph equipment) are presented before any items in the next group class, 5815 (teleprinters and facsimile equipment), and within group class, all items for country number 3 (Albania) are presented before any items for country number 4 (Bulgaria).

c. The other digits of the FOM number (for subclass, sequential number, caliber where applicable, and variation of basic item) are used as further determinants of placement of materiel items in the index and in the volume.

d. For some volumes, intelligence research analysts have designed special indexes to arrange items in a manner more suitable to the anticipated needs of users. These specially tailored indexes are self-explanatory.

7. ABBREVIATIONS

The sources for abbreviations used in FOMCAT volumes are AR 310-50 (Authorized Abbreviations and Brevity Codes), Military Standard 12C (Military Standard Abbreviations for Use on Drawings, Specifications, Standards, and in Technical Documents), the US Government Printing Office Style Manual (1973 edition), and the various Industry Standardization Documents (USAS and ANSI standards) adopted by the Department of Defense.

8. REFERENCE TABLES

The following reference tables are provided to assist the reader in using the catalog.

UNCLASSIFIED

THIS PAGE INTENTIONALLY BLANK

x

UNCLASSIFIED

UNCLASSIFIED

TB 381-5-06

TABLE 1. Metric Conversion Factors

TO CONVERT FROM	TO	MULTIPLY BY
ANGLES		
degrees (DEG)	minutes	60.000*
degrees (DEG)	seconds	3600.0*
milliradians	mils, US	1.0186
milliradians	mils, USSR	0.954 93
radians (RAD)	degrees	57.296
revolutions (REV)	mils, US	6400.0*
revolutions (REV)	mils, USSR	6000.0*
AREA		
hectares (1)	acres (US Survey)	2.4711
square centimeters (SQ CM)	square inches	0.155 00
square meters (SQ M)	acres	0.000 247 11
square meter (SQ M)	square feet	10.764
square meters (SQ M)	square yards	1.1960
square millimeters (SQ MM)	square inches	0.001 550 0
ENERGY		
joules (2) (J)	calories (gm, International Table) (3)	0.238 89
joules (J)	foot poundals	23.734
joules (J)	foot pounds (lbs of force)	0.737 68
kilojoules (KJ)	BTUs (International Table) (4)	0.947 82
kilojoules (KJ)	calories (kg, International Table)	0.238 89
kilojoules (KJ)	watt hours	0.277 78
megajoules (MJ)	horsepower hours (5)	0.372 51
microjoule	ergs	10.000*
FORCE		
newton (6) (N)	dynes	100 000.*
newton (N)	poundals	7.2330
newton (N)	pounds (of force, avoirdupois)	0.224 81
FUEL CONSUMPTION		
gram per megajoule (G/MJ)	grams per horsepower hour (5)	2.6845
gram per megajoule (G/MJ)	grams per kilowatt hour (7)	3.6000*
kilometer per liter (KM/L)	miles per gallon (US liquid)	2.3521
LENGTH		
centimeters (CM)	inches	0.393 70
meter (M)	feet	3.2808
meter (M)	yards	1.0936
kilometer (KM)	miles	0.621 37
kilometer (KM)	miles (nautical)	0.539 96
millimeter (MM)	inches	0.039 370
MASS		
gram (G)	grains	15.432
gram (G)	ounces (mass, avoirdupois)	0.035 274
kilogram (KG)	pounds (mass, avoirdupois)	2.2046
kilogram (KG)	slugs	0.068 522
megagram	tons (long, 2240 lbm)	0.984 21
megagram	ton (metric)	1.0000*
megagram	tons (short, 2000 lbm)	1.1023
POWER		
kilowatt (7) (KW)	horsepower (5)	1.3410
microwatt	ergs per second	10.000*
milliwatt	foot pounds per hour	2.6552
milliwatt	foot pounds per minute	0.044 254
watt (W)	BTUs (International Table) per hour	3.4121
watt (W)	calories (kg, International Table) per hour	0.859 86
watt (W)	foot pounds per second	0.737 56
watt (W)	watts (International US)	0.999 84
PRESSURE		
kilopascal (8) (KPA)	atmospheres (normal = 760 torr)	0.009 869 2
kilopascal (KPA)	bars	0.010 000*
kilopascal (KPA)	feet of water at 39.2°F (pressure of)	0.334 56
kilopascal (KPA)	feet of water at 60°F (pressure of)	0.334 89

*exact

UNCLASSIFIED

TB 381-5-06

PRESSURE (Continued)

kilopascal (KPA)	inches of mercury at 32°F (pressure of)	0.295 30
kilopascal (KPA)	inches of mercury at 60°F (pressure of)	0.296 13
kilopascal (KPA)	kilograms per square centimeter (pressure of)	0.010 197
kilopascal (KPA)	pounds (of force) per square inch	0.145 04
kilopascal (KPA)	torr (millimeters of mercury, 0°C)	7.5006
pascal (PA)	dynes per square centimeter	10.000*
pascal (PA)	kilograms per square meter (pressure of)	0.101 97
pascal (PA)	pounds (of force) per square foot	0.020 885

STRESS (see PRESSURE)

TORQUE

kilonewton meter (KNM)	tons (short, 2000 lb) feet	0.368 78
newton meter (NM)	kilograms (weight of) meters	0.101 97
newton meter (NM)	pound feet	0.737 56
newton meter (NM)	poundal feet	23.730
newton meter (NM)	pound inches	8.8507

VELOCITY

kilometer per hour (KM/H)	knots (international)	0.540 00
kilometer per hour (KM/H)	miles per hour	0.621 37
meter per second (M/S)	feet per second	3.2808
meter per second (M/S)	kilometers per hour	3.6000*
meter per second (M/S)	kilometers per minute	0.060 000*
meter per second (M/S)	knots (international)	1.9438
meter per second (M/S)	miles per hour	2.2369
meter per second (M/S)	miles per minute	0.037 282
millimeter per second (MM/S)	feet per minute	0.196 85

VOLUME

cubic centimeter (CU CM)	cubic inches	0.061 024
cubic centimeter (CU CM)	ounces (US fluid)	0.033 814
cubic meter (CU M)	cubic yards	1.3080
liter (L)	cubic feet	0.035 316
liter (L)	gallons (UK & Canadian, liquid)	0.219 98
liter (L)	gallons (US, liquid) (10)	0.264 18
liter (L)	pints (US, liquid)	2.1134
liter (L)	quarts (US, liquid)	1.0567

TEMPERATURE CONVERSIONS

With temperature on the celsius (C), kelvin (K), fahrenheit (F), and rankine (R) scales.

$$F = 1.8C + 32 \quad K = C + 273.15$$

$$F = 1.8K - 459.67 \quad R = 1.8K$$

$$F = R - 459.67$$

NOTES:

- (1) A hectare is exactly 10000 square meters (the equivalent of a square of edge 100 meters).
- (2) A joule is the work done by a force of one newton operating through a distance of one meter. See (6).
- (3) There are altogether 5 gram calorie units which range from 4.1819 to 4.1900 joules.
- (4) There are altogether 6 British Thermal Units (BTUs) which range from 1.0544 to 1.0595 kilojoules.
- (5) The horsepower unit used here is 500 foot pounds per second, or 0.745 70 kilowatts. There are altogether six horsepower units; five of these range from 0.735 50 to 0.746 04 kilowatts. The sixth, boiler horsepower, is 9.8095 kilowatts. See (7).
- (6) One newton, of resultant force acting in a fixed direction on a mass of one kilogram initially at rest will increase its speed by one meter per second for each second of the applied force.
- (7) A watt (unit of power) is one joule per second.
- (8) A pascal (unit of pressure) is one newton per square meter. See (6).
- (9) A liter is exactly one cubic decimeter (or 0.001 cubic meter).
- (10) In both the US liquid and dry systems of measure, 2 pints are exactly a quart, and 4 quarts are exactly a gallon. A dry unit is approximately 16% greater than its corresponding liquid unit.

Factor by which unit is multiplied	Prefix	Symbol
1 000 000 000 000 000 000 = 10 ¹⁸	exa	E
1 000 000 000 000 000 = 10 ¹⁵	peta	P
1 000 000 000 000 = 10 ¹²	tera	T
1 000 000 000 = 10 ⁹	giga	G
1 000 000 = 10 ⁶	mega	M
1 000 = 10 ³	kilo	k
100 = 10 ²	hecto	h
10 = 10	deka	da
.1 = 10 ⁻¹	deci	d
.01 = 10 ⁻²	centi	c
.001 = 10 ⁻³	milli	m
.000 001 = 10 ⁻⁶	micro	μ
.000 000 001 = 10 ⁻⁹	nano	n
.000 000 000 001 = 10 ⁻¹²	pico	p
.000 000 000 000 001 = 10 ⁻¹⁵	femto	f
.000 000 000 000 000 001 = 10 ⁻¹⁸	atto	a

*exact

TABLE 2

Materiel Item Group Class Coverage in FOMCAT Volumes

VOLUME 1: INFANTRY WEAPONS

1005	Small Arms, Grenade Launchers, and Aircraft Cannon (through 30 mm)
1010	Mortars and Recoilless Weapons
1055	Antitank Rocket Launchers
1340	Antitank Rockets
1410	Antitank Guided Missiles

VOLUME 2: ARTILLERY AND FIRE CONTROL EQUIPMENT

1005	Antiaircraft Cannon and Machineguns
1010	Artillery Guns
1055	Rocket Launchers
1210	Fire-control Directors
1220	Computing Sights
1230	Fire-control Systems
1240	Optical Sighting and Ranging Equipment
1290	Miscellaneous Fire-control Equipment
1340	Rockets
2351	Self-propelled Weapons
2410	Artillery Tractors
6675	Geodetic Equipment (Artillery-related)

VOLUME 3: ARMORED COMBAT VEHICLES

2350	Combat Tanks and Armored Recovery Vehicles
2351	Assault Guns
2352	Armored Personnel Carriers and Armored Cars
2354	Amphibious Armored Vehicles

VOLUME 4: AMMUNITION

1305	Cartridges, through 30 mm (Complete Rounds)
1310	Cartridges, over 30 mm (Complete Rounds)
1311	Cartridges and Projectiles (Mortar)

VOLUME 5: EXPLOSIVES, PYROTECHNICS, AND DEMOLITION MATERIAL

1330	Grenades
1345	Landmines
1365	Smoke Pots and Thickening Agents
1370	Pyrotechnics
1375	Explosives

VOLUME 6: FUZES

1390	Fuzes
------	-------

UNCLASSIFIED**VOLUME 7: CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL EQUIPMENT**

1040 Flamethrowers
 4230 Decontaminating and Impregnating Equipment
 4240 CBR Masks and Canisters
 4950 CBR Maintenance and Repair Equipment
 6515 CBR Medical Equipment
 6545 CBR Medical Self-treatment Kits
 6665 CBR Hazard Detection Equipment
 6850 Decontaminating and Protective Compounds
 6910 CBR Training Aids and Devices
 9905 CBR Warning Signs and Markers

VOLUME 8: COMMUNICATIONS EQUIPMENT

5805 Telephone and Telegraph Equipment
 5815 Teleprinters and Facsimile Equipment
 5820 Radio Equipment
 5830 Intercom and PA Equipment
 5850 Infrared Communications Equipment
 5899 Communications Control Units

VOLUME 9: RADAR

5840 Radar and Related Equipment
 6660 Radiosonde Sets and Equipment

VOLUME 10: ELECTRONIC AND ELECTRO-OPTICAL EQUIPMENT (EXCEPT RADAR AND COMMUNICATIONS EQUIPMENT)

1240 Optical Sighting and Ranging Equipment
 5825 Radio Direction Finders and Beacons
 5890 Tactical Computers
 5895 Communications Interception and Jamming Equipment
 6675 Electro-optical Survey and Geodetic Equipment

VOLUME 11: AERIAL DELIVERY EQUIPMENT

1670 Parachutes, Aerial Supply Containers, and Airdrop Platforms

VOLUME 12: GAP CROSSING EQUIPMENT

1940 Boats
 2805 Outboard Motors
 5420 Bridges, Rafts, and Ferries

VOLUME 13: GENERAL ENGINEER EQUIPMENT

1080 Camouflage and Deception Materiel
 1375 Blasting Machines
 3431 Welding Equipment
 3830 Combat Vehicle Construction Attachments
 5450 Barriers and Obstacles
 6230 Electric Portable and Hand-lighting Equipment
 6665 Mine Detectors and Components
 6675 Drafting, Surveying, Photogrammetric, and Mapping Equipment

UNCLASSIFIED

VOLUME 14: CONSTRUCTION EQUIPMENT

3805 Earth Moving and Excavating Equipment
3810 Power Shovels and Cranes
3825 Snow Removal Equipment
3830 Bulldozers and Routers

VOLUME 15: POWER GENERATING EQUIPMENT

4470 Nuclear Reactors
6115 Electric Generators
6120 Transformers
6125 Converters

VOLUME 16: ENGINES

2805 Gasoline Engines
2815 Diesel Engines
2835 Gas Turbine Engines
2895 Multifuel Engines

VOLUME 17: GENERAL EQUIPMENT

5410 Prefabricated and Portable Buildings
8340 Tents

VOLUME 18: CLOTHING AND INDIVIDUAL LIFE SUPPORT EQUIPMENT

4220 Life Jackets
4240 Respirators, Breathing Apparatus, and Filter Units
5120 Entrenching Tools
6545 Medical Self-treatment Kit
7195 Hammocks
8405 Uniforms, Suits, and Coveralls
8415 Miscellaneous Clothing Items
8420 Protective Underwear
8430 Footwear
8465 Individual Combat Equipment (Packs, All-weather Aids, Sleeping Gear)
8470 Personal Armor

VOLUME 19: MATERIALS HANDLING EQUIPMENT

3920 Materials Handling, Trucks and Trailers
3930 Forklifts, Reach Trucks, and Sideloaders
3950 Winches and Hoist

VOLUME 20: MILITARY SUBSISTENCE

7310 Food Cooking, Baking, and Warming Equipment
7360 Food Preparation and Serving Equipment
8970 Composite Food Packages

UNCLASSIFIED

VOLUME 21: POL HANDLING EQUIPMENT

1670 Aerial Delivery Equipment (POL)
2320 Fuel Service Tank Trucks
2330 Fuel Service Tank Trailers
4720 Flexible Hose and Tubing
4730 Hose, Pipe, and Tube Specialties and Fitting
4930 Lubrication and Fuel Servicing Equipment
5430 POL Storage Tanks
7240 POL Cans
8110 POL Drums, Cans, and Containers

VOLUME 22A: SURFACE TRANSPORT EQUIPMENT (ECC)

2320 Trucks and Truck-Tractors
2330 Trailers and Semitrailers

VOLUME 22B: SURFACE TRANSPORT EQUIPMENT (FREE WORLD)

2320 Trucks and Truck-Tractors
2330 Trailers and Semitrailers
2340 Motorcycles

VOLUME 22C: SPECIAL-PURPOSE VEHICLES

1525 Air Cushion Vehicles
2320 Trucks and Truck-Tractors (Arctic)
2353 Snow Vehicles
2354 Amphibious Vehicles

VOLUME 23: SECRET ITEMS FROM VOLUMES 1-8, 10-22, AND 24

VOLUME 24: ARMY-TYPE AIRCRAFT (ROTARY AND LIGHT FIXED WING)--FOREIGN

1510 Fixed Wing Aircraft
1520 Rotary Wing Aircraft

UNCLASSIFIED

TABLE 3

Alphabetic Index of Group Classes Contained in FOMCAT Volumes

Air Cushion Vehicles (1525), Vol 22C
Antiaircraft Cannon and Machineguns (1005), Vol 2
Antitank Guided Missiles (1410), Vol 1
Antitank Rocket Launchers (1055), Vol 1
Antitank Rockets (1340), Vol 1
Amphibious Armored Vehicles (2354), Vol 3
Amphibious Vehicles (2354), Vol 22C
Armored Personnel Carriers and Armored Cars (2352), Vol 3
Artillery Guns (1010), Vol 2
Artillery Tractors (2410), Vol 2
Assault Guns (2351), Vol 3

Barriers and Obstacles (5450), Vol 13
Blasting Machines (1375), Vol 13
Boats (1940), Vol 12
Bridges, Rafts, and Ferries (5420), Vol 12
Bulldozers and Rooters (3830), Vol 14

Camouflage and Deception Materiel (1080), Vol 13
Cartridges and Projectiles (Mortar) (1311), Vol 4
Cartridges, over 30 mm (Complete Rounds) (1310), Vol 4
Cartridges, through 30 mm (Complete Rounds) (1305), Vol 4
CBR Filtration-Ventilation Systems (4240), Vol 7
CBR Hazard Detection Equipment (6665), Vol 7
CBR Maintenance and Repair Equipment (4950), Vol 7
CBR Masks and Canisters (4240), Vol 7
CBR Medical Equipment (Syrettes, Injectors, and Self-treatment Kits) (6515), Vol 7
CBR Protective Clothing (8415), Vol 18
CBR Medical Self-Treatment Kits (6545), Vol 7
CBR Training Aids and Devices (6910), Vol 7
CBR Warning Signs and Markers (9905), Vol 7
Combat Tanks and Armored Recovery Vehicles (2350), Vol 3
Combat Vehicle Construction Attachments (3830), Vol 13
Communications Control Units (5899), Vol 8
Communications Interception and Jamming Equipment (5895), Vol 10
Composite Food Packages (8970), Vol 20
Computing Sights (1220), Vol 2
Converters (6125), Vol 15

Decontaminating and Impregnating Equipment (4230), Vol 7
Decontaminating and Protective Compounds (6850), Vol 7
Diesel Engines (2815), Vol 16
Drafting, Surveying, Photogrammetric, and Mapping Equipment (6675), Vol 13

Earth Moving and Excavating Equipment (3805), Vol 14
Electric Generators (6115), Vol 15
Electric Portable and Hand-lighting Equipment (6230), Vol 13
Electro-optical Survey and Geodetic Equipment (6675), Vol 10
Entrenching Tools (5120), Vol 18
Explosives (1375), Vol 5

Fire-control Directors (1210), Vol 2
 Fire-control Systems (1230), Vol 2
 Fixed Wing Aircraft (1510), Vol 24
 Flamethrowers (1040), Vol 7
 Flexible Hose and Tubing (4720), Vol 21
 Food Cooking, Baking, and Warming Equipment (7310), Vol 20
 Food Preparation and Serving Equipment (7360), Vol 20
 Footwear (8430), Vol 18
 Forklifts, Reach Trucks, and Sideloaders (3930), Vol 19
 Fuel Drums and Cans (8110), Vol 21
 Fuzes (1390), Vol 6

Gasoline Engines (2805), Vol 16
 Gas Turbine Engines (2835), Vol 16
 Geodetic Equipment (Artillery-related) (6675), Vol 2
 Geodetic Equipment (Electronic and Electro-optical) (6675), Vol 10
 Geodetic Equipment (Surveying) (6675), Vol 13
 Grenades (1330), Vol 5

Hammocks (7195), Vol 18

Individual Combat Equipment (Packs, All-weather Aids, Sleeping Gear) (8465), Vol 18
 Infrared Communications Equipment (5850), Vol 8
 Intercom and PA Equipment (5830), Vol 8

Landmines (1345), Vol 5
 Life Jackets (4220), Vol 18
 Lubrication and Fuel Servicing Equipment (4930), Vol 21

Medical Self-treatment Kit (6545), Vol 18
 Mine Detectors and Components (6665), Vol 13
 Miscellaneous Clothing Items (8415), Vol 18
 Miscellaneous Fire-control Equipment (1290), Vol 2
 Mortars and Recoilless Weapons (1010), Vol 1
 Motorcycles (2340), Vol 22B
 Multifuel Engines (2895), Vol 16

Nuclear Reactors (4470), Vol 15

Optical Sighting and Ranging Equipment (for Artillery and Fire Control) (1240), Vol 2
 Optical Sighting and Ranging Equipment (General) (1240), Vol 10
 Outboard Motors (2805), Vol 12

Parachutes, Aerial Supply Containers, and Airdrop Platforms (1670), Vol 11
 Personal Armor (8470), Vol 18
 Photogrammetric Equipment (6675), Vol 13
 Power Shovels and Cranes (3810), Vol 14
 Prefabricated and Portable Buildings (5410), Vol 17
 Protective Underwear (8420), Vol 18
 Pyrotechnics (1370), Vol 5

Radar and Related Equipment (5840), Vol 9
 Radio Direction Finders and Beacons (5825), Vol 10
 Radio Equipment (5820), Vol 8
 Respirators, Breathing Apparatus, and Filter Units (4240), Vol 18
 Rocket Launchers (1055), Vol 2
 Rockets (1340), Vol 2
 Rotary Wing Aircraft (1520), Vol 24

UNCLASSIFIED

TB 381-5-06

Secret Items from Vol 1-8 and 10-22 and 24, Vol 23
Self-propelled Weapons (2351), Vol 2
Small Arms, Grenade Launchers, and Aircraft Cannon (through 30 mm) (1005), Vol 1
Smoke Pots and Thickening Agents (1365), Vol 5
Snow Removal Equipment (3825), Vol 14
Snow Vehicles (2353), Vol 22C
Storage Tanks (5430), Vol 21
Surveying Equipment (6675), Vol 13

Tactical Computers (5890), Vol 10
Telephone and Telegraph Equipment (5805), Vol 8
Teleprinters and Facsimile Equipment (5815), Vol 8
Tents (8340), Vol 17
Trailers and Semitrailers (2330), Vol 22A and 22B
Transformers (6120), Vol 15
Trucks and Truck-Tractors (Arctic) (2320), Vol 22C
Trucks and Truck-Tractors (2320), Vol 22A and 22B

Uniforms, Suits, and Coveralls (8405), Vol 18

Welding Equipment (3431), Vol 13

UNCLASSIFIED

THIS PAGE INTENTIONALLY BLANK

xx

UNCLASSIFIED

PART TWO. CATALOG

INDEX OF MATERIEL ITEMS

FOM NUMBER	COUNTRY	CLASS	RELEASABILITY	PAGE
<u>FUZES: SMALL ARMS, ARTILLERY, AND MORTAR AMMUNITION</u>				
1390-2-1-1	U.S.S.R.	U		1
	FUZE, PIBD, MODEL V-229 (U)			
1390-2-1-2	U.S.S.R.	U		5
	FUZE, POINT-DETONATING SELF-DESTROYING, MODEL MG-37 (U)			
1390-2-1-7	U.S.S.R.	U		7
	FUZE, PCINT DETONATING, MODEL GVMZ (U)			
1390-2-1-9	U.S.S.R.	U		11
	FUZE, POINT DETONATING, MODEL GVMZ-7 (U)			
1390-2-1-11	U.S.S.R.	U		15
	FUZE, PCINT DETONATING, MODEL M-50 (U)			
1390-2-1-12	U.S.S.R.	U		19
	FUZE, POINT DETONATING, MODEL MP-82 (U)			
1390-2-1-19	U.S.S.R.	U		23
	FUZE, BASE-DETONATING, MODEL MD-5 (U)			
1390-2-1-20	U.S.S.R.	U		27
	FUZE, BASE-DETONATING, MODEL MD-6 (U)			
1390-2-1-21	U.S.S.R.	U		31
	FUZE, BASE-DETONATING, MODEL MD-7 (U)			
1390-2-1-22	U.S.S.R.	U		35
	FUZE, BASE-DETONATING, MODEL MD-8 (U)			
1390-2-1-23	U.S.S.R.	U		39
	FUZE, BASE-DETONATING, MODEL MD-10 (U)			
1390-2-1-26	U.S.S.R.	U		43
	FUZE, TIME, MODEL T-5 (U)			
1390-2-1-27	U.S.S.R.	U		47
	FUZE, TIME AND SUPERQUICK, MODEL T-6 (U)			
1390-2-1-28	U.S.S.R.	U		51
	FUZE, TIME AND SUPERQUICK, MODEL T-7 (U)			
1390-2-1-33	U.S.S.R.	U		55
	FUZE, POINT-DETONATING, MODEL KTM-1 (U)			
1390-2-1-33-1	U.S.S.R.	U		59
	FUZE, POINT-DETONATING, MODEL KTM-1-U (U)			
1390-2-1-35	U.S.S.R.	U		61
	FUZE, POINT-DETONATING, MODEL KTMZ-1 (U)			
1390-2-1-38	U.S.S.R.	U		65
	FUZE, POINT-DETONATING, MODEL RGM (U)			
1390-2-1-40	U.S.S.R.	U		69
	FUZE, POINT-DETONATING, MODEL RG-6 (U)			
1390-2-1-43	U.S.S.R.	U		73
	FUZE, TIME AND SUPERQUICK, MODEL D-1 (U)			
1390-2-1-44	U.S.S.R.	U		77
	FUZE, PIBD, MODEL BM (U)			
1390-2-1-65	U.S.S.R.	U		81
	FUZE, MECHANICAL TIME, MODEL VM-2 (U)			
1390-2-1-66	U.S.S.R.	U		85
	FUZE, POINT DETONATING, MODEL M-1 (U)			

FOM NUMBER	COUNTRY	CLASS	RELEASABILITY	PAGE
1390-2-1-81	U.S.S.R.	U		89
	FUZE, POINT DETONATING, MODEL RGM-6 (U)			
1390-2-1-85	U.S.S.R.	U		91
	FUZE, POINT-DETONATING SELF-DESTROYING, MODEL A-37 (U)			
1390-2-1-107	U.S.S.R.	U		95
	FUZE, BASE-DETONATING, MODEL MR-Z (U)			
1390-2-1-108	U.S.S.R.	U		99
	FUZE, POINT DETONATING, MODEL GK-2 (U)			
1390-2-1-109	U.S.S.R.	U		103
	FUZE, POINT DETONATING, MODEL GK-2M (U)			
1390-2-1-110	U.S.S.R.	U		107
	FUZE, POINT INITIATING BASE DETONATING, MODEL GPV-2 (U)			
1390-2-1-111	U.S.S.R.	U		111
	FUZE, PD, MODEL V-429 (U)			
1390-2-1-111-2	U.S.S.R.	U		115
	FUZE, POINT DETONATING, MODEL V-429E (U)			
1390-2-1-116	U.S.S.R.	U		119
	FUZE, POINT DETONATING, MODEL M-12 (U)			
1390-2-1-122	U.S.S.R.	U		123
	FUZE, POINT DETONATING, MODEL M-6 (U)			
1390-2-1-124	U.S.S.R.	U		127
	FUZE POWDER TRAIN TIME MODEL T-1 (U)			
1390-2-1-156	U.S.S.R.	U		129
	FUZE, POINT INITIATING, BASE DETONATING; MODEL VP-9(U)			
1390-5-1-2	PRC	U		203
	FUZE, POINT DETONATING, TYPE ? (U)			
1390-5-1-4	PRC	U		205
	FUZE, POINT DETONATING, TYPE 9 (U)			
1390-5-1-10	PRC	U		209
	FUZE, POINT DETONATING, TYPE ? (U)			
1390-5-1-11	PRC	U		211
	FUZE, POINT DETONATING, TYPE 8 (U)			
1390-5-1-12	PRC	U		213
	FUZE, POINT-DETONATING, TYPE 88 (U)			
1390-5-1-12-1	PRC	U		217
	FUZE, POINT-DETONATING, TYPE 88 SHORT DELAY (U)			
1390-5-1-13	PRC	U		221
	FUZE, POINT DETONATING, TYPE UNIVERSAL (U)			
1390-5-1-14	PRC	U		223
	FUZE, POINT DETONATING, TYPE 3711 (U)			
1390-5-1-17	PRC	U		225
	FUZE, POINT INITIATING, TYPE ? (U)			
1390-5-1-18	PRC	U		227
	FUZE, POINT DETONATING, TYPE UNIVERSAL MODIFIED (U)			
1390-5-1-27	PRC	U		229
	FUZE BD TYPE 2 (U)			

FOM NUMBER	COUNTRY	CLASS	RELEASABILITY	PAGE
1390-5-1-35	PRC FUZE, POINT DETONATING, TYPE 1 (U)	U		233
1390-6-1-1	CZECHOSLOVAKIA FUZE, PI, MODEL Z-21 (U)	U		243
1390-6-1-2	CZECHOSLOVAKIA FUZE, POINT-DETONATING, MODEL NZ10-AV (U)	U		247
1390-6-1-14	CZECHOSLOVAKIA FUZE, PIBD, MODEL NZ-42 (U)	U		251
1390-13-1-3	FINLAND FUZE, POINT DETONATING, MODEL 58 (U)	U		269
1390-16-1-2	WEST GERMANY FUZE, POINT DETONATING, MODEL 111A1 (U)	U		273
1390-16-1-3	WEST GERMANY FUZE, POINT-DETONATING, SELF-DESTROYING, MODEL 141 (U)	U		277
1390-16-1-4	WEST GERMANY FUZE POINT-DETONATING SELF-DESTROYING MODEL AZZ DM131 (U)	U		281
1390-17-1-1	FRANCE FUZE, POINT DETONATING, MODEL 21/28 B35 (U)	U		297
1390-17-1-2	FRANCE FUZE, POINT DETONATING, MODEL V-18-1 (U)	U		301
1390-18-1-2	SWITZERLAND FUZE, MECHANICAL TIME AND SUPERQUICK MODEL A. ? (U)	U		313
1390-18-1-6	SWITZERLAND FUZE, POINT DETONATING, MODEL FIRUSAT-1 (U)	U		317
1390-18-1-8	SWITZERLAND FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL 544. (U)	U		321
1390-18-1-9	SWITZERLAND FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL 548-EN-3 (U)	U		325
1390-18-1-10	SWITZERLAND FUZE, POINT-DETONATING SELF-DESTROYING, MODEL KZD-099 (U)	U		327
1390-18-1-12	SWITZERLAND FUZE POINT-DETONATING SELF-DESTROYING MODEL KZ-0152 (U)	U		329
1390-18-1-13	SWITZERLAND FUZE, BASE-DETONATING SELF-DESTROYING MODEL BZ-0144 (U)	U		331
1390-18-1-14	SWITZERLAND FUZE, POINT-DETONATING SELF-DESTROYING, MODEL ? (U)	U		335
1390-18-1-15	SWITZERLAND FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL ? (U)	U		337
1390-18-1-16	SWITZERLAND FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL ? (U)	U		339
1390-18-1-17	SWITZERLAND FUZE, MECHANICAL TIME, MODEL ? (U)	U		341
1390-18-1-18	SWITZERLAND FUZE, POINT DETONATING, MODEL A (U)	U		343
1390-18-1-19	SWITZERLAND FUZE, POINT-DETONATING, MODEL B (U)	U		345

FOM NUMBER	COUNTRY	CLASS	RELEASABILITY	PAGE
1390-18-1-20	SWITZERLAND	U		347
	FUZE, POINT-DETONATING, MODEL C	(U)		
1390-18-1-21	SWITZERLAND	U		349
	FUZE, POINT-DETONATING, SELF-DESTROYING, MODEL D-1	(U)		
1390-18-1-22	SWITZERLAND	U		351
	FUZE, POINT-DETONATING, SELF-DESTROYING, MODEL D-2	(U)		
1390-18-1-23	SWITZERLAND	U		353
	FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL E	(U)		
1390-18-1-24	SWITZERLAND	U		355
	FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL 41	(U)		
1390-18-1-25	SWITZERLAND	U		359
	FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL 40	(U)		
1390-18-1-26	SWITZERLAND	U		363
	FUZE, MECHANICAL TIME, MODEL 50	(U)		
1390-18-1-27	SWITZERLAND	U		367
	FUZE, POINT-DETONATING, MODEL 131	(U)		
1390-19-1-1	SWEDEN	U		379
	FUZE, POINT-DETONATING, SELF-DESTROYING, MODEL FZ-103	(U)		
1390-19-1-2	SWEDEN	U		383
	FUZE, POINT-DETONATING, SELF-DESTROYING, MODEL FZ-104	(U)		
1390-23-1-1	ITALY	U		397
	FUZE, POINT DETONATING, MODEL 81-I-R	(U)		
1390-35-1-1	UNITED KINGDOM	U		425
	FUZE, BASE-DETONATING, NO. 303 MK. 1	(U)		
1390-35-1-2	UNITED KINGDOM	U		427
	FUZE, POINT-DETONATING, MODEL L17A3	(U)		
1390-35-1-3	UNITED KINGDOM	U		429
	FUZE BASE DETONATING MODEL L29A2	(U)		
1390-35-1-4	UNITED KINGDOM	U		431
	FUZE, BASE DETONATING MODEL L19A4.	(U)		
1390-35-1-5	UNITED KINGDOM	U		433
	FUZE, TIME, NO. 390, MK-2A	(U)		
1390-35-1-6	UNITED KINGDOM	U		435
	FUZE, MECHANICAL, TIME NO. 213 MK-5	(U)		
1390-35-1-7	UNITED-KINGDOM	U		437
	FUZE, BASE-DETONATING, MODEL L24A2	(U)		
1390-35-1-8	UNITED KINGDOM	U		439
	FUZE, TIME AND SUPERQUICK, NO. 221B MK-6	(U)		
1390-35-1-11	UNITED KINGDOM	U		441
	FUZE, POINT-DETONATING, NO. 255 MK-5	(U)		
1390-35-1-12	UNITED KINGDOM	U		443
	FUZE, POINT-DETONATING, NO. 410 MK 2/2	(U)		
1390-35-1-13	UNITED KINGDOM	U		445
	FUZE, POINT DETONATING, NO 161 MK-4	(U)		
1390-35-1-14-1	UNITED KINGDOM	U		447
	FUZE, POINT DETONATING, NO 162 MK.10	(U)		

FOM NUMBER	COUNTRY	CLASS	RELEASABILITY	PAGE
1390-35-1-15	UNITED KINGDOM	U		449
	FUZE, POINT-DETONATING, NO. 117 MK 20 (U)			
1390-35-1-16	UNITED KINGDOM	U		451
	FUZE, POINT-DETONATING, NO 119B MK-17 (U)			
1390-39-1-1	TURKEY	U		455
	FUZE, POINT DETONATING, MODEL M.K.E. 101 (U)			
<u>FUZES: ROCKET</u>				
1390-2-2-3	U.S.S.R.	U		133
	FUZE, TIME, MODEL AGDT-A (U)			
1390-2-2-5	U.S.S.R.	U		137
	FUZE, BASE DETONATING, MODEL AV-96 (U)			
1390-5-2-2	PRC	U		237
	FUZE, PIBD, TYPE ? (U)			
1390-16-2-1	WEST GERMANY	U		285
	FUZE POINT DETONATING MODEL 5073 (U)			
1390-16-2-3	WEST GERMANY	U		289
	FUZE MECHANICAL TIME AND SUPERQUICK MODEL 5096 (U)			
1390-18-2-1	SWITZERLAND	U		371
	FUZE, POINT DETONATING, MODEL KVD (U)			
1390-18-2-2	SWITZERLAND	U		375
	FUZE, PIBD, MODEL ? (U)			
1390-21-2-1	BELGIUM	U		395
	FUZE, PIBD, MODEL ? (U)			
1390-35-2-1	UNITED KINGDOM	U		453
	FUZE, BASE DETONATING, MODEL L16A1 (U)			
<u>FUZES: BOMB</u>				
1390-2-3-1	U.S.S.R.	U		139
	FUZE, BOMB, MODEL TM-4A (U)			
1390-2-3-3	U.S.S.R.	U		141
	FUZE, BOMB, MODEL AGM-1 (U)			
1390-2-3-4	U.S.S.R.	U		143
	FUZE, BOMB, MODEL APUV (U)			
1390-2-3-5	U.S.S.R.	U		147
	FUZE, BOMB, MODEL AD-A (U)			
1390-2-3-6	U.S.S.R.	U		151
	FUZE, BOMB, MODEL ADP (U)			
1390-2-3-7	U.S.S.R.	U		155
	FUZE, BOMB, MODEL AGDT-B (U)			
1390-2-3-8	U.S.S.R.	U		157
	FUZE, BOMB, MODEL AGP (U)			
1390-2-3-9	U.S.S.R.	U		161
	FUZE, BOMB, MODEL AM-A (U)			
1390-2-3-10	U.S.S.R.	U		163
	FUZE, BOMB, MODEL AM-B (U)			

FOM NUMBER	COUNTRY	CLASS	RELEASABILITY	PAGE
1390-2-3-12	U.S.S.R. FUZE, BOMB, MODEL APUV-1 (U)	U		165
1390-2-3-13	U.S.S.R. FUZE, BOMB, MODEL AV-1 (U)	U		167
1390-2-3-14	U.S.S.R. FUZE, BOMB MODEL AVSH-2 (U)	U		171
1390-2-3-15	U.S.S.R. FUZE, BOMB, MODEL TM-4B (U)	U		173
1390-2-3-16-2	U.S.S.R. FUZE, BOMB, MODEL TM-24B (U)	U		177
1390-2-3-19	U.S.S.R. FUZE, BOMB, MODEL ADOZ (U)	U		179
1390-2-3-20	U.S.S.R. FUZE, BOMB, MODEL AGM-3 (U)	U		183
1390-2-3-23	U.S.S.R. FUZE, BOMB, MODEL AV-4 (U)	U		185
<u>FUZES: GRENADE</u>				
1390-2-4-1	U.S.S.R. FUZE, HAND GRENADE, MODEL UZRG (U)	U		187
1390-2-4-2	U.S.S.R. FUZE, BASE DETONATING, MODEL DK-2 (U)	U		189
<u>FUZES: LAND MINE</u>				
1390-2-5-1	U.S.S.R. FUZE, MINE, PULL MODEL VPF (U)	U		193
1390-2-5-4	U.S.S.R. FUZE, MINE, PULL MODEL MUV (U)	U		195
1390-2-5-6	U.S.S.R. FUZE, MINE, PRESSURE MODEL MV-5 (U)	U		197
1390-2-5-7	U.S.S.R. FUZE, MINE, PRESSURE, MODEL MV-5K (U)	U		201
1390-5-5-1	(PRC) FUZE MINE PRESSURE/PULL UNIVERSAL, MODEL 4 (U)	U		241
1390-6-5-1	CZECHOSLOVAKIA FUZE, MINE, PRESSURE, MODEL RO-8 (U)	U		255
1390-6-5-2	CZECHOSLOVAKIA FUZE, MINE PULL MODEL RO-1 (U)	U		257
1390-6-5-3	CZECHOSLOVAKIA FUZE MINE PRESSURE MODEL RO-7-11 (U)	U		259
1390-6-5-4	CZECHOSLOVAKIA FUZE, MINE PULL MODEL ? (U)	U		263
1390-6-5-5	CZECHOSLOVAKIA FUZE MINE TIILROD MODEL ? (U)	U		265
1390-6-5-6	CZECHOSLOVAKIA FUZE MINE PRESSURE MODEL RO-5 (U)	U		267

FOM NUMBER	COUNTRY	CLASS	RELEASABILITY	PAGE
1390-16-5-1	WEST GERMANY	U		293
	FUZE, MINE PRESSURE/PULL MODEL DM 56 (U)			
1390-17-5-2	FRANCE	U		303
	FUZE, MINE PRESSURE CHEMICAL MODEL 1951 (U)			
1390-17-5-5	FRANCE	U		305
	FUZE, MINE, PRESSURE, NONMETALLIC MODEL 50 (U)			
1390-17-5-6	FRANCE	U		309
	FUZE, MINE PRESSURE NONMETALLIC MODEL 52 (U)			
1390-19-5-1-3	SWEDEN	U		385
	FUZE, MINE, PULL MODEL 48 (U)			
1390-19-5-2	SWEDEN	U		389
	FUZE MINE PRESSURE MODEL 47 (U)			
1390-19-5-3	SWEDEN	U		391
	FUZE MINE PRESSURE MODEL 49 (U)			
1390-19-5-4	SWEDEN	U		393
	FUZE, MINE PRESSURE, PRACTICE, MODEL ? W/SMOKE CHARGE (U)			
1390-29-5-2	NETHERLANDS	U		401
	FUZE, MINE, PRESSURE, NONMETALLIC, MODEL 26 (U)			
1390-29-5-3	NETHERLANDS	U		405
	FUZE, MINE, PRESSURE, NONMETALLIC, MODEL 22 (U)			
1390-29-5-4	NETHERLANDS	U		409
	FUZE, MINE, PRESSURE, MODEL 29 (U)			
1390-33-5-1	DENMARK	U		413
	FUZE, MINE, PRESSURE/PULL MODEL 47 (U)			
1390-33-5-2	DENMARK	U		417
	FUZE, MINE PRESSURE MODEL 47-1 (U)			
1390-33-5-3	DENMARK	U		421
	FUZE, MINE, PRESSURE-CHEMICAL PLASTIC MODEL ? (U)			
1390-33-5-5	DENMARK	U		423
	FUZE, MINE, PRESSURE/PRESSURE RELEASE MODEL 47-11 (U)			

FOM NUMBER

COUNTRY

CLASS

RELEASABILITY

PAGE

THIS PAGE INTENTIONALLY BLANK

DM-1390-2-1-1-A

U N C L A S S I F I E D

CATALOG: T8-381-5-06

NOMEN: FUZE, PIBD, MODEL V-229 (U)

DATE REVIEWED: 01FEB77

NATIVE DES: ГОЛОВНОЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ В-229
PRODUCED/ADOPTED: ???

DATE UPDATED: 01FEB77
COUNTRY: U.S.S.R.

(U)THE SOVIET INSTANTANEOUS, POINT-INITIATING, BASE-DETONATING SPITBACK FUZE MODEL V-229 IS OF CONVENTIONAL DESIG., AND IS USED ONLY ON THE BP-460A HEAT PROJECTILE.

(U)ON FIRING, SETBACK FORCES THE ARMING SLEEVE (4) TO THE REAR, COMPRESSING THE SPRING (5). WHEN THE ARMING SLEEVE REACHES THE LIMIT OF ITS TRAVEL, THE LOCKING BALL (3) DROPS INTO THE FUZE BODY CAVITY. WHEN SETBACK CEASES, THE COMPRESSED SPRING MOVES THE ARMING SLEEVE FORWARD UNTIL IT REACHES THE SHOULDER OF THE FIRING-PIN PLUNGER (2). WITH THE ARMING SLEEVE IN THIS POSITION, THE THREE SAFETY ROLLERS (6) ARE FREE TO DROP INTO THE BODY CAVITY, FREEING THE FIRING PIN. THE FUZE IS NOW FULLY ARMED. ON IMPACT, THE FOIL CAP (1) IS RUPTURED AND THE PLUNGER IS DRIVEN TO THE REAR, FORCING THE FIRING PIN (7) INTO THE DETONATOR (8) TO DETONATE IT. FLAME FROM THE DETONATOR PASSES THROUGH A FLASH TUBE TO THE DETONATOR BOOSTER ASSEMBLY IN THE BASE OF THE PROJECTILE, DETONATING THE MAIN CHARGE.

DATE CATALOGED: 01JUL66
VOLUME 06

U N C L A S S I F I E D

PAGE 1

UNCLASSIFIED

FOM-1390-2-1-1-A
 NOMEN: FUZE, PIBD, MODEL V-229 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 01FEB77
 DATE UPDATED: 01FEB77

PRODUCED/ADOPTED: ???

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- ?

BOOSTER:

USING COUNTRIES: ----- U.S.S.R.

BODY MATERIAL ----- N/A
 BODY LENGTH (MM) -- N/A
 FILLER MATERIAL --- N/A
 FILLER WEIGHT (G) - N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
 MODEL ----- V-229
 BODY MATERIAL ----- PLASTIC
 LENGTH OVERALL (MM) -- 64.5
 LENGTH EXPOSED (MM) -- 33.5
 MAXIMUM DIAMETER (MM) - 38.6
 MAJ THREAD DIAM (MM) - 35.5
 THREAD PITCH (METRIC) - 2.50
 WEIGHT COMPLETE (G) -- 163
 MARKINGS ----- B-229

PERFORMANCE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- ?
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- 122-MM, HEAT, BP-460A

USING WEAPONS: ----- 122-MM HOWITZER M1938

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ----- NONE
 TYPE SAFETY DEVICE ---- *1

REFERENCES: -----

REMARKS:

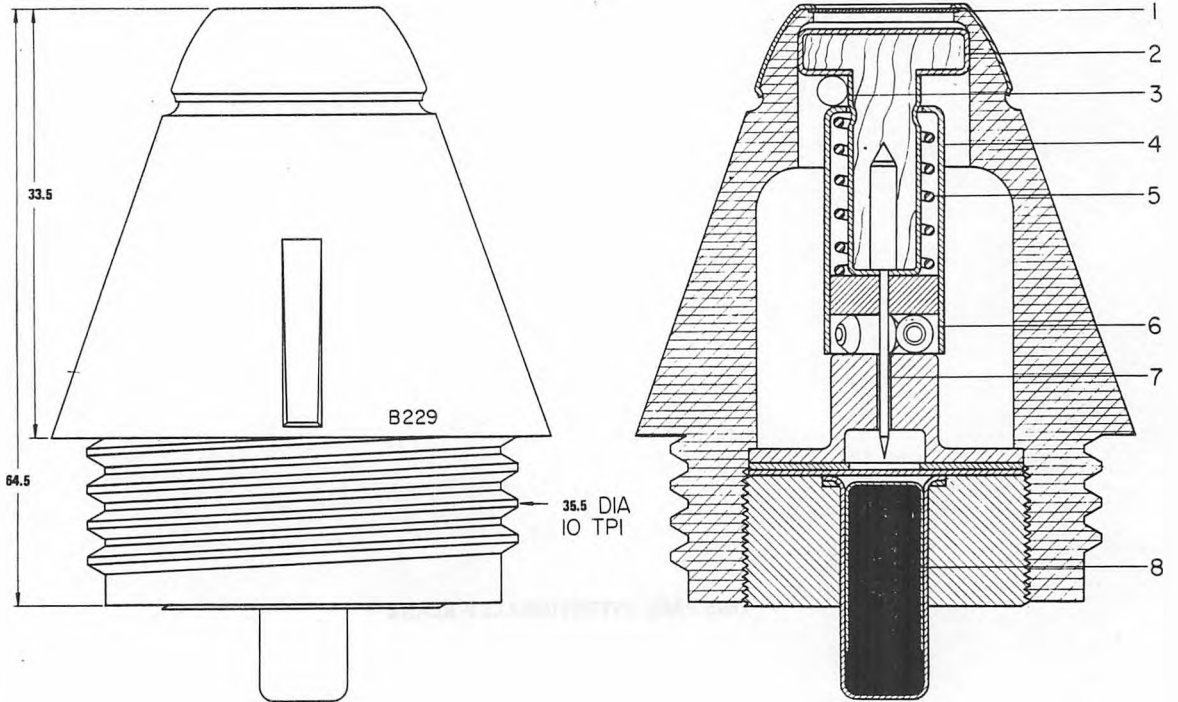
1/ SPRING, LOCKING BALL, SAFETY ROLLERS

DATE CATALOGED: 01JUL66
 VOLUME 06 PAGE 2

UNCLASSIFIED

FOM-1390-2-1-1-8
NOMEN: FUZE, PI8D, MODEL V-229 (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77
COUNTRY: U.S.S.R.



NEG. 511828

POINT DETONATING IMPACT FUZE MODEL V-229, SOVIET

U N C L A S S I F I E D

FOM-1390-2-1-1-B
NOMEN: FUZE, PIBD, MODEL V-229 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77
COUNTRY: U.S.S.R.



THIS PAGE INTENTIONALLY BLANK



DATE CATALOGED: 01JUL66
VOLUME 06 PAGE 4

U N C L A S S I F I E D



NOMEN: FUZE, POINT-DETONATING SELF-DESTROYING, MODEL MG-37 (U)

DATE REVIEWED: 01FEB77

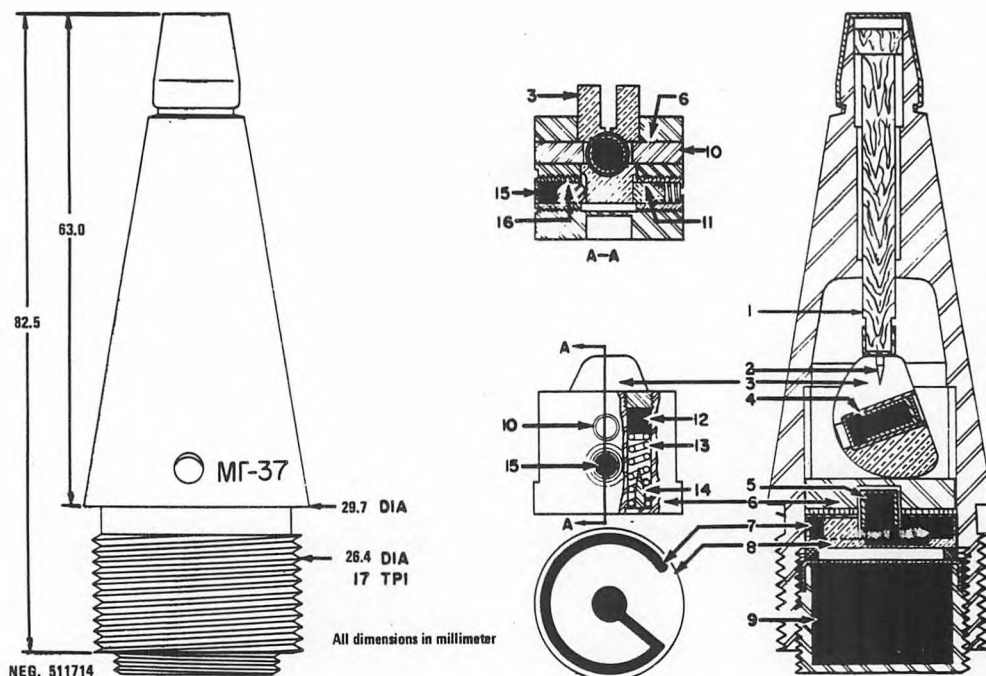
NATIVE DES: ГОЛОВНОЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ МГ-37
PRODUCED/ADOPTED: ?/1937DATE UPDATED: 01FEB77
COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL MG-37 IS A POINT-DETONATING FUZE WITH A SETBACK-ACTUATED SELF-DESTROYING FEATURE WHICH WILL DETONATE THE FUZE 10 TO 12 SECONDS AFTER FIRING. THE MG-37 IS ALMOST IDENTICAL TO THE MG-8 IN EXTERNAL APPEARANCE, AND THE ONLY MAJOR INTERNAL DIFFERENCES ARE A REDESIGNED ROTOR AND IMPROVED ARMING SAFETY INVOLVING THE USE OF TWO ROTOR LOCKING PINS INSTEAD OF ONE. THE MG-37 IS DESIGNED FOR USE WITH THE 37-MM FRAG-T ANTI-AIRCRAFT CARTRIDGES MODEL UOR-167 (FOM-1310-2-1-37-2) AND MODEL UOR-167N (FOM-1310-2-1-37-6-1).

(U)EVEN THOUGH THE MG-37 EMPLOYS A SETBACK-OPERATED SELF-DESTRUCT FEATURE, THIS FUZE IS CONSIDERED RELATIVELY SAFE TO HANDLE BECAUSE OF THE FORCE REQUIRED TO ACTUATE THE SELF-DESTRUCT MECHANISM; APPROXIMATELY 1500 G'S MUST ACT ON THE PRIMER (12) BEFORE IT CAN COMPRESS ITS SAFETY SPRING (13) ENOUGH TO STRIKE THE SETBACK FIRING PIN (14).

(U)WITH ITS SQUARED-OFF AND CAPPED NOSE, THE TAPERED FUZE BODY SHOULD OFFER RELATIVELY POOR OBLIQUE FUNCTIONING CHARACTERISTICS. FUZE "WIPE-OFF" MAY BE EXPECTED ON IMPACT AGAINST HEAVIER TARGETS AT OBLIQUE ANGLES OF IMPACT.

(U)ON FIRING, THE SETBACK-INITIATING PRIMER OVERCOMES THE RESISTANCE OF THE SAFETY SPRING AND STRIKES THE SETBACK FIRING PIN. THE RESULTING FLASH IGNITES BOTH THE SELF-DESTROYING POWDER TRAIN (7) AND A BLACK POWDER PELLET (15), WHICH HOLDS A ROTOR LOCKING PIN (16) IN PLACE. AS THE BLACK POWDER PELLET BURNS, CENTRIFUGAL FORCE CAUSES A SECOND ROTOR LOCKING PIN (11) TO COMPRESS ITS RETAINING SPRING AND MOVE OUT OF A RECESS IN THE ROTOR (3); AFTER THE BLACK POWDER PELLET BURNS AWAY, THE FIRST LOCKING PIN (16) ALSO MOVES OUT OF ITS RECESS IN THE ROTOR, WHICH IS THEN FREE TO ROTATE IN THE U-SHAPED TROUGH OF THE ROTOR MOUNT (6). SINCE THE LOCKING PIN (16) RETAINED BY THE POWDER PELLET IMMOBILIZES THE ROTOR UNTIL THE OTHER LOCKING PIN (11) CLEARS ITS STRAIGHT-WALLED RECESS IN THE ROTOR, ANY POSSIBILITY OF THE ROTOR JAMMING THE LATTER PIN IS PRECLUDED. THE ROTOR RECESS FOR THE PELLET-RETAINED PIN (16) HAS SLOPED WALLS, SO THAT MOVEMENT OF THE ROTOR TENDS TO CAM THIS PIN OUT OF THE RECESS RATHER THAN TO JAM IT. CENTRIFUGAL FORCE CAUSES THE FREED ROTOR, WHOSE CENTER OF GRAVITY IS LOCATED OFF THE AXIS OF ROTATION, TO TURN 90 DEGREES AROUND THE PIVOT PINS (10), THUS ALIGNING THE DETONATOR (4) WITH THE IMPACT FIRING PIN (2) AND THE PETN BOOSTER LEAD (5). ON IMPACT WITH THE TARGET, THE NOSE CAP IS CRUSHED AND THE WOODEN STRIKER (1) DRIVES THE IMPACT FIRING PIN INTO THE DETONATOR. THE FLASH FROM THE DETONATOR PASSES TO THE BOOSTER LEAD, WHICH ACTIVATES THE BOOSTER (9). IF IMPACT DOES NOT OCCUR FIRST, THE BURNING SELF-DESTROYING POWDER TRAIN IN THE POWDER-TRAIN RING (8) WILL INITIATE THE BOOSTER LEAD.



NEG. 511714

U N C L A S S I F I E D

FOM-1390-2-1-2-A

NOMEN: FUZE, POINT-DETONATING SELF-DESTROYING, MODEL MG-37 (U)

CATALOG: TB-381-5-06

DATE REVIEWED: 01FEB77

DATE UPDATED: 01FEB77

PRODUCED/ADOPTED: ?/1937

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- OBSOLETE IN U.S.S.R.

BOOSTER:

BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 13.9
 FILLER MATERIAL --- PETN
 FILLER WEIGHT (G) - 3.9

USING COUNTRIES: ----- U.S.S.R.

PERFORMANCE:

ARMING DISTANCE(M)- 38 TO 76
 ARMING TIME ----- 0.055 TO 0.117 SEC
 SELF-DESTRUCT TIME 10 TO 12 SEC
 DELAY TIME ----- NONE
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT, SELF DESTROYING
 MODEL ----- MG-37
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 82.5
 LENGTH EXPOSED (MM) -- 63.0
 MAXIMUM DIAMETER (MM)- 29.7
 MAJ THREAD DIAM (MM) - 26.4
 THREAD PITCH (METRIC)- 1.50 MM
 WEIGHT COMPLETE (G) -- 172.0
 MARKINGS ----- SEE PHOTO

USING PROJECTILES: -- 37-MM, FRAG-T, OR-167
 - 37-MM, FRAG-T, OR-167 N

USING WEAPONS: ----- 37-MM, ANTI-AIRCRAFT
 - GUN M1939

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
 SELF-DESTR METHOD ---- POWDER TRAIN
 TYPE SAFETY DEVICE --- OUT-OF-LIFE DETONATOR

REFERENCES: -----

REMARKS:

U N C L A S S I F I E D

FOM-1390-2-1-7-A

CATALOG: TB-381-5-06

NOMEN: FUZE, POINT DETONATING, MODEL GVMZ (U)

DATE REVIEWED: 01FEB77

NATIVE DES: ГОЛОВНОЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ ГВМЗ
PRODUCED/ADOPTED: ???

DATE UPDATED: 01FEB77
COUNTRY: U.S.S.R.

(U)THE SOVIET GVMZ IS A POINT-DETONATING FUZE WITH A SUPERQUICK AND DELAY ACTION. IT OPERATES ON THE PRINCIPLE OF GENERATING HEAT BY RAPID COMPRESSION OF AIR IN A CYLINDER TO INITIATE THE PRIMER. FOR DELAY ACTION THE SELECTOR SETTING OF THE FUZE IS TURNED TO "3" AND FOR INSTANTANEOUS OR SUPER-QUICK THE SETTING IS TURNED TO "0". SAFETY FEATURES INCLUDE A PULL WIRE AND SAFETY CAP.

(U)PRIOR TO FIRING, THE SAFETY CAP (1) IS REMOVED. NO MOVEMENT OF PARTS CAN TAKE PLACE UNTIL THE PROJECTILE IMPACTS ON THE TARGET. UPON IMPACT, THE PLUNGER (2) IS DRIVEN REARWARD, COMPRESSING THE AIR IN THE CYLINDRICALLY SHAPED PRIMER HOUSING (4), THEREBY GENERATING HEAT TO INITIATE THE BLACK POWDER AND LEAD AZIDE PRIMER (5). WHEN THE SELECTOR (6) IS SET FOR "0", THE FLASH FROM THE PRIMER TRAVELS DOWN THE FLASH CHANNEL (7) THROUGH A TRANSVERSE HOLE IN THE SELECTOR INITIATING THE DETONATOR (8) AND IN TURN THE BOOSTER (9). IF THE SELECTOR SETTING IS ON "3", THE FLASH FROM THE PRIMER TRAVELS DOWN THE LONGITUDINALLY DRILLED HOLE IN THE SELECTOR THROUGH THE DELAY CHANNEL (10) INITIATING THE DELAY EXPLOSIVE (11) WHICH IN TURN INITIATES THE DETONATOR (8) AND BOOSTER (9).

DATE CATALOGED: 01JUL66
VOLUME 06

PAGE 7

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-2-1-7-A
 NOMEN: FUZE, POINT DETONATING, MODEL GVMZ (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 01FEB77
 DATE UPDATED: 01FEB77
 COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: ???
 CURRENT STATUS: ----- OBSOLETE
 USING COUNTRIES: ----- 002

BOOSTER:
 BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 26.7
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) : 14.7

PERFORMANCE:
 ARMING DISTANCE(M)- N/A
 ARMING TIME ----- N/A
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- 0.05 TO 0.09 SEC
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:
 TYPE ----- POINT DETONATING
 MODEL ----- GVMZ
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 97.5
 LENGTH EXPOSED (MM) -- 52.3
 MAXIMUM DIAMETER (MM)- 39.9
 MAJ THREAD DIAM (MM) - 35.8
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- 430.9
 MARKINGS ----- RBM3 34K

USING PROJECTILES: -- *1

USING WEAPONS: ----- 120-MM MORTAR M1938
 - 120 MM MORTAR M1943

REFERENCES: -----

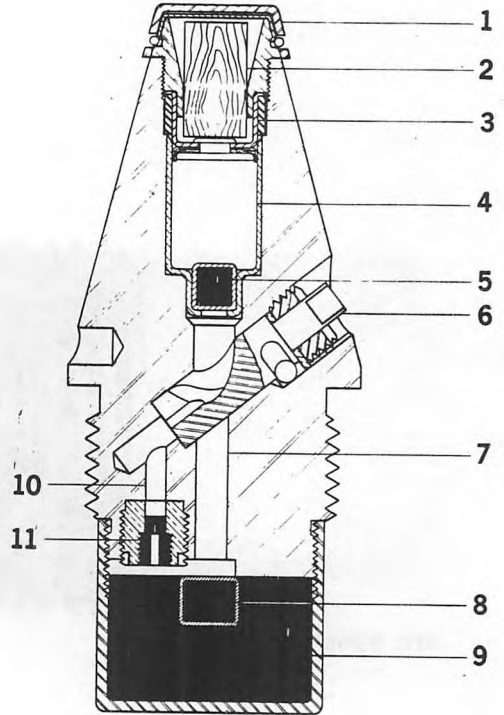
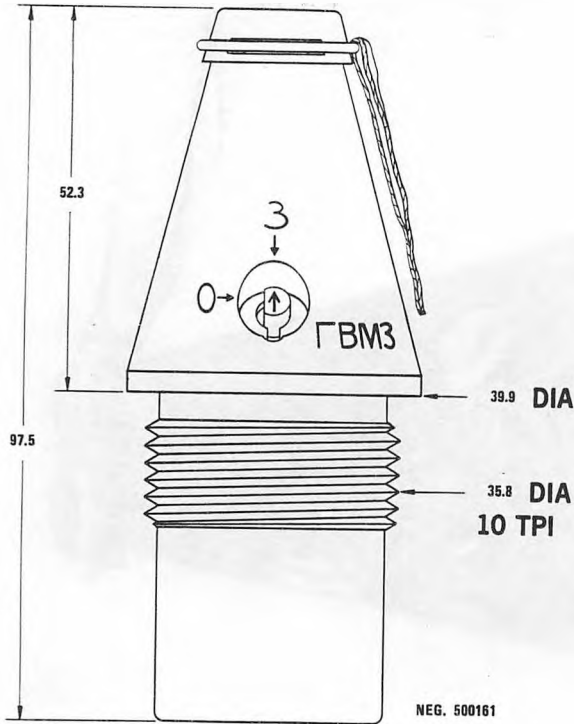
FUNCTIONAL DATA:
 ARMING METHOD ----- N/A
 SELF-DESTR METHOD ---- N/A
 TYPE SAFETY DEVICE --- SAFETY-CAP

REMARKS:
 1/ 120-MM, FRAG-HE, OF-843A
 120-MM, FRAG-HE, OF-843
 120-MM SMOKE, D-843A

UNCLASSIFIED

FOM-1390-2-1-7-B
NOMEN: FUZE, POINT DETONATING, MODEL GVMZ (U)
PRODUCED/ADOPTED: ???

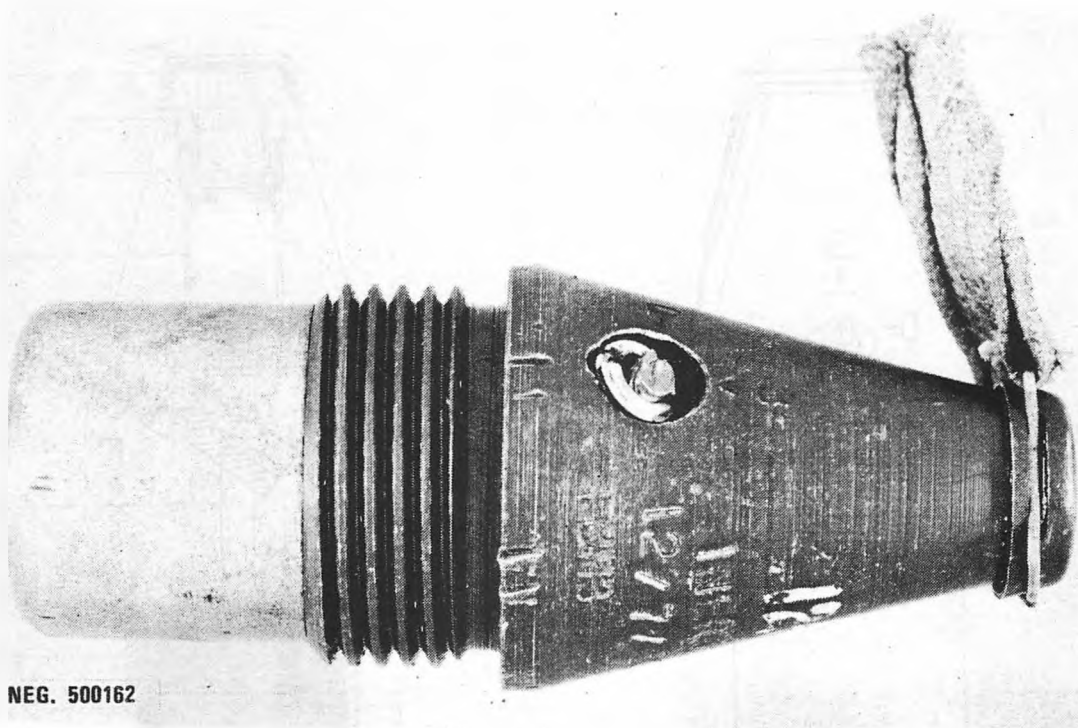
CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77
COUNTRY: U.S.S.R.



FOM-1390-2-1-7-8
NOMEN: FUZE, POINT DETONATING, MODEL GVMZ (U)
PRODUCED/ADOPTED: ???

UNCLASSIFIED

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77
COUNTRY: U.S.S.R.



NEG. 500162

DATE CATALOGED: 01JUL66
VOLUME 06 PAGE 10

UNCLASSIFIED

U N C L A S S I F I E D

FOM-1390-2-1-9-A

CATALOG: T8-381-5-06

NOMEN: FUZE, POINT DETONATING, MODEL GVMZ-7 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНОЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ ГВМЗ-7
PRODUCED/ADOPTED: ?/1938

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE GVMZ-7 IS AN IMPROVED VERSION OF THE GVMZ FUZE (FOM 1390-2-1-7) IN THAT IT INCORPORATES A DELAY SETBACK ARMING SYSTEM AND A DIFFERENT SELECTOR FOR SETTING THE FUZE FOR EITHER DELAY OR INSTANTANEOUS (SUPERQUICK) ACTION. THE DELAY ARMING SYSTEM CONSISTS OF A GROOVED FIRING PIN (9), SETBACK SPRING, SETBACK PRIMER (11), DELAY BLACK POWDER PELLET (7), DETENT PIN (5), AND INTERRUPTER (SPRING-LOADED SLIDER) (4), WHICH PROVIDES A MECHANICAL BLOCK OF THE FLASH FROM THE MAIN PRIMER FLASH TUBE (3) TO THE DELAY FLASH CHANNEL (13) OR THE INSTANTANEOUS FLASH CHANNEL (14).

(U)PRIOR TO FIRING THE KNURLED PROTECTIVE CAP (SHIPPING CAP) AND NOSE CAP, WHICH IS SECURED BY A SAFETY WIRE, HAVE TO BE REMOVED. THE FUZE IS THEN SET TO "3" FOR DELAY ACTION OR TO "0" FOR INSTANTANEOUS ACTION.

(U)UPON FIRING SETBACK DRIVES THE FIRING PIN (9) INTO THE SETBACK PRIMER (11), WHICH FLASHES THROUGH THE GROOVES OF THE FIRING PIN INITIATING THE DELAY BLACK POWDER PELLET (7). AFTER THE BLACK POWDER BURNS OUT, THE DETENT PIN (5) MOVES OUT, RELEASING THE SPRING-LOADED SLIDER (4) AND OPENING EITHER THE DELAY OR INSTANTANEOUS FLASH CHANNEL DEPENDING ON THE SETTING.

(U)ON IMPACT WITH THE TARGET, THE PISTON (1) IS DRIVEN REARWARD, COMPRESSING THE AIR IN THE CYLINDER. HEAT FROM THIS COMPRESSION IGNITES THE MAIN PRIMER. THE FLASH FROM THE PRIMER THEN PASSES THROUGH THE PRIMER FLASH TUBE (3) DIRECTLY TO THE DETONATOR (12) VIA THE INSTANTANEOUS FLASH CHANNEL (14), OR THE DELAY PELLET (6), DEPENDING ON THE SETTING OF THE SELECTOR (8). FOR DELAY SETTING "3" THE INTERRUPTER (4) MOVES ONLY FAR ENOUGH TO UNCOVER THE DELAY FLASH CHANNEL (13), ALLOWING THE FLASH FROM THE PRIMER TO INITIATE THE DELAY PELLET (6) WHICH ACTUATES THE DETONATOR (12), AND IN TURN THE BOOSTER (10). SETTING "0" ALLOWS THE INTERRUPTER TO MOVE FAR ENOUGH TO UNCOVER BOTH FLASH CHANNELS SO THAT THE FLASH FROM THE PRIMER WILL PASS DIRECTLY TO THE DETONATOR (12) AND BOOSTER (10), RESULTING IN INSTANTANEOUS ACTION.

U N C L A S S I F I E D

FOM-1390-2-1-9-A

NOMEN: FUZE, POINT DETONATING, MODEL GVMZ-7 (U)

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ?/1938

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- STANDARD

BOOSTER:

BODY MATERIAL ----- STEEL
BODY LENGTH (MM) -- 27.9
FILLER MATERIAL --- TETRYL
FILLER WEIGHT (G) - 7.3

USING COUNTRIES: ----- 002

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- 0.05-0.09 SEC
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT DETONATING
MODEL ----- GVMZ-7
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) -- 106.4
LENGTH EXPOSED (MM) -- 64.8
MAXIMUM DIAMETER (MM)- 39.9
MAJ THREAD DIAM (MM) - 35.8
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 481
MARKINGS ----- KBM 3-7 3500

USING PROJECTILES: -- *2

USING WEAPONS: ----- *3

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
SELF-DESTR METHOD ---- N/A
TYPE SAFETY DEVICE --- *1

REMARKS:

1/ SHIPPING CAP, SAFETY CAP W/WIRE,
AND INTERRUPTER

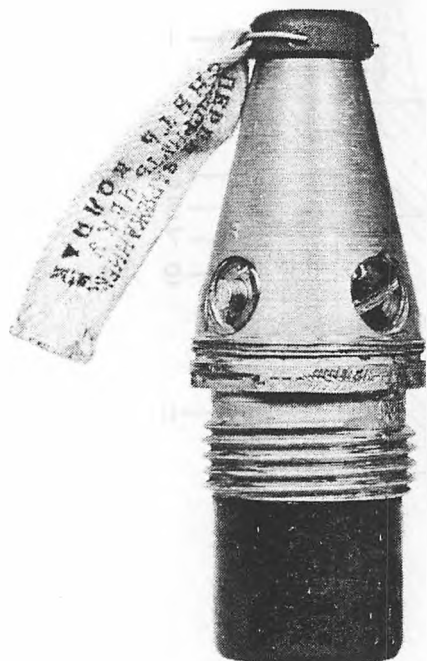
2/ 107-MM, FRAG-HE, OF-841A
120-MM, FRAG-HE, OF-843
120-MM, HE, F-843
122-MM, FRAG, O-462A
152-MM, FRAG-HE, OF-534G
152-MM, FRAG-HE, OF-534AG
160-MM, HE, F-852
160-M, HE, F-853U AND F-853A
3/ 107-MM MORTAR M1938
120-MM MORTAR M1938
120-MM MORTAR M1943
122-MM HOWITZER M1938
152-MM HOWITZER M1943
160-MM MORTAR M1943
160-MM MORTAR M-160

DATE CATALOGED: 01JAN65
VOLUME 06 PAGE 12

U N C L A S S I F I E D

FOM-1390-2-1-9-B
NOMEN: FUZE, POINT DETONATING, MODEL GVMZ-7 (U)
PRODUCED/ADOPTED: ?/1938

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



NEG 500164



WITH SHIPPING CAP

U N C L A S S I F I E D

FDM-1390-2-1-9-B

NOMEN: FUZE, POINT DETONATING, MODEL GVMZ-7 (U)

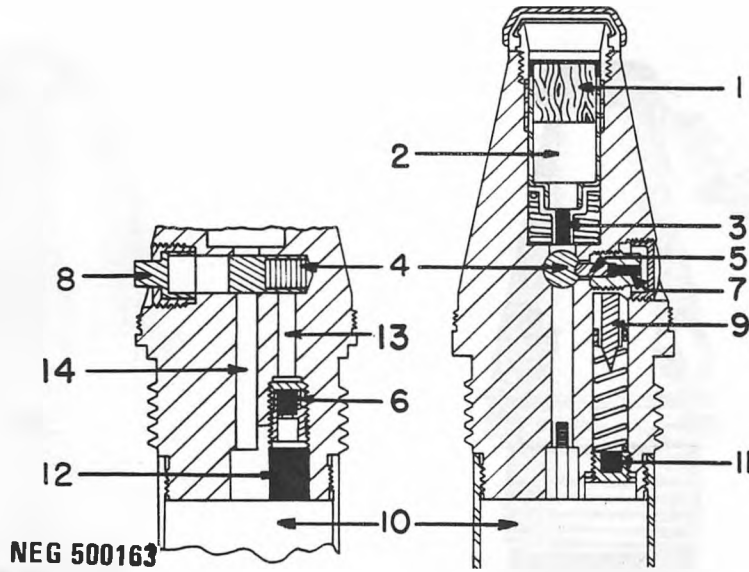
PRODUCED/ADOPTED: ?/1938

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.



U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-2-1-11-A

CATALOG: TB-381-5-06

NOMEN: FUZE, POINT DETONATING, MODEL M-50 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНОЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ М-50
PRODUCED/ADOPTED: ?/1950

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET POINT-DETONATING, SETBACK-ARMED, SUPERQUICK FUZE M-50 IS USED ONLY WITH 50-MM FRAGMENTATION MORTAR PROJECTILES. IT IS AN EXTREMELY SENSITIVE FUZE WHICH THE SOVIETS CONSIDER "UN-SECURED."

(U)THE FUZE NOSE IS COVERED WITH A LEAD-FOIL CAP THAT MUST BE REMOVED BEFORE FIRING. THE FIRING PIN (3) IS IMMOBILIZED BY TWO CHECK BALLS (6) LODGED BETWEEN THE BOTTOM OF THE STRIKER HEAD (1) AND THE TOP OF THE STIRRUP (2), AND BY TWO CHECK BALLS (8) LODGED AT THE LOWER END OF THE FIRING PIN. THE BALLS PREVENT MOVEMENT OF THE FIRING PIN BEFORE FIRING. ON FIRING, THE STIRRUP SETS BACK AND ALLOWS THE UPPER CHECK BALLS TO FALL INTO A CAVITY IN THE FUZE BODY, THEREBY RELEASING THE FIRING PIN FOR FORWARD MOVEMENT. AFTER THE PROJECTILE LEAVES THE MORTAR TUBE, THE ANTICREEP SPRING (7) FORCES THE STIRRUP FORWARD, ALLOWING THE LOWER CHECK BALLS TO FALL INTO THE CAVITY OF THE FUZE BODY. THIS FREES THE FIRING PIN FOR REARWARD MOVEMENT. AT THIS POINT, THE STRIKER HEAD, WHICH HAS A RED-LINE DIAMETER MARK, PROTRUDES APPROXIMATELY ONE-HALF ITS LENGTH ABOVE THE TOP OF THE FUZE BODY. ON IMPACT, THE FIRING PIN IS DRIVEN REARWARD, INITIATING THE DETONATOR (4) AND THE BOOSTER (5), WHICH IN TURN DETONATES THE PROJECTILE'S EXPLOSIVE FILLER.

U N C L A S S I F I E D

FOM-1390-2-1-11-A
NOMEN: FUZE, POINT DETONATING, MODEL M-50 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ?/1950

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- OBSOLETE

BOOSTER:

USING COUNTRIES: ----- 002

BODY MATERIAL ----- STEEL
BODY LENGTH (MM) --- 24.1
FILLER MATERIAL --- TETRYL
FILLER WEIGHT (G) - ?

FUZE ASSEMBLY COMPLETE:

PERFORMANCE:

TYPE ----- POINT DETONATING
MODEL ----- M-50
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) --- 59.9
LENGTH EXPOSED (MM) --- 28.9
MAXIMUM DIAMETER (MM) --- 29.7
MAJ THREAD DIAM (MM) - 26.9
THREAD PITCH (METRIC) - ?
WEIGHT COMPLETE (G) -- 113
MARKINGS ----- M50-40

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING --- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: --- 50-MM, FRAG,0-822; 50-MM,
- FRAG, 0-822A AND 0-822SH

USING WEAPONS: ----- 50-MM MORTARS M1938,
- M1940, AND M1941

FUNCTIONAL DATA:

REFERENCES: -----

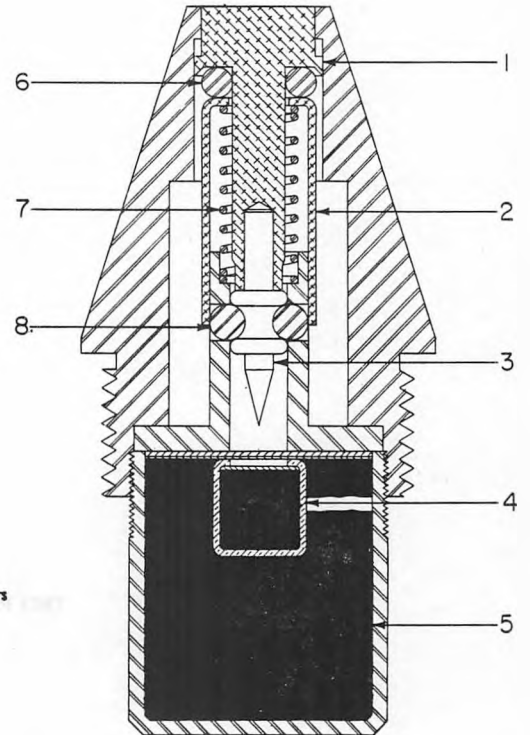
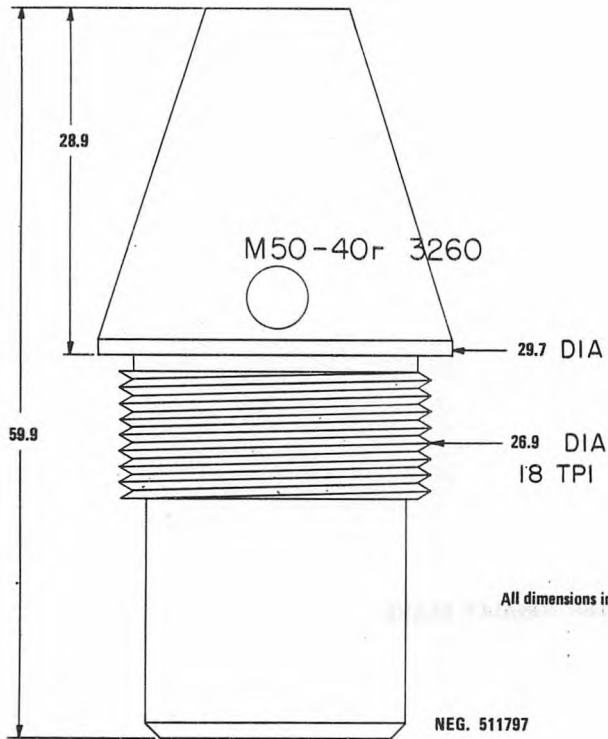
ARMING METHOD ----- SETBACK
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- CHECK BALLS
AND SPRING

REMARKS :

U N C L A S S I F I E D

FOM-1390-2-1-11-B
NOMEN: FUZE, POINT DETONATING, MODEL M-50 (U)
PRODUCED/ADOPTED: ?/1950

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



U N C L A S S I F I E D

FOM-1390-2-1-11-B

NOMEN: FUZE, POINT DETONATING, MODEL M-50 (U)

PRODUCED/ADOPTED: 7/1950

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JUL66
VOLUME 06 PAGE 18

U N C L A S S I F I E D

U N C L A S S I F I E D

OM-1390-2-1-12-A

CATALOG: TB-381-5-06

NOMEN: FUZE, POINT DETONATING, MODEL MP-82 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНОЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ МП-82
PRODUCED/ADOPTED: ?/1943

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET MP-82 IS A SETBACK-ARMED, POINT-DETONATING, IMPACT-FIRED FUZE DEVELOPED FOR USE WITH THE 82-MM MORTAR PROJECTILE. THE LETTERS "MP" IN THE FUZE'S NOMENCLATURE ARE THE INITIALS FOR SOVIET WORDS WHICH MEAN "MORTAR, PLASTIC". THE BODY OF THE FUZE IS CONSTRUCTED OF PHENOLIC RESIN, AND A CLEAR PLASTIC NOSE CUP (1) IS CONTAINED IN ITS NOSE. THE BOOSTER IS CONTAINED IN A METAL CUP WHICH IS SCREWED INTO THE BASE OF THE FUZE. THE FUZE IS BLACK, IT IS BORES SAFE THROUGH A SETBACK-ACTUATED MECHANICAL BLOCK SAFETY, AND IT IS CLASSIFIED BY THE SOVIETS AS "UNSECURE."

(U)PRIOR TO FIRING OF THE PROJECTILE, THE METAL SLIDER OR BORES SAFETY CYLINDER (7), LOCATED AT THE BASE OF THE SLIDER HOUSING (4), IS HELD IN PLACE BY THE SETBACK SPRING (6) SO AS TO PREVENT THE FIRING PIN (3) FROM BEING ABLE TO CONTACT THE STAB-TYPE DETONATOR (8). UPON FIRING, SETBACK CAUSES THE SETBACK WEIGHT (5) TO MOVE DOWNWARD, FORCING THE SETBACK SPRING OUT OF THE LOCKING GROOVE IN THE BASE OF THE HOUSING (4). THE TENSION OF THE SETBACK SPRING CAUSES THE SPRING TO MOVE IN AN OBLIQUE DIRECTION, CARRYING WITH IT THE BORES SAFETY CYLINDER (7), THEREBY CLEARING THE PATH OF THE FIRING PIN (3). UPON IMPACT, THE STEEL NOSE CUP (2) CRUSHES THE FIRING PIN RETAINING DISC AND FORCES THE FIRING PIN (3) INTO THE DETONATOR (8). THE DETONATOR EXPLODES, INITIATING THE BOOSTER (9), WHICH IN TURN CAUSES THE MAIN CHARGE OF THE PROJECTILE TO EXPLODE.

U N C L A S S I F I E D

FOM-1390-2-1-12-A
 NOMEN: FUZE, POINT DETONATING, MODEL MP-82 (U)

CATALOG: T8-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ?/1943

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- OBSOLETE

BOOSTER:

USING COUNTRIES: ----- 002,010

BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 34.6
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - 167

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT DETONATING
 MODEL ----- MP-82
 BODY MATERIAL ----- PHENOLIC RESIN
 LENGTH OVERALL (MM) -- 65.5
 LENGTH EXPOSED (MM) -- ?
 MAXIMUM DIAMETER (MM) - 39.6
 MAJ THREAD DIAM (MM) - 35.6
 THREAD PITCH (METRIC) - ?
 WEIGHT COMPLETE (G) -- 68
 MARKINGS ----- MP-82

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- 82-MM, FRAG, O-832

USING WEAPONS: ----- 82-MM BATTALION
 - MORTAR M1937, M1941, M1943

REFERENCES: -----

FUNCTIONAL DATA:

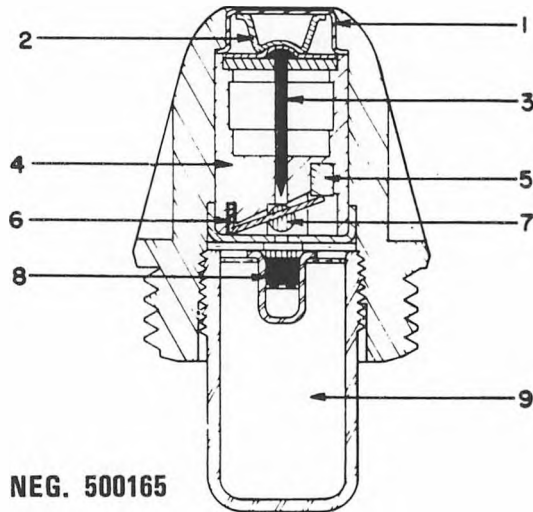
ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD --- NONE
 TYPE SAFETY DEVICE --- MECHANICAL BLOCK
 (SLIDER)

REMARKS:

U N C L A S S I F I E D

FOM-1390-2-1-12-B
NOMEN: FUZE, POINT DETONATING, MODEL MP-82 (U)
PRODUCED/ADOPTED: ?/1943

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



NEG. 500165



NEG. 500166

FDM-1390-2-1-12-8

NOMEN: FUZE, POINT DETONATING, MODEL MP-82 (U)

PRODUCED/ADOPTED: ?/1943

U N C L A S S I F I E D

CATALOG: TB-381-5-06
DATE REVIEWED: 28 JAN 77
DATE UPDATED: 28 JAN 77
COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01 JAN 65
VOLUME 06 PAGE 22

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-2-1-19-A

CATALOG: TB-381-5-06

NOMEN: FUZE, BASE-DETONATING, MODEL MD-5 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ДОННЫЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ МД-5
PRODUCED/ADOPTED: ?/1942

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET BASE-DETONATING FUZE MODEL MD-5 IS THE FIFTH MODEL OF THE MD SERIES FOR FUZES USED WITH ARMOR-PIERCING PROJECTILES.

(U)UPON FIRING, THE PROPELLANT GASES IGNITE THE TRACER MIXTURE (10) AND CONSUME THE CELLULOID DISCS (11). THE SOLID END OF THE FUZE BODY PREVENTS TRACER FLAME FROM ENTERING THE FUZE BODY AND CAUSING PREMATURE DETONATION. SIMULTANEOUSLY, THE STIRRUP (6) SETS BACK OVER THE PRIMER CARRIER (8) AND CLAMPS ITSELF TO THE CARRIER, COMING TO REST AGAINST THE LEAD CUSHION (9). THIS ACTION ARMS THE FUZE BY BRINGING THE PRIMER (7) FLUSH WITH THE FORWARD END OF THE STIRRUP IN A POSITION TO IMPINGE UPON THE FIRING PIN (5) AT IMPACT. UPON IMPACT WITH THE TARGET, THE STIRRUP AND PRIMER CARRIER SET FORWARD, DRIVING THE PRIMER AGAINST THE FIRING PIN; THE FLASH FROM THE PRIMER PASSES THROUGH A FLASH HOLE (4) IN THE FIRING PIN, THEREBY IGNITING THE BLACK POWDER DELAY PELLET (3). THE PELLET BURNS SUFFICIENTLY LONG TO PERMIT THE PROJECTILE TO PENETRATE THE ARMOR BEFORE ACTIVATING THE DETONATOR-BOOSTER ASSEMBLY (1) THROUGH A FLASH HOLE IN THE DELAY CHARGE ASSEMBLY PLUG (2).

DATE CATALOGED: 01APR68
VOLUME 06

U N C L A S S I F I E D

PAGE 23

U N C L A S S I F I E D

FOM-1390-2-1-19-A
 NOMEN: FUZE, BASE-DETONATING, MODEL MD-5 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ?/1942

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- OBSOLETE IN U.S.S.R.

BOOSTER:

USING COUNTRIES: ----- 002

BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 26.4
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - 0.48

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- ?
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

TYPE ----- IMPACT
 MODEL ----- MD-5
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 65.7
 LENGTH EXPOSED (MM) -- 34.8
 MAXIMUM DIAMETER (MM)- 28.9
 MAJ THREAD DIAM (MM) - 22.8
 THREAD PITCH (METRIC)- 1.50 MM
 WEIGHT COMPLETE (G) -- 122.4
 MARKINGS ----- ?

USING PROJECTILES: -- *1

USING WEAPONS: ----- *2

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- SETBACK STIRRUP

REMARKS:

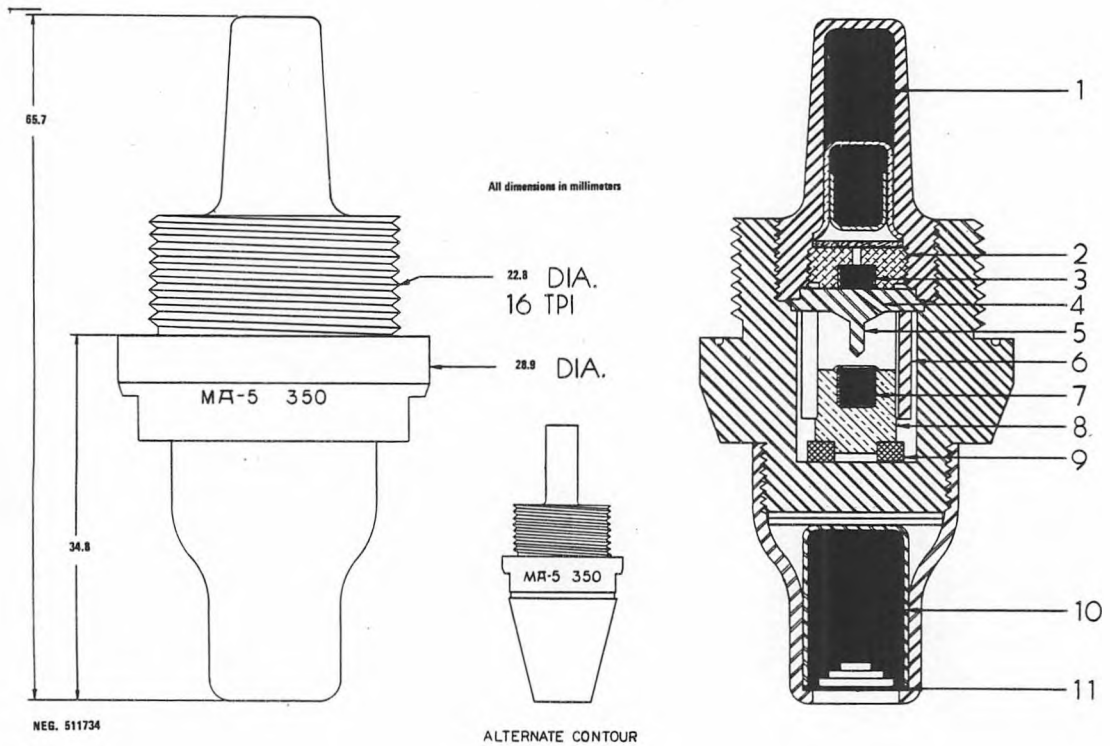
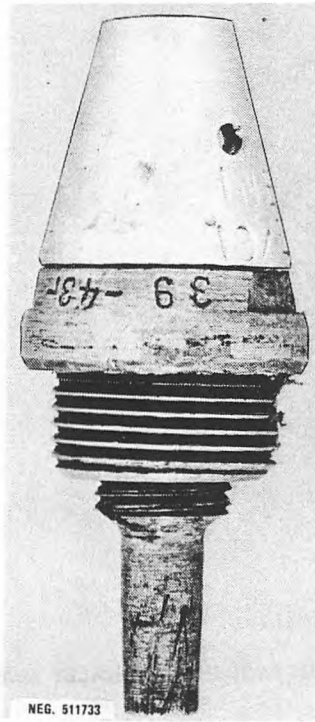
1/ 45-MM, API-T, BZR-240; 57-MM, AP-T,
 BR-271; 76-MM, AP-T, BR-350, BR-350 AC
 BR-350B.

2/ 45-MM ANTITANK GUN 1942; ASU-57
 ASSAULT GUN; 57-MM ANTITANK GUN;
 76-MM FIELD GUN M1942; PT-76 TANK;
 SU-76 SUPPORT GUN.

UNCLASSIFIED

FOM-1390-2-1-19-8
NOMEN: FUZE, BASE-DETONATING, MODEL MD-5 (U)
PRODUCED/ADOPTED: ?/1942

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



DATE CATALOGED: 01 APR 68
VOLUME 06

UNCLASSIFIED

FOM-1390-2-1-19-B
NOMEN: FUZE, BASE-DETONATING, MODEL MD-5 (U)
PRODUCED/ADOPTED: ?/1942

U N C L A S S I F I E D

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01APR68
VOLUME 06 PAGE 26

U N C L A S S I F I E D

FOM-1390-2-1-20-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, BASE-DETONATING, MODEL MD-6 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ДОННЫЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ МД-6
PRODUCED/ADOPTED: 7/1942

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET BASE-DETONATING FUZE MODEL MD-6 IS THE SIXTH MODEL OF THE MD SERIES OF FUZES USED WITH ARMOR-PIERCING PROJECTILES. EXTERNALLY, THE MD-6 DIFFERS FROM THE MD-5 ONLY IN THREAD SIZE. WITHOUT AN ADAPTER IT CANNOT BE USED IN THE SAME PROJECTILES AS THE MD-5. THE DESIGNS OF THE TWO FUZES ARE OTHERWISE IDENTICAL. THE MD-6 IS INTERCHANGEABLE WITH THE MD-8 AND THE MD-10. THE MAIN DISADVANTAGE OF THE MD-6 IS THE CONSTANT DELAY, WHICH CANNOT BE VARIED ACCORDING TO THE THICKNESS AND THE HARDNESS OF THE TARGET ARMOR PLATE. THUS THE FUZE ACTION IS NOT ALWAYS EFFECTIVE AGAINST VARYING DEGREES OF ARMOR PLATE THICKNESS. THE AUTOMATICALLY REGULATED DELAY OF THE MD-7 AND THE MD-8 HAS PARTLY CORRECTED THIS FAULT.

(U)UPON FIRING, THE TRACER MIXTURE (6) IS IGNITED BY THE PROPELLANT GASES (THE TRACER IS INDEPENDENT OF THE FUZE PROPER AND CANNOT AFFECT ITS FUNCTIONING). AT THE SAME TIME, THE STIRRUP (7), WHICH HAD BEEN RESTING ON THE SHOULDER OF THE PRIMER CARRIER (5) PREVENTING IT FROM MOVING FORWARD, SETS BACK OVER THE PRIMER CARRIER AND CLAMPS ITSELF TO THE CARRIER. THIS ACTION BRINGS THE PRIMER (4) FLUSH WITH THE FORWARD END OF THE STIRRUP IN A POSITION TO IMPINGE UPON THE FIRING PIN (3) AT IMPACT. UPON IMPACT, THE STIRRUP AND PRIMER CARRIER SET FORWARD, DRIVING THE PRIMER AGAINST THE FIRING PIN. THE PRIMER IGNITES AND EMITS A JET OF FLAME THROUGH A HOLE DRILLED IN THE FIRING PIN HOLDER, THENCE THROUGH TO THE BLACK POWDER DELAY PELLETT (2). THE PELLETT BURNS LONG ENOUGH TO PERMIT THE PROJECTILE TO PENETRATE THE ARMOR, AND THEN ACTIVATES THE DETONATOR (1), WHICH IN TURN DETONATES THE EXPLOSIVE FILLER OF THE PROJECTILE.

U N C L A S S I F I E D

FOM-1390-2-1-20-A
NOMEN: FUZE, BASE-DETONATING, MODEL MD-6 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: ?/1942

CURRENT STATUS: ----- OBSOLETE IN U.S.S.R.

USING COUNTRIES: ----- 002

BOOSTER:
BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

PERFORMANCE:
ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- ?
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:
TYPE ----- IMPACT
MODEL ----- MD-6
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) -- 66
LENGTH EXPOSED (MM) -- 34.3
MAXIMUM DIAMETER (MM)- 32
MAJ THREAD DIAM (MM) - 26.9
THREAD PITCH (METRIC)- 1.50 MM
WEIGHT COMPLETE (G) -- 117.9
MARKINGS ----- MD-6

USING PROJECTILES: -- *1

USING WEAPONS: ----- *2

REFERENCES: -----

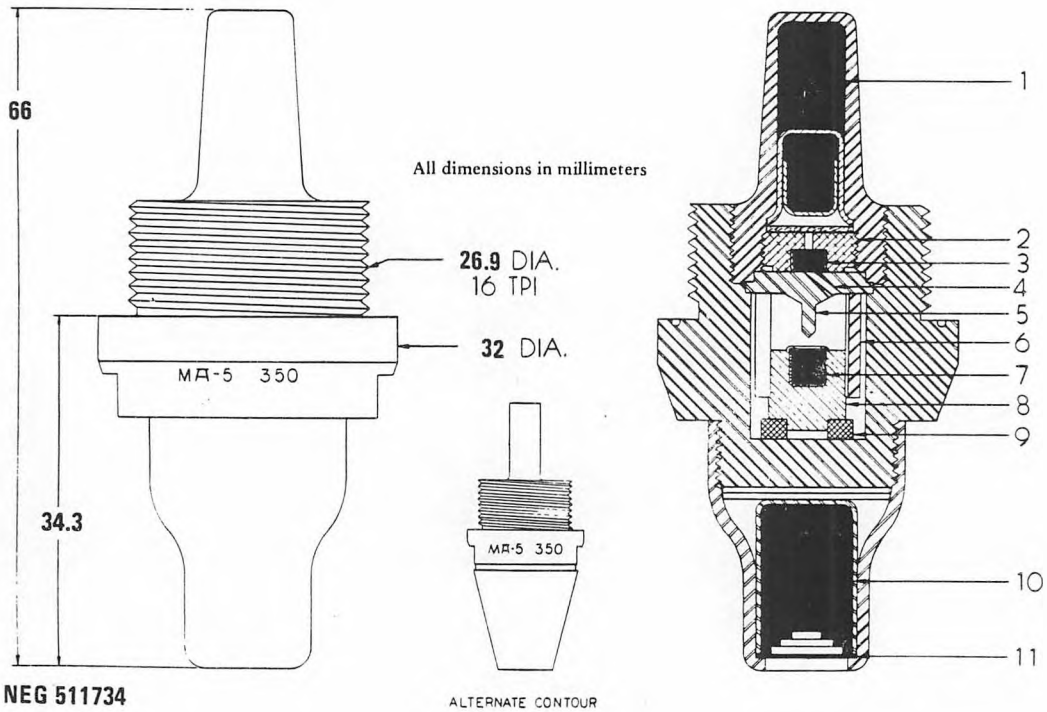
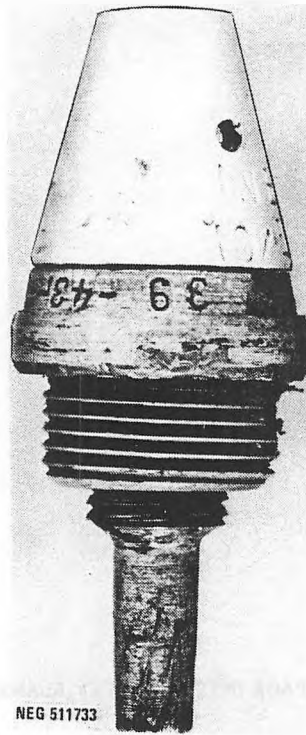
FUNCTIONAL DATA:
ARMING METHOD ----- SETBACK
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- SETBACK STIRRUP

REMARKS:
1/ 76-MM, AP-T, BR-350A, AND BR-350B.

2/ 76-MM FIELD GUN M1942
PT-76 TANK SU-76 SUPPORT GUN

FOM-1390-2-1-20-B
NOMEN: FUZE, BASE-DETONATING, MODEL MD-6 (U)
PRODUCED/ADOPTED: ?/1942

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



U N C L A S S I F I E D

FOM-1390-2-1-20-B

NOMEN: FUZE, BASE-DETONATING, MODEL MD-6 (U)

PRODUCED/ADOPTED: ?/1942

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01APR68
VOLUME 06 PAGE 30

U N C L A S S I F I E D

FOM-1390-2-1-21-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, BASE-DETONATING, MODEL MD-7 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ДОННЫЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ МД-7
PRODUCED/ADOPTED: 1939/1943

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL MD-7 FUZE IS A BASE-DETONATING, IMPACT TYPE WITH AUTOMATICALLY REGULATED DELAY. IT HAS A HIGH DEGREE OF SAFETY FROM PREMATURE BURSTS OF THE SHELL WHILE IN THE TUBE OF THE WEAPON.

(U)UPON FIRING, THE BURNING PROPELLANT IGNITES THE TRACER (10), WHILE SETBACK CAUSES THE STIRRUP (7) TO MOVE REARWARD, OVERRIDING THE PRIMER CARRIER (9). THE PRIMER CARRIER IS THEN HELD IN THE REARWARD POSITION ONLY BY THE ANTICREEP SPRING (6). UPON IMPACT WITH A TARGET, THE PRIMER CARRIER AND THE PRIMER (8) MOVE FORWARD AGAINST THE FIRING PIN (5). THE FLASH FROM THE PRIMER PASSES THROUGH A HOLE DRILLED IN THE FIRING PIN HOLDER, IGNITING THE DELAY COMPOSITION (3). THE SET FORWARD VALVE (4) MOVES FORWARD BECAUSE OF INERTIA, REMAINING IN THE FORWARD POSITION UNTIL THE PROJECTILE HAS PENETRATED THE ARMOR. AT THIS TIME, GASES PRODUCED BY THE DELAY COMPOSITION FORCE THE VALVE REARWARD, THEREBY SEALING OFF THE GASES. THIS CAUSES A RAPID INCREASE IN PRESSURE, WHICH IN TURN CAUSES THE DELAY COMPOSITION TO BURN ALMOST SIMULTANEOUSLY. WHEN THE DELAY ELEMENT HAS BURNED THROUGH, IT ACTUATES THE DETONATOR (2) WHICH DETONATES THE BOOSTER (1).

DATE CATALOGED: 01SEP65
VOLUME 06

U N C L A S S I F I E D

PAGE 31

U N C L A S S I F I E D

FOM-1390-2-1-21-A
 NOMEN: FUZE, BASE-DETONATING, MODEL MD-7 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: 1939/1943

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- 002

BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 25.4
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - ?

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
 MODEL ----- MD-7
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 66.2
 LENGTH EXPOSED (MM) -- 42.7
 MAXIMUM DIAMETER (MM) - 33.7
 MAJ THREAD DIAM (MM) - 22.8
 THREAD PITCH (METRIC) - 1.50 MM
 WEIGHT COMPLETE (G) -- 140.6
 MARKINGS ----- MD-7

PERFORMANCE:

ARMING DISTANCE (M) - ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- ?
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- *1

USING WEAPONS: ----- *2

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- SETBACK STIRRUP

REFERENCES: -----

REMARKS:

1/ 57-MM, AP-T, BR-271; 76-MM, APT, BR-350,
 BR-350A & BR-350B; 85-MM, AP-T, BR-365 AND
 BR-365K; 152-M, AP-T, BR-540 AND BR-540B.

2/ 57-MM AT GUNS M1941 & 1943; ASU-57 ASSAULT
 GUN 76-MM FIELD GUNS M1939 & M1942. PT-76
 TANK; 85-MM TANK GUNS M1943 & M1944; ASU-85
 ASSAULT GUN; 85-MM FIELD GUN D44. 152-MM
 GUN-HOWITZERS. M1937 AND D-20
 152-MM HOWITZERS M1938 & M1943

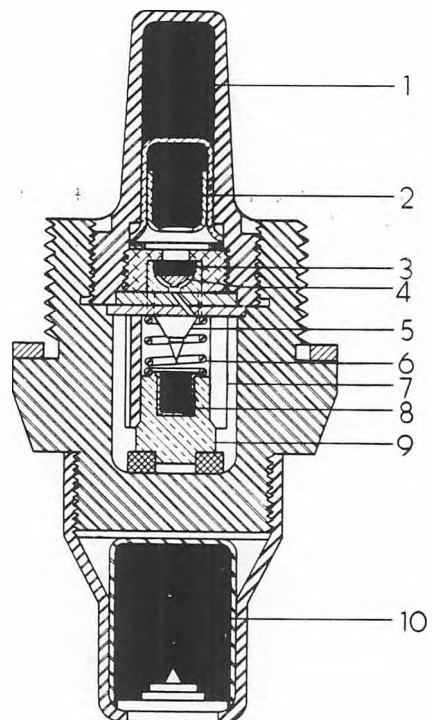
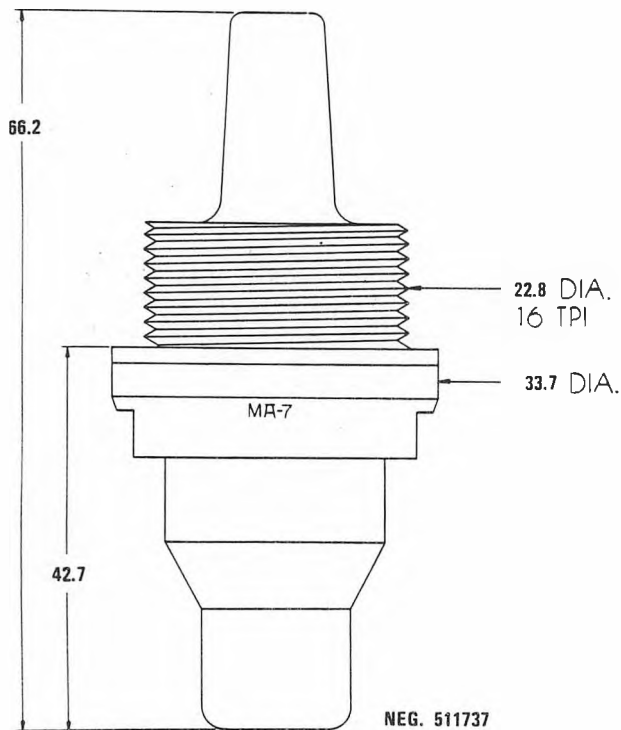
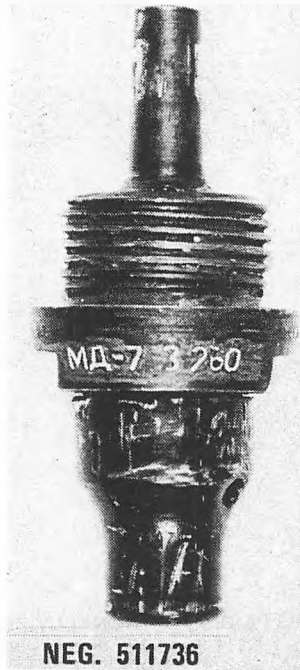
UNCLASSIFIED

OM-1390-2-1-21-8
NOMEN: FUZE, BASE-DETONATING, MODEL MD-7 (U)

PRODUCED/ADOPTED: 1939/1943

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.



U N C L A S S I F I E D

FOM-1390-2-1-21-B
NOMEN: FUZE, BASE-DETONATING, MODEL MD-7 (U)
PRODUCED/ADOPTED: 1939/1943

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01SEP65
VOLUME 06 PAGE 34

U N C L A S S I F I E D

NOMEN: FUZE, BASE-DETONATING, MODEL MD-8 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ДОННЫЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ МД-8
PRODUCED/ADOPTED: 1942/?DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL MD-8 BASE-DETONATING, IMPACT FUZE IS THE EIGHTH MODEL OF THE MD SERIES OF FUZES USED WITH ARMOR-PIERCING, HIGH-EXPLOSIVE PROJECTILES. THE MD-8 IS INTERCHANGEABLE WITH THE MD-6 AND MD-10 FUZES, AND IS USED WITH 76-MM, 85-MM, 100-MM, AND 122-MM PROJECTILES. THE MD-8 IS OF CONVENTIONAL DESIGN, AND INCORPORATES A PRIMER, A DELAY PELLET, A DETONATOR, AND A BOOSTER. IT IS ASSEMBLED WITH A REMOVABLE TRACER ASSEMBLY. THE MD-8 HAS BEEN DESIGNED WITH A DELAY PELLET THAT RETARDS THE DETONATION TIME OF THE SMALL EXPLOSIVE CHARGE IN THE BASE CAVITY OF THE PROJECTILE UNTIL THE PROJECTILE HAS SUFFICIENT TIME TO PENETRATE THE TARGET.

(U)THE MD-8 FUZE IS ARMED UPON FIRING, AT WHICH TIME SETBACK FORCES THE SPLIT SAFETY SLEEVE (7) OFF THE SHOULDER OF THE PRIMER CARRIER (6) AND DOWN ONTO THE LEAD CUSHION RING (8). DURING THE PROJECTILE'S FLIGHT, THE MOVABLE PRIMER CARRIER IS KEPT AWAY FROM THE FIRING PIN (4) BY THE ANTICREEP SPRING (5). UPON IMPACT WITH THE TARGET, INERTIA FORCES THE PRIMER CARRIER FORWARD, CAUSING THE PRIMER TO STRIKE THE FIRING PIN. FLAME FROM THE PRIMER PASSES THROUGH A HOLE IN THE BASE OF THE FIRING PIN, IGNITING THE DELAY PELLET (3). THIS PELLET PROVIDES SUFFICIENT DELAY TIME FOR THE PROJECTILE TO PENETRATE THE TARGET BEFORE THE DETONATOR (2) IS IGNITED. THE DETONATOR THEN ACTUATES THE BOOSTER (1) THAT IN TURN DETONATES THE SMALL EXPLOSIVE CHARGE CONTAINED IN THE BASE CAVITY OF THE ARMOR-PIERCING PROJECTILE. IN ADDITION TO THE ABOVE SEQUENCE, THE TRACER ELEMENT (WHEN PRESENT) IS IGNITED BY THE PROPELLENT GASES AT THE TIME OF FIRING.

U N C L A S S I F I E D

FDM-1390-2-1-22-A
 NOMEN: FUZE, BASE-DETONATING, MODEL MD-8 (U)
 PRODUCED/ADOPTED: 1942/?

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77
 COUNTRY: U.S.S.R.

CURRENT STATUS: ----- STANDARD
 USING COUNTRIES: ----- U.S.S.R.

BOOSTER:
 BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 18.0
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - ?

PERFORMANCE:
 ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- ?
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:
 TYPE ----- IMPACT
 MODEL ----- MD-8
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 88.1 W/TRACER
 LENGTH EXPOSED (MM) -- ?
 MAXIMUM DIAMETER (MM)- 39.3 W/TRACER
 MAJ THREAD DIAM (MM) - 25.4 W/O TRACER
 THREAD PITCH (METRIC)- 1.50 MM
 WEIGHT COMPLETE (G) -- 348.7 W/TRACER
 MARKINGS ----- SEE PHOTO

USING PROJECTILES: -- *1

USING WEAPONS: ----- *2

REFERENCES: -----

FUNCTIONAL DATA:
 ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- ?

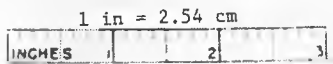
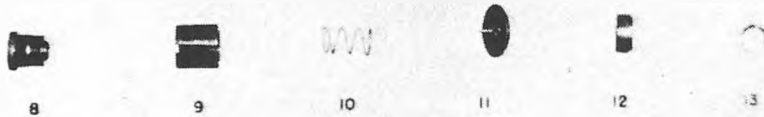
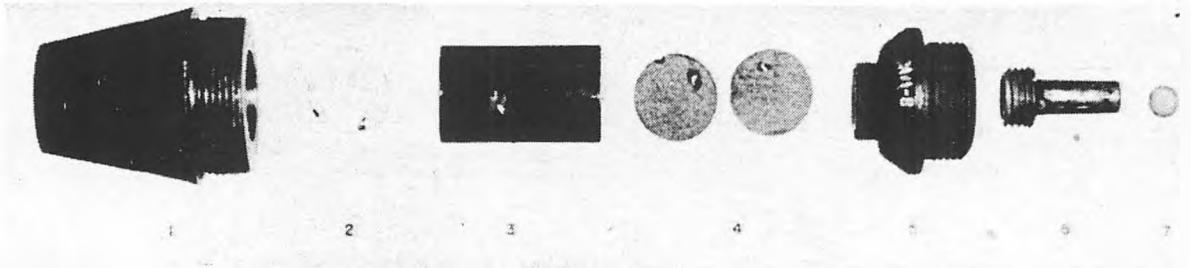
REMARKS:
 1/ 76-MM, AP-T, BR-350B; 85-MM, AP-T,
 BR-365 & BR-365K; 100-MM, AP-T, BR-412B,
 122-MM AP-T, BR-471B

2/ 76-MM DIVISIONAL GUN M1942; 76-MM
 TANK GUN M1940 & M1941, 85-MM AA GUN
 M 1939 & 1944, 85-MM TANK GUN M1943 & M1944,
 100-MM TANK GUN M1944, 100-MM FIELD (AT)
 GUN M1944, 122-MM TANK GUN M1943

FOM-1390-2-1-22-8
 NOMEN: FUZF, BASE-DETONATING, MODEL MD-8 (U)
 PRODUCED/ADOPTED: 1942/?

UNCLASSIFIED

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77
 COUNTRY: U.S.S.R.



- | | | | |
|-------------------|----------------------------|-----------------------|------------------------|
| 1. Tracer Body | 5. Fuze Body | 8. Primer Housing | 12. Delay Charge Ass'y |
| 2. Celluloid Disc | 6. Detonator Booster Ass'y | 9. Arming Sleeve | 13. Detonator Washer |
| 3. Tracer Cup | 7. Cushion Disc | 10. Firing Pin Spring | |
| 4. Closing Discs | | 11. Firing Pin | |
- NEG 507855

U N C L A S S I F I E D

(FOM-1390-2-1-22-B
NOMEN: FUZE, BASE-DETONATING, MODEL MD-8 (U)
PRODUCED/ADOPTED: 1942/?

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U. S. S. R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JAN65
VOLUME 06 PAGE 38

U N C L A S S I F I E D

FOM-1390-2-1-23-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, BASE-DETONATING, MODEL MD-10 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ДОННЫЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ МД-10
PRODUCED/ADOPTED: ?/1941

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET BASE-DETONATING FUZE MODEL MD-10 IS THE 10TH MODEL OF THE MD SERIES OF SOVIET FUZES USED WITH ARMOR-PIERCING PROJECTILES. PREVIOUS KNOWN MODELS OF THIS SERIES ARE NUMBERED MD-1 THROUGH MD-8. THE MD-10 IS INTERCHANGEABLE WITH THE MD-6 AND THE MD-8. THE MD-10 IS OF CONVENTIONAL DESIGN, INCORPORATING A PRIMER, A DELAY, AND A DETONATOR. IT HAS A REMOVABLE TRACER. TWO SAFETY FEATURES ARE: THE STIRRUP (6), WHICH REST ON THE SHOULDER OF THE PRIMER CARRIER (7), PREVENTING IT FROM MOVING FORWARD; AND THE ANTICREEP SPRING (5), WHICH ALSO TENDS TO HOLD THE PRIMER CARRIER IN THE REARWARD POSITION.

(U)ON FIRING, THE TRACER MIXTURE (8) IS IGNITED BY THE PROPELLANT GASES. THE SOLID END OF THE FUZE BODY PREVENTS TRACER FLAME FROM ENTERING THE FUZE BODY AND CAUSING PREMATURE DETONATION. AT THE SAME TIME, THE STIRRUP (6) SETS BACK OVER THE PRIMER CARRIER (7) AND CLAMPS ITSELF TO THE PRIMER CARRIER. THE FUZE IS THEN ARMED, AND THE PRIMER CARRIER IS PREVENTED FROM CARRYING THE PRIMER (10) FORWARD ONLY BY THE RESISTANCE OF THE ANTICREEP SPRING (5). ON IMPACT, INERTIA CAUSES THE PRIMER CARRIER TO OVERCOME THE ANTICREEP SPRING AND TO MOVE FORWARD, DRIVING THE PRIMER ONTO THE FIRING PIN (4). THE FLASH FROM THE PRIMER PASSES THROUGH THE FLASH CHANNEL (9) IN THE FIRING PIN AND IGNITES THE DELAY ELEMENT (3). THE DELAY ELEMENT BURNS THROUGH AND ACTUATES THE DETONATOR (2), WHICH INITIATES THE BOOSTER (1).

DATE CATALOGED: 01JUL72
VOLUME 06

U N C L A S S I F I E D

PAGE 39

U N C L A S S I F I E D

FOM-1390-2-1-23-A
 NOMEN: FUZE, BASE-DETONATING, MODEL MD-10 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ?/1941

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- 002

BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 27.9
 FILLER MATERIAL --- TETRYL ?
 FILLER WEIGHT (G) - ?

FUZE ASSEMBLY COMPLETE:

PERFORMANCE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- ?
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

TYPE ----- IMPACT
 MODEL ----- MD-10
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 70.3
 LENGTH EXPOSED (MM) -- 33.0
 MAXIMUM DIAMETER (MM)- 32.2
 MAJ THREAD DIAM (MM) - 26.9
 THREAD PITCH (METRIC)- 1.50 MM
 WEIGHT COMPLETE (G) -- 163
 MARKINGS ----- MD-10

USING PROJECTILES: -- *2

USING WEAPONS: ----- *3

FUNCTIONAL DATA:

REFERENCES: -----

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- *1

REMARKS:

- 1/ SETBACK STIRRUP, ANTICREEP SPRING
- 2/ 57-MM, AP-T, BR-271, BR-271K, BR-281 AND BR-281 U.

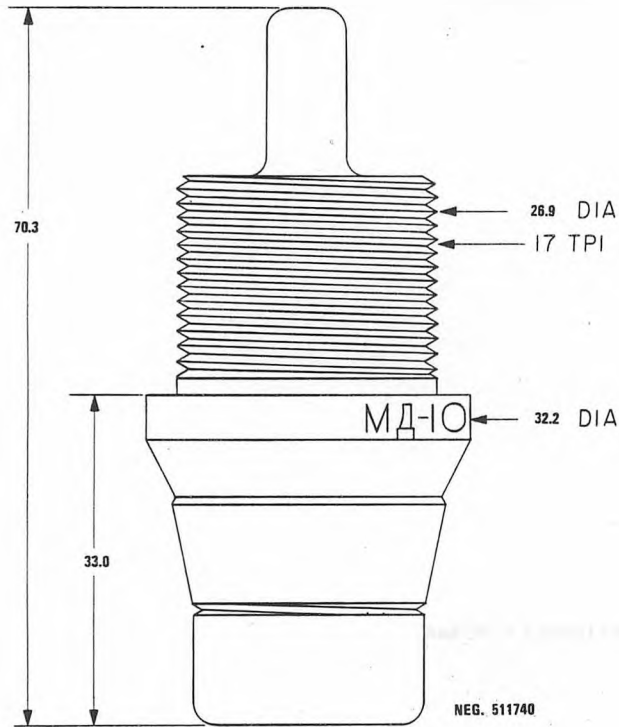
- 3/ 57-MM ANTITANK GUN M1941 & 1943.
- ASU-57 ASSULT GUN
- 57-MM ANTIAIRCRAFT GUNS S-60 AND ZSU-57-2.

UNCLASSIFIED

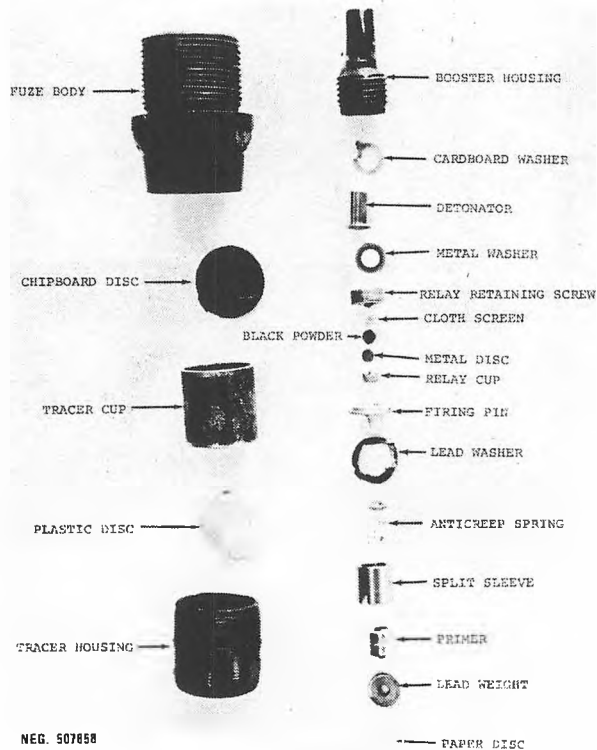
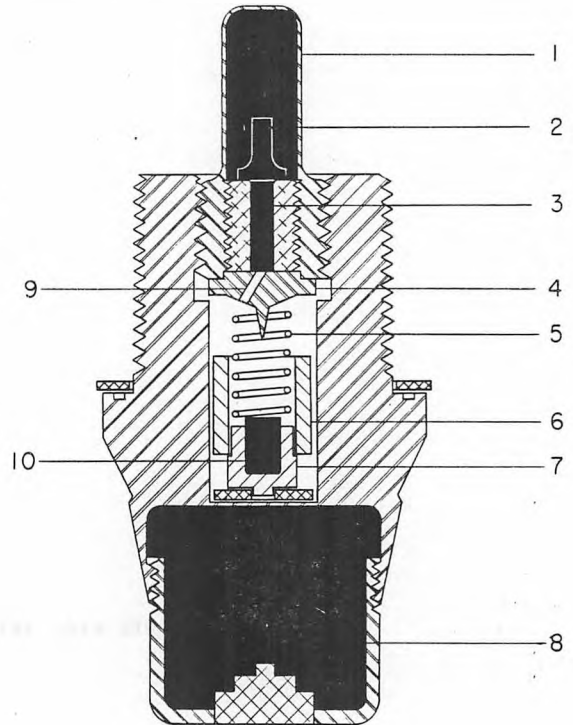
FOM-1390-2-1-23-8
NOMEN: FUZE, BASE-DETONATING, MODEL MD-10 (U)

PRODUCED/ADOPTED: ?/1941

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



NEG. 511740



NEG. 507858

U N C L A S S I F I E D

FOM-1390-2-1-23-B

NOMEN: FUZE, BASE-DETONATING, MODEL MD-10 (U)

PRODUCED/ADOPTED: 7/1941

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JUL72
VOLUME 06 PAGE 42

U N C L A S S I F I E D

NOMEN: FUZE, TIME, MODEL T-5 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ДИСТАНЦИОННЫЙ ВЗРЫВАТЕЛЬ Т-5
PRODUCED/ADOPTED: ?/1939DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET TIME FUZE MODEL T-5 IS THE FIFTH MODEL OF THE T FUZE SERIES. THE T-5 FUZE WAS DESIGNED FOR FRAGMENTATION PROJECTILES USED IN 76-MM AND 85-MM ANTI-AIRCRAFT GUNS. IT IS A BORE-SAFE, POWDER-TRAIN FUZE HAVING THE SOVIET SAFETY CLASSIFICATION OF "SAFE". THE T-5 FUZE HAS NO PROVISION FOR OTHER THAN TIME FUNCTIONING. IT HAS A MAXIMUM BURNING TIME OF APPROXIMATELY 32 SECONDS. THE TIME-SCALE RING IS GRADUATED FROM "5" TO "165." MODELS OF MORE RECENT MANUFACTURE DISCARD THE SETTINGS "YA" AND "K." ON THE FORMER SETTING, THE FUZE DOES NOT FUNCTION AND THE PROJECTILE HAS A SOLID-SHOT EFFECT ON THE TARGET. THE LATTER IS A ZERO-POINT SETTING WHICH PRODUCES A BURST ABOUT 3 TO 10 METERS FROM THE GUN MUZZLE.

(U)THE FUZE IS SHIPPED WITH A SETTING OF "10." ACCORDING TO REGULATIONS, THE LOWEST PERMISSIBLE SETTING IS "8." LOWER SETTINGS ARE USED ONLY WHEN DEFENDING A GUN BATTERY AGAINST ATTACKING AIRCRAFT. INTERNALLY, THE T-5 FUZE IS COMPARABLE TO THE T-3 (UG) FUZE. THE TRAIN OF ACTION OF THE T-5 IS ESSENTIALLY THE SAME AS THAT OF THE T-3 (UG), THE DIFFERENCE BEING IN THE ADDITION OF AN OPERATION IN THE BASE OF THE FUZE BETWEEN THE FLASH CHANNEL AND THE BOOSTER.

(U)AT SETTINGS OF "YA" OR BEYOND "165," THE FUZE WILL NOT FUNCTION. AT ANY SETTING BETWEEN "K" AND "5," CANISTER ACTION WILL RESULT. AT ANY OTHER SETTING, TIME ACTION WILL RESULT.

(U)REGARDLESS OF THE SETTING OF THE TIME-SCALE RING, WHEN THE PROJECTILE IS FIRED, THE SLIDER SETBACK LOCKING PIN (6) OVERCOMES THE TENSION OF ITS SPRING AND SETS BACK INTO THE SLIDER (8). THE SLIDER HOUSES THE DETONATOR (7) AND HOLDS IT IMMOBILE. AS THE PROJECTILE ROTATES THROUGH THE BORE, CENTRIFUGAL FORCE CAUSES THE TWO SLIDER LOCKING PINS (10) AND (11) TO COMPRESS THEIR SPRINGS AND MOVE OUTWARD, AWAY FROM THE SLIDER. AFTER THE PROJECTILE HAS LEFT THE BORE AND SETBACK FORCE CEASES, THE SLIDER SETBACK LOCKING-PIN SPRING RETURNS THE SLIDER SETBACK LOCKING PIN TO ITS ORIGINAL POSITION, AWAY FROM THE SLIDER. CENTRIFUGAL FORCE THEN ACTS UPON THE SLIDER COUNTERWEIGHT TO MOVE THE SLIDER. THIS MOVE ALINES THE DETONATOR WITH THE FLASH CHANNEL AND THE BOOSTER (9). AT THE SAME TIME, THE FIRING PIN (1) OVERCOMES THE RESISTANCE OF ITS SPRING AND MOVES REARWARD UNTIL IT STRIKES AND IGNITES THE PRIMER (3). THE FLASH FROM THE PRIMER IS TRANSMITTED TO THE UPPER TIME RING (2), WHERE IT IGNITES THE POWDER TRAIN. IF THE FUZE IS SET FOR TIME FUNCTIONING, THE POWDER TRAIN BURNS SUCCESSIVELY THROUGH THE CENTER TIME RING (4) AND THE LOWER TIME RING (5), THEN PASSES THE FLAME THROUGH THE FLASH CHANNEL TO ACTUATE THE DETONATOR, WHICH INITIATES THE BOOSTER. IF THE FUZE IS SET AT "K," THE ACTION IS ESSENTIALLY THE SAME, EXCEPT THAT THE POWDER TRAIN BURNS THROUGH THE TIME RINGS IN THE MOST DIRECT MANNER, AND THE PROJECTILE BURSTS DANGEROUSLY CLOSE TO THE GUN MUZZLE. IF THE FUZE IS SET SO AS NOT TO FUNCTION, THE TIME RINGS ARE POSITIONED TO STOP THE POWDER TRAIN FROM BURNING BEYOND THE UPPER TIME RING.

U N C L A S S I F I E D

FOM-1390-2-1-26-A
NOMEN: FUZE, TIME, MODEL T-5 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: ?/1939

CURRENT STATUS: ----- OBSOLETE IN U.S.S.R.

USING COUNTRIES: ----- 002

BOOSTER:

BODY MATERIAL ----- STEEL
BODY LENGTH (MM) -- 15.2
FILLER MATERIAL --- TETRYL
FILLER WEIGHT (G) - 73.7

PERFORMANCE:

ARMING DISTANCE(M)- 3 TO 8
ARMING TIME ----- ?
SELF-DESTRUCT TIME VARIABLE, 1.6 TO 32 SEC APRX
DELAY TIME ----- N/A
MIN TIME SETTING -- 1.6 SEC
MAX TIME SETTING -- 32 SEC

FUZE ASSEMBLY COMPLETE:

TYPE ----- TIME
MODEL ----- T-5
BODY MATERIAL ----- ALUMINUM
LENGTH OVERALL (MM) -- 156.9
LENGTH EXPOSED (MM) -- 128.0
MAXIMUM DIAMETER (MM)- 63.5
MAJ THREAD DIAM (MM) - 51.5
THREAD PITCH (METRIC)- 3.00 MM
WEIGHT COMPLETE (G) -- 0.708
MARKINGS ----- T-5

USING PROJECTILES: -- 76-MM FRAG 0-361
- 0-361D; 85-MM, FRAG, 0-365

USING WEAPONS: ----- 76-MM ANTI-AIRCRAFT GUN M1939
- 85-MM ANTI-AIRCRAFT GUN KS-12

REFERENCES: -----

FUNCTIONAL DATA:

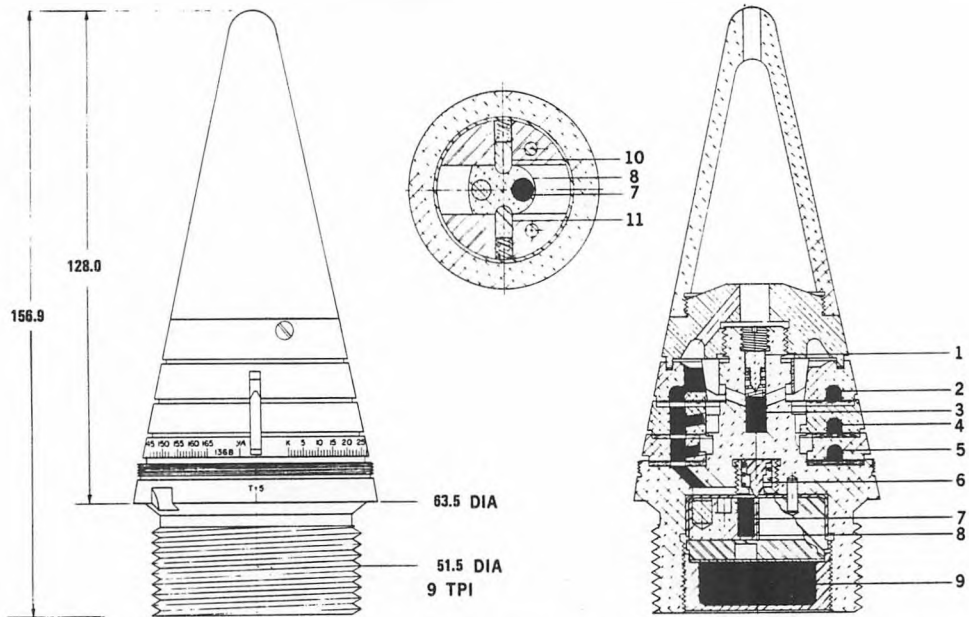
ARMING METHOD ----- SETBACK
SELF-DESTR METHOD ---- TIME SETTING
TYPE SAFETY DEVICE --- OUT-OF-LINE DETONATOR

REMARKS:

FOM-1390-2-1-26-B
 NOMEN: FUZF, TIME, MODEL T-5 (U)
 PRODUCED/ADOPTED: ?/1939

UNCLASSIFIED

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77
 COUNTRY: U.S.S.R.



NEG. 507859

- 1. Firing Pin
- 2. Upper time ring
- 3. Primer
- 4. Center time ring
- 5. Lower time ring
- 6. Slider setback locking pin
- 7. Detonator
- 8. Slider
- 9. Booster
- 10 & 11. Slider locking pins



NEG 507860

DATE CATALOGED: 01JUL66
 VOLUME 06

UNCLASSIFIED

FOM-1390-2-1-26-B
NOMEN: FUZE, TIME, MODEL T-5 (U)
PRODUCED/ADOPTED: ?/1939

U N C L A S S I F I E D

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JUL66
VOLUME 06 PAGE 46

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-2-1-27-A

CATALOG: TB-381-5-06

NOMEN: FUZE, TIME AND SUPERQUICK, MODEL T-6 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ТРУБКА ДВОЙНОГО ДЕЙСТВИЯ Т-6
PRODUCED/ADOPTED: ?/1938

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET POINT-DETONATING TIME AND SUPERQUICK FUZE MODEL T-6 HAS SETTINGS FOR TIME ACTION AND FOR SUPERQUICK ACTION. THE TIME SCALE IS GRADUATED FROM "10" TO "139." THERE ARE ADDITIONAL SETTINGS MARKED "YA" AND "K" ON THE TIME-SCALE RING. THE SETTING "YA" IS FOR NONDELAY IMPACT ACTION; "K" IS A CANISTER-EFFECT SETTING FOR USE WITH SHRAPNEL PROJECTILES. A RED BAND APPROXIMATELY 25 MM BELOW THE POINT MIGHT BE FOUND ON THIS FUZE. THE FUZE IS SHIPPED WITH A SAFETY CAP WHICH MUST BE REMOVED TO SET THE TIME RINGS.

(U)TWO ACTIONS OCCUR SIMULTANEOUSLY ON SETBACK: THE ACTION IN THE FORWARD END (DISCUSSED FIRST) AND THE ACTION IN THE BASE OF THE BODY (DISCUSSED SECONDLY).

(U)THE FIRING PIN (1), WHICH IS HELD AWAY FROM THE PRIMER BY THE FIRING-PIN (2), COMPRESSES THE SPRING AND PIERCES THE PRIMER (5). THE FLASH FROM THE PRIMER IS DISSIPATED AROUND THE COMPRESSION RING (3) AS IT ESCAPES THROUGH THE FOUR VENT HOLES (4) AND (12) IN THE FUZE BODY STEM. SUFFICIENT FLASH HEAT MELTS A FOIL DISK AND IGNITES THE LOOSE BLACK POWDER GRAINS (14) IN THE UPPER RING (13), INITIATING BURNING OF THE POWDER TRAIN. THE BURNING POWDER IN THIS UPPER RING PROGRESSES TO A POINT WHERE THE FLAME CONTACTS AND IGNITES THE INTERMEDIATE RING PELLET (15). THE SAME CYCLE IS THEN REPEATED IN THE INTERMEDIATE (16) AND LOWER (17) RINGS. WHEN THE FLASH FROM THE LOWER RING REACHES THE FLASH HOLE (18) IN THE FUZE BODY (19), IT IGNITES THE BLACK POWDER MAGAZINE CHARGE (20). THE TOTAL BURNING TIME OF THE FUZE IS DETERMINED BY THE RELATIVE POSITIONING OF THE TRANSFER CHANNELS IN THE TIME-SETTING RINGS.

(U)ARMING OF THE IMPACT FUNCTIONING MECHANISM HOUSED IN THE BASE OF THE BODY ALSO BEGINS WITH THE SETBACK FORCE. THE PRIMER HOUSING (9) MOVES REARWARD, AND COMPRESSES THE PRONGS OF THE STIRRUP (10), WHICH ENTER AND ENGAGE AN INNER RECESS (8) IN THE PRIMER HOUSING. UPON IMPACT WITH THE TARGET, THE ENTIRE IMPACT FUNCTIONING MECHANISM MOVES FORWARD, IMPINGING THE PRIMER (7) AGAINST THE FIXED FIRING-PIN POINT (6). WITH THIS ACTION, THE BASE OF THE PRIMER HOLDER WITHDRAWS FROM THE CENTRAL HOLE IN THE PRIMER RETAINER (11), PROVIDING AN ORIFICE FOR THE PASSAGE OF THE FLASH FROM THE FUNCTIONED PRIMER TO THE BLACK POWDER MAGAZINE CHARGE. WHEN THE FUZE IS SET FOR NONDELAY IMPACT ACTION, THE FLASH CHANNEL TO THE TIME-SETTING RINGS IS BLOCKED.

U N C L A S S I F I E D

FDM-1390-2-1-27-A
 NOMEN: FUZE, TIME AND SUPERQUICK, MODEL T-6 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ?/1938

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- ?

BOOSTER:

USING COUNTRIES: ----- 002

BODY MATERIAL ----- N/A
 BODY LENGTH (MM) -- N/A
 FILLER MATERIAL --- N/A
 FILLER WEIGHT (G) - N/A

FUZE ASSEMBLY COMPLETE:

PERFORMANCE:

TYPE ----- COMBINATION (TIME/IMPACT)
 MODEL ----- T-6
 BODY MATERIAL ----- ALUMINUM
 LENGTH OVERALL (MM) -- 156.2
 LENGTH EXPOSED (MM) -- 127.5
 MAXIMUM DIAMETER (MM)- 63.7
 MAJ THREAD DIAM (MM) - 34.2
 THREAD PITCH (METRIC)- 4.50 MM
 WEIGHT COMPLETE (G) -- .540
 MARKINGS ----- T-6

ARMING DISTANCE(M)- *1
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME VARIABLE, 10 TO 139 SEC
 DELAY TIME ----- N/A
 MIN TIME SETTING -- ?
 MAX TIME SETTING -- ?

USING PROJECTILES: -- *2

USING WEAPONS: ----- *3

FUNCTIONAL DATA:

REFERENCES: -----

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- TIMESETTING
 TYPE SAFETY DEVICE --- SETBACK SPRINGS

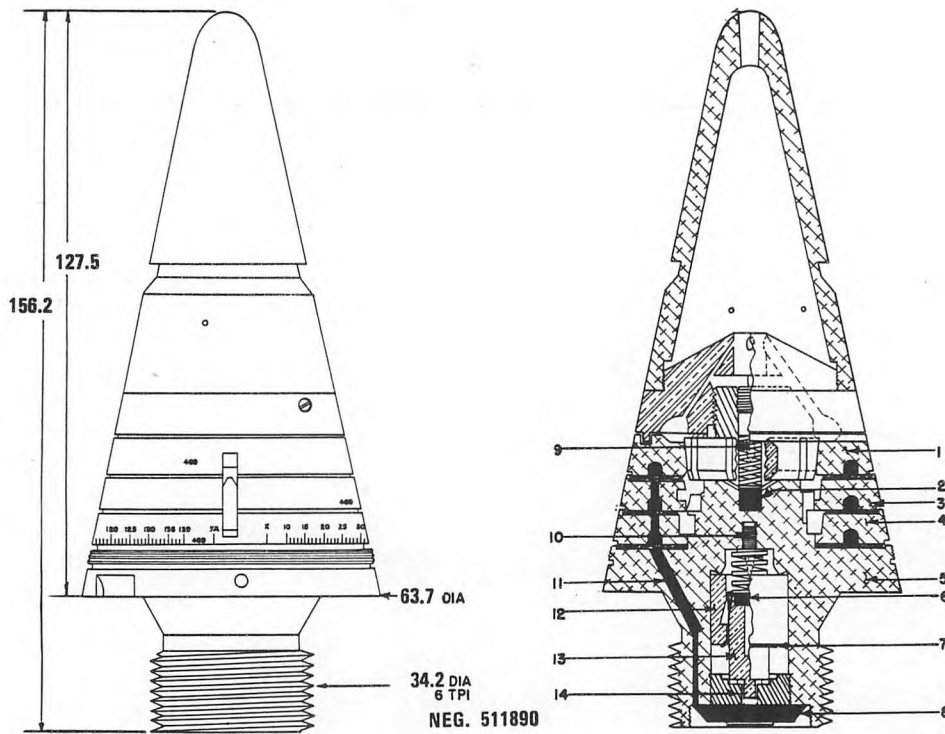
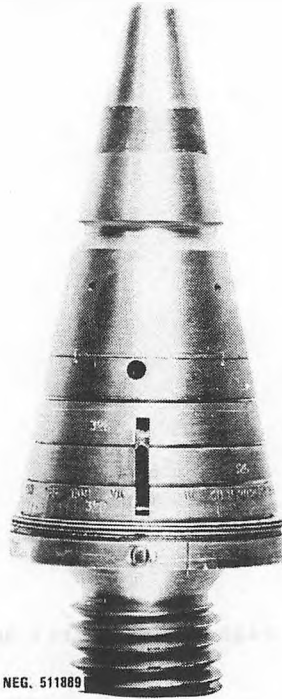
REMARKS:

1/ THE ARMING DISTANCE IS NOT KNOWN FOR THE NONDELAY, IMPACT SETTING, BUT FOR THE CANISTER-EFFECT SETTING IT IS BETWEEN 19.8 AND 30.5 M
 2/ 76-MM, SHRAP SH-354T, 76-MM SHRAP, SH-354U
 122-MM, ILLUM, S-462, 122-MM, PROP, A-462
 122-MM, SHRAP, SH-460, 122-MM, SHRAP, SH-460T
 152-MM, SHRAP, SH-501T
 3/ 76-MM, FIELD GUN M1939, 76-MM FIELD GUN M1942, 122-MM, HOWITZER M1938, 152-MM HOWITZER M1943, SU-76 SUPPORT GUN

UNCLASSIFIED

FOM-1390-2-1-27-8
NOMEN: FUZE, TIME AND SUPERQUICK, MODEL T-6 (U)
PRODUCED/ADOPTED: ?/1938

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



DATE CATALOGED: 01JUL66
VOLUME 06

UNCLASSIFIED

U N C L A S S I F I E D

FOM-1390-2-1-27-B
NOMEN: FUZE, TIME AND SUPERQUICK, MODEL T-6 (U)

PRODUCED/ADOPTED: ?/1938

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JUL66
VOLUME 06 PAGE 50

U N C L A S S I F I E D

NOMEN: FUZE, TIME AND SUPERQUICK, MODEL T-7 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ТРУБКА ДВОЙНОГО ДЕЙСТВИЯ Т-7
PRODUCED/ADOPTED: ?/1938DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL T-7 FUZE IS A TIME AND POINT-DETONATING SUPERQUICK FUZE WITH SETTINGS FOR TIME ACTION AND FOR SUPERQUICK ACTION. IT CONTAINS A POWDER TRAIN, AND IS BORES SAFE. THE T-7 IS QUITE SIMILAR IN DESIGN AND FUNCTION TO THE MODEL T-6, DIFFERING IN THAT ITS TIME SCALE IS GRADUATED FROM 5 TO 165, INSTEAD OF FROM 10 TO 139 AS IN THE CASE OF THE T-6. THE T-7 FUZE IS IDENTIFIED BY THE VIOLET-COLORED BAND ON THE SHIPPING CAP AND ON THE WINDSHIELD. IT CAN BE USED IN THE SAME PROJECTILES, AND FIRED FROM THE SAME WEAPONS, AS CAN THE T-6. THE FUZE IS SHIPPED WITH A SAFETY CAP WHICH MUST BE REMOVED IN ORDER TO SET THE TIME RINGS. THERE ARE ALSO ADDITIONAL INDEXES, MARKED "YA" AND "K" ON THE TIME SCALE RINGS. THE LETTERS "YA" INDICATE A SETTING FOR NONDELAY-IMPACT ACTION, AND "K" INDICATES A CANISTER-EFFECT SETTING.

(U)UPON FIRING OF THE PROJECTILE, WHEN THE FUZE IS SET FOR TIME FIRE, SETBACK CAUSES THE STRIKER (1) TO OVERCOME THE RESISTANCE OF THE STRIKER SPRING (2), AND TO STRIKE THE POWDER TRAIN INITIATING PELLET (4). FLAME FROM THE PELLET IGNITES THE POWDER TRAIN IN THE UPPER TIME RING (3), WHICH BURNS UNTIL THE FLAME REACHES THE TRANSFER CHANNEL TO THE MIDDLE TIME RING (5), IGNITING ITS POWDER TRAIN. THIS PROCESS IS REPEATED TO THE LOWER TIME RING (7). WHEN THE FLAME REACHES THE FLASH CHANNEL (6) TO THE DETONATOR BOOSTER (10), THE PROJECTILE IS EXPLODED. THE TOTAL BURNING TIME OF THE FUZE IS DETERMINED BY THE RELATIVE POSITIONING OF THE TRANSFER CHANNELS IN THE TIME SETTING RINGS.

(U)WHEN THE FUZE IS SET FOR NONDELAY-IMPACT, ACTION THE FLASH CHANNEL TO THE TIME SETTING RINGS IS BLOCKED, UPON BEING FIRED, SETBACK FORCES THE SAFETY BUSHING (11) DOWN OVER THE PRIMER CARRIER (13), WHEREUPON THE PRONGS OF THE PRIMER CARRIER BECOME ENGAGED IN THE GROOVE OF THE SAFETY BUSHING, RETAINING THE BUSHING IN THE REARWARD POSITION. THE FUZE IS NOW ARMED. UPON IMPACT, THE PRIMER CARRIER AND SAFETY BUSHING ARE DRIVEN FORWARD AGAINST THE FIRING PIN (9), IGNITING THE PRIMER (8). FLAME FROM THE PRIMER IS CARRIED TO THE DETONATOR BOOSTER, AND THE PROJECTILE IS EXPLODED.

(U)WHEN SET FOR CANISTER-EFFECT FIRE, THE FLAME TRANSFER CHANNEL HOLES IN THE THREE TIME RINGS ARE ALL SET IN A LINE WITH THE FLASH CHANNEL (6). THIS GIVES THE PROJECTILE SUFFICIENT TIME TO TRAVEL BETWEEN 19.8 AND 30.5 METERS FROM THE GUN BEFORE EXPLODING.

U N C L A S S I F I E D

FOM-1390-2-1-28-A
 NOMEN: FUZE, TIME AND SUPERQUICK, MODEL T-7 (U)

CATALOG: TB-381-5-09
 DATE REVIEWED: 28JAN7
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ??1938

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 002,010

BOOSTER:
 BODY MATERIAL ----- ALUMINUM
 BODY LENGTH (MM) -- 23.3
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - ?

FUZE ASSEMBLY COMPLETE:
 TYPE ----- *1
 MODEL ----- T-7
 BODY MATERIAL ----- ALUMINUM
 LENGTH OVERALL (MM) -- 157.4
 LENGTH EXPOSED (MM) -- ?
 MAXIMUM DIAMETER (MM)- 63.5
 MAJ THREAD DIAM (MM) - 35.5
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- 0.540
 MARKINGS ----- T-7

PERFORMANCE:
 ARMING DISTANCE(M)- *3
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME VARIABLE, 5 TO 165 SEC
 DELAY TIME ----- N/A
 MIN TIME SETTING -- ?
 MAX TIME SETTING -- 32 SEC

USING PROJECTILES: -- *4

USING WEAPONS: ----- 122-MM HOWITZER M1938
 - 152-MM HOWITZER M1943

FUNCTIONAL DATA:
 ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- TIME SETTING
 TYPE SAFETY DEVICE --- *2

REFERENCES: -----

REMARKS:

- 1/ COMBINATION (TIME AND IMPACT)
- 2/ SHIPPING CAP AND SETBACK SPRINGS

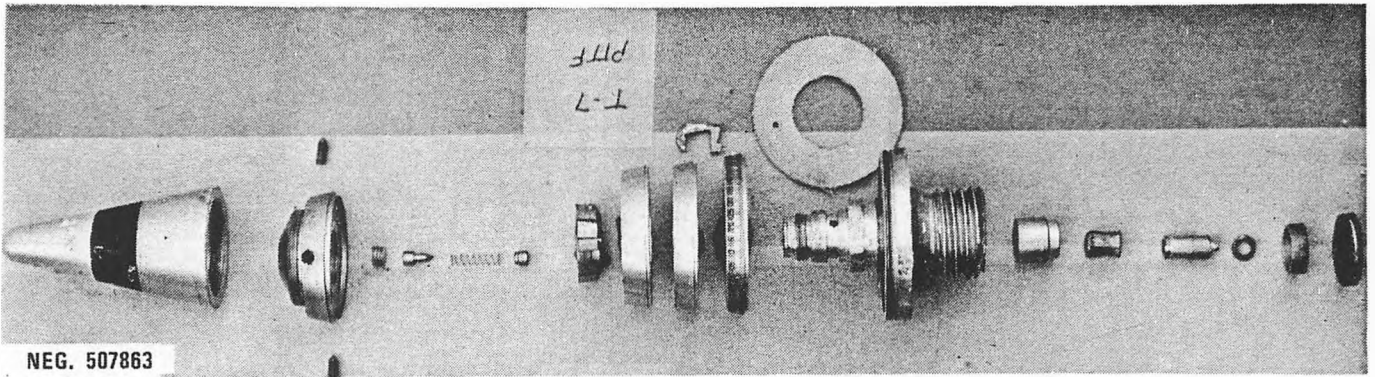
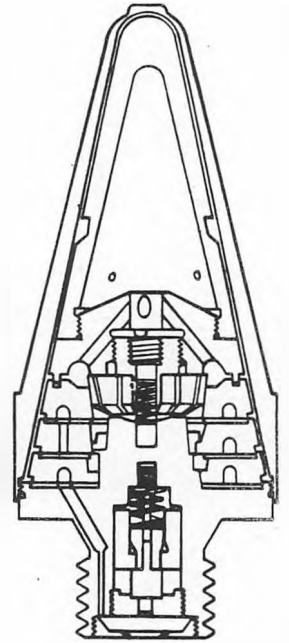
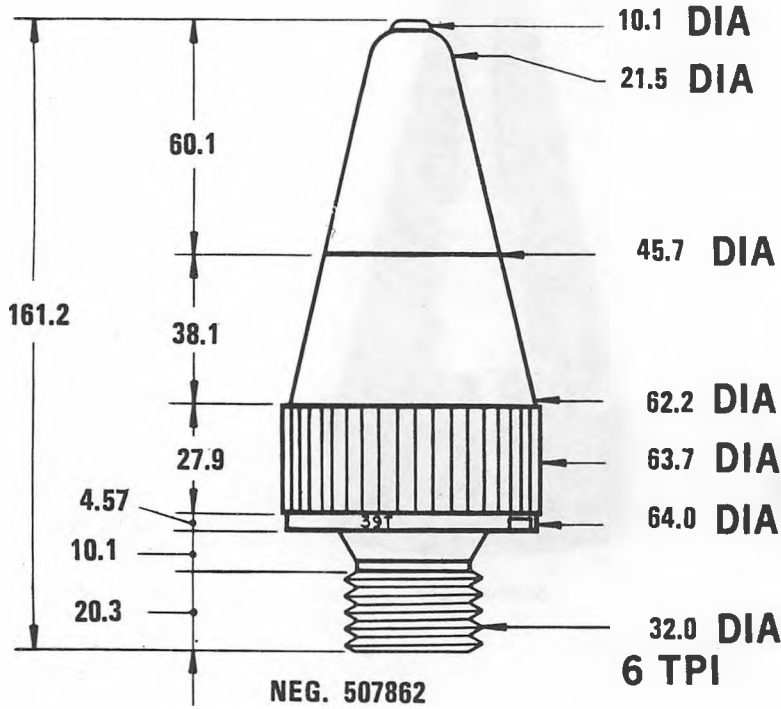
3/ THE ARMING DISTANCE IS NOT KNOWN FOR THE NONDELAY-IMPACT SETTING, BUT FOR THE CANISTER-EFFECT SETTING IT IS BETWEEN 19.8 AND 30.5 M

4/ 122-MM, SHRAP, SH-460T, 122-MM, ILLUM,
 5-462, 122-MM, PROP, A-462, 152-MM, SHRAP
 SH-501T

FDM-1390-2-1-28-B
NOMEN: FUZE, TIME AND SUPERQUICK, MODEL T-7 (U)

PRODUCED/ADOPTED: 7/1938

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



U N C L A S S I F I E D

FOM-1390-2-1-28-B

NOMEN: FUZE, TIME AND SUPERQUICK, MODEL T-7 (U)

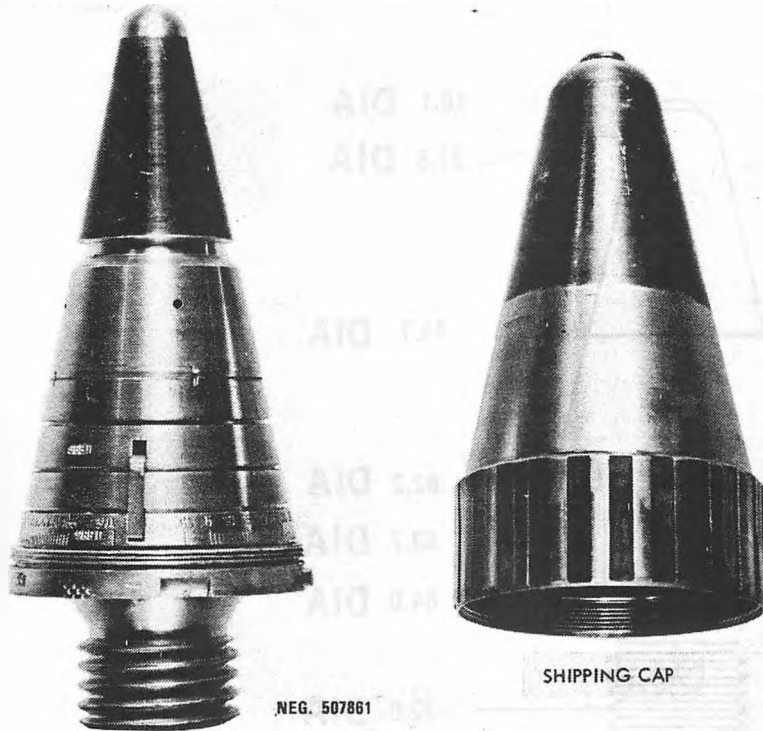
PRODUCED/ADOPTED: ?/1938

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.



NEG. 507861

DATE CATALOGED: 01JAN65
VOLUME 06 PAGE 54

U N C L A S S I F I E D

NOMEN: FUZE, POINT-DETONATING, MODEL KTM-1 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНОЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ КТМ-1
PRODUCED/ADOPTED: ???DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET POINT-DETONATING IMPACT FUZE MODEL KTM-1 PROVIDES INSTANTANEOUS OR DELAY ACTION, AS REQUIRED. IN GENERAL, ACTION IS INSTANTANEOUS WHEN THE KNURLED CAP (1) IS REMOVED, OR SHORTLY DELAYED WHEN THE CAP IS IN PLACE. DELAY IS OBTAINED THROUGH THE SLOWER MOVEMENT OF COMPONENTS AS A RESULT FOR INERTIA, AND THROUGH A LONGER FLASH PATH, RATHER THAN THROUGH A CHEMICAL OR PYROTECHNIC DELAY ELEMENT.

(U)ON FIRING, SETBACK CAUSES THE SLEEVE (5) TO MOVE REARWARD OVER THE PRONGS OF THE STIRRUP (6). THE FOUR PRONG ENDS THEN ENGAGE THE INNER GROOVE OF THE SLEEVE. WHEN SETBACK CEASES, THE SLEEVE IS MOVED FORWARD BY THE SLEEVE SPRING (7), MOVING THE STIRRUP WITH IT. THIS, IN TURN, CARRIES THE PRIMER HOLDER ASSEMBLY (8) FORWARD. THIS MOTION OF THE PRIMER HOLDER OPENS THE FLASH HOLE (10) IN THE BASE OF THE FUZE BODY, ARMING THE FUZE. THIS FLASH HOLE IS SEALED DURING BOTH SHIPMENT AND FIRING BY THE PRIMER HOLDER AND BY THE ALUMINUM SEALING CUSHION (9).

(U)IF THE SAFETY CAP IS REMOVED, IMPACT OF THE PROJECTILE WILL DRIVE THE FIRING PIN (2) INTO THE PRIMER (4) WHICH, IN TURN, WILL INITIATE THE DETONATOR (11) AND THE BOOSTER (12).

(U)WHEN THE FUZE IS FIRED WITH THE SAFETY CAP IN PLACE, FUNCTIONING ON IMPACT IS CAUSED BY THE INERTIA OF THE PRIMER ASSEMBLY OVERCOMING THE RESISTANCE OF THE RETAINER DISK (3) TO DRIVE THE PRIMER ONTO THE FIRING PIN. THIS TYPE OF ACTION WILL RESULT IN DELAYED FUNCTIONING.

U N C L A S S I F I E D

FOM-1390-2-1-33-A
 NOMEN: FUZE, POINT-DETONATING, MODEL KTM-1 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ???

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- ?

BOOSTER:

USING COUNTRIES: ----- U.S.S.R.

BCDY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 30.2
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - 7.6

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
 MODEL ----- KTM-1
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 95.2 W/CAP 93.2 W/O
 LENGTH EXPOSED (MM) -- 42.0
 MAXIMUM DIAMETER (MM) - 39.8
 MAJ THREAD DIAM (MM) - 36.0
 THREAD PITCH (METRIC) - 2.50 MM
 WEIGHT COMPLETE (G) -- 367.4
 MARKINGS ----- SEE PHOTO

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- ?
 MIN TIME SETTING -- ?
 MAX TIME SETTING -- ?

USING PROJECTILES: -- *2

USING WEAPONS: ----- *3

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ----- NONE
 TYPE SAFETY DEVICE --- *1

REMARKS:

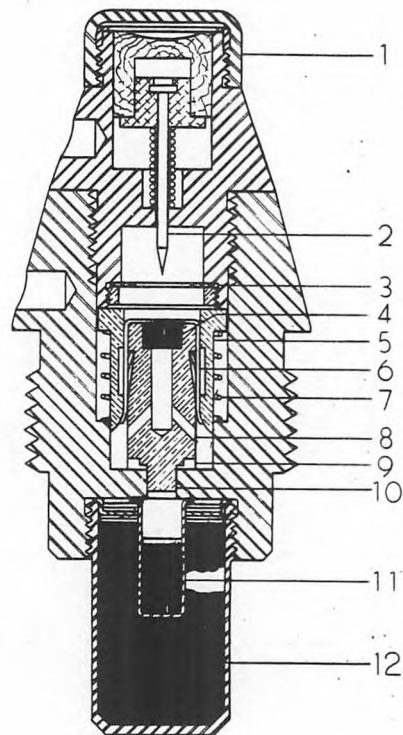
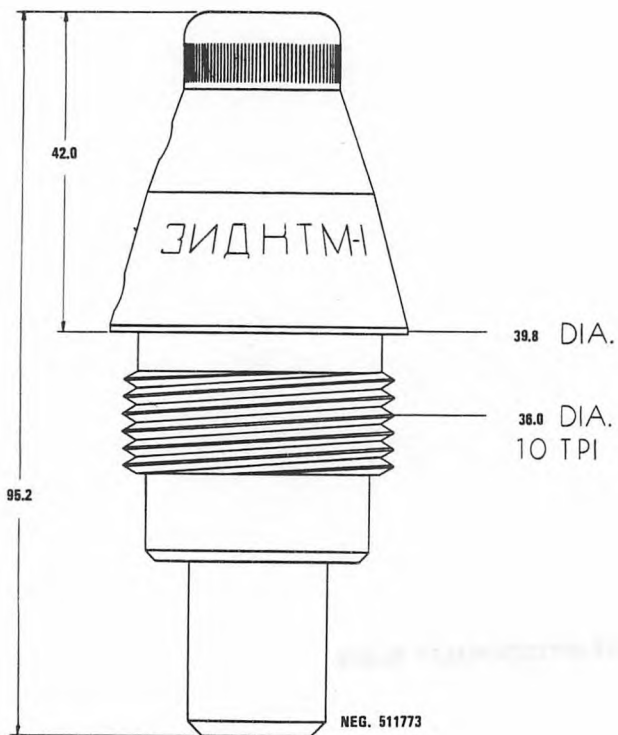
1/ SLEEVE SPRING, BARRIER IN FLASH PATH
 2/ 45-MM, FRAG, O-240, O-240A & O-240M;
 57-MM, FRAG, O-271 & O-271U; 76-MM,
 FRAG-HE, OF-343, OF-350 & OF350A;
 76-MM, FRAG; O-350A, 76-MM SMOKE,
 D-350A; 76-MM, FRAG-GAS, OKH-350;
 85-MM, FRAG, O-365 & O-365K.

3/ 45-MM ANTITANK GUN M1942; 57-MM
 ANTITANK GUNS M1941 & 1943; ASU-57
 ASSAULT GUN; 76-MM FIELD GUNS
 M1939 & M1942; PT-76 TANK SU-76
 SUPPORT GUN 85-MM ANTIAIRCRAFT GUN
 KS-12 85-MM AUXILLARY ROPELLED
 ANTITANK GUN D-44; 85-MM TANK GUNS
 M 1943 & M1944; ASU-85 & SU-85
 ASSAULT GUNS.

UNCLASSIFIED

FOM-1390-2-1-33-B
NOMEN: FUZE, POINT-DETONATING, MODEL KTM-1 (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



FOM-1390-2-1-33-B

NOMEN: FUZF, POINT-DETONATING, MODEL KTM-1 (U)

PRODUCED/ADOPTED: ???

U N C L A S S I F I E D

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JUL66
VOLUME 06 PAGE 58

U N C L A S S I F I E D

NOMEN: FUZE, POINT-DETONATING, MODEL KTM-1-U (U)

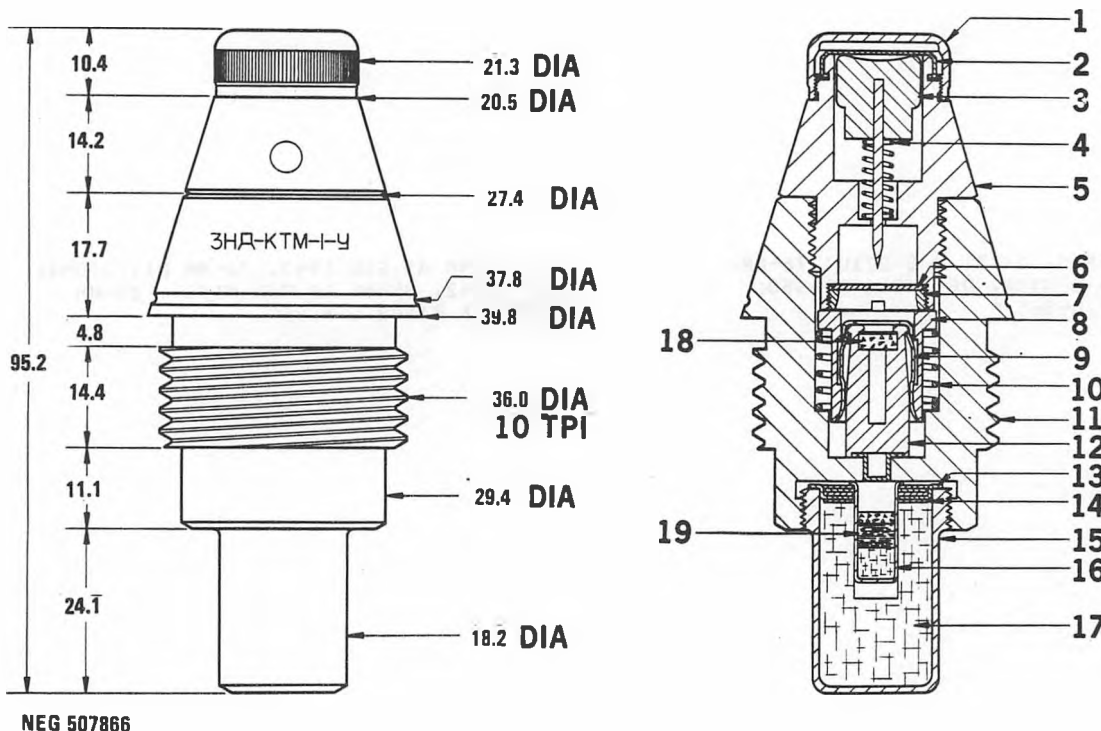
DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНОЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ КТМ-1-У
 PRODUCED/ADOPTED: ?/1943

DATE UPDATED: 28JAN77
 COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL KTM-1U POINT-DETONATING IMPACT FUZE IS A BORESAFE FUZE ARMED BY SETBACK. THE FUZE IS PROVIDED WITH A NOSE CAP WHICH, IF LEFT IN PLACE WHEN THE PROJECTILE IS FIRED, RESULTS IN A SLIGHT DELAY ACTION. WHEN THE NOSE CAP IS REMOVED, THE ACTION OF THE FUZE IS INSTANTANEOUS UPON IMPACT. THIS FUZE IS A MODIFICATION OF THE MODEL KTM-1, AND CAN BE USED WITH THE SAME PROJECTILES WITH WHICH THE KTM-1 IS USED.

(U)UPON FIRING OF THE PROJECTILE, SETBACK FORCES THE ARMING SLEEVE (4) REARWARD, COMPRESSING THE ARMING SPRING (6), AND PERMITTING THE STIRRUP PRONGS (7) TO LOCK INTO THE GROOVE CUT IN THE SLEEVE. THIS LOCKS THE ARMING SLEEVE TO THE PRIMER CARRIER (8). THE FUZE IS NOW ARMED, AND THE ARMING SPRING MOVES THE ARMING SLEEVE AND PRIMER CARRIER FORWARD UNTIL THE NOSE OF THE CARRIER IS STOPPED BY THE SAFETY RING (3). FOR INSTANTANEOUS ACTION, THE NOSE CAP (1) IS REMOVED SO THAT, UPON IMPACT, THE FIRING PIN (2) IS DRIVEN INTO THE PRIMER (5), IGNITING IT. FLAME FROM THE PRIMER PASSES THROUGH THE FLASH HOLE (9) IN THE FUZE BODY BASE, NOW OPEN BECAUSE THE PRIMER CARRIER IS IN THE FORWARD POSITION. THIS IGNITES THE DETONATOR (10) AND THE BOOSTER (11), THUS EXPLODING THE MAIN CHARGE IN THE PROJECTILE. FOR DELAY ACTION, THE FUZE IS FIRED WITH THE NOSE CAP IN PLACE. THIS PREVENTS THE FIRING PIN FROM BEING DRIVEN INTO THE PRIMER UPON IMPACT, SO THAT THE FUZE IS ACTUATED INSTEAD BY INERTIA CAUSING THE ARMING SLEEVE AND PRIMER CARRIER TO MOVE FORWARD TO SHEAR THE SAFETY RING, AND TO DRIVE THE PRIMER ONTO THE FIRING PIN. THIS ACTION TAKES SOMEWHAT LONGER TO ACTUATE THE FUZE THAN WHEN THE FIRING PIN IS DRIVEN BACK INTO THE PRIMER, THUS PRODUCING A SLIGHT DELAY AFTER IMPACT, AND ALLOWING THE PROJECTILE TO PENETRATE THE TARGET BEFORE EXPLODING.



U N C L A S S I F I E D

FOM-1390-2-1-33-1-A
 NOMEN: FUZE, POINT-DETONATING, MODEL KTM-1-U (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ?/1943

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- 002

BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 30.1
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - ?

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- ?
 MIN TIME SETTING --- N/A
 MAX TIME SETTING -- N/A

TYPE ----- IMPACT
 MODEL ----- KTM-1-U
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 95.2
 LENGTH EXPOSED (MM) -- 52.6
 MAXIMUM DIAMETER (MM)- 39.6
 MAJ THREAD DIAM (MM) - 35.5
 THREAD PITCH (METRIC)- 2.50 MM
 WEIGHT COMPLETE (G) -- 357.2
 MARKINGS ----- KTM-1-Y

USING PROJECTILES: -- *1

USING WEAPONS: ----- *2

FUNCTIONAL DATA:

REFERENCES: -----

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- SETBACK ARMING SLEEVE

REMARKS:

1/ 57-MM, FRAG, O-271 & O-271U; 76-MM,
 FRAG, O-350, O-350A, OF-343 & OF-350;
 85-MM, FRAG, O-365 K

2/ 57-MM AT GUN 1943, 76-MM DIVISIONAL
 GUN M1942, 85-MM AA GUN M1939, 85-MM
 TANK GUN M1943 & M1944.

FOM-1390-2-1-35-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, POINT-DETONATING, MODEL KTMZ-1 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНОЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ КТМЗ-1
PRODUCED/ADOPTED: ?/1942

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL KTMZ-1 POINT-DETONATING FUZE HAS A NOSE CAP (1) WHICH MUST BE REMOVED PRIOR TO FIRING. ON FIRING, SETBACK FORCES THE SLEEVE (4) REARWARD, OVER THE PRONGS OF THE STIRRUP (5), CAUSING THE FOUR PRONG ENDS TO ENGAGE THE GROOVE INSIDE THE SLEEVE. WHEN SETBACK ENDS, THE SPRING (11) MOVES THE SLEEVE FORWARD, TAKING THE STIRRUP AND PRIMER-HOLDER ASSEMBLY (6) WITH IT. FORWARD MOTION OF THE PRIMER-HOLDER ASSEMBLY OPENS THE FLASH HOLE IN THE BASE OF THE FUZE BODY (3). DURING SHIPMENT AND FOR MUZZLE SAFETY, THIS FLASH HOLE IS SEALED WITH THE PRIMER-HOLDER ASSEMBLY AND THE ALUMINUM WASHER (12).

(U)ON IMPACT OF THE PROJECTILE, THE FIRING PIN HEAD (2) IS FORCED REARWARD, DRIVING THE FIRING PIN INTO THE PRIMER (10). IT IS ASSUMED THAT THE FLASH FROM THE PRIMER IS CARRIED BACK THROUGH FOUR SLOTS IN THE TOP PERIPHERY OF THE PRIMER-HOLDER ASSEMBLY. THE FLASH CONTINUES BACK THROUGH THE FLASH HOLE IN THE FUZE BODY, IGNITING THE BLACK POWDER DELAY (7). THE DELAY, IN TURN, INITIATES THE DETONATOR (8) WHICH ACTUATES THE BOOSTER (9).

DATE CATALOGED: 01JAN67
VOLUME 06

U N C L A S S I F I E D

PAGE 61

U N C L A S S I F I E D

FOM-1390-2-1-35-A
 NOMEN: FUZE, POINT-DETONATING, MODEL KTMZ-1 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ?/1942

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- 002

BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 30.1
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - 7.6

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- ?
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

TYPE ----- IMPACT
 MODEL ----- KTMZ-1
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 95.5
 LENGTH EXPOSED (MM) -- 42.7
 MAXIMUM DIAMETER (MM)- 39.8
 MAJ THREAD DIAM (MM) - 36.0
 THREAD PITCH (METRIC)- 2.50 MM
 WEIGHT COMPLETE (G) -- 358.3
 MARKINGS ----- KTM3-1

USING PROJECTILES: -- *1

USING WEAPONS: ----- *2

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- BARRIER IN FLASHPATH

REMARKS:

1/ 45-MM FRAG, O-240A & O-240 M;
 57-MM, HE, O-271U & O-271; 76-MM, HE,
 OF-350 & OF-350A; 85-MM, FRAG, O-365 &
 O-365 K.

2/ 45-MM AT GUN M1942,
 57-MM AT GUN M1943,
 57-MM ASSAULT GUN, ASU-57,
 76-MM FIELD GUN M1939 & M1942
 76-MM SUPPORT GUN SU-76, PT-76 TANK,
 85-MM AA GUN KS-12, 85-MM FIELD GUN D-44,
 SU-85 ASSAULT GUN, 85-MM TANK GUN 1944.

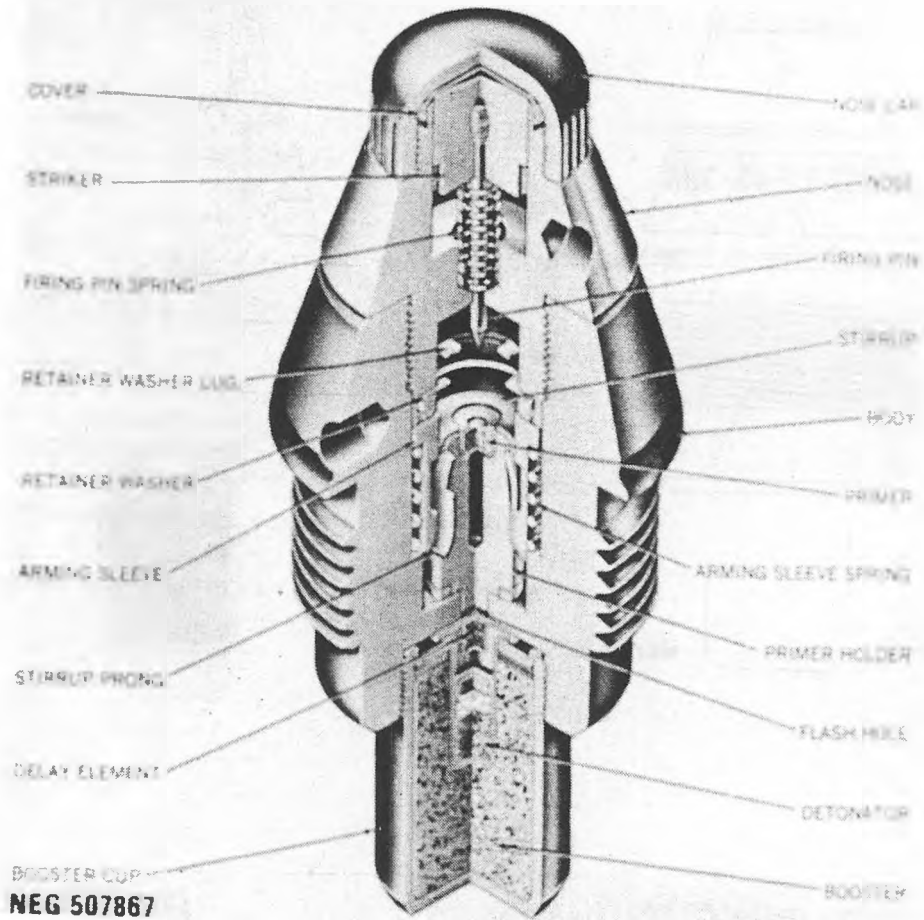
DATE CATALOGED: 01JAN67
 VOLUME 06 PAGE 62

U N C L A S S I F I E D

UNCLASSIFIED

FOM-1390-2-1-35-B
NOMEN: FUZE, POINT-DETONATING, MODEL KTMZ-1 (U)
PRODUCED/ADOPTED: ?/1942

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



NEG 507867

DATE CATALOGED: 01JAN67
VOLUME 06

UNCLASSIFIED

PAGE 63

FOM-1390-2-1-35-B

UNCLASSIFIED

NOMEN: FUZE, POINT-DETONATING, MODEL KTMZ-1 (U)

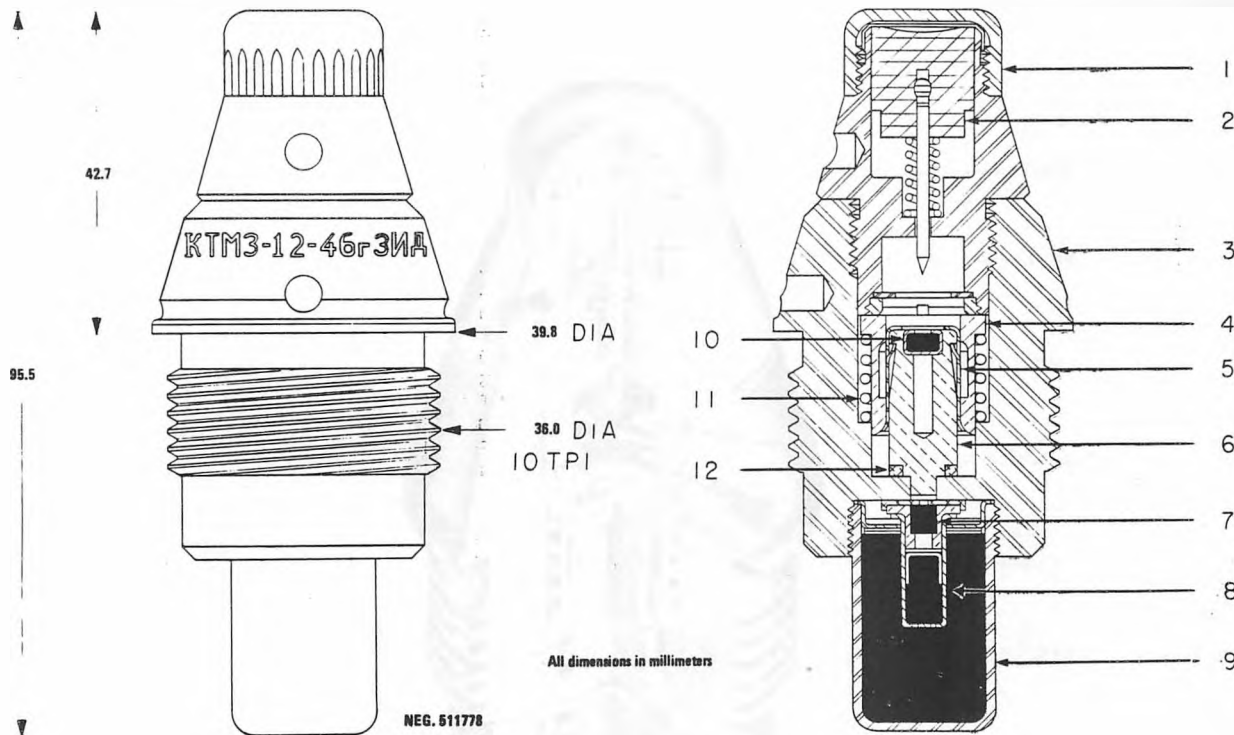
CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: 7/1942

COUNTRY: U.S.S.R.



NOMEN: FUZE, POINT-DETONATING, MODEL RGM (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНОЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ РГМ
PRODUCED/ADOPTED: ???DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET RGM FUZES HAVE REPLACED THE RG-6 FUZES, WHICH THEY CLOSELY RESEMBLE IN DESIGN AND FUNCTION. THIS FUZE IS A POINT-DETONATING FUZE DESIGNED TO PROVIDE EITHER FRAGMENTATION, HIGH-EXPLOSIVE RICOCHET, OR DELAYED HIGH-EXPLOSIVE EFFECT, DEPENDING ON THE FUZE SETTING AND THE PRESENCE OR ABSENCE OF THE FUZE CAP.

(U)ON FIRING, THE ARMING SLEEVE (1) SETS BACK, COMPRESSING THE ARMING SLEEVE SPRING (2), AND LOCKS WITH THE RETAINING BALL SLEEVE (3). SIMULTANEOUSLY, THE INERTIA SLEEVE (14), OVERCOMING THE OPPOSITION OF THE PRONGS OF THE INERTIA PIN SAFETY CLAMP, SETS BACK, COMPRESSING THE INERTIA SLEEVE SPRING (15) AND LOCKING WITH THE INERTIA PIN (16). THE SPRINGS (2) AND (15) REMAIN COMPRESSED, UNTIL THE PROJECTILE LEAVES THE BORE OF THE GUN, AT WHICH TIME THEY OVERCOME THE FORCE OF INERTIA. THE ARMING SLEEVE SPRING THEN MOVES THE ARMING SLEEVE AND THE RETAINING BALL SLEEVE FORWARD, RELEASING THE THREE RETAINING BALLS (12). SPIN CAUSES THE BALLS TO ESCAPE FROM THEIR HOUSINGS IN THE STRIKER (4) SO THAT THEY NO LONGER PREVENT MOVEMENT OF THE STRIKER OR OF THE PRIMER HOLDER (5). AT THE SAME TIME, THE INERTIA SLEEVE SPRING MOVES THE INERTIA SLEEVE FORWARD, DRAWING THE ATTACHED INERTIA PIN (16) OUT OF ITS SOCKET IN THE RELAY CHARGE HOUSING (10) TO UNLOCK THE ROTOR BODY (8). THE ROTOR BODY TURNS, UNDER THE INFLUENCE OF THE SPIRAL SPRING (7), BRINGING THE DETONATOR (9) INTO POSITION OPPOSITE THE RELAY CHARGE LEADING TO THE BOOSTER (11). THE ROTOR BODY COMES TO REST ON A CHECK PIN. FOR INSTANTANEOUS ACTION (FUZE SETTING AT "0") THE STRIKER IS DRIVEN REARWARD, ON IMPACT WITH THE TARGET, CAUSING THE FIRING PIN TO STRIKE THE PRIMER. THE FLASH PASSES DIRECTLY THROUGH AN OPENING IN THE SETTING SELECTOR INTO THE DETONATOR. THE DETONATION WAVE FROM THE DETONATOR TRAVELS THROUGH THE RELAY CHARGE WHICH ACTIVATES THE BOOSTER.

(U)FOR DELAYED ACTION (FUZE SETTING AT "3"), THE SETTING SELECTOR BLOCKS THE DIRECT CHANNEL FROM PRIMER TO DETONATOR, CAUSING THE FLASH TO REACH THE DETONATOR BY WAY OF THE POWDER DELAY PELLET (13). A SAFETY PLUNGER (6) PREVENTS MUZZLE BURSTS AT THIS SETTING, SHOULD THE FUZE PRIMER IGNITE WHILE THE PROJECTILE IS IN THE BORE OF THE WEAPON.

U N C L A S S I F I E D

FOM-1390-2-1-38-A
 NOMEN: FUZF, POINT-DETONATING, MODEL RGM (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ???

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- OBSOLETE IN U.S.S.R.

BOOSTER:

USING COUNTRIES: ----- 002

BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 20.3
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - 13.0

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
 MODEL ----- RGM
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 102.3
 LENGTH EXPOSED (MM) -- 56.5
 MAXIMUM DIAMETER (MM)- 39.8
 MAJ THREAD DIAM (MM) - 36.0
 THREAD PITCH (METRIC)- 2.50 MM
 WEIGHT COMPLETE (G) -- 0.459
 MARKINGS ----- SEE PHOTO

ARMING DISTANCE(M)- 6.7 M TO 9.7
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- ?
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- *1

USING WEAPONS: ----- *2

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK, SPIN
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- CUT-OFF-LINE DETONATOR

REMARKS:

1/ 100-MM, HE, F-412; 100-MM, FRAG;
 122-MM, FRAG-HE, OF-471, OF-471N &
 OF-462; 152-MM, FRAG, O-530A, OF-530

2/ 100-MM FIELD GUN M1944, 100-MM TANK
 GUN D-10T 122-MM FIELD GUN, 122-MM HOWITZER
 M1938 152-MM HOWITZER M1943, 152-MM
 GUN-HOWITZER

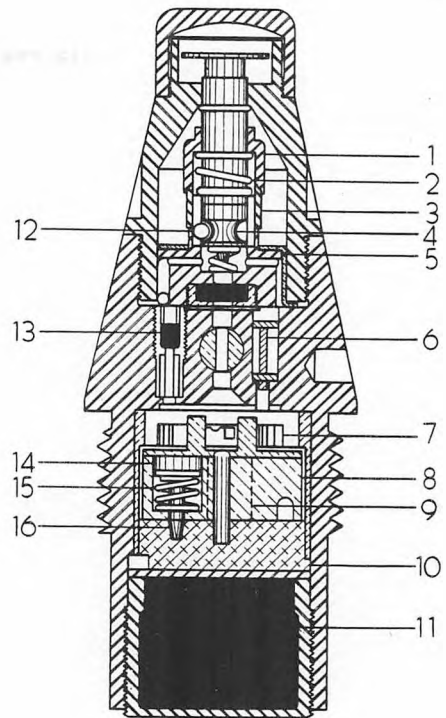
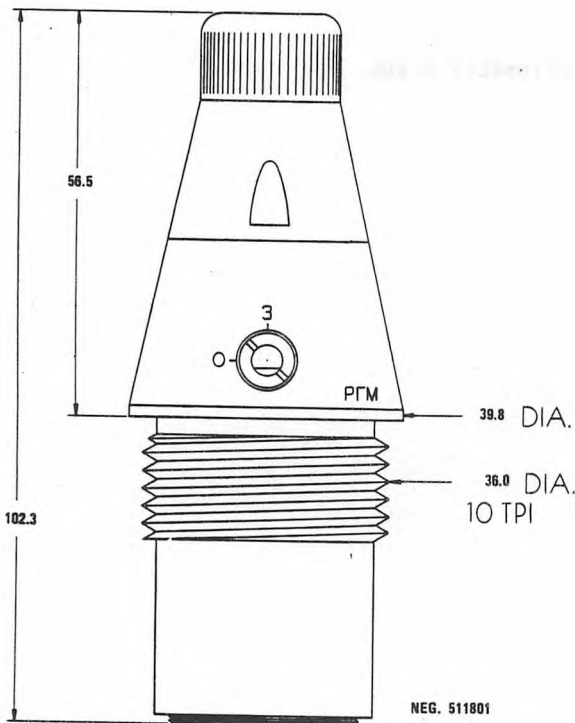
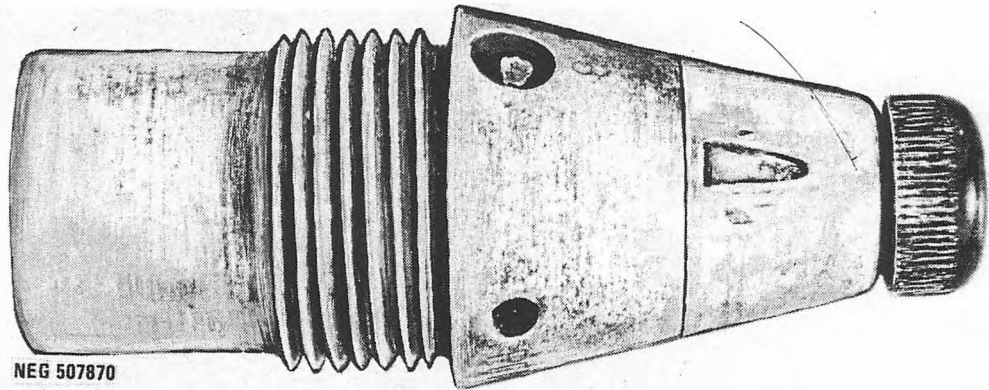
DATE CATALOGED: 01JAN67
 VOLUME 06 PAGE 66

U N C L A S S I F I E D

UNCLASSIFIED

FOM-1390-2-1-38-B
NOMEN: FUZE, POINT-DETONATING, MODEL RGM (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



FOM-1390-2-1-38-B
NOMEN: FUZE, POINT-DETONATING, MODEL RGM (U)
PRODUCED/ADOPTED: ???

U N C L A S S I F I E D

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JAN67
VOLUME 06 PAGE 68

U N C L A S S I F I E D

NOMEN: FUZE, POINT-DETONATING, MODEL RG-6 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНОЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ РГ-6
PRODUCED/ADOPTED: 1938/?DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET POINT-DETONATING FUZE MODEL RG-6 WAS REPLACED BY THE RGM FUZES BECAUSE ITS STRIKER ACTION IS LESS SENSITIVE THAN THAT OF THE RGM'S AND IT IS UNSAFE TO FIRE WHEN SET FOR DELAY ACTION. THE RG-6 DIFFERS IN CONSTRUCTION FROM THE RGM FUZES IN THAT IT HAS AN ELONGATED NOSE CAP WITH A ROUNDED TOP INTO WHICH THE HEAD OF ITS STRIKER EXTENDS, AND IT HAS NO SAFETY DEVICE TO PREVENT PREMATURE ACTIVATION AT THE DELAY SETTING. IT IS NOT TO BE USED AT TEMPERATURES BELOW FREEZING, OR IN FIRING GUNS AND HOWITZERS WITH A FULL CHARGE. THE SOVIETS CONSIDER THE FUZE TO BE "SAFE," PRESUMABLY BECAUSE THE EXPLOSIVE TRAIN IS INTERRUPTED BETWEEN THE DETONATOR AND THE BOOSTER UNTIL THE PROJECTILE LEAVES THE BORE OF THE WEAPON. IN THE CASE OF PREMATURE IGNITION AT THE DELAY SETTING, HOWEVER, THE POWDER DELAY ELEMENT WILL BURN UNTIL THE EXPLOSIVE TRAIN IS ALIGNED, CAUSING THE PROJECTILE TO BURST DANGEROUSLY CLOSE TO THE WEAPON.

(U)THE RG-6 CAN PROVIDE INSTANTANEOUS, NONDELAY, AND DELAY ACTION TO GIVE A FRAGMENTATION, HIGH-EXPLOSIVE, RICHOCHET, OR DELAYED HIGH-EXPLOSIVE EFFECT. TO OBTAIN INSTANTANEOUS ACTION (FRAGMENTATION) THE CAP IS REMOVED AND THE SETTING SELECTOR POSITIONED AT "0." TO OBTAIN NONDELAY ACTION (HE) THE SETTING SELECTOR IS POSITIONED AT "0" BUT THE CAP IS LEFT ON. TO OBTAIN A DELAY ACTION (FOR EITHER DELAYED HE OR RICHOCHET) THE SETTING SELECTOR IS POSITIONED AT "3" AND THE FUZE CAP MAY BE EITHER REMOVED OR LEFT IN PLACE SINCE ITS INFLUENCE AT THIS SETTING IS INSIGNIFICANT.

(U)UPON FIRING, THE ARMING SLEEVE (2) SETS BACK COMPRESSING THE ARMING SLEEVE SPRING (3), AND LOCKS WITH THE RETAINING BALL SLEEVE (4). SIMULTANEOUSLY, THE INERTIA SLEEVE (17), OVERCOMING THE OPPOSITION OF THE PRONGS OF THE INERTIA PIN SAFETY CLAMP (18), SETS BACK, COMPRESSES THE INERTIA SLEEVE SPRING (19), AND LOCKS WITH THE INERTIA PIN (20). THE SPRINGS (3) AND (19) REMAIN COMPRESSED UNTIL THE PROJECTILE LEAVES THE BORE OF THE GUN. AT THIS TIME THE COMPRESSED SPRINGS OVERCOME THE INERTIAL FORCES THE ARMING SLEEVE SPRING THEN MOVES THE ARMING SLEEVE AND THE RETAINING BALL SLEEVE FORWARD, RELEASING THE THREE RETAINING BALLS (11). CENTRIFUGAL FORCE CAUSES THE BALLS TO ESCAPE FROM THEIR HOUSING IN THE STRIKER (1) SO THAT THEY NO LONGER PREVENT THE MOVEMENT OF THE STRIKER OR THE PRIMER HOLDER (5). AT THE SAME TIME, THE INERTIA SLEEVE SPRING MOVES THE INERTIA SLEEVE FORWARD, DRAWING THE ATTACHED INERTIA PIN OUT OF ITS SOCKET IN THE RELAY CHARGE HOUSING (16) AND THEREBY UNLOCKING THE ROTOR BODY (14). THE ROTOR BODY TURNS UNDER THE INFLUENCE OF THE SPIRAL SPRING (8), BRINGS THE DETONATOR (15) INTO ALIGNMENT WITH THE RELAY CHARGE (9) LEADING TO THE BOOSTER (10), AND COMES TO REST ON A CHECK PIN.

(U)IF THE FUZE IS SET FOR INSTANTANEOUS ACTION ("0"), WITH FUZE CAP REMOVED, THE STRIKER (1) IS DRIVEN REARWARD ON IMPACT WITH THE TARGET, OVERCOMING THE ANTICREEP SPRING (12), AND THE FIRING PIN STRIKES THE PRIMER (6). AT THE SAME SETTING, BUT WITH THE FUZE CAP ON, THE PRIMER HOLDER AND PRIMER MOVE FORWARD, AND THE PRIMER STRIKES THE FIRING PIN. IN EITHER CASE, THE FLASH PASSES DIRECTLY THROUGH AN OPENING IN THE SETTING SELECTOR (13), AND INTO THE DETONATOR IN THE ROTOR BODY. THE DETONATOR WAVE FROM THE DETONATOR TRAVELS THROUGH THE RELAY CHARGE AND ACTIVATES THE BOOSTER.

(U)IF THE FUZE IS SET FOR DELAYED ACTION ("3"), THE SETTING SELECTOR BLOCKS THE DIRECT CHANNEL FROM THE PRIMER TO THE DETONATOR, AND THE FLASH MUST PASS TO THE DETONATOR BY WAY OF THE POWDER DELAY PELLET (7). THE FUZE CAP HAS THE SAME EFFECT ON THE OPERATION AT THE DELAY SETTING AS AT THE INSTANTANEOUS SETTING: WITHOUT FUZE CAP, THE FIRING PIN MOVES REARWARD TO STRIKE THE PRIMER; WITH FUZE CAP, THE PRIMER MOVES FORWARD TO STRIKE THE FIRING PIN.

U N C L A S S I F I E D

FOM-1390-2-1-40-A
 NOMEN: FUZE, POINT-DETONATING, MODEL RG-6 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: 1938/?

CURRENT STATUS: ----- OBSOLETE IN U.S.S.R.

USING COUNTRIES: ----- 002

BOOSTER:

BCDY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 25.4
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- *3
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- *1

USING WEAPONS: ----- *2

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
 MODEL ----- RG-6
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 112.0
 LENGTH EXPOSED (MM) -- 66.0
 MAXIMUM DIAMETER (MM)- 40.6
 MAJ THREAD DIAM (MM) - 36.0 MM
 THREAD PITCH (METRIC)- 250
 WEIGHT COMPLETE (G) -- 0.459
 MARKINGS ----- SEE PHOTO

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- OUT-OF-LINE DETONATOR

REMARKS:

1/ 122-MM, FRAG-HE, OF-462, 122-MM
 FRAG, O-462A, 152-MM, FRAG-HE, OF-530
 152-MM, FRAG, O-530A

2/ 122-MM HOWITZER M1938, 152-MM
 GUN-HOWITZER M1937, 152-MM HOWITZER
 M1938, 152-MM HOWITZER M1943

3/ INSTANTANEOUS, NONDELAY AND DELAY

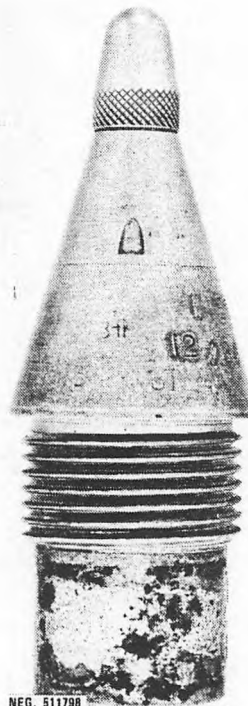
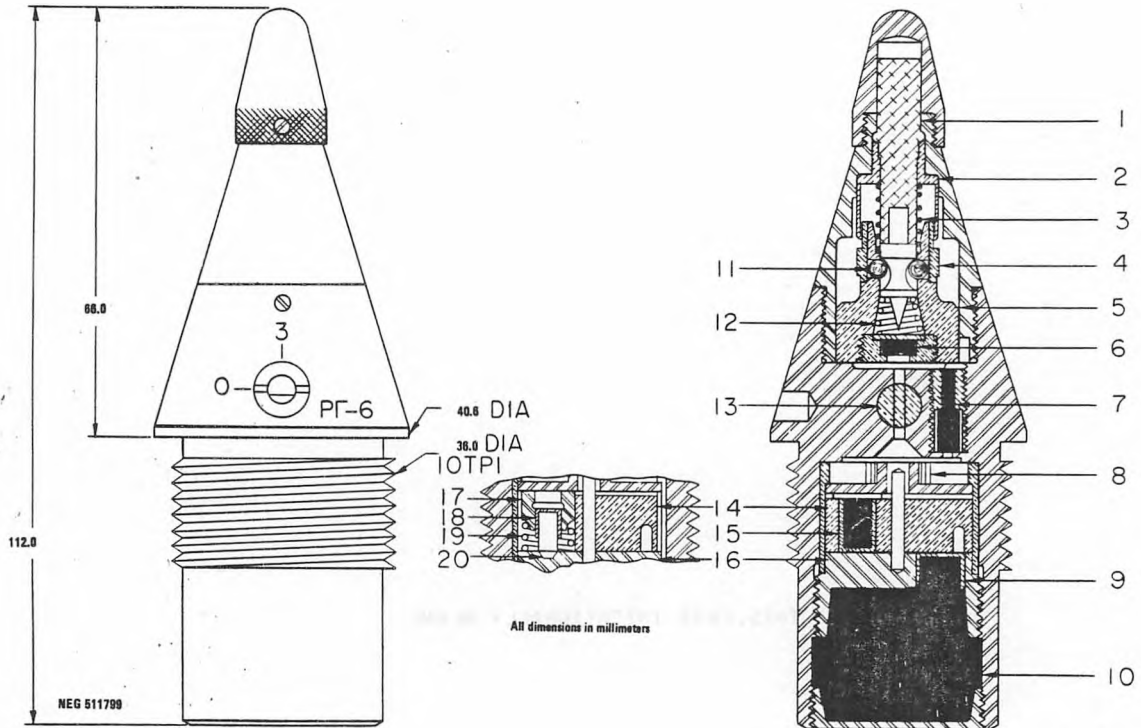
DATE CATALOGED: 01APR68
 VOLUME 06 PAGE 70

U N C L A S S I F I E D

FOM-1390-2-1-40-B
NOMEN: FUZE, POINT-DETONATING, MODEL RG-6 (U)
PRODUCED/ADOPTED: 1938/?

UNCLASSIFIED

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



DATE CATALOGED: 01APR68
VOLUME 06

UNCLASSIFIED

U N C L A S S I F I E D

FOM-1390-2-1-40-B
NOMEN: FUZE, POINT-DETONATING, MODEL RG-6 (U)
PRODUCED/ADOPTED: 1938/?

CATALDG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01APR68
VOLUME 06 PAGE 72

U N C L A S S I F I E D

FOM-1390-2-1-43-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, TIME AND SUPERQUICK, MODEL D-1 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ДИСТАНЦИОННО-УДАРНЫЙ ВЗРЫВАТЕЛЬ Д-1
PRODUCED/ADOPTED: 1937??

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE MAXIMUM BURNING TIME OF THE SOVIET TIME AND SUPERQUICK FUZE MODEL D-1 VARIES FROM 35 TO 45 SECONDS, DEPENDING ON THE CONDITIONS OF USE. THE LOWER TIME RING (6) IS GRADUATED TO "125." THE MINIMUM SETTING ON THIS SCALE FOR OLDER D-1 FUZES IS 10; FOR THE NEWER ONES, 5. IF THE FUZE IS SET BETWEEN "115" AND "125," THE IMPACT MECHANISM WILL NOT ARM. IMPACT ACTION IS OBTAINED BY SETTING THE LOWER TIME RING AT "YA".

(U)ON FIRING, SETBACK MOVES THE SLEEVE (13) TO THE REAR, FREEING THE LOCKING BALL (12). WHEN THE PROJECTILE LEAVES THE GUN, THE COMPRESSED SPRING MOVES THE LOCKING PIN (14) FORWARD, FREEING THE SPRING-LOADED ROTOR (9), WHICH CAN THEN MOVE THE DETONATOR INTO ALINEMENT WITH THE FLASH CHANNEL (7). ALSO ON FIRING, THE SETBACK STRIKER (2) SETS BACK, IGNITING THE INITIATING PELLETT WHICH, IN TURN, IGNITES THE POWDER TRAIN IN THE UPPER TIME RING (4). THE FLAME TRAVELS AROUND THE UPPER TIME RING, BURNS THROUGH A TRANSMISSION HOLE, AND IGNITES THE POWDER IN THE MIDDLE TIME RING (11) AT THE SAME TIME THAT IT IGNITES A POWDER BLOCKING PELLETT (5). THE BLOCKING PELLETT BURNS AWAY, RELEASING THE SAFETY INTERRUPTER (3). CENTRIFUGAL FORCE, ASSISTED BY A SPRING, CAUSES THE SAFETY INTERRUPTER TO MOVE OUTWARD. MOTION OF THE SAFETY INTERRUPTER FREES THE FIRING PIN (1), WHICH ACTIVATES THE FUZE IF THE PROJECTILE STRIKES AN OBJECT BEFORE THE POWDER TRAIN IS CONSUMED. MEANWHILE, THE FLAME FROM THE MIDDLE TIME RING PASSES INTO THE LOWER TIME RING (6), AND THEN THROUGH THE FLASH CHANNEL (7) TO THE DETONATOR IN THE ALINED ROTOR (9). THE DETONATOR ACTIVATES THE BOOSTER (10), EXPLODING THE PROJECTILE FILLER.

FOR IMPACT ACTION, THE "YA" SETTING POSITIONS THE TIME RINGS SO THAT MAXIMUM BURNING TIME IS ASSUMED. UP UNTIL THE MOMENT OF IMPACT, THE FUZE FUNCTIONS AS DESCRIBED ABOVE. ON IMPACT, THE FIRING PIN IS DRIVEN INTO THE PRIMER (8), INITIATING THE DETONATOR AND BOOSTER, AS DESCRIBED.

U N C L A S S I F I E D

FOM-1390-2-1-43-A
 NOMEN: FUZE, TIME AND SUPERQUICK, MODEL D-1 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: 1937/?

CURRENT STATUS: ----- ?

BOOSTER:

BCDY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 18.2
 FILLER MATERIAL --- ?
 FILLER WEIGHT (G) - ?

USING COUNTRIES: ----- 002

PERFORMANCE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME VARIABLE, 2 TO 45 SEC
 DELAY TIME ----- N/A
 MIN TIME SETTING -- 1.2 SEC
 MAX TIME SETTING -- 45 SEC

FUZE ASSEMBLY COMPLETE:

TYPE ----- *1
 MODEL ----- D-1
 BODY MATERIAL ----- BRASS
 LENGTH OVERALL (MM) -- 105.6
 LENGTH EXPOSED (MM) -- 60.2
 MAXIMUM DIAMETER (MM)- 39.8
 MAJ THREAD DIAM (MM) - 36.0
 THREAD PITCH (METRIC)- 2.50 MM
 WEIGHT COMPLETE (G) -- 431.
 MARKINGS ----- SEE PHOTO

USING PROJECTILES: -- *2

USING WEAPONS: ----- *3

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
 SELF-DESTR METHOD ---- TIME SETTING
 TYPE SAFETY DEVICE --- OUT-OF-LINE DETONATOR

REMARKS:

1/ COMBINATION (TIME AND IMPACT)
 2/ 122-MM, FRAG-HE, OF-462, OF-471 AND
 OF-471N; 152-MM FRAG, O-530A OF-530,
 OF-530A, OF-540 AND OF-540B

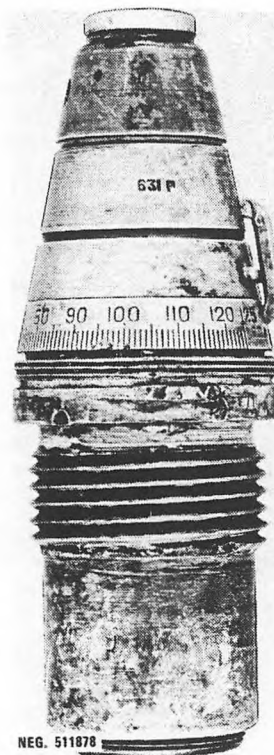
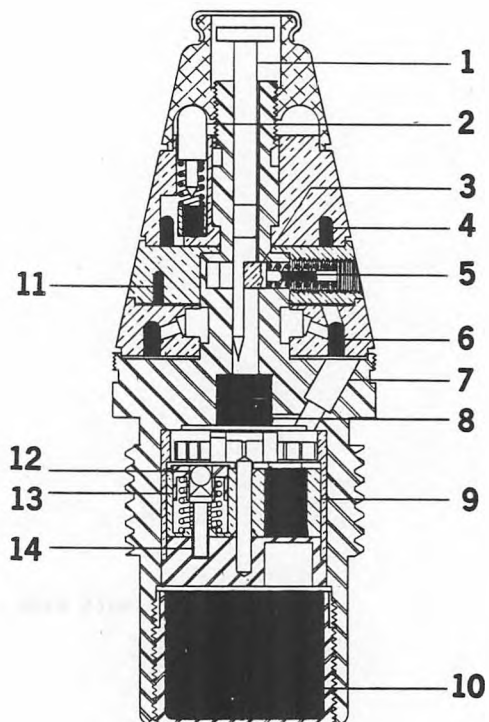
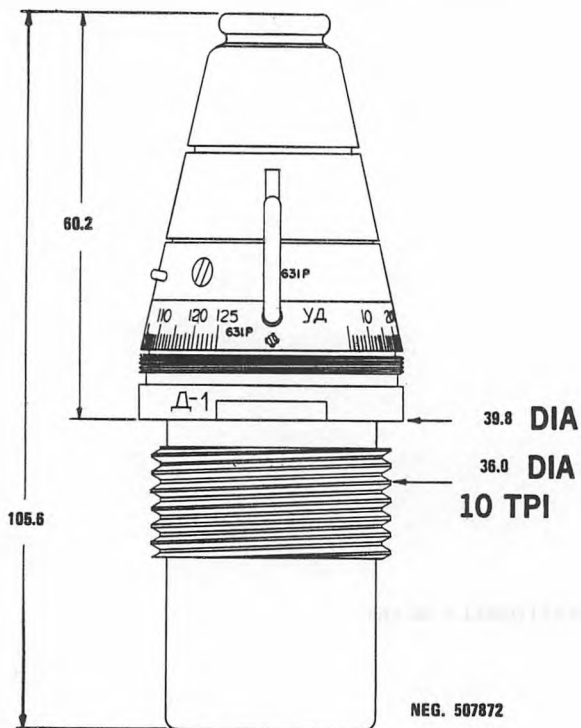
3/ 122-MM FIELD GUN 1931/37,
 122-MM HOWITZER M1938,
 122-MM TANK GUN M1943,
 152-MM HOWITZER M1937 & 1943.

UNCLASSIFIED

FOM-1390-2-1-43-B
NOMEN: FUZE, TIME AND SUPERQUICK, MODEL D-1 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: 1937/?



DATE CATALOGED: 01JUL66
VOLUME 06

UNCLASSIFIED

U N C L A S S I F I E D

FQM-1390-2-1-43-B

NOMEN: FUZE, TIME AND SUPERQUICK, MODEL D-1 (U)

PRODUCED/ADOPTED: 1937/?

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JUL66
VOLUME 06 PAGE 76

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-2-1-44-A

CATALOG: TB-381-5-06

NOMEN: FUZE, PIBD, MODEL BM (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНОЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ БМ
PRODUCED/ADOPTED: 1942/?

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET PIBD (FLASHBACK) FUZE MODEL BM, USED WITH THE MODELS BP-350M AND 8P-353-A 76-MM HEAT PROJECTILES, CONSISTS OF A STEEL BODY, AN ARMING ASSEMBLY, AND A PRIMER-DETONATOR ASSEMBLY.

(U)ON FIRING, THE ARMING SLEEVE (3) SETS BACK AND COMPRESSES THE ARMING SLEEVE SPRING (4); CENTRIFUGAL FORCE THEN CAUSES THE THREE ARMING SLEEVE RETAINING BALLS (9) TO MOVE OUTWARD. WHEN SETBACK ENDS, THE ARMING SLEEVE SPRING EXPANDS, MOVING THE ARMING SLEEVE FORWARD UNTIL THE TWO FIRING-PIN RETAINING BALLS (5) ARE RELEASED FROM THEIR HOUSINGS IN THE FIRING-PIN GUIDE (2). THE STRIKER (1) AND THE FIRING PIN (6) ARE THEN FREE TO MOVE REARWARD. IMPACT DRIVES THE STRIKER AND THE FIRING PIN REARWARD SO THAT THE FIRING PIN PIERCES THE THIN BRASS CLOSING CUP (7) AND STABS THE FIRST CHARGE OF THE PRIMER-DETONATOR ASSEMBLY (8). FLASHBACK FROM THE PRIMER-DETONATOR ASSEMBLY INITIATES THE BOOSTER AT THE BASE OF THE MAIN EXPLOSIVE CHARGE.

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-2-1-44-A
 NOMEN: FUZE, PIRD, MODEL BM (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77
 COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: 1942/?

CURRENT STATUS: ----- ?

USING COUNTRIES: ----- 002

BOOSTER:

BODY MATERIAL ----- N/A
 BODY LENGTH (MM) -- N/A
 FILLER MATERIAL --- N/A
 FILLER WEIGHT (G) - N/A

PERFORMANCE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- ?
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
 MODEL ----- BM
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 33.5
 LENGTH EXPOSED (MM) -- 16.8
 MAXIMUM DIAMETER (MM)- 17.7
 MAJ THREAD DIAM (MM) - 14.7
 THREAD PITCH (METRIC)- 1.00 MM
 WEIGHT COMPLETE (G) -- 27.2
 MARKINGS ----- SEE PHOTO

USING PROJECTILES: -- *1

USING WEAPONS: ----- *2

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- FIRING-PIN RETAINING BALL

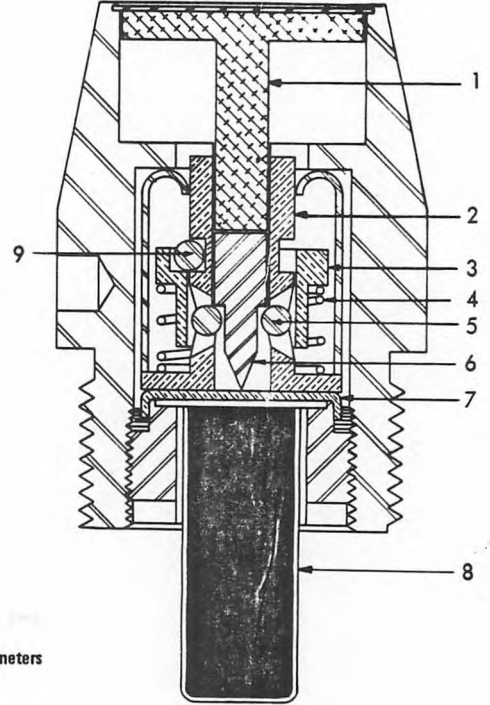
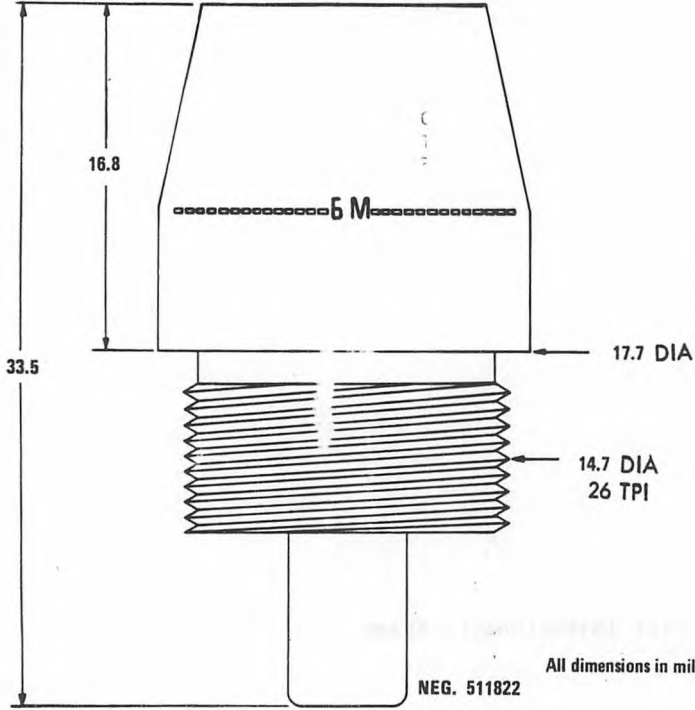
REMARKS:

1/ 76-MM, HEAT, BP-350M & BP-353A
 2/ 76-MM FIELD GUNS MODEL 1942 &
 1943 SU-76 SUPPORT GUN
 PT-76 TANK

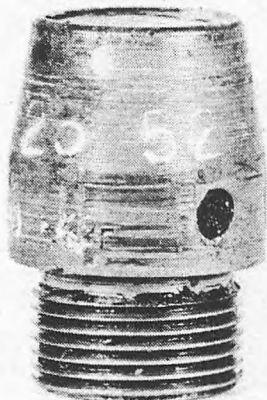
UNCLASSIFIED

FOM-1390-2-1-44-B
NOMEN: FUZE, PIBD, MODEL BM (U)
PRODUCED/ADOPTED: 1942/??

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



All dimensions in millimeters



NEG. 511821

DATE CATALOGED: 10JUL67
VOLUME 06

UNCLASSIFIED

FOM-1390-2-1-44-B
NOMEN: FUZE, PIBD, MODEL 8M (U)
PRODUCED/ADOPTED: 1942/?

U N C L A S S I F I E D

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 10JUL67
VOLUME 06 PAGE 80

U N C L A S S I F I E D

NOMEN: FUZE, MECHANICAL TIME, MODEL VM-2 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: МЕХАНИЧЕСКИЙ ДИСТАНЦИОННЫЙ ВЗРЫВАТЕЛЬ VM-2
PRODUCED/ADOPTED: ???DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET MECHANICAL TIME FUZE MODEL VM-2, DESIGNED PRIMARILY FOR ANTI-AIRCRAFT USE, HAS A WINDSHIELD AND FUZE BODY OF ALUMINUM; THE LOCKING RING AND INTERNAL MECHANISM ARE MADE OF BRASS. SETTINGS (0.8 TO 30 SECONDS) ARE INSCRIBED ON THE WINDSHIELD, AND THE TIME-SETTING INDICATOR POINT IS INSCRIBED ON THE FUZE BODY. THE FUZE IS SET BY ROTATING THE WINDSHIELD UNTIL THE DESIRED TIME GRADUATION IS LINED UP WITH THE INDICATOR POINT.

(U)ON FIRING, SETBACK MOVES THE TRIGGER (8) REARWARD AND RELEASES THE HAND (7), WHICH IS ROTATED IN A CLOCKWISE DIRECTION BY THE MAINSPRING AND CLOCKWORK MECHANISM. DETAILS OF THE COMPLETE CLOCKWORK MECHANISM ARE NOT SHOWN. WHEN THE HAND HAS CLEARED THE SAFETY BRIDGE (1), IT IS PRESSED UP AGAINST A HAND RACE ON THE UNDERSURFACE OF THE TOP OF THE RETAINER CUP (9) BY A SPRING (2) UNDER THE CENTER OF THE HAND. WHEN THE HAND REACHES THE PORTION OF THE HAND RACE CUT OUT TO RECEIVE IT, THE HAND IS FORCED UPWARD BY ITS SPRING, AND THE RINGLIKE SECTION OF THE HAND CLEARS THE PRONG OF THE SAFETY LEVER (3), ALLOWING IT TO MOVE OUTWARD UNDER SPIN FORCE AND THE PRESSURE OF ITS SPRING. THIS OUTWARD MOVEMENT PULLS THE LOWER SECTION OF THE LEVER OUT OF THE SAFETY SLOT OF THE FIRING PIN (4) AND ALLOWS THE SPRING-LOADED FIRING PIN TO MOVE REARWARD AND ACTIVATE THE DETONATOR (6) WHICH, IN TURN, INITIATES THE BOOSTER (10). A SPRING-LOADED INTERRUPTER (5), AN ADDITIONAL SAFETY FEATURE, REMAINS IN PLACE TO BLOCK THE DETONATOR FROM THE FIRING PIN UNTIL SPIN PULLS IT ASIDE, LEAVING A CLEAR PASSAGE TO THE DETONATOR.

U N C L A S S I F I E D

FOM-1390-2-1-65-A
 NOMEN: FUZE, MECHANICAL TIME, MODEL VM-2 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- ?

BOOSTER:

BODY MATERIAL ----- ALUMINUM
 BODY LENGTH (MM) -- 40.6
 FILLER MATERIAL --- TETRYL ?
 FILLER WEIGHT (G) - ?

USING COUNTRIES: ----- U.S.S.R.

PERFORMANCE:

ARMING DISTANCE (M) - ?
 ARMING TIME ----- 0.8 SEC
 SELF-DESTRUCT TIME VARIABLE, 0.8 TO 30 SEC
 DELAY TIME ----- N/A
 MIN TIME SETTING -- 0.8 SEC
 MAX TIME SETTING -- 30 SEC

FUZE ASSEMBLY COMPLETE:

TYPE ----- TIME
 MODEL ----- VM-2
 BODY MATERIAL ----- ALUMINUM
 LENGTH OVERALL (MM) -- 181.3
 LENGTH EXPOSED (MM) -- 127.2
 MAXIMUM DIAMETER (MM) - 63.5
 MAJ THREAD DIAM (MM) - 51.5 MM
 THREAD PITCH (METRIC) - 3.00
 WEIGHT COMPLETE (G) -- ?
 MARKINGS ----- BM-2

USING PROJECTILES: -- 85-MM, FRAG, 0-365 M

USING WEAPONS: ----- 85-MM AA GUNS KS-12
 - AND KS-18

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
 SELF-DESTR METHOD ---- TIME SETTING
 TYPE SAFETY DEVICE --- OBSTRUCTED PATH TO
 DETONATOR.

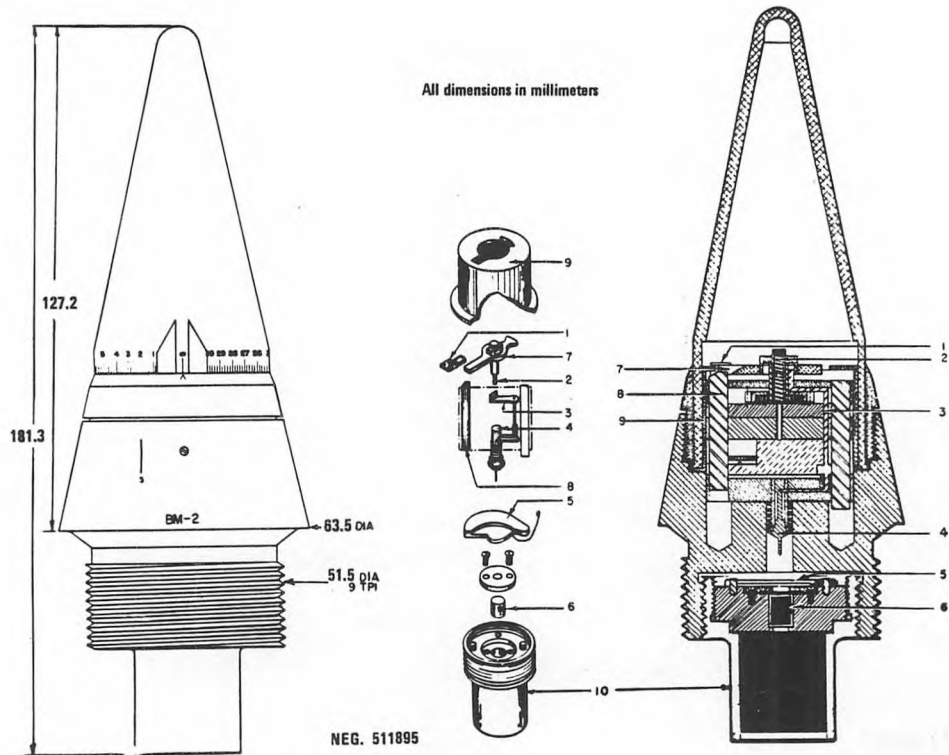
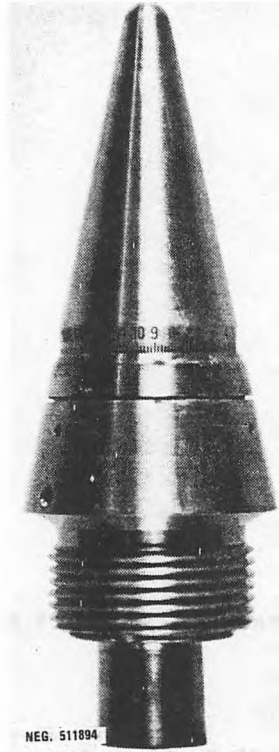
REFERENCES: -----

REMARKS:

FOM-1390-2-1-65-B
NOMEN: FUZE, MECHANICAL TIME, MODEL VM-2 (U)
PRODUCED/ADOPTED: ???

UNCLASSIFIED

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



DATE CATALOGED: 01JUL67
VOLUME 06

UNCLASSIFIED

U N C L A S S I F I E D

FOM-1390-2-1-65-B

NOMEN: FUZE, MECHANICAL TIME, MODEL VM-2 (U)

PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JUL67
VOLUME 06 PAGE 84

U N C L A S S I F I E D

MEN: FUZE, POINT DETONATING, MODEL M-1 (U)

DATE REVIEWED: 28JAN77

ATIVE DES: ГОЛОВНОЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ М-1
PRODUCED/ADOPTED: 1940/?DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET M-1 IS A SETBACK ARMED, POINT-DETONATING, NCN-DELAY FUZE USED WITH 50-MM, 82-MM, AND 120-MM SOVIET MORTARS. DURING STORAGE AND TRANSPORTATION, THE FUZE IS PROTECTED BY A SAFETY CAP (1) WHICH MUST BE REMOVED PRIOR TO FIRING. IF A RED STRIPE IS VISIBLE ON THE SIDE OF THE PROJECTING STRIKER HEAD (2), THE FUZE IS ARMED AND MUST NOT BE FIRED.

(U)ON FIRING, SETBACK MOVES THE SLEEVE (10) REARWARD. THE BEVELED EDGE OF THE SLEEVE CAMS THE SAFETY PIN (11) OUTWARD, AND THE UPPER LOCKING BALL (3) DROPS ON TOP OF THE ARMING SLEEVE, FREEING THE SLEEVE FOR FORWARD MOVEMENT. WHEN THE PROJECTILE LEAVES THE BORE, THE ARMING SLEEVE, SPRING (4) DECOMPRESSES AND FORCES THE SLEEVE FORWARD, PERMITTING THE LOWER LOCKING BALLS (5) TO DROP INSIDE THE SLEEVE (6). THIS FREES THE FIRING PIN, AND THE FUZE IS NOW ARMED. DURING FLIGHT THE SPRING (7) KEEPS THE FIRING PIN (12) AWAY FROM THE DETONATOR (8). ON IMPACT OF THE PROJECTILE, THE STRIKER (2) IS DRIVEN REARWARD, AND THE FIRING PIN SETS OFF THE DETONATOR WHICH, IN TURN, DETONATES THE BOOSTER (9) AND EXPLOSIVE CHARGE OF THE PROJECTILE.

U N C L A S S I F I E D

FOM-1390-2-1-66-A
 NOMEN: FUZE, POINT DETONATING, MODEL M-1 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77
 COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: 1940/?

CURRENT STATUS: ----- OBSOLETE IN U.S.S.R.

USING COUNTRIES: ----- 002

BOOSTER:
 BODY MATERIAL ----- PART OF FUZE BODY
 BODY LENGTH (MM) -- N/A
 FILLER MATERIAL --- TETRYL ?
 FILLER WEIGHT (G) - ?

PERFORMANCE:
 ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:
 TYPE ----- POINT DETONATING
 MODEL ----- M-1
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 78.7
 LENGTH EXPOSED (MM) -- 45.4
 MAXIMUM DIAMETER (MM)- 39.9
 MAJ THREAD DIAM (MM) - 35.6 MM
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- 249.5
 MARKINGS ----- M-1

USING PROJECTILES: -- *1

USING WEAPONS: ----- *2

REFERENCES: -----

FUNCTIONAL DATA:
 ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ----- N/A
 TYPE SAFETY DEVICE --- SPRINGS AND LOCKING BALLS

REMARKS:

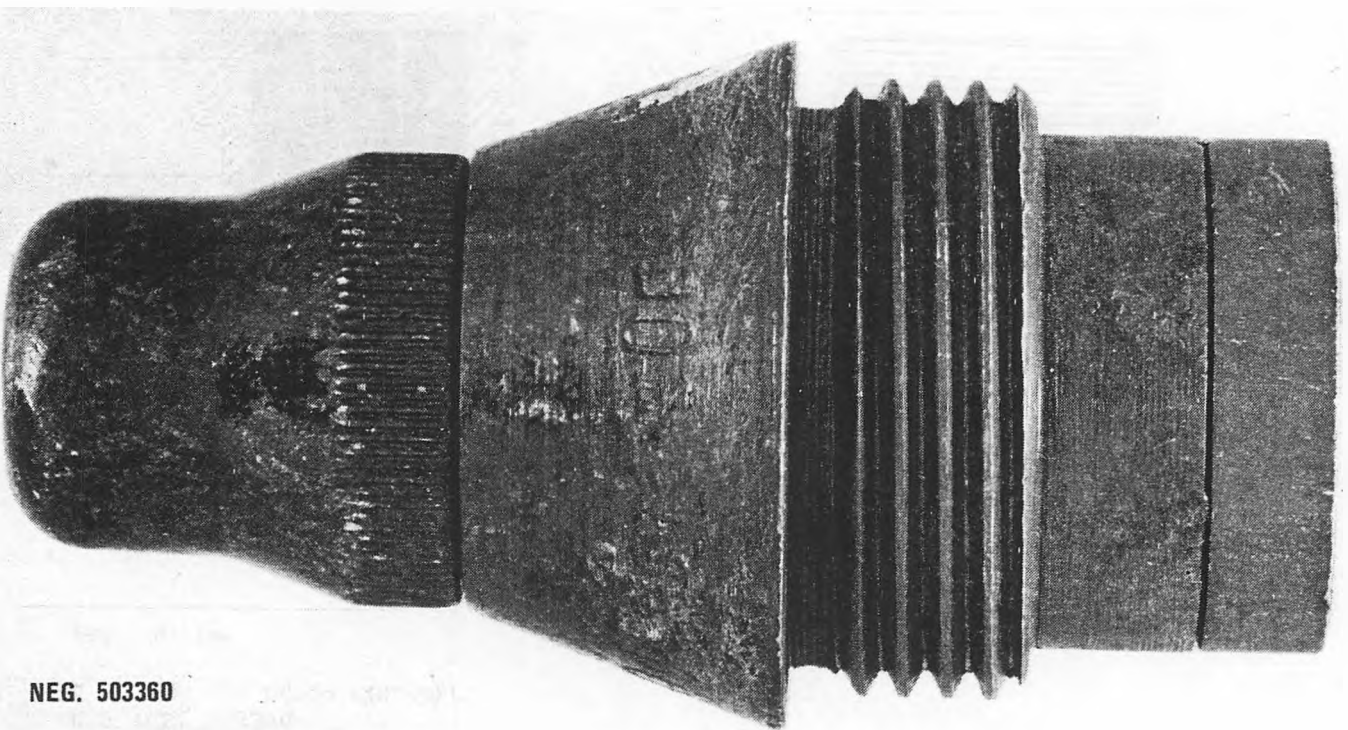
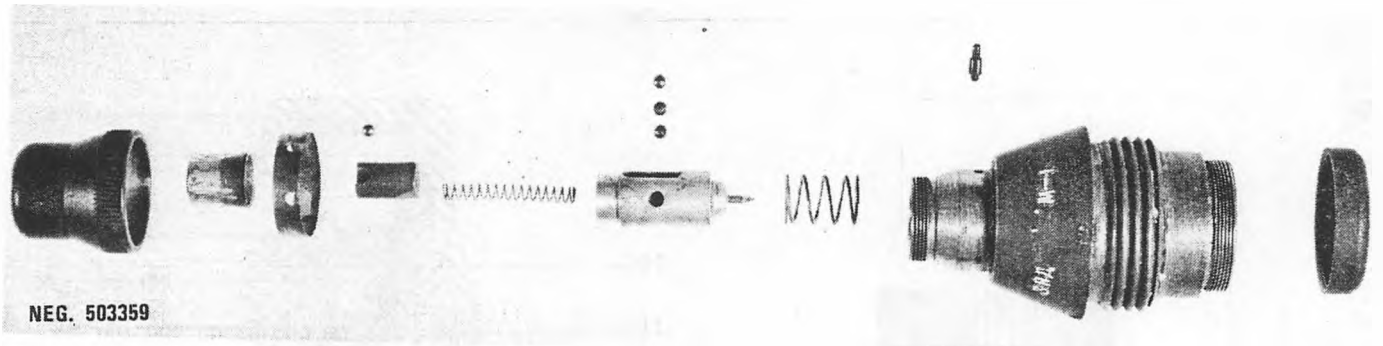
1/ 50-MM, FRAG, O-822A, 50-MM, FRAG, O-822SH
 82-MM, FRAG, O-832D, 82-MM, FRAG, O-832
 82-MM, SMOKE, D-832, 120-MM, HE, F-843
 120-MM, INCENDIARY Z-843A
 2/ 50-MM MORTAR M1940, 82-MM MORTAR
 M1937 (1942-43 VERISON) 120-MM MORTAR
 M1943

UNCLASSIFIED

FOM-1390-2-1-66-B
NOMEN: FUZE, POINT DETONATING, MODEL M-1 (U)

PRODUCED/ADOPTED: 1940/?

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



FDM-1390-2-1-66-B

NOMEN: FUZE, POINT DETONATING, MODEL M-1 (U)

PRODUCED/ADOPTED: 1940/?

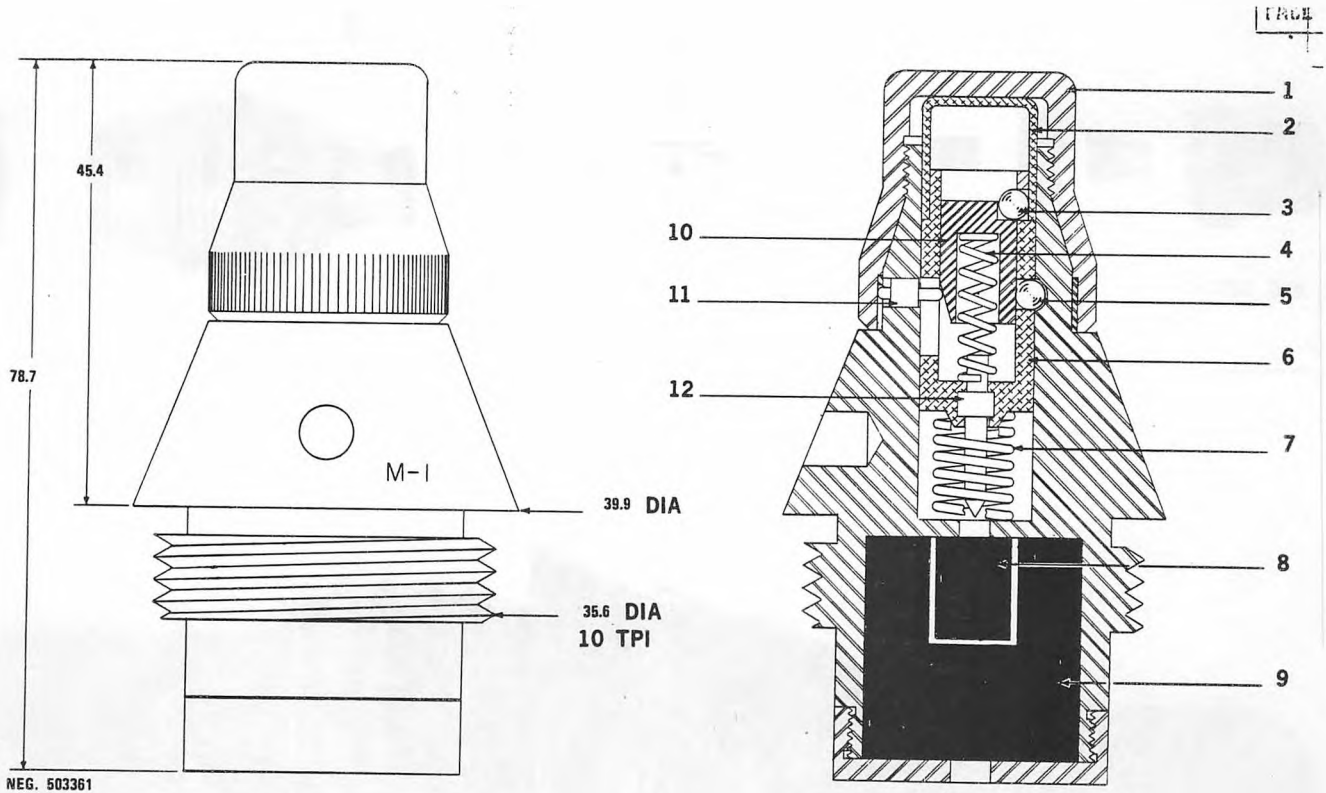
UNCLASSIFIED

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.



UNCLASSIFIED

FOM-1390-2-1-81-A

UNCLASSIFIED

CATALOG: TB-381-5-06

NOMEN: FUZE, POINT DETONATING, MODEL RGM-6 (U)

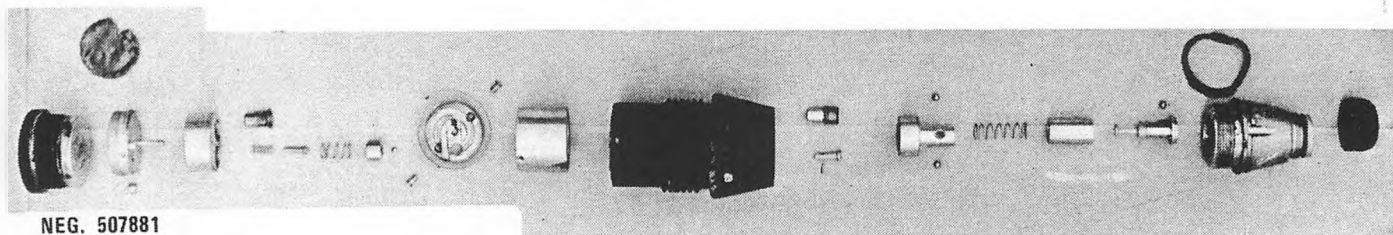
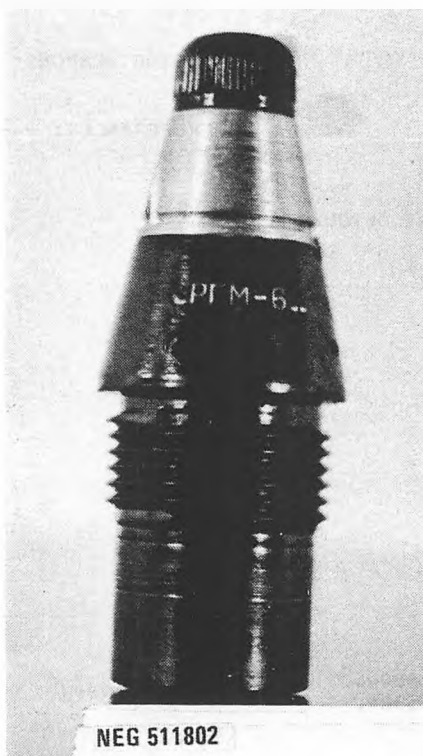
DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНОЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ РГМ-6
PRODUCED/ADOPTED: 1938/?

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL RGM-6 POINT-DETONATING, IMPACT FUZE IS THE LATEST DEVELOPMENT IN THE RGM SERIES OF FUZES. ITS OUTWARD APPEARANCE CLOSELY RESEMBLES THAT OF THE RGM-2. THE RGM-6 HAS BEEN DESIGNED WITH INSTANTANEOUS, NONDELAY, AND DELAY SELECTIVE ACTION. IT CAN BE SET FOR INSTANTANEOUS ACTION BY SETTING THE INDICATOR ON THE SIDE OF THE FUZE TO "0," AND REMOVING THE FUZE CAP; IT CAN BE SET FOR NONDELAY ACTION BY SETTING THE INDICATOR TO "0," AND LEAVING THE FUZE CAP ON; AND IT CAN BE SET FOR DELAY ACTION BY SETTING THE INDICATOR TO "3," AND LEAVING THE FUZE CAP ON OR OFF.

(U)THE FUNCTIONING OF THE RGM-6 FUZE HAS NOT BEEN POSITIVELY IDENTIFIED, BUT IT IS BELIEVED TO BE SIMILAR TO THAT OF OTHERS OF THE RGM SERIES OF FUZES.



DATE CATALOGED: 01JAN65
VOLUME 06

UNCLASSIFIED

PAGE 89

U N C L A S S I F I E D

FOM-1390-2-1-81-A
 NOMEN: FUZE, POINT DETONATING, MODEL RGM-6 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77
 COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: 1938/?

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 002.005

BOOSTER:

BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 45.7
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- *2
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- *1

USING WEAPONS: ----- 122-MM HOWITZER M1938
 - 152-MM HOWITZER M1943

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
 MODEL ----- RGM-6
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 102.3?
 LENGTH EXPOSED (MM) -- 60.2
 MAXIMUM DIAMETER (MM)- 39.8?
 MAJ THREAD DIAM (MM) - 36?
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- 0.456
 MARKINGS ----- SEE PHOTO

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- OUT-OF-LINE DETONATOR

REMARKS:

1/ 122-MM, HE, OF-462, OF-462A, F-460 &
 F-460A; 152-MM, HE, OF-530, HE, OF-530A,
 F-530 AND F530A.

2/ INSTANTANEOUS, NONDELAY AND DELAY

U N C L A S S I F I E D

FOM-1390-2-1-85-A

CATALOG: TB-381-5-06

NOMEN: FUZE, POINT-DETONATING SELF-DESTROYING, MODEL A-37 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНОЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ А-37
PRODUCED/ADOPTED: ???

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)ON FIRING OF THE SOVIET MODEL A-37 POINT-DETONATING, SELF-DESTROYING FUZE, SETBACK FORCES THE PRIMER (8) REARWARD, COMPRESSING THE SPRING (9). THE PRIMER IS IGNITED WHEN IT STRIKES THE FIRING PIN (10). THE RESULTING FLASH IGNITES THE SELF-DESTRUCTION POWDER TRAIN (6) AND A BLACK POWDER PELLET (11), WHICH HOLDS ONE OF THE ROTOR LOCKING PINS IN PLACE. SPIN ACTS ON THESE LOCKING PINS AND, AFTER THE BLACK POWDER PELLET BURNS AWAY, THE PINS MOVE OUT TO UNLOCK THE ROTOR (2), WHICH IS MOUNTED ON THE PLATE (4). THE ROTOR THEN SWINGS INTO THE ARMED POSITION, CAMMING THE FIRING-PIN ASSEMBLY (1) UPWARD. THE FUZE IS NOW FULLY ARMED, AND IMPACT WITH A TARGET WILL DRIVE THE FIRING PIN INTO THE PRIMER (3) TO IGNITE, IN TURN, THE DETONATOR (5) AND THE BOOSTER (7).

(U)IF THE FUZE DOES NOT STRIKE A TARGET IN 2.5 TO 3 SECONDS, THE SELF-DESTRUCTION TRAIN WILL BURN THROUGH TO IGNITE THE DETONATOR WHICH WILL, IN TURN, DETONATE THE BOOSTER.

U N C L A S S I F I E D

FOM-1390-2-1-85-A
 NOMEN: FUZE, POINT-DETONATING SELF-DESTROYING, MODEL A-37 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ???

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- OBSOLETE IN U.S.S.R.

BOGSTER:
 BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 15.2
 FILLER MATERIAL --- PETN
 FILLER WEIGHT (G) - 4.23

USING COUNTRIES: ----- 002

PERFORMANCE:
 ARMING DISTANCE(M)- 45.7 MAX
 ARMING TIME ----- 0.06 SEC APPROX
 SELF-DESTRUCT TIME 2.5 TO 3 SEC
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:
 TYPE ----- IMPACT AND SELF-DESTROYIN
 MODEL ----- A-37
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 83.3
 LENGTH EXPOSED (MM) -- 63.7
 MAXIMUM DIAMETER (MM)- 29.7
 MAJ THREAD DIAM (MM) - 26.4
 THREAD PITCH (METRIC)- 1.5 MM
 WEIGHT COMPLETE (G) -- 176.9
 MARKINGS ----- A-37

USING PROJECTILES: -- 37-MM HEI-T CARTRIDGE
 - TYPE OZT

USING WEAPONS: ----- 37-MM AIRCRAFT
 - CANNON MODEL N-37

FUNCTIONAL DATA:
 ARMING METHOD ----- SPIN
 SELF-DESTR METHOD ---- POWDER TRAIN
 TYPE SAFETY DEVICE --- OUT-OF-LINE PRIMER

REFERENCES: -----

REMARKS:

FOM-1390-2-1-85-8

NOMEN: FUZE, POINT-DETONATING SELF-DESTROYING, MODEL A-37 (U)

PRODUCED/ADOPTED: ???

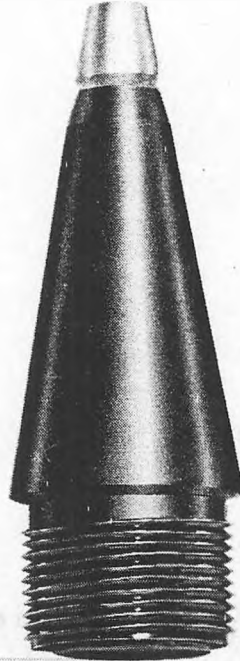
UNCLASSIFIED

CATALOG: TB-381-5-06

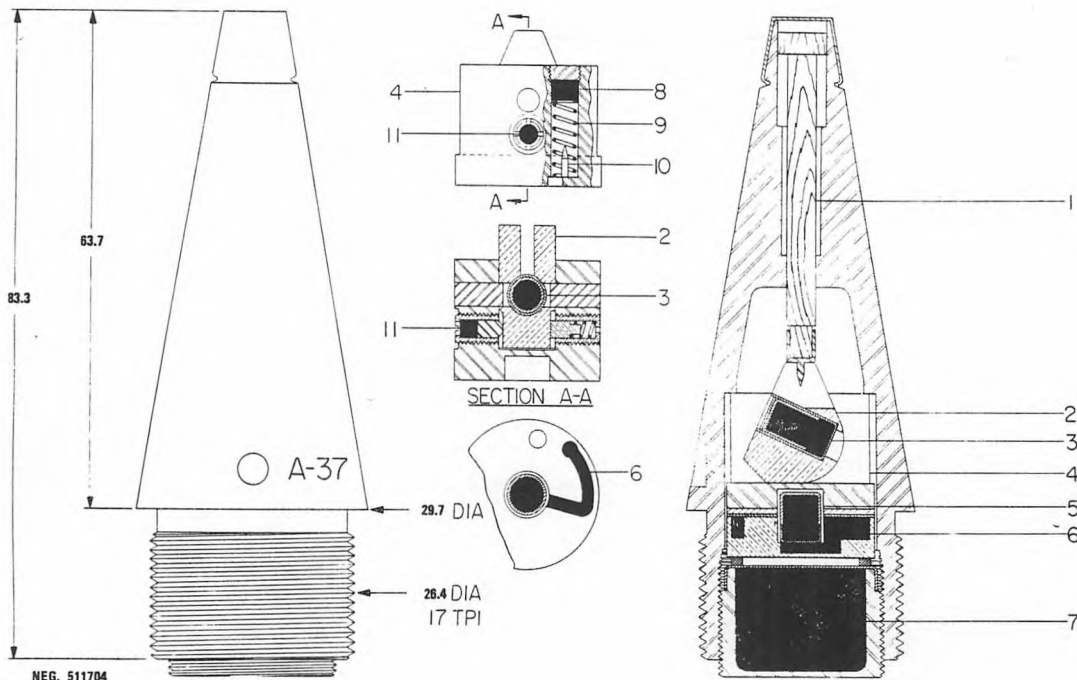
DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.



NEG. 511703



DATE CATALOGED: 01JAN67
VOLUME 06

UNCLASSIFIED

PAGE 93

U N C L A S S I F I E D

FOM-1390-2-1-85-B

NOMEN: FUZE, POINT-DETONATING SELF-DESTROYING, MODEL A-37 (U)

PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JAN67
VOLUME 06 PAGE 94

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-2-1-107-A

CATALOG: TB-381-5-06

NOMEN: FUZE, BASE-DETONATING, MODEL MR-Z (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ДОННЫЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ МР-З
PRODUCED/ADOPTED: ???

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL MR-Z BASE-DETONATING IMPACT FUZE IS A SETBACK-ARMED, BORES-AF-E FUZE DESIGNED WITH A SLIGHT DELAY. THE FUZE CONSISTS OF A CYLINDRICAL STEEL BODY DESIGNED WITH A HEAVY, MODIFIED-BUTTRESS THREAD FOR ASSEMBLING THE FUZE TO THE PROJECTILE.

(U)THE DIAGRAM ABOVE SHOWS THE MR-Z FUZE IN THE ARMED CONDITION. PRIOR TO BEING FIRED, THE ARMING SLEEVE (4) IS IN THE FORWARD POSITION, RESTING AGAINST THE PRIMER HOUSING (2). UPON BEING FIRED, SETBACK FORCES THE ARMING SLEEVE TO THE REAR, WHERE THE STIRRUP (5) ATTACHED TO THE STRIKER (6) EXPANDS INTO THE GROOVE CUT IN THE ARMING SLEEVE, LOCKING THE SLEEVE TO THE STRIKER. THE STRIKER IS HELD AWAY FROM THE PRIMER BY THE STRIKER SPRING (3). UPON IMPACT WITH THE TARGET, INERTIA DRIVES THE STRIKER FORWARD TO PIERCE THE PRIMER AND EXPLODE THE PROJECTILE. WHEN THE PROJECTILE IS FIRED, A LOCKING PIN (NOT SHOWN) MOVES TO THE REAR, PERMITTING THE ROTOR TO TURN UNDER THE CENTRIFUGAL FORCE DEVELOPED BY THE SPINNING PROJECTILE. WHEN THE FIRING CHANNEL (NOT SHOWN) IS ALINED BETWEEN THE PRIMER AND DETONATOR, A SPRING LOCKS THE ROTOR IN POSITION. ALTHOUGH THE METHOD OF OBTAINING DELAY IS NOT KNOWN, IT IS THOUGHT TO BE BY THE USE OF A DELAY PELLETT LOCATED BETWEEN THE PRIMER AND THE DETONATOR.

DATE CATALOGED: 01JAN65
VOLUME 06

PAGE 95

U N C L A S S I F I E D

U N C L A S S I F I E D

FQM-1390-2-1-107-A
NOMEN: FUZE, BASE-DETONATING, MODEL MR-Z (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- U.S.S.R., PEOPLES REPUBLIC
OF CHINA

BODY MATERIAL ----- STEEL
BODY LENGTH (MM) -- ?
FILLER MATERIAL ---- TETRYL
FILLER WEIGHT (G) - ?

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
MODEL ----- MR-Z
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) -- 89.1
LENGTH EXPOSED (MM) -- NONE
MAXIMUM DIAMETER (MM) - 35.8
MAJ THREAD DIAM (MM) - 31.1
THREAD PITCH (METRIC) - ?
WEIGHT COMPLETE (G) -- 285.7
MARKINGS ----- MP-3

PERFORMANCE:

ARMING DISTANCE (M) - ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- ?
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- 130-MM, CP, G- ?
- 130-MM, AP, BR-482

USING WEAPONS: ----- 130-MM FIELD GUN M-46

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- OUT-OF-LINE DETONATOR

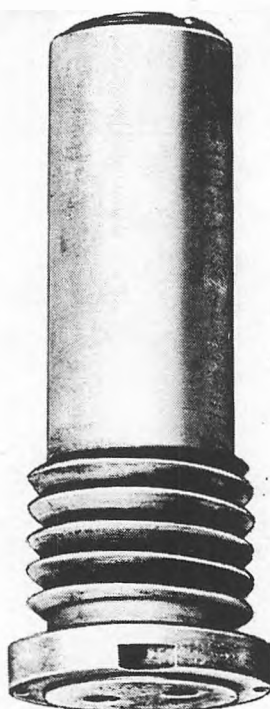
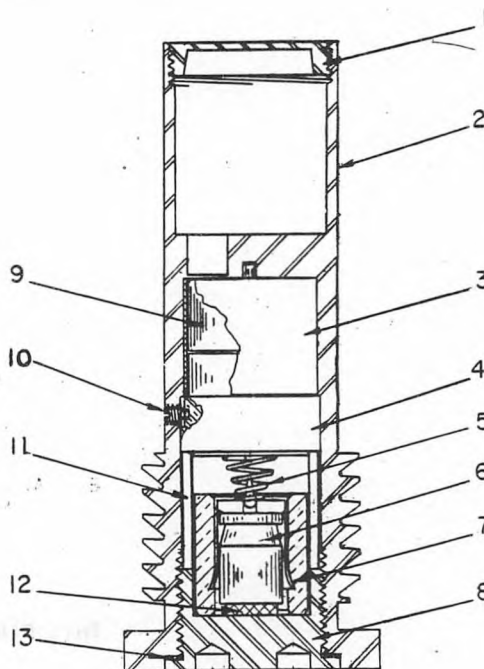
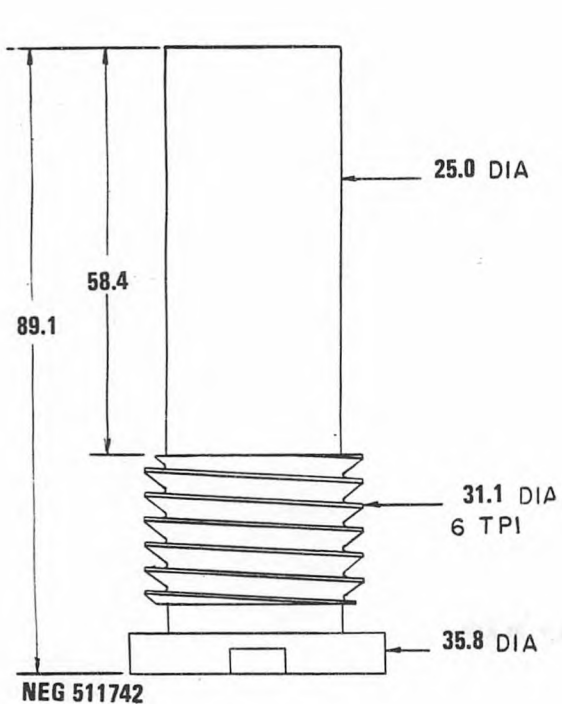
REMARKS:

DATE CATALOGED: 01JAN65
VOLUME 06 PAGE 96

U N C L A S S I F I E D

FOM-1390-2-1-107-B
NOMEN: FUZF, BASE-DETONATING, MODEL MR-Z (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 28 JAN 77
DATE UPDATED: 28 JAN 77
COUNTRY: U.S.S.R.



NEG. 511741

U N C L A S S I F I E D

FOM-1390-2-1-107-B
NOMEN: FUZE, BASE-DETONATING, MODEL MR-Z (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 28 JAN 77
DATE UPDATED: 28 JAN 77
COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01 JAN 65
VOLUME 06 PAGE 98

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-2-1-108-A

CATALOG: TB-381-5-06

NOMEN: FUZE, POINT DETONATING, MODEL GK-2 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНОЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ ГН-2
PRODUCED/ADOPTED: ???

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET GK-2 FUZE IS A GRAZE SENSITIVE, SETBACK-ARMED, IMPACT FIRED FUZE USED IN HE AND HEAT PROJECTILES. WHEN USED IN HEAT PROJECTILES, IT ACTS AS THE POINT INITIATING PORTION OF A SPITBACK-TYPE PIBD FUZING SYSTEM.

(U)FUNCTIONING OF THE GK-2 FUZE IS SIMILAR TO THAT OF THE GK-1. UPON FIRING OF THE PROJECTILE, SETBACK FORCES THE SETBACK SLEEVE (15) TO THE REAR, RELEASING THE SLEEVE RETAINING BALL (14) WHICH FALLS INTO THE FUZE BODY CAVITY (5). AS THE SETBACK FORCE DECREASES, THE SLEEVE SPRING (4) THAT HAS BEEN COMPRESSED BY SETBACK FORCE EXPANDS MOVING THE SLEEVE (15) FORWARD TO THE UNDERSIDE OF THE HEAD OF THE FIRING PIN ASSEMBLY (13). DELAY-ARMING IS ACHIEVED BY THE USE OF A ZIGZAG SLOT CUT IN THE SETBACK SLEEVE. A PIN (16) PROJECTS THROUGH THE SLOT, RETARDING THE FORWARD MOTION OF THE SLEEVE. THE FOUR FIRING PIN RETAINING BALLS (6) ARE NOW RELEASED, ALLOWING THEM TO DROP INTO THE FUZE BODY CAVITY. THE FUZE IS NOW ARMED, AND THE FIRING PIN (7) IS HELD AWAY FROM THE PRIMER-DETONATOR (9) ONLY BY THE EXPANDED FIRING PIN SPRING (17). ON IMPACT, THE PLUNGER (2) IS DRIVEN AGAINST THE FIRING PIN ASSEMBLY (13) WHICH, IN TURN, PIERCES AND INITIATES THE PRIMER-DETONATOR, RESULTING IN DETONATION OF THE BOOSTER (18). THE GK-2 FUZE WILL FUNCTION IF THE TARGET IS HIT AT A SLIGHT ANGLE, AS THE BOOSTER HOLDER (10) IS MACHINED WITH A SLANTED SURFACE THAT WILL CAUSE THE PRIMER-DETONATOR ASSEMBLY TO MOVE FORWARD ONTO THE FIRING PIN (7) WHEN THE BOOSTER HOLDER IS JARRED SIDEWAYS IN ITS MOUNTING PLACE. TO PREVENT PREMATURE FUNCTIONING FROM SLIGHT WIND PRESSURE, A SEALING CAP (12) IS PLACED OVER THE PLUNGER (2). FOR HANDLING AND TRANSPORT, THE GK-2 FUZE IS MADE SAFE BY THE USE OF FOUR RETAINING BALLS (6) THAT PREVENT THE FIRING PIN FROM PREMATURELY INITIATING THE PRIMER-DETONATOR.

DATE CATALOGED: 01JAN65
VOLUME 05

U N C L A S S I F I E D

PAGE 99

U N C L A S S I F I E D

FOM-1390-2-1-108-A
 NOMEN: FUZE, POINT DETONATING, MODEL GK-2 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- OBSOLETE

USING COUNTRIES: ----- U.S.S.R.

BOOSTER:

BODY MATERIAL ----- ALUMINUM
 BODY LENGTH (MM) -- 12.7
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - 123

PERFORMANCE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- *2

USING WEAPONS: ----- *3

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT DETONATING
 MODEL ----- GK-2
 BODY MATERIAL ----- ALUMINUM
 LENGTH OVERALL (MM) -- 101.3
 LENGTH EXPOSED (MM) -- 74.6
 MAXIMUM DIAMETER (MM) - 39.6
 MAJ THREAD DIAM (MM) - 35.8
 THREAD PITCH (METRIC) - ?
 WEIGHT COMPLETE (G) -- 170.1
 MARKINGS ----- RK-2

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ----- NONE
 TYPE SAFETY DEVICE --- *1

REMARKS:

1/ SAFETY CAP AND FIRING PIN
 RETAINING BALLS, ZIGZAG DELAY SLOT

2/ 82-MM, FRAG, O-881A, 82-MM, HEAT, BK-881, 107-MM, FRAG-HE, OF-883A, 107-MM, HEAT, BK-883

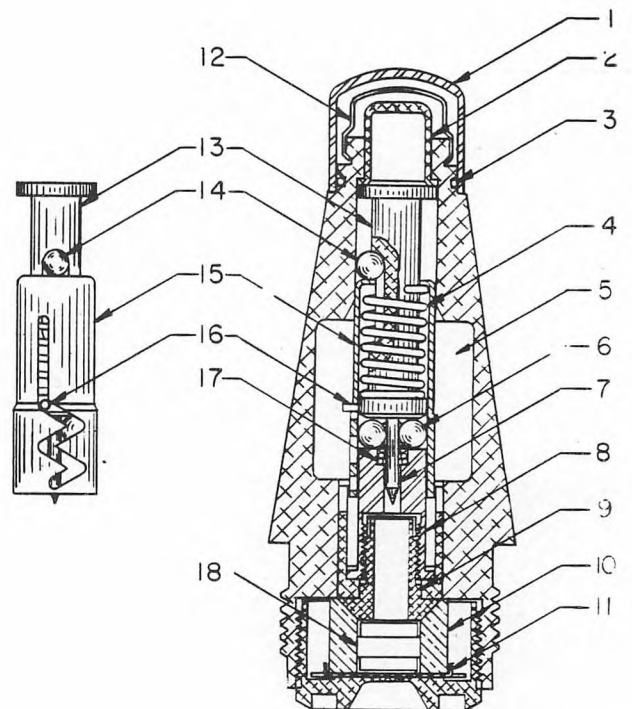
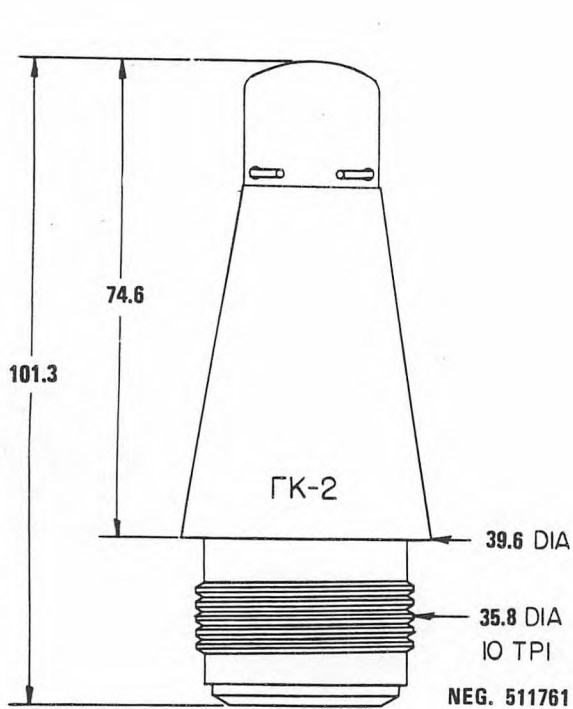
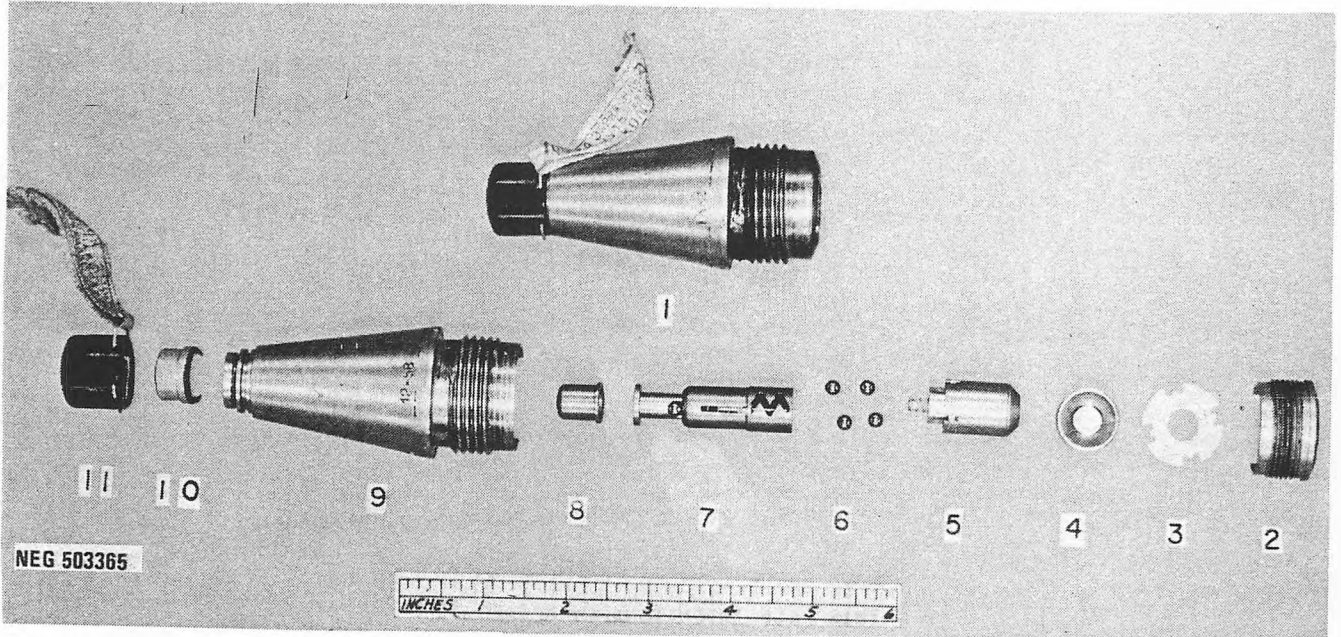
3/ 82-MM RECOILLESS GUN MODEL B-10
 107-MM RECOILLESS GUN MODEL B-11

FOM-1390-2-1-108-B
NOMEN: FUZE, POINT DETONATING, MODEL GK-2 (U)

UNCLASSIFIED

PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



DATE CATALOGED: 01JAN65
VOLUME 06

UNCLASSIFIED

U N C L A S S I F I E D

FOM-1390-2-1-108-B

NOMEN: FUZE, POINT DETONATING, MODEL GK-2 (U)

PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JAN65
VOLUME 06 PAGE 102

U N C L A S S I F I E D

NOMEN: FUZE, POINT DETONATING, MODEL GK-2M (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ГОЛОВНОЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ ГК-2М
PRODUCED/ADOPTED: 1960/?DATE UPDATED: 02FEB77
COUNTRY: U.S.S.R.

(U)THE GK-2M IS A POINT-DETONATING FUZE WITH ZIGZAG DELAY ARMING AND GRAZE SENSITIVE FEATURES. ALTHOUGH IT CAN BE EMPLOYED WITH HE PROJECTILES, IT IS PRIMARILY USED AS THE POINT-INITIATING PORTION OF A SPITBACK TYPE PIBD FUZING SYSTEM ASSOCIATED WITH HEAT OR SHAPED-CHARGE PROJECTILES.

(U)THE GK-2M IS AN IMPROVED VERSION OF THE GK-1 AND GK-2 FUZES WITH AN ATTEMPT TO INCREASE THE ARMING DISTANCE AND IMPROVE GRAZE SENSITIVITY BY USING A CONE-SHAPED PLUNGER AND CONE-SHAPE RELIEF IN THE NOSE SECTION.

(U)FUNCTIONING OF THE GK-2M FUZE IS SIMILAR TO THAT OF THE GK-1 AND GK-2 FUZES. UPON FIRING, SETBACK FORCES THE ZIGZAG SLOT SLEEVE (4) REARWARD. RELEASING THE SLEEVE RETAINING BALL (3), WHICH FALLS INTO THE FUZE BODY CAVITY (5). THE TRAVEL OF THE BALL (3) IN THE ZIGZAG SLOT OF THE SLEEVE (4) PROVIDES AN ARMING DELAY.

(U)AS SETBACK DECREASES, THE SLEEVE SPRING (9), WHICH WAS COMPRESSED BY THE SLEEVE ON INITIAL SETBACK, EXPANDS, MOVING THE SLEEVE FORWARD TO THE HEAD OF THE FIRING-PIN ASSEMBLY (2), THEREBY RELEASING THE FOUR SAFETY BALLS (6) AND ALLOWING THEM TO DROP INTO THE FUZE BODY CAVITY. THE FUZE IS NOW ARMED AND THE FIRING PIN IS HELD AWAY FROM THE PRIMER-DETONATOR (7) BY THE FIRING-PIN SPRING (10). ON IMPACT OF THE PROJECTILE, THE PLUNGER (1) IS DRIVEN AGAINST THE FIRING-PIN ASSEMBLY WHICH, IN TURN, PIERCES AND INITIATES THE PRIMER-DETONATOR RESULTING IN DETONATION OF THE BOOSTER (8).

U N C L A S S I F I E D

FOM-1390-2-1-109-A
 NOMEN: FUZE, POINT DETONATING, MODEL GK-2M (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 02FEB77

COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: 1960/?

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 002

BOOSTER:

BODY MATERIAL ----- BRASS
 BODY LENGTH (MM) -- 11.7
 FILLER MATERIAL --- PETN
 FILLER WEIGHT (G) - 16

PERFORMANCE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- *1

USING WEAPONS: ----- *2

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT DETONATING
 MODEL ----- GK-2M
 BODY MATERIAL ----- ALUMINUM
 LENGTH OVERALL (MM) -- 121.7
 LENGTH EXPOSED (MM) -- 96.5
 MAXIMUM DIAMETER (MM)- 39.62 MM
 MAJ THREAD DIAM (MM) - 35.8 MM
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- 201.9 G
 MARKINGS ----- GK-2M, 3144, 11-60

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- N/A
 TYPE SAFETY DEVICE --- LOCKING BALL, ZIGZAG SLOT
 DELAY ARMING

REMARKS:

1/ 82-MM; HEAT BK-881M; 82-MM; FRAG O-881A;
 107-MM; HEAT BK-883?; 107-MM; FRAG-HE OF-883A

2/ 82-MM RECOILLESS GUN MODEL B-10;
 107-MM RECOILLESS GUN MODEL B-11

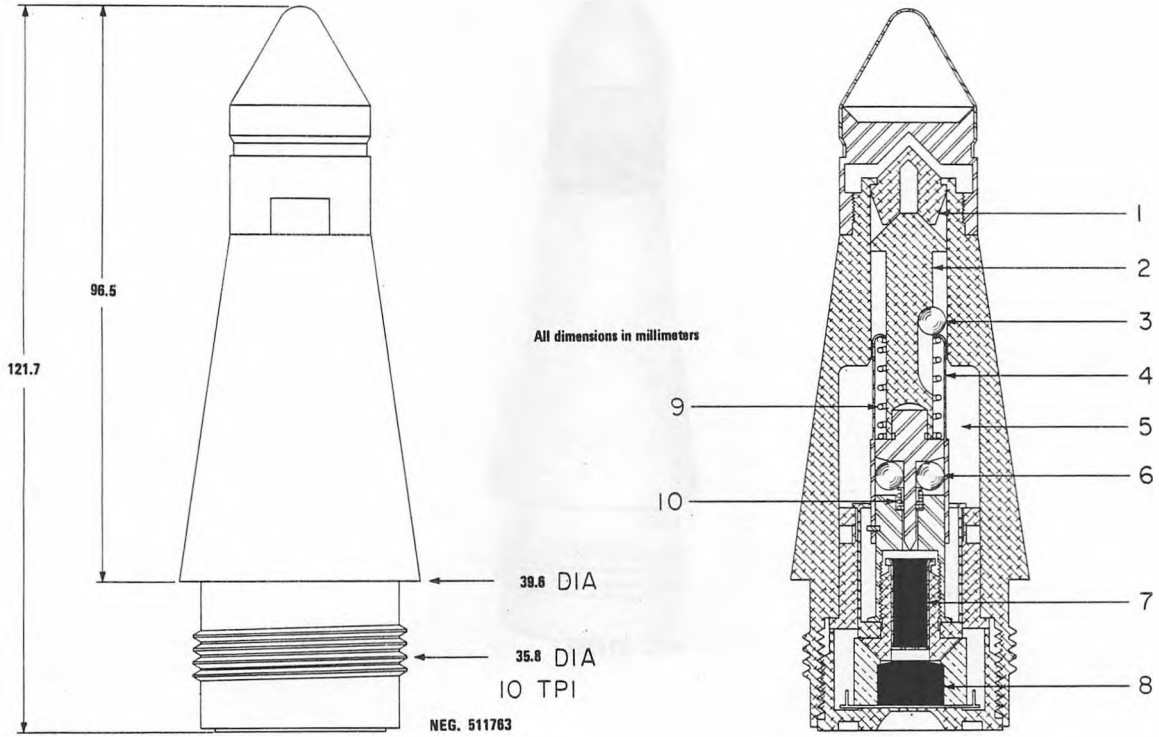
UNCLASSIFIED

FDM-1390-2-1-109-B
NOMEN: FUZE, POINT DETONATING, MODEL GK-2M (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: 1960/?

COUNTRY: U.S.S.R.



U N C L A S S I F I E D

FOM-1390-2-1-109-B

NOMEN: FUZE, POINT DETONATING, MODEL GK-2M (U)

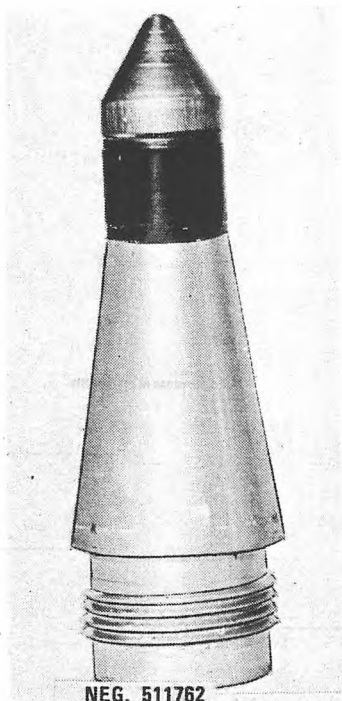
PRODUCED/ADOPTED: 1960/?

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 02FEB77

COUNTRY: U.S.S.R.



DATE CATALOGED: 01JUN72
VOLUME 06 PAGE 106

U N C L A S S I F I E D

NOMEN: FUZE, POINT INITIATING BASE DETONATING, MODEL GPV-2 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНОЙ ПЬЕЗОЭЛЕКТРИЧЕСКИЙ ВЗРЯВТЕЛЯ ГПВ-2
PRODUCED/ADOPTED: ?/1965DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)DESCRIPTION. THE GPV-2 FUZE IS A POINT INITIATING BASE DETONATING FUZE WITH NO DELAY OR GRAZE FEATURES. IT IS ARMED WHEN SETBACK FORCES DISSIPATE. THE FUZE IS PIEZOELECTRICALLY INITIATED UTILIZING A SPITBACK METHOD OF IGNITING THE BASE DETONATOR AND BOOSTER PELLET AT THE REAR OF THE SHAPED CHARGE CONE. THE FUZE IS EMPLOYED ON THE 76, 85, 100, 115, AND 122 MM HIGH EXPLOSIVE ANTITANK FIN-STABILIZED PROJECTILES. IT IS THREADED TO THE PROJECTILE NOSE OGIVE. THE BODY CONTAINS TWO FLATS AND ONE HOLE FOR WRENCH TIGHTENING THE FUZE TO THE PROJECTILE.

(U)THE FUZE IS CONSTRUCTED OF TWO ALUMINUM BODIES; THE MAIN FUZE BODY HOUSES THE PIEZOELECTRIC COMPONENTS AND THE ARMING BODY. THE ARMING BODY HOUSES THE ARMING COMPONENTS, DETONATOR, RELAY AND BOOSTER ASSEMBLY THREADS (LEFT HAND) INTO THE MAIN FUZE BODY. THE FUZE CONTAINS A STEEL SAFETY CAP FOR PROTECTION DURING SHIPPING AND HANDLING AND A PROTECTIVE CAP FOR PROTECTION FROM THE ELEMENTS. AN ORANGE SEALANT IS ADDED TO THE FUZE BODY PRIOR TO ROLL CRIMPING THE PROTECTIVE CAP TO THE BODY. AFTER THE ARMING BODY IS THREADED INTO THE FUZE BODY A PLASTIC SEAL RING AND ALUMINUM RING ARE ADDED TO PREVENT ELEMENTS FROM ENTERING THE FUZE.

(U)FUNCTIONING. PRIOR TO FIRING THE ROUND THE FUZE SAFETY CAP (1) WIRE AND TAG ARE REMOVED BY PULLING THE TAGGED WIRE FROM THE SAFETY CAP. AS THE ROUND IS FIRED SETBACK FORCES TWO SPRING LOADED PLUNGERS, TAPERED (15) AND GROOVED (28), TO COMPRESS IN THE ARMING BODY (25). SIMULTANEOUSLY, SETBACK FORCES A SPRING LOADED SAFETY GROUND CAP (12) TO COMPRESS CAUSING LOSS OF CONTACT WITH THE PIEZOELECTRIC INSULATED METAL CONTACT (10). THE TAPERED PLUNGER (15) LOCKS THE SLIDER RETAINER BALL (16) IN THE SLIDER (29) PREVENTING MOVEMENT OF THE SLIDER. SETBACK ON THE GROOVE PLUNGER (28) FREES THE SLIDER RETAINING BALL (27) WHICH FALLS FREE FROM ITS LOCKED POSITION INTO AN ANGLED CHANNEL PAST THE GROOVED PLUNGER (28). AS SETBACK FORCES DISSIPATE THE TAPERED PLUNGER (15) MOVES FORWARD AND THE SLIDER RETAINING BALL (16) MOVES INTO THE TAPERED PLUNGERS CHANNEL FREEING THE SLIDER. SPRING TENSION ON THE SLIDER (29), FROM THE MOUSE TRAP TYPE SPRING (34), MOVES THE SLIDER INTO ELECTRICAL AND EXPLOSIVE ALIGNMENT. THE SPRING LOADED ELECTRIC DETONATOR CAP (31) IS NOW IN CONTACT WITH THE INSULATED METAL CONTACT (10). THE FUZE IS NOW ARMED.

(U)UPON IMPACT THE ANVIL (4) IS STRESSED AGAINST THE PIEZOELECTRIC ELEMENT (6) PRODUCING CURRENT TO THE ELECTRIC DETONATOR CAP (31) INITIATING THE ELECTRIC DETONATOR (26). THE CIRCUIT IS COMPLETED FROM THE POSITIVE SIDE OF THE PIEZOELECTRIC ELEMENT (6) THROUGH THE CONTACT DISC (9), INSULATED METAL CONTACT (10), ELECTRIC DETONATOR CAP (31), DETONATOR CAP SPRING (32), ELECTRIC DETONATOR (26), SLIDER (29), ARMING BODY (25), FUZE BODY (11), ADAPTER (3), ANVIL (4) AND PIEZOELECTRIC CAP (5) TO THE NEGATIVE SIDE OF THE PIEZOELECTRIC ELEMENT. THE ELECTRIC DETONATOR FIRES THROUGH THE ARMING BODY INITIATING THE RELAY (18) WHICH INITIATES THE SPITBACK BOOSTER CUP (21). THE FLASH TRAVELS THROUGH THE DEFLECTOR AND SHAPED CHARGE CONE INTO THE WAVE SHAPER TUBE INITIATING THE BASE DETONATOR. THE DETONATOR INITIATES THE PELLET IN THE BASE WAVE SHAPER SETTING OFF THE HIGH EXPLOSIVE CHARGES.

U N C L A S S I F I E D

FOM-1390-2-1-110-A
NOMEN: FUZE, POINT INITIATING BASE DETONATING, MODEL GPV-2 (U)
PRODUCED/ADOPTED: 7/1965

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

----- POINT INITIATING ----- ----- BASE DETONATING -----
CURRENT STATUS: ----- STANDARD
FUZE ASSEMBLY COMPLETE:
TYPE ----- PIBD
MODEL ----- GPV-2
BODY MATERIAL ----- ALUMINUM
LENGTH OA (MM) ----- 98
MAX DIAMETER (MM) --- 40
MAJ THREAD DIAM (MM)--- 36
WEIGHT COMPLETE (G) - 191
ARMING VANES - NO --- NONE
MARKINGS ----- SEE PHOTO

FUNCTIONAL DATA:
ARMING METHOD --- SETBACK
SELF-DESTR
METHOD ----- N/A
TYPE SAFETY DVC - *1

BOOSTER:
BODY MATERIAL --- STEEL
BODY LENGTH (MM)--- 23
FILLER MATERIAL - PETN
FILLER WT (G) --- 2.6

PERFORMANCE:
ARMING DISTANCE - ?
ARMING TIMING --- ?
VANE REVOLUTIONS
TO ARM ----- N/A
SELF-DESTR TIME - N/A
DELAY TIME ---- - INSTANTANEOUS

USING PROJECTILES: - *2

USING WEAPONS: ----- *3
-
-
-
-

REMARKS:
1/ OUT OF LINE DETONATOR,
ELECTRICAL DISCONNECT
PROTECTIVE CAP

3/ ALL ECC 76, 85 AND 100 MM TANK
AND FIELD GUNS. 115 MM GUN MODEL
U-5TS ON T62 TANK; 122 MM MODEL
D-30 HOWITZER

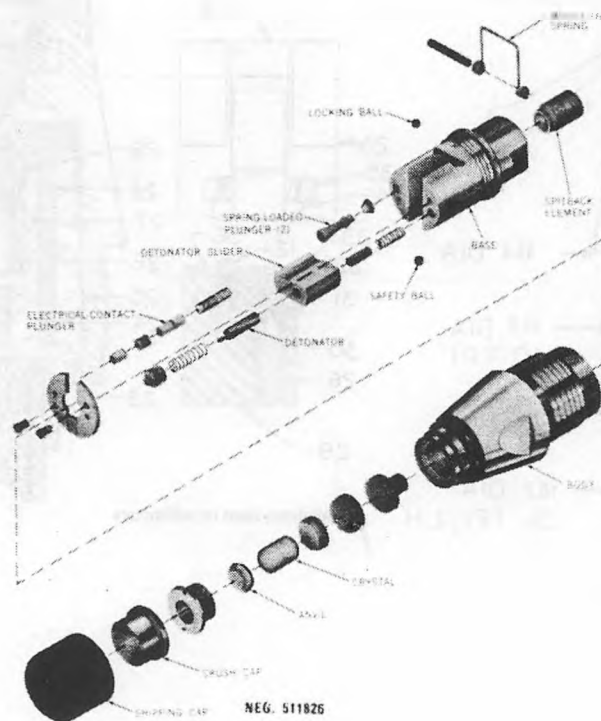
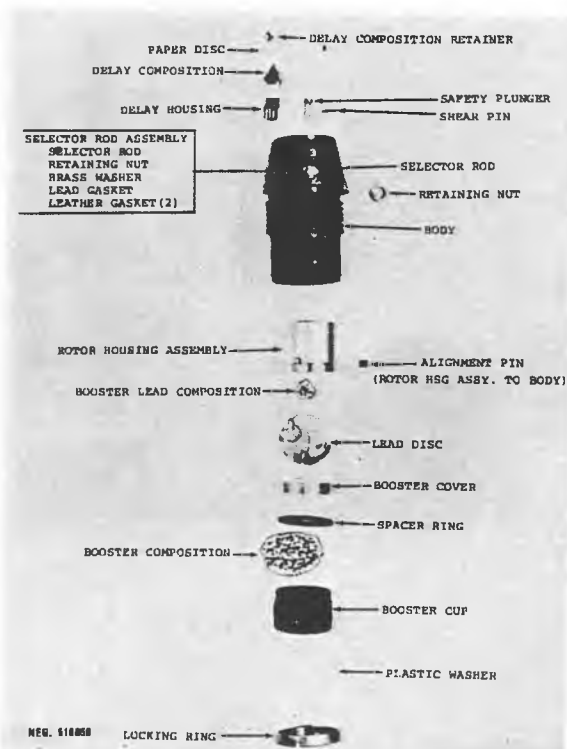
2/ 76 MM HEAT-FS PROJECTILE MODEL BK-354 M
85 MM HEAT-FS PROJECTILE MODEL BK-2M
100 MM HEAT-FS PROJECTILE MODEL ZBK-5M
115 MM HEAT-FS PROJECTILE MODEL BK-4M
122 MM HEAT-FS PROJECTILE MODEL BK-6M

DATE CATALOGED: 12FEB75
VOLUME 06 PAGE 108

UNCLASSIFIED

FOM-1390-2-1-110-B
NOMEN: FUZE, POINT INITIATING BASE DETONATING, MODEL GPV-2 (U)
PRODUCED/ADOPTED: 7/1965

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



UNCLASSIFIED

FOM-1390-2-1-110-B

NOMEN: FUZE, POINT INITIATING BASE DETONATING, MODEL GPV-2 (U)

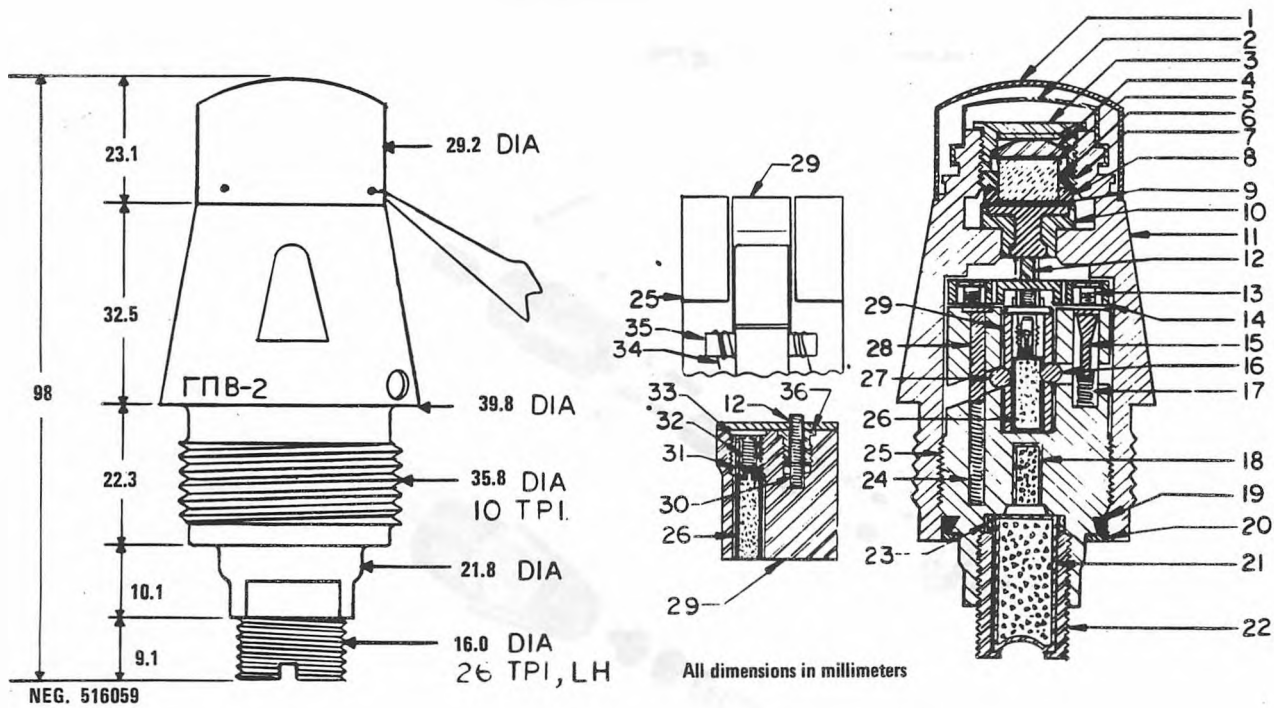
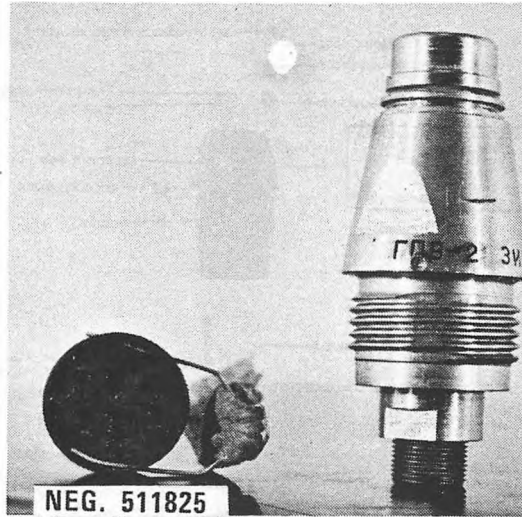
PRODUCED/ADOPTED: ?/1965

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.



UNCLASSIFIED

NOMEN: FUZE, PD, MODEL V-429 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: B3P_hBATE/Ь B-429

DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: 1958/?

COUNTRY: U.S.S.R.

(U)DESCRIPTION. THE V-429 IS A SETBACK ARMED, IMPACT FIRED FUZE WHICH CLOSELY RESEMBLES THE RGM-2 AND RGM-6 IN EXTERNAL APPEARANCE AND FUNCTIONING. MANY OF ITS INTERNAL COMPONENTS HAVE BEEN REDESIGNED TO IMPROVE THEIR PERFORMANCE. THE BODY IS MACHINED FROM STEEL, THE UPPER PORTION BEING CADMIUM PLATED AND THE LOWER BODY BLUED. ALL OPENINGS ARE SEALED BY SEALING RINGS. THE V-429 FUZE IS DESIGNED FOR USE WITH HIGH EXPLOSIVE PROJECTILES RANGING IN SIZE FROM 100 THRU 152MM. IT HAS THREE MODES OF FUNCTIONING: SUPERQUICK, NON-DELAY, AND DELAY. THE MODE OF FUNCTIONING DEPENDS ON THE FUZE SETTING AND PRESENCE OR ABSENCE OF THE PROTECTIVE CAP.

(U)FUNCTIONING. WHEN THE CARTRIDGE IS FUNCTIONED AND THE PROJECTILE CONTAINING THE FUZE MOVES FORWARD, SETBACK CAUSES THE FIRING PIN (4 AND 7) AND SLEEVE (5) TO BEGIN TO MOVE REARWARD. HOWEVER, THE BALL BEARINGS (31) RESTRICT THE REARWARD MOVEMENT OF THE FIRING PIN (4 AND 7) CAUSING THE SLEEVE (5) TO COMPRESS THE FIRING PIN RETAINER SPRING (6) AND MOVE REARWARD RELATIVE TO THE FIRING PIN (4). THIS RELEASES THE TOP BALL BEARING (29), AND CENTRIFUGAL FORCE PULLS IT INTO THE CAVITY OF THE FUZE NOSE (30).

(U)AT THE SAME TIME, THE SETBACK SLEEVE (42) COMPRESSES THE SETBACK SLEEVE SPRING (21) AND THEREBY MOVES BELOW THE CONICAL HEAD OF THE ROTOR LOCKING PIN (20). SETBACK AND CENTRIFUGAL FORCES ARE THEN FREE TO PULL THE BALL BEARING (19) OFF THE PIN AND ONTO THE TOP OF THE SETBACK SLEEVE (42).

(U)WHEN SETBACK DIMINISHES - DUE TO THE PROJECTILE LEAVING THE BORE OF THE GUN - THE FIRING PIN RETAINER SPRING (6) MOVES THE SLEEVE (5) FORWARD INTO THE SPACE FORMERLY OCCUPIED BY THE TOP BALL BEARING (29) AND UNCOVERS THE BALL BEARINGS (31) WHICH BEAR AGAINST THE FIRING PIN BOTTOM (7). CENTRIFUGAL FORCE PULLS THESE BALLS OUT OF THE CAVITIES IN THE PRIMER HOUSING (8) AND RELEASES THE FIRING PIN. THE FIRING PIN RETAINER SPRING (6) PREVENTS CREEP FROM PUSHING THE PRIMER HOUSING (8) CONTAINING THE PRIMER (10) INTO THE FIRING PIN BOTTOM (7).

(U)SIMULTANEOUSLY WITH THE EVENT IN PARAGRAPH 3 ABOVE, THE ROTOR LOCKING PIN SPRING (22) MOVES THE ROTOR LOCKING PIN (20) INTO THE AREA VACATED BY THE LOWER BALL BEARING (19), UNLOCKING THE ROTOR (45).

(U)AFTER THE ROTOR (45) IS UNLOCKED, THE ROTOR SPRING (18) ROTATES THE ROTOR (45) APPROXIMATELY 150 DEGREES UNTIL THE END OF THE CIRCULAR GROOVE IN THE ROTOR (45) HITS THE ROTOR STOP PIN (23). THIS ALIGNS THE MAIN DETONATOR (43) AND THE TETRYL BOOSTER LEAD (24). THE FUZE IS NOW ARMED.

(U)SHOULD THE PRIMER (10) DETONATE PRIOR TO ARMING, EXPANDING GASES FROM THE PRIMER DRIVE THE SAFETY PLUNGER (36) DOWNWARD, SHEARING THE SHEAR PIN (38) AND BLOCKING FURTHER TRAVEL OF THE ROTOR ARM PLATE (39) WHICH IS ATTACHED TO THE ROTOR (45), THEREBY PREVENTING ARMING. THIS IS NECESSARY IN THE DELAY MODE TO PREVENT DETONATION OF THE REMAINING EXPLOSIVE TRAIN ELEMENTS IMMEDIATELY AFTER ARMING OCCURS IN THE EVENT THE DELAY COMPOSITION (15) IS ACCIDENTALLY IGNITED.

(U)WITH THE FUZE SETTER (16) SET AT "0", A FLASH HOLE IS OPEN BETWEEN THE PRIMER (10) AND THE MAIN DETONATOR (43). WHEN THE CAP (1) IS OFF, FUZE IMPACT CRUSHES THE COVER (2), COMPRESSES THE FIRING PIN RETAINER SPRING (6), AND DRIVES THE FIRING PIN (4 AND 7), INTO THE PRIMER (10). WITH THE CAP (1) ON, BUT WITH THE SAME SETTING, DECELERATION OF THE FUZE DRIVES THE PRIMER HOUSING (8) AND PRIMER (10) AGAINST THE FIRING PIN RETAINER SPRING (6), COMPRESSING IT AND IMPALING THE PRIMER (10) ON THE POINTED FIRING PIN BOTTOM (7). IN BOTH CASES, FLASH FROM THE IGNITION OF THE PRIMER PASSES THROUGH THE FLASH HOLE IN THE FUZE SETTER (16), IGNITING THE MAIN DETONATOR (43). WITH THE ROTOR IN THE ARMED CONDITION, EXPANDING GAS FROM THE PRIMER DEPRESSES THE SAFETY PLUNGER (36), SHEARING THE SHEAR PIN (38) AND LOCKING THE ROTOR ARM PLATE (39) - AND THUS THE ROTOR (45) - IN THE ARMED CONDITION. FLASH FROM THE MAIN DETONATOR (43) IGNITES THE TETRYL BOOSTER LEAD (24) WHICH IN TURN IGNITES THE TETRYL BOOSTER (5) WHICH DETONATES THE PROJECTILE. IT SHOULD BE NOTED THAT, WITH THE FUZE IN THE UNARMED CONDITION AND WITH THE FUZE SETTER (16) SET AT "0", IGNITION OF THE PRIMER (10) WILL RESULT IN IGNITION OF THE MAIN DETONATOR (43). HOWEVER, THE MAIN DETONATOR (43) WILL NOT IGNITE THE TETRYL BOOSTER LEAD (24).

UNCLASSIFIED

FOM-1390-2-1-111-A
 NOMEN: FUZE, PD, MODEL V-429 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: 1958/?

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 002,005,006,007,008

BOOSTER:

BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 46
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - 12

PERFORMANCE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- ?
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- *1

USING WEAPONS: ----- *2

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT DETONATING
 MODEL ----- V-429
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 105
 LENGTH EXPOSED (MM) -- 58
 MAXIMUM DIAMETER (MM)- 40
 MAJ THREAD DIAM (MM) - 36
 THREAD PITCH (METRIC)- 2.5 MM
 WEIGHT COMPLETE (G) -- 440
 MARKINGS ----- B-429

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- N/A
 TYPE SAFETY DEVICE --- OUT-OF-LINE DETONATOR

REMARKS:

1/ 100 MM FRAG-HE MODEL OF-412 & OF412 U
 122 MM FRAG-HE MODEL OF-472
 130 MM FRAG-HE MODEL OF-482
 152 MM FRAG-HE MODEL OF-540
 2/ 100 MM TANK, ASSAULT, & FIELD ARTILLERY
 122 MM D74 FIELD GUN
 122 MM D30 HOWITZER
 130 MM M46 FIELD GUN
 152 MM D20 HOWITZER

DATE CATALOGED: 14FEB75
 VOLUME 06 PAGE 112

UNCLASSIFIED

U N C L A S S I F I E D

FOM-1390-2-1-111-8
NOMEN: FUZE, PD. MODEL V-429 (U)
PRODUCED/ADOPTED: 1958/?

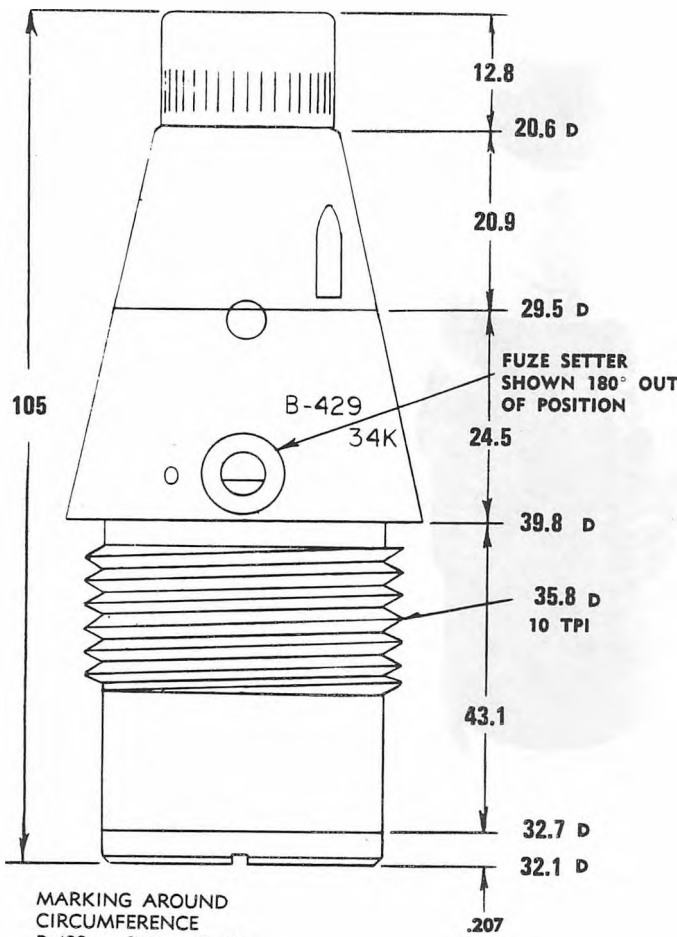
CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



NEG. 511808

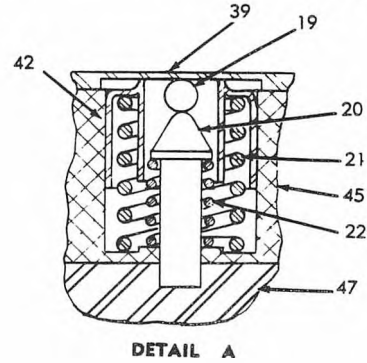
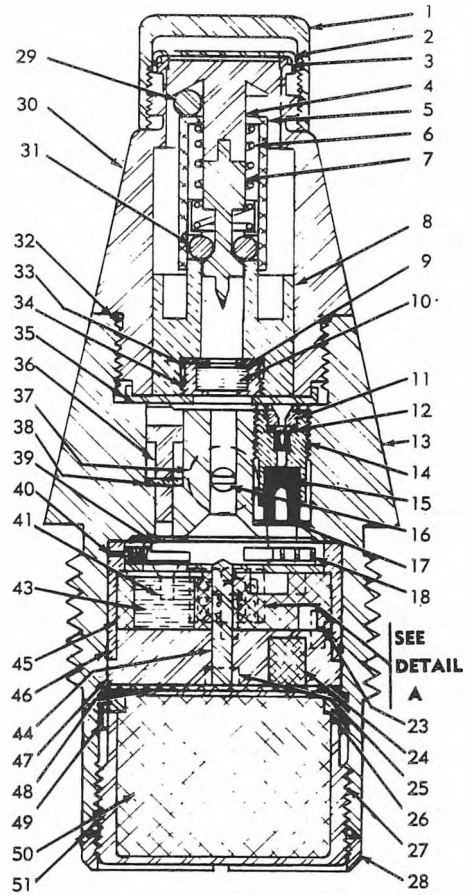
FOM-1390-2-1-111-B
NOMEN: FUZE, PD, MODEL V-429 (U)
PRODUCED/ADOPTED: 1958/?

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



ALL DIMENSIONS IN millimeters

NEG. 516040



NOMEN: FUZE, POINT DETONATING, MODEL V-429E (U)

DATE REVIEWED: 28JAN77

NATIVE DES: БЗРыВАТЕЛь В-429Е
PRODUCED/ADOPTED: 1961/?DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)DESCRIPTION: THIS FUZE IS PATTERNED AFTER THE BASIC MODEL V-429 POINT DETONATING FUZE (FOM-1390-2-1-111). WHILE THE BASIC FUZE HAS BEEN OBSERVED WITH 100, 122, 130, AND 152 MM HIGH EXPLOSIVE PROJECTILES, THE V-429E FUZE HAS BEEN ASSOCIATED ONLY WITH THE 115 MM HIGH EXPLOSIVE PROJECTILE. THE V-429E FUZE POSSESSES A MODIFICATION OVER THE BASIC FUZE TO ENABLE IT TO BE FIRED SAFELY FROM THE SMOOTHBORE GUN ON THE T-62 TANK. THIS MODIFICATION, OR IMPROVEMENT, CONSISTS OF AN ADDITIONAL COMPONENT CALLED THE PRIMER HOUSING STOP SLEEVE. ITS PURPOSE IS TO PRECLUDE PREMATURE FUZE FUNCTION DUE TO SHOCK WHEN THE PROJECTILE FINS DEPLOY OR IN CASE EXCESSIVE PROJECTILE YAW IS EXPERIENCED.

(U)THE FUZE HAS THREE MODES OF FUNCTIONING: SUPERQUICK, NON-DELAY, AND DELAY. THE DESIRED MODE DEPENDS ON THE FUZE SETTING AND THE PRESENCE OF ABSENCE OF THE PROTECTIVE CAP.

(U)SEALING OF THE FUZE IS ACCOMPLISHED BY: PLASTIC WASHERS BETWEEN; NOSE CAP AND NOSE; COVER AND NOSE; BASE OF NOSE AS A SEAL BETWEEN NOSE AND BODY AND A PLASTIC WASHER IN BASE OF BODY RETAINED BY LOCKING RING; A LEAD DISC BETWEEN BASE OF ROTOR AND BOOSTER ASSEMBLY; PAPER WASHERS ON EITHER SIDE OF PRIMER; PAPER DISC BETWEEN DELAY COMPOSITION RETAINER AND DELAY COMPOSITION RETAINER AND DELAY COMPOSITION; LEAD GASKET; 2 LEATHER GASKETS AS SEALS ON THE SELECTOR ROD ASSEMBLY AND LACQUER.

(U)FUNCTIONING: WHEN THE CARTRIDGE IS FUNCTIONED AND THE PROJECTILE CONTAINING THE FUZE MOVES FORWARD, SETBACK CAUSES THE FIRING PIN (3), SPRING RETAINER SLEEVE (4) AND FIRING PIN SPRING (5) TO BEGIN TO MOVE REARWARD. HOWEVER, THE FIRING PIN RETAINING BALLS (46) RESTRICT THE REARWARD MOVEMENT OF THE FIRING PIN (3) CAUSING THE SPRING RETAINER SLEEVE (4) TO COMPRESS THE FIRING PIN SPRING (5) AND MOVE REARWARD RELATIVE TO THE FIRING PIN (3). THIS RELEASES THE FIRING PIN STOP BALL (48) AND CENTRIFUGAL FORCE PULLS IT INTO THE CAVITY OF THE FUZE NOSE (6).

(U)AT THE SAME TIME, SETBACK COMPRESSES THE ROTOR CUP (18) TO MOVE REARWARD COMPRESSING THE CUP SPRING (19). THIS PERMITS THE ROTOR LOCK PIN (22) TO UNSEAT THE ROTOR PIN BALL (20). SETBACK AND CENTRIFUGAL FORCES ARE THEN FREE TO PULL THE PIN BALL (20) OFF ITS SEAT AND ONTO THE TOP OF THE ROTOR CUP (18) GROOVED AREA.

(U)WHEN SETBACK DIMINISHES, DUE TO THE PROJECTILE LEAVING THE BORE OF THE GUN, THE FIRING PIN SPRING (5) MOVES THE SPRING RETAINER SLEEVE (4) FORWARD INTO THE SPACE FORMERLY OCCUPIED BY THE FIRING PIN STOP BALL (48) AND UNCOVERS THE FIRING PIN RETAINING BALLS (46). CENTRIFUGAL FORCE PULLS THESE BALLS OUT OF THE PRIMER HOUSING (7) AND RELEASES THE FIRING PIN. THE FIRING PIN SPRING (5) PREVENTS CREEP FROM PUSHING THE PRIMER HOUSING (7) CONTAINING THE PRIMER (8) INTO THE FIRING PIN (3). THE PRIMER HOUSING STOP SLEEVE (44) ALSO RESTRICTS THE PRIMER HOUSING (7) FROM MOVING INTO THE FIRING PIN.

(U)SIMULTANEOUSLY WITH THE EVENT IN PARAGRAPH (3) ABOVE, THE ROTOR LOCK PIN (22) INTO THE AREA VACATED BY THE ROTOR PIN BALL (20) UNLOCKING THE ROTOR (40).

(U)AFTER THE ROTOR (40) IS UNLOCKED, THE ROTOR SPRING (26) ROTATES THE ROTOR (40) APPROXIMATELY 150 DEGREES UNTIL THE END OF THE CIRCULAR GROOVE IN THE ROTOR HITS THE ROTOR LIMIT GUIDE PIN (28). THIS ALIGNS THE DETONATOR (41) AND THE TETRYL BOOSTER LEAD (30). THE FUZE IS NOW ARMED.

(U)SHOULD THE PRIMER (8) DETONATE PRIOR TO ARMING, EXPANDING GASES FROM THE PRIMER DRIVE THE SAFETY PLUNGER (43) DOWNWARD SHEARING THE SHEAR PIN (42) AND BLOCKING FURTHER TRAVEL OF THE ROTOR ARM PLATE (23) WHICH IS ATTACHED TO THE ROTOR (40), THEREBY PREVENTING ARMING. THIS IS NECESSARY IN THE DELAY MODE TO PREVENT DETONATION OF THE REMAINING EXPLOSIVE TRAIN ELEMENTS IMMEDIATELY AFTER ARMING OCCURS IN THE EVENT DELAY COMPOSITION (11) IS ACCIDENTALLY IGNITED.

(U)WITH THE SELECTOR ROD (13) SET AT "0", A FLASH HOLE IS OPEN BETWEEN THE PRIMER (8) AND THE DETONATOR (41). WHEN THE CAP (1) IS OFF, FUZE IMPACT CRUSHES THE COVER (2) COMPRESSES THE FIRING PIN SPRING (5) AND DRIVES THE FIRING PIN (3) INTO THE PRIMER (8). WITH THE CAP (1) ON, BUT WITH THE SAME SETTING, DECELERATION OF THE FUZE DRIVES THE PRIMER HOUSING (7) AND PRIMER (8) AGAINST THE FIRING PIN SPRING (5) COMPRESSING IT AND IMPALLING THE PRIMER ON THE FIRING PIN (3). IN BOTH CASES, FLASH FROM THE IGNITION OF THE PRIMER PASSES THROUGH THE FLASH HOLE IN THE SELECTOR ROD (13) IGNITING THE DETONATOR (41). WITH THE ROTOR IN THE ARMED CONDITION EXPANDING GASES FROM THE PRIMER DEPRESS THE SAFETY PLUNGER (43) SHEARING THE SHEAR PIN (42) AND LOCKING THE ROTOR ARMING PLATE (23) AND ROTOR (40) IN THE ARMED CONDITION. FLASH FROM THE DETONATOR (41) IGNITES THE TETRYL BOOSTER LEAD (30) WHICH IN TURN IGNITES THE TETRYL BOOSTER (34) WHICH DETONATES THE EXPLOSIVE CHARGE IN THE PROJECTILE. IT SHOULD BE NOTED THAT, WITH THE FUZE IN THE UNARMED CONDITION AND WITH THE SELECTOR ROD (13) SET AT "0", IGNITION OF THE PRIMER (8) WILL RESULT IN IGNITION OF THE DETONATOR (41). HOWEVER, THE DETONATOR (41) WILL NOT IGNITE THE TETRYL BOOSTER LEAD (30) AS IT IS OUT OF LINE

(U)WHEN THE SELECTOR ROD (13) IS AT SETTING "3" (THE DELAY MODE) THE FLASH HOLE IS BLOCKED. FLASH FROM THE PRIMER (8) PASSES THROUGH THE DELAY COMPOSITION RETAINER.

U N C L A S S I F I E D

FOM-1390-2-1-111-2-A
 NOMEN: FUZF, POINT DETONATING, MODEL V-429E (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: 1961/?

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- 002,007,011,032,036

BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 26
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - 13

FUZE ASSEMBLY COMPLETE:

PERFORMANCE:

TYPE ----- POINT DETONATING
 MODEL ----- V-429E
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 65
 LENGTH EXPOSED (MM) -- 58
 MAXIMUM DIAMETER (MM)- 40
 MAJ THREAD DIAM (MM) - 36
 THREAD PITCH (METRIC)- 2.5 MM
 WEIGHT COMPLETE (G) -- 436
 MARKINGS ----- B-429E

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- ?
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- *1

USING WEAPONS: ----- 115 MM GUN MODEL
 - U-5TS ON T-62 TANK

FUNCTIONAL DATA:

REFERENCES: -----

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- PROTECTIVE CAP #2

REMARKS:

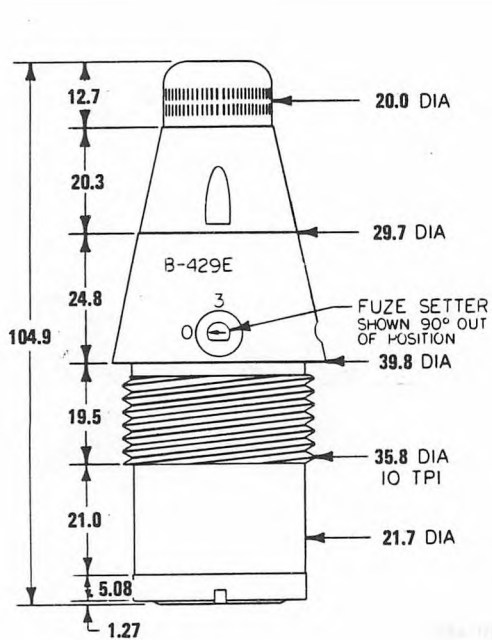
1/ 115 MM FRAG-HE PROJECTILES
 MODEL OF-11 & OF-18 (EXTENDED RANGE).

2/ DEVICE TO PREVENT PREMATURE FUZE
 FUNCTION DUE TO SHOCK OF FIN DEPLOYMENT
 (PRIMER HOUSING STOP SLEEVE). OUT-OF-LINE
 DETONATOR.

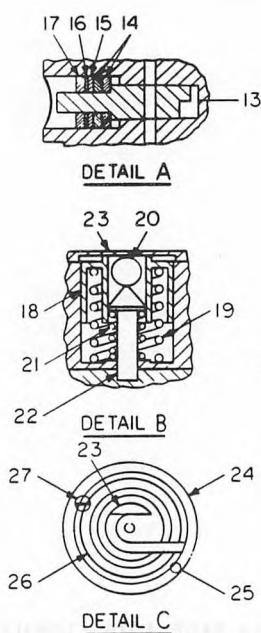
UNCLASSIFIED

FOM-1390-2-1-111-2-B
NOMEN: FUZE, POINT DETONATING, MODEL V-429E (U)
PRODUCED/ADOPTED: 1961/?

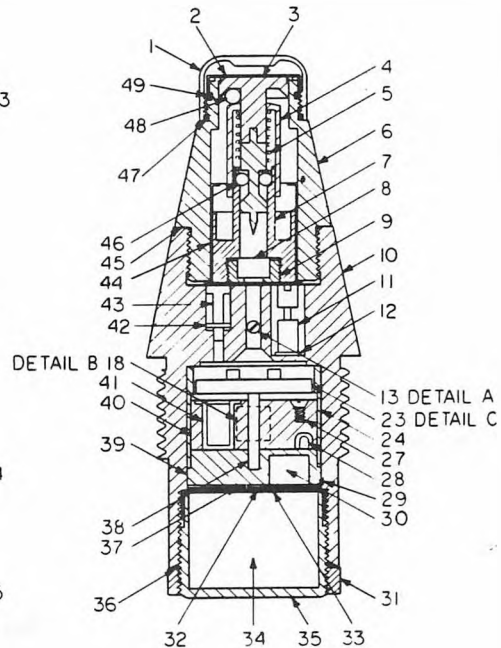
CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



NEG. 516058



All dimensions in millimeters



U N C L A S S I F I E D

(FOM-1390-2-1-111-2-B

NOMEN: FUZE, POINT DETONATING, MODEL V-429E (U)

PRODUCED/ADOPTED: 1961/?

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 14FEB75
VOLUME 06 PAGE 118

U N C L A S S I F I E D

FOM-1390-2-1-116-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, POINT DETONATING, MODEL M-12 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНОЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ М-12
PRODUCED/ADOPTED: 1959/?

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE M-12 IS A DELAY-SETBACK, ARMED, POINT-DETONATING FUZE WITH SUPERQUICK OR DELAY FUNCTIONING. THIS FUZE CAN BE SET FOR SUPERQUICK OR DELAY ACTION BY ROTATING THE SUPERQUICK INTERRUPTER (14) SO THAT THE ARROW POINTS TO "0" OR "3", RESPECTIVELY.

(U)DELAY ARMING IS ACHIEVED BY THE ZIGZAG SLOT OF THE ARMING SLEEVE. SAFETY FEATURES INCLUDES A SLEEVE LOCKING BALL, TWO FIRING PIN LOCKING BALLS AND AN OUT-OF-LINE PRIMER.

(U)PRIOR TO FIRING, THE SAFETY CAP (1) MUST BE REMOVED. ON FIRING OF THE PROJECTILE, SETBACK FORCE MOVES THE DELAY ZIGZAG ARMING SLEEVE (3) TO THE REAR, RELEASING THE SLEEVE'S LOCKING BALL (2), WHICH FALLS INTO THE STRIKER HOUSING (6) CAVITY. THE SLEEVE CONTINUES REARWARD, BEING DELAYED BY THE ZIGZAG SLOT WHICH IS GUIDED BY A PIN IN THE SLIDER PIN GUIDE (5), UNTIL IT REACHES THE END OF TRAVEL. AS SETBACK FORCE DECREASES, THE COMPRESSED SETBACK SLEEVE SPRING (4) EXPANDS, MOVING THE SLEEVE FORWARD TO RELEASE THE TWO-FIRING-PIN LOCKING BALLS (7), AND DROP THEM INTO THE STRIKER HOUSING CAVITY. THE FIRING PIN (8) MOVES FORWARDS, WITHDRAWING FROM THE BLIND SAFETY HOLE IN THE SLIDER (11). THE SLIDER SPRING (10) EXPANDS, PUSHING THE SLIDER ACROSS THE SLIDER PIN GUIDE SO THAT THE PRIMER (9) ALINES WITH THE FIRING PIN. THE FUZE IS NOW ARMED. THE FIRING PIN IS HELD AWAY FROM THE PRIMER ONLY BY THE EXPANDED SETBACK SLEEVE SPRING. FOR SUPERQUICK ACTION ON IMPACT, THE FIRING PIN IS DRIVEN INTO THE PRIMER. THE FLASH FROM THE PRIMER TRAVELS THROUGH THE AXIAL HOLE IN THE DELAY HOUSING (13) TO INITIATE THE FLASH DETONATOR (15), WHICH, IN TURN, DETONATES THE BOOSTER (17) IN THE BOOSTER CUP (16).

(U)FOR DELAY ACTION, THE SUPERQUICK INTERRUPTER IS SET FOR "3". THE SEQUENCE OF FUNCTIONING IS SIMILAR TO SUPERQUICK ACTION; EXCEPT THE FLASH FROM THE PRIMER IS BLOCKED BY THE INTERRUPTER AND IS DIVERTED TO THE TWO DELAY ELEMENTS (12). THE BLACK POWDER IN THE UPPER CHAMBER OF EACH ELEMENT BURNS WITH A FRACTION-OF-A-SECOND DELAY AND IGNITES A RELAY CHARGE IN THE LOWER CHAMBER. THE FLASH FROM THE RELAY INITIATES THE FLASH DETONATOR AND, IN TURN, DETONATES THE BOOSTER.

U N C L A S S I F I E D

FOM-1390-2-1-116-A
NOMEN: FUZE, POINT DETONATING, MODEL M-12 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: 1959/?

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- 002

BODY MATERIAL ----- STEEL
BODY LENGTH (MM) -- 37.5
FILLER MATERIAL --- TETRYL
FILLER WEIGHT (G) - 24.8

FUZE ASSEMBLY COMPLETE:

PERFORMANCE:

TYPE ----- POINT DETONATING
MODEL ----- M-12
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) -- 119
LENGTH EXPOSED (MM) -- 74.9
MAXIMUM DIAMETER (MM) - 39.0
MAJ THREAD DIAM (MM) - 35.0
THREAD PITCH (METRIC) - ?
WEIGHT COMPLETE (G) -- 536.0
MARKINGS ----- M-12

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- 0.01 SEC APPROX
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- 120-MM, FRAG-HE, OF-843A
- 120-MM, HE, F-843

USING WEAPONS: ----- 120-MM MORTAR M1943

FUNCTIONAL DATA:

REFERENCES: -----

ARMING METHOD ----- SETBACK
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- *1

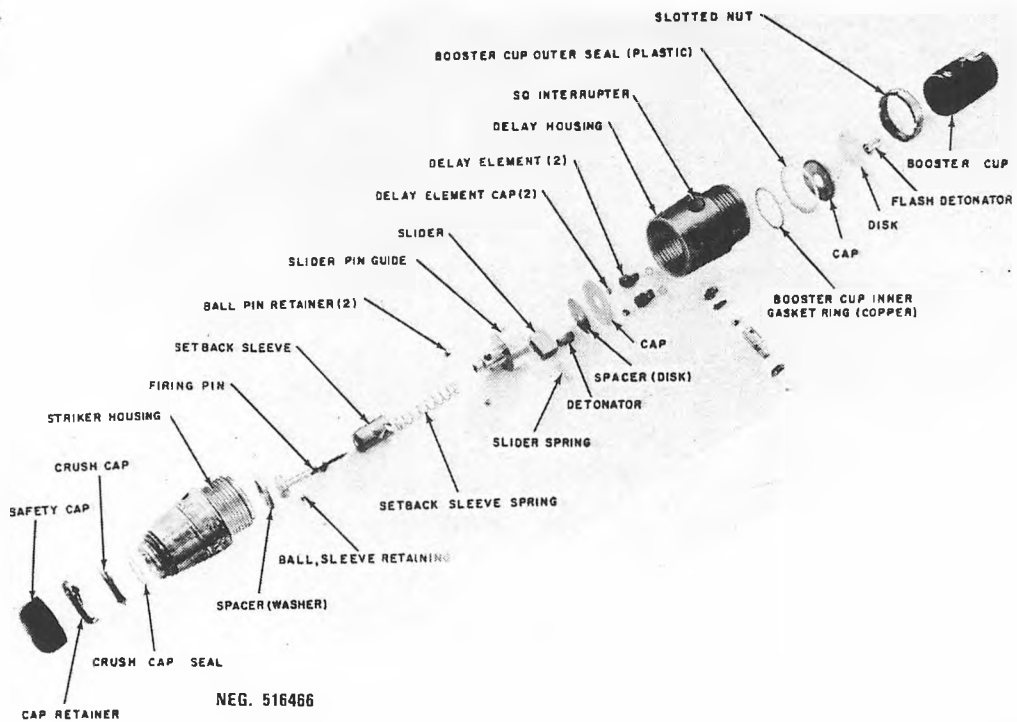
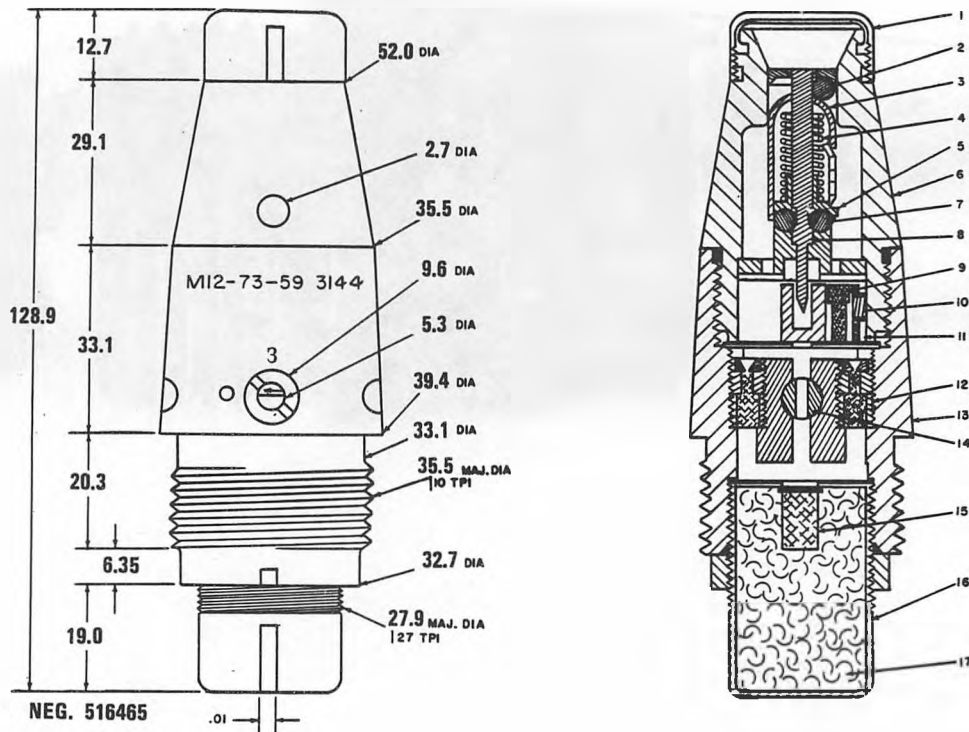
REMARKS:

1/ OUT-OF-LINE PRIMER, ZIGZAG SLOT, LOCKING BALLS

FOM-1390-2-1-116-B
 NOMEN: FUZE, POINT DETONATING, MODEL M-12 (U)
 PRODUCED/ADOPTED: 1959/?

UNCLASSIFIED

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77
 COUNTRY: U.S.S.R.



FOM-1390-2-1-116-B

NOMEN: FUZE, POINT DETONATING, MODEL M-12 (U)

PRODUCED/ADOPTED: 1959/?

UNCLASSIFIED

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.



NEG 500168

DATE CATALOGED: 01JUL72
VOLUME 06 PAGE 122

UNCLASSIFIED

NOMEN: FUZE, POINT DETONATING, MODEL M-6 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНОЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ М-6
PRODUCED/ADOPTED: 1960/?DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET POINT-DETONATING FUZE MODEL M-6 IS DESIGNED FOR USE WITH 82-MM MORTAR AMMUNITION. THE FUZE BODY IS A COMPRESSION-MOLDED, THERMOSETTING, PLASTIC COMPOUND OF URCA FORMALDEHYDE, WITH A COTTON FILLER, MODIFIED WITH MELAMINE FORMALDEHYDE AND PHENOL FORMALDEHYDE. ALL OTHER COMPONENTS ARE OF STEEL, EXCEPT THE ALUMINUM SLIDER HOLDER.

(U)BORE SAFETY IS PROVIDED BY THE COMBINATION OF AN OUT-OF-LINE DETONATOR AND DELAY ARMING PROVIDED BY A ZIGZAG SLOT IN THE ARMING SLEEVE. THE OUT-OF-LINE FEATURE RENDERS THE FUZE DETONATOR SAFE, ALTHOUGH THE CLOSE PROXIMITY OF THE DETONATOR TO THE LEAD MAKES THIS SAFETY MARGINAL.

(U)INEXPENSIVE TO MANUFACTURE, THE M-6 FUZE HAS THE ADVANTAGES OF LOW WEIGHT AND CORROSION RESISTANCE. EXTREME TEMPERATURES (-40F TO +50F DEGREES) HAVE NO ADVERSE EFFECTS ON THE FUZE BODY.

(U)STORAGE LIFE OF THIS FUZE IS LIMITED BY THE USE OF MERCURY FULMINATE IN THE PRIMING MIXTURE OF THE DETONATOR. STORAGE AT 85 TO 90 DEGREES FOR EXTENDED PERIODS SERIOUSLY IMPAIRS THE FUNCTIONING OF MIXTURES CONTAINING MERCURY FULMINATE; THUS, STORAGE LIFE OF THE M-6 IS ESTIMATED AT 5 TO 10 YEARS, AT NORMAL STORAGE TEMPERATURES, AND 5 YEARS (OR LESS) AT ELEVATED TEMPERATURES.

(U)INSTRUCTIONS ON A CLOTH TAG INDICATE THAT THE PROTECTIVE STEEL FUZE CAP (1), SECURED TO THE FUZE BY A STEEL WIRE, IS REMOVED PRIOR TO FIRING. THIS EXPOSES THE COPPER CRUSH CAP (12), WHICH PREVENTS FOREIGN MATTER FROM ENTERING THE NOSE.

(U)AFTER THE PROJECTILE IS FIRED, SETBACK FORCES THE ARMING SLEEVE (2) REARWARD, RELEASING THE ARMING-SLEEVE RETAINING BALL (3) WHICH FALLS INTO THE FUZE BODY CAVITY (4). THE ARMING SLEEVE CONTINUES REARWARD, DELAYED BY A ZIGZAG SLOT IN THE ARMING SLEEVE AND GUIDED BY A PIN ON THE SLIDER HOLDER (5) UNTIL THE SLEEVE REACHES THE END OF TRAVEL.

(U)AS SETBACK FORCE DISSIPATES, THE ARMING-ASSEMBLY SPRING (6) EXPANDS, MOVING THE SLEEVE FORWARD AND RELEASING THE TWO FIRING-PIN RETAINING BALLS (7). THEY FALL INTO THE FUZE BODY CAVITY, MOVING THE FIRING PIN (8) FORWARD OUT OF THE SLIDER HOLE. THIS ACTION FREES THE SLIDER (9) FOR LATER MOVEMENT. A COILED SLIDER SPRING (10), WHICH HAS BEEN HELD COMPRESSED BETWEEN THE SLIDER AND THE FUZE BODY WALL, MOVES THE SLIDER TO ALINE THE DETONATOR (11) WITH THE FIRING PIN. AT THIS POINT, THE FUZE IS ARMED.

(U)ON IMPACT, THE FIRING PIN IS DRIVEN INTO THE DETONATOR, RESULTING IN DETONATION OF THE TETRYL LEAD (13) AND IN TURN THE BOOSTER (14).

UNCLASSIFIED

FOM-1390-2-1-122-A
 NOMEN: FUZE, POINT DETONATING, MODEL M-6 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: 1960/?

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- 002

BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 18.3
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - 90

FUZE ASSEMBLY COMPLETE:

PERFORMANCE:

TYPE ----- POINT DETONATING
 MODEL ----- M-6
 BODY MATERIAL ----- PLASTIC
 LENGTH OVERALL (MM) -- 82.6
 LENGTH EXPOSED (MM) -- 61.3
 MAXIMUM DIAMETER (MM) - 39.4
 MAJ THREAD DIAM (MM) - 35.6
 THREAD PITCH (METRIC) - ?
 WEIGHT COMPLETE (G) -- 155.9
 MARKINGS ----- M-6

ARMING DISTANCE (M) - 0.8 TO 10.0
 ARMING TIME ----- 0.004 TO 0.048 SEC
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- 82-MM, FRAG, 0-832 D
 - 82-MM, FRAG, 0-832 DU

USING WEAPONS: ----- 82-MM MORTAR MODEL 1937
 - (1942-43 VERSION)

FUNCTIONAL DATA:

REFERENCES: -----

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ----- NONE
 TYPE SAFETY DEVICE --- *1

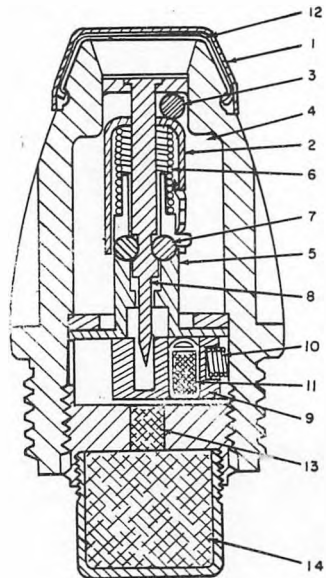
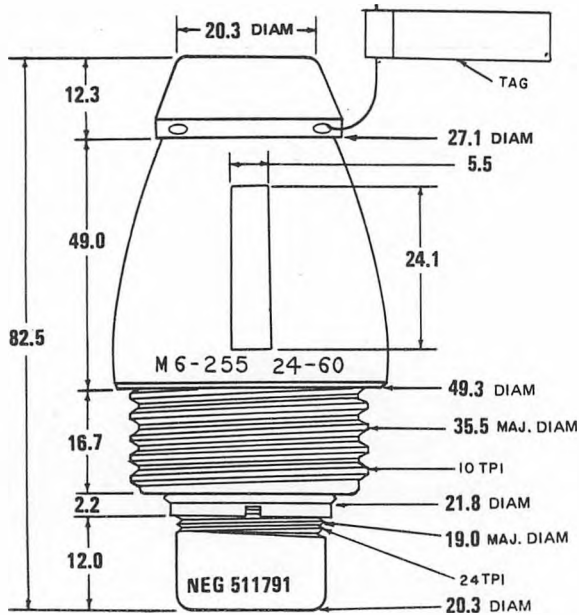
REMARKS:

1/ OUT-OF-LINE DETONATOR, ZIGZAG SLOT

UNCLASSIFIED

FOM-1390-2-1-122-B
NOMEN: FUZE, POINT DETONATING, MODEL M-6 (U)
PRODUCED/ADOPTED: 1960/?

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



FOM-1390-2-1-122-B

NOMEN: FUZE, POINT DETONATING, MODEL M-6 (U)

PRODUCED/ADOPTED: 1960/7

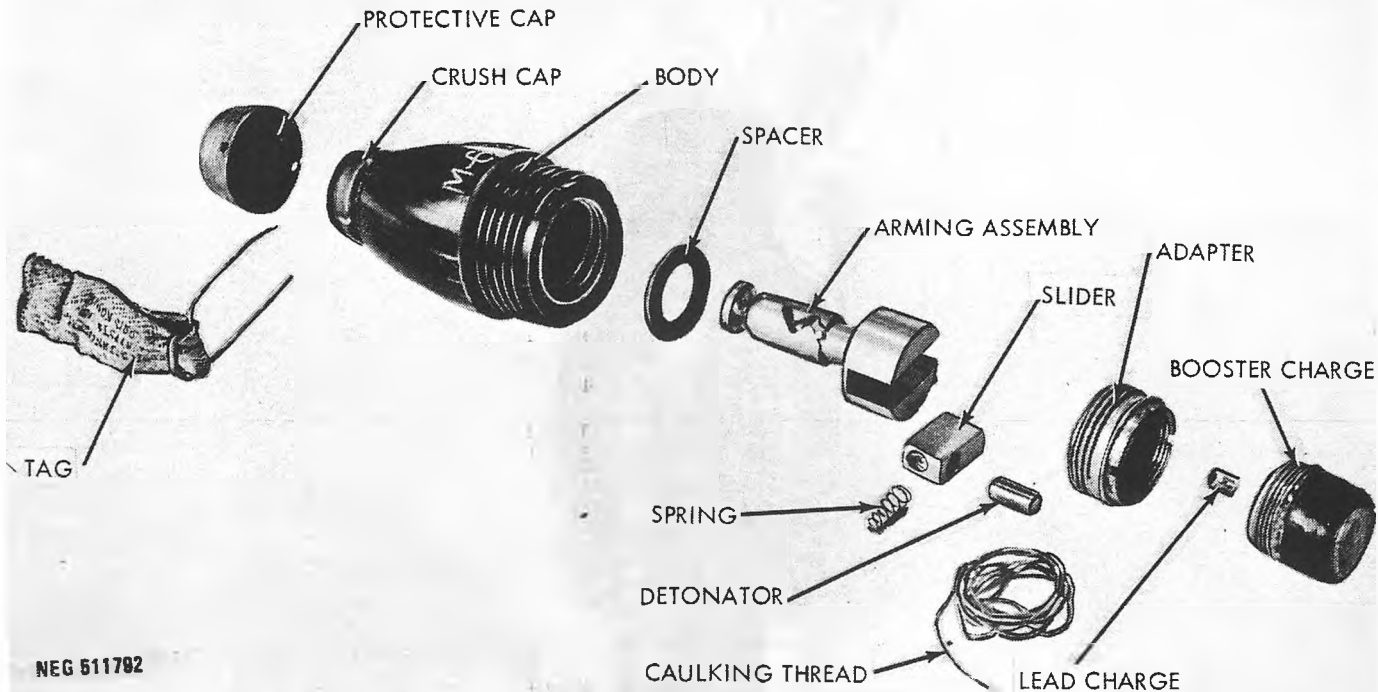
U N C L A S S I F I E D

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.



DATE CATALOGED: 01JUL67
VOLUME 06 PAGE 126

U N C L A S S I F I E D

FOM-1390-2-1-124-A

UNCLASSIFIED

CATALOG: TB-381-5-06

NOMEN: FUZE POWDER TRAIN TIME MODEL T-1 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ?

DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: 1942/?

COUNTRY: U.S.S.R.

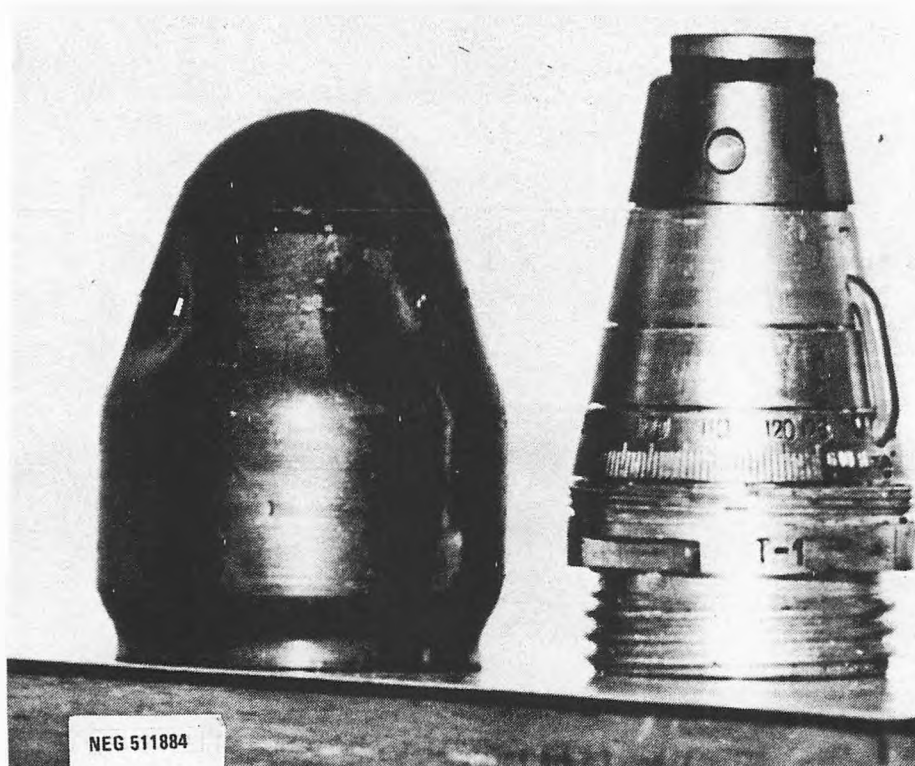
(U)THE T-1 IS A TIME FUZE EMPLOYING THREE POWDER TRAIN RINGS PROVIDING FOR ABOUT 42 SECONDS TIME OF FLIGHT. IT IS SETBACK ARMED AND DESIGNED WITH AN OPTIONAL IMPACT FUNCTION. THE TIME SETTING DIAL IS GRADUATED FROM 10 THROUGH 125 WITH EACH GRADUATION STANDING FOR ABOUT .3 OF A SECOND.

(U)THE T-1 FUNCTIONS UPON SETBACK DURING FIRING. THE FIRING PIN SETSBACK OVERCOMING ITS SPRING AND STABS A PRIMER PELLET. THE FLAME FROM THE PRIMER IGNITES PYROTECHNIC POWDER TRAIN IN THE UPPER TIME RING, WHICH BURNS THROUGH AND IGNITES THE MIDDLE TIME RING AND IN TURN THE BOTTOM TIME RING.

(U)AS THE FLAME BURNS AROUND THE MIDDLE TIME RING IT INITIATES A PYROTECHNIC DETENT PELLET WHICH BURNS AND RELEASES A SPRING-LOADED DETENT RESTRAINING THE FIRING PIN. UPON BURNOUT OF THE PELLET, THE DETENT THEN MOVES TO THE SIDE UNDETENTING THE FIRING PIN. THE FUZE IS NOW ARMED.

(U)UPON EXPIRATION OF THE DESIRED TIME OF FLIGHT ACCORDING TO THE PRESCRIBED SETTING THE FLAME PASSES FROM THE TIME RING THROUGH A FLASH CHANNEL TO A RELAY THEN THE BOOSTER WHICH IS FILLED WITH BLACK POWDER. THE FLAME PASSES THROUGH AN OPENING AT THE BOTTOM OF THE BOOSTER IGNITING THE BLACK POWDER EXPELLING CHARGE FOR NOSE EJECTION OF THE PROJECTILE'S ILLUMINANT CANDLE.

(U)IF IT IS DESIRED TO HAVE THE PROJECTILE FUNCTION AT IMPACT THE IMPACT SETTING "YA" IS USED, THE FIRING PIN IS DRIVEN INTO THE PRIMER WHICH FLASHES TO THE RELAY, THUS BOOSTER INITIATING THE BLACK POWDER EXPELLING CHARGE.



DATE CATALOGED: 10SEP75
VOLUME 06

UNCLASSIFIED

PAGE 127

U N C L A S S I F I E D

FOM-1390-2-1-124-A
 NOMEN: FUZE POWDER TRAIN TIME MODEL T-1 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77
 COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: 1942/?
 CURRENT STATUS: ----- STD
 USING COUNTRIES: ----- 002

BOOSTER:
 BODY MATERIAL ----- BRASS
 BODY LENGTH (MM) -- 8
 FILLER MATERIAL --- BLACK POWDER
 FILLER WEIGHT (G) - 2

FUZE ASSEMBLY COMPLETE:
 TYPE ----- TIME
 MODEL ----- T-1
 BODY MATERIAL ----- ANODIZED ALUMINUM
 LENGTH OVERALL (MM) -- 70.5
 LENGTH EXPOSED (MM) -- 60.5
 MAXIMUM DIAMETER (MM) - 40.0
 MAJ THREAD DIAM (MM) - 35.6
 THREAD PITCH (METRIC) - *1
 WEIGHT COMPLETE (G) -- 235
 MARKINGS ----- T-1; 42M, 2-61

PERFORMANCE:
 ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- SECOND 3 ?
 MAX TIME SETTING -- SECOND APPROX 42

USING PROJECTILES: -- 82MM ILLUM, MODEL S-832S
 - 120MM, ILLUM, MODEL S-843

USING WEAPONS: ----- 120 MM MORTAR M1943
 - *2

FUNCTIONAL DATA:
 ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- N/A
 TYPE SAFETY DEVICE --- NONE

REFERENCES: -----

REMARKS:
 1/ THREADS PER INCH IS #10"
 2/ 1942-43 VERSION

NOMEN: FUZE, POINT INITIATING, BASE DETONATING; MODEL VP-9(U)

DATE REVIEWED: 28JAN77

NATIVE DES: ?

DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ?/1967

COUNTRY: U.S.S.R.

(U)DESCRIPTION. THE VP-9 IS A POINT INITIATING, BASE DETONATING PIEZO-ELECTRIC FUZE WHICH IS ARMED BY SETBACK, AND FIRED BY IMPACT, OR BY THE SELF-DESTRUCT UNIT CONTAINED IN THE BASE ELEMENT OF THE FUZE. THE POINT INITIATING (NOSE) ELEMENT IS AN IMPROVED VERSION OF THAT USED IN THE VP-7 FUZE FOR THE SOVIET PG-7 HEAT GRENADE. ITS MECHANICAL DESIGN IS SIMPLE, EFFICIENT, AND SHOWS CONSIDERABLE INGENUITY. THE BASE DETONATING ELEMENT (SAFETY AND ARMING MECHANISM) OF THE FUZE APPEARS TO BE SIMILAR IN DESIGN AND FUNCTIONING TO THE VP-7, HOWEVER, A FEW SIMPLE DESIGN CHANGES WERE NOTED.

(U)THE BARIUM TITANATE PIEZO-ELECTRIC CRYSTAL USED IN THE NOSE ELEMENT WILL FUNCTION AT IMPACT ANGLES UP TO 70-DEGREES FROM THE NORMAL. BETWEEN 70 AND 80-DEGREES GRAZE SENSITIVITY IS AFFECTED BY IMPACT WITH THE SHOULDER OF THE NOSE CAP. AT ANGLES GREATER THAN 80-DEGREES GRAZE SENSITIVITY IS SERIOUSLY DEGRADED DUE TO IMPACT WITH THE SIDE OF THE PROJECTILE.

(U)FUNCTIONING. SETBACK, CAUSED BY FIRING THE PROPELLANT CHARGE, INITIATES TWO ACTIONS IN THE BASE FUZE. IN THE FIRST ACTION, THE LOCKING BALL RETAINING PIN (4) COMPRESSES THE RETAINING SPRING (3). AS THE LOCKING BALL RETAINING PIN (4) MOVES REARWARD, IT CARRIES THE RETAINING PIN LOCKING BALL (5) WITH IT UNTIL THE BALL FALLS INTO A CLEARANCE GROOVE. IN THE SECOND ACTION, THE SELF-DESTRUCT PRIMER (25) COMPRESSES ITS SETBACK SPRING (24) AND STRIKES THE PRIMER FIRING PIN (23). THIS FIRES THE PRIMER (25), WHICH FLASHES THROUGH A RELAY HOLE (22) TO INITIATE THE SELF-DESTRUCT DELAY DETONATOR (13) AND THE BLACK POWDER DETENT (26). THE BLACK POWDER DETENT (26) BURNS OUT, CREATING A VOID WHICH RELEASES THE PIN LOCKING THE SLIDER IN POSITION. AS THE ROUND BEGINS TO DECELERATE, THE LOCKING BALL RETAINING PIN (4) IS MOVED FORWARD BY THE RETAINING SPRING (3). WHEN THE LOCKING BALL RETAINING PIN (4) MOVES THE LENGTH OF ITS PASSAGE, THE SLIDER LOCKING BALL (6) IS FREE TO MOVE INTO THE RECESS IN THE LOCKING BALL RETAINING PIN (4). THE FORCE EXERTED BY THE SLIDER SPRINGS (20) MOVES THE SLIDER ASSEMBLY (7) INTO THE ARMED POSITION. THIS ELIMINATES THE SHORT ACROSS THE ELECTRICAL DETONATOR CONTACT PIN (19). THIS CONTACT PIN WAS FLUSH AGAINST THE ELECTRICAL SHORTING PLATE (21). IN THE ARMED POSITION THE SLIDER ELECTRICAL DETONATOR (19) IS FLUSH AGAINST THE MAIN DETONATOR (10). THE SLIDER IS PREVENTED FROM MOVING REARWARD BY THE ELECTRICAL DETONATOR ARMING PIN (19) WHICH IS HELD IN POSITION BY THE PLASTIC INSULATOR AND POSITIONING PLATE (2). AS THE ROUND STRIKES THE TARGET, THE FUZE PIEZOELECTRIC NOSE ELEMENT IS CRUSHED; THE CURRENT GENERATED FIRES THE BASE FUZE ELECTRICAL DETONATOR (19). THE MAIN DETONATOR (10) THEN FUNCTIONS, FIRING THE BOOSTER (12), WHICH INITIATES THE MAIN CHARGE.

U N C L A S S I F I E D

FOM-1390-2-1-156-A
 NOMEN: FUZE, POINT INITIATING, BASE DETONATING; MODEL VP-9(U)
 PRODUCED/ADOPTED: ?/1967

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77
 COUNTRY: U.S.S.R.

	--- PCINT INITIATING ---	----- BASE DETONATING -----
CURRENT STATUS: -----	STANDARD	STANDARD
FUZE ASSEMBLY COMPLETE:		
TYPE -----	PIBD	PIBD
MODEL -----	VP-9	VP-9
BODY MATERIAL -----	ALUMINUM	ALUMINUM
LENGTH OA (MM) -----	91.19 W/PROTECTIVE CAP	73.41
MAX DIAMETER (MM) ---	21.34	37.08
MAJ THREAD DIAM (MM)-	19.8	NO EXTERNAL THREADS
WEIGHT COMPLETE (G) -	33.17 W/PROTECTIVE CAP	95.25
ARMING VANES - NO ----	N/A	N/A
MARKINGS -----	VP-9 (IN CYRILLICS)	VP-9 (IN CYRILLICS)

FUNCTIONAL DATA:	
ARMING METHOD --- N/A	SETBACK
SELF-DESTR	
METHOD ----- N/A	BLACK POWDER DELAY DETENT
TYPE SAFETY DVC - N/A	OUT-OF-LINE DETONATOR

BOOSTER:	
BODY MATERIAL --- N/A	ALUMINUM
BODY LENGTH (MM)- N/A	17.78
FILLER MATERIAL - N/A	PETN
FILLER WT (G) --- N/A	14.1

PERFORMANCE:	
ARMING DISTANCE - N/A	?
ARMING TIMING --- N/A	N/A
VANE REVOLUTIONS	
TO ARM ----- N/A	N/A
SELF-DESTR TIME - N/A	4 TO 6 SEC
DELAY TIME ---- - N/A	?

USING PROJECTILES: - 73-MM HEAT-FS MODEL PG-9

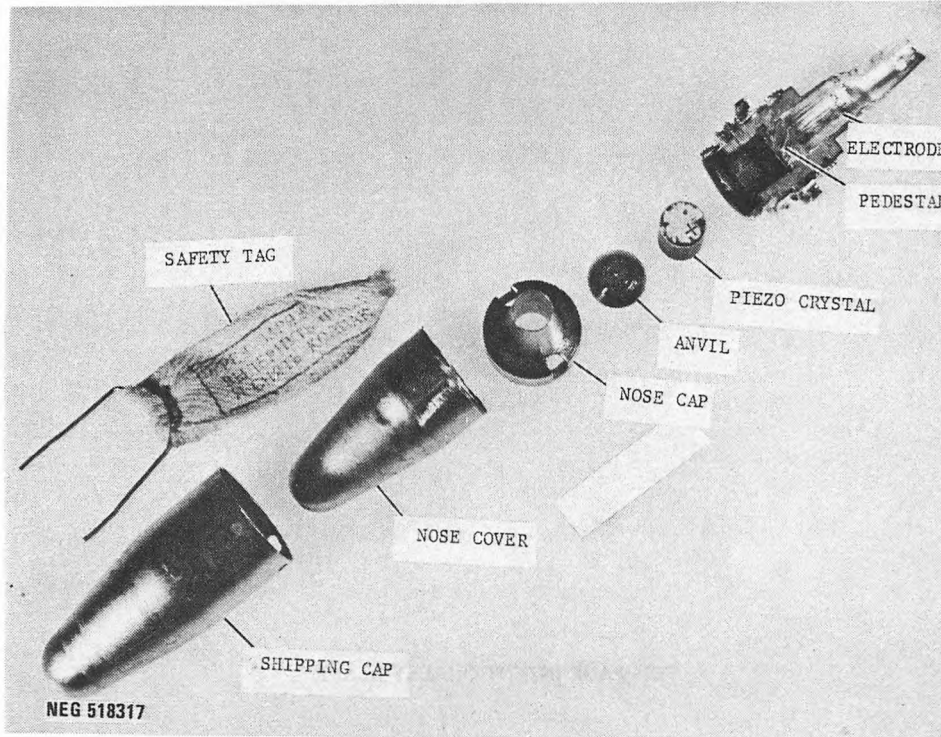
USING WEAPONS: ----- BMP AAICV
 - BMD AACV (?)
 -
 -
 -

REMARKS:

U N C L A S S I F I E D

FOM-1390-2-1-156-B
NOMEN: FUZE, POINT INITIATING, BASE DETONATING; MODEL VP-9(U)
PRODUCED/ADOPTED: ?/1967

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



FOM-1390-2-1-156-B

U N C L A S S I F I E D

NOMEN: FUZE, POINT INITIATING, BASE DETONATING; MODEL VP-9(U)

PRODUCED/ADOPTED: ?/1967

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 30SEP75
VOLUME 06 PAGE 132

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-2-2-3-A

CATALOG: TB-381-5-06

NOMEN: FUZE, TIME, MODEL AGDT-A (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ?

DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ???

COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL AGDT-A POWER TRAIN TIME FUZE IS A VANE-ARMED, AIRBURST NOSE FUZE USED WITH ROCKETS AS WELL AS WITH BOMBS. THE FUZE IS ASSEMBLED AT THE FACTORY IN EITHER OF TWO WAYS: (A) FOR A FUNCTIONING TIME, AFTER ARMING, OF INSTANTANEOUS TO 5 SECONDS OR (B) FOR A FUNCTIONING TIME, AFTER ARMING, OF 5 TO 22 SECONDS. THE DESIRED TIME IS OBTAINED BY ROTATING THE TIME SETTING RING UNTIL THE APPROPRIATE NUMBER ON THE SECONDS SCALE IS OPPOSITE THE INDEX ON THE LOWER PORTION OF THE FUZE BODY. THE POSITION MARKED "П" ON THE TIME SETTING RING IS THE SAFE, OR TRANSPORT, POSITION. THE FUZE BODY IS MACHINED FROM ALUMINUM, THE ARMING VANES AND THE VANE CUP ARE OF STEEL, AND THE STRIKER HOUSING AT THE TOP OF THE FUZE IS MADE OF BRASS.

(U)UPON FIRING OF THE ROCKET (OR RELEASE OF THE BOMB), THE ARMING VANES (1), THE ARMING-VANE SHAFT (3), AND THE ARMING-VANE CUP (2) ARE ROTATED BY AIRSTREAM ACTION. THE ASSEMBLY IS THUS UNSCREWED FROM THE FUZE, SUBSEQUENTLY FALLING AWAY. THIS ALLOWS THE LOCKING BALLS (4) TO FALL OUT, FREEING THE STRIKER (5) WHICH, BEING UNDER SPRING PRESSURE, THEN FLIES INWARD TO STRIKE THE PRIMER (7). THE IGNITION FLAME FROM THE PRIMER TRAVELS THROUGH THE FLASH CHANNEL TO THE POWDER TRAIN (8) IN THE UPPER SETTING RING, AND THEN TO THE POWDER TRAIN IN THE LOWER SETTING RING (10). AFTER BURNING FOR THE PRESET TIME, THE FLAME PASSES THROUGH THE RELAY CHANNEL TO THE DETONATOR (9), WHICH IN TURN DETONATES THE BOOSTER (11).

DATE CATALOGED: 01JAN65
VOLUME 06

U N C L A S S I F I E D

PAGE 133

U N C L A S S I F I E D

FOM-1390-2-2-3-A
 NOMEN: FUZE, TIME, MODEL AGDT-A (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ???

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- LTD. STANDARD

BOOSTER:

BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 17.7
 FILLER MATERIAL --- ?
 FILLER WEIGHT (G) - ?

USING COUNTRIES: ----- U.S.S.R.

PERFORMANCE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME VARIABLE, 22 S MAX
 DELAY TIME ----- N/A
 MIN TIME SETTING -- 5 S
 MAX TIME SETTING -- 22 S

FUZE ASSEMBLY COMPLETE:

TYPE ----- TIME
 MODEL ----- AGDT-A
 BODY MATERIAL ----- ALUMINUM
 LENGTH OVERALL (MM) -- 88.1
 LENGTH EXPOSED (MM) -- ?
 MAXIMUM DIAMETER (MM)- 65.0
 MAJ THREAD DIAM (MM) - 25.4
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- ?
 MARKINGS ----- ACOT-A

USING PROJECTILES: -- *2

USING WEAPONS: ----- *3

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- *1
 SELF-DESTR METHOD ----- TIME SETTING
 TYPE SAFETY DEVICE --- ARMING WIRES

REMARKS:

1/ DROPPING AWAY OF VANE ASSEMBLY

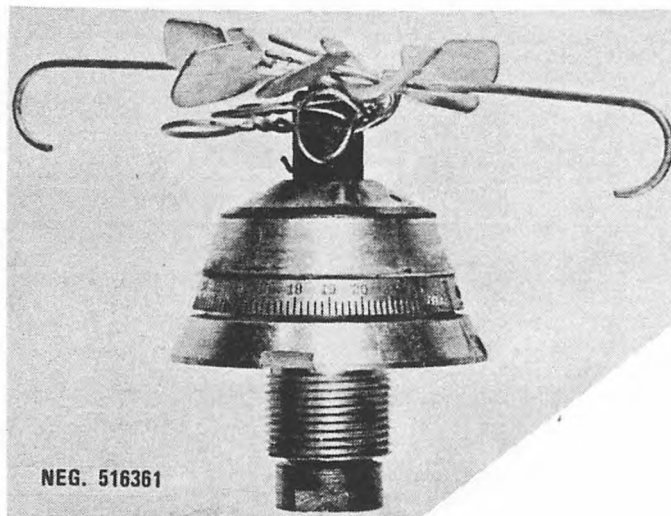
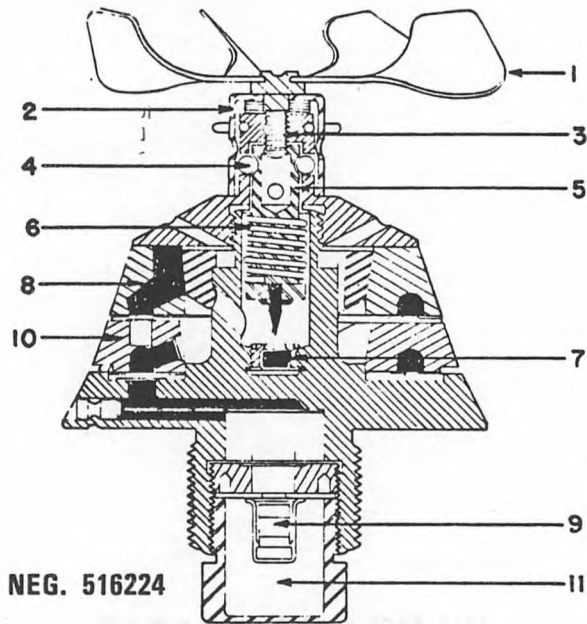
2/ 82-MM ROCKET MODEL RS-82, 132-MM
 ROCKET MODEL RS-132, BOMBS: AQ-10, AQ-
 20M3, AQ-25, AQ-100, AOKH-10, AOKH-
 15, KHAB-25, KHAB-200, KHAB-500,
 KRAB-25, FOTAB
 3/ 82-MM 48-RD ROCKET LAUNCHER, 82-MM
 ROCKET LAUNCHER M-8, 82-MM AIRCRAFT
 ROCKET LAUNCHER RO-82, 132-MM ROCKET
 LAUNCHER M-13, 132-MM AIRCRAFT ROCKET
 LAUNCHER RO-132

UNCLASSIFIED

FOM-1390-2-2-3-8
NOMEN: FUZE, TIME, MODEL AGDT-A (U)

PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



DATE CATALOGED: 01JAN65
VOLUME 06

UNCLASSIFIED

PAGE 135

U N C L A S S I F I E D

FOM-1390-2-2-3-B
NOMEN: FUZE, TIME, MODEL AGDT-A (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JAN65
VOLUME 06 PAGE 136

U N C L A S S I F I E D

NOMEN: FUZE, BASE DETONATING, MODEL AV-96 (U)

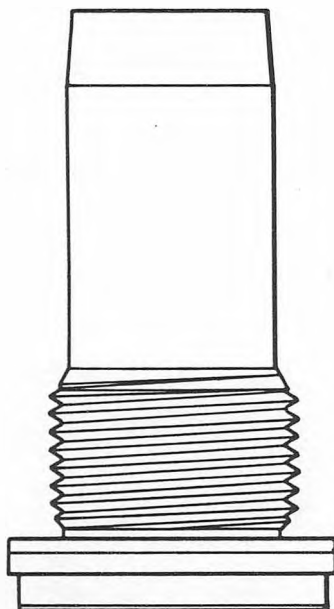
DATE REVIEWED: 28JAN77

NATIVE DES: ДОННЫЙ УДАРНЫЙ ВЗРЫВАТЕЛЬ АВ-96
PRODUCED/ADOPTED: ???DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

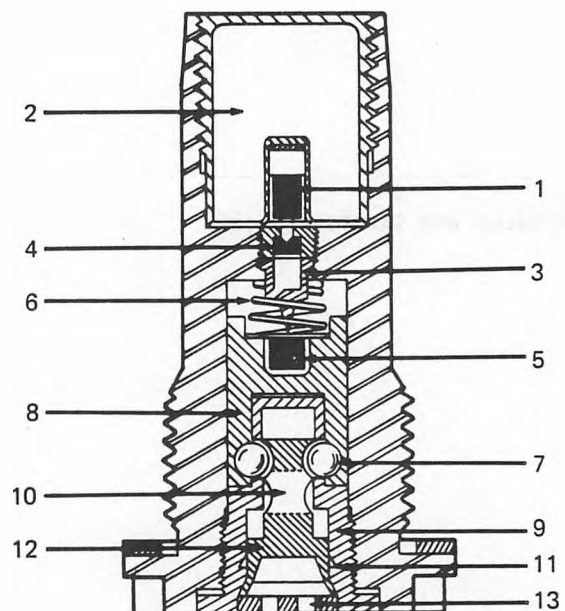
(U)THE SOVIET MODEL AV-96 FUZE IS A BASE DETONATING, IMPACT FUZE DESIGNED WITH A SLIGHT DELAY. IT IS USED WITH 82-MM AND 132-MM ROCKETS. THE FUZE CONSISTS OF A STEEL BODY HOUSING AND IMPACT MECHANISM, A DELAY PELLET, A DETONATOR, AND A BOOSTER. THE DELAY PELLET, LOCATED BETWEEN THE PRIMER AND THE DETONATOR, REQUIRES A MINIMUM BURNING TIME OF 0.04 SECONDS BEFORE THE FLAME FROM THE PRIMER CAN BE TRANSMITTED TO THE DETONATOR.

(U)THE AV-96 IS ARMED BY GAS GENERATED BY THE PROPELLANT OF THE ROCKET MOTOR. THE GAS ENTERS THE FUZE THROUGH HOLES IN THE BASE BUSHING (13), DRIVING THE SAFETY PLUNGER (12) FORWARD UNTIL IT IS STOPPED BY THE SHOULDER OF THE BASE PLUG (9). WITH THE PLUNGER IN THE FORWARD POSITION, THE GAS PRESSURE EXPANDS THE SKIRT OF THE PLUNGER INTO THE LOCKING GROOVE (11) CUT IN THE BASE PLUG, SO THAT THE PLUNGER IS LOCKED IN THE FORWARD POSITION. WITH THE PLUNGER NOW IN THE FORWARD POSITION, THE SAFETY TRANSVERSE HOLE (10) IS OPPOSITE THE SAFETY BALLS (7), ALLOWING THEM TO MOVE INWARD TO UNLOCK THE STRIKER (8). UPON IMPACT WITH THE TARGET, THE INERTIA OF THE STRIKER CAUSES IT TO MOVE FORWARD, COMPRESSING THE ANTICREEP SPRING (6), AND DRIVING THE PRIMER (5) ONTO THE FIXED FIRING PIN (3). FLAME FROM THE PRIMER PASSES THROUGH A HOLE IN THE FIRING PIN, IGNITING THE DELAY PELLET (4). AFTER A DELAY OF 0.04 TO 0.06 SECOND, THE DELAY PELLET TRANSMITS THE FLAME TO THE DETONATOR (1), WHICH IN TURN EXPLODES THE BOOSTER (2) AND THE MAIN CHARGE.

(U)A RING OF PACKING AT THE FUZE FLANGE PERMITS A TIGHT SEAL TO BE MADE WHEN THE FUZE IS SCREWED INTO PLACE IN THE ROCKET. THIS PREVENTS GAS FROM THE ROCKET MOTOR FROM REACHING THE ROCKET'S EXPLOSIVE CHARGE. INTERNAL PACKING WITHIN THE FUZE PROVIDES SIMILAR PROTECTION FOR THE FUZE ITSELF.



NEG. 511718



U N C L A S S I F I E D

FQM-1390-2-2-5-A

NOMEN: FUZE, BASE DETONATING, MODEL AV-96 (U)

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ???

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- ?

BOOSTER:

USING COUNTRIES: ----- 002
005
010
004
073

BODY MATERIAL ----- STEEL
BODY LENGTH (MM) -- ?
FILLER MATERIAL ---- TETRYL
FILLER WEIGHT (G) - ?

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
MODEL ----- AV-96
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) -- ?
LENGTH EXPOSED (MM) -- N/A
MAXIMUM DIAMETER (MM) - ?
MAJ THREAD DIAM (MM) - ?
THREAD PITCH (METRIC) - ?
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- N/A

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- 0.04 TO 0.06 SEC
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- 82-MM ROCKET MODEL RBS-82
- 132-MM ROCKET MODEL RBS-132

USING WEAPONS: ----- 82-MM 48-RD ROCKET LAUNCHER
- 132-MM ROCKET LAUNCHER M-13

REFERENCES: -----
-
-

FUNCTIONAL DATA:

ARMING METHOD ----- GAS PRESSURE
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- *1

REMARKS:

1/ LOCKING BALLS AND SAFETY PLUNGER

NOMEN: FUZE, BOMB, MODEL TM-4A (U)

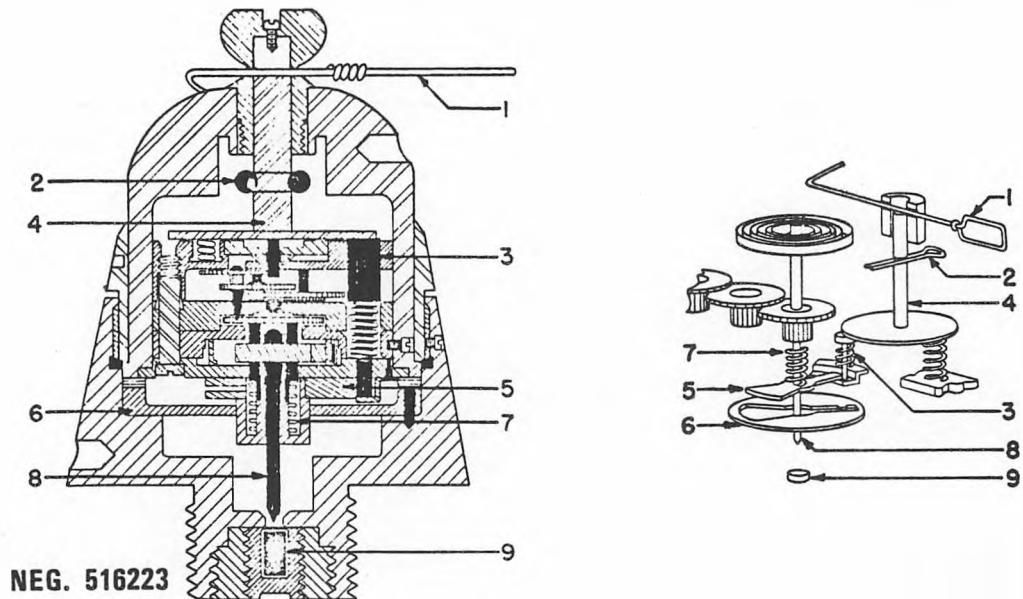
DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНАЯ ТРУБКА TM-4A
 PRODUCED/ADOPTED: ???

DATE UPDATED: 28JAN77
 COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL TM-4A BOMB FUZE IS AN AERIAL-BURST, TIME, NOSE FUZE OPERATED BY CLOCKWORK. THE CLOCKWORK MECHANISM IS STARTED WHEN THE ARMING PIN (1), WHICH IS ATTACHED BY A WIRE TO THE AIRCRAFT, IS PULLED OUT OF THE FUZE BY THE DROPPING OF THE BOMB. DELAY TIME AFTER RELEASE IS ADJUSTABLE FROM 6 TO 40 SECONDS, AND IS SET BY TURNING THE TIME SETTING RING UNTIL THE DESIRED NUMBER OF SECONDS ON THE SCALE IS OPPOSITE THE INDEX. INSTANTANEOUS SETTINGS ARE PREVENTED BY THE FIXED REST, ON WHICH THE TIMING POINTER (5) MOVES FOR THE FIRST 6 SECONDS. THE TM-4A FUZE IS SIMILAR TO THE TM-4B FUZE. THE ONLY DIFFERENCE ARE THAT THE TM-4A HAS A MINIMUM DELAY OF 6, RATHER THAN 2, SECONDS AND IS A DETONATING-TYPE, RATHER THAN AN IGNITION-TYPE, FUZE.

(U)THE SAFETY PIN (2) IS REMOVED AFTER THE FUZE IS ASSEMBLED TO THE BOMB. WHEN THE BOMB IS RELEASED FROM THE AIRCRAFT, THE ARMING PIN (1) IS PULLED OUT OF THE FUZE. THIS ALLOWS THE ARMING SHAFT (4) TO MOVE OUTWARD AND TO RELEASE THE DETENT PIN (3), WHICH ALSO MOVES OUTWARD. THE TIMING POINTER (5) IS NOW FREE TO MOVE IN A CLOCKWISE DIRECTION. AFTER A DELAY ARMING PERIOD OF 6 SECONDS, THE TIMING POINTER MOVES OFF THE FIXED REST AND BEARS ON THE TIMING DISK (6) UNDER PRESSURE OF THE STRIKER SPRING (7). THE TIMING POINTER CONTINUES TO MOVE UNTIL IT BECOMES ALINED OVER THE RELEASE SLOT IN THE TIMING DISK. THE STRIKER (8) IS THEN DRIVEN INTO THE PRIMER (9).



U N C L A S S I F I E D

FOM-1390-2-3-1-A
NOMEN: FUZE, BOMB, MODEL TM-4A (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ???

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- U.S.S.R.

BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

TYPE ----- MECHANICAL TIME
MODEL ----- TM-4A
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) -- 97.5
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- 76.5
MAJ THREAD DIAM (MM) - 25.4
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- TM-4A

ARMING DISTANCE(M)- ?
ARMING TIME ----- 6 S
SELF-DESTRUCT TIME VARIABLE, 6 TO 40 S
DELAY TIME ----- N/A
MIN TIME SETTING -- 6 S
MAX TIME SETTING -- 40 S

USING PROJECTILES: -- AD-2.5, AD-10, AD-20M3, AO-1
- AOKH-10, AOKH-15, FOTAB

USING WEAPONS: ----- N/A

FUNCTIONAL DATA:

ARMING METHOD ----- REMOVAL OF ARMING PIN
SELF-DESTR METHOD ---- TIME SETTING
TYPE SAFETY DEVICE --- SAFETY PIN AND ARMING PIN

REFERENCES: -----
-
-

REMARKS:

FOM-1390-2-3-3-A

CATALOG: TB-381-5-06

NOMEN: FUZE, BOMB, MODEL AGM-1 (U)

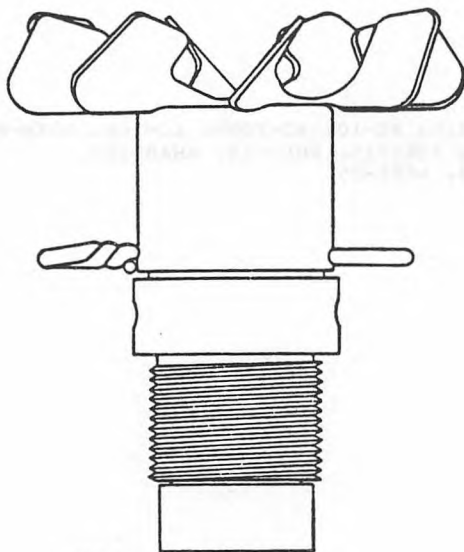
DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНАЯ ТРУБКА АГМ-1
 PRODUCED/ADOPTED: ???

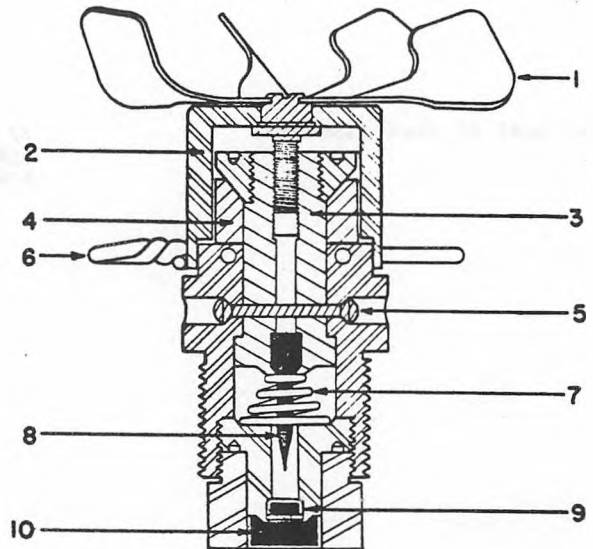
DATE UPDATED: 28JAN77
 COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL AGM-1 BOMB FUZE IS VANE ARMED AND FUNCTIONS INSTANTANEOUSLY UPON IMPACT. THE FUZE IS CONSTRUCTED MAINLY OF BRASS AND ALUMINUM, AND CONSISTS OF THREE MAJOR COMPONENT GROUPS: THE ARMING-VANE-AND-CUP ASSEMBLY, THE MAIN BODY, AND THE PRIMER ASSEMBLY.

(U)UPON RELEASE OF THE BOMB FROM THE AIRCRAFT, THE ARMING PIN (6) IS WITHDRAWN, ALLOWING THE ARMING VANES (1) AND THE ATTACHED ARMING-VANE-CUP (2) TO UNSCREW FROM THE STRIKER ASSEMBLY (3) AND TO FALL AWAY. WITH THE ARMING-VANE CUP REMOVED FROM THE FUZE, THE LOCKING BLOCKS (4) ALSO FALL AWAY, ARMING THE FUZE. A SAFETY SHEAR PIN (5) PREVENTS AIR PRESSURE FROM FIRING THE FUZE WHEN IT IS ARMED. UPON IMPACT WITH THE TARGET, THE STRIKER ASSEMBLY IS DRIVEN IN, SHEARING THE SAFETY PIN (5), COMPRESSING THE STRIKER SPRING (7), AND DRIVING THE ATTACHED FIRING PIN (8) INTO THE PRIMER (9), IGNITING IT. THE FLAME FROM THE PRIMER ACTUATES THE DETONATOR (10), WHICH IN TURN EXPLODES THE BOMB.



NEG. 516222



U N C L A S S I F I E D

CATALOG: T8-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

FOM-1390-2-3-3-A
NOMEN: FUZE, BOMB, MODEL AGM-1 (U)

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- OBSOLETE

USING COUNTRIES: ----- U.S.S.R.

BOOSTER:
BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

PERFORMANCE:
ARMING DISTANCE (M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- INST
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
MODEL ----- AGM-1
BODY MATERIAL ----- BRASS AND ALUMINUM
LENGTH OVERALL (MM) -- 76.7
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- 31.7
MAJ THREAD DIAM (MM) - 25.4
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 272.3
MARKINGS ----- ARM-1

USING PROJECTILES: -- *2

USING WEAPONS: ----- N/A

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- *1
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- ARMING PIN AND SHEAR PIN

REMARKS:

1/ DROPPING AWAY OF VANE ASSEMBLY

2/ AO-2.5, AO-10, AO-20M3, AO-100, AOKH-8,
AOKH-10, AOKH-15, KHAB-25, KHAB-200,
KHAB-500, KRAB-25

U N C L A S S I F I E D

FOM-1390-2-3-4-A

CATALOG: TB-381-5-06

NOMEN: FUZE, BOMB, MODEL APUV (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ?

DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ?/?

COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL APUV BOMB FUZE IS VANE ARMED AND DIRECT ACTING, AND IS PROVIDED WITH A CHOICE OF INSTANTANEOUS ACTION AND EITHER OF TWO DELAY PERIODS. HEAT, GENERATED BY THE SUDDEN COMPRESSION OF A COLUMN OF AIR, ACTUATES THE FUZE WHEN IT IMPACTS ON THE TARGET. THE APUV CAN BE USED AS EITHER A TAIL OR A NOSE FUZE, AS THE VANES CAN BE TWISTED TO THE PROPER ANGLE FOR EITHER USE. THE ILLUSTRATION SHOWS THE VANES SET FOR USE AS A NOSE FUZE. IF THE FUZE IS TO BE USED IN THE TAIL OF THE BOMB, THE VANES SHOULD BE TWISTED TO CORRESPOND WITH A GUIDELINE MARKED "Д" INSCRIBED ON THE VANE CUP. THE TWO SETSCREWS MARKED "M" AND "3," IN THE HEAD OF THE FUZE, CONTROL THE DELAY TIMING OF THE FUZE. WITH BOTH SCREWS IN PLACE, THE FUZE IS SET FOR A 0.3-SECOND DELAY. REMOVAL OF THE SCREW MARKED "3" SETS THE FUZE FOR A 0.1-SECOND DELAY. REMOVAL OF THE SCREW MARKED "M" SETS THE INSTANTANEOUS ACTION. THIS FUZE IS QUITE SIMILAR TO THE APUV-1 FUZE (FOM 1390-2-3-12).

(U)WHEN THE BOMB IS RELEASED FROM THE AIRCRAFT, THE ARMING VANES (1) AND THE ATTACHED ARMING-VANE CUP (3) ROTATE AND UNSCREW FROM THE HOLLOW PLUNGER (6). WHEN THE ARMING-VANE ASSEMBLY FALLS FREE, THE THREE WOODEN SAFETY BLOCKS (2) ARE ALSO RELEASED, AND THE FUZE IS NOW ARMED. WHEN USED AS A NOSE FUZE, IMPACT WITH THE TARGET CAUSES THE PLUNGER TO BE DRIVEN UP AND OVER THE FIXED PISTON (8). THE RESULTING VIOLENT COMPRESSION OF THE ENCLOSED AIR GENERATES SUFFICIENT HEAT TO IGNITE THE PRIMER (7). WHEN USED AS A TAIL FUZE, THE IMPACT WITH THE TARGET CAUSES THE PLUNGER TO MOVE DOWN BY INERTIA, COMPRESSING THE AIR AS BEFORE. THE PATH TAKEN BY THE PRIMER FLAME DEPENDS UPON THE TIME SETTING SELECTED. REMOVING THE SETSCREW (4) FOR A 0.1-SECOND DELAY RELEASES THE SELECTOR ROD (10) FROM ITS SEAT, REQUIRING THE FLAME TO PASS THROUGH THE 0.1-SECOND-DELAY PELLETT (12) BEFORE ACTIVATING THE DETONATOR (9). REMOVING THE SETSCREW (5) FOR INSTANTANEOUS ACTION RELEASES THE OTHER SELECTOR ROD FROM ITS SEAT, OPENING A DIRECT CHANNEL FOR THE FLAME TO ACTIVATE THE DETONATOR. WITH BOTH SELECTOR RODS HELD IN PLACE BY THEIR SETSCREWS, THE FLAME MUST PASS THROUGH A 0.3-SECOND-DELAY PELLETT BEFORE ACTIVATING THE DETONATOR.

U N C L A S S I F I E D

FOM-1390-2-3-4-A
NOMEN: FUZE, BOMB, MODEL APUV (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ???

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- ?

BOOSTER:

BODY MATERIAL ----- STEEL
BODY LENGTH (MM) -- 71.1
FILLER MATERIAL --- TETRA
FILLER WEIGHT (G) - ?

USING COUNTRIES: ----- U.S.S.R.

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- 0.1 OR 0.3 S
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
MODEL ----- APUV
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) -- 199.3
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- 39.8
MAJ THREAD DIAM (MM) - 35.8
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 41.1
MARKINGS ----- AIIYB

USING PROJECTILES: -- N/A
-

USING WEAPONS: ----- N/A
-

FUNCTIONAL DATA:

ARMING METHOD ----- *1
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- SAFETY WIRE

REFERENCES: -----
-
-

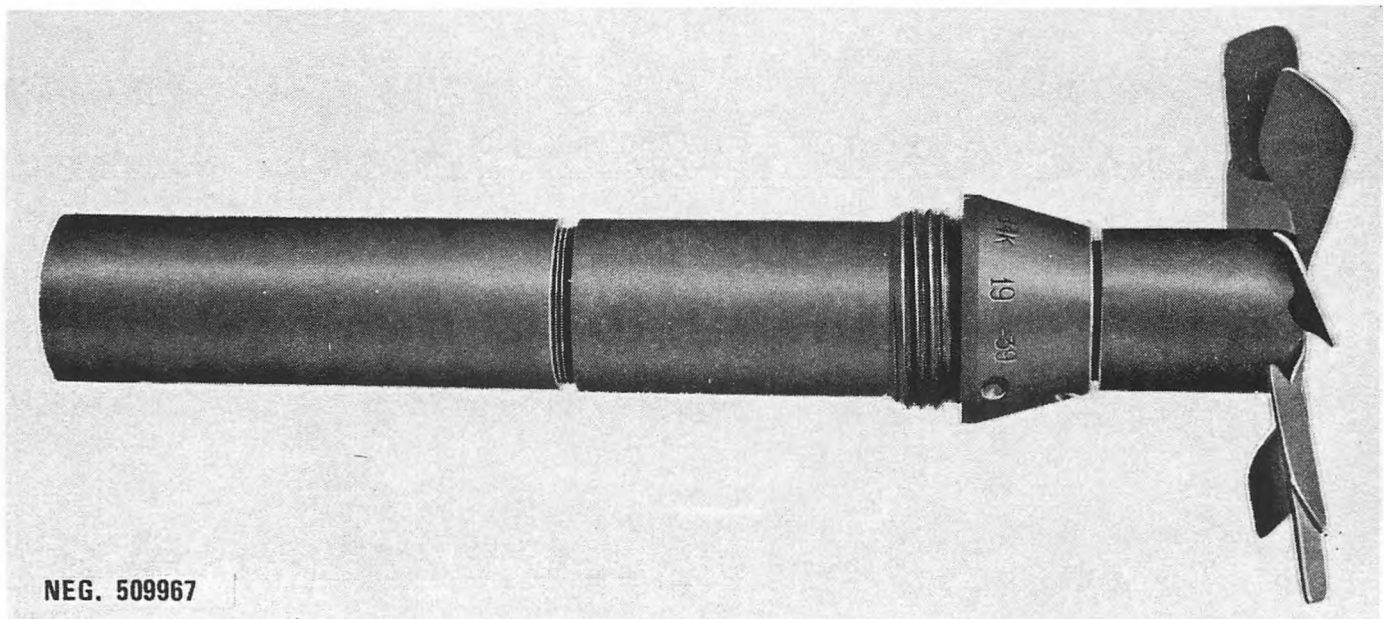
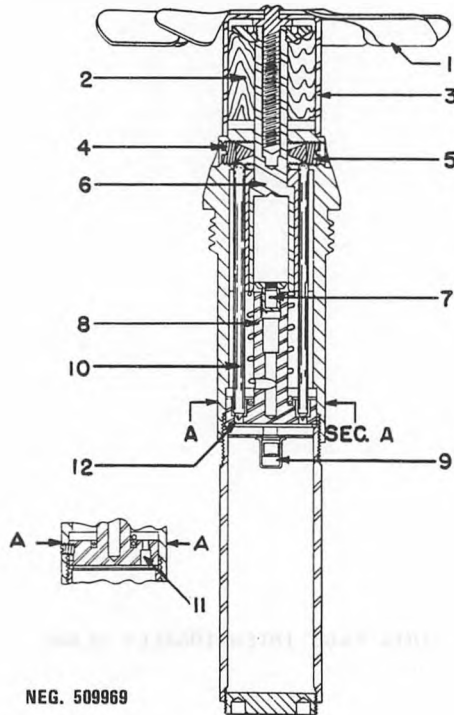
REMARKS:

1/ DROPPING AWAY OF VANE ASSEMBLY

FOM-1390-2-3-4-B
NOMEN: FUZE, BOMB, MODEL APUV (U)
PRODUCED/ADOPTED: ???

UNCLASSIFIED

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



DATE CATALOGED: 01JAN65
VOLUME 06

UNCLASSIFIED

U N C L A S S I F I E D

FOM-1390-2-3-4-B
NOMEN: FUZE, BOMB, MODEL APUV (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JAN65
VOLUME 06 PAGE 146

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-2-3-5-A

CATALOG: TB-381-5-06

NOMEN: FUZE, BOMB, MODEL AD-A (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ДОННАЯ ТРУБНА АД-А
PRODUCED/ADOPTED: ???

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL AD-A BOMB FUZE IS A NONDELAY, VANE-ARMED TAIL FUZE THAT FUNCTIONS UPON IMPACT. IT IS EXTREMELY SIMPLE IN DESIGN AND OPERATION. THE FUZE REQUIRES THE USE OF A SEPARATE BOOSTER TO INITIATE THE MAIN CHARGE OF THE BOMB IN WHICH IT IS USED. THE FUZE BODY IS MADE OF DIE-CAST, ZINC-ALUMINUM ALLOY, WHILE THE ARMING VANE IS MADE OF STEEL. THE FUZE CONSISTS OF A MINIMUM OF MAIN COMPONENTS, AS FOLLOWS: THE FUZE BODY, AN ARMING VANE AND SHAFT, A HEAVY STRIKER, A STRIKER ASSEMBLY, A STRIKER RETAINING SPRING, AND A DETONATOR. A SAFETY CLIP, ATTACHED TO THE SIDE OF THE FUZE BODY AND PROJECTING THROUGH THE VANE, PREVENTS ACCIDENTAL ROTATION OF THE VANE DURING STORAGE AND SHIPMENT.

(U)UPON RELEASE OF THE BOMB FROM THE AIRCRAFT, THE ARMING WIRE IS WITHDRAWN, ALLOWING THE ARMING VANE (1) TO ROTATE AND UNSCREW ITSELF FROM THE STRIKER ASSEMBLY (3). A STOP PIN (2) SERVES THE DUAL PURPOSE OF PREVENTING THE ARMING VANE FROM BEING SCREWED TOO TIGHTLY INTO THE STRIKER ASSEMBLY WHEN THE FUZE IS ASSEMBLED AND OF PREVENTING THE STRIKER ASSEMBLY FROM ROTATING WITH THE ARMING VANE WHEN THE BOMB IS DROPPED. WHEN THE ARMING VANE FALLS FREE, THE FUZE IS ARMED. UPON IMPACT WITH THE TARGET, THE HEAVY STRIKER ASSEMBLY MOVES DOWNWARD BY INERTIA, COMPRESSING THE STRIKER ASSEMBLY RETAINING SPRING (5) AND CAUSING THE FIRING PIN (4) TO PIERCE AND EXPLODE THE PRIMER (6).

U N C L A S S I F I E D

FOM-1390-2-3-5-A
NOMEN: FUZE, BOMB, MODEL AD-A (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: ??/?

CURRENT STATUS: ----- OBSOLETE

USING COUNTRIES: ----- U.S.S.R.

BOOSTER:

BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- INST
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- ANY APPROPRIATE BOMB

USING WEAPONS: ----- N/A

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
MODEL ----- AD-A
BODY MATERIAL ----- ALUMINUM ALLOY
LENGTH OVERALL (MM) -- 96.5
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM) - 37.8
MAJ THREAD DIAM (MM) - 35.8
THREAD PITCH (METRIC) - ?
WEIGHT COMPLETE (G) -- 14.1
MARKINGS ----- AA-A

FUNCTIONAL DATA:

ARMING METHOD ----- *1
SELF-DESTR METHOD --- NONE
TYPE SAFETY DEVICE --- ARMING WIRE

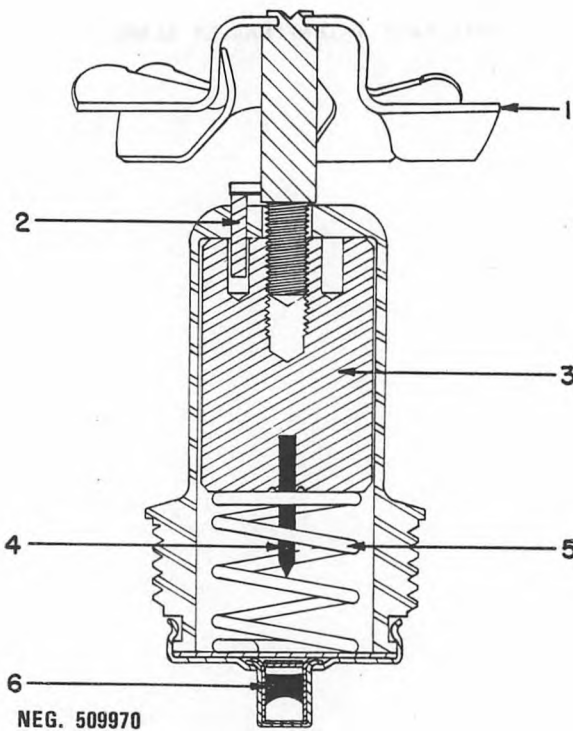
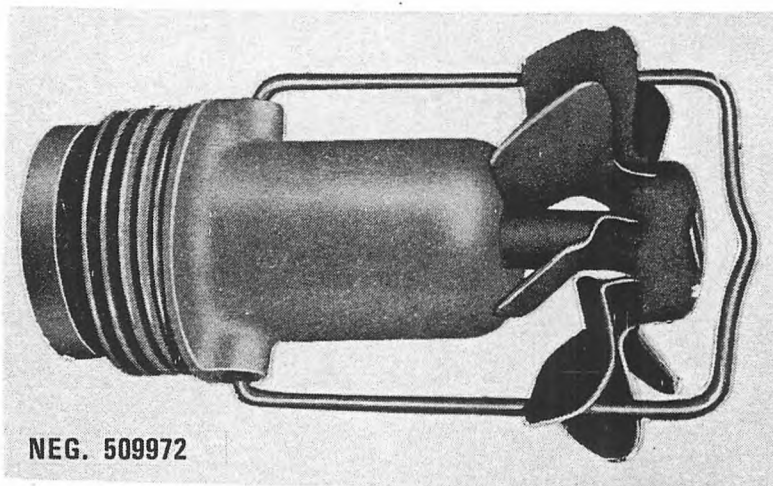
REMARKS:

1/ DROPPING AWAY OF VANE ASSEMBLY

U N C L A S S I F I E D

FOM-1390-2-3-5-B
NOMEN: FUZF, BOMB, MODEL AD-A (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



U N C L A S S I F I E D

FOM-1390-2-3-5-B
NOMEN: FUZE, BOMB, MODEL AD-A (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JAN65
VOLUME 06 PAGE 150

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-2-3-6-A

CATALOG: TB-381-5-06

NOMEN: FUZE, BOMB, MODEL ADP (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ДОННАЯ ТРУБКА АДП
PRODUCED/ADOPTED: ???

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL ADP BOMB FUZE, A VANE-ARMED TAIL FUZE, IS CONSTRUCTED WITH AN INERTIA-DRIVEN STRIKER AND AN ADJUSTABLE POWDER-TRAIN DELAY. THERE ARE EIGHT SELECTIVE MARKINGS ON THE TIME-DELAY SETTING RING. THE POSITION MARKED WITH THE ROMAN NUMERAL "I" SETS THE FUZE FOR NONDELAY FIRING; THE POSITION MARKED WITH THE ROMAN NUMERAL "II" SETS THE FUZE FOR A DELAY OF FROM 0.05 TO 0.15 SECOND. THE POSITION MARKED "X" IS THE SAFE, OR TRANSPORT, POSITION. THE OTHER POSITIONS ARE MARKED WITH THE NUMERALS "5," "10," "15," "20," AND "22." THESE INDICATE THE DELAY TIME IN SECONDS. THE DESIRED DELAY IS SET BY ROTATING THE TIME-DELAY SETTING RING UNTIL THE APPROPRIATE MARKING IS OPPOSITE THE INDEX. THE FUZE BODY IS MACHINED FROM ALUMINUM AND IS UNPAINTED. THE ARMING-VANE ASSEMBLY IS MADE OF STEEL.

(U)UPON RELEASE OF THE BOMB FROM THE AIRCRAFT, THE ARMING PIN IS WITHDRAWN, AND THE ARMING VANES (1) (WITH THE ARMING-VANE SHAFT AND THE ARMING-VANE CUP) ROTATE AND FALL AWAY, FREEING THE STRIKER AND ARMING THE FUZE. THE STRIKER ASSEMBLY (2) AND THE PRIMER (7) ARE SEPARATED BY AN ANTICREEP SPRING (4). UPON IMPACT, THE INERTIA-DRIVEN STRIKER ASSEMBLY AND THE FIRING PIN (5) MOVE DOWNWARD, COMPRESSING THE ANTICREEP SPRING AND PENETRATING THE PRIMER. FLASH FROM THE PRIMER IS TRANSMITTED TO THE UPPER POWDER TRAIN (6), WHICH BURNS TO THE POINT OF ENTRY OF THE POWDER TRAIN IN THE TIME-DELAY SETTING RING (8), THE POSITION OF THIS POINT OF ENTRY BEING DETERMINED BY THE SELECTED TIME-DELAY SETTING. THE LOWER POWDER TRAIN BURNS UNTIL THE FLASH IS TRANSMITTED THROUGH THE FLASH HOLE (9), INITIATING THE RELAY PELLET (10), WHICH IN TURN ACTIVATES THE FLAME-TYPE DETONATOR THAT EXPLODES THE BOOSTER, SETTING OFF THE MAIN CHARGE OF THE BOMB.

DATE CATALOGED: 01JAN65
VOLUME 06

U N C L A S S I F I E D

PAGE 151

U N C L A S S I F I E D

FOM-1390-2-3-6-A
 NOMEN: FUZE, BOMB, MODEL ADP (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- ?

USING COUNTRIES: ----- U.S.S.R.

BOOSTER:

BODY MATERIAL ----- ALUMINUM
 BODY LENGTH (MM) -- 116.8
 FILLER MATERIAL --- ?
 FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- VARIABLE
 MIN TIME SETTING -- INST
 MAX TIME SETTING -- 22 S

USING PROJECTILES: -- *2

USING WEAPONS: ----- N/A

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
 MODEL ----- ADP
 BODY MATERIAL ----- ALUMINUM
 LENGTH OVERALL (MM) -- 243.8
 LENGTH EXPOSED (MM) -- ?
 MAXIMUM DIAMETER (MM)- 64.0
 MAJ THREAD DIAM (MM) - 36.0
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- 34.5
 MARKINGS ----- AA II

FUNCTIONAL DATA:

ARMING METHOD ----- *1
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- ARMING PIN

REMARKS:

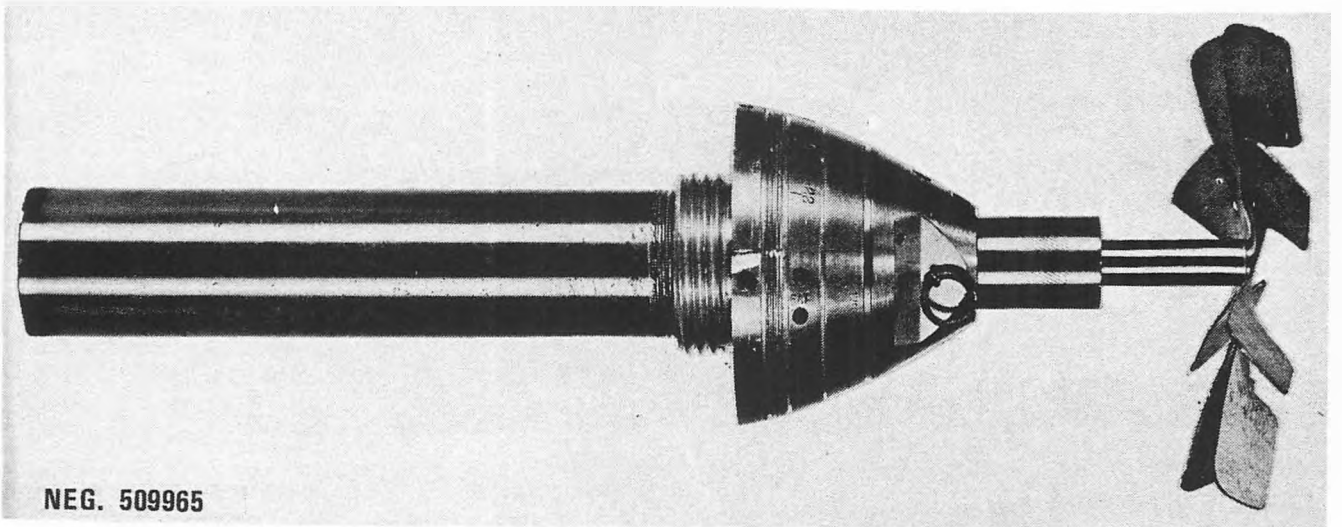
1/ DROPPING AWAY OF VANE ASSEMBLY

2/ BOMBS: FAB-50, FAB-100, FAB-250, FAB-500
 FAB-1000, BRAB-200 DS, BRAB-220, BRAB-500,
 BRAB-1000, BETAB-150 DS.

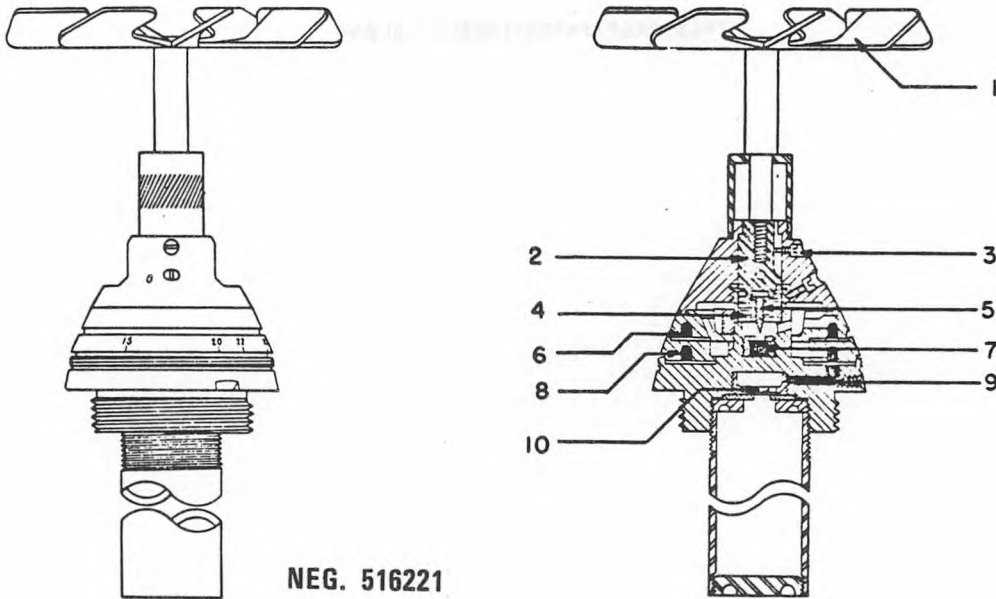
UNCLASSIFIED

FOM-1390-2-3-6-8
NOMEN: FUZF, BOMB, MODEL ADP (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



NEG. 509965



NEG. 516221

U N C L A S S I F I E D

FOM-1390-2-3-6-B
NOMEN: FUZE, BOMB, MODEL ADP (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JAN65
VOLUME 06 PAGE 154

U N C L A S S I F I E D

FOM-1390-2-3-7-A

CATALOG: TB-381-5-06

NOMEN: FUZE, BOMB, MODEL AGDT-8 (U)

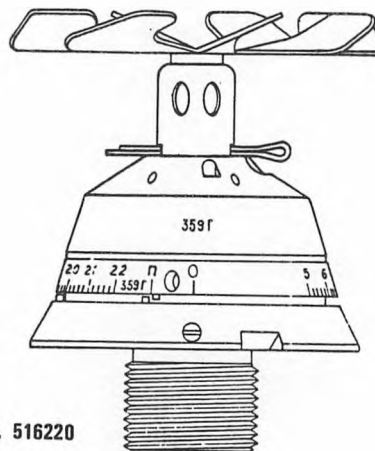
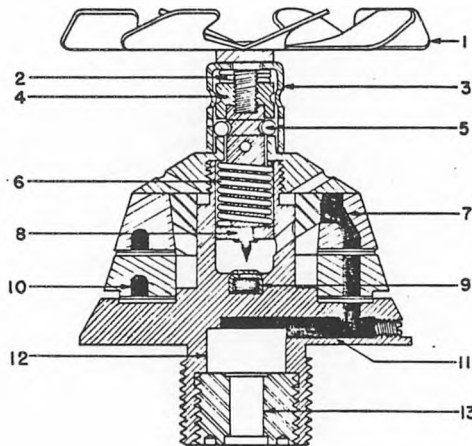
DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНАЯ ТРУБКА АГДТ-Б
 PRODUCED/ADOPTED: ???

DATE UPDATED: 28JAN77
 COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL AGDT-8 TIME FUZE IS A VANE-ARMED, AERIAL-BURST NOSE FUZE THAT IS USED TO INITIATE FLARE, GAS, AND SMOKE BOMBS. IT IS SIMILAR TO THE AGDT-A (FOM 1390-2-2-3). THE FUZE IS ASSEMBLED AT THE FACTORY IN EITHER OF TWO WAYS: (A) FOR A FUNCTIONING TIME, AFTER ARMING, OF INSTANTANEOUS TO 5 SECONDS, OR (B) FOR A FUNCTIONING TIME, AFTER ARMING, OF 5 TO 22 SECONDS. THE DESIRED TIME IS OBTAINED BY ROTATING THE TIME SETTING RING UNTIL THE APPROPRIATE NUMBER ON THE SECONDS SCALE IS OPPOSITE THE INDEX ON THE LOWER PORTION OF THE FUZE BODY. THE POSITION MARKED "П" (ON SOME FUZES "K") ON THE TIME SETTING RING IS THE SAFE, OR TRANSPORT, POSITION. THE POSITION MARKED "0" PROVIDES INSTANTANEOUS ACTION. THE FUZE BODY IS MACHINED FROM ALUMINUM, AND THE ARMING VANES AND THE VANE CUP ARE OF PHOSPHATE-COATED STEEL.

(U)UPON RELEASE OF THE BOMB FROM THE AIRCRAFT, THE ARMING PIN IS WITHDRAWN, AND THE ARMING VANES (1) ARE FREE TO ROTATE IN THE AIRSTREAM. AFTER A NUMBER OF REVOLUTIONS, THE VANES, THE THREADED SHAFT, AND THE ARMING-VANE CUP (3) FALL FREE BECAUSE OF THE PRESSURE OF THE EJECTION SPRING (2). REMOVAL OF THE CUP RELEASES THE LOCKING BALLS (5), ALLOWING THE FIRING-PIN SPRING (6) TO DRIVE THE FIRING PIN (8) INTO THE PRIMER (9). IGNITION FLAME FROM THE PRIMER TRAVELS THROUGH THE FLASH CHANNEL TO THE UPPER POWDER TRAIN (7) WHICH BURNS TO THE POINT OF ENTRY TO THE LOWER POWDER TRAIN, THIS POINT BEING DETERMINED BY THE TIME SETTING. THE LOWER POWDER TRAIN (10) BURNS UNTIL IT REACHES THE RELAY CHANNEL (11) WHERE THE FLASH IS COMMUNICATED TO THE RELAY CHARGE (12) AND THE BOOSTER (13). THIS, IN TURN, INITIATES THE MAIN CHARGE OF THE BOMB.



NEG. 516220

U N C L A S S I F I E D

FOM-1390-2-3-7-A
 NOMEN: FUZE, BOMB, MODEL AGDT-B (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- OBSOLETE

USING COUNTRIES: ----- U.S.S.R.

BOOSTER:
 BODY MATERIAL ----- ALUMINUM
 BODY LENGTH (MM) -- 18.2
 FILLER MATERIAL --- ?
 FILLER WEIGHT (G) - ?

PERFORMANCE:
 ARMING DISTANCE (M) - ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME VARIABLE
 DELAY TIME ----- N/A
 MIN TIME SETTING -- 5 S
 MAX TIME SETTING -- 22 S

FUZE ASSEMBLY COMPLETE:
 TYPE ----- POWDER TRAIN TIME
 MODEL ----- AGDT-B
 BODY MATERIAL ----- ALUMINUM
 LENGTH OVERALL (MM) -- 73.6
 LENGTH EXPOSED (MM) -- ?
 MAXIMUM DIAMETER (MM) - 64.0
 MAJ THREAD DIAM (MM) - 25.4
 THREAD PITCH (METRIC) - ?
 WEIGHT COMPLETE (G) -- 17.8
 MARKINGS ----- SEE PHOTO

USING PROJECTILES: -- BOMBS: KHAB, SAB

USING WEAPONS: ----- N/A

REFERENCES: -----

FUNCTIONAL DATA:
 ARMING METHOD ----- *1
 SELF-DESTR METHOD ---- TIME SETTING
 TYPE SAFETY DEVICE --- ARMING PIN

REMARKS:

FOM-1390-2-3-8-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, BOMB, MODEL AGP (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ?
PRODUCED/ADOPTED: ???

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

{U}THE SOVIET MODEL AGP BOMB FUZE IS A VANE-ARMED NOSE FUZE THAT FUNCTIONS UPON IMPACT. IT HAS AN ADJUSTABLE POWDER-TRAIN DELAY THAT IS ADJUSTED BY ROTATING THE TIME-DELAY SETTING RING UNTIL THE DESIRED TIME IN SECONDS, AS MARKED ON THE RING, CORRESPONDS WITH THE INDEX CUT INTO THE FUZE BODY FLANGE. SEVEN TIME SETTINGS ARE PROVIDED, RANGING FROM 3 TO 22 SECONDS. TWO OTHER SETTINGS APPEAR ON THE RING, ONE MARKED "K" REPRESENTING THE SAFE, OR TRANSPORT, POSITION, AND ONE MARKED "I" REPRESENTING THE INSTANTANEOUS-ACTION SETTING. AN ARMING-VANE SAFETY PIN, INSERTED THROUGH THE FUZE BELOW THE ARMING VANES, IS REMOVED BEFORE THE BOMB IS LOADED INTO THE AIRCRAFT. WHEN LOADED INTO THE AIRCRAFT, A FORK-SHAPED PIN, TEMPORARILY INSERTED BETWEEN THE ARMING VANES, KEEPS THEM FROM ROTATING. THE ARMING VANES ARE MADE OF PHOSPHATE-COATED STEEL.

{U}UPON RELEASE OF THE BOMB FROM THE AIRCRAFT, THE FORK-SHAPED PIN IS REMOVED, CAUSING THE ARMING VANES (1) TO ROTATE UNTIL THEY UNSCREW FROM THE OUTSIDE OF THE PROTRUDING END OF THE FIRING-PIN ASSEMBLY (2). WHEN THE VANES FALL FREE OF THE FUZE, THE ARMING PIN (3) IS EJECTED FROM THE FUZE BY THE EXPANSION OF THE ARMING-PIN SPRING. THIS PERMITS THE LOCKING BALLS (4) TO FALL INWARD, LEAVING THE FIRING-PIN ASSEMBLY CONSTRAINED ONLY BY THE ANTICREEP SPRING (5). THE FUZE IS NOW FULL ARMED, AND READY TO FUNCTION. UPON IMPACT, THE FIRING-PIN ASSEMBLY IS DRIVEN IN, AND THE INERTIA SLEEVE (6) IS FORCED IN THE OPPOSITE DIRECTION, OVERCOMING THE ANTICREEP SPRING. THIS TELESCOPING OF THE FIRING-PIN ASSEMBLY WITHIN THE INERTIA ELEMENT CAUSES THE PIN TO PENETRATE THE PRIMER (8). THE FLASH PRODUCED BY THE PRIMER IGNITES THE POWDER TRAIN IN THE UPPER RING (7), WHICH IN TURN IGNITES THE POWDER IN THE LOWER RING (9). AFTER THE PRESET TIME HAS ELAPSED, THE FLASH PASSES ON TO THE RELAY PELLET (11) AND THE BOOSTER (12), DETONATING THE BOMB.

DATE CATALOGED: 01JAN65
VOLUME 06

U N C L A S S I F I E D

PAGE 157

U N C L A S S I F I E D

FOM-1390-2-3-8-A
 NOMEN: FUZE, BOMB, MODEL AGP (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77
 COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- OBSOLETE

USING COUNTRIES: ----- U.S.S.R.
 EGYPT
 THAILAND

BOOSTER:
 BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 114.3
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - ?

PERFORMANCE:
 ARMING DISTANCE(M)-- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- VARIABLE
 MIN TIME SETTING -- 3 S
 MAX TIME SETTING -- 22 S

USING PROJECTILES: -- FAB-50, FAB-100,
 -- FAB-250, FAB-500, FAB-1000

USING WEAPONS: ----- BOMB, MODEL AGP

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
 MODEL ----- AGP
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 203.2
 LENGTH EXPOSED (MM) -- ?
 MAXIMUM DIAMETER (MM)- 69.8
 MAJ THREAD DIAM (MM) - 36.0
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- 66.6
 MARKINGS ----- ARN

FUNCTIONAL DATA:

ARMING METHOD ----- *1
 SELF-DESTR METHOD --- NONE
 TYPE SAFETY DEVICE --- ARMING VANE PIN

REMARKS:

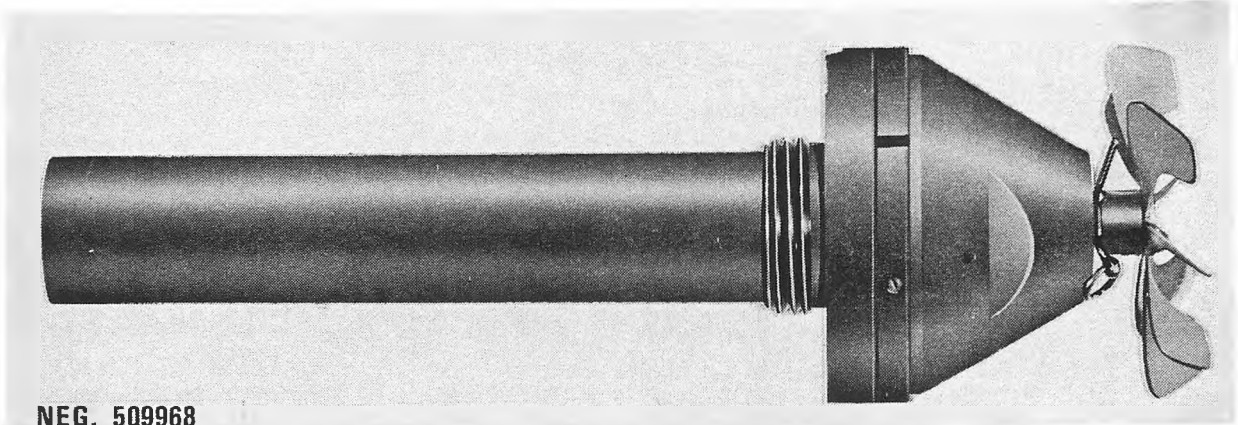
1/ DROPPING AWAY OF VANE ASSEMBLY



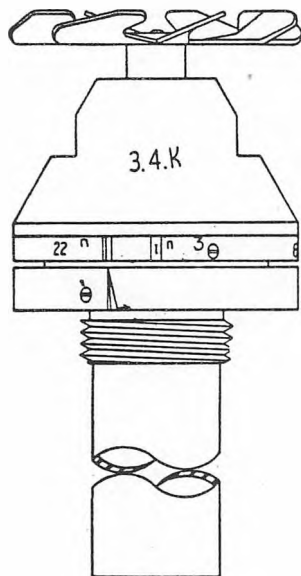
FOM-1390-2-3-8-B
 NOMEN: FUZE, BOMB, MODEL AGP (U)
 PRODUCED/ADOPTED: ???

U N C L A S S I F I E D

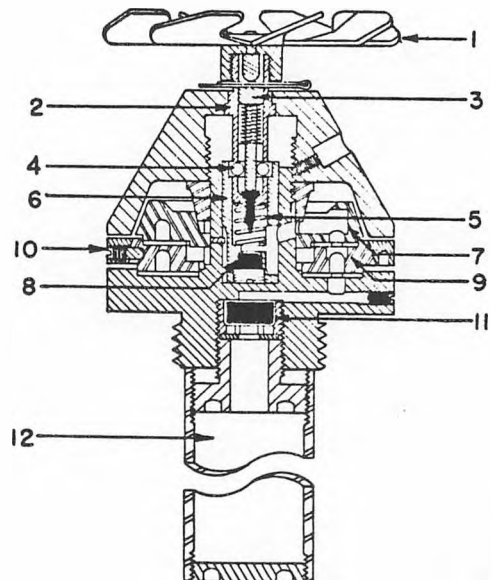
CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77
 COUNTRY: U.S.S.R.



NEG. 509968



NEG. 516218



DATE CATALC : 01JAN65
 VOLUME 06

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-2-3-8-8
NOMEN: FUZE, BOMB, MODEL AGP (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JAN65
VOLUME 06 PAGE 160

U N C L A S S I F I E D

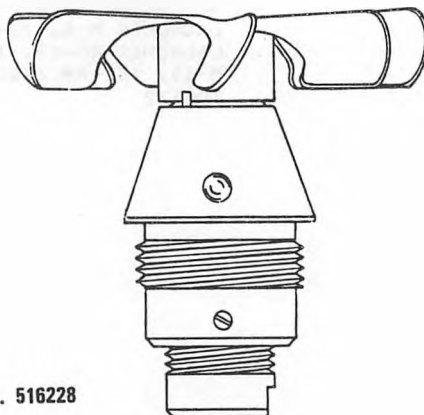
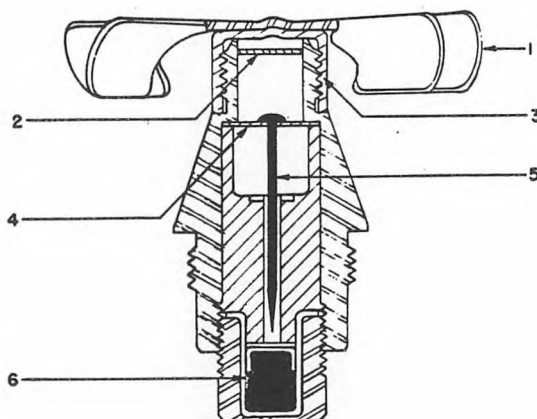
NOMEN: FUZE, BOMB, MODEL AM-A (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНАЯ ТРУБКА АМ-А
PRODUCED/ADOPTED: ???DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL AM-A BOMB FUZE IS A VANE-ARMED IMPACT FUZE USED WITH BOTH BOMBS AND ROCKETS. THE AM-A IS VERY SIMPLY DESIGNED WITH A MINIMUM NUMBER OF COMPONENTS. IT CONSISTS ESSENTIALLY OF THREE MAIN GROUPS: THE ARMING-VANE-AND-CUP ASSEMBLY, THE MAIN BODY, AND THE DETONATOR ASSEMBLY. A VERSION OF THE AM-A FUZE, DESIGNATED THE AM-A B/V (AM-A " /B), DIFFERS IN THAT IT IS PROVIDED WITH A REMOVABLE SHIPPING COVER IN PLACE OF THE ARMING VANES AND THE VANE CUP. THIS LATTER VERSION IS USED IN BOMBS TO BE DROPPED IN CLUSTERS. THE AM-A FUZE IS SIMILAR TO THE AM-B FUZE (FOM 1390-2-3-10), THE PRINCIPAL DIFFERENCE BEING THAT THE AM-A HAS A DETONATOR, WHILE THE AM-B HAS A SMALL PRIMER.

(U)UPON RELEASE, THE ARMING VANES (1) ROTATE, CAUSING THE ATTACHED ARMING-VANE CUP (3) TO ROTATE AND UNSCREW FROM THE FUZE BODY. WHEN THE ARMING-VANE-AND-CUP ASSEMBLY FALLS FREE, THE FUZE IS ARMED. THE ALUMINUM-FOIL DISK (2) PREVENTS AIR PRESSURE FROM FIRING THE FUZE AFTER ARMING. THE FIRING PIN (5) IS HELD IN PLACE IN THE FIRING PIN RETAINER (4). UPON IMPACT, THE TARGET MATERIAL ENTERS THE OPEN END OF THE TUBE, DRIVING THE FIRING PIN INTO THE DETONATOR (6). CRUSHING OF THE FUZE BODY WILL PRODUCE THE SAME EFFECT.



NEG. 516228

U N C L A S S I F I E D

FOM-1390-2-3-9-A
NOMEN: FUZE, BOMB, MODEL AM-A (U)

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- OBSOLETE

USING COUNTRIES: ----- U.S.S.R.

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

BOOSTER:

BCDY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- *2

USING WEAPONS: ----- *3

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
MODEL ----- AM-A
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) -- 63.2
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- 29.4
MAJ THREAD DIAM (MM) - 25.4
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 140.6
MARKINGS ----- AM-A

FUNCTIONAL DATA:

ARMING METHOD ----- *1
SELF-DESTR METHOD --- NONE
TYPE SAFETY DEVICE --- ARMING WIRE

REMARKS:

1/ DROPPING AWAY OF VANE ASSEMBLY

2/ 82-MM ROCKET MODEL RS-82, 132-MM ROCKET
MODEL RS-132, 132-MM ROCKET MODEL ROFS-132
BOMBS: AO-2.5, AO-8M2, AO-8M6, AO-10, AO-15,
AO-20M1, AO-20M2, AO-25, AO-25M1, AO-25M2,
AOKH-10, KHAB-25, KHAB-200, KHAB-500
3/ 82-MM 48-RD ROCKET LAUNCHER, 82-MM ROCKET
LAUNCHER M-8, 82-MM AIRCRAFT ROCKET
LAUNCHER RO-82, 132-MM ROCKET LAUNCHER
M-13, 132-MM AIRCRAFT ROCKET LAUNCHER
RO-132

DATE CATALOGED: 01JAN65
VOLUME 06 PAGE 162

U N C L A S S I F I E D

FOM-1390-2-3-10-A

UNCLASSIFIED

CATALOG: T8-381-5-06

NOMEN: FUZE, BOMB, MODEL AM-B (U)

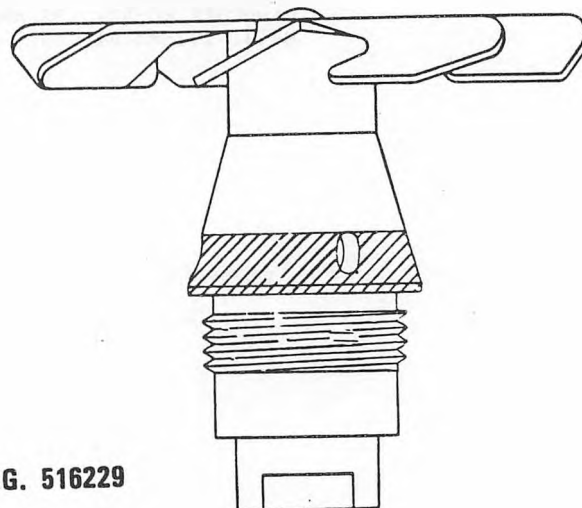
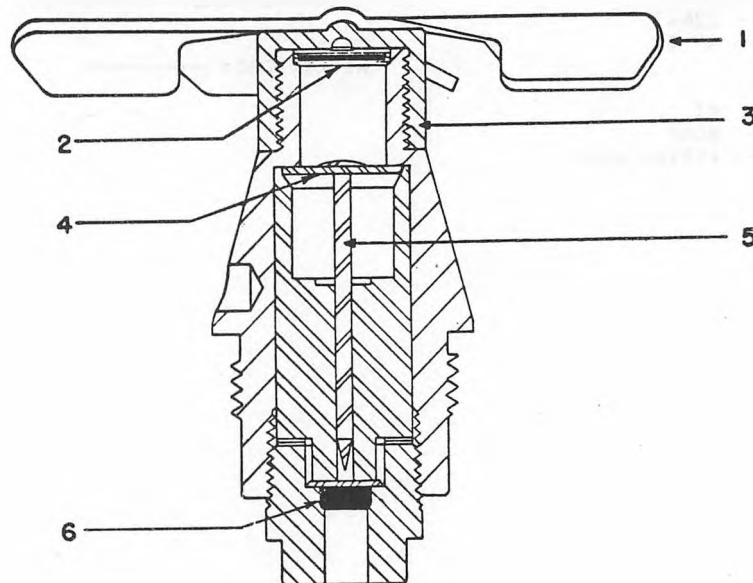
DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНАЯ ТРУБКА AM-B
PRODUCED/ADOPTED: ???

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL AM-B BOMB FUZE IS SIMILAR TO THE AM-A FUZE (FOM 1390-2-3-9), THE PRINCIPAL DIFFERENCE BEING THAT A PRIMER IS USED INSTEAD OF A DETONATOR. THE AM-B IS VANE ARMED AND FUNCTIONS INSTANTANEOUSLY UPON IMPACT. IT IS EXTREMELY SIMPLE IN DESIGN AND CONSTRUCTION, BUT IS NOT CONSIDERED SAFE BY UNITED STATES STANDARDS. A VERSION OF THE AM-B FUZE, DESIGNATED THE AM-B B/V (AM-B-" /B), DIFFERS IN THAT IT IS PROVIDED WITH A REMOVABLE SHIPPING COVER IN PLACE OF THE ARMING VANES AND THE VANE CUP. THIS LATTER VERSION IS USED IN BOMBS TO BE DROPPED IN CLUSTERS.

(U)UPON RELEASE, THE ARMING VANES (1) ROTATE, CAUSING THE ATTACHED ARMING-VANE CUP (3) TO ROTATE AND UNSCREW FROM THE FUZE BODY. WHEN THE ARMING-VANE-AND-CUP ASSEMBLY FALLS FREE, THE FUZE IS ARMED. THE ALUMINUM-FOIL DISK (2) PREVENTS AIR PRESSURE FROM FIRING THE FUZE AFTER ARMING. THE FIRING PIN (5) IS HELD IN PLACE IN THE FIRING PIN RETAINER (4). UPON IMPACT, THE TARGET MATERIAL ENTERS THE OPEN END OF THE TUBE, DRIVING THE FIRING PIN INTO THE PRIMER (6). CRUSHING OF THE FUZE BODY WILL PRODUCE THE SAME EFFECT.



NEG. 516229

DATE CATALOGED: 01JAN65
VOLUME 06

UNCLASSIFIED

PAGE 163

U N C L A S S I F I E D

FOM-1390-2-3-10-A
 NOMEN: FUZE, BOMB, MODEL AM-B (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ???

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- OBSOLETE

BOOSTER:

USING COUNTRIES: ----- U.S.S.R.
 EGYPT

BODY MATERIAL ----- N/A
 BODY LENGTH (MM) -- N/A
 FILLER MATERIAL --- N/A
 FILLER WEIGHT (G) - N/A

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
 MODEL ----- AM-B
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 63.2
 LENGTH EXPOSED (MM) -- ?
 MAXIMUM DIAMETER (MM) -- 29.4
 MAJ THREAD DIAM (MM) - 25.4
 THREAD PITCH (METRIC) - ?
 WEIGHT COMPLETE (G) -- 226.7
 MARKINGS ----- AM-5

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- *2

USING WEAPONS: ----- *3

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- *1
 SELF-DESTR METHOD ----- NONE
 TYPE SAFETY DEVICE --- ARMING WIRE

REMARKS:

1/ DROPPING AWAY OF VANE ASSEMBLY

2/ 82-MM ROCKET MODEL RS-82, 132-MM ROCKET
 MODEL RS-132, BOMBS: ZAB-1E, ZAB-2.5,
 ZAB-10TG, ZAB-50 TG, ZAB-50TS, SAB-M3,
 SAB-15, SAB-25
 3/ 82-MM 48-RD ROCKET LAUNCHER, 82-MM
 ROCKET LAUNCHER M-8, 82-MM AIRCRAFT ROCKET
 LAUNCHER RO-82, 132-MM ROCKET LAUNCHER
 M-13, 132-MM AIRCRAFT ROCKET LAUNCHER RO-132

NOMEN: FUZE, BOMB, MODEL APUV-1 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ?

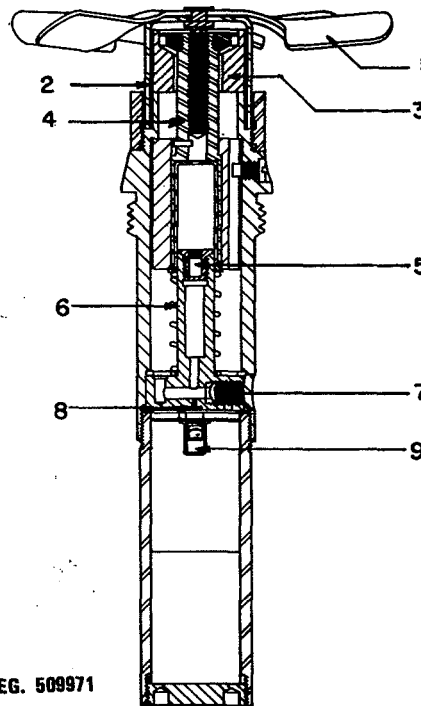
DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ???

COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL APUV-1 BOMB FUZE IS VANE ARMED AND IMPACT FIRED, AND IS PROVIDED WITH A CHOICE OF INSTANTANEOUS ACTION AND A 0.02-SECOND DELAY. HEAT, GENERATED BY THE SUDDEN COMPRESSION OF A COLUMN OF AIR, ACTUATES THE FUZE WHEN IT IMPACTS ON THE TARGET. THE APUV-1 CAN BE USED AS EITHER A TAIL OR A NOSE FUZE. AS RECEIVED FROM THE FACTORY, THE ARMING-VANES ARE SET FOR USE AS A NOSE FUZE. IF THE FUZE IS TO BE USED IN THE TAIL OF THE BOMB, THE VANES SHOULD BE TWISTED TO CORRESPOND WITH A GUIDELINE MARKED "Д," INSCRIBED ON THE VANE CUP. AS RECEIVED FROM THE FACTORY, THE FUZE IS SET FOR A 0.02-SECONDS DELAY. SHOULD NONDELAY ACTION BE DESIRED, THE SETSCREW MARKED "M," IN THE LOWER PART OF THE FUZE BODY, SHOULD BE TURNED OUT UNTIL ITS HEAD IS FLUSH WITH THE BODY. THIS FUZE IS SIMILAR IN DESIGN AND OPERATION TO THE MODEL APUV FUZE, FROM WHICH IT DIFFERS PRINCIPALLY BY PROVIDING ONLY TWO, INSTEAD OF THREE, TIME SETTINGS.

(U)WHEN THE BOMB IS RELEASED FROM THE AIRCRAFT, THE ARMING WIRE IS PULLED, ALLOWING THE ARMING VANES (1) AND THE ATTACHED ARMING-VANE CUP (2) TO ROTATE AND UNSCREW FROM THE HOLLOW PLUNGER (4). WHEN THE ARMING-VANE ASSEMBLY FALLS FREE, THE LOCKING BLOCKS (3) ARE ALSO RELEASED, AND THE FUZE IS NOW ARMED. WHEN USED AS A NOSE FUZE, IMPACT WITH THE TARGET CAUSES THE PLUNGER TO BE DRIVEN UP AND OVER THE FIXED PISTON (6). THE RESULTING VIOLENT COMPRESSION OF THE ENCLOSED AIR GENERATES SUFFICIENT HEAT TO IGNITE THE PRIMER (5). WHEN USED AS A TAIL FUZE, THE IMPACT WITH THE TARGET CAUSES THE PLUNGER TO MOVE DOWN BY INERTIA, COMPRESSING THE AIR AS BEFORE. WITH THE SETSCREW (7) ALL THE WAY IN PLACE, THE FLAME FROM THE PRIMER IGNITES THE 0.02-SECOND-DELAY PELLET (8), WHICH IN TURN ACTIVATES THE DETONATOR (9). WHEN THE SETSCREW IS TURNED OUT SO THAT ITS HEAD IS FLUSH WITH THE BODY, A DIRECT CHANNEL FROM THE PRIMER TO THE DETONATOR IS OPENED UP SO THAT THE FUZE FUNCTIONS INSTANTLY ON IMPACT.



NEG. 509971

U N C L A S S I F I E D

FOM-1390-2-3-12-A
NOMEN: FUZE, BOMB, MODEL APUV-1 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: ???
CURRENT STATUS: ----- LTD. STD.
USING COUNTRIES: ----- U.S.S.R.
EGYPT
THAILAND

BOOSTER:
BODY MATERIAL ----- STEEL
BODY LENGTH (MM) -- 71.1
FILLER MATERIAL --- TETRYL
FILLER WEIGHT (G) - ?

FUZE ASSEMBLY COMPLETE:
TYPE ----- IMPACT
MODEL ----- APUV-1
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) -- 188.7
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- 39.6
MAJ THREAD DIAM (MM) - 35.5
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 721.2
MARKINGS ----- ?

PERFORMANCE:
ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- INST TO 0.02 S
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- BOMBS: BRAB, FAB

USING WEAPONS: ----- N/A

FUNCTIONAL DATA:
ARMING METHOD ----- *1
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- ARMING WIRE

REFERENCES: -----

REMARKS:
1/ DROPPING AWAY OF VANE ASSEMBLY

FOM-1390-2-3-13-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, BOMB, MODEL AV-1 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ?
PRODUCED/ADOPTED: ???

DATE UPDATED: 19FEB75
COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL AV-1 BOMB FUZE IS DESIGNED FOR USE AS EITHER A NOSE OR A TAIL FUZE. IT IS AN "ALLWAYS" FUZE, DESIGNED TO FUNCTION REGARDLESS OF THE ANGLE AT WHICH THE BOMB IMPACTS THE TARGET. AFTER IMPACT, THERE IS A FIXED DELAY BETWEEN 25 AND 28 SECONDS. THE FUZE IS PACKED AND SHIPPED WITH THE ARMING VANES FOLDED AGAINST THE BODY. BEFORE USE, THE VANES MUST BE UNFOLDED, AND THEN BENT TO THE PROPER ANGLE FOR EITHER NOSE OR TAIL USE. A GUIDE LINE MARKED "Г" INSCRIBED IN THE NOSE ADAPTER, INDICATES THE CORRECT VANE ANGLE FOR USE AS A NOSE FUZE. THE LINE MARKED "Д" INDICATES THE CORRECT ANGLE FOR TAIL-POSITION USE. THE FUZE IS MACHINED FROM STEEL, AND HAS A BLACK OXIDE FINISH EXCEPT FOR THE NOSE ADAPTER THAT IS TIN PLATED.

(U)UPON RELEASE FROM THE AIRCRAFT, THE ARMING WIRE IS PULLED FROM THE FUZE, AND THE ARMING VANES (1) AND THE ARMING VANE SHAFT (3) ARE FREE TO TURN AS A UNIT. AFTER APPROXIMATELY 50 REVOLUTIONS, THE UNIT FALLS AWAY. WHEN THE ARMING VANE SHAFT IS REMOVED, THE LOCKING BALLS (4) FALL INWARD, FREEING THE STRIKER CARRIER (2) FROM THE PRIMER CARRIER (5). THE FUZE IS NOW ARMED, WITH THE STRIKER (6) AND THE PRIMER (8) SEPARATED ONLY BY THE FIRING PIN RETAINING SPRING (7). WHEN USED AS A NOSE FUZE, INERTIA FORCES THE PRIMER ONTO THE STRIKER. WHEN USED AS A TAIL FUZE, THE STRIKER IS FORCED INTO THE PRIMER. SIDE OR GRAZE IMPACT FORCES THE ROUNDED ENDS OF THE PRIMER CARRIER AND OF THE STRIKER CARRIER AGAINST THE CONICAL ENDS OF THE INNER FUZE BODY, CAMMING THE TWO CARRIERS TOGETHER TO FIRE THE PRIMER. FLAME FROM THE PRIMER IS CHANNLED THROUGH A HOLE IN THE BODY WEB TO THE BLACK-POWDER TRAIN IN THE DELAY ELEMENT (9). AFTER BURNING BETWEEN 25 AND 28 SECONDS, THE BLACK-POWDER TRAIN IGNITES A RELAY CHARGE THAT IN TURN FIRES THE DETONATOR (10) AND THE BOOSTER (11)

U N C L A S S I F I E D

FOM-1390-2-3-13-A
NOMEN: FUZE, BOMB, MODEL AV-1 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 19FEB75

PRODUCED/ADOPTED: ???

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- LTD. STD.

BOOSTER:

USING COUNTRIES: ----- U.S.S.R.

BODY MATERIAL ----- STEEL
BODY LENGTH (MM) -- 66.0
FILLER MATERIAL --- TETRYL
FILLER WEIGHT (G) - ?

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
MODEL ----- AV-1
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) -- 214.2
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM) - 43.8
MAJ THREAD DIAM (MM) - 35.8
THREAD PITCH (METRIC) - ?
WEIGHT COMPLETE (G) -- 52.4
MARKINGS ----- AB-1

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- 25 TO 28 S
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- FAB-50 FAB-100. FAB-250,
- FAB-500, FAB 1000

USING WEAPONS: ----- BOMB, MODEL AV-1

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- *1
SELF-DESTR METHOD ----- N/A
TYPE SAFETY DEVICE --- ARMING WIRE

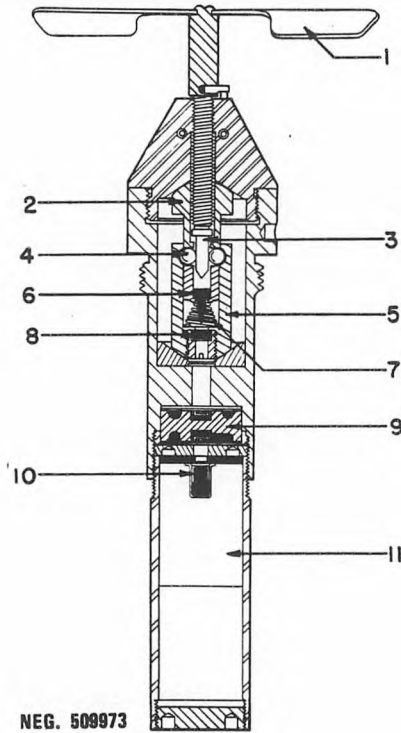
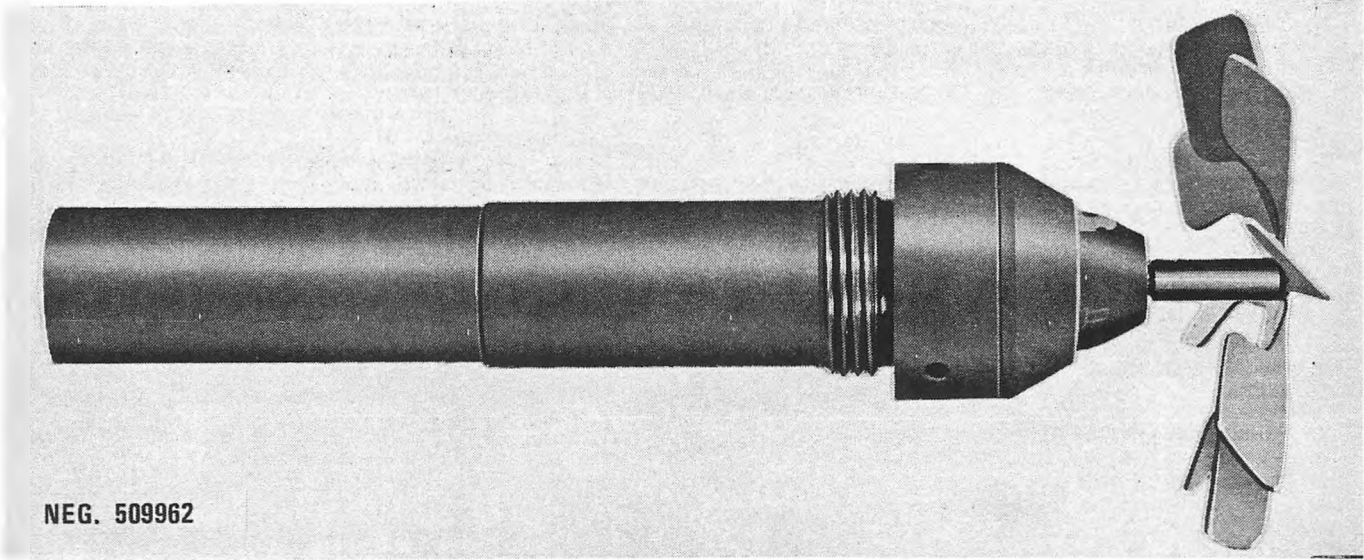
REMARKS:

1/ DROPPING AWAY OF VANE ASSEMBLY

FOM-1390-2-3-13-B
NOMEN: FUZF. BOMB, MODEL AV-1 (U)
PRODUCED/ADOPTED: ???

UNCLASSIFIED

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 19FEB75
COUNTRY: U.S.S.R.



FDM-1390-2-3-13-B

NOMEN: FUZE, BOMB, MODEL AV-1 (U)

PRODUCED/ADOPTED: ???

U N C L A S S I F I E D

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 19FEB75

COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JAN65
VOLUME 06 PAGE 170

U N C L A S S I F I E D

NOMEN: FUZE, BOMB MODEL AVSH-2 (U)

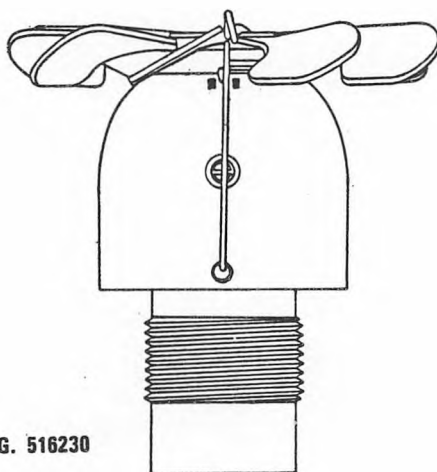
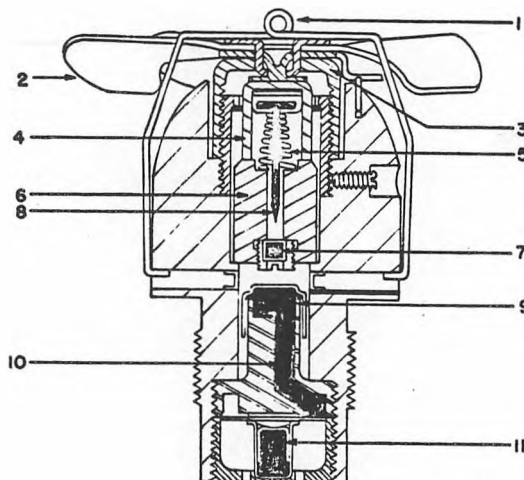
DATE REVIEWED: 28 JAN 77

NATIVE DES: ГОЛОВНАЯ ТРУБКА АВШ-2
 PRODUCED/ADOPTED: ???

DATE UPDATED: 19 FEB 75
 COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL AVSH-2 BOMB FUZE IS VANE ARMED AND FUNCTIONS ON IMPACT WITH A SLIGHT DELAY. THE AVSH-2 IS USED IN LOW-ALTITUDE BOMBING AGAINST TARGETS REQUIRING PENETRATION BEFORE THE BOMB EXPLODES.

(U)UPON RELEASE FROM THE AIRCRAFT, THE ARMING WIRE (1) IS PULLED FROM THE FUZE, ALLOWING THE ARMING VANES (2) TO ROTATE. AFTER A NUMBER OF REVOLUTIONS OF THE ARMING VANES, THE ARMING-VANE CUP (3) AND THE PRIMER-CARRIER STOP (4) ARE UNSCREWED AND FALL FREE, ARMING THE FUZE. UPON IMPACT, THE PRIMER CARRIER (6) MOVES FORWARD BY INERTIA, COMPRESSING THE ANTICREEP SPRING (5) AND DRIVING THE PRIMER (7) ONTO THE FIRING PIN (8). FLAME FROM THE PRIMER IGNITES THE INITIATOR CHARGE (9) AND THE DELAY ELEMENT (10), WHICH IN TURN ACTUATES THE DETONATOR (11).



NEG. 516230

U N C L A S S I F I E D

FOM-1390-2-3-14-A
NOMEN: FUZE, BOMB MODEL AVSH-2 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 19FEB75

COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- OBSOLETE

USING COUNTRIES: ----- U.S.S.R.

BOOSTER:

BODY MATERIAL ----- STEEL
BODY LENGTH (MM) -- ?
FILLER MATERIAL --- ?
FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- ?
MIN TIME SETTING -- ?
MAX TIME SETTING -- ?

USING PROJECTILES: -- ?

USING WEAPONS: ----- ?

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
MODEL ----- AVSH-2
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) -- 71.6
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- 39.8
MAJ THREAD DIAM (MM) - 25.4
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 2328.7
MARKINGS ----- AB III-2

FUNCTIONAL DATA:

ARMING METHOD ----- *1
SELF-DESTR METHOD ----- NONE
TYPE SAFETY DEVICE --- ARMING WIRE

REMARKS:

1/ DROPPING AWAY OF VANE ASSEMBLY

U N C L A S S I F I E D

FOM-1390-2-3-15-A

CATALOG: TB-381-5-06

NOMEN: FUZE, BOMB, MODEL TM-4B (U)

DATE REVIEWED: 28JAN77

NATIVE DES: TM-4B
PRODUCED/ADOPTED: ???

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL TM-4B BOMB FUZE IS AN AIR-BURST, MECHANICAL TIME, NOSE FUZE USED WITH FLARES AND SMOKE BOMBS. THE CLOCKWORK MECHANISM IS STARTED WHEN THE ARMING WIRE (1), WHICH IS ATTACHED BY A WIRE TO THE AIRCRAFT, IS PULLED OUT OF THE FUZE BY THE DROPPING OF THE BOMB. DELAY TIME AFTER RELEASE IS ADJUSTABLE FROM 2 TO 40 SECONDS, AND IS SET BY TURNING THE TIME SETTING RING UNTIL THE DESIRED NUMBER OF SECONDS ON THE SCALE IS OPPOSITE THE INDEX. INSTANTANEOUS SETTING IS PREVENTED BY THE FIXED REST, ON WHICH THE TIMING POINTER (5) MOVES FOR THE FIRST 2 SECONDS. THE TM-4B FUZE IS SIMILAR TO THE TM-4A FUZE. THE ONLY DIFFERENCES ARE THAT THE TM-4B HAS A MINIMUM DELAY OF 2, RATHER THAN 6, SECONDS AND IS A IGNITION-TYPE, RATHER THAN A DETONATING-TYPE, FUZE.

(U)THE SAFETY PIN (2) IS REMOVED AFTER THE FUZE IS ASSEMBLED TO THE BOMB. WHEN THE BOMB IS RELEASED FROM THE AIRCRAFT, THE ARMING WIRE (1) IS PULLED OUT OF THE FUZE. THIS ALLOWS THE ARMING SHAFT (4) TO MOVE OUTWARD AND TO RELEASE THE DETENT PIN (3), WHICH ALSO MOVES OUTWARD. THE TIMING POINTER (5) IS NOW FREE TO MOVE IN A CLOCKWISE DIRECTION. AFTER A DELAY ARMING PERIOD OF 2 SECONDS, THE TIMING POINTER MOVES OFF THE FIXED REST AND BEARS ON THE TIMING DISK (6) UNDER PRESSURE OF THE STRIKER SPRING (7). THE TIMING POINTER CONTINUES TO MOVE UNTIL IT BECOMES ALIGNED OVER THE RELEASE SLOT IN THE TIMING DISK. THE STRIKER (8) IS THEN DRIVEN INTO THE PRIMER (9).

U N C L A S S I F I E D

FOM-1390-2-3-15-A
 NOMEN: FUZE, BOMB, MODEL TM-4B (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ???

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- U.S.S.R.

BODY MATERIAL ----- N/A
 BODY LENGTH (MM) -- N/A
 FILLER MATERIAL --- N/A
 FILLER WEIGHT (G) - N/A

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

TYPE ----- MECHANICAL TIME
 MODEL ----- TM-4B
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 97.5
 LENGTH EXPOSED (MM) -- ?
 MAXIMUM DIAMETER (MM) - 66.5
 MAJ THREAD DIAM (MM) - 25.4
 THREAD PITCH (METRIC) - ?
 WEIGHT COMPLETE (G) -- ?
 MARKINGS ----- TM-4B

ARMING DISTANCE(M)- ?
 ARMING TIME ----- 2 S
 SELF-DESTRUCT TIME VARIABLE
 DELAY TIME ----- N/A
 MIN TIME SETTING -- 2 S
 MAX TIME SETTING -- 40 S

USING PROJECTILES: -- *1

USING WEAPONS: ----- N/A

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- REMOVE ARMING WIRE
 SELF-DESTR METHOD ---- TIME SETTING
 TYPE SAFETY DEVICE --- SAFETY PIN

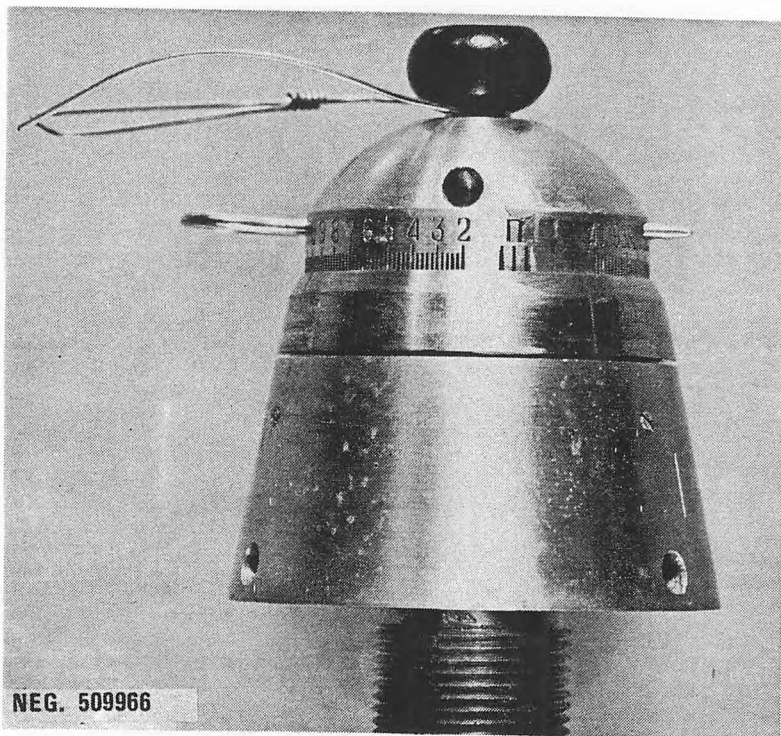
REMARKS:

1/ SAB, SAB-3 M, SAB-15, SAB-25, KHAB-200,
 KHAB-500, KRAB, KRAB-25, ZAB-50TSHCH,
 ZAB-100T

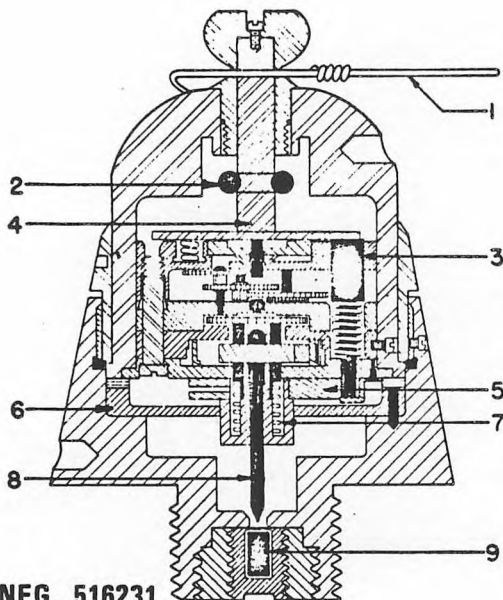
FOM-1390-2-3-15-B
NOMEN: FUZE, BOMB, MODEL TM-48 (U)
PRODUCED/ADOPTED: ???

UNCLASSIFIED

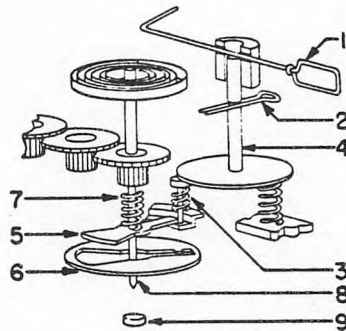
CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



NEG. 509966



NEG. 516231



FOM-1390-2-3-15-B
NOMEN: FUZE, BOMB, MODEL TM-4B (U)
PRODUCED/ADOPTED: ???

U N C L A S S I F I E D

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JAN65
VOLUME 06 PAGE 176

U N C L A S S I F I E D

FOM-1390-2-3-16-2-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, BOMB, MODEL TM-24B (U)

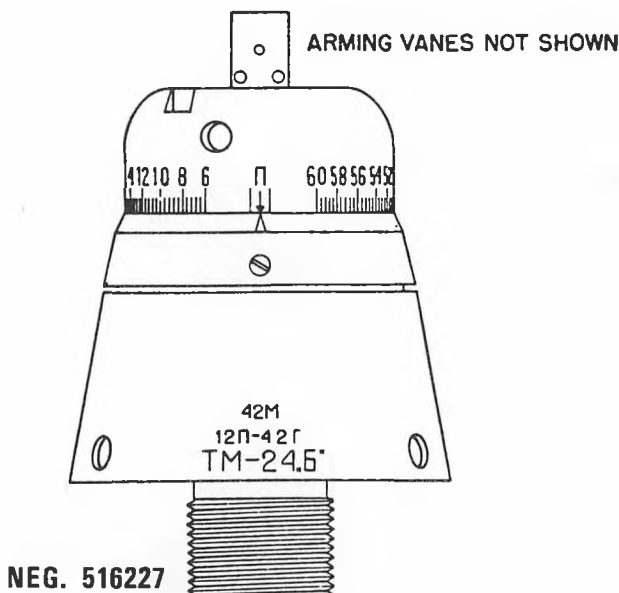
DATE REVIEWED: 28JAN77

NATIVE DES: TM-24B
PRODUCED/ADOPTED: ???

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL TM-24B BOMB FUZE IS A VANE-ARMED, AIR-BURST, MECHANICAL TIME FUZE. THE FUNCTIONING TIME AFTER BEING ARMED IS VARIABLE FROM 6 TO 60 SECONDS, AND IS SET BY ROTATING THE TIME SETTING RING UNTIL THE FIGURE CORRESPONDING TO THE DESIRED NUMBER OF SECONDS IS OPPOSITE THE INDEX ON THE BRASS RETAINING RING. THE POSITION MARKED "U" ON THE TIME SETTING RING REPRESENTS THE SAFE, OR TRANSPORT, POSITION. THE TM-24B IS SOMEWHAT SIMILAR IN DESIGN AND OPERATION TO THE TM-4A AND TM-4B FUZES (FOM 1390-2-3-1) AND FOM 1390-2-3-15).

(U)WHEN THE BOMB IS RELEASED FROM THE AIRCRAFT, THE ARMING PIN IS AUTOMATICALLY REMOVED. THIS ALLOWS THE ARMING SHAFT TO BE MOVED FORWARD BY THE SPRING, AND THE ARMING VANES AND ARMING-VANE CUP THEN ROTATE AND FALL AWAY. THE LOCKING BALL, NORMALLY HELD OVER THE UPPER END OF THE DETENT PIN BY THE ARMING-VANE CUP, THEN MOVES INWARD AND RELEASES THE DETENT PIN WHICH MOVES FORWARD; THE SPRING-DRIVEN CLOCKWORK GEAR TRAIN THEN BEGINS TO DRIVE THE STRIKER RELEASE IN A CLOCKWISE DIRECTION. THE STRIKER RELEASE IS MOVED AT A FIXED RATE BY THE CLOCKWORK MECHANISM WHICH CONSISTS OF A MAINSPRING, A PINION GEAR, REDUCTION GEARS, AND AN ESCAPEMENT MECHANISM. THE STRIKER RELEASE MOVES FROM UNDER THE SAFETY BRIDGE AND, UNDER THE PRESSURE OF THE STRIKER SPRING, BEARS ON THE TIMING DISK. IT CONTINUES TO MOVE UNTIL IT BECOMES ALINED WITH THE RELEASE SLOT IN THE TIMING DISK. THE STRIKER IS THEN DRIVEN INTO THE PRIMER, INITIATING THE EXPLOSIVE TRAIN THAT CAUSES THE BOMB TO EXPLODE.



UNCLASSIFIED

FOM-1390-2-3-16-2-A
 NOMEN: FUZE, BOMB, MODEL TM-24B (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ???

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- U.S.S.R.

BODY MATERIAL ----- ?
 BODY LENGTH (MM) -- ?
 FILLER MATERIAL --- ?
 FILLER WEIGHT (G) - ?

FUZE ASSEMBLY COMPLETE:

PERFORMANCE:

TYPE ----- MECHANICAL TIME
 MODEL ----- TM-24B
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 93.4
 LENGTH EXPOSED (MM) -- ?
 MAXIMUM DIAMETER (MM) -- 63.7
 MAJ THREAD DIAM (MM) - 25.4
 THREAD PITCH (METRIC) - ?
 WEIGHT COMPLETE (G) -- ?
 MARKINGS ----- TM-24B

ARMING DISTANCE(M) - ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME 6-60 S
 DELAY TIME ----- N/A
 MIN TIME SETTING -- 6 S
 MAX TIME SETTING -- 60 S

USING PROJECTILES: -- ?

USING WEAPONS: ----- N/A

FUNCTIONAL DATA:

REFERENCES: -----

ARMING METHOD ----- *1
 SELF-DESTR METHOD ---- TIME SETTING
 TYPE SAFETY DEVICE --- ARMING PIN

REMARKS:

1/ DROPPING AWAY OF VANE ASSEMBLY

DATE CATALOGED: 01JAN65
 VOLUME 06 PAGE 178

UNCLASSIFIED

U N C L A S S I F I E D

FOM-1390-2-3-19-A

CATALOG: TB-381-5-06

NOMEN: FUZE, BOMB, MODEL ADOZ (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ДОННАЯ ТРУБКА АДОЗ
PRODUCED/ADOPTED: ???

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL ADOZ BOMB FUZE IS A VANE-ARMED TAIL FUZE THAT FUNCTIONS UPON IMPACT. THE DESIGN OF THE FUZE IS COMPARATIVELY SIMPLE, BUT WOULD NOT BE CONSIDERED SAFE BY UNITED STATES STANDARDS. THE APPEARANCE, CONSTRUCTION, AND OPERATION OF THE ADOZ ARE SIMILAR TO THOSE OF THE ADZU AND ADZ FUZES, EXCEPT THAT IT HAS NO DELAY. THE ADOZ FUZE CONSISTS IN PART OF A CYLINDRICAL STEEL BODY WITHIN WHICH THE PRIMER HOUSING, THE RELAY HOLDER, THE DETONATOR, AND THE BOOSTER HAVE BEEN INSERTED THROUGH THE LOWER END. THESE PARTS ARE RETAINED BY A THREADED STEEL CAP. A LOCKING YOKE, SECURED BY A SCREW TO THE STEEL CAP AT THE UPPER END OF THE FUZE, PREVENTS THE ARMING VANES FROM ROTATING DURING SHIPMENT.

(U)PRIOR TO BEING LOADED INTO THE AIRCRAFT, THE ARMING-VANE LOCKING YOKE (3) IS REMOVED BY UNSCREWING THE LOCKING-YOKE SCREW (5). UPON RELEASE OF THE BOMB, THE AIRSTREAM CREATED BY ITS FALL CAUSES THE ARMING VANES (1) TO ROTATE AND UNSCREW FROM THE PLUNGER (2), FALLING FREE. THE FUZE IS NOW ARMED. ON IMPACT, INERTIA MOVES THE PLUNGER DOWNWARD, DRIVING THE FIRING PIN (4) INTO THE PRIMER (9). FLAME FROM THE PRIMER IGNITES THE DETONATOR (12) THAT IN TURN ACTIVATES THE BOOSTER (13).

U N C L A S S I F I E D

FOM-1390-2-3-19-A
NOMEN: FUZE, BOMB, MODEL ADOZ (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ???

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- OBSOLETE

BOOSTER:

USING COUNTRIES: ----- U.S.S.R.

BODY MATERIAL ----- STEEL
BODY LENGTH (MM) -- 142.2
FILLER MATERIAL --- TETRYL
FILLER WEIGHT (G) - ?

FUZE ASSEMBLY COMPLETE:

PERFORMANCE:

TYPE ----- IMPACT
MODEL ----- ADOZ
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) -- 251.4
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM) - 43.6
MAJ THREAD DIAM (MM) - 36.0
THREAD PITCH (METRIC) - ?
WEIGHT COMPLETE (G) -- 798.3
MARKINGS ----- AG03

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- INST.
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- ?

USING WEAPONS: ----- N/A

FUNCTIONAL DATA:

REFERENCES: -----

ARMING METHOD ----- *1
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- LOCKING YOKE

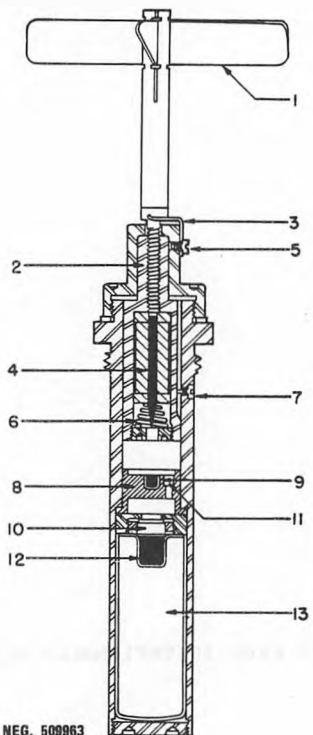
REMARKS:

1/ DROPPING AWAY OF VANE ASSEMBLY

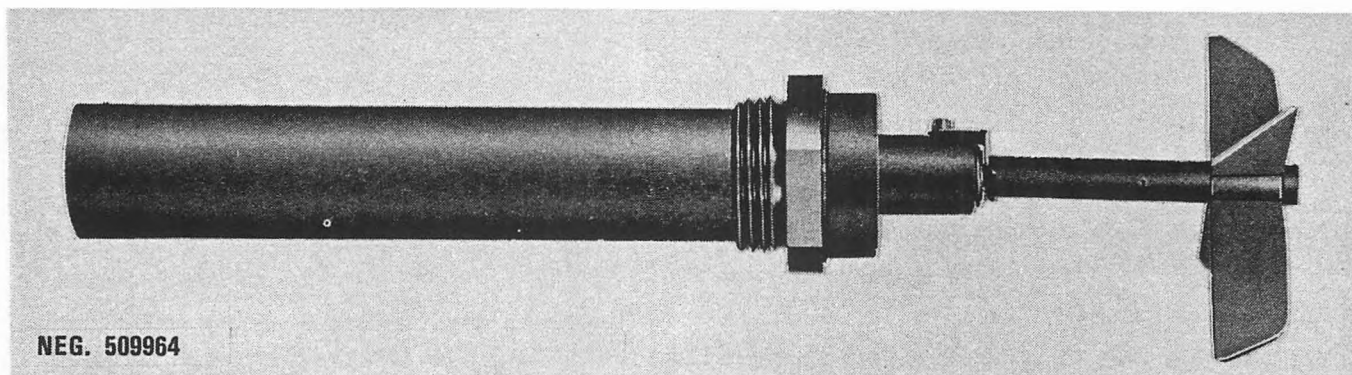
U N C L A S S I F I E D

FOM-1390-2-3-19-8
NOMEN: FUZF, BOMB, MODEL ADOZ (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



NEG. 509963



NEG. 509964

U N C L A S S I F I E D

FOM-1390-2-3-19-B
NOMEN: FUZE, BOMB, MODEL ADOZ (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JAN65
VOLUME 06 PAGE 182

U N C L A S S I F I E D

NOMEN: FUZE, BOMB, MODEL AGM-3 (U)

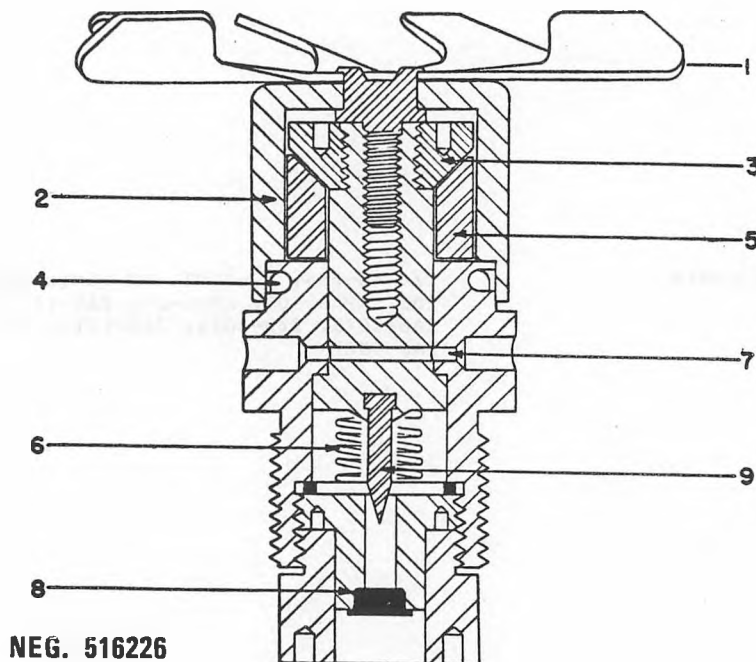
DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНАЯ ТРУБКА АГМ-3
 PRODUCED/ADOPTED: ???

DATE UPDATED: 28JAN77
 COUNTRY: U.S.S.R.

{U}THE SOVIET MODEL AGM-3 BOMB FUZE IS VANE ARMED AND DETONATES INSTANTANEOUSLY UPON IMPACT. THE FUZE CONSISTS OF THREE MAJOR GROUPS CONSTRUCTED OF STEEL, ALUMINUM, AND BRASS. WHILE THE MAIN BODY AND THE ARMING-VANE-AND-CUP ASSEMBLY ARE OF STEEL, THE STRIKER ASSEMBLY IS OF ALUMINUM, AND THE FIRING PIN IS OF BRASS.

{U}UPON RELEASE FROM THE AIRCRAFT, THE ARMING PIN IS WITHDRAWN FROM THE ARMING-PIN SLOT (4), ALLOWING THE ARMING VANES (1) AND ATTACHED ARMING-VANE CUP (2) TO ROTATE IN THE AIRSTREAM CREATED BY THE DROP OF THE BOMB AND TO UNSCREW FROM THE STRIKER ASSEMBLY (3), THUS ALLOWING THE LOCKING BLOCKS (5) TO FALL AWAY. UPON IMPACT WITH THE TARGET, THE STRIKER ASSEMBLY IS DRIVEN IN, SHEARING THE SAFETY SHEAR PIN (7), COMPRESSING THE STRIKER SPRING (6), AND FORCING THE FIRING PIN (9) TO PIERCE THE PRIMER (8), CAUSING IT TO FIRE.



U N C L A S S I F I E D

FOM-1390-2-3-20-A
NOMEN: FUZE, BOMB, MODEL AGM-3 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- OBSOLETE

USING COUNTRIES: - ----- U.S.S.R.

BOOSTER:
BODY MATERIAL ----- STEEL
BODY LENGTH (MM) -- 21.5
FILLER MATERIAL --- ?
FILLER WEIGHT (G) - ?

FUZE ASSEMBLY COMPLETE:
TYPE ----- IMPACT
MODEL ----- AGM-3
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) -- 76.7
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM) -- 30.7
MAJ THREAD DIAM (MM) - 25.4
THREAD PITCH (METRIC) - ?
WEIGHT COMPLETE (G) -- 272.1
MARKINGS ----- ARM-3

PERFORMANCE:
ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- *2

USING WEAPONS: ----- N/A

FUNCTIONAL DATA:
ARMING METHOD ----- *1
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- ARMING PIN AND SHEAR PIN

REFERENCES: -----

REMARKS:
1/ DROPPING AWAY OF VANE ASSEMBLY

2/ AO-8M4, AO-20M3, AO-25M1, KHAB-25, KHAB-200, KHAB-500, KRAG-25, ZAB-1E, ZAB-2.5, ZAB-10TG, ZAB-50TG, ZAB-50TS, ZAB-100T, ZAB-500T

NOMEN: FUZE, BOMB, MODEL AV-4 (U)

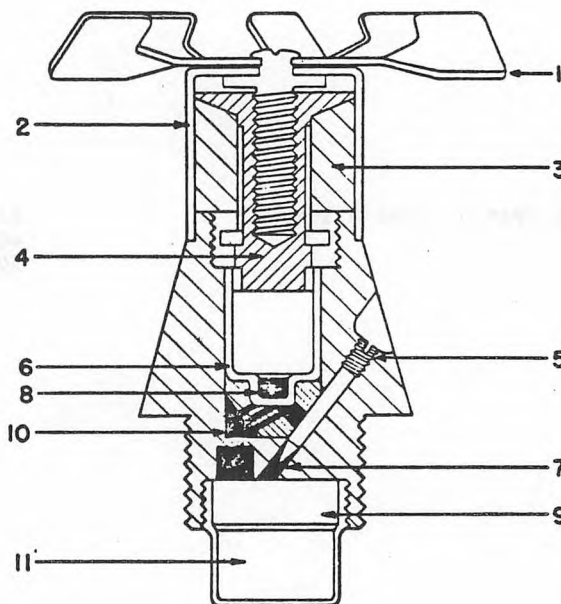
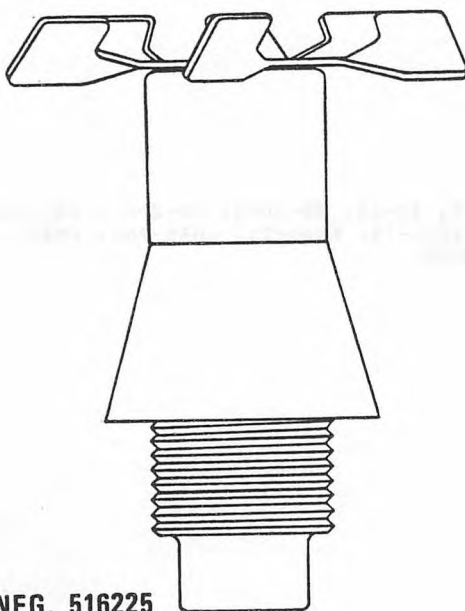
DATE REVIEWED: 28JAN77

NATIVE DES: ГОЛОВНАЯ ТРУБКА АВ-4
 PRODUCED/ADOPTED: ???

DATE UPDATED: 28JAN77
 COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL AV-4 BOMB FUZE IS A VANE-ARMED, PNEUMATIC, NOSE FUZE THAT FUNCTIONS ON IMPACT. THE FUZE CAN BE SET FOR EITHER INSTANTANEOUS OR 7-SECOND-DELAY OPERATION. IT FUNCTIONS BY THE ACTION OF HEAT GENERATED BY COMPRESSING A VOLUME OF AIR ON IMPACT, AND IS CONSEQUENTLY NOT FITTED WITH A FIRING PIN. THE FUZE IS RECEIVED FROM THE FACTORY SET FOR A 7-SECOND DELAY. TO SET IT FOR INSTANTANEOUS ACTION, THE DELAY-SETTING SCREW MUST BE TURNED OUT UNTIL ITS HEAD IS FLUSH WITH THE FUZE BODY, THUS OPENING A DIRECT CHANNEL FROM THE PRIMER TO THE DETONATOR.

(U)UPON RELEASE FROM THE AIRCRAFT, THE ARMING VANES (1) ROTATE, UNSCREWING THE ARMING-VANE CUP (2) AND ALLOWING THE SAFETY BLOCKS (3) TO FALL AWAY. WHEN THE BLOCKS ARE RELEASED THE FUZE IS ARMED. UPON IMPACT WITH THE TARGET, THE PLUNGER (4) IS DRIVEN INTO THE CYLINDER (6), VIOLENTLY COMPRESSING THE ENTRAPPED AIR AND GENERATING SUFFICIENT HEAT TO IGNITE THE PRIMER (8). THE IGNITION FLAME OF THE PRIMER THEN HAS TWO POSSIBLE PATHS TO FOLLOW, DEPENDING ON THE POSITION OF THE DELAY-SETTING SCREW (5). IF SET FOR INSTANTANEOUS ACTION, THE FLAME PASSES DIRECTLY THROUGH THE FLASH CHANNEL (7) TO THE DETONATOR (9); THAT IN TURN DETONATES THE BOOSTER (11). IF SET FOR DELAY ACTION, THE FLAME PASSES THROUGH THREE SMALL HOLES TO THE POWDER-TRAIN DELAY (10). AFTER 7 SECONDS, THE FLAME FROM THE DELAY INITIATES THE DETONATOR.



U N C L A S S I F I E D

FOM-1390-2-3-23-A
NOMEN: FUZF, BOMB, MODEL AV-4 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- LTD. STD.

USING COUNTRIES: ----- U.S.S.R.

BOOSTER:

BODY MATERIAL ----- STEEL
BODY LENGTH (MM) -- ?
FILLER MATERIAL --- TETRYL
FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- INST. OR 7 S
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- *2

USING WEAPONS: ----- N/A

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
MODEL ----- AV-4
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) -- 94.4
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- 41.9
MAJ THREAD DIAM (MM) - 35.8
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- AB-4

FUNCTIONAL DATA:

ARMING METHOD ----- *1
SELF-DESTR METHOD ----- NONE
TYPE SAFETY DEVICE --- ARMING WIRE

REMARKS:

1/ DROPPING AWAY OF VANE ASSEMBLY

2/ A0-2.5, A0-10, A0-20M3, A0-25M1, A0-100,
AOKH-10, AOKH-15, KHAB-25, KHAB-200, KHAB-
500, KRAB-25

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-2-4-1-A

CATALOG: TB-381-5-06

NOMEN: FUZE, HAND GRENADE, MODEL UZRG (U)

DATE REVIEWED: 28JAN77

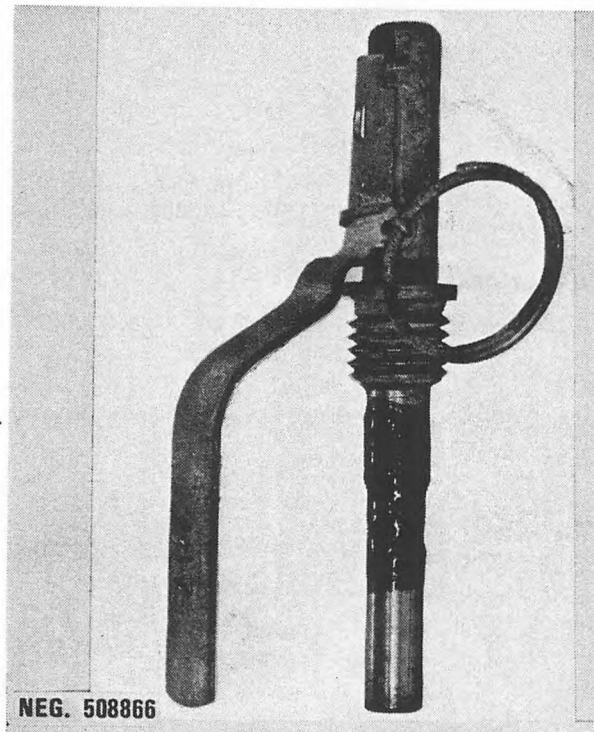
NATIVE DES: УЗРГ (УНИЦИРОВАННЫЙ ЗАПАЛ РУЧНОЙ ГРАНАТЫ)
PRODUCED/ADOPTED: 1941/?

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE MODEL UZRG FUZE CONTAINS A POWDER TRAIN DELAY USED TO INITIATE THE EXPLOSIVE FILLER CHARGE OF A HAND GRENADE. IT IS USED TO FUZE THE SOVIET F-1 (FOM 1330-2-1-1), RG-42 (FOM 1330-2-1-3), AND RGD-5 (FOM 1330-2-1-18) FRAGMENTATION HAND GRENADES. SIMILAR FUZES ARE MANUFACTURED BY OTHER WARSAW PACT COUNTRIES AND THE PRC FOR USE IN THEIR COPIES OF THESE SOVIET GRENADES.

(U)THE UZRG FUZE HAS A LINEAR FIRING MECHANISM AND DETONATOR ASSEMBLY, CONNECTED BY A THREADED JOINT A COCKED, SPRING-LOADED FIRING PIN IS HELD BY THE FORKED UPPER END OF THE SAFETY LEVER, ENGAGING WITH A GROOVE IN THE FIRING PIN. THE SAFETY LEVER IS RETAINED IN POSITION BY A SAFETY COTTER PIN AND PULL RING. THE SAFETY COTTER PIN ALSO BLOCKS MOVEMENT OF THE FIRING PIN. THE DETONATOR HAS A PRIMER, A BLACK POWDER DELAY ELEMENT, AND A TWO-STAGE DETONATING CHARGE.

(U)THE FUZE IS ARMED BY REMOVAL OF THE SAFETY COTTER PIN WHILE THE SAFETY LEVER IS HELD AGAINST THE GRENADE CASING. WHEN THE GRENADE IS THROWN, THE SAFETY LEVER FLIES OFF, RELEASING THE FIRING PIN. THE FIRING PIN, DRIVEN BY ITS EXPANDING SPRING, STRIKES THE PRIMER, IGNITING IT. THIS CAUSES THE BLACK POWDER DELAY ELEMENT TO COMMENCE BURNING. AFTER APPROXIMATELY 4 SECONDS DELAY, THE DELAY ELEMENT BURNS INTO THE DETONATOR, CAUSING IT TO EXPLODE.



U N C L A S S I F I E D

FOM-1390-2-4-1-A
NOMEN: FUZE, HAND GRENADE, MODEL UZRG (U)
PRODUCED/ADOPTED: 1941/?

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

CURRENT STATUS: ----- STANDARD
USING COUNTRIES: ----- 002,084

BOOSTER:
BODY MATERIAL ----- BRASS (YELLOW)
BODY LENGTH (MM) -- 47.9
FILLER MATERIAL --- MERCURY-TETRYL
FILLER WEIGHT (G) - *1

FUZE ASSEMBLY COMPLETE:
TYPE ----- DELAY
MODEL ----- UZRG
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) -- 101.0
LENGTH EXPOSED (MM) -- 39.6
MAXIMUM DIAMETER (MM) -- 15.2
MAJ THREAD DIAM (MM) - 14.9
THREAD PITCH (METRIC) - ?
WEIGHT COMPLETE (G) -- 62.0
MARKINGS ----- NONE

PERFORMANCE:
ARMING DISTANCE(M)- N/A
ARMING TIME ----- N/A
SELF-DESTRUCT TIME N/A
DELAY TIME ----- 3-4 SEC
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- HAND GRENADES, MODEL F-1

USING WEAPONS: ----- N/A

REFERENCES: -----

FUNCTIONAL DATA:
ARMING METHOD ----- SAFETY LEVER RELEASE
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- PULL RING W/PIN

REMARKS:
1/ MERCURY--6.3 GRAMS: TETRYL--.7 GRAMS.

FOM-1390-2-4-2-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, BASE DETONATING, MODEL DK-2 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ?
PRODUCED/ADOPTED: ???

DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

{U}THE DK-2 IS A DELAY SETBACK-ARMED, GRAZE-SENSITIVE, BASE-DETONATING FUZE USED WITH THE PG-2 HEAT GRENADE (FOM-1330-2-3-1). SAFETY IS PROVIDED BY THE DELAY ARMING SLEEVE BEING LOCKED IN PLACE BY A TWO-WAY SPRING LOADED PIN HOUSED IN THE STRIKER ASSEMBLY.

{U}ON FIRING, SETBACK FORCES MOVE THE ZIGZAG-SLOTTED ARMING SLEEVE (7) REARWARD, COMPRESSING THE COILED SETBACK SPRING (6). DURING SETBACK, THE TWO-WAY SPRING-LOADED PIN (5,8) HOUSED IN THE STRIKER ASSEMBLY (9) RIDES THE WIDER ZIGZAG SLOT LOCATED 180 DEG OPPOSITE THE NARROWER ZIGZAG SLOT OF THE ARMING SLEEVE. PRIOR TO SET FORWARD, THE PIN BECAUSE OF ITS SPRING-LOADED ACTION, AS WELL AS THE DESIGN OF THE SLOTS, DISENGAGES THE WIDER SLOT AND SIMULTANEOUSLY ENGAGES THE NARROW SLOT OF THE DELAY ZIGZAG ARMING SLEEVE. UPON EXPANSION OF THE COMPRESSED SPRING ON SET FORWARD, THE COMPRESSED PIN NOW RIDES THE NARROWER SLOT OF THE SLEEVE. THE SLEEVE NOW MOVES PAST THE PIN FREEING ITSELF AND SIMULTANEOUSLY RELEASING THE STRIKER ASSEMBLY. THE FUZE IS NOW ARMED. THE STRIKER (9) IS HELD AWAY FROM THE PRIMER-DETONATOR (2) BY THE ANTICREEP SPRING (3). UPON IMPACT, THE INERTIA OF THE STRIKER COMPRESSES THE ANTICREEP SPRING, DRIVING ITS FIRING PIN (4) INTO THE PRIMER-DETONATOR, WHICH IN TURN DETONATES THE BOOSTER (1) SETTING OFF THE GRENADE'S SHAPED CHARGE. IN THE EVENT OF IMPACT AT A SLIGHT ANGLE, THE GRAZE WEIGHT (10) MOVES Laterally TO CAM THE FIRING PIN OF THE STRIKER INTO THE PRIMER-DETONATOR.

DATE CATALOGED: 01JUL72
VOLUME 06

U N C L A S S I F I E D

PAGE 189

U N C L A S S I F I E D

FOM-1390-2-4-2-A
 NOMEN: FUZE, BASE DETONATING, MODEL DK-2 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ???

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- OBSOLETE

BOOSTER:

USING COUNTRIES: ----- 002

BODY MATERIAL ----- ALUMINUM
 BODY LENGTH (MM) -- 19.1
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - 28.4

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

TYPE ----- BASE DETONATING
 MODEL ----- DK-2
 BODY MATERIAL ----- ALUMINUM
 LENGTH OVERALL (MM) -- 69.1
 LENGTH EXPOSED (MM) -- N/A
 MAXIMUM DIAMETER (MM) - 28.7
 MAJ THREAD DIAM (MM) - N/A
 THREAD PITCH (METRIC) - ?
 WEIGHT COMPLETE (G) -- 91.8
 MARKINGS ----- ?

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- HEAT, GRENADE MODEL PG-2

USING WEAPONS: ----- ANTITANK GRENADE LAUNCHER,
 - MODEL RPG-2

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- *1

REFERENCES: -----

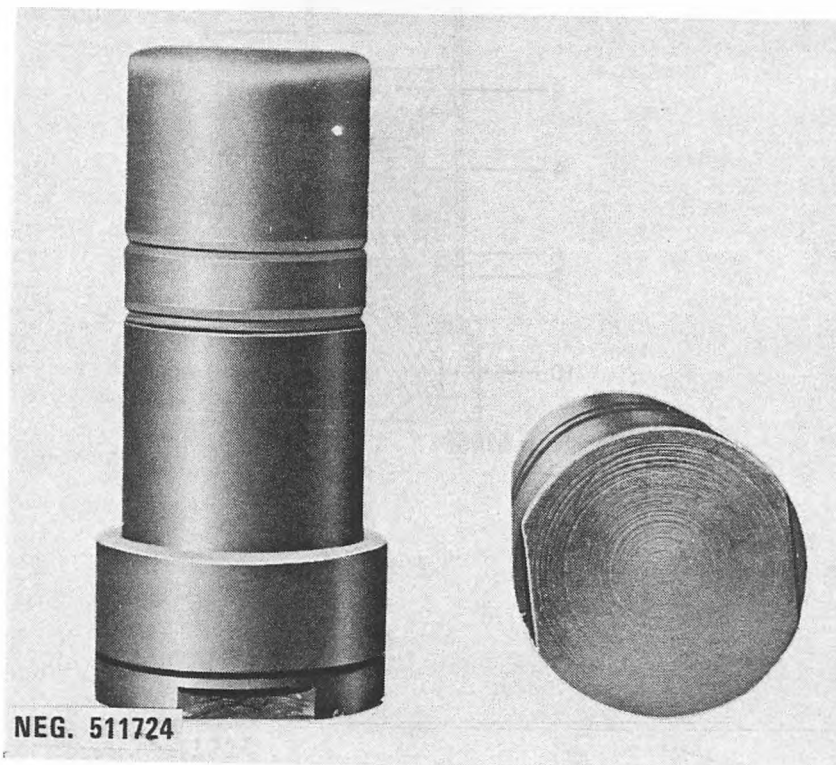
REMARKS:

1/ DELAY ZIGZAG ARMING SLEEVE LOCKED
 IN PLACE BY A SPRING LOADED PIN.

FOM-1390-2-4-2-B
NOMEN: FUZE, BASE DETONATING, MODEL DK-2 (U)
PRODUCED/ADOPTED: ???

U N C L A S S I F I E D

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



DATE CATALOGED: 01JUL72
VOLUME 06

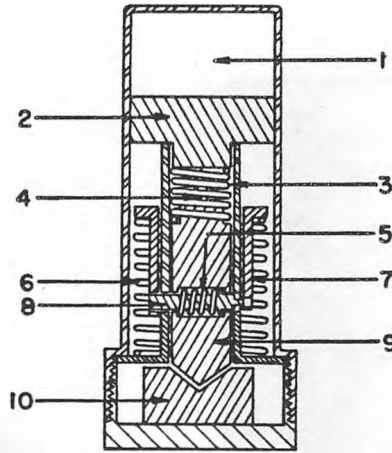
U N C L A S S I F I E D

PAGE 191

U N C L A S S I F I E D

FOM-1390-2-4-2-8
NOMEN: FUZE, BASE DETONATING, MODEL DK-2 (U)
PRODUCED/ADOPTED: ???

CATALOG: T8-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



NEG 516564

U N C L A S S I F I E D

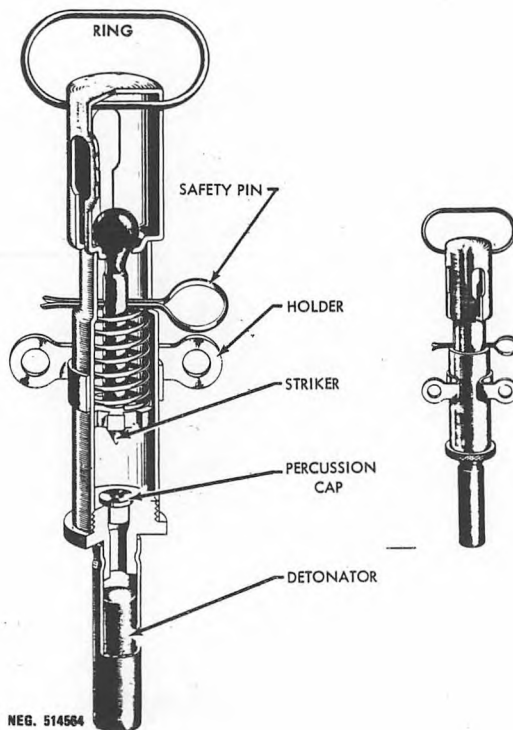
NOMEN: FUZE, MINE, PULL MODEL VPF (U)

DATE REVIEWED: 28JAN77

NATIVE DES: БПФ
PRODUCED/ADOPTED: 1960/?DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.

(U)THE MODEL VPF METALLIC SPRING-LOADED PULL FUZE IS WIDELY USED IN THE SOVIET ARMY FOR DETONATING TRIPWIRE-OPERATED STANDARD AND IMPROVED MINES. THE TOP OF THE FUZE ACTS AS A CLAMP AND HOLDS THE SPRING-LOADED STRIKER UNDER TENSION AFTER REMOVAL OF THE SAFETY PIN. THE FUZE IS NORMALLY ACTIVATED BY PULLING THE RING AT THE TOP, BUT A ROD CAN BE FITTED TO THE TOP SO THAT ACTIVATION TAKES PLACE WHEN LATERAL PRESSURE IS APPLIED TO THE ROD. THE FUZE IS SHIPPED IN THREE PIECES: THE CLAMP TOP, THE BODY, AND THE DETONATOR ASSEMBLY.

(U)THIS FUZE IS IDEAL FOR BOOBYTRAPS AND IS EXTREMELY DIFFICULT TO DISARM. DESTRUCTION IN PLACE IS RECOMMENDED.



U N C L A S S I F I E D

FOM-1390-2-5-1-A
NOMEN: FUZE, MINE, PULL MCDL VPF (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: 1960/?

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- U.S.S.R.

BOOSTER:
BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

PERFORMANCE:
ARMING DISTANCE(M)- N/A
ARMING TIME ----- N/A
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- INST
MAX TIME SETTING -- INST

USING PROJECTILES: -- N/A

USING WEAPONS: ----- MINES-BOOBYTRAPS

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:
TYPE ----- MECHANICAL (PULL)
MODEL ----- VPF
BODY MATERIAL ----- METAL
LENGTH OVERALL (MM) -- 76.2
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- 12.7
MAJ THREAD DIAM (MM) - N/A
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- ?

FUNCTIONAL DATA:
ARMING METHOD ----- INSTALL DETONATOR
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- PIN

NOMEN: FUZE, MINE, PULL MODEL MUV (U)

DATE REVIEWED: 28JAN77

NATIVE DES: MUB

DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: 1960/7?

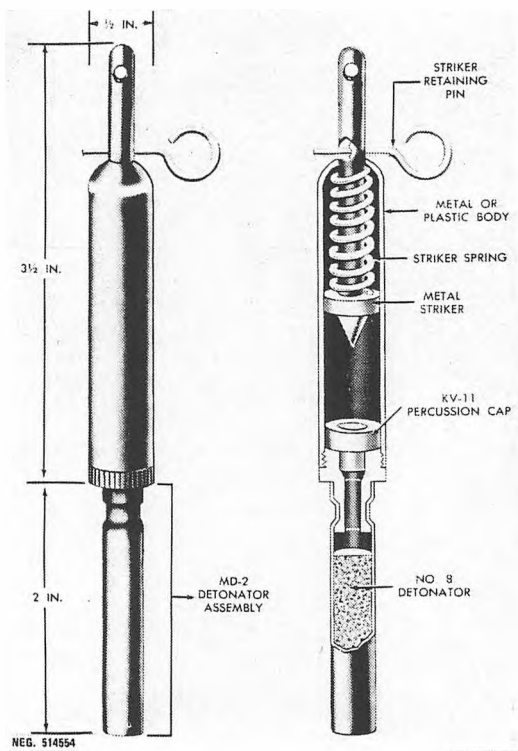
COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL MUV PULL FUZE IS A SMALL METAL OR PLASTIC CYLINDER, 13 MM IN DIAMETER AND 88 MM LONG. THE BASE OF THE FUZE IS THREADED TO ACCOMMODATE THE SOVIET MD-2 DETONATOR ASSEMBLY WHICH, WHEN ATTACHED, INCREASES THE LENGTH OF THE FUZE TO 127 MM. THE COMPONENT PARTS OF THE FUZE ARE THE FUZE CASE, STRIKER, STRIKER SPRING, AND RETAINING PIN. MOST OF THE METAL FUZES ARE ZINC COATED WHICH MAKES THEM SILVER COLORED. THE FUZE IS USUALLY TRANSPORTED WITH THE STRIKER-RETAINING PIN IN THE UPPER HOLE OF THE STRIKER TO RELIEVE TENSION ON THE STRIKER SPRING.

(U)TO ARM THE FUZE, PULL THE STRIKER UPWARD AND PLACE THE STRIKER-RETAINING PIN IN THE LOWER HOLE, SCREW THE DETONATOR INTO THE FUZE, AND CONNECT THE TRIPWIRES TO THE STRIKER-RETAINING PIN. A PULL OF FROM 3 TO 5 POUNDS WITHDRAWS THE STRIKER-RETAINING PIN FROM THE STRIKER WHICH IS THEN DRIVEN FORWARD BY THE STRIKER SPRING, FIRING THE DETONATOR.

(U)THE UPPER HOLE IS NORMALLY A SAFETY PIN HOLE; HOWEVER, SOME OF THESE FUZES USE A DIFFERENT TYPE OF STRIKER AND CAN BE ACTIVATED WITH A SAFETY PIN INSERTED IN THE UPPER HOLE.

(U)THIS FUZE IS USED EXTENSIVELY IN ANTIPERSONNEL MINES, BOOBYTRAPS, AND IMPROVISED MINES, AND, OCCASIONALLY, IN ANTITANK MINES.



U N C L A S S I F I E D

FOM-1390-2-5-4-A
 NOMEN: FUZE, MINE, PULL MODEL MUV (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: 1960/?

COUNTRY: U.S.S.R.

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- U.S.S.R.

BODY MATERIAL ----- N/A
 BODY LENGTH (MM) --- N/A
 FILLER MATERIAL --- N/A
 FILLER WEIGHT (G) - N/A

FUZE ASSEMBLY COMPLETE:

PERFORMANCE:

TYPE ----- MECHANICAL (PULL)
 MODEL ----- MUV
 BODY MATERIAL ----- METAL-PLASTIC
 LENGTH OVERALL (MM) -- 127. MM
 LENGTH EXPOSED (MM) --- 88
 MAXIMUM DIAMETER (MM)- 12.7 MM
 MAJ THREAD DIAM (MM) - N/A
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- ?
 MARKINGS ----- ?

ARMING DISTANCE(M)- N/A
 ARMING TIME ----- N/A
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- INST
 MAX TIME SETTING -- INST

USING PROJECTILES: -- N/A

FUNCTIONAL DATA:

USING WEAPONS: ----- MINES, MODEL POMZ-2

ARMING METHOD ----- INSTALL DETONATOR
 SELF-DESTR METHOD ----- NONE
 TYPE SAFETY DEVICE --- NONE

REFERENCES: -----

REMARKS:

U N C L A S S I F I E D

FOM-1390-2-5-6-A

CATALOG: TB-381-5-06

NOMEN: FUZE, MINE, PRESSURE MODEL MV-5 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: MB-5

DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: 1960/?

COUNTRY: U.S.S.R.

(U)THE SOVIET MODEL MV-5 IS A PRESSURE FUZE CONSISTING OF A SMALL METAL CYLINDER WHICH CONTAINS A STRIKER, A STRIKER SPRING, AND A STRIKER-LOCKING BALL. THE FUZE IS THREADED TO RECEIVE A STANDARD SOVIET MD-2 DETONATOR. MOST OF THE FUZES ARE ZINC COATED, GIVING THEM A SILVER COLOR. A 15-POUND PRESSURE CAUSES THE PRESSURE CAP TO MOVE DOWNWARD, RELEASING THE STRIKER-LOCKING BALL WHICH PERMITS THE STRIKER SPRING TO DRIVE THE STRIKER DOWNWARD, FIRING THE CAP AND DETONATOR. THERE ARE NO SAFETY FEATURES ON THIS FUZE, AND THE ENTIRE ASSEMBLY MUST BE REMOVED TO DISARM THE MINE. THIS FUZE IS WIDELY USED BY THE SOVIETS IN ANTITANK MINES. A PLASTIC VERSION DESIGNATED THE MV-5K IS REPORTEDLY IN EXISTENCE.

DATE CATALOGED: 01JUN72
VOLUME 06

U N C L A S S I F I E D

PAGE 197

U N C L A S S I F I E D

FOM-1390-2-5-6-A
 NOMEN: FUZE, MINE, PRESSURE MODEL MV-5 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: 1960/?

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- U.S.S.R.

BOOSTER:
 BODY MATERIAL ----- N/A
 BODY LENGTH (MM) -- N/A
 FILLER MATERIAL --- N/A
 FILLER WEIGHT (G) - N/A

PERFORMANCE:
 ARMING DISTANCE(M)- N/A
 ARMING TIME ----- N/A
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- ?
 MAX TIME SETTING -- ?

USING PROJECTILES: -- N/A

USING WEAPONS: ----- MINES, MODEL TM-41, TM-46

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:
 TYPE ----- MECHANICAL (PRESSURE)
 MODEL ----- MV-5
 BODY MATERIAL ----- METAL
 LENGTH OVERALL (MM) -- 93.9
 LENGTH EXPOSED (MM) -- ?
 MAXIMUM DIAMETER (MM)- 12.7
 MAJ THREAD DIAM (MM) - N/A
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- ?
 MARKINGS ----- FACTORY NUMBER-YEAR

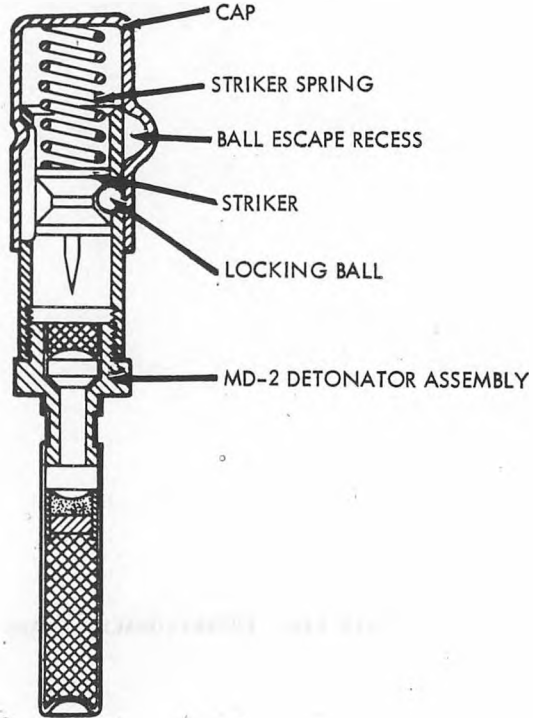
FUNCTIONAL DATA:
 ARMING METHOD ----- INSTALL DETONATOR
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE ---- NONE

REMARKS:

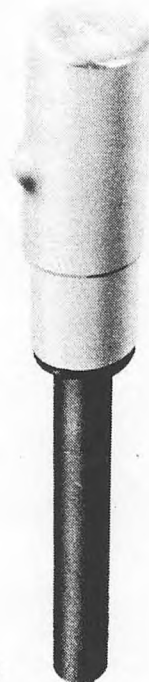
UNCLASSIFIED

FOM-1390-2-5-6-8
NOMEN: FUZE, MINE, PRESSURE MODEL MV-5 (U)
PRODUCED/ADOPTED: 1960/?

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: U.S.S.R.



NEG. 514553



NEG. 514552

DATE CATALOGED: 01JUN72
VOLUME 06

UNCLASSIFIED

U N C L A S S I F I E D

FOM-1390-2-5-6-B

NOMEN: FUZE, MINE, PRESSURE MODEL MV-5 (U)

PRODUCED/ADOPTED: 1960/?

CATALOG: T8-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JUN72
VOLUME 06 PAGE 200

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-2-5-7-A

CATALOG: TB-381-5-06

NOMEN: FUZE, MINE, PRESSURE, MODEL MV-5K (U)

DATE REVIEWED: 28JAN77

NATIVE DES: MB-5H

DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: 1960/?

COUNTRY: U.S.S.R.

(U)THE SOVIET MINE PRESSURE FUZE MODEL MV-5K HAS A SPRING-LOADED STRIKER THAT IS RETAINED BY A LOCKING-BALL ARRANGEMENT. WHEN THE OUTER PLASTIC CASE IS FORCED DOWN UNDER PRESSURE, THE RECESS FOR THE LOCKING BALL IS ALINED, ALLOWING THE BALL TO MOVE INTO THE RECESS. THIS ACTION FREES THE STRIKER, WHICH IS DRIVEN INTO A PERCUSSION PRIMER BY THE COMPRESSED SPRING. THE FUZE FUNCTIONS WHEN 28 POUNDS OF PRESSURE IS EXERTED DOWNWARD ON THE OUTER CASE:

(U)THIS FUZE IS IDEAL FOR USE IN BOOBYTRAPS AND ANTIPERSONNEL MINES.



NEG. 514551

DATE CATALOGED: 01JUL72
VOLUME 06

U N C L A S S I F I E D

PAGE 201

U N C L A S S I F I E D

FOM-1390-2-5-7-A

NOMEN: FUZE, MINE, PRESSURE, MODEL MV-5K (U)

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

COUNTRY: U.S.S.R.

PRODUCED/ADOPTED: 1960/?

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- U.S.S.R.

BOOSTER:

BODY MATERIAL ----- ?
BODY LENGTH (MM) -- ?
FILLER MATERIAL ---- ?
FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE (M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- ?
MAX TIME SETTING -- ?

FUZE ASSEMBLY COMPLETE:

TYPE ----- PERCUSSION PRIMER
MODEL ----- MV-5K
BODY MATERIAL ----- PLASTIC
LENGTH OVERALL (MM) -- 95.2
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- 16.2
MAJ THREAD DIAM (MM) - 99.0
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 18
MARKINGS ----- ?

USING PROJECTILES: -- N/A

USING WEAPONS: ----- MINES ANTIPERSONNEL

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- ?
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE ---- ?

REMARKS:

NOMEN: FUZE, POINT DETONATING, TYPE ? (U)

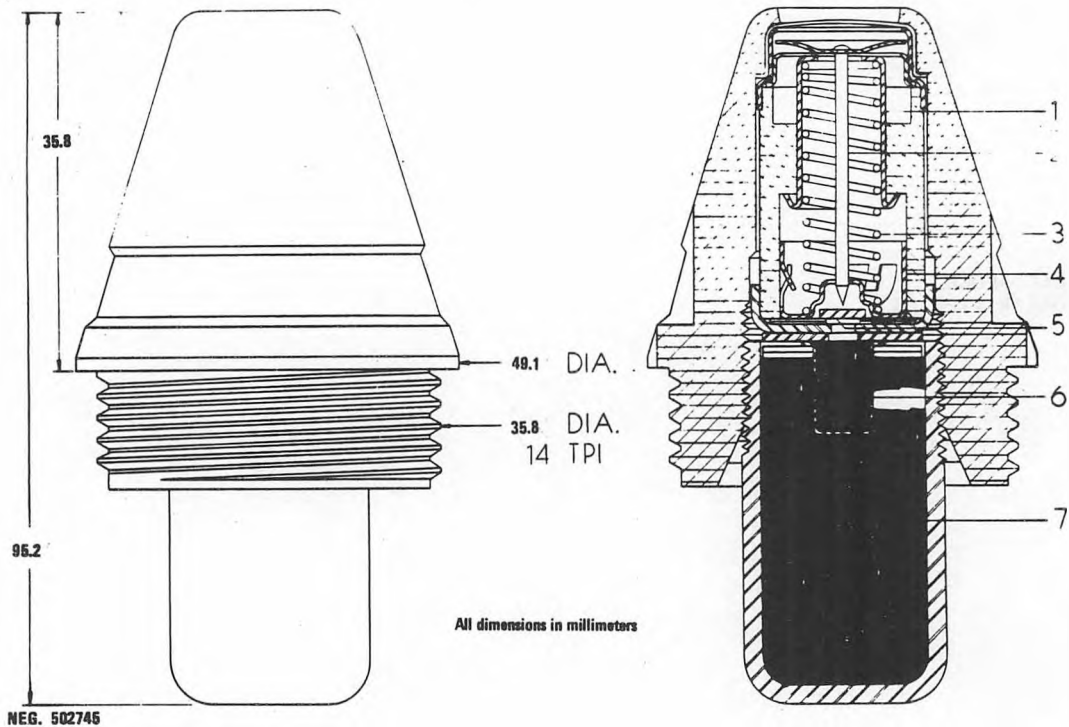
DATE REVIEWED: 28JAN77

NATIVE DES: ?
 PRODUCED/ADOPTED: ?/?

DATE UPDATED: 28JAN77
 COUNTRY: PRC

(U)THE PRC SETBACK-ARMED POINT-DETONATING FUZE IS A COPY OF THE SOVIET M-5 MORTAR FUZE, EXCEPT THAT THE FIRING-PIN HEAD IS SIMILAR TO THAT USED IN THE SOVIET M-4 MORTAR FUZE. A GROOVE, OR CANNELURE 8.3-MM WIDE AND 1.3-MM DEEP IS LOCATED 5.1-MM FROM THE LOWER END OF THE FUZE BODY RIM. THIS GROOVE MAY POSSIBLY BE USED TO SECURE A PROTECTIVE SHIPPING CAP OVER THE FUZE BODY.

(U)ON FIRING, SETBACK CAUSES THE SLEEVE (1) TO MOVE REARWARD, COMPRESSING THE SAFETY SPRING (3). IN THIS REARWARD POSITION, THE LOWER LIPPED END OF THE SLEEVE ENGAGES THE THREE PRONGS OF THE ARMING STIRRUP (4), LOCKING THE TWO PARTS TOGETHER. WHEN ACCELERATION CEASES, CREEP FORCE CAUSES THE LOCKED SLEEVE AND STIRRUP TO MOVE FORWARD. THE SAFETY PLUG (5), WHICH WAS RETAINED IN POSITION BY AN INDENTATION AT THE BASE OF THE STIRRUP, IS THEN RELEASED AND DROPS OUT OF LINE FROM WHERE IT HAD BLOCKED THE FIRING PIN (2) FROM THE DETONATOR (6). ON IMPACT OF THE PROJECTILE, THE FIRING PIN IS DRIVEN INTO THE DETONATOR WHICH, IN TURN, INITIATES THE BOOSTER (7).



U N C L A S S I F I E D

FOM-1390-5-1-2-A

NOMEN: FUZE, POINT DETONATING, TYPE ? (U)

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ???

COUNTRY: PRC

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 005

BOOSTER:

BODY MATERIAL ----- STEEL
BODY LENGTH (MM) -- 34.3
FILLER MATERIAL --- TETRYL
FILLER WEIGHT (G) - 17.0

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- 60 MM HE ?

USING WEAPONS: ----- *2

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT DETONATING
MODEL ----- ?
BODY MATERIAL ----- PHENOLIC PLASTIC
LENGTH OVERALL (MM) -- 67.3
LENGTH EXPOSED (MM) -- 35.8
MAXIMUM DIAMETER (MM)- 39.1
MAJ THREAD DIAM (MM) - 35.8
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 75.1
MARKINGS ----- NONE

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
SELF-DESTR METHOD ----- NONE
TYPE SAFETY DEVICE --- *1

REMARKS:

- 1/ MECHANICAL BLOCK
- 2/ 60 MM MORTAR TYPE 31

U N C L A S S I F I E D

FOM-1390-5-1-4-A

CATALOG: TB-381-5-06

NOMEN: FUZE, POINT DETONATING, TYPE 9 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ?
PRODUCED/ADOPTED: ???

DATE UPDATED: 28JAN77
COUNTRY: PRC

(U)THE TYPE 9 IS A NONDELAY, POINT-DETONATING, IMPACT-FIRED FUZE. IT IS MADE OF ALL-BRASS CONSTRUCTION (EXCEPT FOR THE DETONATOR CUP) WITH A SLOTTED-NOSE FIRING PIN (1) SCREWED TO THE BODY (8).

(U)THE DETONATOR ASSEMBLY CONSISTS OF A COPPER CUP CONTAINING AN UPPER CHARGE OF MERCURY FULMINATE AND TNT AND A LOWER CHARGE OF TNT. THE FUZE, NEITHER DETONATOR SAFE NOR BORES SAFE, IS POTENTIALLY HAZARDOUS TO THE USER. HANDLING SAFETY IS PROVIDED BY THE SAFETY PIN (4), WHICH MUST BE REMOVED BEFORE THE FUZE IS ASSEMBLED TO THE PROJECTILE. IN EFFECT, THE FUZE IS ARMED ON REMOVAL OF THE SAFETY PIN. THE MERCURY FULMINATE IN THE UPPER CHARGE DECREASES FUZE RELIABILITY BECAUSE OF ITS RELATIVE INSTABILITY AFTER PROLONGED STORAGE.

(U)ON FIRING, SETBACK FORCES THE SETBACK SLEEVE (3) DOWN OVER THE RETAINING CLIP (5) AND AROUND THE PRIMER HOLDER (7) AND, WITH THE SETBACK SPRING (2), PREVENTS FORWARD MOVEMENT OF THE PRIMER (6) INTO THE FIRING PIN WHEN CREEP FORCES TAKE EFFECT. ON IMPACT, INERTIA OF THE WEIGHTED PRIMER HOLDER OVERCOMES RESISTANCE OF THE SETBACK SPRING, DRIVING THE PRIMER INTO THE FIRING PIN TO INITIATE THE PRIMER AND, IN TURN, THE DETONATOR (9).

U N C L A S S I F I E D

FOM-1390-5-1-4-A

NOMEN: FUZE, POINT DETONATING, TYPE 9 (U)

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- OBSOLETE

USING COUNTRIES: ----- 005

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

COUNTRY: PRC

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT DETONATING
MODEL ----- 9
BODY MATERIAL ----- BRASS
LENGTH OVERALL (MM) -- 89.9
LENGTH EXPOSED (MM) -- 19.0
MAXIMUM DIAMETER (MM) -- 32.0
MAJ THREAD DIAM (MM) -- 27.4
THREAD PITCH (METRIC) -- ?
WEIGHT COMPLETE (G) -- 172.4
MARKINGS ----- NONE

FUNCTIONAL DATA:

ARMING METHOD ----- NONE
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- NONE

BOOSTER:

BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

PERFORMANCE:

ARMING DISTANCE(M)- N/A
ARMING TIME ----- N/A
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- *1

USING WEAPONS: ----- *2

REFERENCES: -----

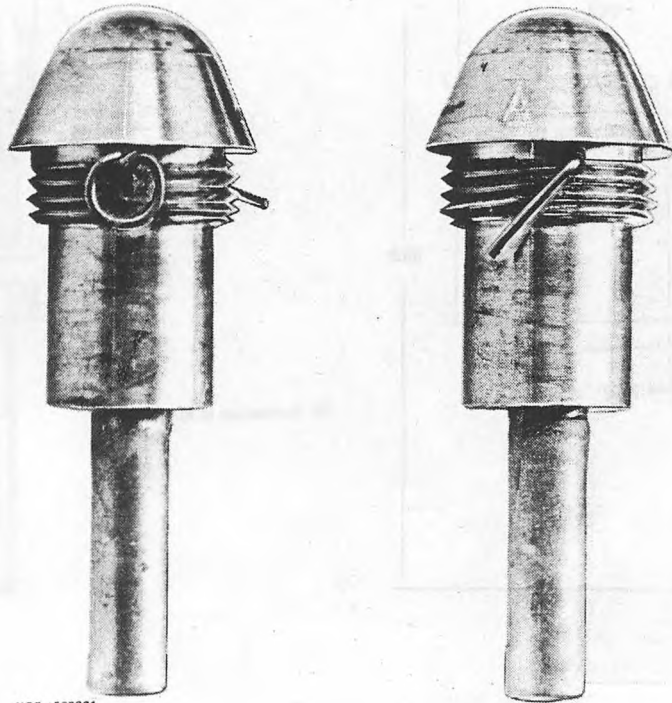
REMARKS:

- 1/ 82 MM, HE, TYPE ?; 120 MM, HE, SHORT, TYPE ?
- 2/ 82 MM MORTAR TYPE 20; 120 MM MORTAR TYPE 33

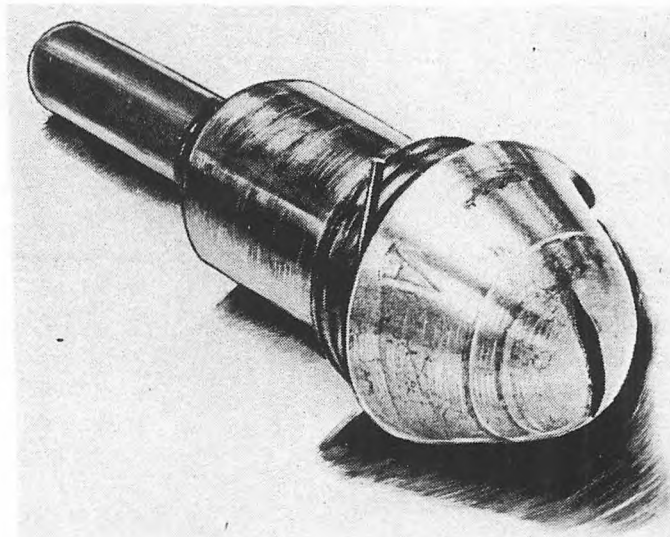
UNCLASSIFIED

FOM-1390-5-1-4-B
NOMEN: FUZE, POINT DETONATING, TYPE 9 (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: PRC



NEG. 507901



NEG 507902



DATE CATALOGED: 01JUL73
VOLUME 06

UNCLASSIFIED

UNCLASSIFIED

FOM-1390-5-1-4-B

NOMEN: FUZE, POINT DETONATING, TYPE 9 (U)

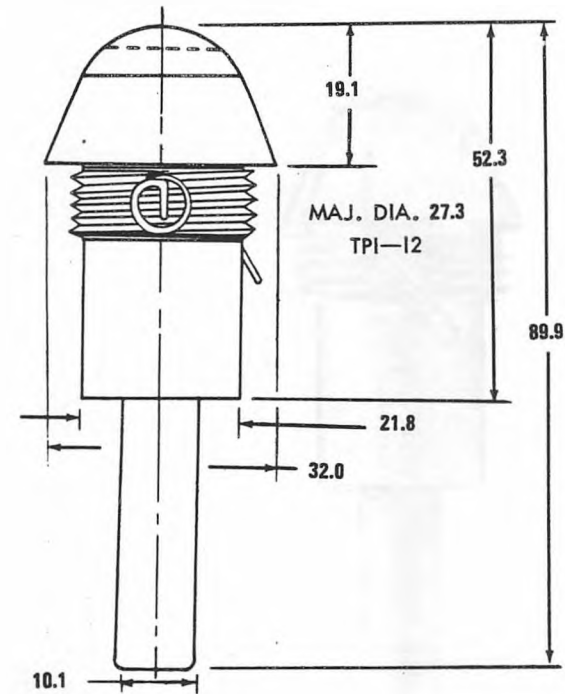
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

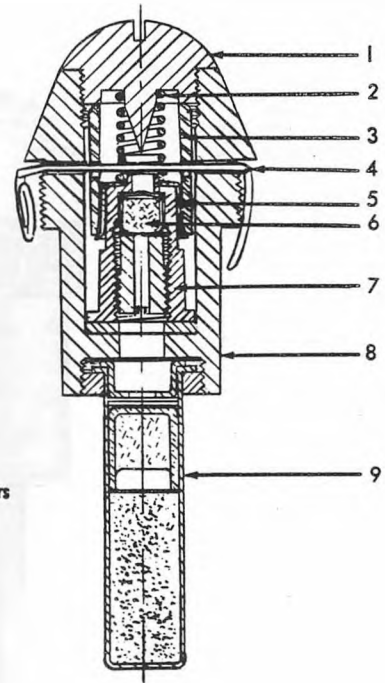
DATE UPDATED: 28JAN77

COUNTRY: PRC



NEG. 511849

All dimensions in millimeters



UNCLASSIFIED

NOMEN: FUZE, POINT DETONATING, TYPE ? (U)

DATE REVIEWED: 28JAN77

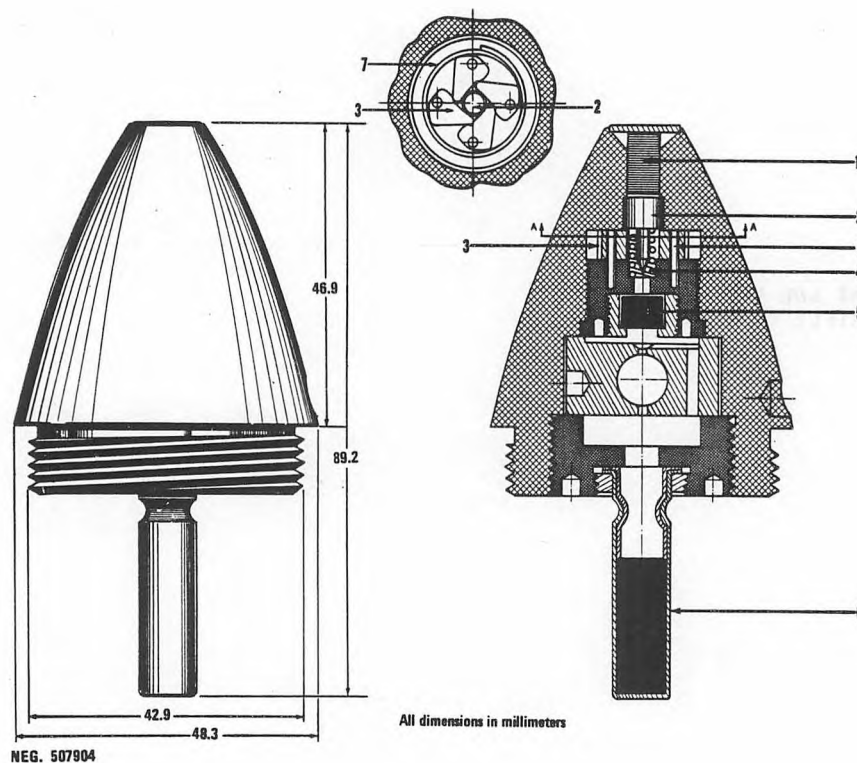
NATIVE DES: ?
 PRODUCED/ADOPTED: 1950/?

DATE UPDATED: 28JAN77
 COUNTRY: PRC

(U)THE PRC SETBACK AND CENTRIFUGALLY ARMED POINT-DETONATING FUZE TYPE ? IS USED WITH THE 57-MM, HIGH-EXPLOSIVE, RECOILLESS RIFLE CARTRIDGE. ITS SFETY DEVICE CONSISTS OF FOUR PIVOTED, BRASS, CENTRIFUGAL SEGMENTS (3) RESTRAINED BY A RIBBON-TYPE CENTRIFUGAL SPRING (7).

(U)UPON FIRING, SETBACK CAUSES THE FIRING PIN (2) TO COMPRESS THE FIRING-PIN SPRING (4) UNTIL THE FIRING-PIN HEAD SEATS ON THE FOUR CENTRIFUGAL SEGMENTS. WHEN SETBACK CEASES, THE FIRING-PIN SPRING RETURNS THE FIRING PIN TO ITS ORIGINAL POSITION. SPIN CAUSES THE FOUR SEGMENTS TO ROTATE ON THEIR PIVOTS, EXPANDING THE RIBBON-TYPE CENTRIFUGAL SPRING WHICH HAD RESTRAINED THEM. ROTATION OF THE SEGMENTS REMOVES OBSTRUCTION TO THE REARWARD MOVEMENT OF THE FIRING PIN PRIOR TO TARGET IMPACT. DURING FLIGHT, THE FIRING-PIN SPRING HOLDS THE FIRING PIN AWAY FROM THE PRIMER (5).

(U)ON IMPACT OF THE PROJECTILE, THE WOODEN FIRING PIN EXTENSION (1) IS DRIVEN AGAINST THE FIRING PIN WHICH PIERCES THE STAB-TYPE PRIMER. THE RESULTANT FLASH INITIATES THE DETONATOR-BOOSTER (6). THE COMPOSITION OF THE DETONATOR IS MERCURY FULMINATE AND TETRYL, AND THE BOOSTER IS TETRYL.



NEG. 507904

U N C L A S S I F I E D

FOM-1390-5-1-10-A

NOMEN: FUZE, POINT DETONATING, TYPE ? (U)

PRODUCED/ADOPTED: 1950/?

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 005

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

COUNTRY: PRC

BOOSTER:

BODY MATERIAL ----- BRASS
BODY LENGTH (MM) -- 36.1
FILLER MATERIAL --- TETRYL
FILLER WEIGHT (G) - 17.9

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- 57 MM, HE ?

USING WEAPONS: ----- *2

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT DETONATING
MODEL ----- ?
BODY MATERIAL ----- ALUMINUM
LENGTH OVERALL (MM) -- 89.2
LENGTH EXPOSED (MM) -- 46.9
MAXIMUM DIAMETER (MM) - 48.3
MAJ THREAD DIAM (MM) - 42.9
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 186.0
MARKINGS ----- NONE

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- *1

REMARKS:

- 1/ CENTRIFUGAL SEGMENT AND SPRING
- 2/ 57-MM RECOILLESS RIFLE TYPE 36

FOM-1390-5-1-11-A

CATALOG: TB-381-5-06

NOMEN: FUZE, POINT DETONATING, TYPE 8 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: TYPE 8
PRODUCED/ADOPTED: ???

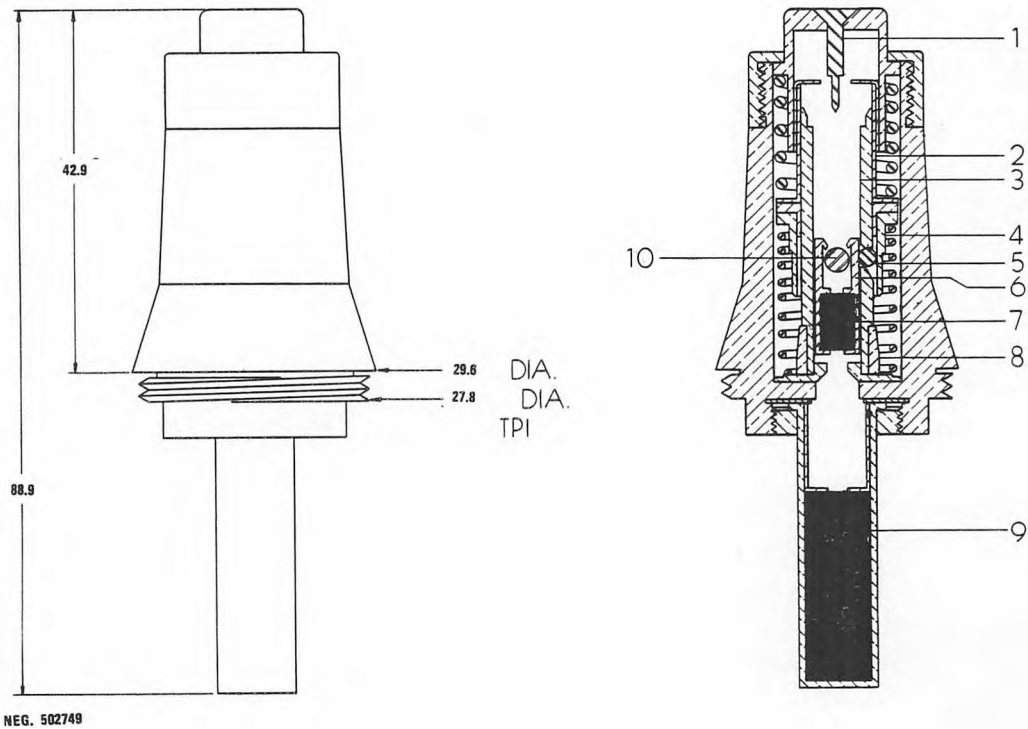
DATE UPDATED: 28JAN77
COUNTRY: PRC

(U) THE TYPE 8 IS A SETBACK-ARMED POINT-DETONATING IMPACT-FIRED FUZE. THERE ARE THREE KNOWN LENGTHS OF THIS FUZE, THE INTERNAL DESIGN AND FUNCTION BEING IDENTICAL IN EACH CASE.

(U) UPON FIRING, SETBACK CAUSES THE SETBACK SLEEVE (4) TO MOVE TO THE REAR, COMPRESSING A SAFETY SPRING AND THEN STRIKING THE BEVELED SURFACE, AND REMAINING IN THAT POSITION. THE PRIMER LOCKING BALL (5) THEN FALLS OUT OF ITS POSITION IN THE PRIMER CARRIER HOUSING (3). THE PRIMER CARRIER (6) IS THEN FREE TO MOVE FORWARD TO THE PRIMER CARRIER STOP COLLAR (2). AT THIS POINT THE TWO PRIMER SAFETY BALLS (10) ARE CAMMED OUT INTO THE RECESS IN THE END OF THE PRIMER CARRIER HOUSING AND THE FUZE IS ARMED.

(U) ON IMPACT, INERTIA KEEPS THE PRIMER CARRIER POSITIONED AGAINST THE STOP COLLAR, WHILE THE FIRING PIN IS DRIVEN REARWARD INTO THE PRIMER (7) INITIATING THE DETONATOR (9).

(U) THIS FUZE IS A COPY OF A JAPANESE FUZE OF PRE-WORLD WAR II DESIGN.



U N C L A S S I F I E D

FOM-1390-5-1-11-A
NOMEN: FUZE, POINT DETONATING, TYPE 8 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ???

COUNTRY: PRC

CURRENT STATUS: ----- OBSOLETE

BOOSTER:

USING COUNTRIES: ----- 005.010

BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

FUZE ASSEMBLY COMPLETE:

PERFORMANCE:

TYPE ----- POINT DETONATING
MODEL ----- TYPE 8
BODY MATERIAL ----- BRASS
LENGTH OVERALL (MM) -- 88.9
LENGTH EXPOSED (MM) -- 42.9
MAXIMUM DIAMETER (MM) - 29.6
MAJ THREAD DIAM (MM) - 27.8
THREAD PITCH (METRIC) - ?
WEIGHT COMPLETE (G) -- 163.3
MARKINGS ----- ?

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A.
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- 60 MM, HE ?; 82 MM, HE ?

USING WEAPONS: ----- 60-MM TO 82-MM MORTARS

FUNCTIONAL DATA:

REFERENCES: -----

ARMING METHOD ----- SETBACK
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- SAFETY BALLS

REMARKS:

NOMEN: FUZE, POINT-DETONATING, TYPE 88 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ?
PRODUCED/ADOPTED: 1949/?DATE UPDATED: 28JAN77
COUNTRY: PRC

(U)THE PEOPLES REPUBLIC OF CHINA POINT-DETONATING FUZE TYPE 88 IS A COPY OF A WORLD WAR II JAPANESE FUZE THAT WAS ALSO DESIGNATED TYPE 88.

(U)PRIOR TO FIRING, THE SAFETY WIRE IS UNWOUND FROM THE ANNULAR GROOVE OF THE FUZE BODY, AND THE SAFETY FORK IS PULLED OUT. UPON FIRING OF THE PROJECTILE, THE FIRING PIN ASSEMBLY (1) MOVES REARWARD, COMPRESSING THE FIRING PIN SPRING (2) AGAINST THE SPRING RETAINER (3). THE FIRING PIN ASSEMBLY THEN SEATS UPON AND CLAMPS THE SAFETY BLOCKS (5) IN POSITION WITH THE KNURLED BASE (4), PREVENTING THEM FROM MOVING OUTWARD. THE SAFETY BLOCKS PREVENT CONTACT OF THE FIRING PIN WITH THE PRIMER (8). SIMULTANEOUSLY, SETBACK MOVES THE INERTIA RING (6) REARWARD UNTIL THE INERTIA RING LOCK (7) ENGAGES GROOVES TO HOLD THE INERTIA RING IN THE NEW POSITION. AS DECELERATION TAKES PLACE, THE FIRING PIN SPRING RELEASES THE SAFETY BLOCKS BY MOVING THE FIRING PIN ASSEMBLY FORWARD.

(U)SPIN FORCES THE SAFETY BLOCKS OUTWARD INTO THE POSITION FORMERLY OCCUPIED BY THE INERTIA RING, LEAVING CLEARANCE FOR THE FIRING PIN ASSEMBLY TO MOVE REARWARD TO CONTACT THE PRIMER. ON IMPACT, THE PRIMER FLASHES TO INITIATE THE MERCURY FULMINATE DETONATOR (9) AND THE TETRYL BOOSTER (10).

(U)THIS FUZE IS INTENDED FOR USE IN HOWITZER AND MORTAR AMMUNITION AND IS IDENTICAL IN EXTERIOR APPEARANCE TO A SIMILAR FUZE FOR GUN AMMUNITION, EXCEPT THE STAMPED SYMBOL "E" INDICATES USE IN HOWITZERS AND MORTARS, AND THE SYMBOL "L" INDICATES USE IN GUNS.

UNCLASSIFIED

FOM-1390-5-1-12-A
 NOMEN: FUZE, POINT-DETONATING, TYPE 88 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: 1949/?

COUNTRY: PRC

CURRENT STATUS: ----- STANDARD

BOOSTER:

BODY MATERIAL ----- BRASS
 BODY LENGTH (MM) -- 26.6
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - 1.1

USING COUNTRIES: ----- 005

PERFORMANCE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- ?
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
 MODEL ----- 88
 BODY MATERIAL ----- BRASS-STEEL
 LENGTH OVERALL (MM) -- 90.6
 LENGTH EXPOSED (MM) -- 58.4
 MAXIMUM DIAMETER (MM)- 31.4
 MAJ THREAD DIAM (MM) - 23.1
 THREAD PITCH (METRIC)- 2.00 MM
 WEIGHT COMPLETE (G) -- 172.3
 MARKINGS ----- SEE PHOTO

USING PROJECTILES: -- *1

USING WEAPONS: ----- 70-MM HOWITZER TYPE 92
 - 105-MM HOWITZER TYPE 91

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- SAFETY BLOCKS

REFERENCES: -----

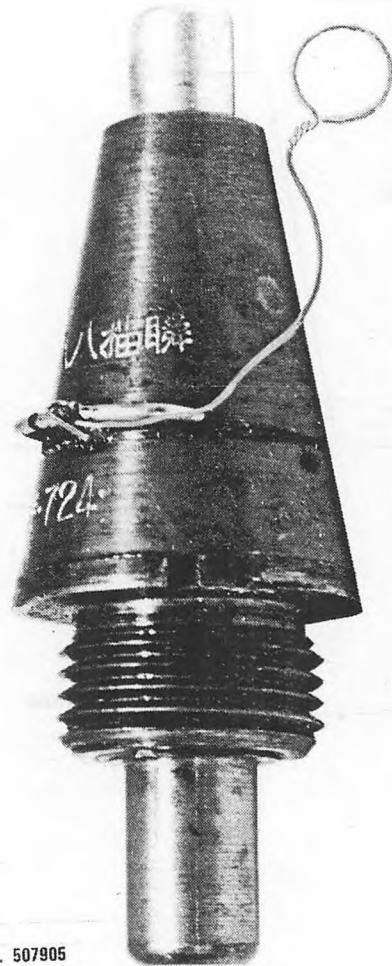
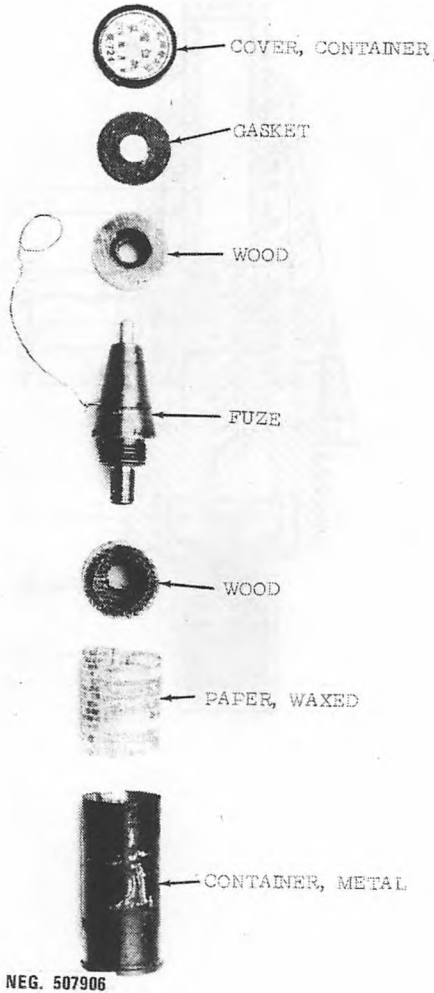
REMARKS:

1/ 70-MM HE TYPE 92;
 70-MM HEAT TYPE 3;
 105-MM HE TYPE 91 LONG & SHORT.

UNCLASSIFIED

FOM-1390-5-1-12-B
NOMEN: FUZE, POINT-DETONATING, TYPE 88 (U)
PRODUCED/ADOPTED: 1949/?

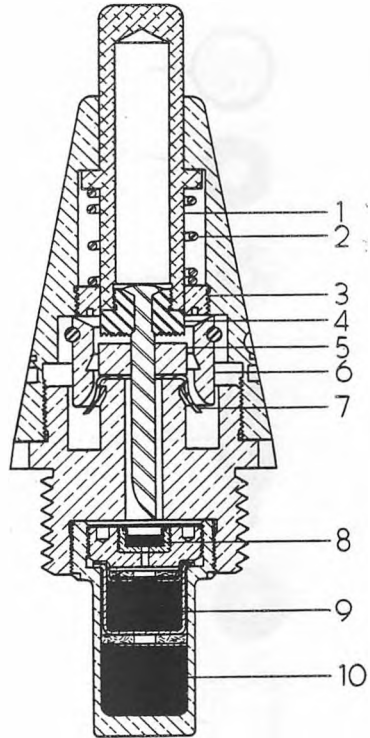
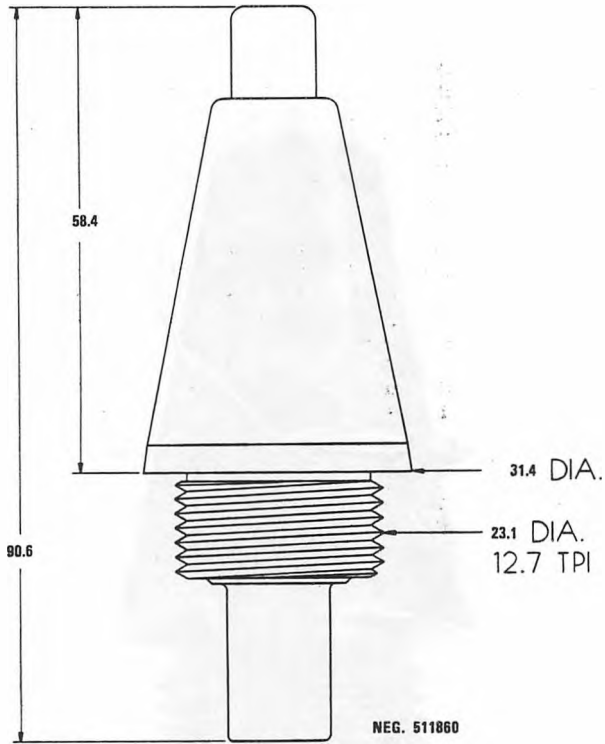
CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: PRC



U N C L A S S I F I E D

FOM-1390-5-1-12-8
NOMEN: FUZE, POINT-DETONATING, TYPE 88 (U)
PRODUCED/ADOPTED: 1949/?

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: PRC



U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-5-1-12-1-A

CATALOG: TB-381-5-06

NOMEN: FUZE, POINT-DETONATING, TYPE 88 SHORT DELAY (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ?
PRODUCED/ADOPTED: 1949/?

DATE UPDATED: 28JAN77
COUNTRY: PRC

(U)THE PEOPLES REPUBLIC OF CHINA POINT-DETONATING, SHORT-DELAY FUZE TYPE 88 IS A COPY OF A WORLD WAR II JAPANESE FUZE.

(U)PRIOR TO FIRING, THE SAFETY WIRE IS UNWOUND FROM THE ANNULAR GROOVE OF THE FUZE BODY, AND THE SAFETY FORK (2) IS PULLED OUT. ON FIRING, THE FIRING-PIN ASSEMBLY (1) MOVES REARWARD, COMPRESSING ITS SPRING. THE FIRING-PIN ASSEMBLY THEN SEATS UPON AND CLAMPS THE SAFETY BLOCKS (3), PREVENTING THEM FROM MOVING OUTWARD. THE SAFETY BLOCKS PREVENT CONTACT OF THE FIRING PIN WITH THE PRIMER (6). SIMULTANEOUSLY, SETBACK MOVES THE INERTIA RING (4) REARWARD UNTIL THE INERTIA RING LOCK (5) ENGAGES GROOVES TO HOLD THE INERTIA RING IN THE NEW POSITION. AS DECELERATION TAKES PLACE, THE FIRING-PIN SPRING RELEASES THE SAFETY BLOCKS BY MOVING THE FIRING-PIN ASSEMBLY FORWARD.

(U)SPIN FORCES THE SAFETY BLOCKS OUTWARD INTO THE POSITION FORMERLY OCCUPIED BY THE INERTIA RING, LEAVING CLEARANCE FOR THE FIRING-PIN ASSEMBLY TO MOVE REARWARD AND CONTACT THE PRIMER. AT HIGH OBLIQUITY OR AT GRAZE-IMPACT, THE PRIMER IS CARRIED FORWARD BY THE PRIMER CARRIER (8). THE PRIMER IGNITES THE DELAY (7), WHICH FLASHES TO THE RELAY (9), TO INITIATE THE DETONATOR (10) AND THE BOOSTER (11), TO COMPLETE THE DETONATION OF THE FUZE EXPLOSIVE TRAIN.

(U)THIS FUZE IS INTENDED FOR USE IN GUN AMMUNITION AND IS IDENTICAL IN EXTERIOR APPEARANCE TO A SIMILAR FUZE FOR HOWITZER AMMUNITION, EXCEPT THE STAMPED SYMBOL "4" INDICATES USE IN HOWITZERS AND MORTARS, AND THE SYMBOL "1" INDICATES USE IN GUNS.

(U)THE FUZE FOR GUN AMMUNITION MAY NOT ARM WHEN FIRED FROM HOWITZERS OR MORTARS BECAUSE THE INERTIA RING LOCK IS MADE OF HEAVIER GAGE METAL AND MUST BE SUBJECTED TO HIGHER SETBACK FORCE TO ARM THE FUZE. THE HOWITZER FUZE'S PRIMER CARRIER IS THREADED TO THE BODY AND DOES NOT MOVE.

U N C L A S S I F I E D

FOM-1390-5-1-12-1-A
 NOMEN: FUZE, POINT-DETONATING, TYPE 88 SHORT DELAY (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: 1949/?

COUNTRY: PRC

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 005

BOOSTER:
 BODY MATERIAL ----- BRASS
 BODY LENGTH (MM) -- 25.4
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - ?

FUZE ASSEMBLY COMPLETE:
 TYPE ----- IMPACT
 MODEL ----- 88 SHORT DELAY
 BODY MATERIAL ----- BRASS
 LENGTH OVERALL (MM) -- 81.0
 LENGTH EXPOSED (MM) -- 50.8
 MAXIMUM DIAMETER (MM) -- 31.7
 MAJ THREAD DIAM (MM) - 23.1
 THREAD PITCH (METRIC) - ?
 WEIGHT COMPLETE (G) -- 113
 MARKINGS -----

PERFORMANCE:
 ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- ?
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- 75-MM HE TYPE 94

USING WEAPONS: ----- 75-MM REGIMENTAL GUN TYPE 41

REFERENCES: -----

FUNCTIONAL DATA:
 ARMING METHOD ----- SETBACK AND SPIN
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- SAFETY BLOCKS

REMARKS:

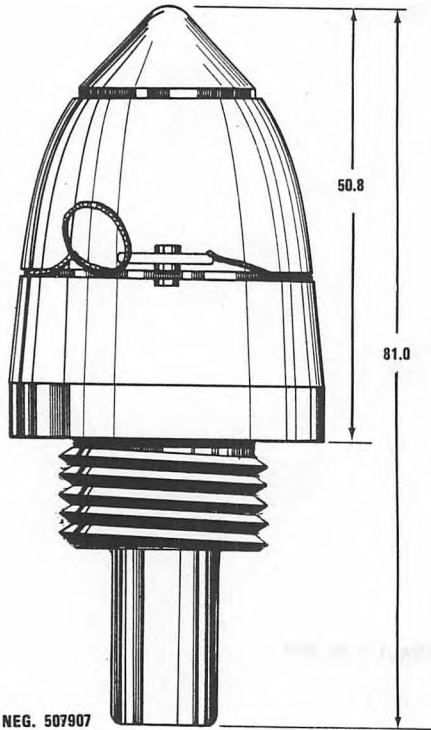
FOM-1390-5-1-12-1-B
NOMEN: FUZE, POINT-DETONATING, TYPE 88 SHORT DELAY (U)

UNCLASSIFIED

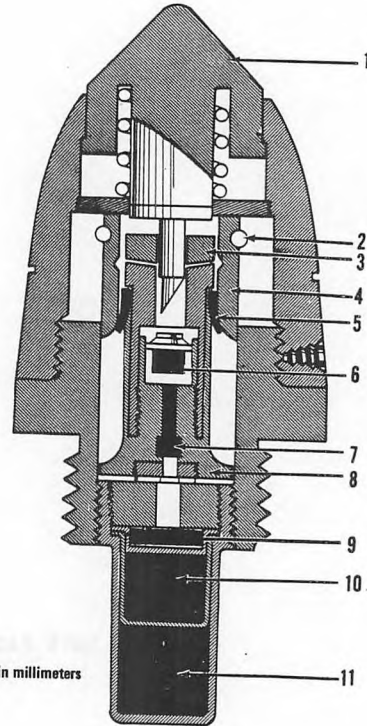
PRODUCED/ADOPTED: 1949/?

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

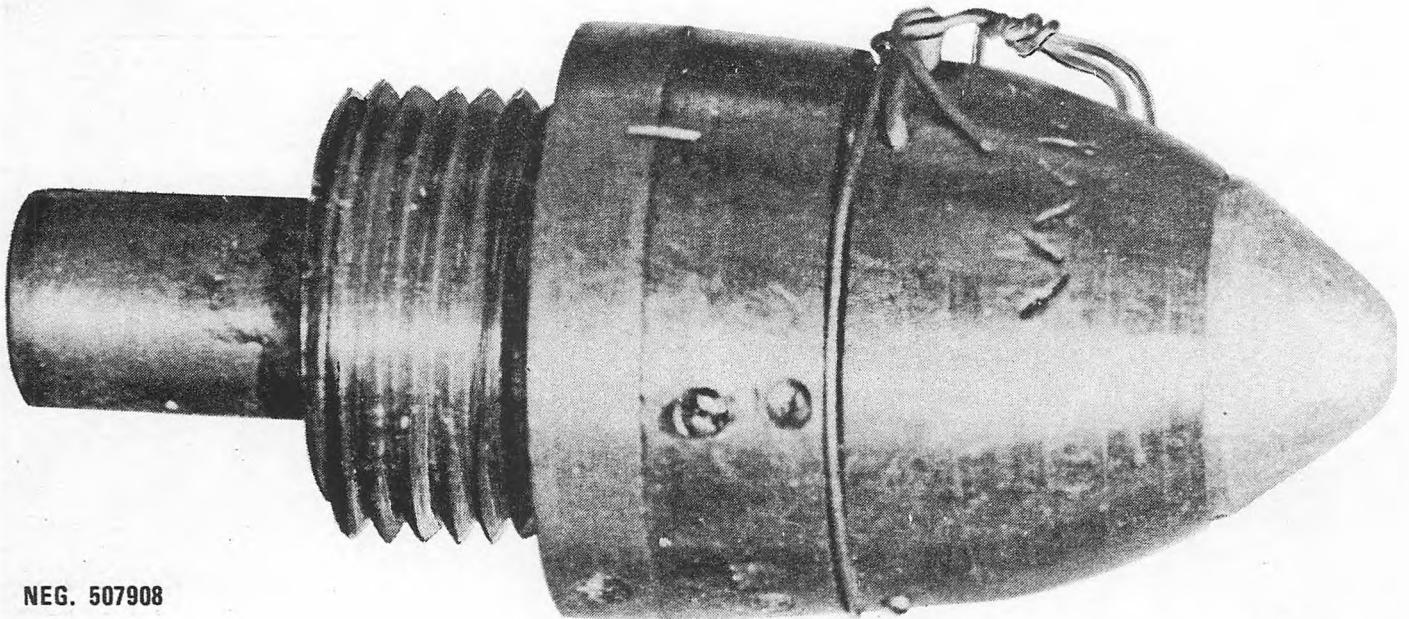
COUNTRY: PRC



NEG. 507907



All dimensions in millimeters



NEG. 507908

DATE CATALOGED: 01JUL66
VOLUME 06

UNCLASSIFIED

FDM-1390-5-1-12-1-B

NOMEN: FUZE, POINT-DETONATING, TYPE 88 SHORT DELAY (U)

PRODUCED/ADOPTED: 1949/?

U N C L A S S I F I E D

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

COUNTRY: PRC

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JUL66
VOLUME 06 PAGE 220

U N C L A S S I F I E D

FOM-1390-5-1-13-A

CATALOG: TB-381-5-06

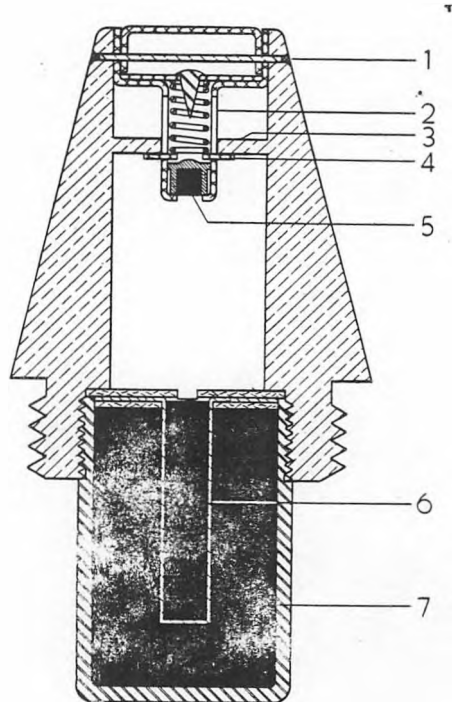
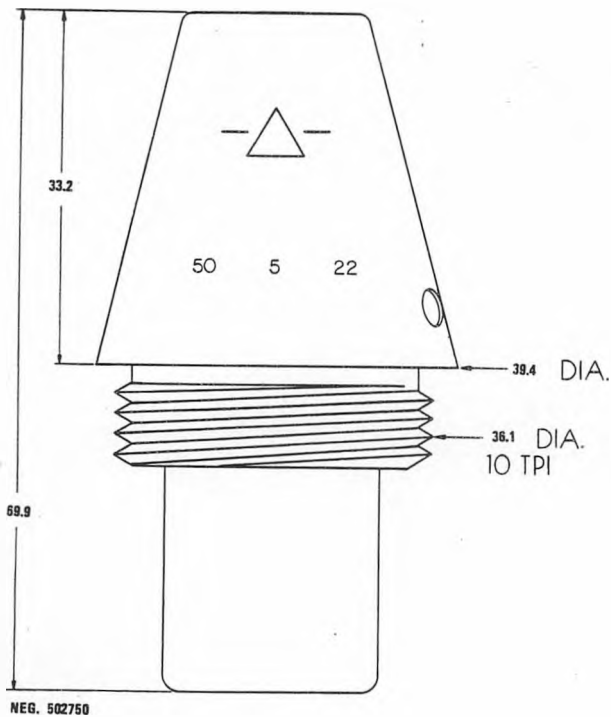
NOMEN: FUZE, POINT DETONATING, TYPE UNIVERSAL (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ?
PRODUCED/ADOPTED: ???

DATE UPDATED: 28JAN77
COUNTRY: PRC

(U)THE PRC UNIVERSAL, POINT-DETONATING FUZE IS A SENSITIVE SUPERQUICK TYPE DESIGNED FOR ARMING BY SETBACK. SAFETY IS PROVIDED BY A SHEAR WIRE (1) AND SPRING RETAINER (4). AT HIGH VELOCITIES, THE SHEAR WIRE (1) IS SHEARED BY SETBACK, RESULTING IN SEATING OF THE FIRING-PIN AND PRIMER HOUSING ASSEMBLY (2) ON THE BASE OF THE FORWARD CAVITY OF THE FUZE. UPON IMPACT THE INERTIA OF THE PRIMER (5) AND THE SPRING RETAINER (4) COMPRESSES THE (3)COIL SPRING WITH THE PRIMER IMPINGING ON THE FIRING PIN. THE RESULTANT FLASH FROM THE PRIMER INITIATES THE DETONATOR (6) WHICH, IN TURN, DETONATES THE BOOSTER (7). AT LOWER VELOCITIES, THE SAFETY WIRE IS NOT SHEARED UNTIL IMPACT OF THE PROJECTILE. UNDER THIS CONDITION, THE IMPACT FORCE DRIVES THE FIRING PIN INTO THE PRIMER FOR INITIATION OF THE EXPLOSIVE TRAIN.



U N C L A S S I F I E D

FOM-1390-5-1-13-A
 NOMEN: FUZE, POINT DETONATING, TYPE UNIVERSAL (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28 JAN 77
 DATE UPDATED: 28 JAN 77

PRODUCED/ADOPTED: ???

COUNTRY: PRC

CURRENT STATUS: ----- OBSOLETE

BOOSTER:

USING COUNTRIES: ----- 005

BODY MATERIAL ----- BRASS
 BODY LENGTH (MM) -- 34.3
 FILLER MATERIAL --- RDX/TNT
 FILLER WEIGHT (G) - 220

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT DETONATING
 MODEL ----- UNIVERSAL
 BODY MATERIAL ----- BRASS
 LENGTH OVERALL (MM) -- 69.9
 LENGTH EXPOSED (MM) -- 33.2
 MAXIMUM DIAMETER (MM) - 39.4
 MAJ THREAD DIAM (MM) - 36.1
 THREAD PITCH (METRIC) - ?
 WEIGHT COMPLETE (G) -- 281.0?
 MARKINGS ----- 50 5 22

ARMING DISTANCE(M) - ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- 60 MM, HE, TYPE ?
 - 82 MM, HE, TYPE ?

USING WEAPONS: ----- 60-MM MORTAR TYPE 31
 - 82-MM MORTAR TYPE 20

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- SHEAR WIRE
 & SPRING RETAINER

REFERENCES: -----

REMARKS:

NOMEN: FUZE, POINT DETONATING, TYPE 3711 (U)

DATE REVIEWED: 28JAN77

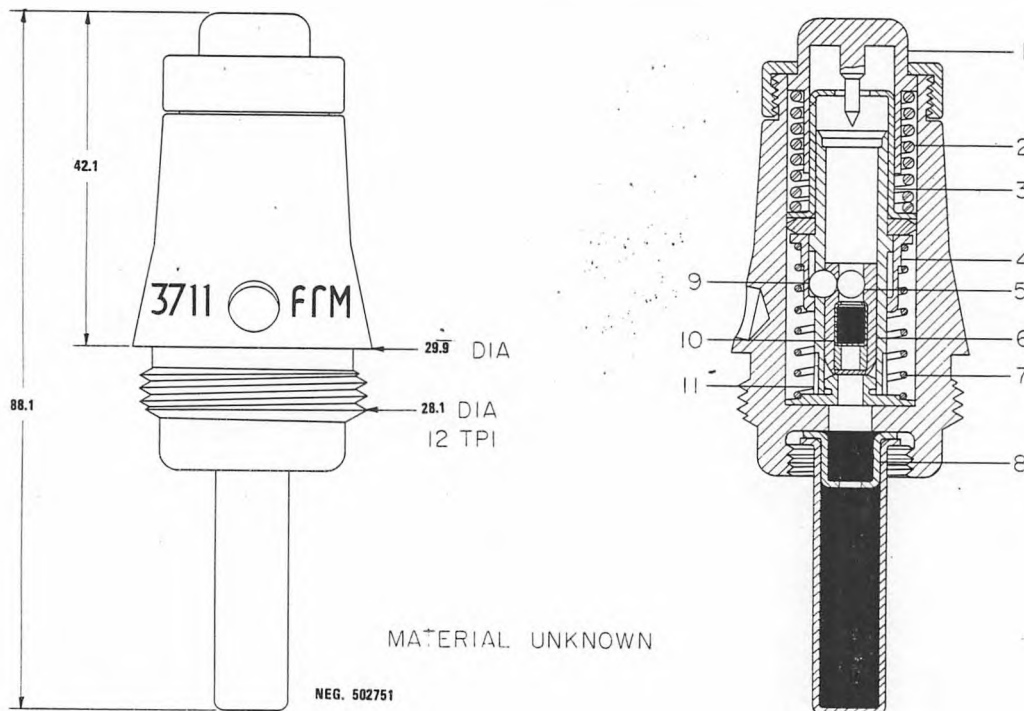
NATIVE DES: ?
 PRODUCED/ADOPTED: ???

DATE UPDATED: 28JAN77
 COUNTRY: PRC

(U)THE PRC POINT-DETONATING FUZE TYPE 3711 IS DESIGNED FOR USE WITH 60-MM MORTAR AMMUNITION.

(U)ON FIRING, SETBACK CAUSES THE SETBACK SLEVE (4) TO MOVE REARWARD, COMPRESSING THE SAFETY SPRING (7). THE COLLAR BECOMES WEDGED ON THE TAPERED SURFACE AT THE REAR END OF THE SETBACK LOCKING RING (11) OF THE INERTIA ELEMENT ASSEMBLY. THE PRIMER LOCKING BALL (9) IS THUS RELEASED SO THAT IT CAN MOVE OUTWARD AND FREE THE PRIMER CARRIER (6). IN FLIGHT, THE PRIMER CARRIER CAN THEN MOVE FORWARD UNDER THE INFLUENCE OF CREEP FORCES UNTIL ITS FORWARD END CONTACTS THE FIRING PIN SPRING GUIDE (3). MOVEMENT OF THE INERTIA ELEMENT ASSEMBLY IS RESTRAINED BY THE SPRING (2).

(U)AT IMPACT, THE FIRING PIN AND STRIKER ASSEMBLY (1) IS PUSHED REARWARD, WHILE THE INERTIA ELEMENT ASSEMBLY MOVES FORWARD. THE UNRESTRAINED PRIMER CARRIER MOVES FORWARD RELATIVELY MORE RAPIDLY THAN THE INERTIA ELEMENT ASSEMBLY AND ITS ASSOCIATED COMPONENTS. AS THE FIRING PIN ENTERS THE PRIMER CARRIER CAVITY, THE TWO PRIMER SAFETY BALLS (5) ARE PUSHED OUTWARD TO PROTRUDE INTO THE CAVITY BETWEEN THE FORWARD EDGE OF THE INERTIA ELEMENT ASSEMBLY, THE FIRING-PIN SPRING GUIDE, AND THE FIRING PIN. THIS LOCKS THE PRIMER CARRIER TO THE FORWARD-MOVING INERTIA ELEMENT ASSEMBLY. THE MOMENTUM OF THE ENTIRE INERTIA ELEMENT ASSEMBLY, RATHER THAN ONLY THAT OF THE PRIMER CARRIER, IMPALES THE PRIMER (10) ON THE FIRING PIN POINT TO DETONATE THE PRIMER. THE SHOCK WAVE FROM THE PRIMER THEN IGNITES THE DETONATOR (8).



U N C L A S S I F I E D

FOM-1390-5-1-14-A
 NOMEN: FUZE, POINT DETONATING, TYPE 3711 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN77
 DATE UPDATED: 28JAN77

COUNTRY: PRC

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 005

BOOSTER:

BODY MATERIAL ----- STEEL
 BODY LENGTH (MM): -- 30.4
 FILLER MATERIAL --- ?
 FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME NONE
 DELAY TIME ----- ?
 MIN TIME SETTING -- ?
 MAX TIME SETTING -- ?

USING PROJECTILES: -- 60 MM, HE, ?

USING WEAPONS: ----- 60-MM MORTAR

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
 MODEL ----- 3711
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 88.1
 LENGTH EXPOSED (MM) -- 42.1
 MAXIMUM DIAMETER (MM)- 29.9
 MAJ THREAD DIAM (MM) - 28.1
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- ?
 MARKINGS ----- 3711 FRM

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- SAFETY BALLS

NOMEN: FUZE, POINT INITIATING, TYPE ? (U)

DATE REVIEWED: 28JAN77

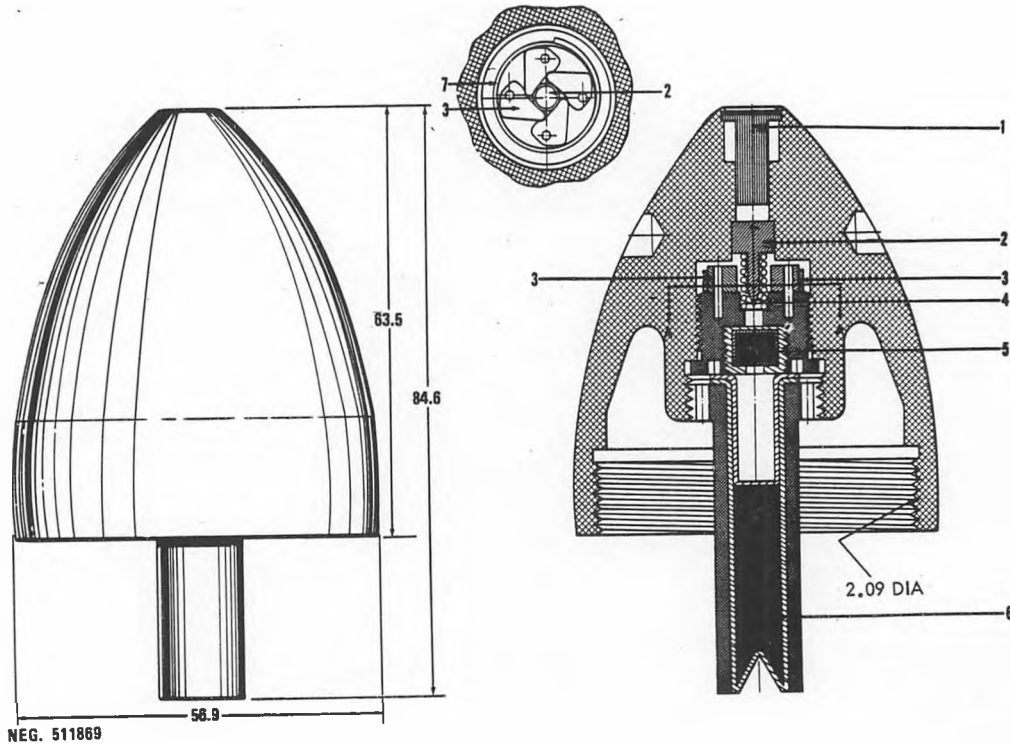
NATIVE DES: ?
 PRODUCED/ADOPTED: 1950/?

DATE UPDATED: 28JAN77
 COUNTRY: PRC

(U)THE PRC SETBACK AND CENTRIFUGALLY ARMED POINT-INITIATING FUZE IS USED WITH THE 57-MM, HEAT, RECOILLESS RIFLE CARTRIDGE. THE LOWER PORTION OF THE FUZE FORMS THE PROJECTILE BOUR-RELET. ITS SAFETY DEVICE CONSISTS OF FOUR PIVOTED, BRASS, CENTRIFUGAL SEGMENTS (3) RESTRAINED BY A RIBBON-TYPE CENTRIFUGAL SPRING (7).

(U)ON FIRING, SETBACK CAUSES THE FIRING PIN (2) TO COMPRESS THE FIRING-PIN SPRING (4) UNTIL THE FIRING-PIN HEAD SEATS ON THE FOUR CENTRIFUGAL SEGMENTS. WHEN SETBACK CEASES, THE FIRING-PIN SPRING RETURNS THE FIRING PIN TO ITS ORIGINAL POSITION. SPIN CAUSES THE FOUR SEGMENTS TO ROTATE ON THEIR PIVOTS, EXPANDING THE RIBBON-TYPE CENTRIFUGAL SPRING WHICH HAD RESTRAINED THEM. ROTATION OF THE SEGMENTS REMOVES OBSTRUCTION TO THE REARWARD MOVEMENT OF THE FIRING PIN PRIOR TO TARGET IMPACT. DURING FLIGHT, THE FIRING-PIN SPRING HOLDS THE FIRING PIN AWAY FROM THE PRIMER (5).

(U)ON IMPACT OF THE PROJECTILE, THE WOODEN FIRING-PIN EXTENSION (1) IS DRIVEN AGAINST THE FIRING PIN WHICH PIERCES THE STAB-TYPE PRIMER. THE RESULTANT FLASH INITIATES THE SHAPED-CHARGE DETONATOR (6), CAUSING A JET OF GASES TO FLASH DOWNWARD THROUGH A LINER TUBE TO THE UPPER SURFACE OF THE SOLID TETRYL PELLET IN THE PROJECTILE BASE.



U N C L A S S I F I E D

FOM-1390-5-1-17-A
NOMEN: FUZF, POINT INITIATING, TYPE ? (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: 1950/?

COUNTRY: PRC

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- 005

BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT INITIATING
MODEL ----- ?
BODY MATERIAL ----- ALUMINUM ALLOY
LENGTH OVERALL (MM) -- 84.6
LENGTH EXPOSED (MM) -- 63.5
MAXIMUM DIAMETER (MM)- 56.9
MAJ THREAD DIAM (MM) - 53.1
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 154.2
MARKINGS ----- NONE

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- 57 MM HEAT ?

USING WEAPONS: ----- 57-MM RECOILLESS RIFLE 36

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE ---- CENTRIFUGAL-SEGMENTS
AND SPRING

REMARKS:



U N C L A S S I F I E D

FOM-1390-5-1-18-A

CATALOG: TB-381-5-06

NOMEN: FUZE, POINT DETONATING, TYPE UNIVERSAL MODIFIED (U)

DATE REVIEWED: 28JAN77

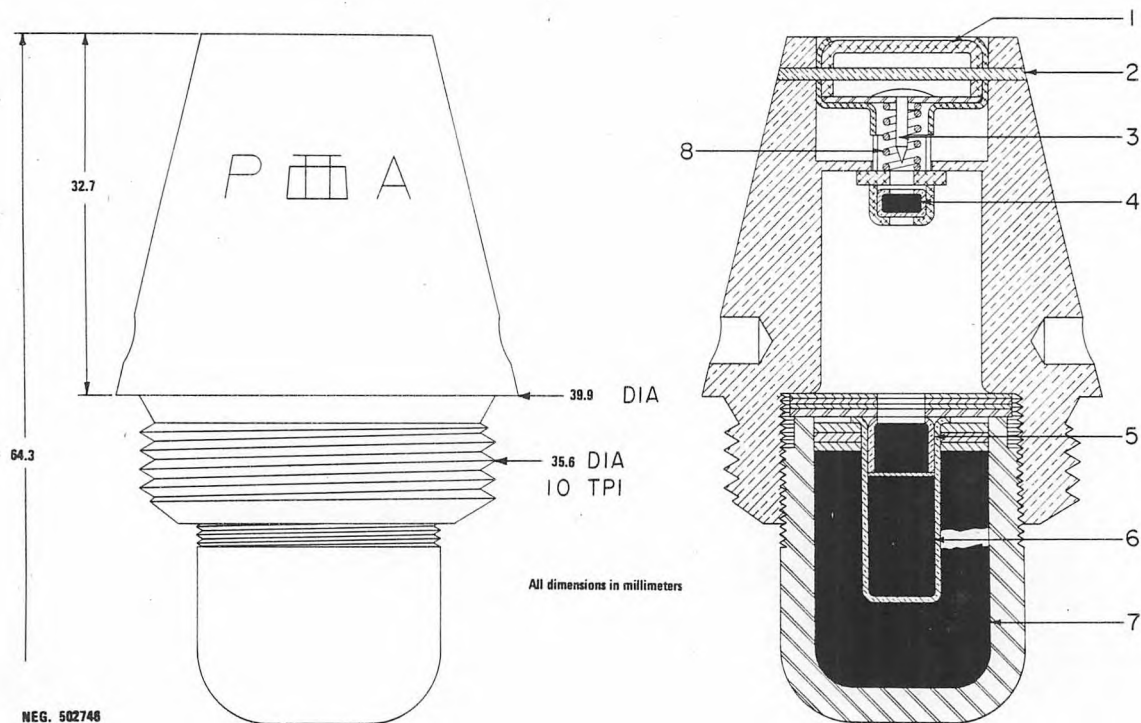
NATIVE DES: ?

DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ???

COUNTRY: PRC

(U) THIS FUZE IS A MODIFIED VERSION OF, AND FUNCTIONS IN THE SAME MANNER AS, THE PRC UNIVERSAL TYPE POINT DETONATING FUZE (SEE FOM 1390-5-1-13). MODIFICATIONS HAVE BEEN MADE TO THE FUZE BODY, FIRING PIN & PRIMER ASSEMBLY, AND DETONATOR-BOOSTER ASSEMBLY.



NEG. 502748



DATE CATALOGED: 01DEC71
VOLUME 06

U N C L A S S I F I E D

PAGE 227

U N C L A S S I F I E D

FOM-1390-5-1-18-A

NOMEN: FUZE, POINT DETONATING, TYPE UNIVERSAL MODIFIED (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ???

COUNTRY: PRC

CURRENT STATUS: ----- OBSOLETE

USING COUNTRIES: ----- 005

BOOSTER:

BODY MATERIAL ----- STEEL
BODY LENGTH (MM) -- 33.0
FILLER MATERIAL --- TNT
FILLER WEIGHT (G) - 11

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT DETONATING
MODEL ----- UNIVERSAL MODIFIED
BODY MATERIAL ----- BRASS OR PLASTIC
LENGTH OVERALL (MM) -- 64.3
LENGTH EXPOSED (MM) -- 32.7
MAXIMUM DIAMETER (MM)- 39.9
MAJ THREAD DIAM (MM) - 35.6
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 259
MARKINGS ----- SEE PHOTO

USING PROJECTILES: -- 81 MM, HE
 - 82 MM, HE

USING WEAPONS: ----- 82-MM MORTAR TYPE 53

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
SELF-DESTR METHOD ---- N/A
TYPE SAFETY DEVICE --- SHEAR WIRE & SPRING
 RETAINER

REMARKS:

NOMEN: FUZE BD TYPE 2 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: SEE DRAWING
PRODUCED/ADOPTED: ?/1960 ?DATE UPDATED: 28FEB75
COUNTRY: PRC

(U)DESCRIPTION. THIS FUZE IS DESIGNED FOR USE WITH ARMOR-PIERCING PROJECTILES. IT IS BASE DETONATING AND HAS AN INERTIA IMPACT-DELAY PELLET MODE OF FUNCTIONING. NO SETTING IS REQUIRED PRIOR TO USE. THE FUZE IS A COPY OF THE SOVIET DBR-2 BASE DETONATING FUZE, HOWEVER, SOME SEALING ELEMENTS HAVE BEEN ELIMINATED IN THE PRC COPY.

(U)WHEN THE CARTRIDGE IS FUNCTIONED, PROPELLANT GASES FLASH THROUGH THE POLYETHYLENE DISC (39) AND IGNITE THE TRACER IGNITER COMPOSITION (38) WHICH IN TURN IGNITES THE TRACER COMPOSITION (20) WHICH BURNS FOR A PRESCRIBED LENGTH OF TIME, INDICATING THE TRAJECTORY OF THE PROJECTILE.

(U)CONCURRENTLY WITH THE EVENT IN PARAGRAPH (1), THE EXPANDING PROPELLANT GASES DRIVE THE PROJECTILE FORWARD THROUGH THE GUN TUBE, INDUCING SETBACK FORCES IN THE VARIOUS FUZE COMPONENTS. SETBACK CAUSES THE SETBACK SLEEVE (33) TO MOVE REARWARD, COMPRESSING THE SLEEVE SPRING (36). THE SETBACK SLEEVE (33) IN THIS POSITION BLOCKS THE HOLES IN THE THREE GROOVED WASHERS (15), LOCKING IN THE DETENTS (14). SIMULTANEOUSLY, SETBACK FORCES HOLD THE CHROMIUM PLATED STEEL SLEEVE (8) IN THE REAR MOST POSITION OF THE VERTICAL FLASH CHANNEL, BLOCKING THE PATH BETWEEN THE PRIMER (32) AND THE DELAY (29).

(U)AS THE PROJECTILE LEAVES THE BORE OF THE GUN, SETBACK FORCES ARE ELIMINATED. THE SLEEVE SPRING (36) DECOMPRESSES AND MOVES THE SETBACK SLEEVE (33) FORWARD, UNBLOCKING THE HOLES IN THE GROOVED WASHERS (15). CENTRIFUGAL FORCE FROM PROJECTILE SPIN NOW PULLS THE THREE DETENTS OUT OF THE CAVITY IN THE PRIMER SLIDER (11). THIS ARMS THE PRIMER SLIDER (11).

(U)AS THE PROJECTILE BEGINS TO GRADUALLY DECELERATE DUE TO AIR RESISTANCE, CREEP FORCES BEGIN TO AFFECT THE VARIOUS COMPONENTS IN THE FUZE. THE ANTICREEP SPRING (10) PREVENTS CREEP FROM MOVING THE PRIMER SLIDER (11). HOWEVER, THE SMALL CREEP FORCES ARE ABLE TO MOVE THE CHROMIUM PLATED STEEL SLEEVE (8) INTO ITS FOREMOST POSITION, COMPLETELY OPENING UP THE FLASH CHANNEL IN THE FIRING PIN (30).

(U)WHEN THE PROJECTILE IMPACTS THE TARGET, INERTIA CAUSES THE PRIMER SLIDER (11) TO MOVE FORWARD, IMPALING THE PRIMER (32) ON THE FIRING PIN (30). FLASH FROM IGNITION OF THE PRIMER PASSES THROUGH THE FLASH CHANNELS IN THE FIRING PIN (30) INTO THE REAR OF THE DELAY HOLDER (9), IGNITING THE DELAY (29). EXCESS FLASH PRESSURE PASSES THROUGH THE BYPASS HOLES IN THE DELAY HOLDER (9), PREVENTING DISRUPTIVE IGNITION OR FASTER BURNING OF THE DELAY (29). THIS FLASH IS PREVENTED FROM REACHING THE MAIN DETONATOR BY THE DELAY RETAINER (27) WHICH IS SECURELY MATED TO THE DELAY HOLDER (9). AFTER THE DELAY PELLET (29) BURNS FOR THE REQUIRED TIME, ITS FLASH PASSES OUT THE NOZZLE END OF THE DELAY HOLDER (9) THROUGH THE HOLES IN THE CONCAVE DISC (6) AND THE METAL WASHER (25), PIERCING THE CLOTH DISC (4) AND IGNITING THE DETONATOR COMPOSITION (3). THE DETONATOR COMPOSITION (3) IGNITES THE TETRYL BOOSTER (22) WHICH BURSTS THE TOP OF THE BOOSTER CUP (1) AND IGNITES THE MAIN CHARGE.

U N C L A S S I F I E D

CATALOG: TB-381-5-06
 DATE REVIEWED: 28 JAN 77
 DATE UPDATED: 28 FEB 75

FOM-1390-5-1-27-A
 NOMEN: FUZE BD TYPE 2 (U)

PRODUCED/ADOPTED: ?/1960 ?

COUNTRY: PRC

CURRENT STATUS: ----- STANDARD

BOOSTER:

BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 36
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - 1.74

USING COUNTRIES: ----- 005,009,010,045

PERFORMANCE:

ARMING DISTANCE (M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- SELF REGULATING
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- BASE DETONATING
 MODEL ----- TYPE 2
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 107
 LENGTH EXPOSED (MM) -- 54
 MAXIMUM DIAMETER (MM)- 35
 MAJ THREAD DIAM (MM) - 33
 THREAD PITCH (METRIC)- 12 TP1
 WEIGHT COMPLETE (G) -- 374
 MARKINGS ----- SEE ILLUSTRATION

USING PROJECTILES: -- TYPE 367 APC-T

USING WEAPONS: ----- FIELD GUN TYPE 56
 - LT TANK TYPE 62 *1

FUNCTIONAL DATA:

ARMING METHOD ----- *2
 SELF-DESTR METHOD ---- N/A
 TYPE SAFETY DEVICE --- CENTRIFUGAL DETENTS

REFERENCES: ----- FSTC-CR-20-55-70
 - FSTC-CW-07-100-73

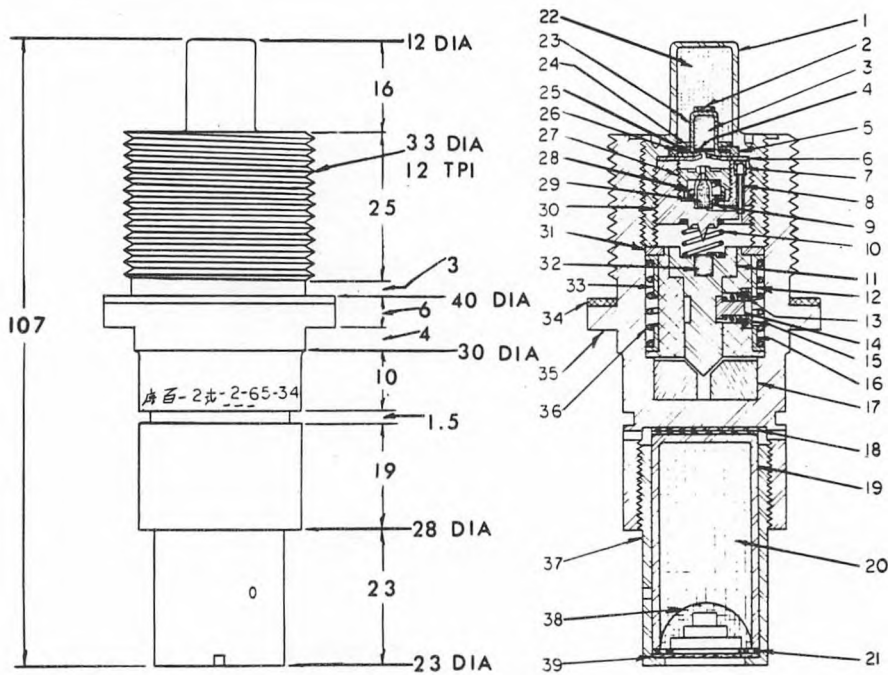
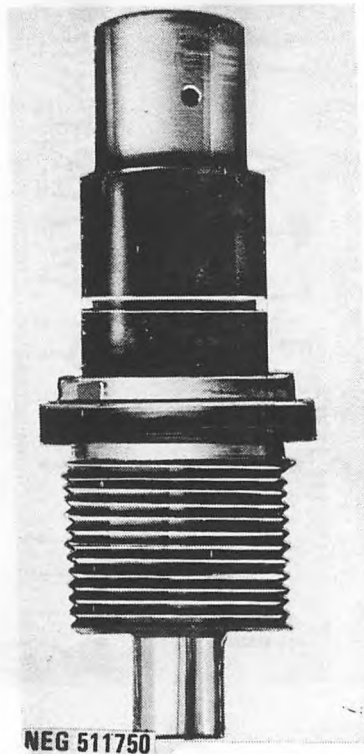
REMARKS:

- 1/ AMPHIB LT TANK TYPE 60/63
- 2/ SETBACK AND CENTRIFUGAL FORCE

UNCLASSIFIED

FOM-1390-5-1-27-8
NOMEN: FUZE BD TYPE 2 (U)
PRODUCED/ADOPTED: ?/1960 ?

CATALOG: TB-381-5-06
DATE REVIEWED: 28 JAN 77
DATE UPDATED: 28 FEB 75
COUNTRY: PRC



All dimensions in millimeters

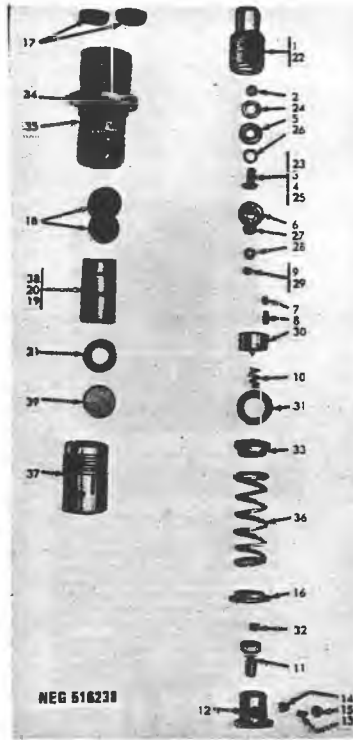
DATE CATALOGED: 28 FEB 75
VOLUME 06

UNCLASSIFIED

FOM-1390-5-1-27-B
NOMEN: FUZE BD TYPE 2 (U)
PRODUCED/ADOPTED: ?/1960 ?

UNCLASSIFIED

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28FEB75
COUNTRY: PRC



DATE CATALOGED: 28FEB75
VOLUME 06 PAGE 232

UNCLASSIFIED

NOMEN: FUZE, POINT DETONATING, TYPE 1 (U)

DATE REVIEWED: 28JAN76

NATIVE DES: ?
PRODUCED/ADOPTED: 1967/ ?DATE UPDATED:
COUNTRY: PRC

(U)DESCRIPTION. THIS FUZE IS POINT DETONATING AND EMPLOYS INSTANTANEOUS OR DELAY ACTION. FOR INSTANTANEOUS ACTION THE KNURLED FUZE CAP IS REMOVED. FOR DELAY ACTION THE CAP IS LEFT ON. FOR ALL PRACTICAL PURPOSES THE FUZE IS PATTERNED AFTER THE SOVIET MODEL KTM-1U (SEE FOM 1390-2-1-33-1). THE FUZE UPPER BODY IS MADE OF UNPAINTED STEEL. THE LOWER BODY, ALSO OF STEEL, IS PAINTED BLACK AND IS DIE STAMPED WITH CHINESE CHARACTERS WHICH TRANSLATE AS FOLLOWS: K-1 TYPE 48 LOT 54. IF FOUND UNPACKED ALWAYS CONSIDER THIS FUZE AS UNSAFE BECAUSE IT EMPLOYS IN-LINE EXPLOSIVE COMPONENTS. EACH FUZE IS PACKED PER TIN CYLINDER HAVING A SCREW LID. ANOTHER TYPE OF TIN CAN IS AVAILABLE. IT IS HERMETICALLY SEALED AND USES A KEY AND TEAR STRIP.

(U)COMPONENTS. THIS FUZE CONSISTS OF THE FOLLOWING COMPONENTS (SEE DRAWING): 1. NOSE CAP, 2. FIRING PIN SPRING, 3. UPPER BODY, 4. LOWER BODY, 5. PRIMER, 6. ARMING SPRING, 7. PRIMER CARRIER, 8. DISC (METAL), 9. DISC (PAPER), 10. BOOSTER CUP, 11. DETONATOR HOLDER, 12. BOOSTER, 13. DETONATOR, 14. SAFETY PLUG, 15. THREADS, 16. STIRRUP PRONGS, 17. ARMING SLEEVE, 18. RETAINER WASHER LUG, 19. FIRING PIN, 20. FIRING PIN HEAD, 21. COVER (FOIL).

(U)FUNCTIONING. UPON FIRING, SETBACK MOVES THE ARMING SLEEVE (17) TO THE REAR COMPRESSING THE ARMING SPRING (6) AND LOCKING THE STIRRUP PRONGS (16) IN THE GROOVE OF THE ARMING SLEEVE. WITH THE ARMING SLEEVE LOCKED TO THE PRIMER CARRIER (7) THE FUZE IS ARMED. AS DECELERATION TAKES PLACE, THE ARMING SLEEVE AND PRIMER CARRIER ARE MOVED FORWARD BY THE ARMING SPRING. UPON IMPACT, WITH THE NOSE CAP (1) REMOVED, THE FIRING PIN (19) IS DRIVEN TO THE REAR AND IMPINGES ON THE PRIMER (5) WHICH INITIATES THE DETONATOR (13) AND BOOSTER (12). FOR DELAY ACTION, WITH THE NOSE CAP (1) IN PLACE, THE ARMING SLEEVE (17) AND PRIMER (5) ARE CARRIED FORWARD BY INERTIA TO IMPINGE THE PRIMER ON THE FIRING PIN.

U N C L A S S I F I E D

FOM-1390-5-1-35-A

NOMEN: FUZE, POINT DETONATING, TYPE 1 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 28JAN76
 DATE UPDATED:

PRODUCED/ADOPTED: 1967/ ?

COUNTRY: PRC

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- 005,009

BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- ?
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - 8

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT DETONATING
 MODEL ----- TYPE 1
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 97
 LENGTH EXPOSED (MM) -- 43
 MAXIMUM DIAMETER (MM) - 40
 MAJ THREAD DIAM (MM) - 36
 THREAD PITCH (METRIC) - 2.5 MM
 WEIGHT COMPLETE (G) -- 369
 MARKINGS ----- SEE ILLUSTRATION

PERFORMANCE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- ?
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- 85 MM FRAG TYPE 367
 - 85 MM FRAG TYPE ?

USING WEAPONS: ----- *1

REFERENCES: ----- FMR-MEMO RPT
 - FSTC-CR-20-51-71

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD --- NONE
 TYPE SAFETY DEVICE --- SETBACK ARMING SLEEVE

REMARKS:

1/ LT TANK TYPE 62
 AMPHIBIOUS LT TANK TYPE 60/63
 FIELD GUN TYPE 56

FOM-1390-5-1-35-8
NOMEN: FUZE, POINT DETONATING, TYPE 1 (U)
PRODUCED/ADOPTED: 1967/ ?

UNCLASSIFIED

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN76
DATE UPDATED:
COUNTRY: PRC



NEG 519845

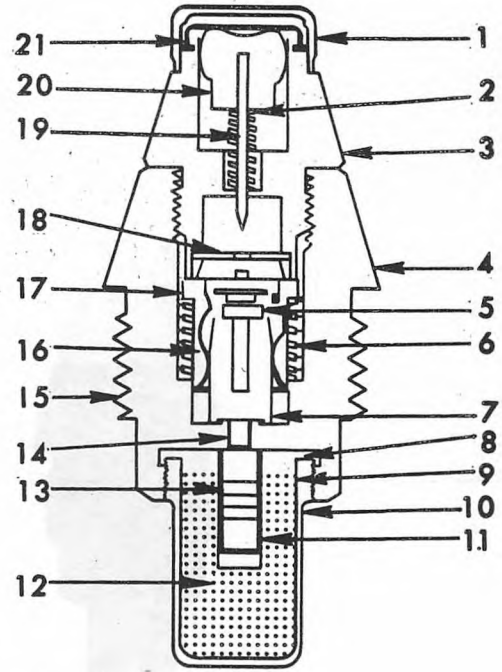
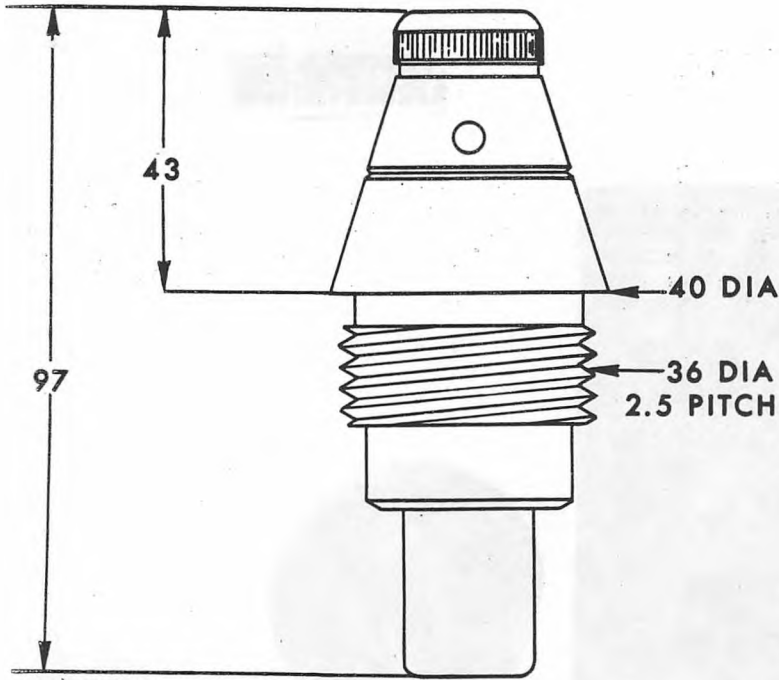
UNCLASSIFIED

FOM-1390-5-1-35-B
NOMEN: FUZE, POINT DETONATING, TYPE 1 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN76
DATE UPDATED:

PRODUCED/ADOPTED: 1967/ ?

COUNTRY: PRC



NEG 519844

All dimensions in millimeters

UNCLASSIFIED

FOM-1390-5-2-2-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, PIBD, TYPE ? (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ?
PRODUCED/ADOPTED: ???

DATE UPDATED: 28JAN77
COUNTRY: PRC

(U)THE PRC POINT-INITIATING, BASE-DETONATING FUZE TYPE ? IS USED WITH THE 87-MM FIN- AND SPIN-STABILIZED HEAT ROCKETS. A BRASS OR MAGNESIUM SHIPPING CAP IS THREADED TO THE NOSE OF THE FUZE AND IS APPARENTLY REMOVED BEFORE FIRING. NEITHER THE REMOVAL OF THE SHIPPING CAP NOR THE RUPTURE OF THE SHEAR WIRE WILL AFFECT FUNCTIONING; HOWEVER, A SLIGHT DELAY ACTION MAY RESULT IF THE SHIPPING CAP IS NOT REMOVED.

(U)DURING SHIPPING AND LOADING, AND PRIOR TO FIRING, THE FUZE PRIMER (6) IS HELD AWAY FROM THE FIRING PIN (2) BY THE PRIMER RETAINER (5), WHICH RESTS ON THE FUZE BODY. AT TARGET IMPACT, THE FIRING PIN AND PRIMER ASSEMBLY ARE PUSHED TO THE REAR, BREAKING THE SHEAR WIRE (1) AND THEREBY FREEING THE PRIMER AND ALLOWING IT TO MOVE FORWARD. INERTIA FORCES AT TARGET IMPACT CAUSE THE PRIMER TO MOVE FORWARD IN THE PRIMER HOLDER (3), OVERCOME THE SPRING (4), AND STRIKE THE FIRING PIN, THUS INITIATING THE DETONATOR (7). THE DETONATOR, IN TURN, FLASHES TO THE REAR OF THE ROCKET WARHEAD TO INITIATE ANOTHER DETONATOR, A BOOSTER, AND THE HIGH-EXPLOSIVE CHARGE.

U N C L A S S I F I E D

FOM-1390-5-2-2-A
NOMEN: FUZE, PIBD, TYPE ? (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

COUNTRY: PRC

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- OBSOLETE

BOOSTER:

BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

USING COUNTRIES: ----- 005

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- NONE
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
MODEL ----- ?
BODY MATERIAL ----- BRASS
LENGTH OVERALL (MM) -- 68.0
LENGTH EXPOSED (MM) -- 30.2
MAXIMUM DIAMETER (MM)- 31.7
MAJ THREAD DIAM (MM) - 27.1
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 154.2
MARKINGS ----- NONE

USING PROJECTILES: -- 87-MM HEAT ROCKET TYPE 135
- 87-MM HEAT ROCKET TYPE 241

USING WEAPONS: ----- 87-MM ROCKET LAUNCHER
- TYPE 51

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- SHEAR WIRE AND SPRING

REFERENCES: -----
-
-

REMARKS:

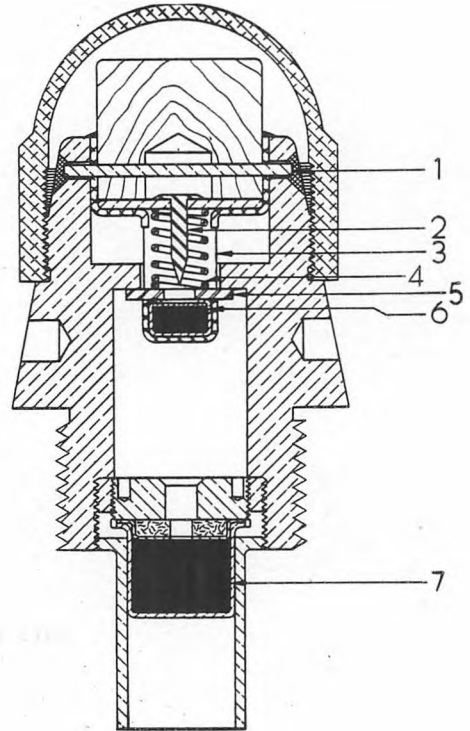
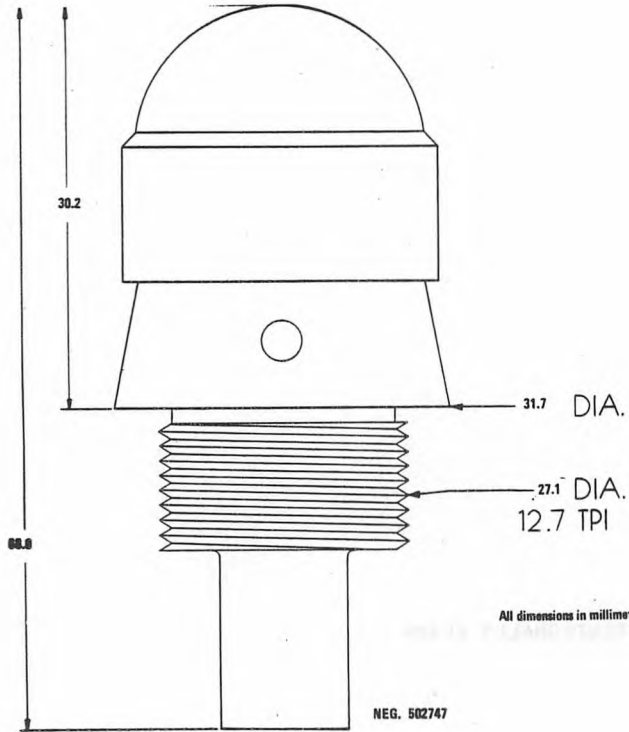
DATE CATALOGED: 01APR68
VOLUME 06 PAGE 238

U N C L A S S I F I E D

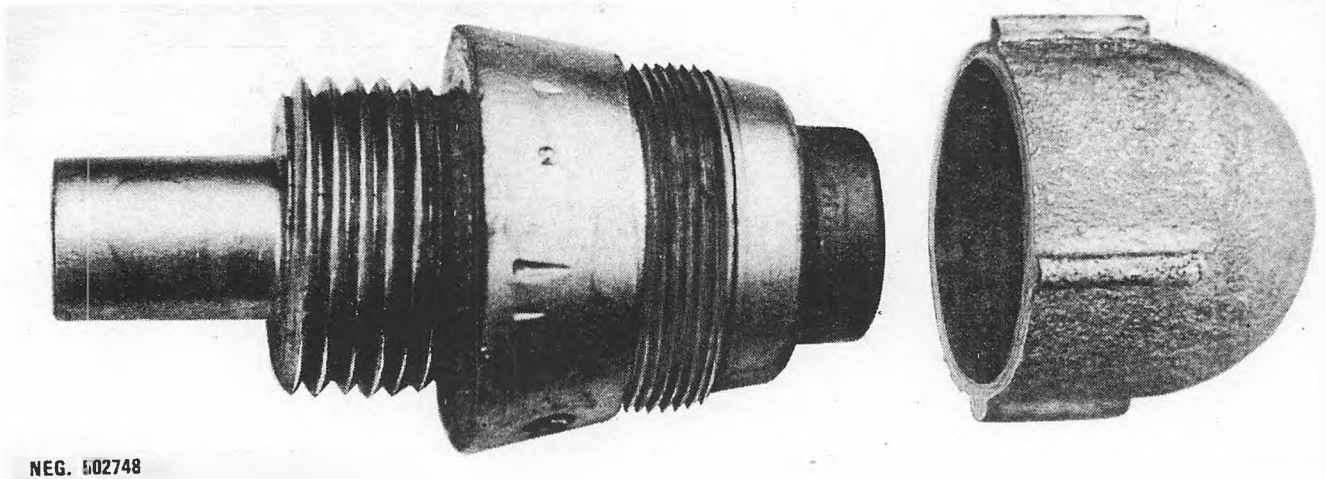
UNCLASSIFIED

FOM-1390-5-2-2-8
NOMEN: FUZE, PIBD, TYPE ? (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: PRC



All dimensions in millimeters



U N C L A S S I F I E D

FOM-1390-5-2-2-B
NOMEN: FUZE, PIBD, TYPE ? (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: PRC

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01APR68
VOLUME 06 PAGE 240

U N C L A S S I F I E D

FOM-1390-5-5-1-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

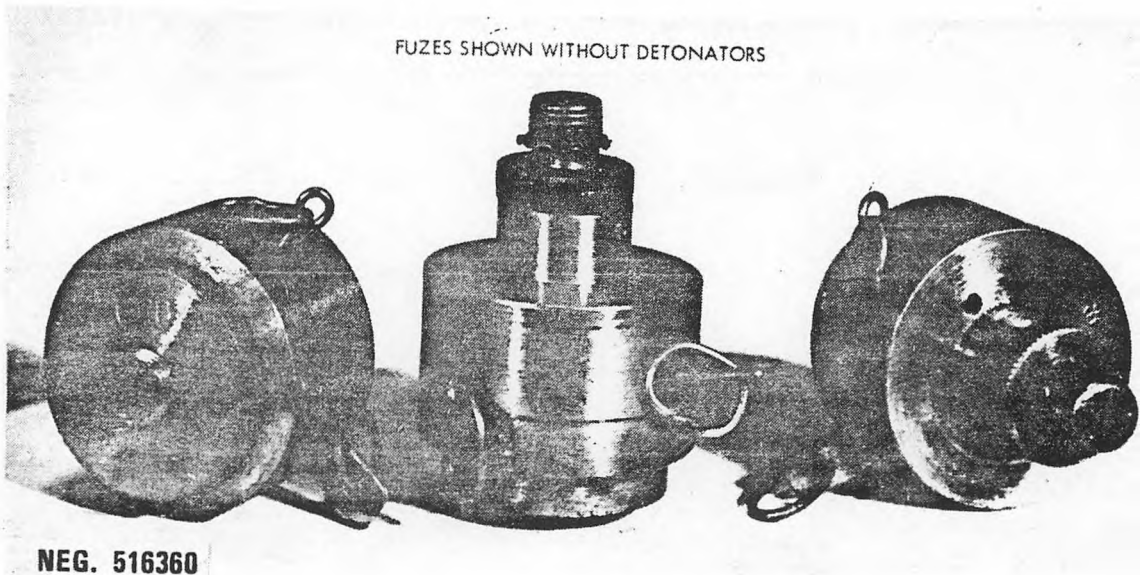
NOMEN: FUZE MINE PRESSURE/PULL UNIVERSAL, MODEL 4 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: PRC
PRODUCED/ADOPTED: ???

DATE UPDATED: 28JAN77
COUNTRY: (PRC)

(U)THE CHINESE COMMUNIST PRESSURE/PULL FUZE HAS A CYLINDRICAL BRASS CASE ENCLOSING A STRIKER-RETAINING PIN, A STRIKER, A STRIKER SPRING, AND A SAFETY PIN. AFTER INSTALLATION OF THE DETONATOR AND REMOVAL OF THE SAFETY PIN, THE FUZE IS ACTIVATED EITHER BY SUFFICIENT PRESSURE EXERTED ON THE TOP TO SHEAR THE STRIKER-RETAINING PIN OR BY A PULL OF FROM 10 TO 50 POUNDS ON THE PIN RING. THE AMOUNT OF FORCE REQUIRED FOR ACTIVATION CAN BE ADJUSTED BY A THREADED BOLT IN THE TOP OF THE CASE. THIS FUZE IS USED WITH THE CHINESE NO. 4 DUAL PURPOSE MINE.



DATE CATALOGED: 01APR67
VOLUME 06

U N C L A S S I F I E D

PAGE 241

U N C L A S S I F I E D

FOM-1390-5-5-1-A

NOMEN: FUZE MINE PRESSURE/PULL UNIVERSAL, MODEL 4 (U)

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ?/?

COUNTRY: (PRC)

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- PRC

BOOSTER:

BODY MATERIAL ----- N/A

BODY LENGTH (MM) -- N/A

FILLER MATERIAL ---- N/A

FILLER WEIGHT (G) - N/A

PERFORMANCE:

ARMING DISTANCE(M)-- N/A

ARMING TIME ----- N/A

SELF-DESTRUCT TIME N/A

DELAY TIME ----- N/A

MIN TIME SETTING -- ?

MAX TIME SETTING -- ?

USING PROJECTILES: -- N/A

USING WEAPONS: ----- MINE, DUAL PURPOSE, NO.4

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- MECHANICAL (PRESSURE/PULL

MODEL ----- ?

BODY MATERIAL ----- BRASS

LENGTH OVERALL (MM) -- 66.5

LENGTH EXPOSED (MM) -- ?

MAXIMUM DIAMETER (MM)- 44.5

MAJ THREAD DIAM (MM) - ?

THREAD PITCH (METRIC)- ?

WEIGHT COMPLETE (G) -- ?

MARKINGS ----- ?

FUNCTIONAL DATA:

ARMING METHOD ----- INSTALLING-DETONATOR

SELF-DESTR METHOD ---- NONE

TYPE SAFETY DEVICE --- PIN

REMARKS:

DATE CATALOGED: 01APR67

VOLUME 06 PAGE 242

FOM-1390-6-1-1-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, PI, MODEL Z-21 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ?

DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: 1954??

COUNTRY: CZECHOSLOVAKIA

(U)THE CZECHOSLOVAK Z-21 IS A SETBACK-ARMED, SUPERQUICK, IMPACT-FIRED FUZE USED AS THE POINT INITIATING PORTION OF A SPITBACK TYPE PIBD FUZING SYSTEM ASSOCIATED WITH HEAT PROJECTILES. IT IS A DIRECT COPY OF THE GERMAN AZ 5095 FUZE. THE Z-21 IS NOT CONSIDERED BORE SAFE BECAUSE OF AN IN-LINE DETONATOR.

(U)PRIOR TO FIRING, THE SAFETY-PIN SEAL IS BROKEN AND THE SAFETY PIN (4) IS REMOVED. ON FIRING, SETBACK CAUSES THE SLEEVE (5) TO MOVE REARWARD OVER THE SAFETY-SPRING SUPPORT (6). THE FOUR ARMS ON THE SLEEVE RETAINER (7) ENGAGE THE ANNULAR GROOVE ON THE INSIDE OF THE SLEEVE AND RETAIN IT IN THE SETBACK POSITION. ALSO ON SETBACK, THE FIRING-PIN ASSEMBLY (1) MOVES TO THE REAR, BUT ONLY AS FAR AS THE SAFETY SPRING (2) WILL PERMIT. THE SAFETY SPRING IS HELD IN POSITION BY THE SAFETY-SPRING SUPPORT. AS SETBACK FORCES DIMINISH AND FORWARD CREEP TAKES PLACE, THE FIRING-PIN ASSEMBLY MOVES FORWARD, RELEASING THE SAFETY SPRING WHICH, IN TURN, MOVES TO THE BODY WALL. THE FIRING-PIN ASSEMBLY IS NOW HELD AWAY FROM THE DETONATOR (8 AND 9) BY THE FIRING-PIN SPRING (3), AND THE FUZE IS ARMED. ON IMPACT OF THE PROJECTILE, THE FIRING-PIN ASSEMBLY IS DRIVEN TO THE REAR, INTO THE DETONATOR CAUSING DETONATION OF THE LEAD AZIDE CHARGE (8) AND IN TURN THE PETN CHARGE (9) WHICH SPITS BACK TO A HEAT SENSITIVE DETONATOR LOCATED IN THE BASE OF THE PROJECTILE.

U N C L A S S I F I E D

FOM-1390-6-1-1-A
NOMEN: FUZE, PI, MODEL Z-21 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77

COUNTRY: CZECHOSLOVAKIA

PRODUCED/ADOPTED: 1954/?

CURRENT STATUS: ----- OBSOLETE

USING COUNTRIES: ----- 006

BOOSTER:

BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT INITIATING
MODEL ----- Z-21
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) -- 55.1
LENGTH EXPOSED (MM) -- 39.3
MAXIMUM DIAMETER (MM)- 29.7
MAJ THREAD DIAM (MM) - 26.9
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 95.2
MARKINGS ----- Z-21

USING PROJECTILES: -- 82 MM, HEAT, T-21

USING WEAPONS: ----- 82-MM RECOILLESS GUN
- MODEL T-21

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- SLEEVE & SAFETY SPRING

REMARKS:

FOM-1390-6-1-1-8
NOMEN: FUZE, PI, MODEL Z-21 (U)
PRODUCED/ADOPTED: 1954??

U N C L A S S I F I E D

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: CZECHOSLOVAKIA

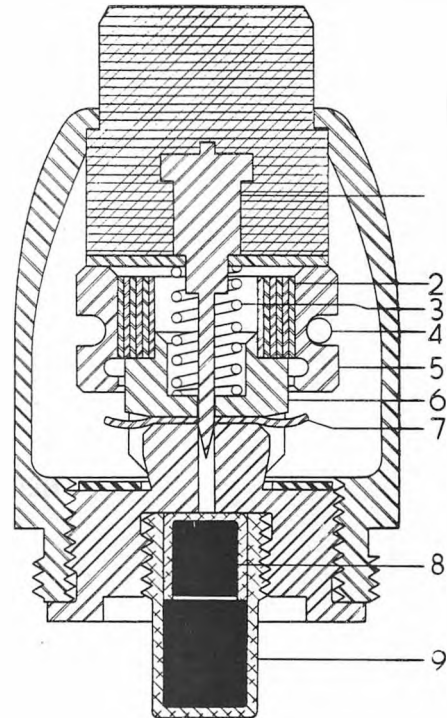
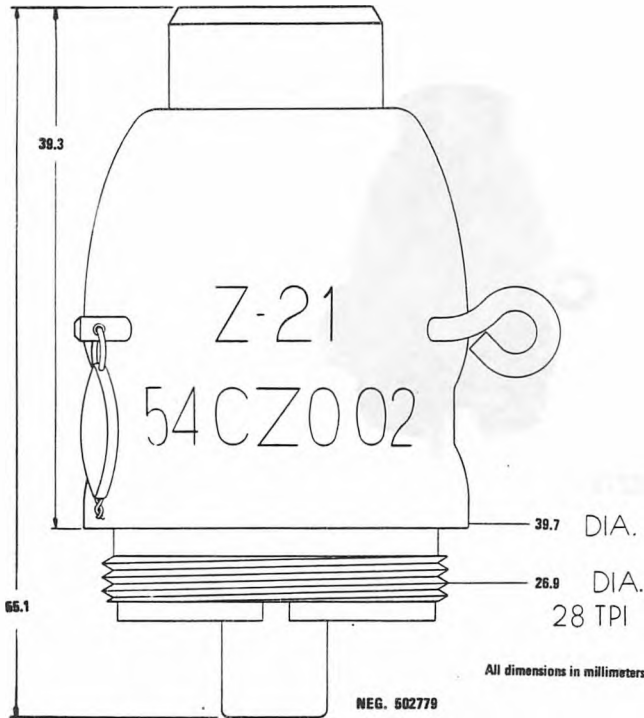


NEG. 502781

UNCLASSIFIED

FOM-1390-6-1-1-B
NOMEN: FUZE, PI, MODEL Z-21 (U)
PRODUCED/ADOPTED: 1954/?

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: CZECHOSLOVAKIA



UNCLASSIFIED

NOMEN: FUZE, POINT-DETONATING, MODEL NZ10-AV (U)

DATE REVIEWED: 01FEB77

NATIVE DES: ?
PRODUCED/ADOPTED: 1953/?DATE UPDATED: 01FEB77
COUNTRY: CZECHOSLOVAKIA

(U)THE CZECHOSLOVAK POINT-DETONATING FUZE MODEL NZ10AV CAN BE SET FOR EITHER INSTANTANEOUS OR DELAYED ACTION. IT CONSISTS OF A STEEL BODY WITH A BRASS-NOSE SHIPPING CAP AND AN ATTACHED BOOSTER. BOTH THE NOSE CAP AND THE UPPER SAFETY-HOLDER HOUSING (5) ARE PROVIDED WITH TOOL SLOTS, INDICATING THAT THE REQUIRED SETTING CAN BE MADE WITH THE NOSE CAP IN PLACE OR REMOVED. FIRING THE FUZE WITH THE NOSE CAP IN PLACE POSSIBLY COULD GIVE AN ADDITIONAL SLIGHT DELAY. THE NOSE CAP IS STAKED TO THE FUZE BODY IN FOUR PLACES, BUT IS EASILY REMOVED WITH THE TOOL THAT FITS THE SETTING SLOTS.

(U)THE LETTERS "Z" AND "O" LOCATED ABOVE THE UPPER SAFETY-HOLDER LOCKING SCREW (7), INDICATE SETTINGS OF "DELAY" OR "INSTANTANEOUS," RESPECTIVELY. TO OBTAIN THE DESIRED SETTING, THE UPPER SAFETY-HOLDER LOCKING SCREW IS LOOSENED AND THE UPPER SAFETY-HOLDER HOUSING IS REVOLVED, LINING UP THE TOOL SLOT WITH EITHER THE "Z" OR THE "O": THE SCREW IS THEN RETIGHTENED. REGARDLESS OF WHICH SETTING IS USED, THE FUZE WILL IGNITE THE DELAY ELEMENT (9). THE FUZE HAS TWO SAFETY FEATURES, BOTH OF WHICH ARE ACTIVATED BY SETBACK FORCES.

(U)FOR INSTANTANEOUS FIRING, THE FIRING-PIN-RETAINER PIN (4) MOVES TO THE REAR ON SETBACK, RELEASING THE FIRING-PIN RETAINER BALL (3). THE FIRING-PIN SPRING (2) THEN MOVES THE FIRING PIN (1) FORWARD, DISENGAGING IT FROM THE PRIMER-HOLDER SLIDER (6). THE PRIMER-HOLDER SLIDER SPRING (NOT SHOWN) THEN MOVES THE PRIMER-HOLDER SLIDER INTO POSITION, ALINING THE PRIMER WITH THE FIRING PIN. THE UPPER SAFETY IS NOW ARMED. ON SETBACK, THE SLEEVE (10) OF THE LOWER SAFETY ELEMENT MOVES TO THE REAR, RELEASING THE SLEEVE-RETAINING BALL (NOT SHOWN). THE SLEEVE SPRING (13) THEN MOVES THE SLEEVE FORWARD AS THE SLEEVE MOVES FORWARD, AN ARM ON THE BOTTOM OF THE SLEEVE ENGAGES AN ARM ON THE RELAY HOLDER (12) WHICH HAS BEEN HELD OUT OF POSITION BY A RELAY-CHARGE HOLDER BALL (NOT SHOWN) AND MOVES THE RELAY HOLDER INTO POSITION. THE FUZE IS NOW FULLY ARMED. ON IMPACT, THE FIRING PIN PIERCES THE PRIMER, WHICH SPITS DOWN THROUGH THE FLASHTUBE (8) IGNITING THE RELAY CHARGE (11). THE RELAY INITIATES THE BOOSTER LEAD (14) WHICH IN TURN INITIATES THE BOOSTER (15).

(U)FOR DELAY ACTION, FUNCTIONING IS THE SAME, EXCEPT THAT THE FLASHTUBE IS BLOCKED, AND THE PRIMER IGNITES THE DELAY ELEMENT, WHICH, IN TURN, IGNITES THE RELAY, INITIATING THE BOOSTER LEAD AND BOOSTER.

U N C L A S S I F I E D

FOM-1390-6-1-2-A
 NOMEN: FUZE, POINT-DETONATING, MODEL NZ10-AV (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 01FEB77
 DATE UPDATED: 01FEB77

PRODUCED/ADOPTED: 1953/?

COUNTRY: CZECHOSLOVAKIA

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- CZECHOSLOVAKIA

BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- 20.3
 FILLER MATERIAL ---- PE TN
 FILLER WEIGHT (G) - 11.6

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
 MODEL ----- NZ 10 AV
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 115.5
 LENGTH EXPOSED (MM) -- 70.4
 MAXIMUM DIAMETER (MM)- 39.6
 MAJ THREAD DIAM (MM) - 35.8
 THREAD PITCH (METRIC)- 2.50 MM
 WEIGHT COMPLETE (G) -- 527
 MARKINGS ----- NZ 10 AV

ARMING DISTANCE(M)- 1.5
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME NONE
 DELAY TIME ----- ?
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- 100-MM HE, JOF

USING WEAPONS: ----- 100-MM FIELD GUN K53
 - ASSAULT GUN M1944

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- EXPLOSIVE TRAIN

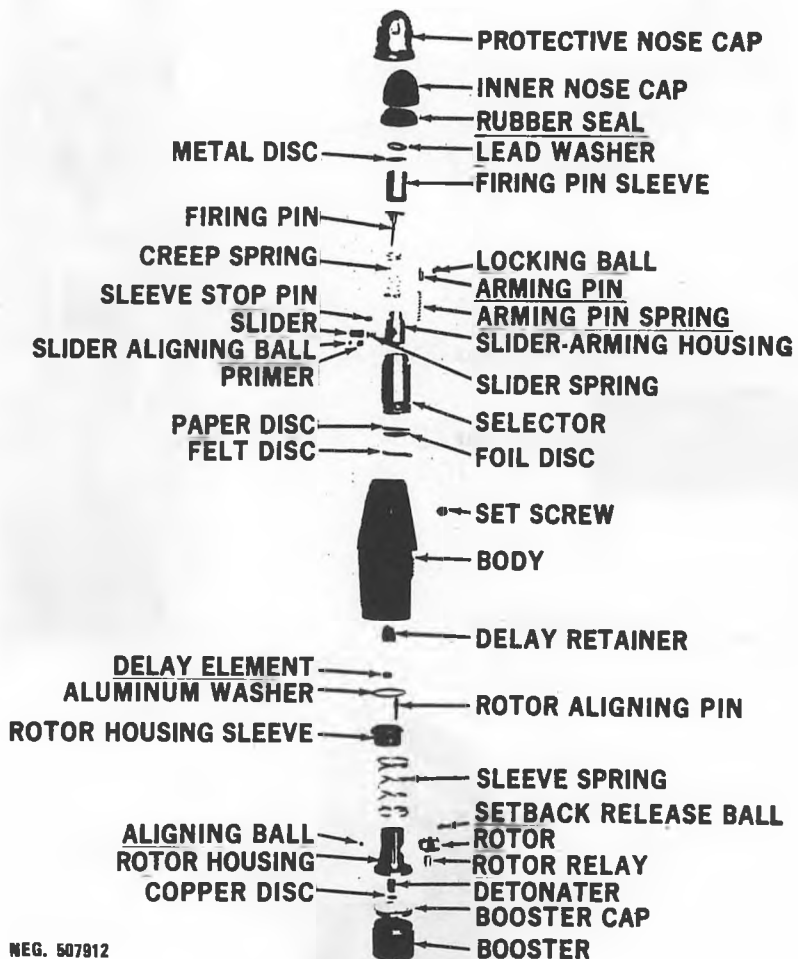
REFERENCES: -----

REMARKS:

UNCLASSIFIED

FOM-1390-6-1-2-B
NOMEN: FUZE, POINT-DETONATING, MODEL NZ10-AV (U)
PRODUCED/ADOPTED: 1953/??

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77
COUNTRY: CZECHOSLOVAKIA

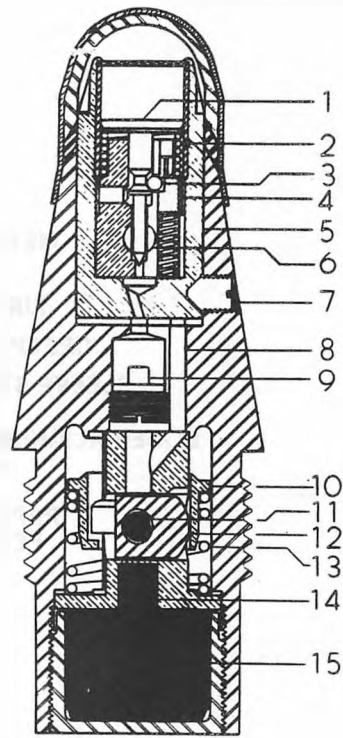
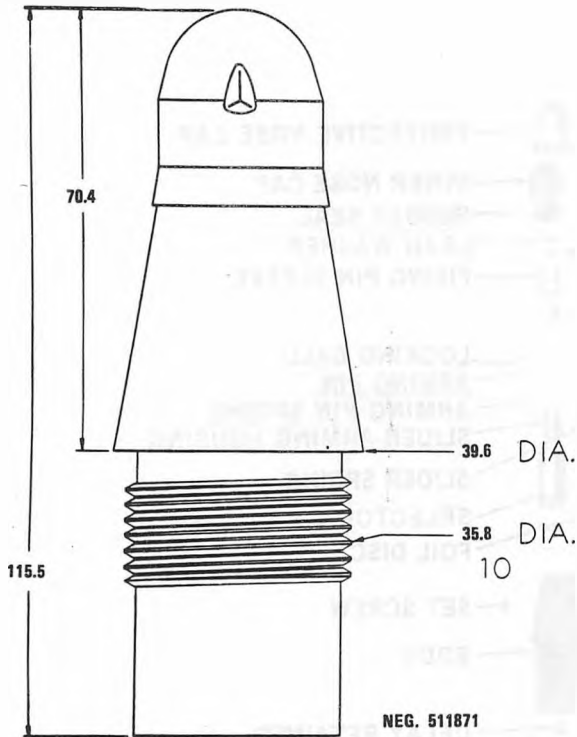


NEG. 507812

UNCLASSIFIED

FOM-1390-6-1-2-B
NOMEN: FUZE, POINT-DETONATING, MODEL NZ10-AV (U)
PRODUCED/ADOPTED: 1953/?

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77
COUNTRY: CZECHOSLOVAKIA



NEG. 511870

DATE CATALOGED: 01MART2
VOLUME 06 PAGE 250

UNCLASSIFIED

NOMEN: FUZE, PIBD, MODEL NZ-42 (U)

DATE REVIEWED: 01FEB77

NATIVE DES: ?
PRODUCED/ADOPTED: ??/1963DATE UPDATED: 01FEB77
COUNTRY: CZECHOSLOVAKIA

(U)DESCRIPTION. THE NZ-42 FUZE IS A POINT-INITIATING, BASE-DETONATING (PIBD) (SPITBACK) FUZE WITH NO PRESETTING OR DELAY. THE ROUNDED PRIMER MAY ALSO BE INITIATED BY GRAZE CONTACT. THE FUZE BECOMES ARMED WHEN SETBACK FORCES START TO DISSIPATE. THERE ARE NO EXTERNAL SAFETIES; HOWEVER, A SAFETY IS CONTAINED WITHIN THE POINT-INITIATING AND BASE-DETONATING ASSEMBLIES.

(U)DISCUSSION. ACCORDING TO US STANDARDS, THE FUZE IS NOT SAFE TO HANDLE AS IT CONTAINS SENSITIVE INLINE EXPLOSIVES. HOWEVER, THE FUZE CONTAINS SAFETIES WHICH APPEAR TO BE ADEQUATE. THE FUZE IS BORES SAFE, AS IT IS NOT ARMED UNTIL SETBACK FORCES START TO DISSIPATE. THE FUZE IS MOISTURE-PROOFED BY SEALANTS, PLASTIC AND LEAD SEALS.

(U)FUNCTIONING. THE FOLLOWING FUNCTIONING SEQUENCE IS KEYED TO THE FIGURES IN THE ILLUSTRATIONS. WHEN THE CARTRIDGE IS INITIATED, SETBACK FORCES OVERCOME THE RESISTANCE OF THE SAFETIES AND THESE FORCES DISSIPATE, THE FUZE BECOMES ARMED. SETBACK FORCES AFFECT THE POINT-INITIATING ASSEMBLY AS FOLLOWS: THE SETBACK COLLAR (3) MOVES REARWARD, COMPRESSING THE SETBACK SPRING (7); AS THE COLLAR MOVES REARWARD THE LOCKING BALL (5) FALLS FREE, RELEASING THE CARRIER ASSEMBLY (6); AS IT MOVES REARWARD IT COMPRESSES THE CARRIER SPRING (8). AS SETBACK FORCES DISSIPATE, THE COLLAR AND CARRIER ARE FREE TO MOVE FORWARD WITH THE HELP OF THE SPRINGS. THE POINT-INITIATING ASSEMBLY IS NOW IN THE ARMED POSITION.

(U)SETBACK FORCES AFFECT THE BASE-DETONATING ASSEMBLY AS FOLLOWS: THE SETBACK COLLAR MOVES REARWARD, COMPRESSING THE SPRING ALONG THE PLUNGER GUIDE SLEEVE UNTIL THE PLUNGER END CAP IS FORCED OFF THE PLUNGER, RELEASING THE PLUNGER. AS SETBACK FORCES DISSIPATE, THE PLUNGER MOVES FORWARD AS THE PLUNGER SPRING EXPANDS. THE BASE-DETONATING ASSEMBLY IS NOW IN THE ARMED POSITION. AS THE PROJECTILE CONTACTS THE TARGET, THE POINT-INITIATING AND BASE-DETONATING ASSEMBLIES ARE AFFECTED SIMULTANEOUSLY. THE POINT-INITIATING CARRIER IS THROWN FORWARD, AND THE PRIMER IS INITIATED AS IT STRIKES THE NOSE SPIKE HOUSING. THE PRIMER INITIATES THE FLASH EXPLOSIVE IN THE RETAINER, WHICH FLASHES THROUGH THE HOLE IN THE SHAPED-CHARGE CONE EXTENSION. SIMULTANEOUSLY, THE BASE-DETONATING PLUNGER ASSEMBLY IS THROWN FORWARD INTO THE BOOSTER PELLET AREA. THE FLASH THROUGH THE CONE EXTENSION FLASHES THROUGH THE PLASTIC SEAL, INITIATING THE DETONATOR WHICH IN TURN, INITIATES THE BOOSTER PELLET. THE BOOSTER PELLET INITIATES THE HIGH-EXPLOSIVE CHARGE, CAUSING COLLAPSE OF THE SHAPED-CHARGE LINER AND SUBSEQUENT FORMATION OF THE JET; BLAST AND FRAGMENTATION OF THE PROJECTILE BODY ALSO OCCURS. THE FUZE MAY BE ACTUATED THROUGH GRAZE OR DIRECT CONTACT, SINCE THE PRIMER HAS A CONICAL FRONTAL SURFACE PROVIDING CONTACT FROM ALMOST ANY ANGLE.

U N C L A S S I F I E D

FOM-1390-6-1-14-A
 NOMEN: FUZE, PIBD, MODEL NZ-42 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 01FEB77
 DATE UPDATED: 01FEB77

PRODUCED/ADOPTED: ?/1963

COUNTRY: CZECHOSLOVAKIA

CURRENT STATUS: -----	--- POINT INITIATING ---	----- BASE DETONATING -----
FUZE ASSEMBLY COMPLETE:	STANDARD	STANDARD
TYPE -----	POINT INITIATING	BASE DETONATING
MODEL -----	NZ-42	NZ-42
BODY MATERIAL -----	ALUMINUM	STEEL
LENGTH OA (MM) -----	97	64
MAX DIAMETER (MM) ----	29	40
MAJ THREAD DIAM (MM)-	25	N/A
WEIGHT COMPLETE (G) - ?		?
ARMING VANES - NO ----	N/A	N/A
MARKINGS -----	NZ-42	NONE

FUNCTIONAL DATA:	
ARMING METHOD ----	SETBACK
SELF-DESTR	
METHOD -----	N/A
TYPE SAFETY DVC -	CARRIER BLOCK
	DETONATOR SAFETY

BOOSTER:	
BODY MATERIAL ----	N/A
BODY LENGTH (MM)-	N/A
FILLER MATERIAL -	N/A
FILLER WT (G) ----	N/A
	STEEL
	40
	PETN
	4.5

PERFORMANCE:	
ARMING DISTANCE -	100 METERS *1
ARMING TIMING ----	N/A
VANE REVOLUTIONS	
TO ARM -----	N/A
SELF-DESTR TIME -	N/A
DELAY TIME ----	N/A

USING PROJECTILES: -	100-MM HEAT-FS CTG JPRSV	N/A
----------------------	--------------------------	-----

USING WEAPONS: -----	K-53 FIELD GUN	N/A
	- SHK-44 ASSAULT GUN	N/A
	- ALL SOVIET 100-MM TANK,	N/A
	- FIELD, AND ASSAULT GUNS	N/A
	-	N/A
	-	N/A

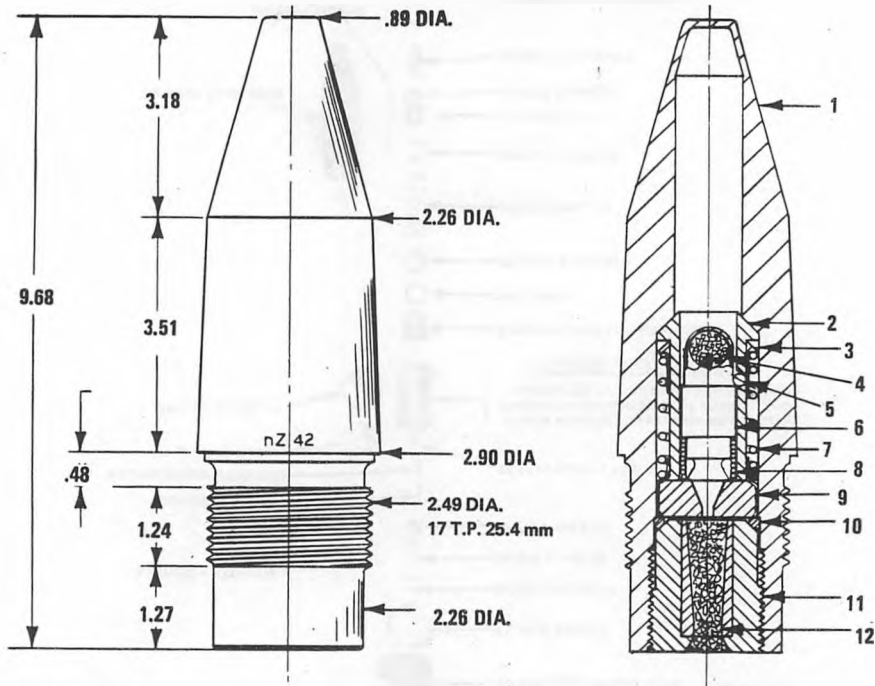
REMARKS:
 1/ FUZE WILL FUNCTION ON 2-MM THICKNESS
 OF SHEET METAL. FUZE RELIABILITY IS GOOD
 UP TO 1500 METERS; BEYOND THAT RANGE

IT MAY NOT FUNCTION RELIABLY AGAINST SOFT TARGETS.

FOM-1390-6-1-14-B
 NOMEN: FUZE, PIBD, MODEL NZ-42 (U)
 PRODUCED/ADOPTED: ?/1963

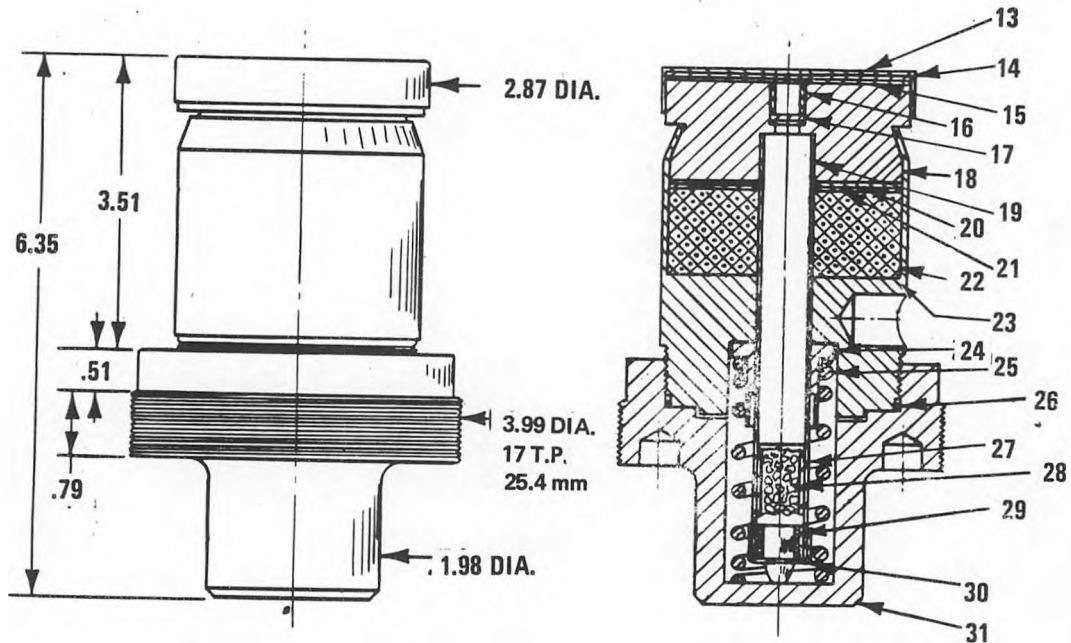
UNCLASSIFIED

CATALOG: TB-381-5-06
 DATE REVIEWED: 01FEB77
 DATE UPDATED: 01FEB77
 COUNTRY: CZECHOSLOVAKIA



NEG 516193

ALL DIMENSIONS IN MILLIMETERS

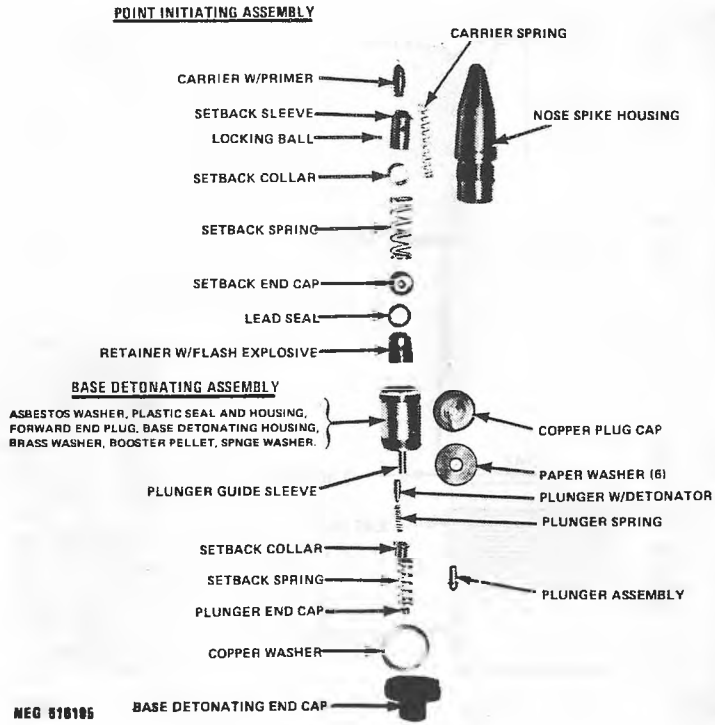


NEG 516194

ALL DIMENSIONS IN MILLIMETERS

FOM-1390-6-1-14-B
NOMEN: FUZE, PIRD, MODEL NZ-42 (U)
PRODUCED/ADOPTED: ??/1963

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77
COUNTRY: CZECHOSLOVAKIA



FOM-1390-6-5-1-A

CATALOG: TB-381-5-06

NOMEN: FUZE, MINE, PRESSURE, MODEL RO-8 (U)

DATE REVIEWED: 01FEB77

NATIVE DES: ?

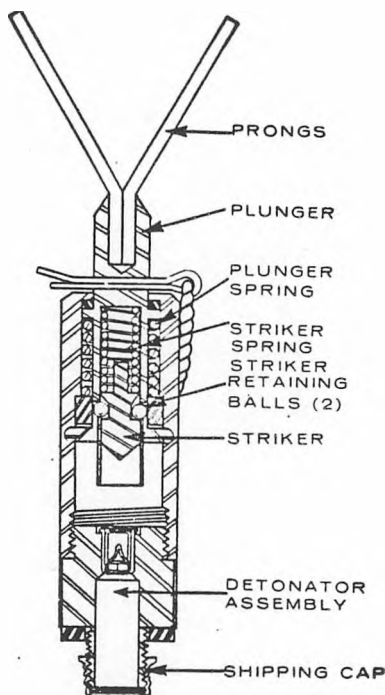
DATE UPDATED: 01FEB77

PRODUCED/ADOPTED: ???

COUNTRY: CZECHOSLOVAKIA

(U)THE CZECHOSLOVAK MODEL RO-8 PRESSURE FUZE, SIMILAR TO THE US M605 MINE FUZE, IS DESIGNED FOR USE WITH THE MODEL PP MI-SR BOUNDING, FRAGMENTATION-TYPE ANTIPERSONNEL MINE. A PRESSURE OF APPROXIMATELY 4.5-KG APPLIED TO EITHER PRONG OVERCOMES THE RESISTANCE OF THE PLUNGER SPRING, MOVING THE FIRING MECHANISM DOWNWARD. WHEN THIS MECHANISM HAS MOVED .318 CM, THE STRIKER RETAINING BALLS MOVE PAST THE STRIKER RETAINER, DISENGAGING THE STRIKER, AND ALLOWING THE STRIKER SPRING TO DRIVE THE STRIKER INTO THE PRIMER OF THE DETONATOR ASSEMBLY.

(U)SIX FUZES ARE PACKED IN A CARDBOARD CARTON, AND 15 DETONATORS ARE PACKED IN A WOODEN BOX AND PLACED INSIDE THE CARTON.



NEG. 516219

U N C L A S S I F I E D

FOM-1390-6-5-1-A
 NOMEN: FUZE, MINE, PRESSURE, MODEL RO-8 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 01FEB77
 DATE UPDATED: 01FEB77

PRODUCED/ADOPTED: ???

COUNTRY: CZECHOSLOVAKIA

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- CZECHOSLOVAKIA

BODY MATERIAL ----- N/A
 BODY LENGTH (MM) --- N/A
 FILLER MATERIAL --- N/A
 FILLER WEIGHT (G) - N/A

FUZE ASSEMBLY COMPLETE:

PERFORMANCE:

TYPE ----- MECHANICAL
 MODEL ----- RO-8
 BODY MATERIAL ----- METAL
 LENGTH OVERALL (MM) -- 107.9
 LENGTH EXPOSED (MM) -- ?
 MAXIMUM DIAMETER (MM)- 17.7
 MAJ THREAD DIAM (MM) - N/A
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- 63.3
 MARKINGS ----- RO-8

ARMING DISTANCE(M)- N/A
 ARMING TIME ----- N/A
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- N/A

USING WEAPONS: ----- ANTIPERSONNEL MINES

FUNCTIONAL DATA:

REFERENCES: -----

ARMING METHOD ----- *1
 SELF-DESTR METHOD ----- NONE
 TYPE SAFETY DEVICE --- PIN

REMARKS:
 1/ REMOVING SAFETY PIN-INSTALLING
 DETONATOR

NOMEN: FUZE, MINE PULL MODEL RO-1 (U)

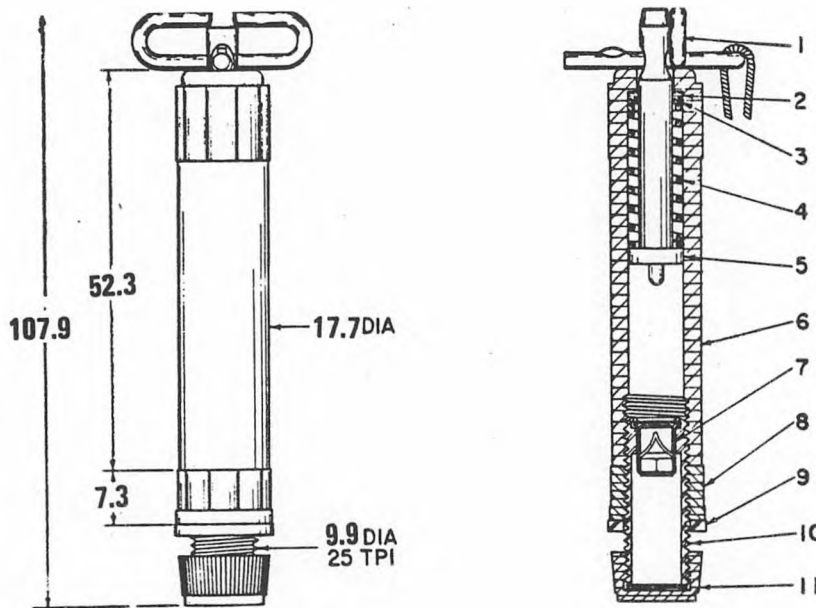
DATE REVIEWED: 01FEB77

NATIVE DES: ?
 PRODUCED/ADOPTED: ???

DATE UPDATED: 01FEB77
 COUNTRY: CZECHOSLOVAKIA

(U) THE CZECHOSLOVAK PULL-TYPE FUZE MODEL RO-1 CONSISTS OF A SPRING STRIKER RETAINED IN A SAFE POSITION BY A SAFETY PIN. THE COMPRESSED SPRING AND STRIKER ARE HOUSED INSIDE A PLASTIC BODY. WHEN THE SAFETY PIN IS REMOVED, THE SPRING DRIVES THE STRIKER INTO A PERCUSSION PRIMER, WHICH INITIATES THE FIRING TRAIN.

(U) A FUZE OF THIS TYPE IS IDEAL FOR USE IN BOOBYTRAP DEVICES AND ANTIPERSONNEL MINES.



FUZE, PULL TYPE, MODEL RO-1, FOR LAND MINES, CZECHOSLOVAKIA
 NEG. 516213

U N C L A S S I F I E D

FOM-1390-6-5-2-A
NOMEN: FUZF, MINE PULL MODEL RO-1 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77

COUNTRY: CZECHOSLOVAKIA

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- STANDARD

BOOSTER:

BODY MATERIAL ----- PLASTIC
BODY LENGTH (MM) -- 89.7
FILLER MATERIAL --- ?
FILLER WEIGHT (G) - 4.6

USING COUNTRIES: ----- CZECHOSLOVAKIA

PERFORMANCE:

ARMING DISTANCE (M)- N/A
ARMING TIME ----- N/A
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- PULL
MODEL ----- RO-I
BODY MATERIAL ----- PLASTIC
LENGTH OVERALL (MM) -- 76.9
LENGTH EXPOSED (MM) -- 52.3
MAXIMUM DIAMETER (MM)- 13.2
MAJ THREAD DIAM (MM) - 9.9
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 350
MARKINGS ----- ?

USING PROJECTILES: -- N/A

USING WEAPONS: ----- LAND MINES.

REFERENCES: ----- N/A

FUNCTIONAL DATA:

ARMING METHOD ----- ?
SELF-DESTR METHOD ---- ?
TYPE SAFETY DEVICE --- SAFETY PIN

REMARKS:

FOM-1390-6-5-3-A

U N C L A S S I F I E D

CATALOG: T8-381-5-06

NOMEN: FUZE MINE PRESSURE MODEL RO-7-11 (U)

DATE REVIEWED: 28JAN77

NATIVE DES: ?

DATE UPDATED: 28JAN77

PRODUCED/AADOPTED: ???

COUNTRY: CZECHOSLOVAKIA

{U}THE CZECHOSLOVAK MODEL RO-7-11 PLASTIC PRESSURE FUZE WAS DESIGNED FOR USE WITH THE PT MI-BA AND PT MI-D ANTITANK MINES. A PLASTIC CAP, ALONG THE LOWER EDGE OF WHICH IS A SHEER POINT, IS CEMENTED TO THE BODY. THE STRIKER POINT AND THE HELICAL STRIKER SPRING ARE THE ONLY METAL PARTS OF THE FUZE. PRESSURE ON THE CAP CAUSES THE SHEAR POINT TO FAIL, COMPRESSING THE STRIKER SPRING WHICH DRIVES THE STRIKER FORWARD TO RUPTURE THE STRIKER SHEAR COLLAR.

{U}TWELVE FUZES ARE PACKED IN A CARDBOARD BOX, AND 26 SUCH BOXES ARE PACKED IN AN AMMUNITION BOX.

DATE CATALOGED: 01DEC71
VOLUME 06

U N C L A S S I F I E D

PAGE 259

U N C L A S S I F I E D

FOM-1390-6-5-3-A

NOMEN: FUZE MINE PRESSURE MODEL RO-7-11 (U)

CATALOG: TB-381-5-06

DATE REVIEWED: 28JAN77

DATE UPDATED: 28JAN77

PRODUCED/ADOPTED: ???

COUNTRY: CZECHOSLOVAKIA

CURRENT STATUS: ----- STANDARD

BOOSTER:

BODY MATERIAL ----- N/A

BODY LENGTH (MM) -- N/A

FILLER MATERIAL ----- N/A

FILLER WEIGHT (G) - N/A

USING COUNTRIES: ----- CZECHOSLOVAKIA

PERFORMANCE:

ARMING DISTANCE(M)- N/A

ARMING TIME ----- N/A

SELF-DESTRUCT TIME N/A

DELAY TIME ----- N/A

MIN TIME SETTING -- N/A

MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- MECHANICAL

MODEL ----- RO-7-11

BODY MATERIAL ----- PLASTIC

LENGTH OVERALL (MM) -- 88.9

LENGTH EXPOSED (MM) -- ?

MAXIMUM DIAMETER (MM)- 30.2

MAJ THREAD DIAM (MM) - ?

THREAD PITCH (METRIC)- ?

WEIGHT COMPLETE (G) -- ?

MARKINGS ----- ?

USING PROJECTILES: -- N/A

USING WEAPONS: ----- MINES, ANTIANK

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- INSTALLING DETONATOR

SELF-DESTR METHOD ----- NONE

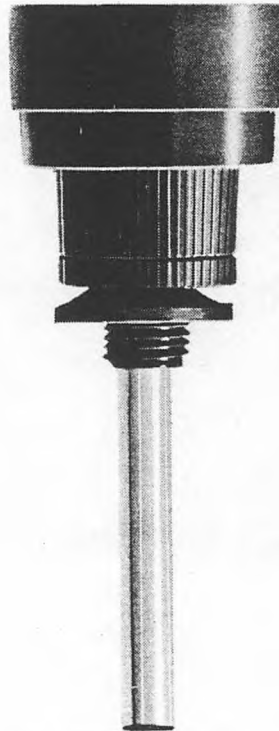
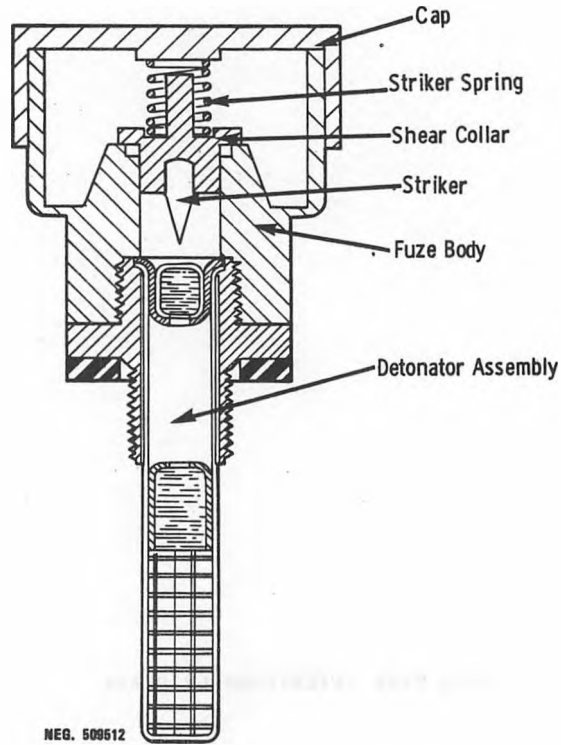
TYPE SAFETY DEVICE -- NONE

REMARKS:

U N C L A S S I F I E D

FOM-1390-6-5-3-B
NOMEN: FUZE MINE PRESSURE MODEL RO-7-11 (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: CZECHOSLOVAKIA



DATE CATALOGED: 01DEC71
VOLUME 06

U N C L A S S I F I E D

U N C L A S S I F I E D

(FOM-1390-6-5-3-B
NOMEN: FUZE MINE PRESSURE MODEL RO-7-11 (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 28JAN77
DATE UPDATED: 28JAN77
COUNTRY: CZECHOSLOVAKIA

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01DEC71
VOLUME 06 PAGE 262

U N C L A S S I F I E D

FOM-1390-6-5-4-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, MINE PULL MODEL ? (U)

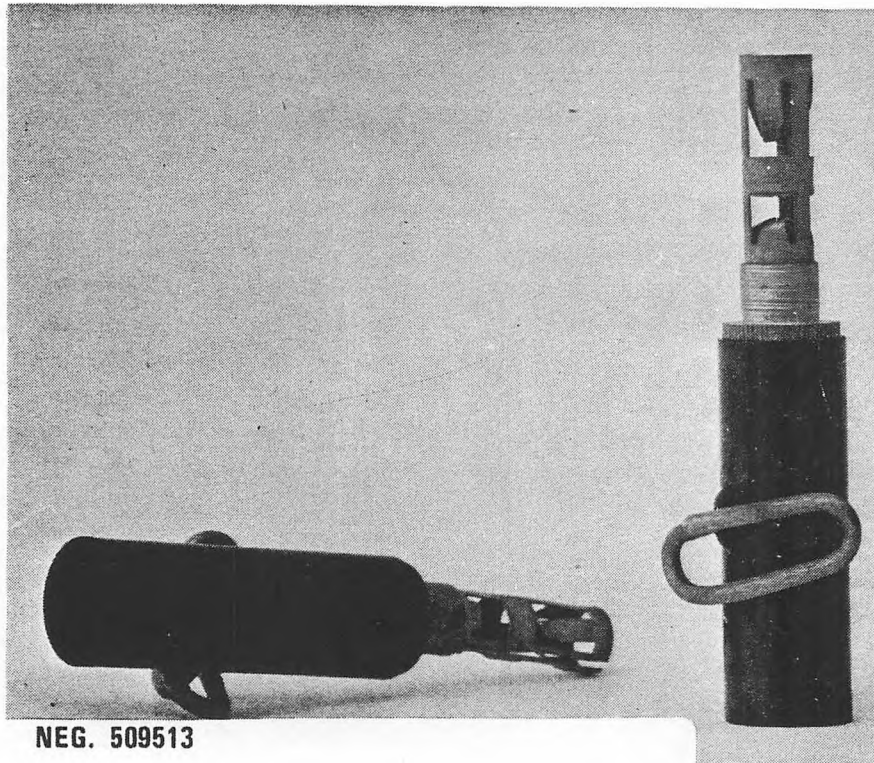
DATE REVIEWED: 01FEB77

NATIVE DES: ?
PRODUCED/ADOPTED: ???

DATE UPDATED: 01FEB77
COUNTRY: CZECHOSLOVAKIA

(U) THIS SMALL, BAKELITE PULL FUZE IS IDEAL FOR USE IN BOOBYTRAPS, SMALL EXPLOSIVE CHARGES, OR MINES.

(U) A PULL-RELEASE SAFETY PIN RETAINS A SPRING-LOADED STRIKER UNDER COMPRESSION UNTIL REMOVED BY TRIP-WIRE PULL ACTION. WHEN THE SAFETY PIN IS WITHDRAWN, THE COMPRESSED SPRING DRIVES THE STRIKER INTO A PERCUSSION-TYPE PRIMER WHICH, IN TURN, DETONATES AN EXPLOSIVE CHARGE.



DATE CATALOGED: 01DEC71
VOLUME 06

U N C L A S S I F I E D

PAGE 263

U N C L A S S I F I E D

FOM-1390-6-5-4-A
 NOMEN: FUZE, MINE PULL MODEL ? (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 01FEB77
 DATE UPDATED: 01FEB77
 COUNTRY: CZECHOSLOVAKIA

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- STANDARD

BOOSTER:
 BODY MATERIAL ----- ?
 BODY LENGTH (MM) -- ?
 FILLER MATERIAL --- ?
 FILLER WEIGHT (G) - ?

USING COUNTRIES: ----- CZECHOSLOVAKIA

PERFORMANCE:
 ARMING DISTANCE(M)- N/A
 ARMING TIME ----- N/A
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- ?
 MODEL ----- ?
 BODY MATERIAL ----- BAKELITE
 LENGTH OVERALL (MM) -- 66.8
 LENGTH EXPOSED (MM) -- ?
 MAXIMUM DIAMETER (MM)- 14.2
 MAJ THREAD DIAM (MM) - ?
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- 13
 MARKINGS ----- NONE

USING PROJECTILES: -- N/A

USING WEAPONS: ----- BOOBY TRAPS

FUNCTIONAL DATA:

ARMING METHOD ----- N/A
 SELF-DESTR METHOD ---- N/A
 TYPE SAFETY DEVICE --- PULL PIN

REFERENCES: ----- N/A

REMARKS:

U N C L A S S I F I E D

FOM-1390-6-5-5-A

CATALOG: TB-381-5-06

NOMEN: FUZE MINE TILROD MODEL ? (U)

DATE REVIEWED: 01FEB77

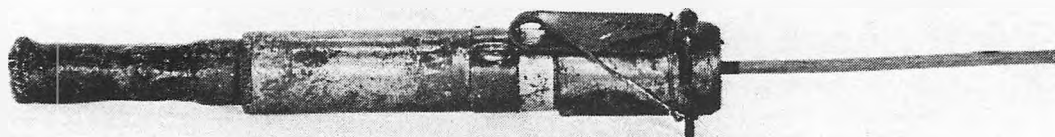
NATIVE DES: ?

DATE UPDATED: 01FEB77

PRODUCED/ADOPTED: ?/?

COUNTRY: CZECHOSLOVAKIA

(U) THIS TILROD FUZE IS NORMALLY USED IN HEAVY, ANTITANK, PLATE-CHARGE MINES. WHEN INSTALLED IN A MINE OR CHARGE, THE PULL-TAB RETAINING WIRE AND THE SAFETY FORK ARE REMOVED. THE FUZE IS THEN ARMED AND EXTREMELY SENSITIVE, AND SHOULD BE HANDLED ACCORDINGLY. WHEN LATERAL PRESSURE IS APPLIED TO THE TILROD, SUFFICIENT TO MOVE IT 12 TO 15 DEGREES OFF CENTER, THE LOCKING-BALL RETAINING PIN IS RELEASED AND MOVED FORWARD BY THE RETAINING PIN SPRING. THE LOCKING BALL, WHICH IS NOW FREE, MOVES INTO A RECESS, RELEASING THE SPRING-LOADED FIRING PIN; THE PIN IS DRIVEN INTO THE PRIMER, INITIATING THE FIRING TRAIN.



NEG. 509522

DATE CATALOGED: 01JUL68
VOLUME 06

U N C L A S S I F I E D

PAGE 265

U N C L A S S I F I E D

FOM-1390-6-5-5-A
NOMEN: FUZE MINE TILROD MODEL ? (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77
COUNTRY: CZECHOSLOVAKIA

PRODUCED/ADOPTED: ???
CURRENT STATUS: ----- STANDARD
USING COUNTRIES: ----- CZECHOSLOVAKIA

BOOSTER:
BODY MATERIAL ----- ?
BODY LENGTH (MM) -- ?
FILLER MATERIAL --- ?
FILLER WEIGHT (G) - 9.3

FUZE ASSEMBLY COMPLETE:
TYPE ----- PRESSURE FUZE
MODEL ----- ?
BODY MATERIAL ----- BRASS
LENGTH OVERALL (MM) -- 141.9
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- 11.9
MAJ THREAD DIAM (MM) - 11.9
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 59.5
MARKINGS ----- NONE

PERFORMANCE:
ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME ?
DELAY TIME ----- ?
MIN TIME SETTING -- ?
MAX TIME SETTING -- ?

USING PROJECTILES: -- N/A

USING WEAPONS: ----- N/A

REFERENCES: -----

FUNCTIONAL DATA:
ARMING METHOD ----- TILT-12-15 DEG
SELF-DESTR METHOD ----
TYPE SAFETY DEVICE --- SAFETY FORK

REMARKS:

FOM-1390-6-5-6-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE MINE PRESSURE MODEL RO-5 (U)

DATE REVIEWED: 01FEB77

NATIVE DES: PO-5

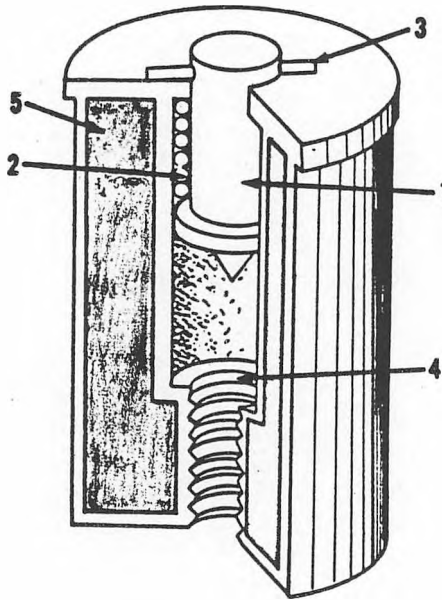
DATE UPDATED: 01FEB77

PRODUCED/ADOPTED: 1962/?

COUNTRY: CZECHOSLOVAKIA

(U)THE PRESSURE MINE FUZE MODEL RO-5 DIFFERS FROM THE RO-9 PRESSURE FUZE (FOM-1390-6-5-7) ONLY IN THAT THE RO-9 HAS AN INTEGRAL BOOSTER CHARGE: THE RO-5 EMPLOYES A SEPARATE BOOSTER CHARGE.

(U)BOTH FUZES EMPLOY A SHEAR PIN TO RETAIN A SPRING-LOADED STRIKER. WHEN SUFFICIENT PRESSURE IS APPLIED TO FORCE THE EXTENDED STRIKER DOWN, THE SHEAR PIN BREAKS, AND THE SPRING-LOADED STRIKER IS DRIVEN INTO THE DETONATOR, INITIATING THE MINE.



NEG. 516215

U N C L A S S I F I E D

FOM-1390-6-5-6-A
NOMEN: FUZE MINE PRESSURE MODEL RO-5 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77

COUNTRY: CZECHOSLOVAKIA

PRODUCED/ADOPTED: 1962/?

CURRENT STATUS: ----- STANDARD

BOOSTER:

BODY MATERIAL ----- ?
BODY LENGTH (MM) -- ?
FILLER MATERIAL --- ?
FILLER WEIGHT (G) - ?

USING COUNTRIES: ----- CZECHOSLOVAKIA

PERFORMANCE:

ARMING DISTANCE (M) - N/A
ARMING TIME ----- N/A
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- PRESSURE FUZE
MODEL ----- ?
BODY MATERIAL ----- METAL
LENGTH OVERALL (MM) -- N/A
LENGTH EXPOSED (MM) -- N/A
MAXIMUM DIAMETER (MM) - 5.0
MAJ THREAD DIAM (MM) - N/A
THREAD PITCH (METRIC) - N/A
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- ?

USING PROJECTILES: --

USING WEAPONS: ----- ANTITANK MINES

FUNCTIONAL DATA:

ARMING METHOD ----- ?
SELF-DESTR METHOD ---- ?
TYPE SAFETY DEVICE --- *1

REFERENCES: ----- N/A

REMARKS:

1/ SEPARATED FROM MINE UNTIL ARMED

FOM-1390-13-1-3-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, POINT DETONATING, MODEL 58 (U)

DATE REVIEWED: 01FEB77

NATIVE DES: ?

DATE UPDATED: 01FEB77

PRODUCED/ADOPTED: 1958/?

COUNTRY: FINLAND

(U)THE MODEL 58 IS A DELAY SETBACK-ARMED, POINT DETONATING, IMPACT-FIRED FUZE. IT IS SHIPPED WITH A PLASTIC CAP (NOT SHOWN IN DRAWING OR PHOTOGRAPH) COVERING THE NOSE. WITH THIS CAP REMOVED, THE FUZE IS SENSITIVE TO IMPACT WITH SNOW OR MUD. FOR ADDITIONAL SAFETY A PULLWIRE IS ALSO USED. THE PULL WIRE, WHICH MUST BE REMOVED BEFORE FIRING, RESTRICTS THE MOTION OF THE DETENT (4), WHICH LOCKS THE SLIDER (8) IN THE UNARMED POSITION SO THAT THE PRIMER (10) IS OUT OF LINE WITH THE FIRING PIN (2). DELAY ARMING IS PROVIDED BY AN ESCAPEMENT MECHANISM.

(U)ON SETBACK, WITH THE PULLWIRE REMOVED, THE DETENT (4) MOVES INTO THE HOLE OF THE SLIDER AND COMPRESSES THE DETENT SPRING (5). THIS PERMITS THE LOCKING BALL (3) TO MOVE OFF THE INCLINED COLLAR OF THE DETENT (4) INTO THE CAVITY (6) OF THE FUZE BODY. THE COMPRESSED DETENT SPRING ON SET FORWARD THEN EXPANDS, MOVING THE DETENT OUT OF THE HOLE OF THE SLIDER (8). THE SLIDER, WHICH IS SPRING LOADED (14), MOVES Laterally WITH ITS MOVEMENT DELAYED BY AN ESCAPEMENT CONSISTING OF A RACK (15) ON THE SLIDER, AND PALLETS (13), AND THE MASS (7). WHEN THE PRIMER (10) IS ALINED WITH THE FIRING PIN (2) THE FUZE IS ARMED. ON IMPACT, THE FIRING PIN IS DRIVEN INTO THE PRIMER, INITIATING THE DETONATOR (11) AND IN TURN THE BOOSTER (12).

U N C L A S S I F I E D

FOM-1390-13-1-3-A
NOMEN: FUZE, POINT DETONATING, MODEL 58 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77

COUNTRY: FINLAND

PRODUCED/ADOPTED: 1958/?

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 013

BOOSTER:

BODY MATERIAL ----- ALUMINUM
BODY LENGTH (MM) -- 21.8
FILLER MATERIAL --- TETRYL ?
FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- ?
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT DETONATING
MODEL ----- 58
BODY MATERIAL ----- BRASS
LENGTH OVERALL (MM) -- 82.6
LENGTH EXPOSED (MM) -- 53.8
MAXIMUM DIAMETER (MM)- 48.3
MAJ THREAD DIAM (MM) - 38.1
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 319.0
MARKINGS ----- NONE

USING PROJECTILES: -- 81 MM HE

USING WEAPONS: ----- 81-MM MORTAR

REFERENCES: -----

FUNCTIONAL DATA:

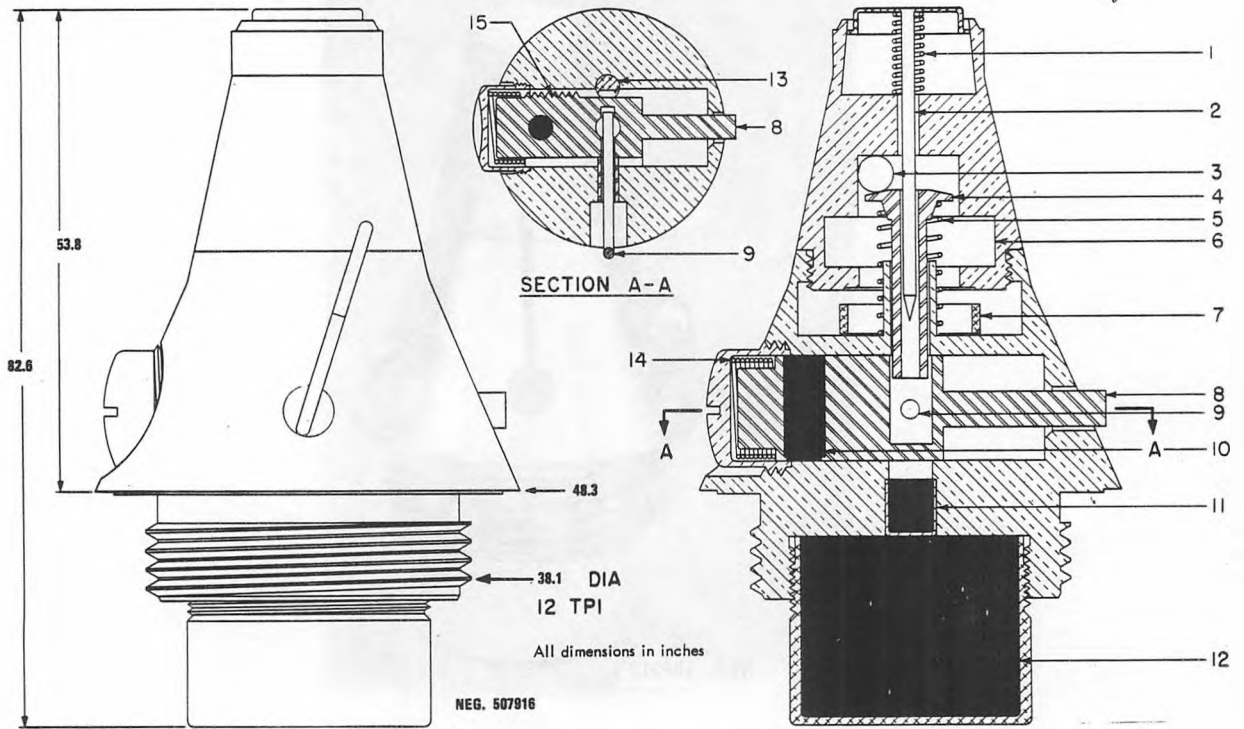
ARMING METHOD ----- SETBACK
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- *1

REMARKS:
1/ OUT-OF-LINE PRIMER

U N C L A S S I F I E D

FOM-1390-13-1-3-B
NOMEN: FUZE, POINT DETONATING, MODEL 58 (U)
PRODUCED/ADOPTED: 1958/?

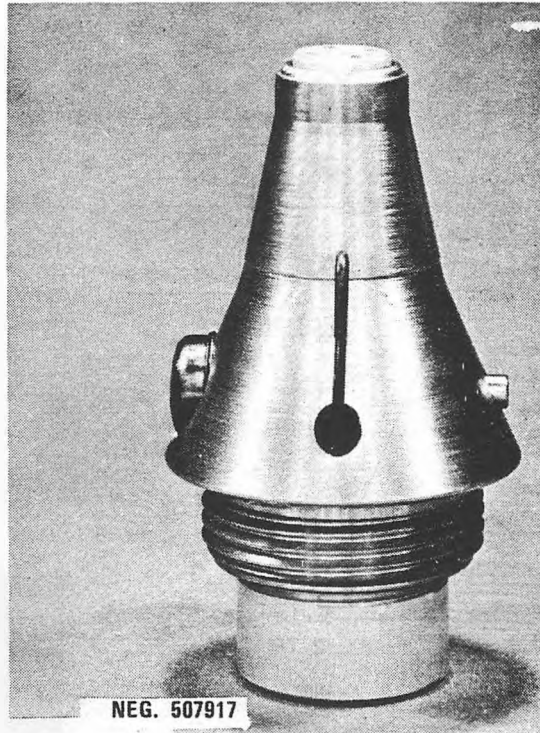
CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77
COUNTRY: FINLAND



U N C L A S S I F I E D

FOM-1390-13-1-3-B/
NOMEN: FUZE, POINT DETONATING, MODEL 58 (U)
PRODUCED/ADOPTED: 1958/?

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77
COUNTRY: FINLAND



DATE CATALOGED: 01JUL66
VOLUME 06 PAGE 272

U N C L A S S I F I E D

NOMEN: FUZE, POINT DETONATING, MODEL 111A1 (U)

DATE REVIEWED: 01FEB77

NATIVE DES: AUFSCHLAGZUNDER DM 111A1
PRODUCED/ADOPTED: ?/?DATE UPDATED: 01FEB77
COUNTRY: WEST GERMANY

(U)THE MODEL 111A1 FUZE MANUFACTURED BY GEBRUDER JUNGHANS IS A SENSITIVE, DELAYED SETBACK-ARMED, POINT-DETONATING FUZE PROVIDING EITHER SUPERQUICK OR DELAYED FUNCTIONING AFTER IMPACT.

(U)DURING HANDLING AND TRANSPORTATION, THE FUZE IS KEPT SAFE BY THE PULLWIRE (11) LOCK ON THE SETBACK PIN (9). WITH THE PULLWIRE REMOVED, THE FUZE IS KEPT IN THE UNARMED CONDITION BY THE RESTRAINING ACTION OF SPRINGS AND THE BALL LOCK (13) ON THE ARMING PIN (12). DETONATOR SAFETY IS ACHIEVED BY KEEPING THE DETONATORS IN THE OUT-OF-LINE POSITION.

(U)BEFORE FIRING, THE PULLWIRE MUST BE REMOVED AND THE FUZE SET FOR SUPERQUICK OR DELAYED ACTION. SELECTION IS MADE BY THE ADJUSTMENT PLUG (3). WHEN THE SLOT IS IN LINE WITH THE "MV" MARKING, A DELAYED ACTION WILL OCCUR. IF THE SLOT IS IN LINE WITH THE "OV" MARKING, A SUPERQUICK ACTION WILL OCCUR.

(U)DELAY ARMING IS ACHIEVED MECHANICALLY WITH A SPRING-DRIVEN GEAR TRAIN AND A RUNAWAY ESCAPEMENT SYSTEM (10). THE SPRING-DRIVEN GEAR OR ROTOR (2) CONTAINS BOTH THE SUPERQUICK DETONATOR (6) AND THE DELAY DETONATOR (15). WHEN SET FOR DELAY, THE ROTATION OF THE ESCAPEMENT PINION (7) DRIVES THE ROTOR WITH THE DELAY DETONATOR INTO POSITION. FOR SUPERQUICK ACTION, THE SHIFT OF THE ADJUSTMENT PLUG PROVIDES A MECHANICAL STOP AND THE PIN (8) STOPS THE ROTOR ALIGNING THE SUPERQUICK DETONATOR WITH THE FIRING PIN.

(U)UPON FIRING SETBACK FORCES MOVES THE SETBACK PIN TO THE REAR, FREEING THE BALL LOCK AND RELEASING THE ARMING PIN UNDETENTING THE ROTOR AND ESCAPEMENT LEVER (16). THE ARMING PIN THEN MOVES DOWN AND IS LOCKED BY THE SPRING (14). DEPENDING ON THE FUZE SETTING, THE ROTOR MOVES THE SUPERQUICK DETONATOR (6) OR DELAY DETONATOR (15) IN LINE WITH THE FIRING PIN. UPON IMPACT THE FIRING PIN (1) IS DRIVEN INTO EITHER THE SUPERQUICK OR DELAY DETONATOR INITIATING THE LEAD CHARGE (4) AND THE BOOSTER (5) RESULTING IN THE DETONATION OF THE PROJECTILE.

U N C L A S S I F I E D

FOM-1390-16-1-2-A
NOMEN: FUZE, POINT DETONATING, MODEL 111A1 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77

PRODUCED/ADOPTED: ???

COUNTRY: WEST GERMANY

CURRENT STATUS: ----- STANDARD

BOOSTER:

BODY MATERIAL ----- ALUMINUM
BODY LENGTH (MM) -- 20.6
FILLER MATERIAL --- TETRYL
FILLER WEIGHT (G) - ?

USING COUNTRIES: ----- 016

PERFORMANCE:

ARMING DISTANCE(M)- 50 M
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- ?
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT DETONATING
MODEL ----- 111A1
BODY MATERIAL ----- ALUMINUM
LENGTH OVERALL (MM) -- 87.4
LENGTH EXPOSED (MM) -- 60.4
MAXIMUM DIAMETER (MM)- 47.0
MAJ THREAD DIAM (MM) - 38.1
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 191.4
MARKINGS ----- *1

USING PROJECTILES: -- 81 MM, HE, DM11
- 120 MM, HE, DM11

USING WEAPONS: ----- 81-MM MORTAR M55
- 120-MM MORTAR AM-50

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- OUT-OF-LINE DETONATORS

REFERENCES: -----

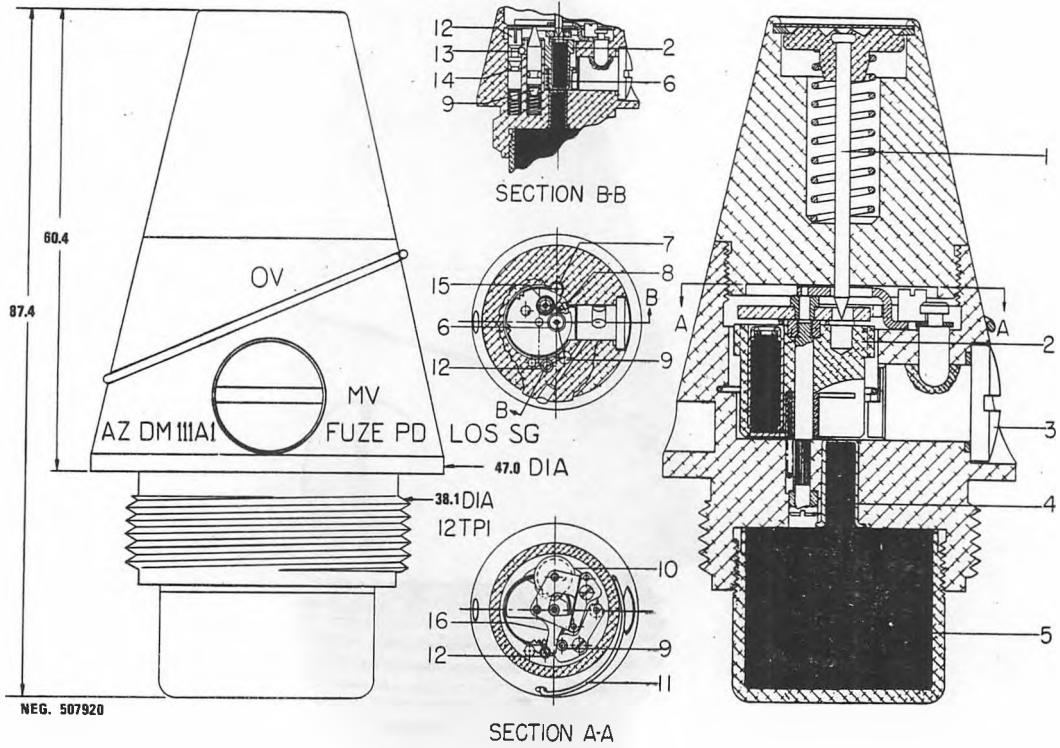
REMARKS:

1/ AZ-DM 111A1 FUZE PO LOS SG

UNCLASSIFIED

FOM-1390-16-1-2-B
NOMEN: FUZE, POINT DETONATING, MODEL 111A1 (U)
PRODUCED/ADOPTED: ???

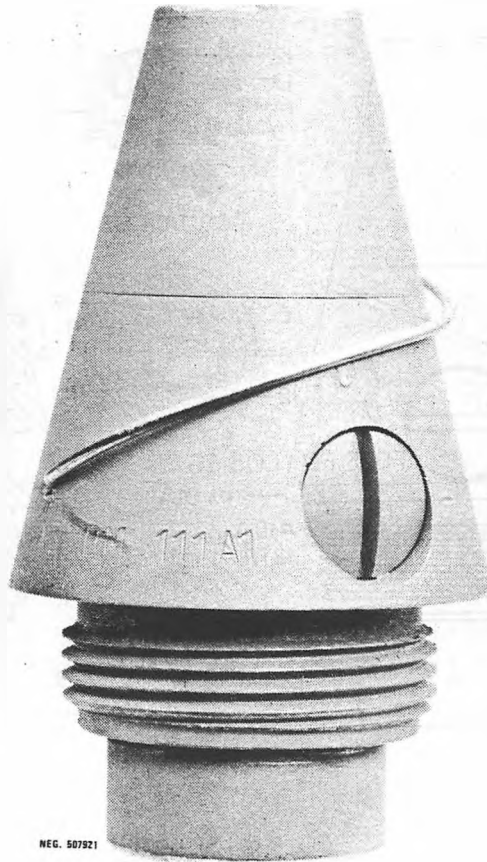
CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77
COUNTRY: WEST GERMANY



U N C L A S S I F I E D

FOM-1390-16-1-2-B
NOMEN: FUZE, POINT DETONATING, MODEL 111A1 (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77
COUNTRY: WEST GERMANY



DATE CATALOGED: 01APR67
VOLUME 06 PAGE 276

U N C L A S S I F I E D

FOM-1390-16-1-3-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, POINT-DETONATING, SELF-DESTROYING, MODEL 141 (U)

DATE REVIEWED: 01FEB77

NATIVE DES: AUFSCHLAGZERLEGERZUNDER DM 141
PRODUCED/ADOPTED: ???

DATE UPDATED: 01FEB77
COUNTRY: WEST GERMANY

(U)THE JUNGHANS MODEL 141 FUZE IS A POINT-DETONATING, SELF-DESTROYING FUZE HAVING A SUPERSENSITIVE IMPACT FEATURE. FUZE SAFETY IS ACHIEVED BY KEEPING THE DETONATOR OUT-OF-LINE WITH THE FIRING PIN (9) AND THE FIRING PIN EXTENSION (2). ARMING AND SELF-DESTRUCTION ARE BOTH CONTROLLED BY A CENTRIFUGALLY LOCKED CLOCK MECHANISM.

(U)UPON FIRING OF THE PROJECTILE, CENTRIFUGAL FORCE DRIVES THE RACK GEAR (14) WHICH, IN TURN, MOVES THE ROTATING SEGMENT (15). THE "D" SHAFT ON THIS SEGMENT RELEASES THE ROTOR (10), PERMITTING IT TO ROTATE UNDER THE FIRING PIN. THE ROTOR IS LOCKED IN THE ARMED POSITION BY A BALL DETENT. WHEN THE RACK HAS COMPLETED ITS TRAVEL, SEGMENT (7) ROTATES INTO THE VACATED SPACE, FREEING THE FIRING PIN DETENT (6). BOTH THE RACK AND THE CENTRIFUGAL GEAR (13) DRIVE THE TIMING MECHANISM, AND THE MOTION OF BOTH IS REGULATED BY THE TUNED ESCAPEMENT SYSTEM. THE MOVEMENT ESCAPEMENT LOCK (8) IS REMOVED BY CENTRIFUGAL FORCE, UNLOCKING THE ESCAPEMENT LEVER (16).

(U)WHEN THE ROTOR HAS MOVED TO THE ARMED POSITION AND THE FIRING PIN DETENT HAS BEEN UNLOCKED, THE FUZE IS ARMED AND WILL FUNCTION ON IMPACT. IF THE FUZE DOES NOT STRIKE A TARGET WITHIN THE DESIGNED TIME, SELF-DESTRUCTION WILL OCCUR. THIS IS CONTROLLED BY THE CENTRIFUGAL GEAR. PIN (5) ON THE CENTRIFUGAL GEAR FREES SEGMENT (4), PERMITTING IT TO ROTATE AWAY FROM THE FIRING PIN BUSHING (3). THE COMPRESSED SPRING (1) THEN DRIVES THE FIRING PIN INTO THE DETONATOR (11), INITIATING THE BOOSTER (12).

UNCLASSIFIED

FOM-1390-16-1-3-A

NOMEN: FUZE, POINT-DETONATING, SELF-DESTROYING, MODEL 141 (U)

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 016

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT, SELF-DESTROYING
 MODEL ----- DM 141
 BODY MATERIAL ----- ALUMINUM
 LENGTH OVERALL (MM) -- 67.5
 LENGTH EXPOSED (MM) -- 41.4
 MAXIMUM DIAMETER (MM) -- 25.9
 MAJ THREAD DIAM (MM) -- 21.8
 THREAD PITCH (METRIC) -- 1.00 MM
 WEIGHT COMPLETE (G) -- 63.7
 MARKINGS ----- AZZ-DM-141

FUNCTIONAL DATA:

ARMING METHOD ----- SPIN
 SELF-DESTR METHOD ---- CLOCK MECHANISM
 TYPE SAFETY DEVICE --- OUT-OF-LINE DETONATOR

CATALOG: TB-381-5-06

DATE REVIEWED: 01FEB77

DATE UPDATED: 01FEB77

COUNTRY: WEST GERMANY

BOOSTER:

BODY MATERIAL ----- ALUMINUM
 BODY LENGTH (MM) -- 8.3
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE(M)- 60 TO 100 METERS
 ARMING TIME ----- 0.06 TO 0.1 SEC. APPROX
 SELF-DESTRUCT TIME 6.5 TO 10.5 SEC
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- 40-MM HE

USING WEAPONS: ----- 40-MM AA GUN L/70

REFERENCES: -----

REMARKS:

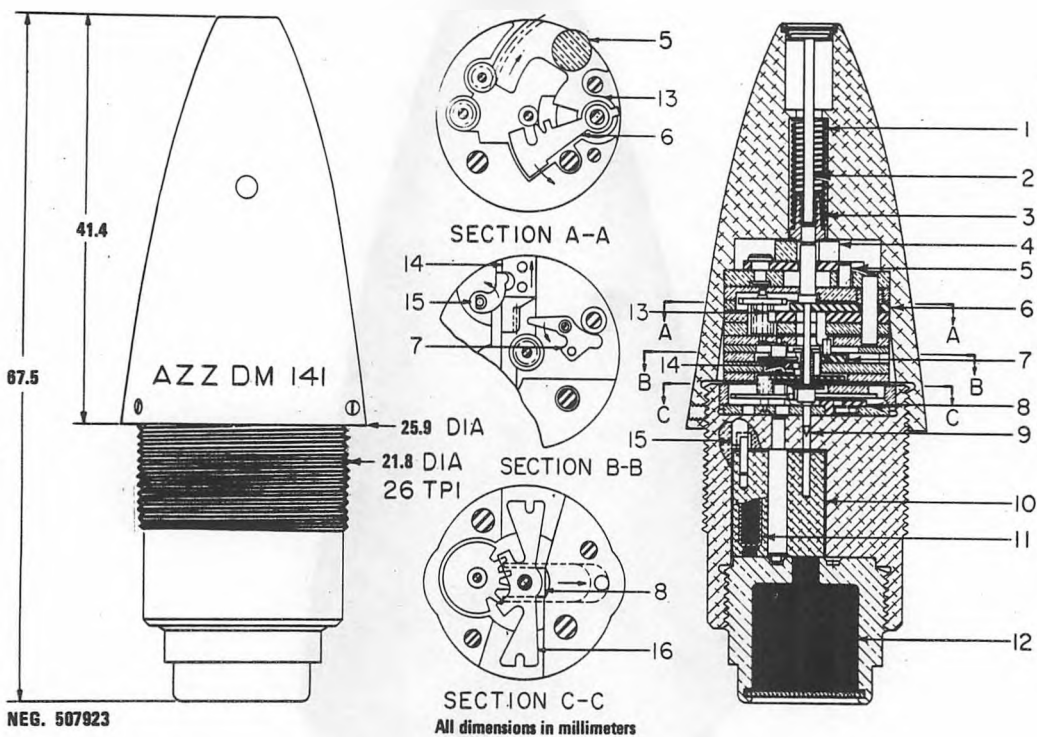
DATE CATALOGED: 01APR67
 VOLUME 06 PAGE 278

UNCLASSIFIED

UNCLASSIFIED

FOM-1390-16-1-3-B
NOMEN: FUZE, POINT-DETONATING, SELF-DESTROYING, MODEL 141 (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77
COUNTRY: WEST GERMANY



U N C L A S S I F I E D

FOM-1390-16-1-3-B
NOMEN: FUZE, POINT-DETONATING, SELF-DESTROYING, MODEL 141 (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77
COUNTRY: WEST GERMANY



NEG. 507924

DATE CATALOGED: 01APR67
VOLUME 06 PAGE 280

U N C L A S S I F I E D

NOMEN: FUZE POINT-DETONATING SELF-DESTROYING MODEL AZZ DM131 (U)

DATE REVIEWED: 01FEB77

NATIVE DES: AUFSCHLAG ZUENDER, ZERLEGER, DM 131
PRODUCED/ADOPTED: ???DATE UPDATED: 01FEB77
COUNTRY: WEST GERMANY

(U) THE WEST GERMAN MODEL AZZ DM131 FUZE FOR 20-MM ROUNDS IS POINT-DETONATING AND SELF-DESTROYING. ALTHOUGH THE DETONATOR (7) IS IN LINE WITH THE FIRING PIN (1), SAFETY FOR HANDLING AND TRANSPORTATION IS ACHIEVED BY THE USE OF THE SPIN-ACTIVATED LOCKING BOLT (6).

(U) AFTER FIRING, WHEN SPIN REACHES 50,000 RPM, CENTRIFUGAL FORCE MOVES THE SPIRAL SPRING (10) RADIALLY OUTWARD FROM THE BUSHING (11) TO THE PERIPHERY OF THE CHAMBER. THE LIBERATED LOCKING BOLT IS THEN THROWN OUT INTO THE SPRING-VACATED SPACE, THUS RELEASING THE FIRING PIN.

(U) WHEN SPIN REACHES 50,000 RPM, THE FLAT SPRING (8) MOVES OUTWARDS, RELEASING THE SEGMENT (5). THE OUTWARD SPIN FORCE AT THIS MOMENT ON THE SEGMENT IS GREAT ENOUGH TO OVERCOME THE FORCE OF THE INWARD TORSION SPRING (4). AS SPIN DECELERATION (DECAY) OCCURS, THE TORSION SPRING ROTATES THE SEGMENT (5) CLOCKWISE, FREEING THE SEGMENT (9). UNDER CENTRIFUGAL FORCE, THE SEGMENT (9) MOVES COUNTERCLOCKWISE, RELEASING THE FIRING PIN BUSHING (3). THE COMPRESSED SPRING (2) THEN FORCES THE FIRING PIN INTO THE DETONATOR, ACCOMPLISHING SELF-DESTRUCTION.

(U) IF IMPACT OCCURS BEFORE THE SPIN-ACTIVATED SEGMENTS HAVE RELEASED THE FIRING PIN BUSHING, BUT AFTER THE LOCKING BOLT HAS BEEN LIBERATED, THE IMPACT FORCES WILL PLUNGE THE FIRING PIN INTO THE DETONATOR.

U N C L A S S I F I E D

FOM-1390-16-1-4-A

NOMEN: FUZE POINT-DETONATING SELF-DESTROYING MODEL AZZ DM131 (U)

CATALOG: TB-381-5-06

DATE REVIEWED: 01FEB77

DATE UPDATED: 01FEB77

PRODUCED/ADOPTED: ???

COUNTRY: WEST GERMANY

CURRENT STATUS: ----- ?

USING COUNTRIES: ----- WEST GERMANY

BOOSTER:

BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

PERFORMANCE:

ARMING DISTANCE(M)- 64
ARMING TIME ----- ?
SELF-DESTRUCT TIME 7 TO 8 SEC
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- *1
MODEL ----- AZZ DM 131
BODY MATERIAL ----- ALUMINUM
LENGTH OVERALL (MM) -- 44.4
LENGTH EXPOSED (MM) -- 27.4
MAXIMUM DIAMETER (MM)- 18.2
MAJ THREAD DIAM (MM) - 14.9
THREAD PITCH (METRIC)- 0.75 MM
WEIGHT COMPLETE (G) -- 18.3
MARKINGS ----- AZZ DM 131 FUZE

USING PROJECTILES: -- 20 MM HEI-T DM 51

USING WEAPONS: ----- *2

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SPIN
SELF-DESTR METHOD --- MECHANICAL SPIN DELAY
TYPE SAFETY DEVICE --- LOCKING BOLT

REMARKS:

- 1/ IMPACT AND SELF-DESTROYING
- 2/ GERMANY MADE HISPANO SUIZA MODEL 820 AUTOMATIC CANNON

UNCLASSIFIED

FOM-1390-16-1-4-8

NOMEN: FUZE POINT-DETONATING SELF-DESTROYING MODEL AZZ DM131 (U)

PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06

DATE REVIEWED: 01FEB77

DATE UPDATED: 01FEB77

COUNTRY: WEST GERMANY



NEG. 516468

DATE CATALOGED: 01SEP65
VOLUME 06

UNCLASSIFIED

PAGE 283

U N C L A S S I F I E D

FOM-1390-16-1-4-B

NOMEN: FUZE POINT-DETONATING SELF-DESTROYING MODEL AZZ DM131 (U)

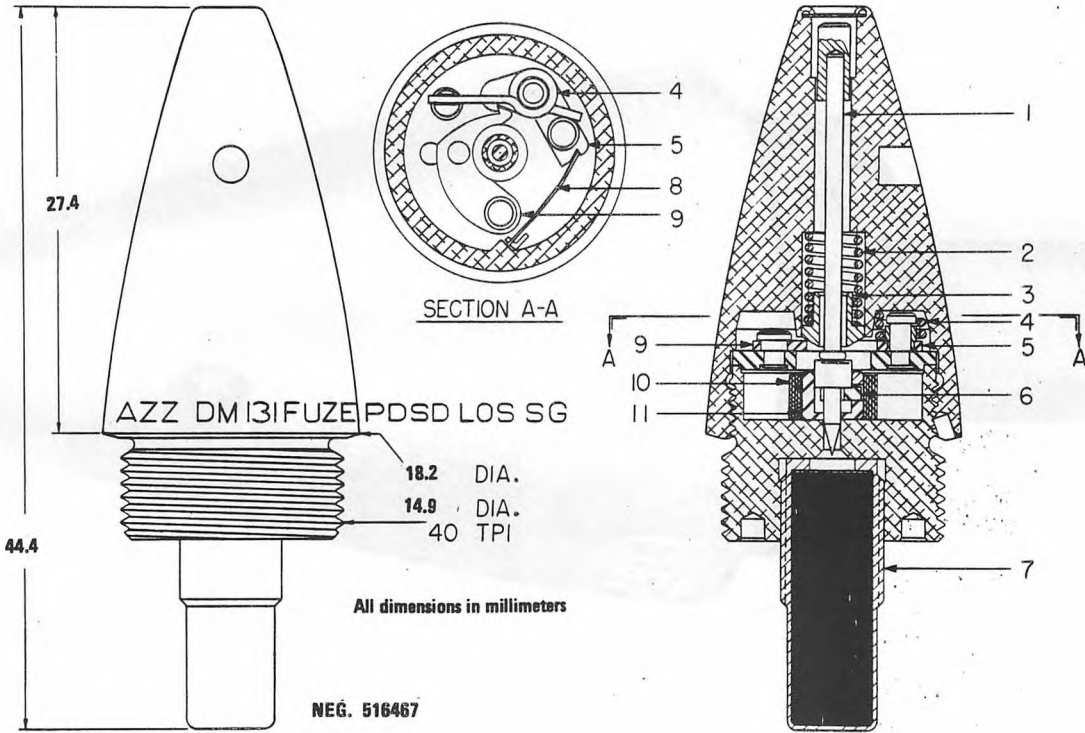
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06

DATE REVIEWED: 01FEB77

DATE UPDATED: 01FEB77

COUNTRY: WEST GERMANY



U N C L A S S I F I E D

NOMEN: FUZE POINT DETONATING MODEL 5073 (U)

DATE REVIEWED: 01FEB77

NATIVE DES: ?
PRODUCED/ADOPTED: ?/NOT ADOPTEDDATE UPDATED: 01FEB77
COUNTRY: WEST GERMANY

(U)THE JUNGHANS MODEL 5073 POINT DETONATING FUZE IS DESIGNED TO PROVIDE HANDLING SAFETY. THIS SAFETY IS ACHIEVED BY A MECHANICAL BARRIER BETWEEN THE FIRING PIN AND THE DETONATOR.

(U)UPON FIRING OF THE PROJECTILE, SETBACK FORCES THE WEIGHT (4) TO THE REAR. MOTION OF THE WEIGHT IS REGULATED BY A VERGE ESCAPEMENT MECHANISM; THEREFORE, SUSTAINED ACCELERATION IS REQUIRED. ONCE THE WEIGHT HAS REACHED THE LIMIT OF ITS TRAVEL, SETBACK FORCES THE UNLOCKING MASS (7) TO THE REAR AGAINST THE SPRING (9). MOTION OF THE UNLOCKING MASS IS PREVENTED BY THE LEVER (5) UNTIL THE WEIGHT HAS COMPLETED ITS TRAVEL. IN THE UNARMED CONDITION, THE PATH BETWEEN THE FIRING PIN (3) AND THE DETONATOR (6) IS BLOCKED BY THE SPRING-LOADED SAFETY LEVER (10). MOTION OF THE SAFETY LEVER IS BLOCKED BY THE ARMING PIN (8). WHEN THE UNLOCKING MASS MOVES TO THE REAR, IT LOCKS ONTO THE ARMING PIN. WHEN ACCELERATION DROPS SUFFICIENTLY SO THAT SETBACK NO LONGER OVERCOMES THE SPRING, THE UNLOCKING MASS RETURNS TO ITS ORIGINAL POSITION, TAKING THE ARMING PIN WITH IT. THIS MOTION RELEASES THE SAFETY LEVER, REMOVING THE BARRIER BETWEEN THE FIRING PIN AND THE DETONATOR. THE FUZE IS NOW ARMED. UPON IMPACT, THE FUZE NOSE (1) IS CRUSHED, DRIVING THE FIRING PIN AGAINST THE SPRING (2) AND INTO THE DETONATOR.

U N C L A S S I F I E D

FOM-1390-16-2-1-A
 NOMEN: FUZE POINT DETONATING MODEL 5073 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 01FEB77
 DATE UPDATED: 01FEB77

PRODUCED/ADOPTED: ?/NOT ADOPTED

COUNTRY: WEST GERMANY

CURRENT STATUS: ----- ?

USING COUNTRIES: ----- 016

BOOSTER:

BODY MATERIAL ----- ALUMINUM
 BODY LENGTH (MM) -- 25
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE(M)- 150
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
 MODEL ----- 5073
 BODY MATERIAL ----- ALUMINUM
 LENGTH OVERALL (MM) -- 86.3
 LENGTH EXPOSED (MM) -- 53.3
 MAXIMUM DIAMETER (MM)- 33.0
 MAJ THREAD DIAM (MM) - 26.9
 THREAD PITCH (METRIC)- 18
 WEIGHT COMPLETE (G) -- 141.7
 MARKINGS ----- 5073

USING PROJECTILES: -- HE ROCKETS

USING WEAPONS: ----- ?

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- OBSTRUCTED DETONATOR

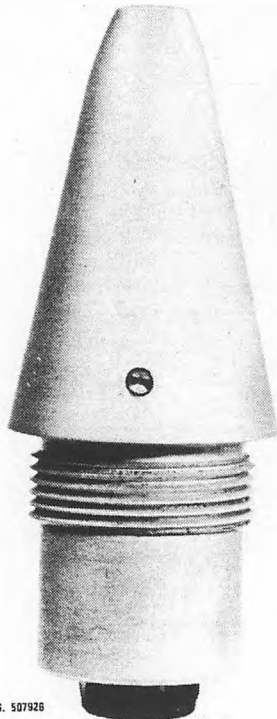
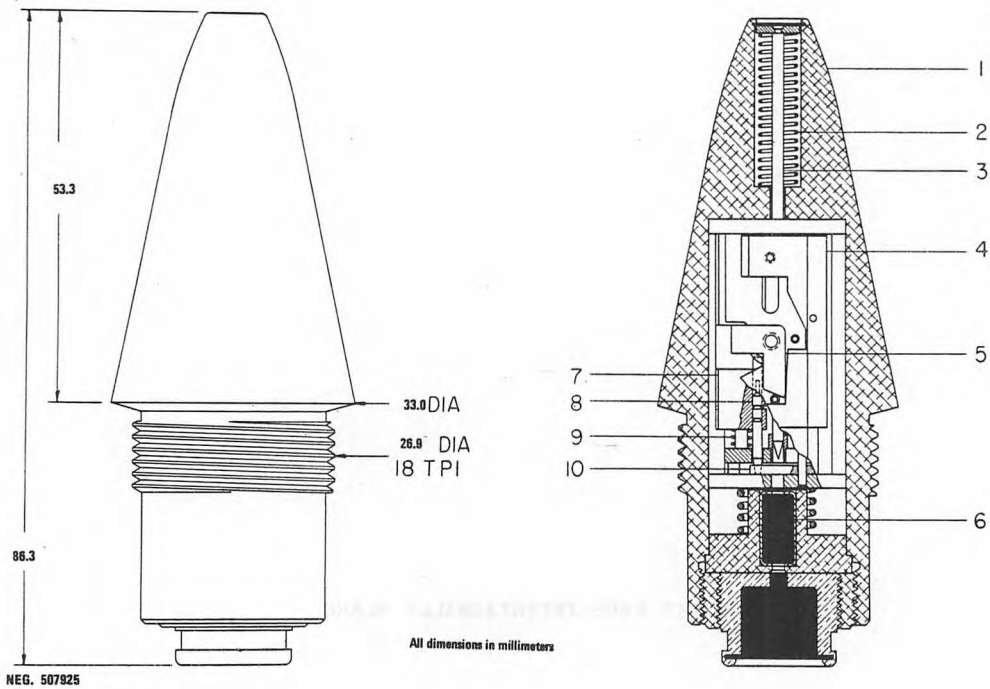
REMARKS:

UNCLASSIFIED

FOM-1390-16-2-1-8
NOMEN: FUZE POINT DETONATING MODEL 5073 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77
COUNTRY: WEST GERMANY

PRODUCED/ADOPTED: ?/NOT ADOPTED



DATE CATALOGED: 01APR67
VOLUME 06

UNCLASSIFIED

U N C L A S S I F I E D

FOM-1390-16-2-1-B
NOMEN: FUZE POINT DETONATING MODEL 5073 (U)

PRODUCED/ADOPTED: ?/NGT ADOPTED

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77
COUNTRY: WEST GERMANY

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01APR67
VOLUME 06 PAGE 288

U N C L A S S I F I E D

NOMEN: FUZE MECHANICAL TIME AND SUPERQUICK MODEL 5096 (U)

DATE REVIEWED: 01FEB77

NATIVE DES: ?
PRODUCED/ADOPTED: ???DATE UPDATED: 01FEB77
COUNTRY: WEST GERMANY

(U)THE MECHANICAL TIME AND SUPERQUICK FUZE MODEL 5096 IS MANUFACTURED BY JUNGHANS OF WEST GERMANY. THE FUZE IS SHIPPED WITH A PULLWIRE (6) WHICH MUST BE REMOVED BEFORE FIRING OR NEITHER THE MECHANICAL-TIME NOR THE POINT DETONATING ELEMENT WILL FUNCTION.

(U)THE FUZE IS SET FOR TIME BY ROTATING THE NOSE WITH RESPECT TO THE BODY. THE NOSE ROTATION IS TRANSMITTED TO A MOVABLE PLATE ON TOP OF THE FUZE MOVEMENT BY THE SETTING PIN (14). THE FIRING ARM (16) AND ASSOCIATED INTERLOCKS ARE MOUNTED TO THE MOVABLE PLATE SO THAT ROTATION OF THE PLATE POSITIONS THE FIRING ARM WITH RESPECT TO A SLOT IN THE MOVEMENT-TIMING DISK. AFTER SETTING AND ARMING, THE TIMING DISK WILL ROTATE AT A RATE CONTROLLED BY THE MOVEMENT. WHEN THE TIMING-DISK SLOT AND FIRING ARM ARE IN ALIGNMENT, THE FIRING ARM WILL MOVE THROUGH THE SLOT, RELEASING THE FIRING PIN. AT SETTINGS BELOW 8 SECONDS AND ABOVE 72 SECONDS, THE SLOT IN THE TIMING DISK IS COVERED BY A TAB ON THE MOVABLE PLATE.

(U)WHEN THE ROCKET IS LAUNCHED, SETBACK CAUSES THE SETBACK WEIGHT (8) TO MOVE TO THE REAR, COMPRESSING THE SPRING (9). THE LINEAR MOTION OF THIS WEIGHT IMPARTS A ROTARY MOTION TO THE SHAFT (10) BY MEANS OF THE SPIRAL TRACK IN THE SHAFT IT MUST FOLLOW. THE ROTATING SHAFT DRIVES A GEAR TRAIN AND A TWO-CENTER, UNTUNED ESCAPEMENT: THEREFORE, THE LINEAR MOTION OF THE SETBACK WEIGHT IS DELAYED OR REGULATED, AND ACCELERATION MUST BE SUSTAINED FOR A SUFFICIENT PERIOD OF TIME FOR THE WEIGHT TO COMPLETE ITS TRAVEL. WHEN THE WEIGHT REACHES THE LIMIT OF ITS TRAVEL, THE LOCKING PIN (7) CLEARS THE MOVEMENT (5), AND THE MOVEMENT BEGINS TO RUN. PIN (15) LOCKS THE WEIGHT DOWN WHEN IT HAS COMPLETED ITS TRAVEL AND PREVENTS THE SPRING (9) FROM RETURNING THE WEIGHT AND RELOCKING THE MOVEMENT. PIN (15) ALSO RELEASES A SPRING-LOADED TOGGLE IN THE SAFETY ASSEMBLY (12). THIS TOGGLE PROVIDES A BARRIER BETWEEN THE FIRING PIN (11) AND THE DETONATOR (13).

(U)WHEN THE MOVEMENT HAS RUN OUT, I.E., WHEN THE SLOT IN THE TIMING DISK AND THE FIRING ARM ARE IN ALIGNMENT, THE FIRING ARM (16) IS RELEASED, PERMITTING THE FIRING-PIN LOCK (4) TO SWING OUT. THIS RELEASES THE FIRING-PIN BUSHING (3), PERMITTING THE FIRING-PIN SPRING (2) TO DRIVE THE FIRING PIN INTO THE DETONATOR. THE FIRING PIN IS TOO LARGE TO FIT THROUGH THE HOLE OF THE BUSHING.

(U)IF THE FUZE STRIKES A TARGET OR THE GROUND BEFORE THE SET TIME HAS BEEN REACHED, THE NOSE IS CRUSHED AND THE FIRING PIN EXTENSION (1) WHICH IS SMALL ENOUGH TO FIT THROUGH THE FIRING PIN BUSHING, DRIVES THE FIRING ARM INTO THE DETONATOR.

U N C L A S S I F I E D

FOM-1390-16-2-3-A

NOMEN: FUZE MECHANICAL TIME AND SUPERQUICK MODEL 5096 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77

COUNTRY: WEST GERMANY

PRODUCED/ADOPTED: ??/?

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 016

BOOSTER:

BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME VARIABLE, 8 TO 72 SEC
DELAY TIME ----- N/A
MIN TIME SETTING -- 8 SEC
MAX TIME SETTING -- 72 SEC

FUZE ASSEMBLY COMPLETE:

TYPE ----- COMBINATION IMPACT
MODEL ----- 5096
BODY MATERIAL ----- ALUMINUM
LENGTH OVERALL (MM) -- 82.5
LENGTH EXPOSED (MM) -- 52.3
MAXIMUM DIAMETER (MM)- 31.7
MAJ THREAD DIAM (MM) - 28.4
THREAD PITCH (METRIC)- 17
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- 5096

USING PROJECTILES: -- 94 MM LEAFLET WARHEAD

USING WEAPONS: ----- ?

REFERENCES: -----

FUNCTIONAL DATA:

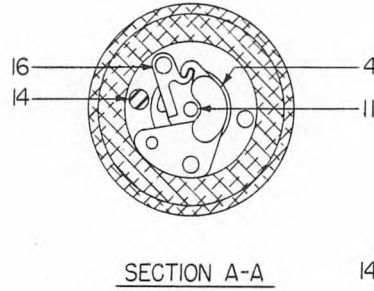
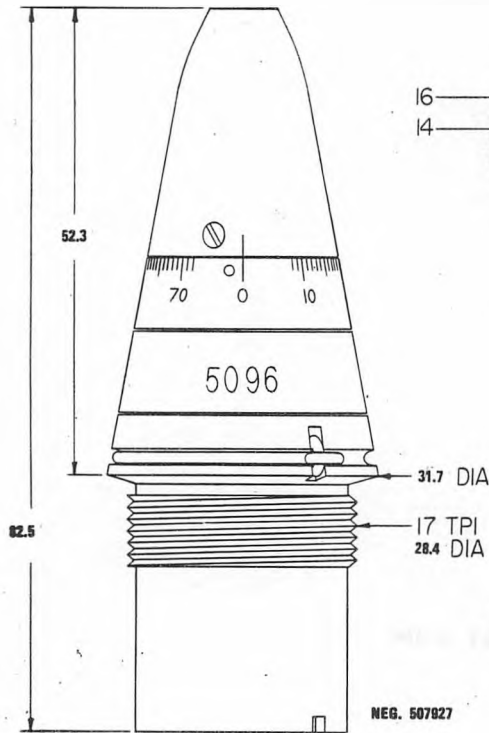
ARMING METHOD ----- SUSTAINED ACCELERATION
SELF-DESTR METHOD ---- TIME SETTING
TYPE SAFETY DEVICE --- MECHANICAL BLOCK

REMARKS:

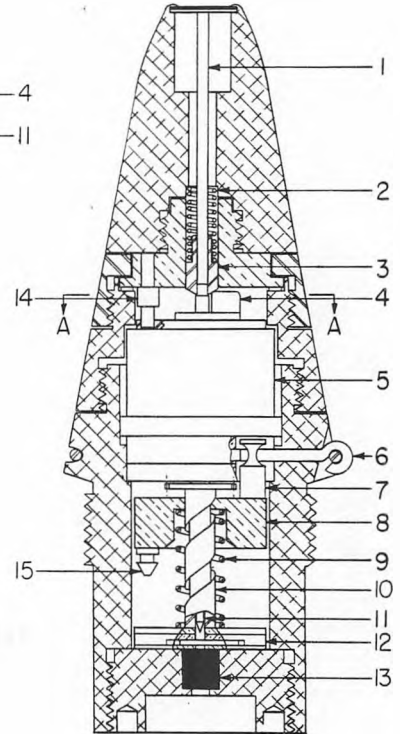
UNCLASSIFIED

FOM-1390-16-2-3-B
NOMEN: FUZE MECHANICAL TIME AND SUPERQUICK MODEL 5096 (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77
COUNTRY: WEST GERMANY



All dimensions in millimeters



DATE CATALOGED: 01JUL66
VOLUME 06

UNCLASSIFIED

PAGE 291

U N C L A S S I F I E D

FOM-1390-16-2-3-B

NOMEN: FUZE MECHANICAL TIME AND SUPERQUICK MODEL 5096 (U)

PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06

DATE REVIEWED: 01FEB77

DATE UPDATED: 01FEB77

COUNTRY: WEST GERMANY

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JUL66
VOLUME 06 PAGE 292

U N C L A S S I F I E D

FOM-1390-16-5-1-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, MINE PRESSURE/PULL MODEL DM 56 (U)

DATE REVIEWED: 01FEB77

NATIVE DES: MINENZUNDER DM 56
PRODUCED/ADOPTED: ???

DATE UPDATED: 01FEB77
COUNTRY: WEST GERMANY

(U)THE DM 56 PRESSURE/PULL FUZE IS MADE OF BRASS, EXCEPT FOR THE ALUMINUM DETONATOR ASSEMBLY. THE THREADS FOR ATTACHING THE FUZE TO THE MINE ARE PROTECTED BY A RED MOLDED-PLASTIC SHIPPING CAP. THE FUZE IS ARMED BY UNSCREWING THE SAFETY PIN CAP FROM HE SAFETY PIN ASSEMBLY AND REMOVING THE SAFETY PIN FROM THE STRIKER. THE STRIKER IS NOW HELD AGAINST THE COMPRESSED STRIKER SPRING ONLY BY THE STRIKER-RETAINING FORK. A PRESSURE OF 5.5-KG APPLIED TO THE STRIKER HEAD FORCES THE LUGS OF THE STRIKER-RETAINING FORK OPEN, ALLOWING THE SPRING TO DRIVE THE STRIKER FORWARD. ALTERNATIVELY, PULLING OUT OF THE FORK BY MEANS OF A TRIPWIRE WILL ACTIVATE THE FUZE. THIS FUZE IS USED WITH THE DM 31 ANTIPERSONNEL MINE.

DATE CATALOGED: 01DEC71
VOLUME 06

U N C L A S S I F I E D

PAGE 293

U N C L A S S I F I E D

FOM-1390-16-5-1-A
NOMEN: FUZE, MINE PRESSURE/PULL MODEL DM 56 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77

COUNTRY: WEST GERMANY

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- WEST GERMANY

BOOSTER:
BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

PERFORMANCE:
ARMING DISTANCE(M)- N/A
ARMING TIME ----- N/A
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- N/A
-

USING WEAPONS: ----- ?
-

REFERENCES: -----
-
-

FUZE ASSEMBLY COMPLETE:

TYPE ----- MECHANICAL
MODEL ----- DM 56
BODY MATERIAL ----- BRASS
LENGTH OVERALL (MM) -- 92.9
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- 19.0
MAJ THREAD DIAM (MM) - 9.9
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- ?

FUNCTIONAL DATA:

ARMING METHOD ----- SAFETY PIN
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- PIN

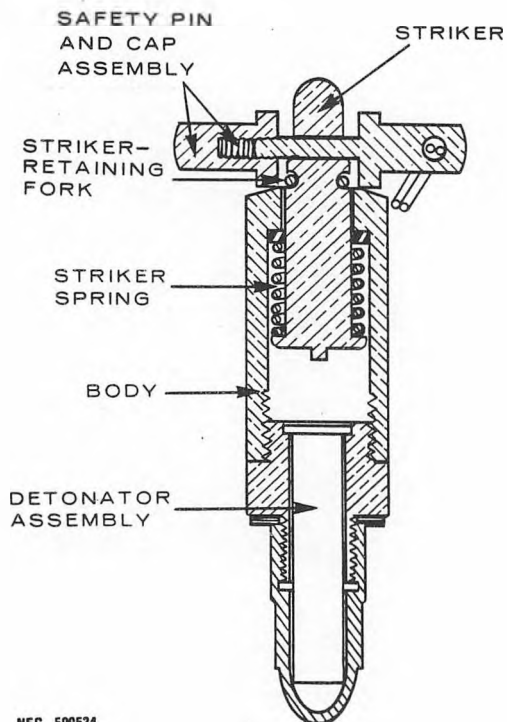
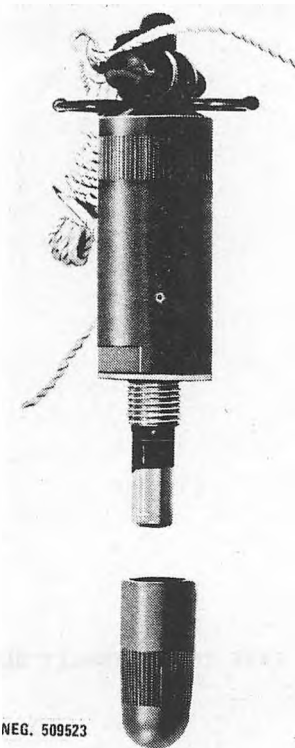
REMARKS:

1/ MINE ANTIPERSONNEL MODEL DM 31

FOM-1390-16-5-1-B
NOMEN: FUZE, MINE PRESSURE/PULL MODEL DM 56 (U)
PRODUCED/ADOPTED: ???

UNCLASSIFIED

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77
COUNTRY: WEST GERMANY



DATE CATALOGED: 01DEC71
VOLUME 06

UNCLASSIFIED

PAGE 295

U N C L A S S I F I E D

FOM-1390-16-5-1-B

NOMEN: FUZE, MINE PRESSURE/PULL MODEL DM 56 (U)

PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 01FEB77
DATE UPDATED: 01FEB77
COUNTRY: WEST GERMANY

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01DEC71
VOLUME 06 PAGE 296

U N C L A S S I F I E D

FOM-1390-17-1-1-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, POINT DETONATING, MODEL 21/28 B35 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: FUSEE, DETONATEUR PERCUTANTE DE 21/28 MODELE 1935
PRODUCED/ADOPTED: ?/1935

DATE UPDATED: 02FEB77
COUNTRY: FRANCE

(U)THE FRENCH POINT-DETONATING FUZE MODEL 21/28 B35 IS A BRANDT MORTAR FUZE ADOPTED IN 1935. THE "21" INDICATES THE MAJOR THREAD DIAMETER AND THE "28" INDICATES THE MAXIMUM DIAMETER IN MILLIMETERS.

(U)ON FIRING, SETBACK CAUSES THE SAFETY COLLAR (5) TO MOVE REARWARD AGAINST THE SAFETY SPRING (8). THIS RELEASES THE PRIMER LOCKING BALL (6) SO THAT IT CAN MOVE OUTWARD AND FREE THE PRIMER-HOLDER ASSEMBLY (7). IN FLIGHT, THE PRIMER-HOLDER ASSEMBLY CAN MOVE FORWARD, UNDER THE INFLUENCE OF CREEP, UNTIL IT CONTACTS THE FIRING-PIN-SPRING GUIDE (3). MOVEMENT OF THE INERTIA-ELEMENT ASSEMBLY (4) IS RESTRAINED BY THE SPRING (2).

(U)ON IMPACT OF THE PROJECTILE, THE FIRING PIN (1) IS PUSHED REARWARD, WHILE THE INERTIA-ELEMENT ASSEMBLY MOVES FORWARD. THE UNRESTRAINED PRIMER-HOLDER ASSEMBLY MOVES FORWARD RELATIVELY MORE RAPIDLY THAN THE INERTIA ELEMENT AND ITS ASSOCIATED COMPONENTS. AS THE FIRING PIN ENTERS THE PRIMER BODY CAVITY, THE TWO PRIMER DETENT BALLS (10) ARE PUSHED OUTWARD TO PROTRUDE INTO THE CAVITY BETWEEN THE FORWARD LIP OF THE INERTIA-ELEMENT ASSEMBLY, THE FIRING-PIN-SPRING GUIDE, AND THE FIRING PIN. THIS LOCKS THE PRIMER ASSEMBLY TO THE FORWARD MOVING INERTIA ELEMENT. THE MOMENTUM OF THE ENTIRE INERTIA ASSEMBLY, NOT JUST THAT OF THE PRIMER ASSEMBLY, IMPALES THE PRIMER (11) ON THE FIRING-PIN POINT. THE OUTPUT OF THE PRIMER INITIATES THE BOOSTER (9).

U N C L A S S I F I E D

FOM-1390-17-1-1-A
 NOMEN: FUZE, POINT DETONATING, MODEL 21/28 B35 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ?/1935

COUNTRY: FRANCE

CURRENT STATUS: ----- OBSOLETE IN FRANCE

BOOSTER:
 BODY MATERIAL ----- ?
 BODY LENGTH (MM) -- 35.3
 FILLER MATERIAL --- ?
 FILLER WEIGHT (G) - ?

USING COUNTRIES: ----- ?

PERFORMANCE:
 ARMING DISTANCE(M)-- 7
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:
 TYPE ----- POINT DETONATING
 MODEL ----- 21/28 B-35
 BODY MATERIAL ----- BRASS
 LENGTH OVERALL (MM) -- 87.1
 LENGTH EXPOSED (MM) -- 49.7
 MAXIMUM DIAMETER (MM)- 27.9
 MAJ THREAD DIAM (MM) - 20.8
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- ?
 MARKINGS ----- 21/28 B35

USING PROJECTILES: -- 50 AND 60 MM, HE
 -
 USING WEAPONS: ----- 50-MM MORTAR M 1937
 - 60-MM MORTAR M 1935/44

FUNCTIONAL DATA:
 ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- N/A
 TYPE SAFETY DEVICE --- *1

REFERENCES: -----
 -
 -

REMARKS:
 1/ SPRINGS AND LOCKING BALLS

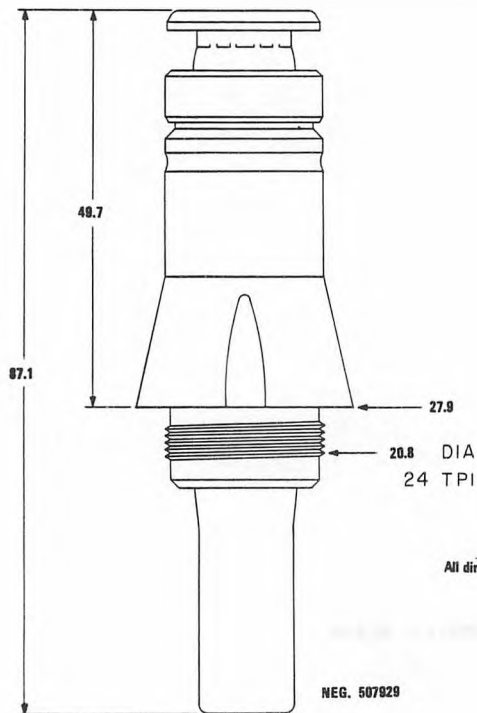
UNCLASSIFIED

FOM-1390-17-1-1-B
NOMEN: FUZE, POINT DETONATING, MODEL 21/28 B35 (U)

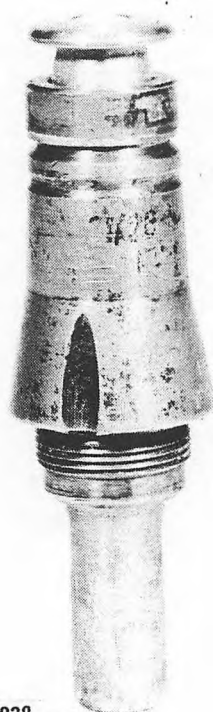
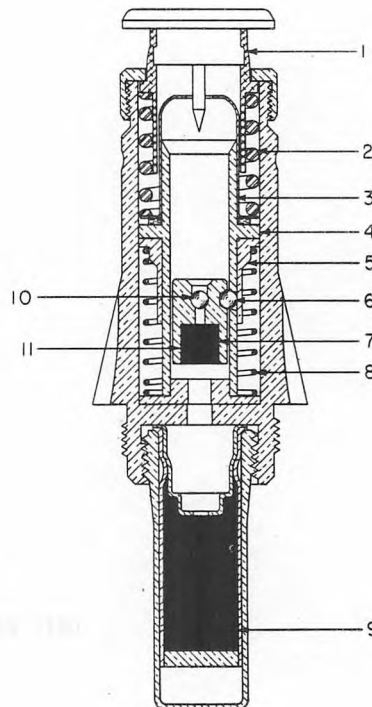
CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ?/1935

COUNTRY: FRANCE



All dimensions in millimeters



NEG. 507928

UNCLASSIFIED

FOM-1390-17-1-1-B
NOMEN: FUZE, POINT DETONATING, MODEL 21/28 B35 (U)
PRODUCED/ADOPTED: ?/1935

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77
COUNTRY: FRANCE

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JUL66
VOLUME 06 PAGE 300

UNCLASSIFIED

FOM-1390-17-1-2-A

CATALOG: TB-381-5-06

NOMEN: FUZE, POINT DETONATING, MODEL V-18-1 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ?

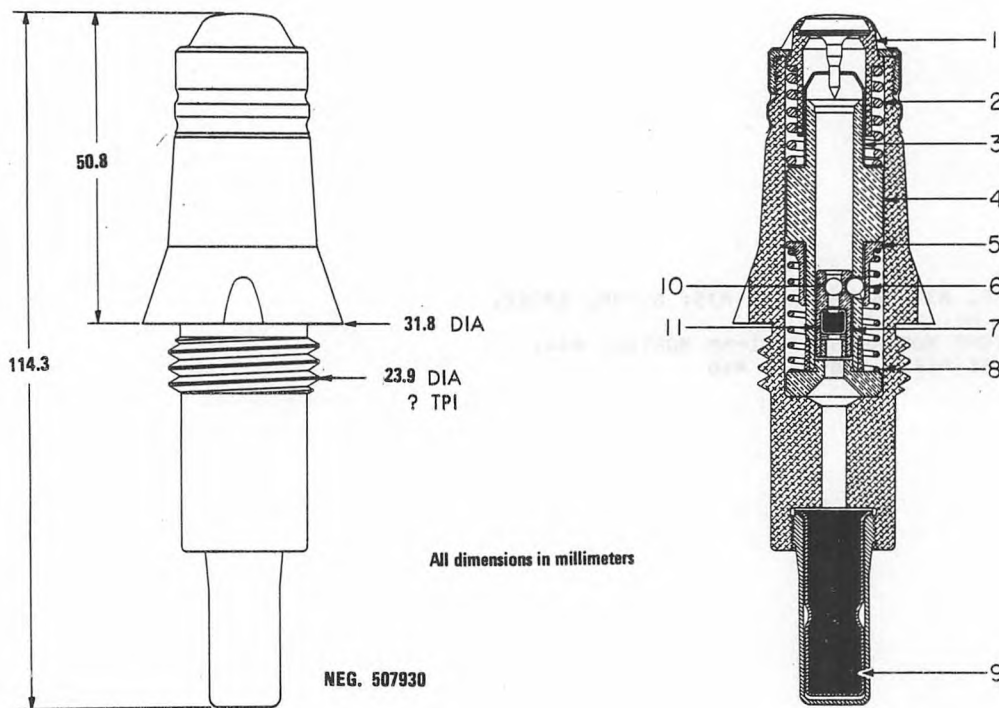
DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: 1944/?

COUNTRY: FRANCE

(U)THE FRENCH MODEL V-18-I MORTAR FUZE IS DESIGNED FOR SUPERQUICK ACTION ON IMPACT. UPON FIRING OF THE PROJECTILE, SETBACK FORCES THE SAFETY COLLAR (5) TO MOVE REARWARD AGAINST THE SAFETY SPRING (8). THE COLLAR BECOMES WEDGED ON THE TAPERED SURFACE AT THE REAR END OF THE INERTIA-ELEMENT ASSEMBLY (4). THE PRIMER LOCKING BALL (6) IS THUS RELEASED SO THAT IT CAN MOVE OUTWARDS AND FREE THE PRIMER-HOLDER ASSEMBLY (7). IN FLIGHT, THE PRIMER-HOLDER ASSEMBLY CAN THEN MOVE FORWARD UNDER THE INFLUENCE OF CREEP FORCES UNTIL ITS FORWARD END CONTACTS THE FIRING PIN SPRING GUIDE (3). MOVEMENT OF THE INERTIA ELEMENT IS RESTRAINED BY THE SPRING (2).

(U)ON IMPACT, THE FIRING PIN AND STRIKER ASSEMBLY (1), IS PUSHED REARWARD, WHILE THE INERTIA-ELEMENT ASSEMBLY MOVES FORWARD. THE UNRESTRAINED PRIMER-HOLDER ASSEMBLY MOVES FORWARD RELATIVELY MORE RAPIDLY THAN THE INERTIA ELEMENT AND ITS ASSOCIATED COMPONENTS. AS THE FIRING PIN ENTERS THE PRIMER BODY CAVITY, THE TWO PRIMER DETENT BALLS (10) ARE PUSHED OUTWARD TO PROTRUDE INTO THE CAVITY BETWEEN THE FORWARD LIP OF THE INERTIA ELEMENT, THE FIRING PIN SPRING GUIDE, AND THE FIRING PIN. THIS LOCKS THE PRIMER-HOLDER ASSEMBLY TO THE FORWARD-MOVING INERTIA ELEMENT. THE MOMENTUM OF THE ENTIRE INERTIA ASSEMBLY, RATHER THAN ONLY THAT OF THE PRIMER-HOLDER ASSEMBLY, IMPALES THE PRIMER (11) ON THE FIRING PIN POINT. THE SHOCK WAVE FROM THE PRIMER INITIATES THE DETONATOR (9).



U N C L A S S I F I E D

FOM-1390-17-1-2-A
 NOMEN: FUZE, POINT DETONATING, MODEL V-18-1 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: 1944/?

COUNTRY: FRANCE

CURRENT STATUS: ----- OBSOLETE

BOOSTER:

BODY MATERIAL ----- N/A
 BODY LENGTH (MM) -- N/A
 FILLER MATERIAL --- N/A
 FILLER WEIGHT (G) - N/A

USING COUNTRIES: ----- 017

PERFORMANCE:

ARMING DISTANCE(M)- 10
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT DETONATING
 MODEL ----- V-18-1
 BODY MATERIAL ----- BRASS
 LENGTH OVERALL (MM) -- 114.3
 LENGTH EXPOSED (MM) -- 50.8
 MAXIMUM DIAMETER (MM)- 31.8
 MAJ THREAD DIAM (MM) - 23.9
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- ?
 MARKINGS ----- V-18-1

USING PROJECTILES: -- *1

USING WEAPONS: ----- *2

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- SAFETY SPRING,
 LOCKING BALL

REMARKS:

1/ 81-MM, HE, M32; 81-MM, HE, M35; 81-MM, SMOKE,
 M32; 120-MM, HE, M44.
 2/ 81-MM LIGHT MORTAR M61; 81-MM MORTAR, M44;
 120-MM MORTARS M1951, AM49, & M60

U N C L A S S I F I E D

FOM-1390-17-5-2-A

CATALOG: TB-381-5-06

NOMEN: FUZE, MINE PRESSURE CHEMICAL MODEL 1951 (U)

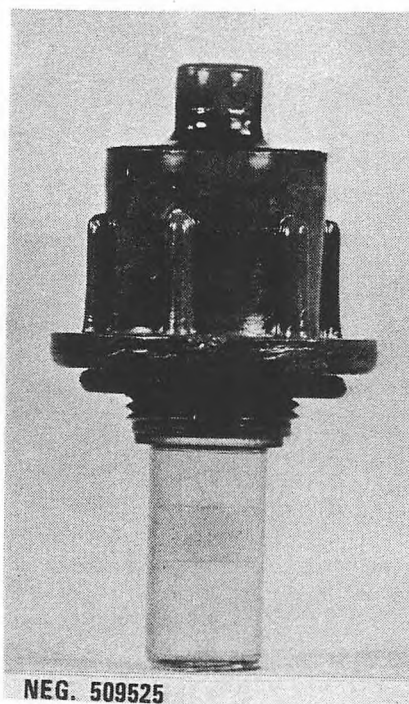
DATE REVIEWED: 02FEB77

NATIVE DES: ALLUMEUR CHIMIQUE, INDETECTABLE, A PRESSION MODELE 1951
PRODUCED/ADOPTED: ???

DATE UPDATED: 02FEB77
COUNTRY: FRANCE

(U)THE PRESSURE CHEMICAL FUZE MODEL 1951 IS ARMED BY REMOVING THE DETONATOR-RETAINING RING, PLACING A MODEL 50 DETONATOR IN THE RING, REPLACING THE RING AND DETONATOR, AND PLACING THE FUZE IN THE DESIRED MINE.

(U)PRESSURE ON THE PLUNGER CAUSES THE SHEAR COLLAR TO GIVE WAY. THE PLUNGER MOVES DOWN, BREAKING AN ACID VIAL; THE ACID MIXES WITH A CHEMICAL PELLETT AND INITIATES THE DETONATOR BY HYPERGOLIC REACTION.



DATE CATALOGED: 01JUL68
VOLUME 06

U N C L A S S I F I E D

PAGE 303

U N C L A S S I F I E D

FOM-1390-17-5-2-A
 NOMEN: FUZE, MINE PRESSURE CHEMICAL MODEL 1951 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ???

COUNTRY: FRANCE

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- FRANCE

BODY MATERIAL ----- PLASTIC
 BODY LENGTH (MM) -- 13.7
 FILLER MATERIAL --- FUZE, CYLINDER.
 FILLER WEIGHT (G) - ?

FUZE ASSEMBLY COMPLETE:

PERFORMANCE:

TYPE ----- DETONATOR
 MODEL ----- ?
 BODY MATERIAL ----- ?
 LENGTH OVERALL (MM) -- 34.0
 LENGTH EXPOSED (MM) -- ?
 MAXIMUM DIAMETER (MM) -- 29.2
 MAJ THREAD DIAM (MM) -- 13.7
 THREAD PITCH (METRIC) -- ?
 WEIGHT COMPLETE (G) -- ?
 MARKINGS ----- NONE

ARMING DISTANCE(M)-- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME ?
 DELAY TIME ----- ?
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- ANTITANK MINES.

FUNCTIONAL DATA:

USING WEAPONS: ----- ?

ARMING METHOD ----- ?
 SELF-DESTR METHOD ----- ?
 TYPE SAFETY DEVICE --- *

REFERENCES: -----

REMARKS:

1/ DETONATOR SEPARATED FROM FUZE UNTIL ARMED

FOM-1390-17-5-5-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, MINE, PRESSURE, NONMETALLIC MODEL 50 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ALLUMEUR, CHIMIQUE A PRESSION MODELE 1950
PRODUCED/ADOPTED: 1950??

DATE UPDATED: 02FEB77
COUNTRY: FRANCE

(U)THE FRENCH NONMETALLIC PRESSURE FUZE MODEL 50 IS USED IN THE MODEL 51 NONMETALLIC ANTI-TANK MINE (FOM-1345-17-1-9). THERE ARE NO METAL PARTS IN THIS FUZE.

(U)WHEN A FORCE OF 77 POUNDS OR MORE IS APPLIED TO THE TOP OF THE PLUNGER, THE SHEAR PIN FAILS AND THE PLUNGER MOVES DOWNWARD, CRUSHING THE VIAL OF ACID. THE ACID REACTS WITH THE CHEMICAL PELLET PRODUCING A FLAME WHICH INITIATES THE DETONATOR.

(U)FOUR MODEL 50 FUZES AND FOUR SEPARATE DETONATORS ARE PACKED IN A WOODEN BOX. THIRTY OF THESE BOXES ARE PACKED IN A WOODEN CASE.

DATE CATALOGED: 01JUL72
VOLUME 06

U N C L A S S I F I E D

PAGE 305

U N C L A S S I F I E D

FDM-1390-17-5-5-A
NOMEN: FUZE, MINE, PRESSURE, NONMETALLIC MODEL 50 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: 1950/?

COUNTRY: FRANCE

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- FRANCE, WEST GERMANY

BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

FUZE ASSEMBLY COMPLETE:

PERFORMANCE:

TYPE ----- CHEMICAL (PRESSURE)
MODEL ----- 50
BODY MATERIAL ----- BAKELITE
LENGTH OVERALL (MM) -- 53.3
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- 30.4
MAJ THREAD DIAM (MM) - ?
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- NONE

ARMING DISTANCE(M)- N/A
ARMING TIME ----- N/A
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- N/A

FUNCTIONAL DATA:

ARMING METHOD ----- BY, INSTALLING DETONATOR
SELF-DESTR METHOD ---- N/A
TYPE SAFETY DEVICE --- NONE

USING WEAPONS: ----- MINE, ANTITANK MODEL 51

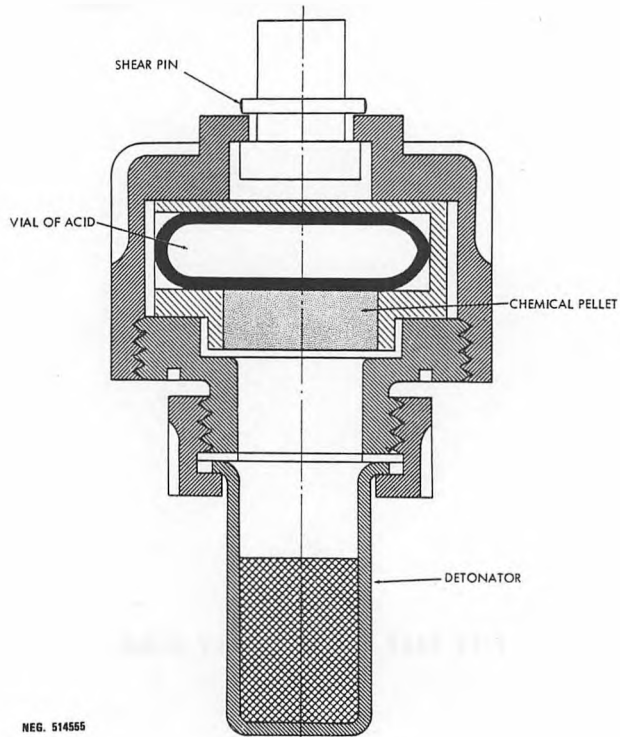
REFERENCES: -----

REMARKS:

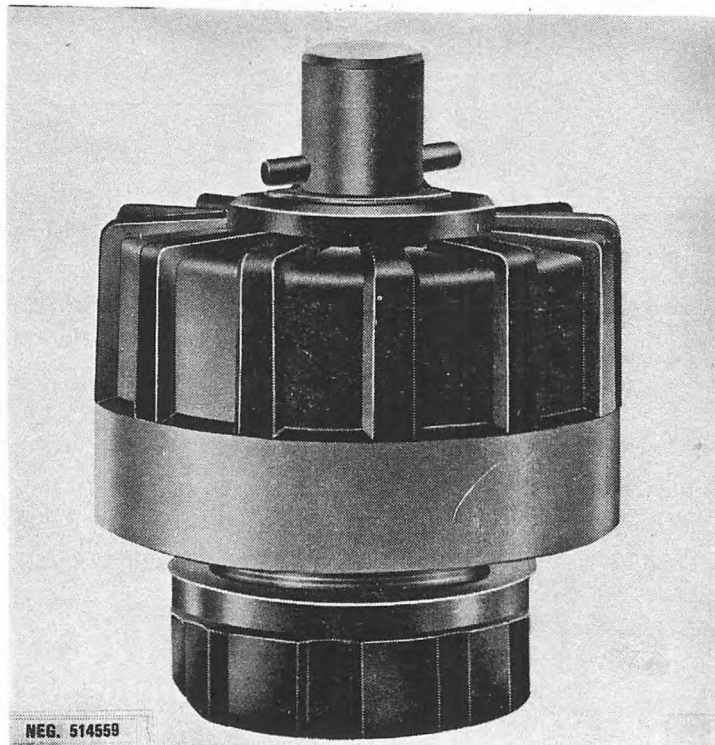
U N C L A S S I F I E D

FOM-1390-17-5-5-B
NOMEN: FUZE, MINE, PRESSURE, NONMETALLIC MODEL 50 (U)
PRODUCED/ADOPTED: 1950/?

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77
COUNTRY: FRANCE



NEG. 514555



NEG. 514555

DATE CATALOGED: 01JUL72
VOLUME 06

U N C L A S S I F I E D

PAGE 307

FOM-1390-17-5-5-B

NOMEN: FUZE, MINE, PRESSURE, NONMETALLIC MODEL 50 (U)

PRODUCED/ADOPTED: 1950/?

U N C L A S S I F I E D

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 02FEB77

COUNTRY: FRANCE

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JUL72
VOLUME 06 PAGE 308

U N C L A S S I F I E D

FOM-1390-17-5-6-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, MINE PRESSURE NONMETALLIC MODEL 52 (U)

DATE REVIEWED: 02FEB77

NA IVE DES: ALLUMEURA PRESSION, ANTICHARS, MODELE 1952
PRODUCED/ADOPTED: 1952/?

DATE UPDATED: 02FEB77
COUNTRY: FRANCE

(U)THE FRENCH NONMETALLIC PRESSURE FUZE MODEL 52, USED IN THE MODEL 51 NONMETALLIC ANTITANK MINE (FOM-1345-17-1-9), IS MADE ALMOST ENTIRELY OF PLASTIC. WHEN A FORCE OF APPROXIMATELY 33 POUNDS IS APPLIED TO THE TOP OF THE STRIKER, THE SHEAR COLLAR (WHICH IS AN INTEGRAL PART OF THE STRIKER) FAILS. THE CONICAL LOWER END OF THE STRIKER, CHARGED WITH A MIXTURE OF RED PHOSPHORUS AND GROUND GLASS, THEN STRIKES A MATING SURFACE. THE RESULTING FRICTION IGNITES THE PHOSPHORUS WHICH, IN TURN INITIATES THE DETONATOR.

DATE CATALOGED: 01JUL72
VOLUME 06

U N C L A S S I F I E D

PAGE 309

U N C L A S S I F I E D

FOM-1390-17-5-6-A

NOMEN: FUZE, MINE PRESSURE NONMETALLIC MODEL 52 (U)

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 02FEB77

{ PRODUCED/ADOPTED: 1952/?

COUNTRY: FRANCE

CURRENT STATUS: ----- STANDARD

BOOSTER:

BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

USING COUNTRIES: ----- FRANCE, WEST GERMANY

PERFORMANCE:

ARMING DISTANCE(M)- N/A
ARMING TIME ----- N/A
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- MECHANICAL (PRESSURE)
MODEL ----- 52
BODY MATERIAL ----- PLASTIC
LENGTH OVERALL (MM) -- 50.8
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- 27.9
MAJ THREAD DIAM (MM) - ?
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- NONE

USING PROJECTILES: -- N/A

USING WEAPONS: ----- MINE, ANTITANK MODEL 51

FUNCTIONAL DATA:

ARMING METHOD ----- BY INSTALLING DETONATOR
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- NONE

REFERENCES: -----

REMARKS:

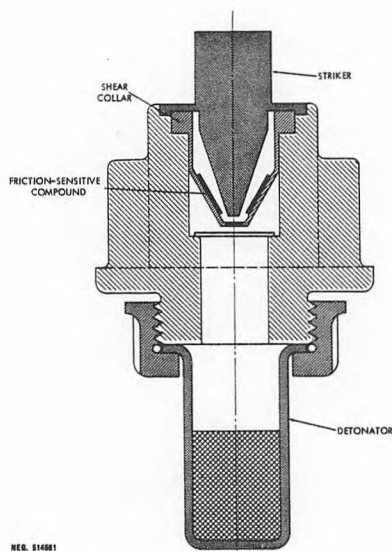
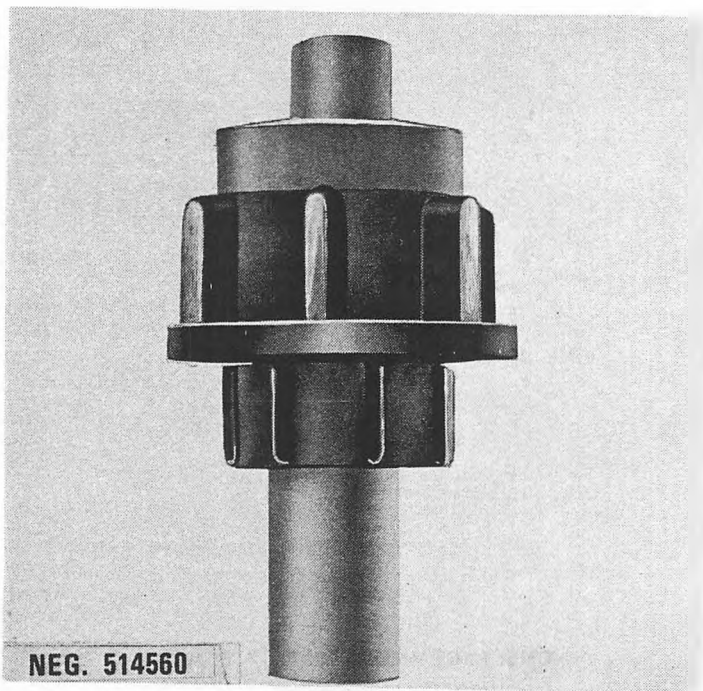
U N C L A S S I F I E D

FOM-1390-17-5-6-B
NOMEN: FUZE, MINE PRESSURE NONMETALLIC MODEL 52 (U)

PRODUCED/ADOPTED: 1952/?

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

COUNTRY: FRANCE



DATE CATALOGED: 01JUL72
VOLUME 06

U N C L A S S I F I E D

PAGE 311

U N C L A S S I F I E D

FOM-1390-17-5-6-B

NOMEN: FUZE, MINE PRESSURE NONMETALLIC MODEL 52 (U)

PRODUCED/ADOPTED: 1952/?

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 02FEB77

COUNTRY: FRANCE

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JUL72
VOLUME 06 PAGE 312

U N C L A S S I F I E D

NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK MODEL A. ? (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ?
PRODUCED/ADOPTED: ???DATE UPDATED: 02FEB77
COUNTRY: SWITZERLAND

(U)THE SWISS MECHANICAL TIME AND SUPERQUICK FUZE MODEL A ? IS DESIGNED AND MANUFACTURED BY TAVARO. IT IS A MECHANICAL TIME FUZE WITH A POINT DETONATING NOSE ELEMENT, AND CAN BE SET BY 0.2-SECOND INTERVALS TO FUNCTION FROM 1 TO 30 SECONDS AFTER FIRING. SAFETY DURING HANDLING IS ACHIEVED BY THE SPINACTIVATED DETENTS (2) ON THE IMPACT PLUNGER (1), AND BY AN INTERRUPTER (9) IN THE PATH TO THE BOOSTER (10).

(U)UPON FIRING OF THE PROJECTILE, THE DETENTS ROTATE AWAY BY CENTRIFUGAL FORCE, FREEING THE IMPACT PLUNGER. THE INTERRUPTER ALSO MOVES AWAY, CLEARING THE PATH TO THE BOOSTER. MOVEMENT OF THE INTERRUPTER IS RETARDED BY A CENTRIFUGAL-FORCE-DRIVEN CLOCKWORK MECHANISM WITH RUNAWAY ESCAPEMENT. IF IMPACT OCCURS AFTER THE INTERRUPTER IS CLEAR, THE SHOCK WAVE FROM THE DETONATOR (3) INITIATES THE BOOSTER.

(U)THE MECHANICAL TIME FUNCTION IS ACHIEVED BY A MAINSPRING-DRIVEN CLOCKWORK MECHANISM (7) WITH A TORSION SPRING ESCAPEMENT SYSTEM. FUNCTIONING TIME CAN BE SET FROM 1 TO 30 SECONDS BY ROTATING THE NOSE (11) OF THE FUZE. THE ACTION OF THE TORSION SPRING (5) PROVIDES A CONSTANT SETTING TORQUE. THE MAINSPRING IS WOUND DURING SETTING, AS THE FUZE NOSE ROTATES THE CENTER SECTION (12) AND THE MOVABLE PORTION OF THE CLOCKWORK. AFTER FIRING OF THE PROJECTILE, SETBACK FORCES THE WEIGHT (13) TO SHEAR OFF THE PINS (4), AND DRIVES THE LOCKING PIN (6) INTO THE FUZE BODY. THE SET POSITION OF THE FUZE IS THEREBY FIXED. IF IMPACT HAS NOT OCCURRED BEFORE EXPIRATION OF THE SET TIME, THE CLOCKWORK MECHANISM RELEASES THE FIRING PIN, WHICH ACTIVATES THE DETONATOR (8) AND THE BOOSTER.

U N C L A S S I F I E D

FOM-1390-18-1-2-A
 NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK MODEL A. ? (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 02FEB77

COUNTRY: SWITZERLAND

PRODUCED/ADOPTED: ??/?

CURRENT STATUS: ----- ?

USING COUNTRIES: ----- SWITZERLAND

BOOSTER:

BODY MATERIAL ----- ?
 BODY LENGTH (MM) -- ?
 FILLER MATERIAL --- ?
 FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME VARIABLE, 1 TO 30 SEC
 DELAY TIME ----- N/A
 MIN TIME SETTING -- 0.2 SEC
 MAX TIME SETTING -- 30 SEC

USING PROJECTILES: -- 90 MM HE

USING WEAPONS: ----- 90 MM AA GUN

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- COMBINATION (TIME-IMPACT)
 MODEL ----- A ?
 BODY MATERIAL ----- ?
 LENGTH OVERALL (MM) -- ?
 LENGTH EXPOSED (MM) -- ?
 MAXIMUM DIAMETER (MM)- ?
 MAJ THREAD DIAM (MM) - ?
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- ?
 MARKINGS ----- ?

FUNCTIONAL DATA:

ARMING METHOD ----- SPIN
 SELF-DESTR METHOD ----- TIME SETTING
 TYPE SAFETY DEVICE --- SPIN-ACTIVATED

REMARKS:

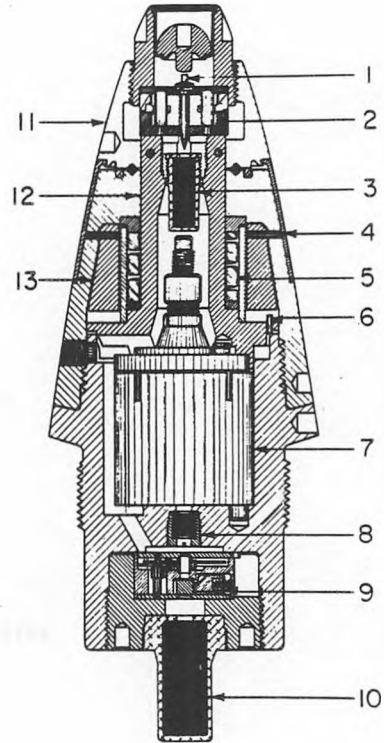
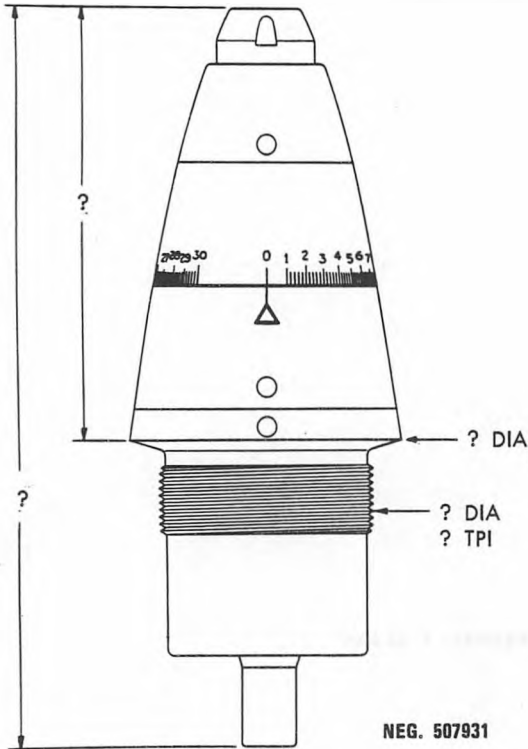
UNCLASSIFIED

FOM-1390-18-1-2-8
NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK MODEL A. ? (U)

PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

COUNTRY: SWITZERLAND



U N C L A S S I F I E D

FOM-1390-18-1-2-B

NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK MODEL A. ? (U)

PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 02FEB77

COUNTRY: SWITZERLAND

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01APR67
VOLUME 06 PAGE 316

U N C L A S S I F I E D

NOMEN: FUZE, POINT DETONATING, MODEL FIRUSAT-1 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ?

DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: PROTOTYPE

COUNTRY: SWITZERLAND

(U)THE MODEL FIRUSAT-I FUZE WAS DEVELOPED BY SETISA, S.A., GENEVA, SWITZERLAND, AND HAS BEEN PATENTED IN SWITZERLAND, THE UNITED KINGDOM, AND THE U.S. IN ORDER TO DEMONSTRATE AND TO SELL QUANTITIES OF THE FUZE, FIRING TESTS HAVE BEEN CONDUCTED IN SWITZERLAND, ITALY, SPAIN, FRANCE & EGYPT.

(U)THE FUZE IS OF THE POINT-DETONATING TYPE AND IS FOR USE IN 81-MM AND 120-MM NONROTATING MORTAR PROJECTILES. DELAYED ARMING IS OBTAINED WITH A MECHANICAL TIMER CONTROLLING A LOCK ON THE FIRING PIN AND THE SLIDER (10).

(U)UPON FIRING OF THE PROJECTILE, SETBACK FORCES THE SWIVEL COTTER PIN (7) TO THE REAR, UNLOCKING THE VERGE ESCAPEMENT MECHANISM OF THE TIMER (4). WITH THE ESCAPEMENT UNLOCKED, THE RACK SPRING (5) DRIVES THE TIMER THROUGH THE RACK (6). AT THE END OF ITS TRAVEL, A CLEARANCE HOLE IN THE RACK ALINES WITH THE FIRING PIN (3). THE FLASH PATH FROM THE PRIMER (9) IS BLOCKED BY THE SLIDER IN THE LOWER SAFETY ELEMENT. WHEN THE RACK HAS COMPLETED ITS TRAVEL, THE LOWER SAFETY LOCKING PIN (8) MOVES FORWARD INTO THE VOID CREATED BY THE RACK, THUS RELEASING THE SLIDER. THE SPRING-LOADED SLIDER MOVES UNTIL THE HOLE IN IT AND THE FLASH PATH ARE IN LINE. THE FUZE IS NOW FULLY ARMED. ON IMPACT, THE PLUNGER (1) OVERCOMES THE PLUNGER SPRING (2), DRIVING THE FIRING PIN INTO THE PRIMER. THE OUTPUT OF THE IGNITED PRIMER FLASHES TO THE DETONATOR (12).

(U)THERE ARE AT LEAST TWO KNOWN MINOR MODIFICATIONS OF THE BASIC FIRUSAT-I FUZE. THE RETAINING RING IS MACHINED AS A PART OF THE DETONATOR BODY, INSTEAD OF BEING A SEPARATE COMPONENT (11). THE PRIMER HOLDER IS HELD IN POSITION BY A SPRING, OR THE SPRING IS ABSENT.

U N C L A S S I F I E D

FOM-1390-18-1-6-A
NOMEN: FUZE, POINT DETONATING, MODEL FIRUSAT-1 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: PROTOTYPE

COUNTRY: SWITZERLAND

CURRENT STATUS: ----- PROTOTYPE

USING COUNTRIES: ----- SWITZERLAND

BOOSTER:

BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

PERFORMANCE:

ARMING DISTANCE(M)- 40
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT DETONATING
MODEL ----- FIRUSAT-1
BODY MATERIAL ----- BRASS (NICKEL PLATED)
LENGTH OVERALL (MM) -- 106.7
LENGTH EXPOSED (MM) -- 41.6
MAXIMUM DIAMETER (MM)- 31.2
MAJ THREAD DIAM (MM) - 23.4
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 256.3
MARKINGS ----- FIRUSAT-I-STISA.

USING PROJECTILES: -- 81-MM, HE; 120-MM, HE

USING WEAPONS: ----- 81-MM MORTAR; 120-MM MORTAR

FUNCTIONAL DATA:

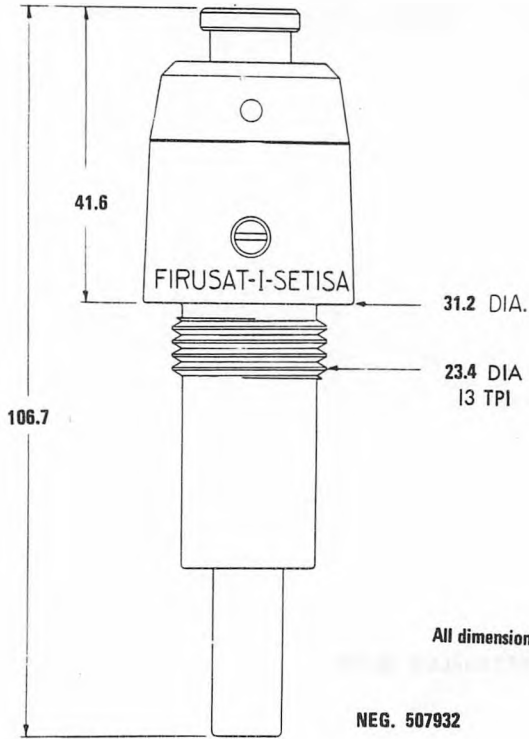
ARMING METHOD ----- SETBACK
SELF-DESTR METHOD ----- NONE
TYPE SAFETY DEVICE --- MECHANICAL TIMER,
MECHANICAL BLOCK

REFERENCES: -----

FOM-1390-18-1-6-B
NOMEN: FUZE, POINT DETONATING, MODEL FIRUSAT-1 (U)
PRODUCED/ADOPTED: PROTOTYPE

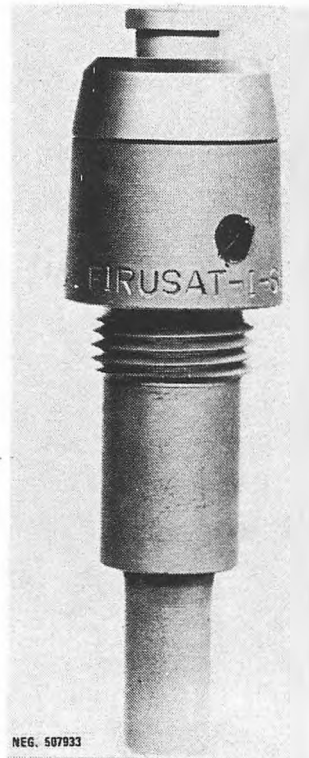
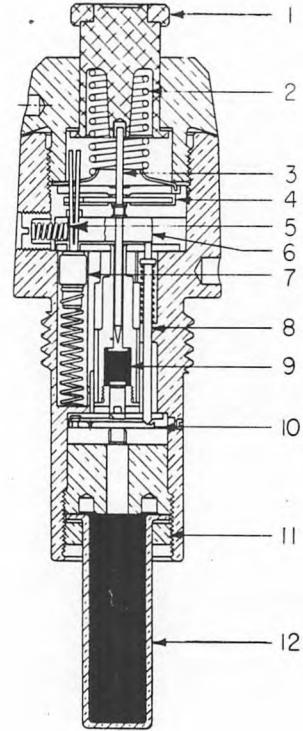
UNCLASSIFIED

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77
COUNTRY: SWITZERLAND



All dimensions in millimeters

NEG. 507932



NEG. 507933

DATE CATALOGED: 01APR67
VOLUME 06

UNCLASSIFIED

PAGE 319

U N C L A S S I F I E D

FOM-1390-18-1-6-B

NOMEN: FUZE, POINT DETONATING, MODEL FIRUSAT-1 (U)

PRODUCED/ADOPTED: PROTOTYPE

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

COUNTRY: SWITZERLAND

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01APR67
VOLUME 06 PAGE 320

U N C L A S S I F I E D

NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL 544. (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ?
PRODUCED/ADOPTED: ???DATE UPDATED: 02FEB77
COUNTRY: SWITZERLAND

(U)THE SWISS MECHANICAL TIME AND SUPERQUICK FUZE MODEL 544 IS DESIGNED FOR USE IN US 105-MM HOWITZER AMMUNITION. SINCE NO SPRINGS ARE USED, THE MECHANISM IS UNARMED UNTIL IT REACHES MAXIMUM ROTATIONAL VELOCITY AT THE MUZZLE OF THE WEAPON. THE FUZE IS SET BY ROTATING THE ENTIRE NOSE OF THE FUZE TO THE DESIRED TIME, EITHER TO RIGHT OR LEFT. GROOVES IN THE NOSE AND BODY PERMIT THE FUZE TO BE SET IN A FUZE SETTER. SETTINGS CAN BE READ TO 0.5 SECOND.

(U)TO SET THE FUZE, THE NOSE (1) AND THE ESCAPEMENT HOUSING (7) THAT ARE FIXED ON THE GROOVED-BASE (10) IN WHICH THE DRIVING CONE (9) AND THE DRIVING BALLS (11) ARE HOUSED FORM A UNIT THAT IS TURNED WITH RESPECT TO THE BODY (18). WHEN THE NOSE IS TURNED TO RIGHT OR LEFT, THE DISTANCE BETWEEN THE NOTCH ON THE TIMING DISK (12) AND THE TRIGGER (13), WHICH PIVOTS ON THE FUZE BODY, IS CHANGED. THE SETTING INDICATED ON THE NOSE CORRESPONDS DIRECTLY WITH THE TIME, IN SECONDS, THAT THE TIMING DISK NEEDS TO TRAVEL UNTIL THE TRIGGER FALLS INTO THE NOTCH OF THE TIMING DISK. ON FIRING, SETBACK CAUSES THE SETBACK WEIGHT (5) TO PRESS AGAINST THE LOCKING PINS (8), WHICH FIT INTO A RECESS BETWEEN THE BODY AND THE GROOVED BASE. AT THE SAME TIME, THE ESCAPMENT LOCK (6) IS MOVED REARWARD, UNLOCKING THE MOVEMENT. SPIN, TIPS THE ESCAPEMENT LOCK TO THE SIDE, PREVENTING ITS RETURN WHEN ACCELERATION CEASES. WHEN ACCELERATION CEASES, THE MECHANISM IS DRIVEN BY THE DRIVING BALLS. AT THE END OF THE SET TIME, THE NOTCH OF THE TIMING DISK REACHES THE PLACE WHERE THE POINT OF THE TRIGGER, DRIVEN BY SPIN, ENTERS THE NOTCH. THIS ACTION UNLOCKS THE DETONATOR HOUSING (15), WHICH MOVES OUTWARD UNDER THE EFFECT OF SPIN. THIS MOTION DRIVES THE DETONATOR (16) AGAINST THE FIRING PIN (14), INITIATING THE ROUND.

(U)DURING BOTH TRANSPORTATION AND THE FIRST FEW SECONDS OF FLIGHT, THE POINT-DETONATING FIRING PIN (2) IS BLOCKED FROM THE PRIMER (4) BY THE WASHER (3). AT THE END OF THE DESIGNATED TIME, THE MOVEMENT UNLOCKS THE FIRING PIN, ARMING THE FUZE. ON IMPACT OF THE PROJECTILE, THE FIRING PIN IS THE PRIMER, INITIATING THE RELAY, WHICH IS CONTAINED IN THE HOUSING (17).

U N C L A S S I F I E D

FOM-1390-18-1-8-A

NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL 544. (U)

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ???

COUNTRY: SWITZERLAND

CURRENT STATUS: ----- ?

BOOSTER:

USING COUNTRIES: ----- 018

BODY MATERIAL ----- N/A
 BODY LENGTH (MM) -- N/A
 FILLER MATERIAL --- N/A
 FILLER WEIGHT (G) - N/A

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

TYPE ----- COMBINATION (TIME-IMPACT)
 MODEL ----- 544
 BODY MATERIAL ----- BRASS W/ALUMINUM NOSE
 LENGTH OVERALL (MM) -- 114.3
 LENGTH EXPOSED (MM) -- 94.0
 MAXIMUM DIAMETER (MM)- 60.9
 MAJ THREAD DIAM (MM) - 43.2
 THREAD PITCH (METRIC)- 1.75 MM
 WEIGHT COMPLETE (G) -- 654
 MARKINGS ----- 544

ARMING DISTANCE(M)- ?
 ARMING TIME ----- 0.2 SEC FOR SUPERQUICK
 SELF-DESTRUCT TIME VARIABLE 3 TO 75 SEC
 DELAY TIME ----- NONE
 MIN TIME SETTING -- ?
 MAX TIME SETTING -- 75 SEC

USING PROJECTILES: -- 105 MM

USING WEAPONS: ----- 105-MM HOWITZER

REFERENCES: -----

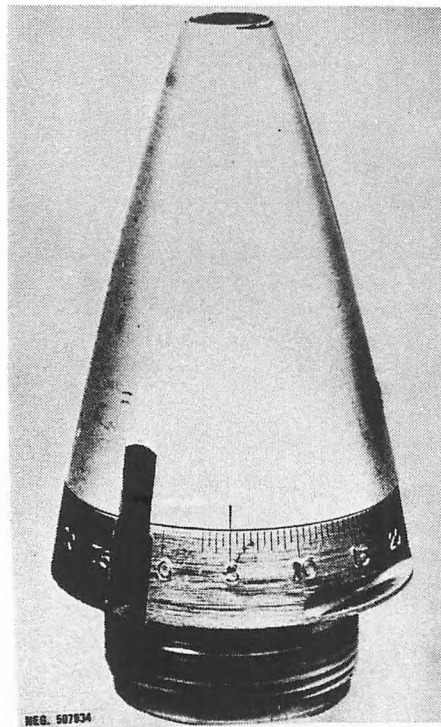
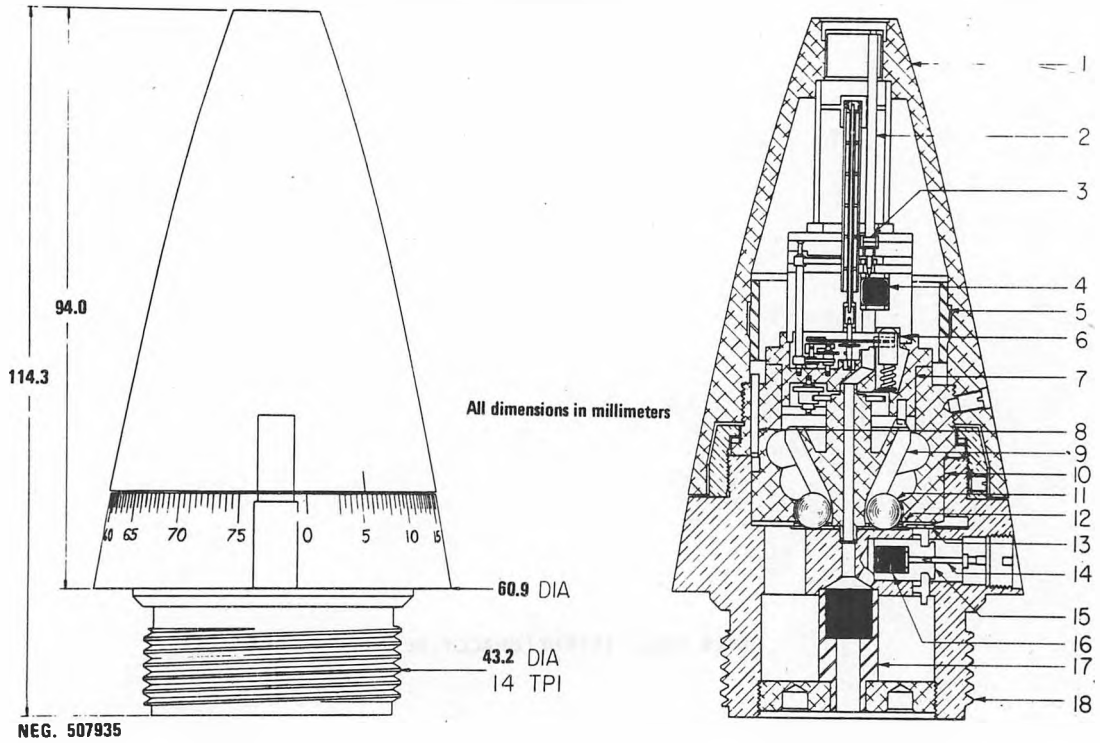
FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
 SELF-DESTR METHOD ----- TIME SETTING
 TYPE SAFETY DEVICE --- SPIN-FREED FIRING PIN

UNCLASSIFIED

FOM-1390-18-1-8-B
NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL 544. (U)
PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77
COUNTRY: SWITZERLAND



DATE CATALOGED: 01JUL66
VOLUME 06

UNCLASSIFIED

FDM-1390-18-1-8-B
NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL 544. (U)
PRODUCED/ADOPTED: ???

U N C L A S S I F I E D

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77
COUNTRY: SWITZERLAND

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JUL66
VOLUME 06 PAGE 324

U N C L A S S I F I E D

NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL 548-EN-3 (U)

DATE REVIEWED: 02FEB77

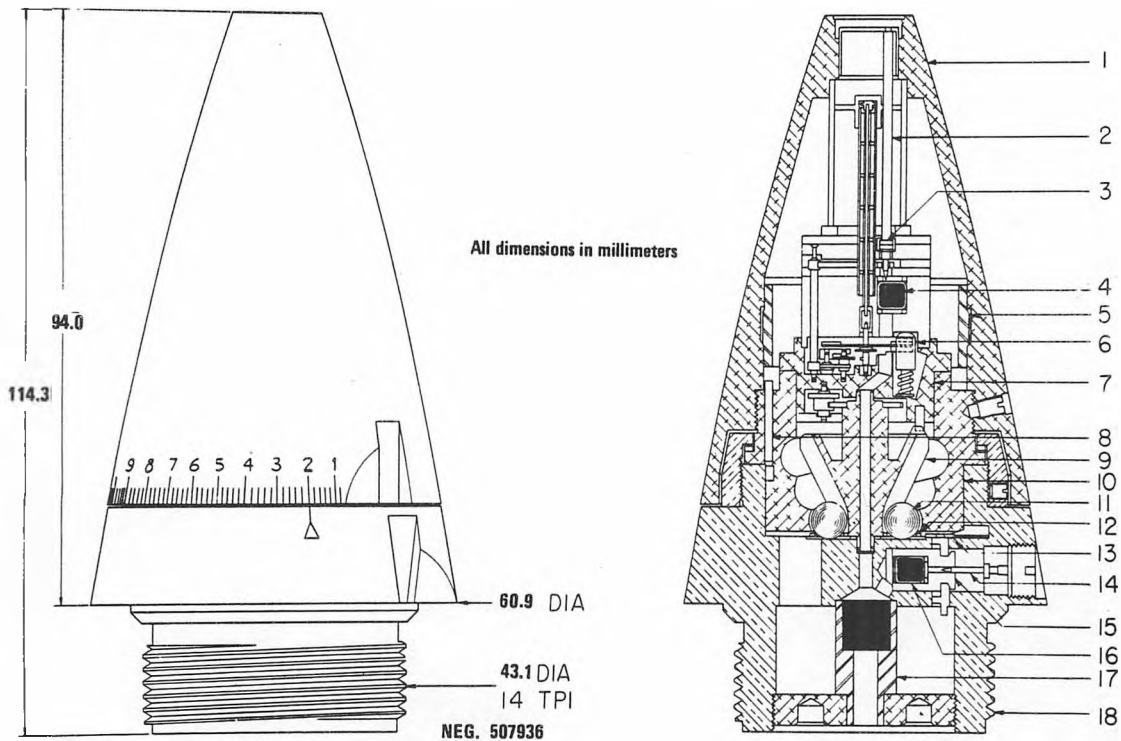
NATIVE DES: ?
 PRODUCED/ADOPTED: ???

DATE UPDATED: 02FEB77
 COUNTRY: SWITZERLAND

(U)THE SWISS MECHANICAL TIME AND SUPERQUICK FUZE MODEL 548-EN-3, DESIGNED TO BE USED IN PROJECTILE FIRED IN THE U.S. 90-MM ANTI-AIRCRAFT GUNS, IS MADE BY THE DIXI CO. IT IS OPERATED BY CENTRIFUGAL FORCE: THEREFORE THE ESCAPEMENT DOES NOT FUNCTION UNTIL MAXIMUM ROTATIONAL VELOCITY IS REACHED AT THE MUZZLE OF THE GUN. FUZE SETTING IS DONE BY ROTATING THE ENTIRE NOSE OF THE FUZE, EITHER TO THE RIGHT OR THE LEFT. GROOVES IN THE NOSE AND BODY ENABLE THE FUZE TO BE SET IN A FUZE SETTER. SETTINGS CAN BE READ TO 0.2 SECOND.

(U)TO SET THE FUZE, THE NOSE (1) AND THE ESCAPEMENT HOUSING (7)--FIXED ON THE GROOVED BASE (10) IN WHICH THE DRIVING CONE (9) AND THE DRIVING BALLS (11) ARE HOUSED--ARE TURNED WITH RESPECT TO THE BODY (18). WHEN THE NOSE IS TURNED TO THE RIGHT OR THE LEFT, THE DISTANCE BETWEEN THE NOTCH OF THE TIMING DISK (12) AND THE TRIGGER (13), WHICH PIVOTS ON THE FUZE BODY, IS CHANGED. THE SETTING INDICATED ON THE BODY CORRESPONDS DIRECTLY WITH THE TIME (IN SECONDS) THAT THE TIMING DISK NEEDS TO TRAVEL UNTIL THE TRIGGER FALLS INTO THE NOTCH OF THE DISK. WHEN THE PROJECTILE IS FIRED, SETBACK CAUSES THE SETBACK WEIGHT (5) TO PRESS AGAINST THE LOCKING PINS (8), WHICH FIT INTO A RECESS BETWEEN THE BODY AND THE GROOVED BASE. AT THE SAME TIME, THE ESCAPEMENT LOCK (6) IS MOVED REARWARD, UNLOCKING THE ESCAPEMENT. CENTRIFUGAL FORCE TIPS THE ESCAPEMENT LOCK TO THE SIDE, PREVENTING ITS RETURN ONCE ACCELERATION CEASES. AS SOON AS ACCELERATION CEASES, THE ESCAPEMENT IS DRIVEN BY THE DRIVING BALLS. AT THE END OF THE SET TIME, THE NOTCH OF THE TIMING DISK REACHES THE PLACE WHERE THE POINT OF THE TRIGGER ENTERS THE NOTCH DUE TO THE EFFECTS OF CENTRIFUGAL FORCE. THIS ACTION UNLOCKS THE DETONATOR HOUSING (15), WHICH MOVES OUTWARD UNDER THE EFFECTS OF CENTRIFUGAL FORCE. THIS MOTION DRIVES THE DETONATOR (16) AGAINST THE FIRING PIN (14), INITIATING THE SECOND DETONATOR, WHICH IS CONTAINED IN THE COLUMN (17).

(U)DURING TRANSPORTATION AND FOR THE FIRST FEW SECONDS OF FLIGHT, THE POINT DETONATING FIRING PIN (2) IS BLOCKED FROM THE PRIMER (4) BY THE WASHER (3). AT THE END OF THE DESIGNED TIME, THE BALL-DRIVEN ESCAPEMENT UNLOCKS THE FIRING PIN, ARMING THE FUZE FOR SUPERQUICK FUNCTION. ON IMPACT, THE FIRING PIN IS DRIVEN INTO THE PRIMER, INITIATING THE SECOND DETONATOR.



U N C L A S S I F I E D

FOM-1390-18-1-9-A
 NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL 548-EN-3 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 02FEB77

COUNTRY: SWITZERLAND

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- ?

USING COUNTRIES: ----- 018

BOOSTER:

BODY MATERIAL ----- N/A
 BODY LENGTH (MM) -- N/A
 FILLER MATERIAL --- N/A
 FILLER WEIGHT (G) - N/A

PERFORMANCE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME VARIABLE 1 TO 30 SEC
 DELAY TIME ----- N/A
 MIN TIME SETTING -- 1 SEC
 MAX TIME SETTING -- 30 SEC

FUZE ASSEMBLY COMPLETE:

TYPE ----- COMBINATION (TIME-IMPACT)
 MODEL ----- 548-EN-3
 BODY MATERIAL ----- BRASS
 LENGTH OVERALL (MM) -- 114.3
 LENGTH EXPOSED (MM) -- 94.0
 MAXIMUM DIAMETER (MM)- 60.9
 MAJ THREAD DIAM (MM) - 43.1
 THREAD PITCH (METRIC)- 1.75 MM
 WEIGHT COMPLETE (G) -- 654
 MARKINGS ----- ?

USING PROJECTILES: -- 90-MM HE

USING WEAPONS: ----- 90-MM AA GUN

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
 SELF-DESTR METHOD ---- TIME SETTING
 TYPE SAFETY DEVICE ---- SPIN-FREED-FIRING PIN

REMARKS:

NOMEN: FUZE, POINT-DETONATING SELF-DESTROYING, MODEL KZD-099 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ?
PRODUCED/ADOPTED: ?/?

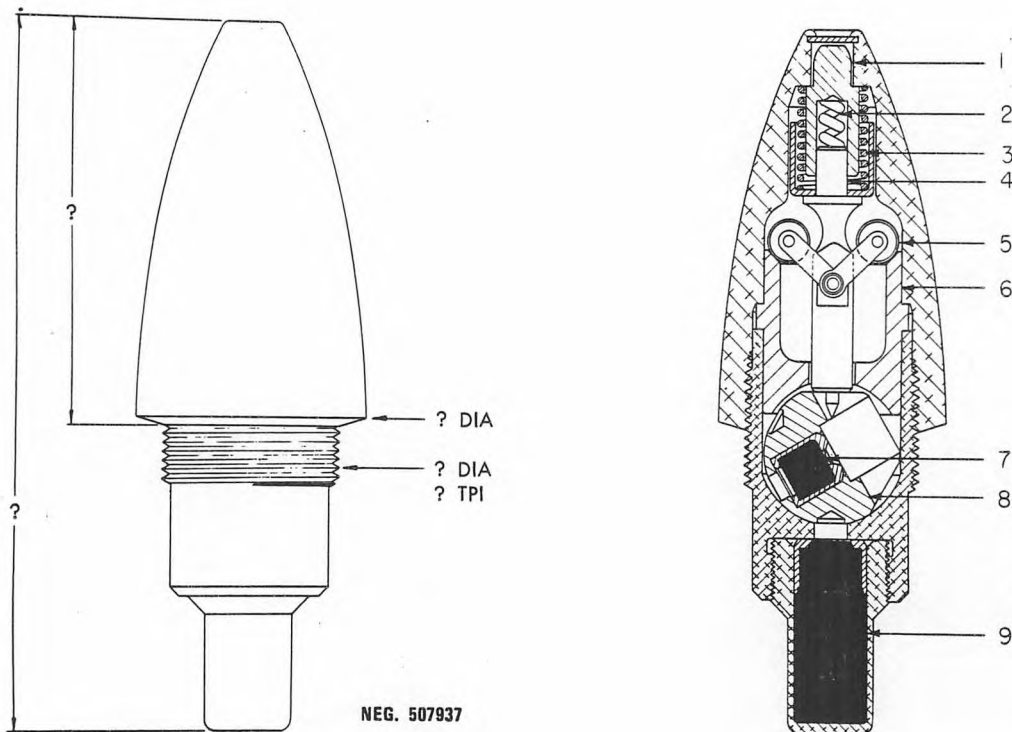
DATE UPDATED: 02FEB77
COUNTRY: SWITZERLAND

(U)THE OERLIKON MODEL KZD-099 POINT-DETONATING, SELF-DESTROYING FUZE IS DESIGNED FOR USE WITH 40-MM ANTI-AIRCRAFT PROJECTILES WITH A MUZZLE VELOCITY OF 1000 METERS PER SECOND. DETONATOR SAFETY IS ACHIEVED BY HAVING THE ROTOR (8) CONTAINING THE DETONATOR (7) PIVOTED OUT OF LINE, SO THAT THE PATH BETWEEN THE DETONATOR AND THE BOOSTER (9) IS BLOCKED. SELF-DESTRUCTION IS ACHIEVED MECHANICALLY, AND IS BASED UPON SPIN DECAY.

(U)LOCATED IN THE FORWARD END OF THE FUZE ARE A MASS ELEMENT (1), AND A SHOCK ELEMENT (2). THE SHOCK ELEMENT HAS THE SHAPE OF A COIL SPRING, BUT, WHEN COMPRESSED, IS PERMANENTLY DEFORMED. FORWARD MOTION OF THE FIRING PIN (4) IS PREVENTED BY THE SHOCK ELEMENT. THE SELF-DESTRUCTION SPRING (3) SURROUNDS THE MASS ELEMENT.

(U)UPON FIRING OF THE PROJECTILE, SETBACK FORCES THE MASS ELEMENT AGAINST THE SHOCK ELEMENT, COMPRESSING IT PERMANENTLY. AFTER THE PROJECTILE LEAVES THE BARREL, AND SETBACK CEASES, THE FIRING PIN IS MOVED FORWARD, AGAINST THE ACTION OF THE SELF-DESTRUCTION SPRING, BY THE FLYWEIGHTS (5) MOVING OUTWARD ALONG THE INCLINED FACE OF THE CASING (6) UNDER THE EFFECTS OF CENTRIFUGAL FORCE. WHEN THE POINT OF THE FIRING PIN CLEARS THE ROTOR, CENTRIFUGAL FORCE MOVES THE ROTOR SO THAT THE DETONATOR IS IN LINE WITH THE FIRING PIN AND THE BOOSTER, ARMING THE FUZE. ON IMPACT, THE MASS ELEMENT AND THE FIRING PIN ARE DRIVEN TO THE REAR, INITIATING THE DETONATOR. THE RESULTING DETONATION IS TRANSMITTED TO THE BOOSTER.

(U)IF THE PROJECTILE FAILS TO HIT A TARGET, DEGRADATION OF SPIN VELOCITY CAUSES SELF-DESTRUCTION WHEN THE CENTRIFUGAL FORCE HOLDING THE FLYWEIGHTS OUTWARD DECREASES TO THE POINT THAT THE AXIAL FORCE ON THE FIRING PIN IS OVERCOME BY THE FORCE OF THE SELF-DESTRUCTION SPRING. THE FLYWEIGHTS THEN TIP OVER THE INCLINED FACE, ALLOWING THE SELF-DESTRUCTION SPRING TO SUDDENLY DRIVE THE FIRING PIN INTO THE DETONATOR.



U N C L A S S I F I E D

FOM-1390-18-1-10-A

NOMEN: FUZE, POINT-DETONATING SELF-DESTROYING, MODEL KZD-099 (U)

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ???

COUNTRY: SWITZERLAND

CURRENT STATUS: ----- ?

BOOSTER:

USING COUNTRIES: ----- 018

BODY MATERIAL ----- ALUMINUM
BODY LENGTH (MM) -- ?
FILLER MATERIAL ---- ?
FILLER WEIGHT (G) - ?

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT-SELF-DESTROYING
MODEL ----- KZD-099
BODY MATERIAL ----- ALUMINUM
LENGTH OVERALL (MM) -- ?
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM) - ?
MAJ THREAD DIAM (MM) - ?
THREAD PITCH (METRIC) - ?
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- KZD-099

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME 5 SEC EST
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- 40-MM HE

USING WEAPONS: ----- 40-MM AA GUN L/70 (BOFORS)

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
SELF-DESTR METHOD ---- MECHANICAL, SPIN
TYPE SAFETY DEVICE --- OUT-OF-LINE DETONATOR

REFERENCES: -----

NOMEN: FUZE POINT-DETONATING SELF-DESTROYING MODEL KZ-0152 (U)

DATE REVIEWED: 02FEB77

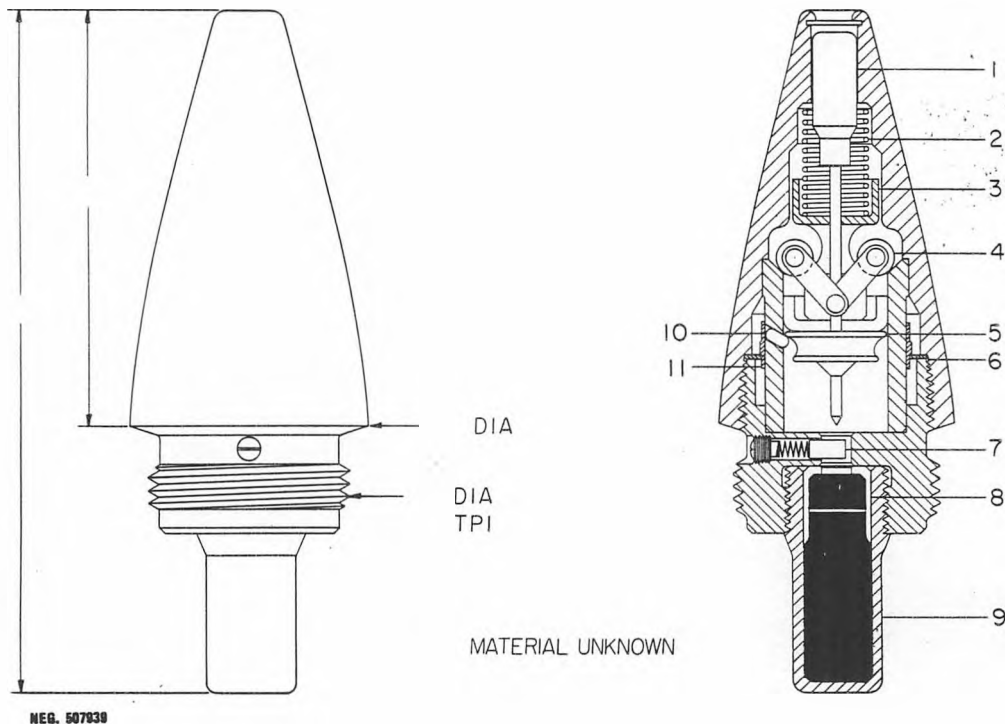
NATIVE DES: KZ-0152
 PRODUCED/ADOPTED: 1956/1968

DATE UPDATED: 02FEB77
 COUNTRY: SWITZERLAND

(U)THE OERLIKON MODEL KZ-0152 POINT DETONATING, SELF-DESTROYING FUZE IS DESIGNED FOR USE WITH 20-MM (20 X 128 MM) HEI AND HEI-T AMMUNITION. DETONATOR SAFETY IS ACHIEVED BY THE SAFETY BLOCK (7) WHICH OBSTRUCTS THE PATH BETWEEN THE FIRING PIN AND THE DETONATOR (8). SELF-DESTRUCTION IS ACHIEVED MECHANICALLY, AND IS BASED UPON SPIN DECAY.

(U)ON FIRING, SETBACK FORCES THE SAFETY RING (11) TO THE REAR, PAST THE LOCKING RING (6). THE LOCKING RING NOW PREVENTS THE SAFETY RING FROM RETURNING TO ITS ORIGINAL LOCATION. THE REARWARD MOVEMENT OF THE SAFETY RING HAS NOW OPENED THE PASSAGEWAY FOR THE THREE SAFETY BOLTS (10). THE SAFETY BOLTS REMAIN IN POSITION, HOWEVER, AS LONG AS THEY ARE SUBJECTED TO FORCE FROM THE FIRING PIN SHOULDER (5). THE SELF-DESTRUCTION SPRING (2) PRESSES AGAINST THE FIRING PIN COLLAR (3) TO MAINTAIN THE REARWARD PRESSURE OF THE FIRING PIN SHOULDER ON THE SAFETY BOLTS. WHEN THE SPIN SPEED EXCEEDS 1200 RPM, THE FORWARD AXIAL COMPONENT OF THE FORCE EXERTED BY THE TWO FLYWEIGHTS (4) ON THE FIRING PIN ASSEMBLY BECOMES GREATER THAN THE REARWARD FORCE OF THE SELF-DESTRUCTION SPRING. THE FIRING PIN THEN MOVES FORWARD SLIGHTLY, REMOVING THE PRESSURE ON THE SAFETY BOLTS. UNDER CENTRIFUGAL FORCE, THE SAFETY BOLTS MOVE OUTWARD, CLEARING THE FIRING PIN PATH. AT THE SAME TIME, THE SAFETY BLOCK MOVES OUTWARD UNDER CENTRIFUGAL FORCE, MAKING THE DETONATOR ACCESSIBLE TO THE FIRING PIN. THE FUZE IS NOW ARMED. ON IMPACT, THE MASS ELEMENT (1) AND THE FIRING PIN ARE DRIVEN TO THE REAR, INITIATING THE DETONATOR. THE RESULTING DETONATION IS TRANSMITTED TO THE BOOSTER (9).

(U)IF THE PROJECTILE FAILS TO HIT A TARGET WITHIN ABOUT SEVEN SECONDS, SELF-DESTRUCTION WILL TAKE PLACE. WITH A DECREASE IN SPIN SPEED, THE CENTRIFUGAL FORCE HOLDING THE FLYWEIGHTS OUTWARD DECREASES UNTIL THE AXIAL FORCE COMPONENT ON THE FIRING PIN IS OVERCOME BY THE FORCE OF THE SELF-DESTRUCTION SPRING. THE FLYWEIGHTS CONTINUE TO MOVE INWARD, THUS PERMITTING THE SELF-DESTRUCTION SPRING TO SUDDENLY DRIVE THE FIRING PIN INTO THE DETONATOR.



U N C L A S S I F I E D

FOM-1390-18-1-12-A

NOMEN: FUZE POINT-DETONATING SELF-DESTROYING MODEL KZ-0152 (U)

PRODUCED/ADOPTED: 1956/1968

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 02FEB77

COUNTRY: SWITZERLAND

CURRENT STATUS: ----- ? STANDARD

USING COUNTRIES: ----- SWITZERLAND

BOOSTER:

BODY MATERIAL ----- ?
BODY LENGTH (MM) -- ?
FILLER MATERIAL --- ?
FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE(M)- 2
ARMING TIME ----- ?
SELF-DESTRUCT TIME 7 + OR - 2 SECONDS
DELAY TIME ----- N/A
MIN TIME SETTING -- ?
MAX TIME SETTING -- ?

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT, SELF-DESTROYING
MODEL ----- KZ-0152
BODY MATERIAL ----- ?
LENGTH OVERALL (MM) -- ?
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- ?
MAJ THREAD DIAM (MM) - ?
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 28
MARKINGS ----- ?

USING PROJECTILES: -- 20 X 128 MM HEI AND HEI-T,
- TYPES SSB/K AND SSBL/K

USING WEAPONS: ----- DERLIKON 5TG AND 204GK

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
SELF-DESTR METHOD ---- MECHANICAL-SPIN
TYPE SAFETY DEVICE --- OBSTRUCTED TO DETONATOR

REMARKS:

NOMEN: FUZE, BASE-DETONATING SELF-DESTROYING MODEL BZ-0144 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ?
PRODUCED/ADOPTED: ???DATE UPDATED: 02FEB77
COUNTRY: SWITZERLAND

(U)THE OERLIKON MODEL BZ-0144 BASE-DETONATING, SELF-DESTROYING FUZE IS DESIGNED FOR USE WITH 20-MM AMMUNITION. DETONATOR SAFETY IS ACHIEVED BY THE SAFETY BLOCK (9) WHICH OBSTRUCTS THE PATH BETWEEN THE FIRING PIN AND THE DETONATOR (2). SELF-DESTRUCTION IS ACHIEVED MECHANICALLY, AND IS BASED UPON SPIN DECAY.

(U)ON FIRING, SETBACK FORCES THE SHOCK RING (3) BACKWARD, CRIMPING THE SHOCK ELEMENT (10). THE SAFETY RING (5) IS NOW FREE TO MOVE FORWARD AXIALLY. THE SAFETY BOLTS (6) REMAIN IN POSITION, HOWEVER, AS LONG AS THEY ARE SUBJECTED TO FORCE FROM THE FIRING PIN SHOULDER (11). THE SELF-DESTRUCTION SPRING (7) PRESSES AGAINST THE FIRING PIN SHOULDER TO MAINTAIN THE SAFETY BOLTS IN POSITION. CENTRIFUGAL FORCE MOVES THE TWO FLYWEIGHTS (8) OUTWARD. WHEN THE SPIN SPEED EXCEEDS 1200 RPM, THE REARWARD AXIAL COMPONENT OF THE FORCE EXERTED BY THE TWO FLYWEIGHTS ON THE FIRING PIN ASSEMBLY BECOMES GREATER THAN THE FORWARD FORCE OF THE SELF-DESTRUCTION SPRING. THE FIRING PIN THEN MOVES BACKWARD SLIGHTLY, REMOVING THE PRESSURE ON THE SAFETY BOLTS. WHEN THIS TAKES PLACE, THE SAFETY BOLTS ARE THROWN OUTWARD BY CENTRIFUGAL FORCE, PUSHING THE SAFETY RING FORWARD. AT THE SAME TIME, THE SAFETY BLOCK MOVES OUTWARD UNDER CENTRIFUGAL FORCE, CRUSHING THE SHOCK ELEMENT (4). THE PATH TO THE DETONATOR IS NOW CLEAR, AND THE FUZE IS ARMED. ON IMPACT, THE FIRING PIN IS THROWN FORWARD, INITIATING THE DETONATOR. THE RESULTING DETONATION IS TRANSMITTED TO THE BOOSTER (1).

(U)IF THE PROJECTILE FAILS TO HIT A TARGET WITHIN THE DESIGNED TIME, SELF-DESTRUCTION WILL TAKE PLACE. WITH A DECREASE IN SPIN SPEED, THE CENTRIFUGAL FORCE HOLDING THE FLYWEIGHTS OUTWARD DECREASES UNTIL THE AXIAL FORCE COMPONENT ON THE FIRING PIN IS OVERCOME BY THE FORCE OF THE SELF-DESTRUCTION SPRING. THE FLYWEIGHTS CONTINUE TO MOVE INWARD, THUS PERMITTING THE SELF-DESTRUCTION SPRING TO SUDDENLY DRIVE THE FIRING PIN INTO THE DETONATOR.

U N C L A S S I F I E D

FOM-1390-18-1-13-A

NOMEN: FUZE, BASE-DETONATING SELF-DESTROYING MODEL BZ-0144 (U)

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 02FEB77

COUNTRY: SWITZERLAND

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 018

BOOSTER:

BODY MATERIAL ----- ?
BODY LENGTH (MM) -- ?
FILLER MATERIAL --- ?
FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME 5 SECONDS
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT-SELF-DESTROYING
MODEL ----- BZ-0144
BODY MATERIAL ----- ?
LENGTH OVERALL (MM) -- ?
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- ?
MAJ THREAD DIAM (MM) - ?
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 30.2
MARKINGS ----- ?

USING PROJECTILES: -- 20 MM APHEI AND APHEIT
- TYPES PSBH/B AND PSBLH/B

USING WEAPONS: ----- DERLIKON 5 TG AND 204 GK

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
SELF-DESTR METHOD ---- MECHANICAL-SPIN DECAY
TYPE SAFETY DEVICE --- OBSTRUCTED TO DETONATOR

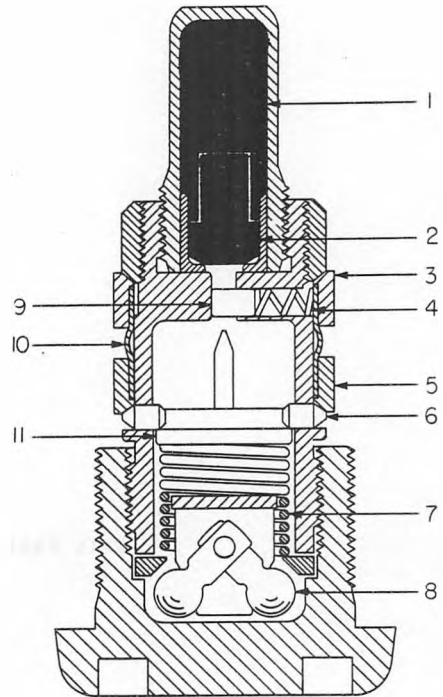
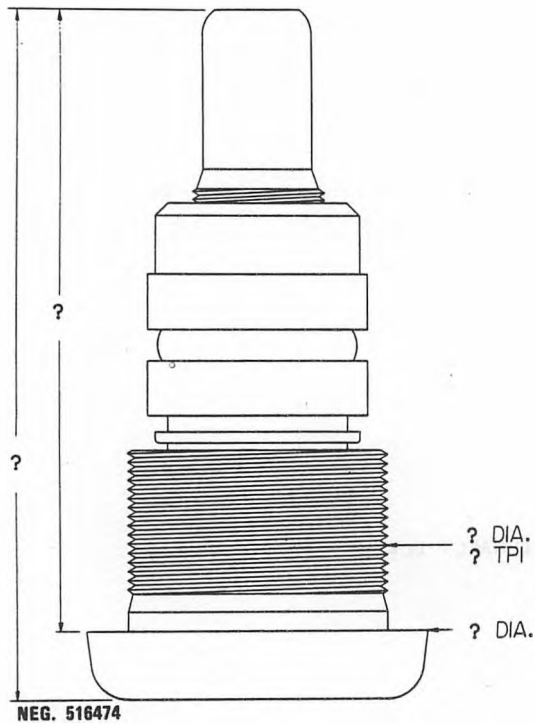
REMARKS:

U N C L A S S I F I E D

FOM-1390-18-1-13-B
NOMEN: FUZE, BASE-DETONATING SELF-DESTROYING MODEL BZ-0144 (U)

PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77
COUNTRY: SWITZERLAND



FOM-1390-18-1-13-B

U N C L A S S I F I E D

NOMEN: FUZE, BASE-DETONATING SELF-DESTROYING MODEL BZ-0144 (U)

PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 02FEB77

COUNTRY: SWITZERLAND

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01SEP65
VOLUME 06 PAGE 334

U N C L A S S I F I E D

NOMEN: FUZE, POINT-DETONATING SELF-DESTROYING, MODEL ? (U)

DATE REVIEWED: 02FEB77

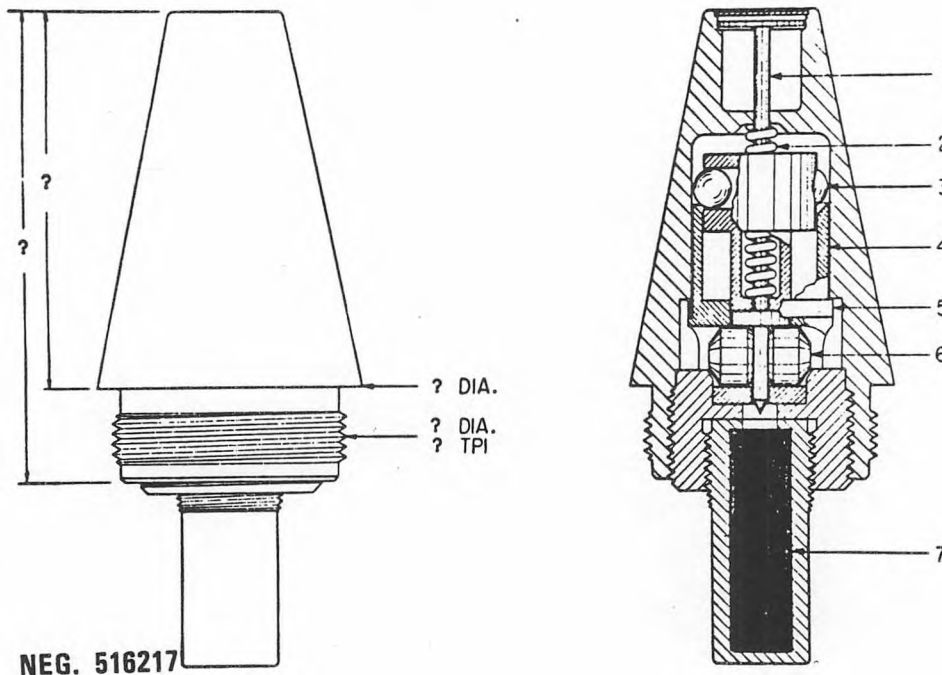
NATIVE DES: ?
 PRODUCED/ADOPTED: ?/?

DATE UPDATED: 02FEB77
 COUNTRY: SWITZERLAND

(U)THE HISPANO-SUIZA POINT-DETONATING, SELF-DESTROYING FUZE MODEL ? IS DESIGNED FOR USE WITH 30-MM HIGH-EXPLOSIVE AMMUNITION. DURING HANDLING AND TRANSPORTATION THE FUZE IS MADE SAFE BY THE SPIN-ACTIVATED SAFETY RING (5) AND THE LOCKING BOLTS (6) ON THE FIRING PIN (1).

(U)AFTER FIRING, WHEN THE DESIGN SPIN SPEED IS REACHED, THE SAFETY RING OPENS UNDER CENTRIFUGAL FORCE, FREEING THE SLEEVE (4) TO MOVE FORWARD AS THE LOCKING BOLTS ARE THRUST RADIALLY OUTWARD. THE FORWARD AND OUTWARD MOTION OF THE LOCKING BOLTS COMPRESSES THE SPRING (2) AND CLEARS THE PASSAGE FOR THE FIRING PIN, THUS ARMING THE FUZE. UPON IMPACT, THE FIRING PIN IS FORCED INTO THE DETONATOR (7).

(U)SELF-DESTROYING ACTION TAKES PLACE WHEN THE DIMINISHING SPIN FORCE ON THE LOCKING BALLS (3) IS OVERCOME BY THE FORCE OF THE COMPRESSED SPRING, CAUSING THE FIRING PIN TO DRIVE INTO THE DETONATOR.



U N C L A S S I F I E D

FOM-1390-18-1-14-A
 NOMEN: FUZE, POINT-DETONATING SELF-DESTROYING, MODEL ? (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ??/?

COUNTRY: SWITZERLAND

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 018

BOOSTER:

BODY MATERIAL ----- ALUMINUM
 BODY LENGTH (MM) -- ?
 FILLER MATERIAL --- ?
 FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE (M)- 6
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME ?
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT-SELF-DESTROYING
 MODEL ----- ?
 BODY MATERIAL ----- ALUMINUM
 LENGTH OVERALL (MM) -- ?
 LENGTH EXPOSED (MM) -- ?
 MAXIMUM DIAMETER (MM)- ?
 MAJ THREAD DIAM (MM) - ?
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- ?
 MARKINGS ----- ?

USING PROJECTILES: -- 30 MM, HE

USING WEAPONS: ----- 30 MM AUTOMATIC CANNON
 - TYPE HSS-831

FUNCTIONAL DATA:

ARMING METHOD ----- SPIN
 SELF-DESTR METHOD ---- MECHANICAL SPIN
 TYPE SAFETY DEVICE --- LOCKING BOLTS.

REFERENCES: -----

REMARKS:

NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL ? (U)

DATE REVIEWED: 02FEB77

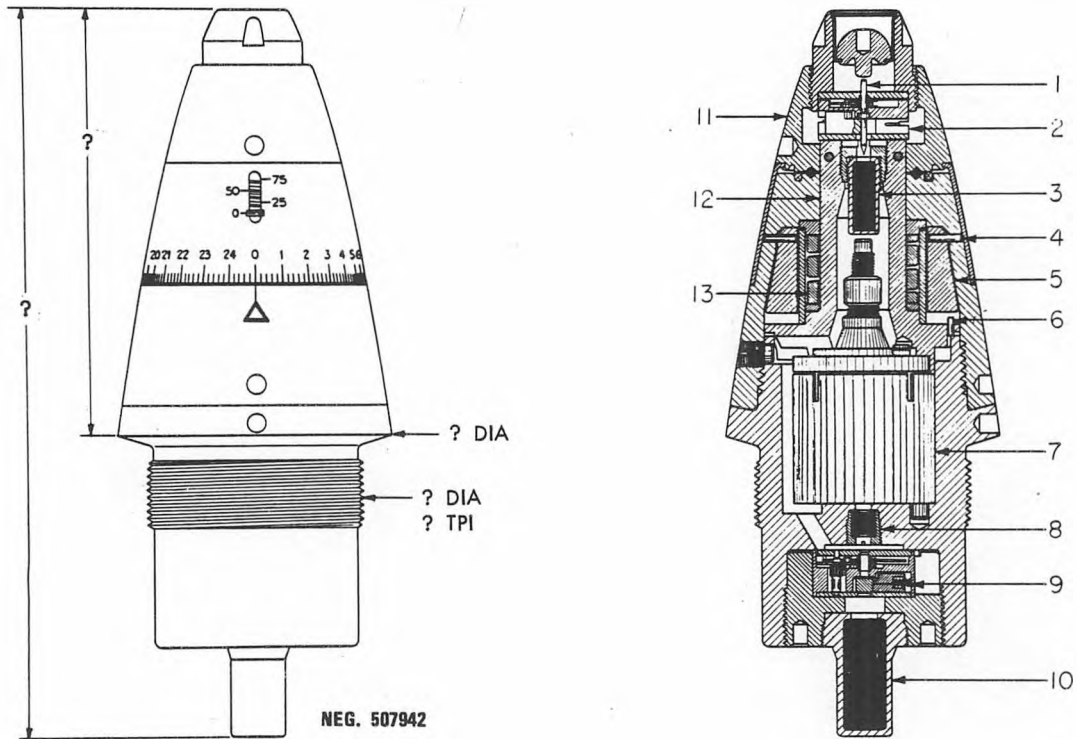
NATIVE DES: ?
PRODUCED/ADOPTED: ???

DATE UPDATED: 02FEB77
COUNTRY: SWITZERLAND

(U)THE TAVARO MECHANICAL TIME AND SUPERQUICK FUZE DESCRIBED HERE CAN BE SET TO FUNCTION UP TO 75 SECONDS AFTER FIRING. SAFETY DURING HANDLING IS ACHIEVED BY THE SPIN-ACTIVATED DETENTS (2), AND BY AN INTERRUPTER (9) IN THE PATH TO THE BOOSTER (10).

(U)UPON FIRING OF THE PROJECTILE, WHEN THE DESIGN ROTATIONAL SPEED IS REACHED, THE SPIN-ACTIVATED DETENTS ROTATE AWAY BY CENTRIFUGAL FORCE, FREEING THE FIRING PIN (1). THIS ACTION IS SLOWED BY A CLOCKWORK MECHANISM WITH A RUNAWAY ESCAPEMENT. ALSO UNDER SPIN FORCE, THE INTERRUPTER MOVES AWAY, CLEARING THE PATH TO THE BOOSTER. MOVEMENT OF THE INTERRUPTER IS RETARDED BY ANOTHER CLOCKWORK MECHANISM WITH RUNAWAY ESCAPEMENT. IF IMPACT OCCURS AFTER THE INTERRUPTER IS CLEAR, THE SHOCK WAVE FROM THE DETONATOR (3) INITIATES THE BOOSTER.

(U)TIME FUNCTIONING IS ACHIEVED BY A MAINSPRING-DRIVEN CLOCKWORK (7) WITH A TORSION-SPRING ESCAPEMENT SYSTEM. FUNCTIONING TIME CAN BE SET FROM 1 TO 75 SECONDS BY ROTATING THE NOSE (11) OF THE FUZE. ACTION OF THE SPRING (13) PROVIDES A CONSTANT SETTING TORQUE. THE MAINSPRING IS WOUND DURING SETTING, AS THE FUZE NOSE ROTATES THE CENTER SECTION (12) AND THE MOVABLE PORTION OF THE CLOCKWORK. AFTER FIRING, UNDER SETBACK FORCE THE WEIGHT (5) SHEARS OFF THE PINS (4) AND DRIVES THE LOCKING PIN (6) INTO THE FUZE BODY. THE TIME SETTING IS THEREBY FIXED. IF IMPACT HAS NOT OCCURRED BEFORE THE SET TIME EXPIRES, THE CLOCKWORK MECHANISM RELEASES A FIRING PIN, WHICH ACTIVATES THE DETONATOR (8) AND THE BOOSTER.



NEG. 507942

U N C L A S S I F I E D

FOM-1390-18-1-15-A

NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL ? (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

COUNTRY: SWITZERLAND

PRODUCED/ADOPTED: ?/?

CURRENT STATUS: ----- ?

USING COUNTRIES: ----- 018

BOOSTER:

BODY MATERIAL ----- ALUMINUM
BODY LENGTH (MM) -- ?
FILLER MATERIAL --- ?
FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME 1 TO 75 SEC
DELAY TIME ----- N/A
MIN TIME SETTING -- 1 SEC
MAX TIME SETTING -- 75 SEC

FUZE ASSEMBLY COMPLETE:

TYPE ----- COMBINATION (TIME-IMPACT)
MODEL ----- ?
BODY MATERIAL ----- ALUMINUM
LENGTH OVERALL (MM) -- ?
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- ?
MAJ THREAD DIAM (MM) - ?
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- ?

USING PROJECTILES: -- ?

USING WEAPONS: ----- ?

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SPIN
SELF-DESTR METHOD ----- TIME SETTING
TYPE SAFETY DEVICE --- SPIN-ACTIVATED

REMARKS:

NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL ? (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ?
 PRODUCED/ADOPTED: ???

DATE UPDATED: 02FEB77
 COUNTRY: SWITZERLAND

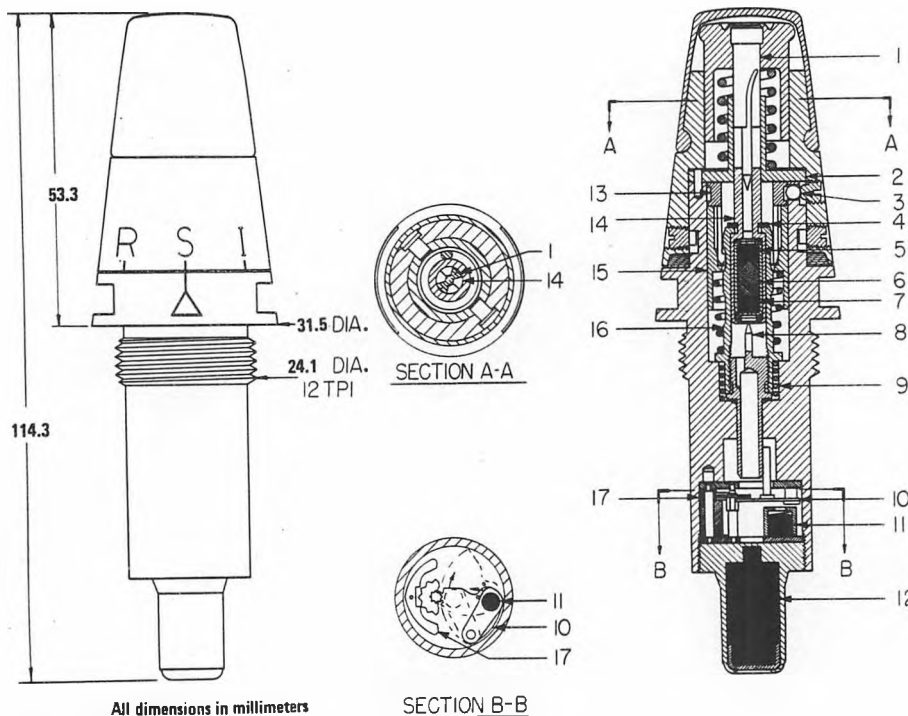
(U)THE TAVARO MECHANICAL TIME AND SUPERQUICK FUZE DESCRIBED HERE CAN BE SET BY 0.2-SECOND INTERVALS TO FUNCTION FROM 1 TO 30 SECONDS AFTER FIRING. IT IS USED WITH HIGH-EXPLOSIVE PROJECTILES FOR 90-MM ANTI-AIRCRAFT GUNS. SAFETY DURING HANDLING IS ACHIEVED WITH THE SPIN-ACTIVATED RACK (3) ON THE UPPER PLUNGER (2), THE TIMING CUP PIN (12) ON THE TIMING CUP (15), AND THE SPIN-ACTIVATED DETENTS ON THE ESCAPEMENT SYSTEM.

(U)UPON FIRING, CENTRIFUGAL FORCE MOVES THE RACK OUTWARD, FREEING THE UPPER PLUNGER FOR IMPACT ACTION. FRICTION IN THE RACK-AND-PINION SYSTEM RETARDS THE RACK'S MOTION. IF IMPACT OCCURS BEFORE THE TIMING DEVICE HAS FREED THE LOWER PLUNGER (10), THE UPPER PLUNGER WILL ACTIVATE THE DETONATOR (5). THE SHOCK WAVE FROM THE DETONATOR FOLLOWS A FREE PATH (8) AROUND THE TIMER TO SET OFF THE PRIMER (14).

(U)THE MECHANICAL TIME FUNCTION IS PROVIDED BY A MAINSPRING-DRIVEN CLOCK MECHANISM (9) WITH A CYLINDRICAL PALLET AND TORSION BAR ESCAPEMENT SYSTEM.

(U)THE FUZE IS SET TO THE DESIRED TIME BY ROTATING THE NOSE (1). TORSION-SPRING ACTION PROVIDES CONSTANT SETTING TORQUE. DURING SETTING, THE TIMING CUP OF THE CLOCK MECHANISM ROTATES WITH THE CENTER SECTION (4) AND THE NOSE. UPON FIRING, SETBACK CAUSES THE WEIGHT (6) TO SHEAR OFF THE PIN (17) AND TO DRIVE THE LOCKING PIN (18) INTO THE FUZE BODY (20). THE SET POSITION OF THE FUZE IS THEREBY FIXED.

(U)THE MAINSPRING, REGULATED BY THE TIMING MECHANISM, DRIVES THE TIMING CUP. THE STOP (13) PREVENTS THE TIMING CUP PIN FROM ROTATING. AFTER SETTING, THE STOP IS NO LONGER AN OBSTACLE. SETBACK CAUSES THE WEIGHT (11) TO MOVE BACK AND TO ROTATE THE TIMING CUP PIN CLEAR. THE SPIN-ACTIVATED DETENTS ON THE ESCAPEMENT SYSTEM ARE LIBERATED. AS TIME PASSES, THE TIMING CUP ROTATES TO SET THE LOCATION WHERE THE SEGMENT (19) MOVES INTO THE OPENING IN THE TIMING CUP UNDER CENTRIFUGAL FORCE, THUS FREEING THE LOWER PLUNGER. THE SPRING-LOADED PLUNGER WHICH IGNITES THE PRIMER. THE SEGMENT (16) ROTATES WITH THE OPENING DURING SETTING, THUS PREVENTING THE SEGMENT (19) FROM MOVING OUT BEFORE SET TIME.



All dimensions in millimeters
 NEG. 507945

U N C L A S S I F I E D

FOM-1390-18-1-16-A

NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL ? (U)

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ???

COUNTRY: SWITZERLAND

CURRENT STATUS: ----- ?

USING COUNTRIES: ----- 018

BOOSTER:

BODY MATERIAL ----- N/A
 BODY LENGTH (MM) --- N/A
 FILLER MATERIAL --- N/A
 FILLER WEIGHT (G) - N/A

PERFORMANCE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME 1 TO 30 SEC
 DELAY TIME ----- N/A
 MIN TIME SETTING -- 1 SEC
 MAX TIME SETTING -- 30 SEC

FUZE ASSEMBLY COMPLETE:

TYPE ----- COMBINATION (TIME-IMPACT)
 MODEL ----- ?
 BODY MATERIAL ----- ?
 LENGTH OVERALL (MM) -- 115.8
 LENGTH EXPOSED (MM) -- 95.25
 MAXIMUM DIAMETER (MM)- 60.9
 MAJ THREAD DIAM (MM) - 43.2
 THREAD PITCH (METRIC)- 1.75 MM
 WEIGHT COMPLETE (G) -- 600
 MARKINGS ----- ?

USING PROJECTILES: -- 90-MM HE

USING WEAPONS: ----- 90-MM AA GUN

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
 SELF-DESTR METHOD ----- TIME SETTING
 TYPE SAFETY DEVICE --- SPIN-ACTIVATED

REMARKS:

NOMEN: FUZE, MECHANICAL TIME, MODEL ? (U)

DATE REVIEWED: 02FEB77

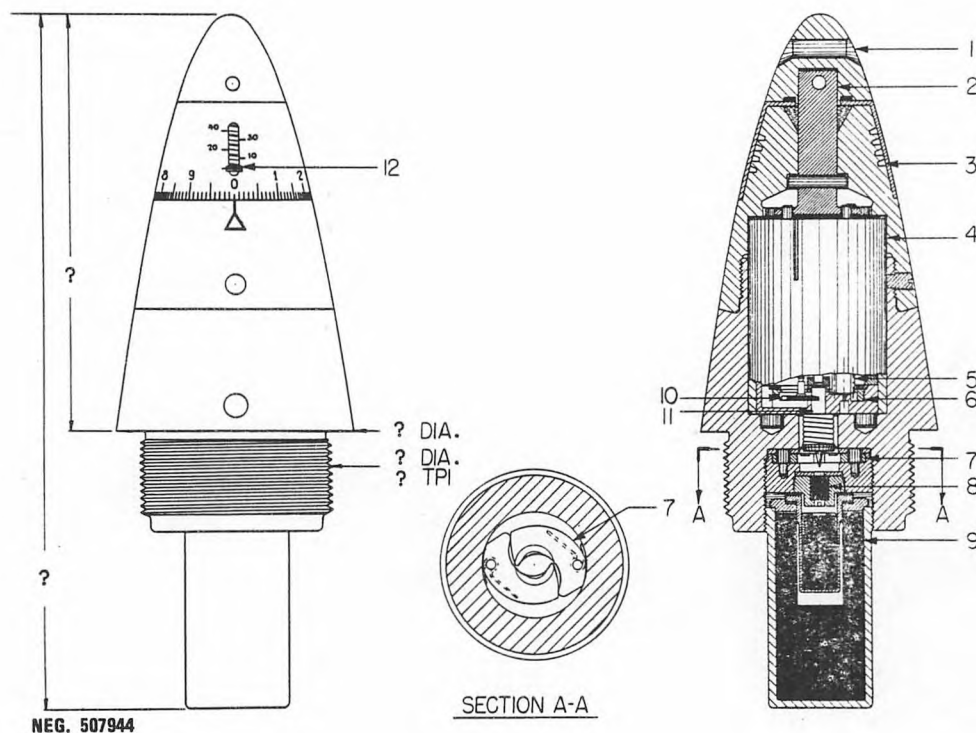
NAIVE DES: ?
 PRODUCED/ADOPTED: ???

DATE UPDATED: 02FEB77
 COUNTRY: SWITZERLAND

(U) THE TAVARD MECHANICAL TIME FUZE DESCRIBED HERE, DESIGNED FOR USE WITH HIGH-EXPLOSIVE PROJECTILES FOR 90-MM ANTI-AIRCRAFT GUNS, CAN BE SET TO FUNCTION UP TO 40 SECONDS AFTER FIRING. ROTATING THE NOSE OF THE FUZE, USING THE HOLE (1), SETS THE FUZE FOR THE DESIRED TIME. THE VERTICAL INDICATOR (12) FOLLOWS THE GROOVE (3) IN THE NOSE AS THE FUZE IS SET, SHOWING THE NUMBER OF REVOLUTIONS IN INCREMENTS OF 10 SECONDS PER REVOLUTION.

(U) DURING HANDLING AND TRANSPORTATION THE FUZE IS MADE SAFE BY THE SPIN-ACTIVATED DETENTS (10) AND THE SEGMENTS (7) ON THE SPRING-LOADED FIRING PIN (11). THE TIME MECHANISM (4) IS PREVENTED FROM OPERATING BY SPIN-ACTIVATED STOPS ON THE ESCAPEMENT LEVER.

(U) AFTER FIRING, WHEN THE DESIGN SPIN SPEED IS REACHED, CENTRIFUGAL FORCE ROTATES THE SEGMENTS (7) AWAY FROM THE FIRING PIN. BLOCKING DETENTS ON THE ESCAPEMENT LEVER ARE REMOVED BY CENTRIFUGAL FORCE, AND TIMING BEGINS. THE TIME MECHANISM IS COMPOSED OF A MAINSPRING-DRIVEN GEAR TRAIN (5) CONTROLLED BY A ESCAPEMENT SYSTEM. THE SETTING SHAFT (2) ROTATES WITH THE NOSE, AND WINDS THE MAINSPRING WHILE SETTING TAKES PLACE. AT TIME EXPIRATION, THE SLOT IN THE CROWN GEAR (6) IS LOCATED SO THAT THE CENTRIFUGAL FORCE-DRIVEN DETENT (10) IS FREE TO MOVE AWAY FROM THE FIRING PIN. WITH THIS DETENT CLEAR, THE PIN PLUNGES INTO THE DETONATOR (8) TO ACTIVATE THE BOOSTER (9).



U N C L A S S I F I E D

FOM-1390-18-1-17-A
 NOMEN: FUZE, MECHANICAL TIME, MODEL ? (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 02FEB77

COUNTRY: SWITZERLAND

PRODUCED/ADOPTED: ??

CURRENT STATUS: ----- STANDARD

BOOSTER:
 BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- ?
 FILLER MATERIAL --- ?
 FILLER WEIGHT (G) - ?

USING COUNTRIES: ----- 018

PERFORMANCE:
 ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME FUZE-SETTING
 DELAY TIME ----- N/A
 MIN TIME SETTING -- ?
 MAX TIME SETTING -- 40 SEC

FUZE ASSEMBLY COMPLETE:

TYPE ----- MECHANICAL TIME
 MODEL ----- ?
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- ?
 LENGTH EXPOSED (MM) -- ?
 MAXIMUM DIAMETER (MM)- ?
 MAJ THREAD DIAM (MM) - ?
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- ?
 MARKINGS ----- ?

USING PROJECTILES: -- 90-MM HE

USING WEAPONS: ----- ?

FUNCTIONAL DATA:

ARMING METHOD ----- SPIN
 SELF-DESTR METHOD ----- TIME SETTING
 TYPE SAFETY DEVICE --- SPIN-ACTIVATED BLOCKS

REFERENCES: -----

REMARKS:

NOMEN: FUZE, POINT DETONATING, MODEL A (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ?
 PRODUCED/ADOPTED: ???

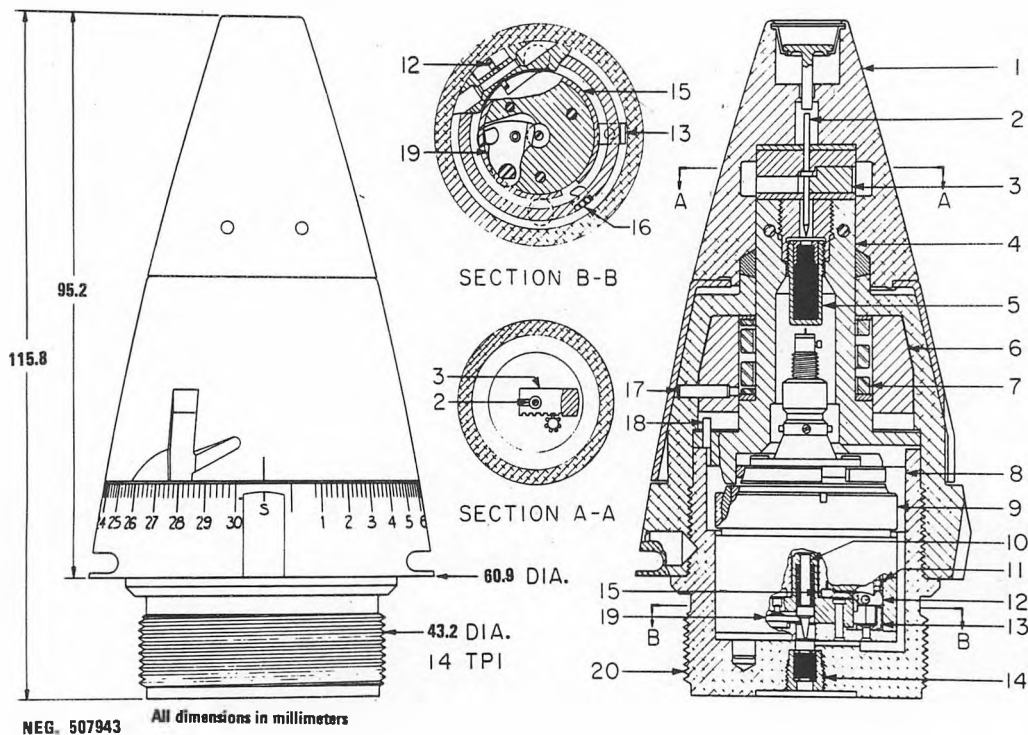
DATE UPDATED: 02FEB77
 COUNTRY: SWITZERLAND

(U)THE TAVARO, MODEL A, POINT-DETONATING FUZE IS DESIGNED FOR USE WITH HIGH-EXPLOSIVE MORTAR AMMUNITION. DURING HANDLING AND TRANSPORTATION THE FUZE IS KEPT SAFE BY THE OUT-OF-LINE POSITION OF THE LOWER DETONATOR (11). THE FUZE CAN BE SET FOR INSTANTANEOUS FUNCTION, "I", FOR DELAYED FUNCTION, "R", OR FOR SAFE, "S", BY ROTATING ITS NOSE TO THE DESIRED SETTING. WHEN THE FUZE IS IN THE SAFE POSITION, THE UPPER DETONATOR (5) CANNOT BE PIERCED BY THE STRIKER OF THE KEYED PLUNGER (1), AND THE SAFETY BALL (3) PREVENTS AXIAL MOVEMENT OF THE SAFETY RING (13). THE KEYED SHOULDER OF THE PLUNGER ROTATES WITH FUZE NOSE, AND ITS POSITION RELATIVE TO THE DUAL DETONATOR BUSHING (14) DETERMINES THE TYPE OF FUZE FUNCTION.

(U)UPON FIRING, SETBACK MOVES THE SAFETY RING AND THE SAFETY BUSHING (15) TO THE REAR WHERE CLIPS BELOW THE SAFETY RING LOCK IN THE LOWER NOTCH OF THE DUAL DETONATOR CARRIER (16). WHEN SETBACK CEASES, THE COMPRESSED SPRING (9) EXPANDS MOVING THE BUSHING AND THE CARRIER (14,16) FORWARD TO A POSITION WHERE THE SHEAR RING (4) IS IN CONTACT WITH THE PLATE (2), AND THE UPPER DETONATOR IS FINALLY IN FIRING POSITION RELATIVE TO THE STRIKER OF THE PLUNGER. AT THE SAME TIME, THE FORWARD MOVEMENT OF THE DUAL DETONATOR CARRIER FREES THE DELAY-ARMING GEAR SEGMENT (10). THIS SPRING-DRIVEN SEGMENT, SLOWED BY A RUNAWAY ESCAPEMENT SYSTEM (17), MOVES THE OUT-OF-LINE DETONATOR (11) INTO FIRING POSITION OVER THE BOOSTER (12).

(U)WHEN THE SHOULDER OF THE KEYED PLUNGER IS ROTATED TO THE "I" SETTING, IT IS IN POSITION TO DRIVE THE DETONATOR BUSHING (14). ON IMPACT, THE RING (4) SHEARS OFF AS THE BUSHING (14) DRIVES THE DETONATOR CARRIER (16) REARWARD WITH DETONATOR (7) IMPALING ON THE REAR STRIKER OF PLUNGER (8). THE RESULTANT SHOCK WAVE FROM THE DETONATION IN TURN SETS OFF THE DETONATOR (11) AND BOOSTER (12).

(U)WHEN THE SHOULDER OF THE KEYED PLUNGER IS ROTATED TO THE "R" SETTING, THE PLUNGER (1) IS FREE TO BYPASS THE DETONATOR BUSHING. ON IMPACT, THE STRIKER OF THE PLUNGER PIERCES THE UPPER DETONATOR (5). THIS IN TURN INITIATES THE DELAY CHARGE (6), WHICH LATER INITIATES THE DETONATOR (7) AND IN TURN ACTUATES THE DETONATOR (11) AND BOOSTER (12).



U N C L A S S I F I E D

FOM-1390-18-1-18-A
 NOMEN: FUZE, POINT DETONATING, MODEL A (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ???

COUNTRY: SWITZERLAND

CURRENT STATUS: ----- ?

BOOSTER:

BODY MATERIAL ----- STEEL
 BODY LENGTH (MM) -- ?
 FILLER MATERIAL --- ?
 FILLER WEIGHT (G) - ?

USING COUNTRIES: ----- 018

PERFORMANCE:

ARMING DISTANCE(M)- 50
 ARMING TIME ----- 0.71 SEC (EST.)
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- 0.12 SEC
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT DETONATING
 MODEL ----- A
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 114.3
 LENGTH EXPOSED (MM) -- 53.3
 MAXIMUM DIAMETER (MM)- 31.5
 MAJ THREAD DIAM (MM) - 24.1
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- ?
 MARKINGS ----- R.S.I.

USING PROJECTILES: -- 82 MM, HE; 120 MM, HE

USING WEAPONS: ----- 82 AND 120-MM MORTARS

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- N/A
 TYPE SAFETY DEVICE --- OUT-OF-LINE DETONATOR

REMARKS :

NOMEN: FUZE, POINT-DETONATING, MODEL B (U)

DATE REVIEWED: 02FEB77

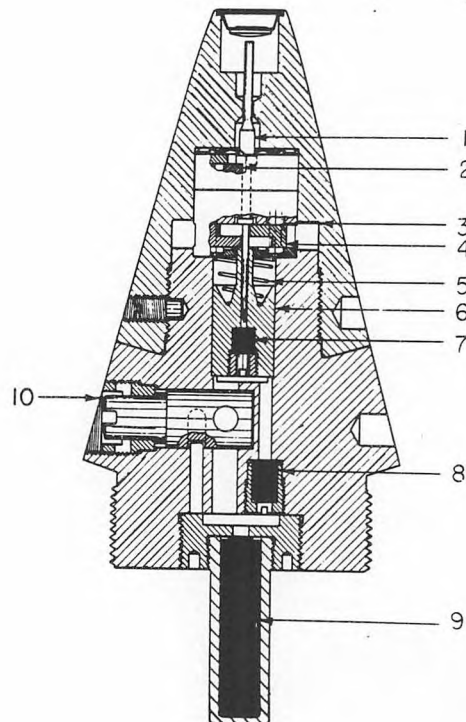
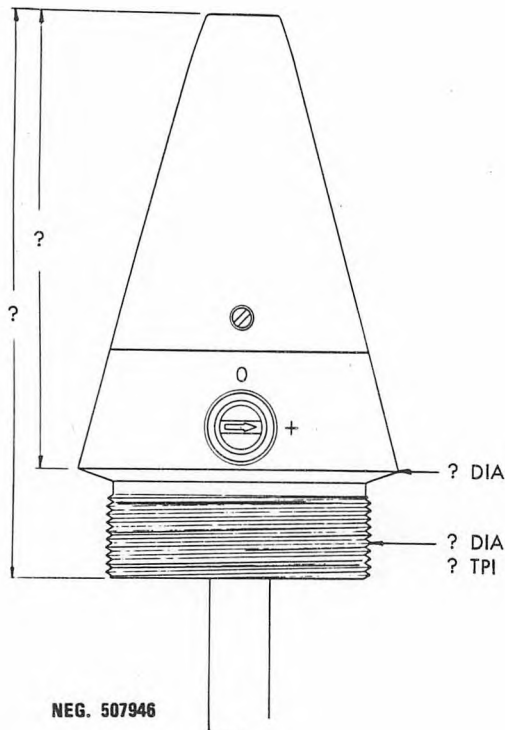
NATIVE DES: ?
PRODUCED/ADOPTED: ???

DATE UPDATED: 19FEB75
COUNTRY: SWITZERLAND

(U)THE TAVARO MODEL B POINT-DETONATING, GRAZE-SENSITIVE FUZE IS DESIGNED FOR FIELD ARTILLERY USE. THE FUZE CAN BE SET FOR INSTANTANEOUS OR DELAYED ACTION BY ROTATING THE SELECTOR (10), WHICH CLEARS OR OBSTRUCTS THE DIRECT PATH TO THE BOOSTER (9). THE "0" SETTING PROVIDES INSTANTANEOUS ACTION, WHILE THE "+" SETTING PRODUCES DELAYED ACTION. DELAY IS ACHIEVED BY THE PYROTECHNIC ELEMENT (8) IN THE PATH TO THE BOOSTER.

(U)THE SPIN-ACTIVATED RACK DETENTS (4) AND THE DETENT (2) ON THE FIRING PIN (1) MAINTAIN SAFETY DURING HANDLING. THE RACK DETENTS (4) PREVENT THE DETONATOR CARRIER (6) WITH THE DETONATOR (7) FROM CONTACTING THE FIRING PIN, WHILE THE OTHER DETENT PREVENTS IMPACT FORCE FROM MOVING THE FIRING PIN BACKWARD INTO THE DETONATOR.

(U)UPON FIRING OF THE PROJECTILE, WHEN THE DESIGN ROTATIONAL SPEED IS REACHED, THE RACK DETENTS MOVE OUTWARD, AND THE OTHER DETENT ROTATES AWAY FROM THE FIRING PIN. MOVEMENT OF THE RACK DETENTS IS SLOWED BY THE GEAR TRAIN (3) FITTED WITH AN ESCAPEMENT SYSTEM. AFTER THE DETONATOR CARRIER AND THE FIRING PIN ARE FREE, INERTIA FORCE (GRAZE SENSITIVITY) CAN OVERCOME SPRING (5) AND DRIVE THE DETONATOR FORWARD AGAINST THE FIRING PIN, OR IMPACT FORCE CAN PLUNGE THE FIRING PIN BACK INTO THE DETONATOR. INITIATION OF THE DETONATOR SENDS A SHOCK WAVE TO THE BOOSTER DIRECTLY, OR THROUGH THE PYROTECHNIC DELAY ELEMENT, DEPENDING ON THE SELECTOR SETTING.



U N C L A S S I F I E D

FOM-1390-18-1-19-A
NOMEN: FUZE, POINT-DETONATING, MODEL B (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 19FEB75

COUNTRY: SWITZERLAND

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- ?

USING COUNTRIES: ----- 018

BOOSTER:

BODY MATERIAL ----- ?
BODY LENGTH (MM) -- ?
FILLER MATERIAL --- TETRYL
FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- 0.1 SEC APPROX
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- ?

USING WEAPONS: ----- ?

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
MODEL ----- B
BODY MATERIAL ----- ?
LENGTH OVERALL (MM) -- ?
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- ?
MAJ THREAD DIAM (MM) - ?
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- NONE

FUNCTIONAL DATA:

ARMING METHOD ----- SPIN
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- SPIN-ACTIVATED DETENTS

NOMEN: FUZE, POINT-DETONATING, MODEL C (U)

DATE REVIEWED: 02FEB77

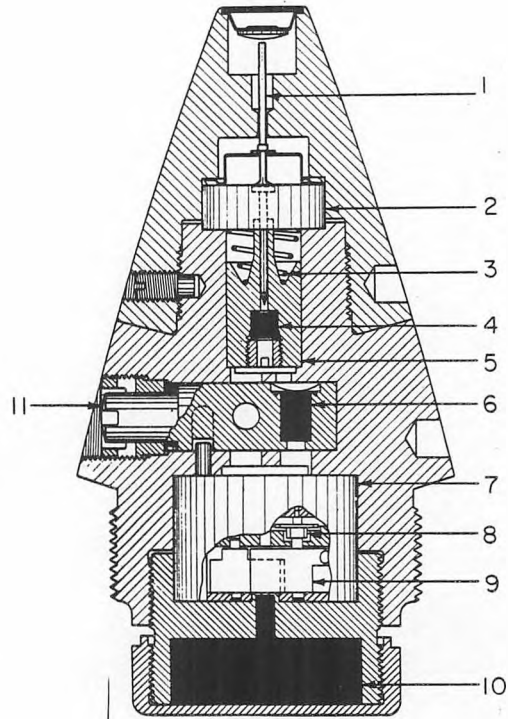
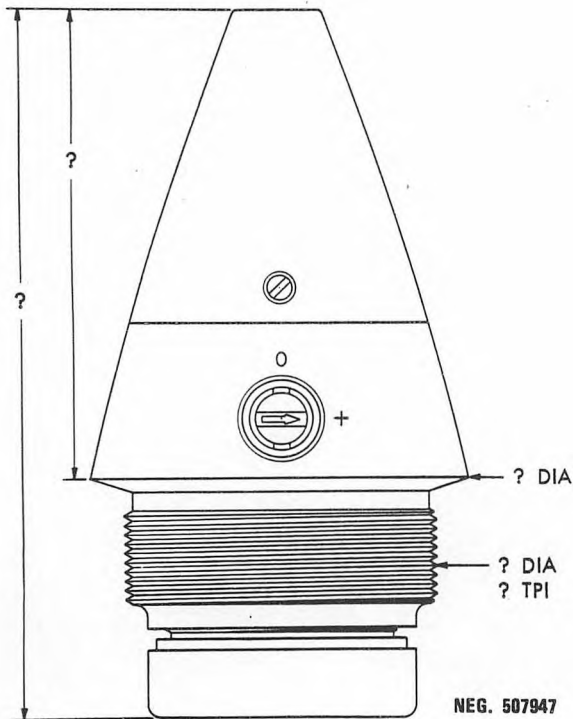
NATIVE DES: ?
 PRODUCED/ADOPTED: ???

DATE UPDATED: 02FEB77
 COUNTRY: SWITZERLAND

(U)THE TAVARO MODEL C POINT-DETONATING, GRAZE-SENSITIVE FUZE IS DESIGNED FOR FIELD ARTILLERY USE. THE FUZE CAN BE SET FOR INSTANTANEOUS OR DELAYED ACTION BY ROTATING THE SELECTOR (11), WHICH CLEARS OR OBSTRUCTS THE DIRECT PATH TO THE BOOSTER (10). THE "0" SETTING PROVIDES INSTANTANEOUS ACTION, WHILE THE "+" SETTING PRODUCES DELAYED ACTION. DELAY IS ACHIEVED BY THE PYROTECHNIC ELEMENT (6) IN THE PATH TO THE BOOSTER.

(U)THE FUZE IS MADE SAFE FOR HANDLING BY HAVING THE INTERRUPTER (9) OF THE BOOSTER DELAY ARMING MECHANISM (7) IN THE PATH TO THE BOOSTER, AND BY HAVING THE SPIN-ACTIVATED DETENTS OF THE DELAY ARMING MECHANISM (2) BETWEEN THE FIRING PIN (1) AND THE DETONATOR CARRIER (5).

(U)UPON FIRING OF THE PROJECTILE, WHEN THE DESIGN ROTATIONAL SPEED IS REACHED, THE DETENTS OF THE DELAY ARMING MECHANISM MOVE OUTWARD TO FREE THE FIRING PIN. ALSO, THE INTERRUPTER OF THE BOOSTER DELAY ARMING MECHANISM ROTATES AWAY, CLEARING THE PATH TO THE BOOSTER. ROTATION OF THE INTERRUPTER IS SLOWED BY THE GEAR TRAIN (8) WITH ITS ESCAPEMENT MECHANISM. AFTER THE FIRING PIN IS FREE, INERTIA FORCE (GRAZE SENSITIVITY) CAN OVERCOME SPRING (3) AND DRIVE THE DETONATOR (4) FORWARD AGAINST THE FIRING PIN, OR IMPACT FORCE CAN PLUNGE THE FIRING PIN BACK INTO THE DETONATOR. THE SHOCK WAVE FROM THE DETONATOR THEN REACHES THE BOOSTER DIRECTLY, OR THROUGH THE PYROTECHNIC DELAY ELEMENT, DEPENDING ON THE SELECTOR SETTING.



U N C L A S S I F I E D

FOM-1390-18-1-20-A
NOMEN: FUZE, POINT-DETONATING, MODEL C (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

COUNTRY: SWITZERLAND

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- ?

USING COUNTRIES: ----- 018

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
MODEL ----- C
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) -- ?
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM) -- ?
MAJ THREAD DIAM (MM) -- ?
THREAD PITCH (METRIC) -- ?
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- NONE

FUNCTIONAL DATA:

ARMING METHOD ----- SPIN
SELF-DESTR METHOD ----- NONE
TYPE SAFETY DEVICE --- SPIN-ACTIVATED

BOOSTER:

BODY MATERIAL ----- STEEL
BODY LENGTH (MM) --- ?
FILLER MATERIAL --- ?
FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- 0.1 SEC APPROX
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- ?

USING WEAPONS: ----- ?

REFERENCES: -----

REMARKS:

NOMEN: FUZE, POINT-DETONATING, SELF-DESTROYING, MODEL D-1 (U)

DATE REVIEWED: 02FEB77

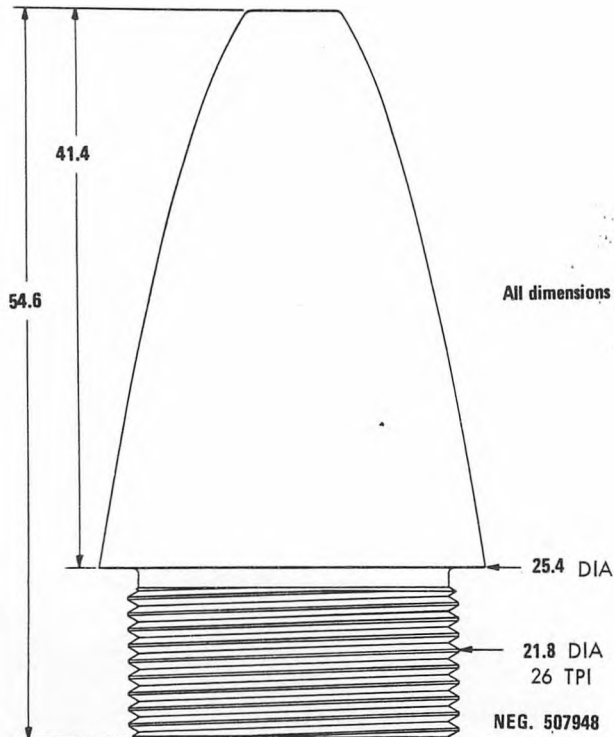
NATIVE DES: ?
 PRODUCED/ADOPTED: ???

DATE UPDATED: 02FEB77
 COUNTRY: SWITZERLAND

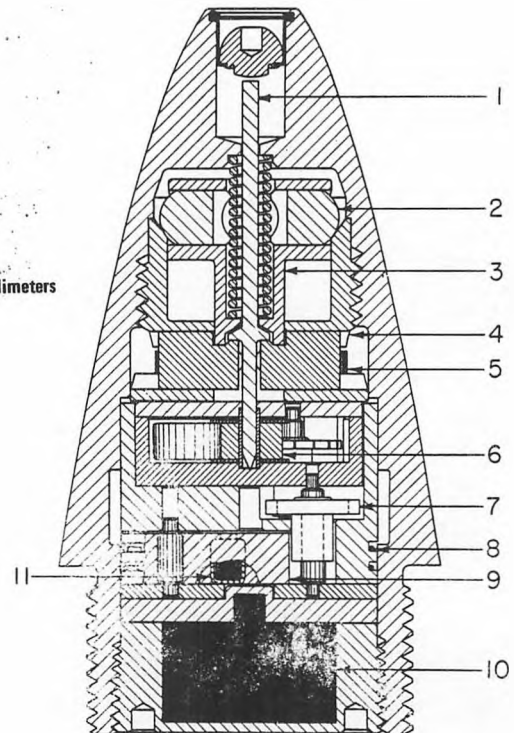
(U)THE TAVARO MODEL D-1 POINT DETONATING, SELF-DESTROYING FUZE IS KEPT SAFE DURING HANDLING BY THE RESTRAINING ACTION OF THE SPIN-ACTIVATED DETENTS (2 AND 4) ON THE FIRING PIN (1) AND BY THE OUT-OF-LINE POSITION OF THE DETONATOR (11).

(U)AFTER THE PROJECTILE LEAVES THE BARREL, AND SETBACK CEASES, ARMING TAKES PLACE. WHEN THE DESIGN ROTATIONAL SPEED IS REACHED, CENTRIFUGAL FORCE MOVES THE SELF-DESTRUCTION DETENTS (2) OUTWARD. THE MOTION OF THESE DETENTS LIFTS THE SELF-DESTRUCTION BUSHING (3) UPWARD, FREEING THE FIRING PIN LOCKING DETENTS (4) AND PERMITTING THEM TO MOVE OUTWARD IN OPPOSITION TO THE RESTRAINING SPRING (5). SIMULTANEOUSLY, CENTRIFUGAL FORCE DRIVES THE ROTOR (9), ROTATING THE DETONATOR INTO THE FIRING POSITION IN OPPOSITION TO THE CIRCUMFERENTIAL SPRINGS (8). GEAR TEETH ON THE CIRCUMFERENCE OF THE ROTOR ENGAGE THE PINION (7) OF THE TIMING DEVICE. THE MOTION OF THE ROTOR IS SLOWED BY A RUNAWAY ESCAPEMENT SYSTEM (6). WITH THE DETONATOR UNDER THE FIRING PIN, THE FUZE IS NOW ARMED.

(U)WHEN DECELERATION OCCURS, THE SELF-DESTRUCTION DETENTS MOVE INWARD, LIBERATING THE SPRING-LOADED SELF-DESTRUCTION BUSHING, WHICH PLUNGES THE FIRING PIN INTO THE DETONATOR. IF IMPACT OF THE ARMED FUZE OCCURS BEFORE DECELERATION TAKES PLACE, THE IMPACT DRIVES THE FIRING PIN INTO THE DETONATOR, INITIATING THE BOOSTER (10).



All dimensions in millimeters



U N C L A S S I F I E D

FOM-1390-18-1-21-A
 NOMEN: FUZE, POINT-DETONATING, SELF-DESTROYING, MODEL D-1 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ???

COUNTRY: SWITZERLAND

CURRENT STATUS: ----- ?

BOOSTER:

USING COUNTRIES: ----- 018

BODY MATERIAL ----- ALUMINUM
 BODY LENGTH (MM) -- 7.6
 FILLER MATERIAL ---- RDX/TNT
 FILLER WEIGHT (G) - ?

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT (SELF-DESTROYING)
 MODEL ----- D-1
 BODY MATERIAL ----- ALUMINUM
 LENGTH OVERALL (MM) -- 54.6
 LENGTH EXPOSED (MM) -- 41.4
 MAXIMUM DIAMETER (MM) -- 25.4
 MAJ THREAD DIAM (MM) - 21.8
 THREAD PITCH (METRIC) - 1.00 MM
 WEIGHT COMPLETE (G) -- 54.9
 MARKINGS ----- NONE

ARMING DISTANCE(M)- 750
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME ?
 DELAY TIME ----- ?
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- 40-MM HE

USING WEAPONS: ----- 40-MM AA GUN L/70

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SPIN
 SELF-DESTR METHOD ---- MECHANICAL-SPIN
 TYPE SAFETY DEVICE ---- SPIN-ACTIVATED AND
 OUT-OF-LINE DETONATOR

REMARKS:

NOMEN: FUZE, POINT-DETONATING, SELF-DESTROYING, MODEL D-2 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ?

DATE UPDATED: 19FEB75

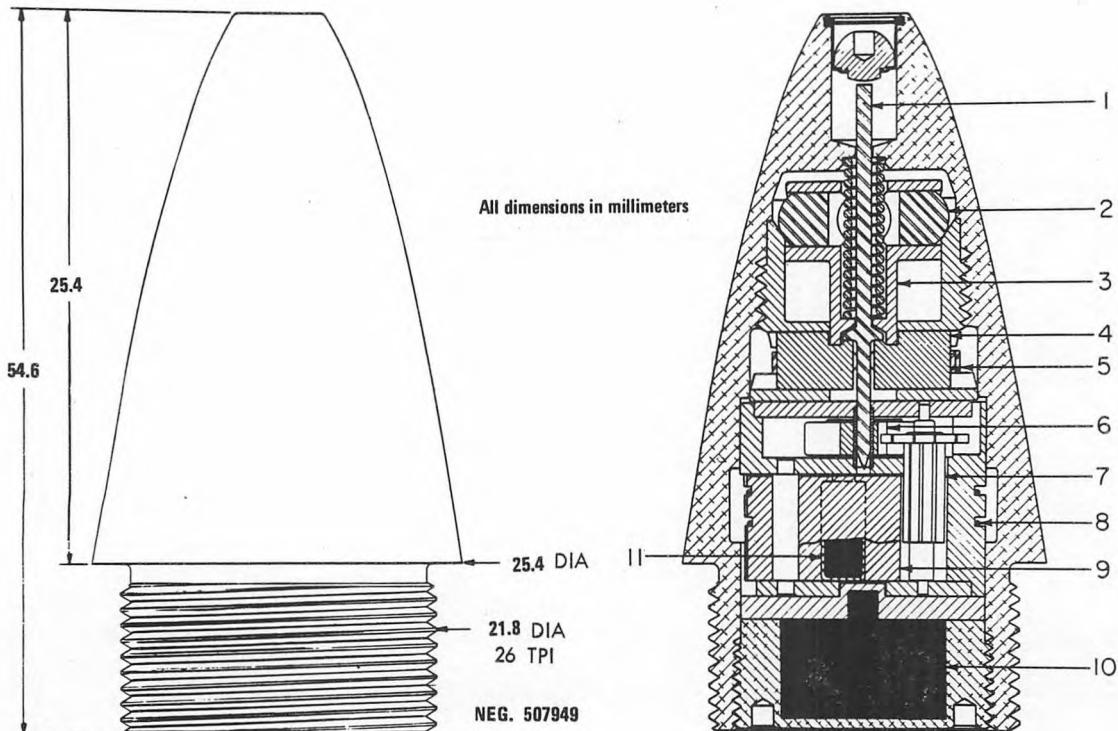
PRODUCED/ADOPTED: ???

COUNTRY: SWITZERLAND

(U)THE TAVARO MODEL D-2 POINT-DETONATING, SELF-DESTROYING FUZE IS KEPT SAFE DURING HANDLING BY THE RESTRAINING ACTION OF THE SPIN-ACTIVATED DETENTS (2 AND 4) ON THE FIRING PIN (1) AND BY THE OUT-OF-LINE POSITION OF THE DETONATOR (11).

(U)AFTER THE PROJECTILE LEAVES THE BARREL, AND SETBACK CEASES, ARMING TAKES PLACE. WHEN THE DESIGN ROTATIONAL SPEED IS REACHED, CENTRIFUGAL FORCE MOVES THE SELF-DESTRUCTION DETENTS (2) OUTWARD THIS MOTION OF THESE DETENTS LIFTS THE SELF-DESTRUCTION BUSHING (3) UPWARD, FREEING THE FIRING PIN LOCKING DETENTS (4) AND PERMITTING THEM TO MOVE OUTWARD IN OPPOSITION TO THE RESTRAINING SPRING (5). SIMULTANEOUSLY, CENTRIFUGAL FORCE DRIVES THE ROTOR (9), ROTATING THE DETONATOR INTO THE FIRING POSITION IN OPPOSITION TO THE CIRCUMFERENTIAL SPRINGS (8). GEAR TEETH ON THE CIRCUMFERENCE OF THE ROTOR ENGAGE THE PINION (7) OF THE TIMING DEVICE. THE MOTION OF THE ROTOR IS SLOWED BY A RUNAWAY ESCAPEMENT SYSTEM (6). WITH THE DETONATOR UNDER THE FIRING PIN, THE FUZE IS NOW ARMED.

(U)WHEN DECELERATION OCCURS, THE SELF-DESTRUCTION DETENTS MOVE INWARD, LIBERATING THE SPRING-LOADED SELF-DESTRUCTION BUSHING, WHICH PLUNGES THE FIRING PIN INTO THE DETONATOR. IF IMPACT OF THE ARMED FUZE OCCURS BEFORE DECELERATION TAKES PLACE, THE IMPACT DRIVES THE FIRING PIN INTO THE DETONATOR, INITIATING THE BOOSTER (10).



U N C L A S S I F I E D

FOM-1390-18-1-22-A
NOMEN: FUZE, POINT-DETONATING, SELF-DESTROYING, MODEL D-2 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 19FEB75

COUNTRY: SWITZERLAND

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- ?

USING COUNTRIES: ----- 018

BOOSTER:

BODY MATERIAL ----- ALUMINUM
BODY LENGTH (MM) -- 7.6
FILLER MATERIAL --- RDX/TNT
FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE(M)- 11.8
ARMING TIME ----- ?
SELF-DESTRUCT TIME 6.8 TO 15.7 SEC
DELAY TIME ----- ?
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT (SELF-DESTROYING)
MODEL ----- D-2
BODY MATERIAL ----- ALUMINUM
LENGTH OVERALL (MM) -- 54.6
LENGTH EXPOSED (MM) -- 25.4
MAXIMUM DIAMETER (MM)- 25.4
MAJ THREAD DIAM (MM) - 21.8
THREAD PITCH (METRIC)- 1.00 MM
WEIGHT COMPLETE (G) -- 54.9
MARKINGS ----- ?

USING PROJECTILES: -- 40 MM HE

USING WEAPONS: ----- 40-MM AA GUN L/70 (BOFORS)

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SPIN
SELF-DESTR METHOD ----- MECHANICAL-SPIN
TYPE SAFETY DEVICE --- SPIN-ACTIVATED

FOM-1390-18-1-23-A

CATALOG: TB-381-5-06

NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL E (U)

DATE REVIEWED: 02FEB77

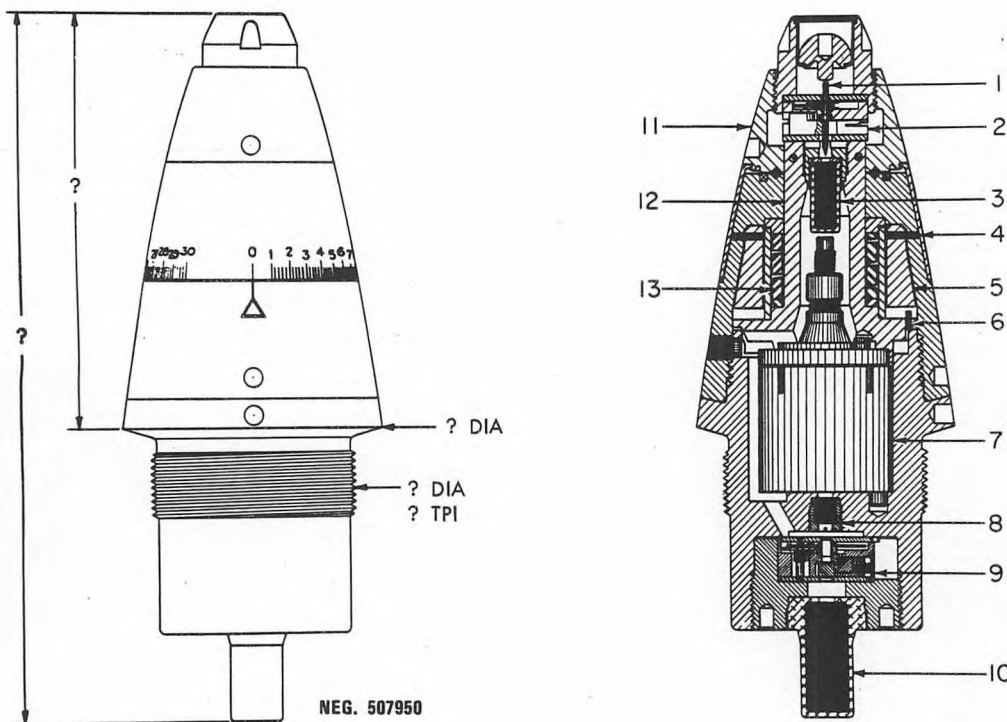
NATIVE DES: ?
 PRODUCED/ADOPTED: ???

DATE UPDATED: 02FEB77
 COUNTRY: SWITZERLAND

(U)THE SWISS MECHANICAL TIME AND SUPERQUICK FUZE MODEL E IS DESIGNED AND MANUFACTURED BY TAVARO. IT IS A MECHANICAL TIME FUZE WITH A POINT DETONATING NOSE ELEMENT, AND CAN BE SET BY 0.2-SECOND INTERVALS TO FUNCTION FROM 1 TO 30 SECONDS AFTER FIRING. SAFETY DURING HANDLING IS ACHIEVED BY THE SPINACTIVATED DETENTS (2) ON THE IMPACT PLUNGER (1), AND BY AN INTERRUPTER (9) IN THE PATH TO THE BOOSTER (10).

(U)UPON FIRING OF THE PROJECTILE, THE DETENTS ROTATE AWAY BY CENTRIFUGAL FORCE, FREEING THE IMPACT PLUNGER. THE INTERRUPTER ALSO MOVES AWAY, CLEARING THE PATH TO THE BOOSTER. MOVEMENT OF THE INTERRUPTER IS RETARDED BY A CENTRIFUGAL-FORCE-DRIVEN CLOCKWORK MECHANISM WITH RUNAWAY ESCAPEMENT. IF IMPACT OCCURS AFTER THE INTERRUPTER IS CLEAR, THE SHOCK WAVE FROM THE DETONATOR (3) INITIATES THE BOOSTER.

(U)THE MECHANICAL TIME FUNCTION IS ACHIEVED BY A MAINSPRING-DRIVEN CLOCKWORK MECHANISM (7) WITH A TORSION SPRING ESCAPEMENT SYSTEM. FUNCTIONING TIME CAN BE SET FROM 1 TO 30 SECONDS BY ROTATING THE NOSE (11) OF THE FUZE. THE ACTION OF THE TORSION SPRING (13) PROVIDES A CONSTANT SETTING TORQUE. THE MAINSPRING IS WOUND DURING SETTING, AS THE FUZE NOSE ROTATES THE CENTER SECTION (12) AND THE MOVABLE PORTION OF THE CLOCKWORK. AFTER FIRING OF THE PROJECTILE, SETBACK FORCES THE WEIGHT (5) TO SHEAR OFF THE PINS (4), AND DRIVES THE LOCKING PIN (6) INTO THE FUZE BODY. THE SET POSITION OF THE FUZE IS THEREBY FIXED. IF IMPACT HAS NOT OCCURRED BEFORE EXPIRATION OF THE SET TIME, THE CLOCKWORK MECHANISM RELEASES THE FIRING PIN, WHICH ACTIVATES THE DETONATOR (8) AND THE BOOSTER.



NEG. 507950

U N C L A S S I F I E D

FOM-1390-18-1-23-A

NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL E (U)

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ???

COUNTRY: SWITZERLAND

CURRENT STATUS: ----- ?

BOOSTER:

USING COUNTRIES: ----- 018

BODY MATERIAL ----- STEEL
BODY LENGTH (MM) -- ?
FILLER MATERIAL ---- ?
FILLER WEIGHT (G) - ?

FUZE ASSEMBLY COMPLETE:

PERFORMANCE:

TYPE ----- COMBINATION (TIME-IMPACT)
MODEL ----- E
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) -- ?
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM) - ?
MAJ THREAD DIAM (MM) - ?
THREAD PITCH (METRIC) - ?
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- ?

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME 1 TO 30 SEC
DELAY TIME ----- ?
MIN TIME SETTING -- 1 SEC
MAX TIME SETTING -- 30 SEC

USING PROJECTILES: -- 90-MM HE

USING WEAPONS: ----- 90-MM AA GUN.

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SPIN
SELF-DESTR METHOD ---- TIME SETTING
TYPE SAFETY DEVICE --- SPIN-ACTIVATED

REMARKS:

NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL 41 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ?

DATE UPDATED: 19FEB75

PRODUCED/ADOPTED: ?/NOT ADOPTED

COUNTRY: SWITZERLAND

(U)THE SWISS MECHANICAL TIME AND SUPERQUICK FUZE MODEL 41 IS DESIGNED AND MANUFACTURED BY THE DIXI CO. OF SWITZERLAND FOR THE NETHERLANDS. THE FUZE IS TYPICAL OF THOSE MANUFACTURED BY THIS COMPANY, AND THE BOOSTER ASSEMBLY APPEARS TO BE IDENTICAL TO THE US MODEL M21A4 BOOSTER. THE BOOSTER CARRIES THE NUMBER NR 81 AND MAY NOT BE OF SWISS MANUFACTURE.

(U)THE FUZE IS SET FOR TIME BY ROTATING THE NOSE WITH RESPECT TO THE BODY. THIS ROTATION POSITIONS THE CENTRIFUGAL DRIVE BALLS (11) UPWARD ALONG THE SPIRAL, THUS REDUCING THEIR TRAVEL TIME. IT TAKES 74 SECONDS FOR SPIN TO DRIVE THESE BALLS FROM THE BASE OF THE GROOVE TO THE TOP.

(U)WHEN THE ROUND IS FIRED, SETBACK AND SPIN RELEASE THE LOCK ON THE THREE-CENTER, TUNED ESCAPEMENT IN THE MOVEMENT (4). WITH THE ESCAPEMENT UNLOCKED, SPIN DRIVES THE BALLS UP THE HELICAL GROOVE. AS THE BALLS TRAVEL UP THE GROOVE, THEY ROTATE THE CENTER CONE DRIVING THE MOVEMENT, HENCE THEIR RATE OF TRAVEL IS CONTROLLED BY THE MOVEMENT. WHEN THE BALLS REACH THE TOP OF THE GROOVE, ONE OF THEM FOLLOWS THE OBLIQUE CHANNEL AND STRIKES THE FIRING PIN (5), WHICH IGNITES THE PRIMER (6). THE OUTPUT OF THE PRIMER TRAVELS DOWN THE FLASH CHANNEL, IGNITING THE RELAY (7), THE DETONATOR (12), THE LEAD (13), AND THE BOOSTER CHARGE (10).

(U)THE FUZE ALSO HAS A POINT DETONATING FEATURE. THIS INCLUDES THE PLUNGER (1), FIRING PIN (2), AND PRIMER (3). THE FIRING PIN IS LOCKED BY THE MOVEMENT AND IS NOT RELEASED UNTIL THE MOVEMENT HAS RUN FOR A FIXED TIME. ONCE RELEASED, THE PRIMER MAY BE IGNITED BY THE FIRING PIN WHEN THE PLUNGER IS DRIVEN DOWNWARD BY IMPACT. THE OUTPUT OF THE POINT DETONATING PRIMER IS CHANNLED THROUGH THE MOVEMENT DIRECTLY TO THE RELAY (7).

(U)THE ROTOR CONTAINING THE DETONATOR (12) IS LOCKED IN THE "SAFE" POSITION BY THE CENTRIFUGAL DETENT (8). IN THE "SAFE" POSITION, THE ROTOR PROVIDES A BARRIER FOR THE RELAY (7) AND KEEPS THE DETONATOR (12) OUT OF ALINEMENT. WHEN THE MECHANISM IS SUBJECTED TO SETBACK, THE SETBACK DETENT (9) DROPS, COMPRESSING ITS SPRING. SPIN THEN DRIVES THE CENTRIFUGAL DETENT OUT, UNLOCKING THE ROTOR. THE ROTOR IS ECCENTRICALLY BALANCED SO THAT WHEN THE LOCK IS REMOVED SPIN WILL CAUSE IT TO ROTATE, REMOVING THE BARRIER AND BRINGING THE DETONATOR INTO ALINEMENT. EITHER THE POINT DETONATING PRIMER (3) OR FUZE PRIMER (6) CAN DETONATE THE DETONATOR WHICH, IN TURN, INITIATES THE RELAY AND BOOSTER CHARGE.

U N C L A S S I F I E D

FOM-1390-18-1-24-A
 NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL 41 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 19FEB75
 COUNTRY: SWITZERLAND

PRODUCED/ADOPTED: ?/NOT ADOPTED

CURRENT STATUS: ----- ?

USING COUNTRIES: ----- 018

BOOSTER:

BODY MATERIAL ----- BRASS
 BODY LENGTH (MM) -- 50.8
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - 22.1

PERFORMANCE:

ARMING DISTANCE (M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME VARIABLE TO 74 SEC MAX
 DELAY TIME ----- N/A
 MIN TIME SETTING -- ?
 MAX TIME SETTING -- 74 SEC.

FUZE ASSEMBLY COMPLETE:

TYPE ----- COMBINATION (TIME-IMPACT)
 MODEL ----- 41
 BODY MATERIAL ----- ALUMINUM
 LENGTH OVERALL (MM) -- 150.3
 LENGTH EXPOSED (MM) -- 96.5
 MAXIMUM DIAMETER (MM)- 61.0
 MAJ THREAD DIAM (MM) - 50.8
 THREAD PITCH (METRIC)- 2.00 MM
 WEIGHT COMPLETE (G) -- 1250
 MARKINGS ----- MTSB NO. 41

USING PROJECTILES: -- 90-MM HE

USING WEAPONS: ----- 90-MM GUN

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
 SELF-DESTR METHOD ---- TIME SETTING
 TYPE SAFETY DEVICE --- OUT-OF-LINE DETONATOR

REMARKS:

UNCLASSIFIED

FOM-1390-18-1-24-B

NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL 41 (U)

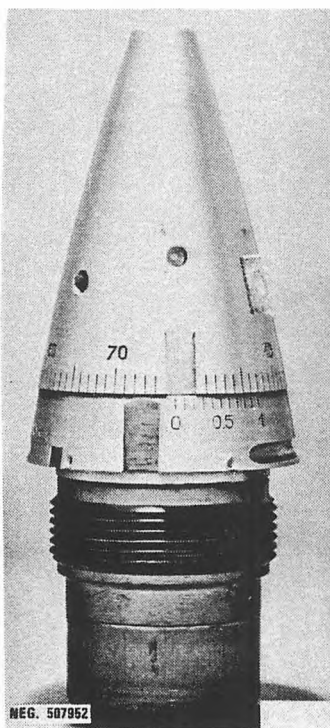
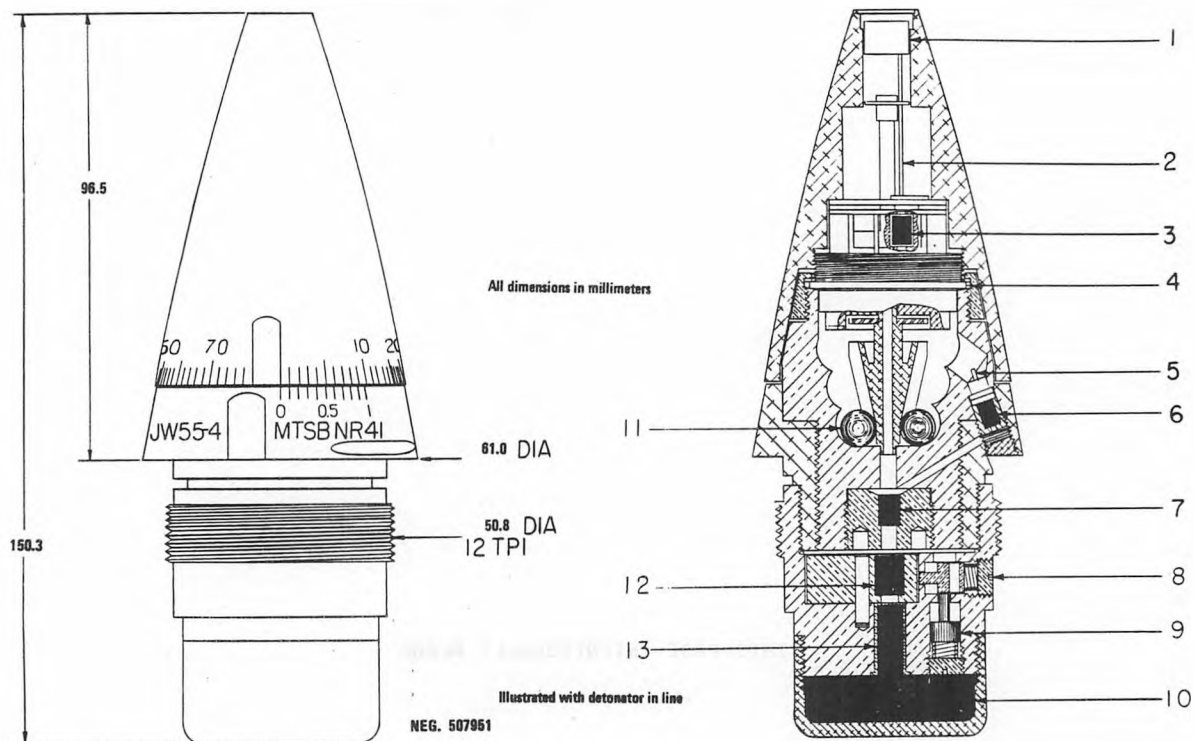
PRODUCED/ADOPTED: ?/NOT ADOPTED

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 19FEB75

COUNTRY: SWITZERLAND



U N C L A S S I F I E D

FOM-1390-18-1-24-B
NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL 41 (U)
PRODUCED/ADOPTED: ?/NOT ADOPTED

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 19FEB75
COUNTRY: SWITZERLAND

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JUL66
VOLUME 06 PAGE 358

U N C L A S S I F I E D

NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL 40 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ?

DATE UPDATED: 19FEB75

PRODUCED/ADOPTED: ?/NOT ADOPTED

COUNTRY: SWITZERLAND

(U)THE SWISS MECHANICAL TIME AND SUPERQUICK FUZE MODEL 40 IS DESIGNED AND MANUFACTURED BY THE DIXI CO. OF SWITZERLAND FOR THE NETHERLANDS. THE FUZE IS TYPICAL OF THOSE MANUFACTURED BY THIS COMPANY, AND THE BOOSTER ASSEMBLY APPEARS TO BE IDENTICAL WITH THE U.S. MODEL M21A4 BOOSTER. THE BOOSTER CARRIES THE NUMBER NR 82 AND MAY NOT BE OF SWISS MANUFACTURE.

(U)THE FUZE IS SET FOR TIME BY ROTATING THE NOSE (6) WITH RESPECT TO THE BODY. THIS ROTATION POSITIONS THE CENTRIFUGAL DRIVE BALLS (7) UPWARD ALONG THE SPIRAL, THUS REDUCING THEIR TRAVEL TIME. IT REQUIRES 60 SECONDS FOR SPIN TO DRIVE THESE BALLS FROM THE BASE OF THE GROOVE TO THE TOP.

(U)WHEN THE ROUND IS FIRED, SETBACK RELEASES THE LOCK ON THE THREE-CENTER, TUNED ESCAPEMENT IN THE MOVEMENT AND, AT THE SAME INSTANT, CAUSES THE SETBACK WEIGHT (3) TO FALL, DRIVING THE PINS (12) DOWN AND LOCKING THE MOVEMENT AGAINST ROTATION. WITH THE ESCAPEMENT UNLOCKED AND THE MOVEMENT LOCKED AGAINST ROTATION, SPIN DRIVES THE BALLS UP THE HELICAL GROOVE. AS THE BALLS TRAVEL UP THE GROOVE, THEY ROTATE THE CENTER CONE DRIVING THE MOVEMENT, HENCE THEIR RATE OF TRAVEL IS CONTROLLED BY THE MOVEMENT. WHEN THE BALLS REACH THE TOP OF THE GROOVE, ONE OF THEM FOLLOWS THE OBLIQUE CHANNEL AND STRIKES THE FIRING PIN (13), WHICH IGNITES THE PRIMER (14). THE OUTPUT OF THE PRIMER TRAVELS DOWN THE FLASH CHANNEL, IGNITING THE DETONATOR (9) IN THE BOOSTER.

(U)THE FUZE ALSO HAS A POINT-DETONATING FEATURE. THIS INCLUDES THE PLUNGER (1), FIRING PIN (2), AND PRIMER (4). THE FIRING PIN IS LOCKED BY THE MOVEMENT AND IS NOT RELEASED UNTIL THE MOVEMENT HAS RUN FOR A FIXED TIME. ONCE RELEASED, THE PRIMER MAY BE IGNITED BY THE FIRING PIN WHEN THE PLUNGER IS DRIVEN DOWNWARD BY IMPACT. THE OUTPUT OF THE POINT-DETONATING PRIMER IS CHANNLED THROUGH THE MOVEMENT DIRECTLY TO THE DETONATOR IN THE BOOSTER. THE THREADED RING (5) IS USED TO FASTEN THE NOSE TO THE BODY.

(U)THE ROTOR (8) IS LOCKED IN THE "SAFE" POSITION BY THE CENTRIFUGAL DETENT (15). IN THE "SAFE" POSITION, THE ROTOR PROVIDES A BARRIER FOR THE LEAD (10) AND KEEPS THE DETONATOR (9) OUT OF ALINEMENT. WHEN THE MECHANISM IS SUBJECTED TO SETBACK, THE SETBACK DETENT (16) DROPS, COMPRESSING ITS SPRING. SPIN THEN DRIVES THE CENTRIFUGAL DETENT OUT, UNLOCKING THE ROTOR. THE ROTOR IS ECCENTRICALLY BALANCED SO THAT WHEN THE LOCK IS REMOVED SPIN WILL CAUSE IT TO ROTATE, REMOVING THE BARRIER AND BRINGING THE DETONATOR INTO ALINEMENT. EITHER THE POINT-DETONATING PRIMER OR FUZE PRIMER CAN DETONATE THE DETONATOR WHICH, IN TURN, INITIATES THE LEAD AND BOOSTER CHARGE (11).

U N C L A S S I F I E D

FOM-1390-18-1-25-A

NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL 40 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 19FEB75

PRODUCED/ADOPTED: ?/NOT ADOPTED

COUNTRY: SWITZERLAND

CURRENT STATUS: ----- ?

BOOSTER:

USING COUNTRIES: ----- 018

BODY MATERIAL ----- BRASS
 BODY LENGTH (MM) -- 50.8
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - 22.1

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME VARIABLE TO 60 SEC MAX
 DELAY TIME ----- N/A
 MIN TIME SETTING -- ?
 MAX TIME SETTING -- 60 SEC

TYPE ----- COMBINATION (TIME-IMPACT)
 MODEL ----- 40
 BODY MATERIAL ----- ALUMINUM
 LENGTH OVERALL (MM) -- 140.2
 LENGTH EXPOSED (MM) -- 79.8
 MAXIMUM DIAMETER (MM)- 60.7
 MAJ THREAD DIAM (MM) - 50.8
 THREAD PITCH (METRIC)- 2.00 MM
 WEIGHT COMPLETE (G) -- 695
 MARKINGS ----- MTSB NR 40

USING PROJECTILES: -- 90-MM HE

USING WEAPONS: ----- 90-MM GUN

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
 SELF-DESTR METHOD ---- TIME SETTING
 TYPE SAFETY DEVICE --- OUT-OF-LINE DETONATOR

REMARKS:

UNCLASSIFIED

FOM-1390-18-1-25-B

NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL 40 (U)

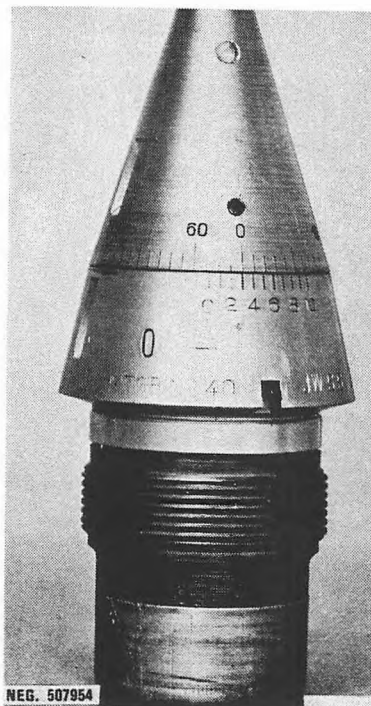
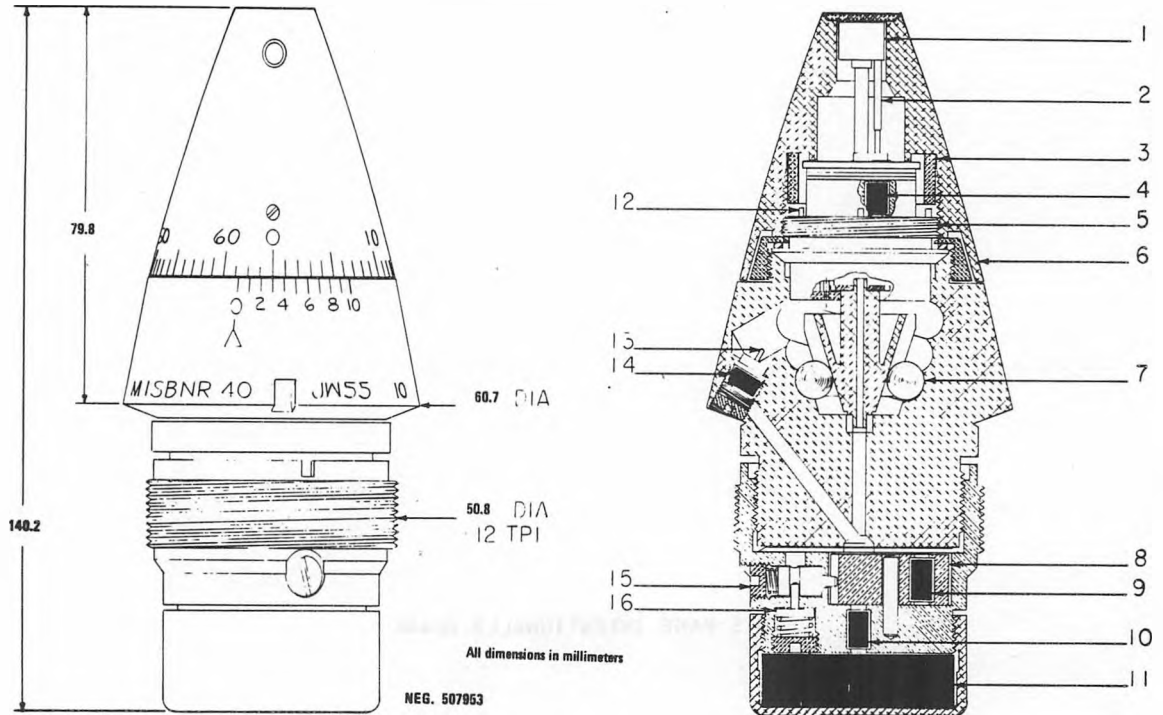
PRODUCED/ADOPTED: ?/NOT ADOPTED

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 19FEB75

COUNTRY: SWITZERLAND



FOM-1390-18-1-25-B

NOMEN: FUZE, MECHANICAL TIME AND SUPERQUICK, MODEL 40 (U)

PRODUCED/ADOPTED: ?/NOT ADOPTED

U N C L A S S I F I E D

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 19FEB75
COUNTRY: SWITZERLAND

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JUL66
VOLUME 06 PAGE 362

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-18-1-26-A

CATALOG: TB-381-5-06

NOMEN: FUZE, MECHANICAL TIME, MODEL 50 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ?

DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ???

COUNTRY: SWITZERLAND

{U}THE SWISS MECHANICAL TIME FUZE MODEL 50 IS DESIGNED AND MANUFACTURED BY THE DIXI CO. OF SWITZERLAND FOR THE NETHERLANDS. SETBACK FORCE IS REQUIRED TO UNLOCK THE MOVEMENT, AND SPIN IS REQUIRED TO DRIVE THE MOVEMENT AND SUPPLY POWER TO THE FIRING PIN. BOTH EXPLOSIVES ARE IN LINE, WITHOUT BARRIERS OR INTERRUPTIONS.

{U}THE FUZE IS SET FOR TIME BY ROTATING THE NOSE WITH RESPECT TO THE BASE. THIS ROTATION POSITIONS THE CENTRIFUGAL DRIVE BALLS (3) UPWARD ALONG THE SPIRAL, THUS REDUCING THEIR TRAVEL TIME. IT REQUIRES 60 SECONDS FOR SPIN TO DRIVE THESE BALLS FROM THE BASE OF THE HELICAL GROOVE TO THE TOP.

{U}ON FIRING, SETBACK FORCE UNLOCKS THE FUZE MOVEMENT (1). WHEN SETBACK CEASES, SPIN DRIVES THE BALLS UP THE HELICAL GROOVE AND THE BALLS, IN TURN, ROTATE THE MOVEMENT-DRIVING CONE (2). THEREFORE THE RATE THE BALLS CAN CLIMB UP THE GROOVE IS CONTROLLED BY THE THREE-CENTER, TUNED ESCAPEMENT IN THE MOVEMENT. WHEN THE BALLS REACH THE TOP OF THE GROOVE, ONE OF THEM FOLLOWS THE OBLIQUE CHANNEL (6) DOWNWARD TO STRIKE THE FIRING PIN (7) AND DRIVE IT INTO THE PRIMER (8). THE OUTPUT OF THE PRIMER FOLLOWS THE FLASH CHANNEL (4) AND DETONATES THE DETONATOR (5).

U N C L A S S I F I E D

FOM-1390-18-1-26-A
NOMEN: FUZE, MECHANICAL TIME, MODEL 50 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

COUNTRY: SWITZERLAND

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- ?

BOOSTER:

BODY MATERIAL ----- N/A
BODY LENGTH (MM) --- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

USING COUNTRIES: ----- 018

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME 1 TO 60 SEC
DELAY TIME ----- N/A
MIN TIME SETTING -- ?
MAX TIME SETTING -- ?

FUZE ASSEMBLY COMPLETE:

TYPE ----- TIME
MODEL ----- 50
BODY MATERIAL ----- BRASS
LENGTH OVERALL (MM) -- 118.8
LENGTH EXPOSED (MM) -- 101.1
MAXIMUM DIAMETER (MM)- 60.9
MAJ THREAD DIAM (MM) - 50.8
THREAD PITCH (METRIC)- 1.75 MM
WEIGHT COMPLETE (G) -- 567
MARKINGS ----- FUZE MTNR 50

USING PROJECTILES: -- ?

USING WEAPONS: ----- ?

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
SELF-DESTR METHOD ---- TIME SETTING
TYPE SAFETY DEVICE --- SETBACK UNLOCKS MOVEMENT

REMARKS:

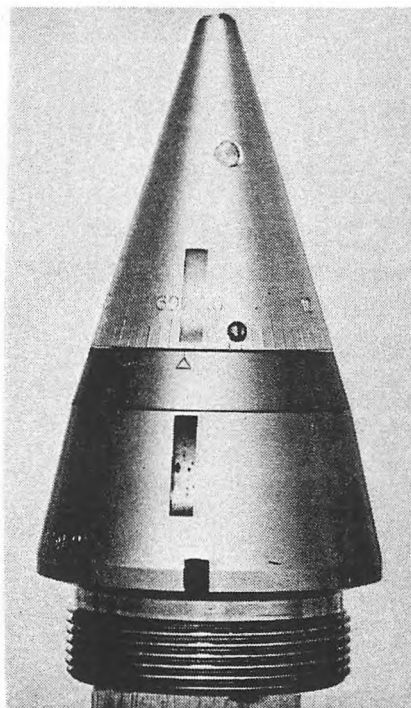
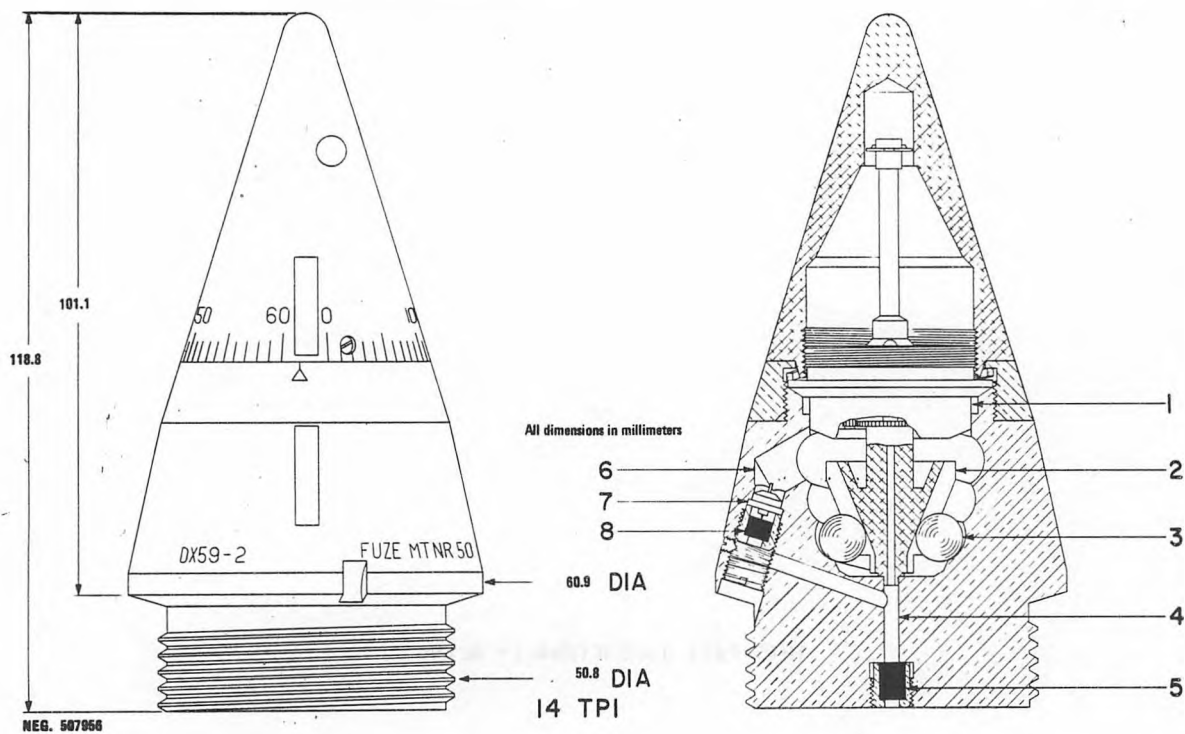
UNCLASSIFIED

FOM-1390-18-1-26-8
NOMEN: FUZE, MECHANICAL TIME, MODEL 50 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ???

COUNTRY: SWITZERLAND



DATE CATALOGED: 01JUL66
VOLUME 06

UNCLASSIFIED

PAGE 365

FOM-1390-18-1-26-B
NOMEN: FUZE, MECHANICAL TIME, MODEL 50 (U)
PRODUCED/ADOPTED: ???

U N C L A S S I F I E D

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77
COUNTRY: SWITZERLAND

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JUL66
VOLUME 06 PAGE 366

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-18-1-27-A

CATALOG: T8-381-5-06

NOMEN: FUZE, POINT-DETONATING, MODEL 131 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ?

DATE UPDATED: 19FEB75

PRODUCED/ADOPTED: ???

COUNTRY: SWITZERLAND

(U)THE SWISS POINT-DETONATING FUZE MODEL 131 IS DESIGNED TO FUNCTION EITHER ON POINT IMPACT JR ON GRAZE. THE FUZE IS OF SWISS DESIGN AND WAS MANUFACTURED BY THE DIXI CO. OF SWITZERLAND FOR THE NETHERLANDS. THE FUZE IS ARMED BY SPIN. AFTER THE ROUND IS FIRED AND HAS LEFT THE BARREL OF THE WEAPON, SPIN MOVES THE THREE DETENTS (3) OUT AGAINST THE RETAINING SPRING (2). AT THIS POINT, THE FIRING PIN (1) AND THE PRIMER (4) ARE KEPT SEPARATED BY A CREEP SPRING AND LOCKING WASHER. DURING SHIPPING, THE FLASH PATH BETWEEN PRIMER (4) AND DETONATOR (7) IS BLOCKED BY A METAL BARRIER, AND THE RELAY (6) IS KEPT OUT OF LINE. WHEN THE FUZE IS SUBJECTED TO SPIN, TWO CENTRIFUGAL DRIVE WEIGHTS ARE DRIVEN OUT FROM THE CENTER OF THE FUZE. THE MOTION OF THESE WEIGHTS IS REGULATED BY AN UNTUNED ESCAPEMENT: HOWEVER, WHEN THEY REACH THE LIMIT OF THEIR TRAVEL, THEY UNLOCK THE "D" SHAFT (5) WHICH IN TURN, RELEASES THE WEIGHTED BARRIER CONTAINING THE RELAY (6). WHEN THE BARRIER IS RELEASED, SPIN SNAPS IT OVER, REMOVING IT FROM THE FLASH PATH AND BRINGING THE RELAY INTO ALINEMENT WITH THE REST OF THE EXPLOSIVE TRAIN. THE FUZE IS NOW FULLY ARMED. ON IMPACT OF THE PROJECTILE, THE NOSE IS CRUSHED AND THE FIRING PIN IS DRIVEN INTO THE PRIMER, THE OUTPUT OF WHICH INITIATES THE RELAY, DETONATOR, AND BOOSTER (8). ON GRAZE WITH A TARGET, THE PRIMER HOLDER IS THROWN FORWARD, COMPRESSING THE CREEP SPRING AND DRIVING THE PRIMER INTO THE FIRING PIN. THE EXPLOSIVE TRAIN THEN FUNCTIONS AS ON IMPACT.

DATE CATALOGED: 01JUL66
VOLUME 06

U N C L A S S I F I E D

PAGE 367

U N C L A S S I F I E D

FOM-1390-18-1-27-A
NOMEN: FUZE, POINT-DETONATING, MODEL 131 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 19FEB75

COUNTRY: SWITZERLAND

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- ?

USING COUNTRIES: ----- 018

BOOSTER:

BODY MATERIAL ----- BRASS
BODY LENGTH (MM) --- 21.0
FILLER MATERIAL --- TETRYL
FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE (M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- ?
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
MODEL ----- 131
BODY MATERIAL ----- BRASS
LENGTH OVERALL (MM) -- 76.2
LENGTH EXPOSED (MM) -- 45.72
MAXIMUM DIAMETER (MM)- 45.2
MAJ THREAD DIAM (MM) - 40.3
THREAD PITCH (METRIC)- 1.75 MM
WEIGHT COMPLETE (G) --- 454
MARKINGS ----- FUZE PD-NR 131

USING PROJECTILES: -- ?

USING WEAPONS: ----- ?

FUNCTIONAL DATA:

ARMING METHOD ----- SPIN
SELF-DESTR METHOD ----- NONE
TYPE SAFETY DEVICE --- OUT-OF-LINE RELAY

REFERENCES: -----

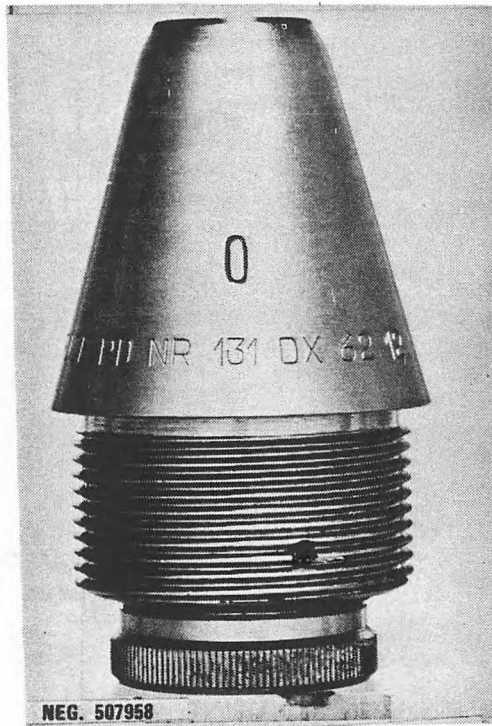
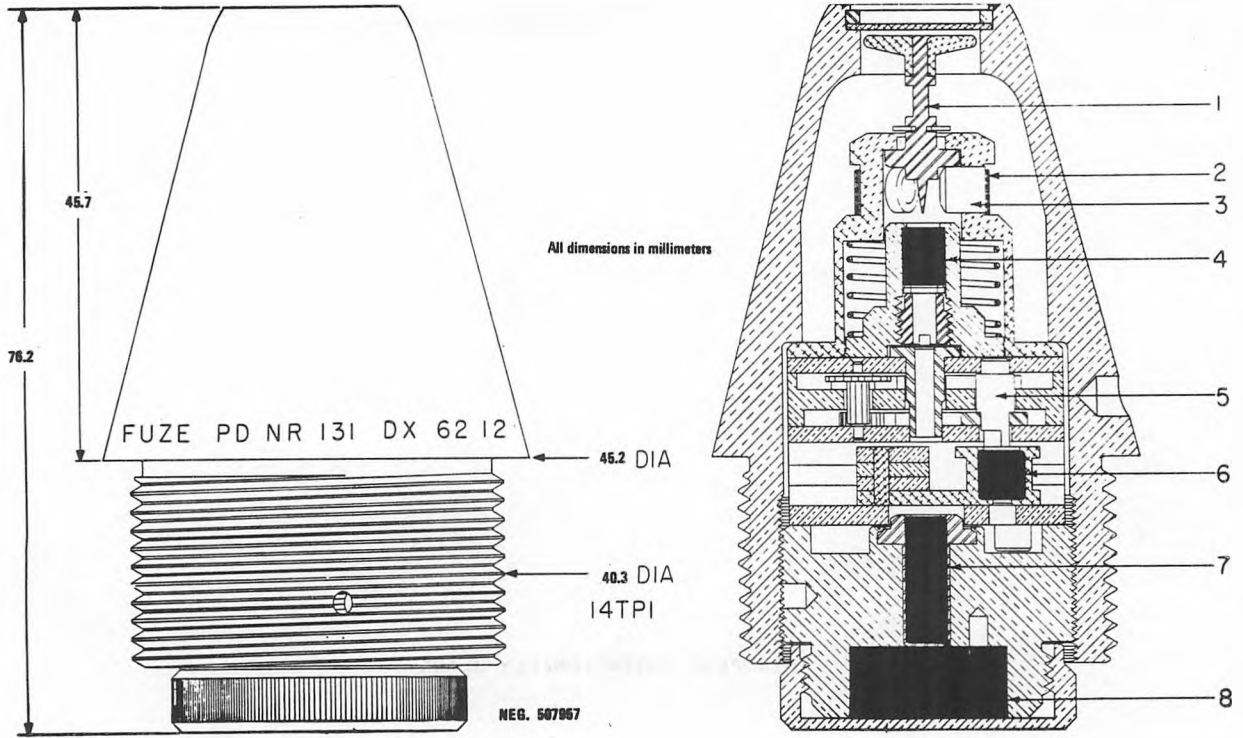
REMARKS:

UNCLASSIFIED

FOM-1390-18-1-27-8
NOMEN: FUZE, POINT-DETONATING, MODEL 131 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 19FEB75
COUNTRY: SWITZERLAND

PRI ED/ADOPTED: ???



DATE CATALOGED: 01JUL66
VOLUME 06

UNCLASSIFIED

PAGE 369

FOM-1390-18-1-27-B

NOMEN: FUZE, POINT-DETONATING, MODEL 131 (U)

PRODUCED/ADOPTED: ???

U N C L A S S I F I E D

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 19FEB75
COUNTRY: SWITZERLAND

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JUL66
VOLUME 06 PAGE 370

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-18-2-1-A

CATALOG: TB-381-5-06

NOMEN: FUZE, POINT DETONATING, MODEL KVD (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ?

DATE UPDATED: 02FEB77

PRODUCED/AADOPTED: 1951/?

COUNTRY: SWITZERLAND

(U)THE SWISS MODEL KVD POINT-DETONATING FUZE INCORPORATES DELAYED ARMING AND INSTANTANEOUS FUNCTIONING. IT IS DESIGNED FOR USE IN THE SWISS OERLIKON 80-MM, HIGH-EXPLOSIVE, AIRCRAFT ROCKET.

(U)WHEN THE ROCKET IS FIRED, THE SETBACK PIN (6) AND THE RACK (4) START TO MOVE REARWARD. THE SETBACK PIN HAS ITS TRAVEL HINDERED ONLY BY THE SPRING (7), WHICH IT COMPRESSES QUICKLY. THE MOVEMENT OF THE RACK IS DELAYED BY THE CLOCKWORK MECHANISM (5). WHEN THE RACK TOP HAS MOVED BELOW THE TRANSVERSELY DRILLED HOLE IN WHICH THE SAFETY PIN (12) IS ASSEMBLED, THE SAFETY PIN WILL BE CAMMED INTO THE CAVITY ABOVE THE RACK AND SETBACK PIN. THIS TRANSFER IS ACCOMPLISHED BY THE CONTINUED ACCELERATION FORCE ACTING ON THE SAFETY PIN THROUGH THE TAPERED SURFACE OF ITS SEAT IN THE SLIDER RETAINING PIN (11). WHEN THE SLIDER RETAINING PIN MOVES BELOW THE BOTTOM SURFACE OF THE SLIDER ASSEMBLY SLOT, THE SLIDER ASSEMBLY (3) IS FREED AND IS THEN PUSHED ACROSS ITS SLOT BY THE SLIDER SPRING. THIS MOVEMENT ALINES THE DETONATOR (10) WITH THE FIRING PIN (2) AND THE FLASH HOLE TO THE BOOSTER PELLETS (8 AND 9). THIS, HOWEVER, DOES NOT HAPPEN UNTIL THE ACCELERATION FORCE, WHICH HAD ALSO MOVED THE FIRING PIN POINT REARWARD INTO THE HOLE IN THE SLIDER, IS DECREASED SUFFICIENTLY TO ALLOW THE FIRING PIN SPRING (1) TO RETURN THE FIRING PIN TO ITS FORWARD POSITION OUT OF THE SLIDER.

(U)ON IMPACT, THE POLYETHYLENE NOSE CAP IS CRUSHED, AND THE FIRING PIN IS DRIVEN REARWARD INTO THE DETONATOR, INITIATING THE BOOSTER PELLETS.

U N C L A S S I F I E D

FOM-1390-18-2-1-A
NOMEN: FUZE, POINT DETONATING, MODEL KVD (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

COUNTRY: SWITZERLAND

PRODUCED/ADOPTED: 1951/?

CURRENT STATUS: ----- OBSOLETE

USING COUNTRIES: ----- 018

BOOSTER:

BODY MATERIAL ----- STEEL
BODY LENGTH (MM) -- 44.5
FILLER MATERIAL --- PETN
FILLER WEIGHT (G) - 7.0

PERFORMANCE:

ARMING DISTANCE(M)- 30 M
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT DETONATING
MODEL ----- KVD
BODY MATERIAL ----- BRASS
LENGTH OVERALL (MM) -- 123.2
LENGTH EXPOSED (MM) -- 55.1
MAXIMUM DIAMETER (MM)- 33.0
MAJ THREAD DIAM (MM) - 28.0
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 304.0
MARKINGS ----- MZ 50.00002-51-0E

USING PROJECTILES: -- 80 MM, HE, ROCKET

USING WEAPONS: ----- 80-MM AIRCRAFT ROCKET
- LAUNCHER

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
SELF-DESTR METHOD ----- NONE
TYPE SAFETY DEVICE --- OUT-OF-LINE DETONATOR

REMARKS:

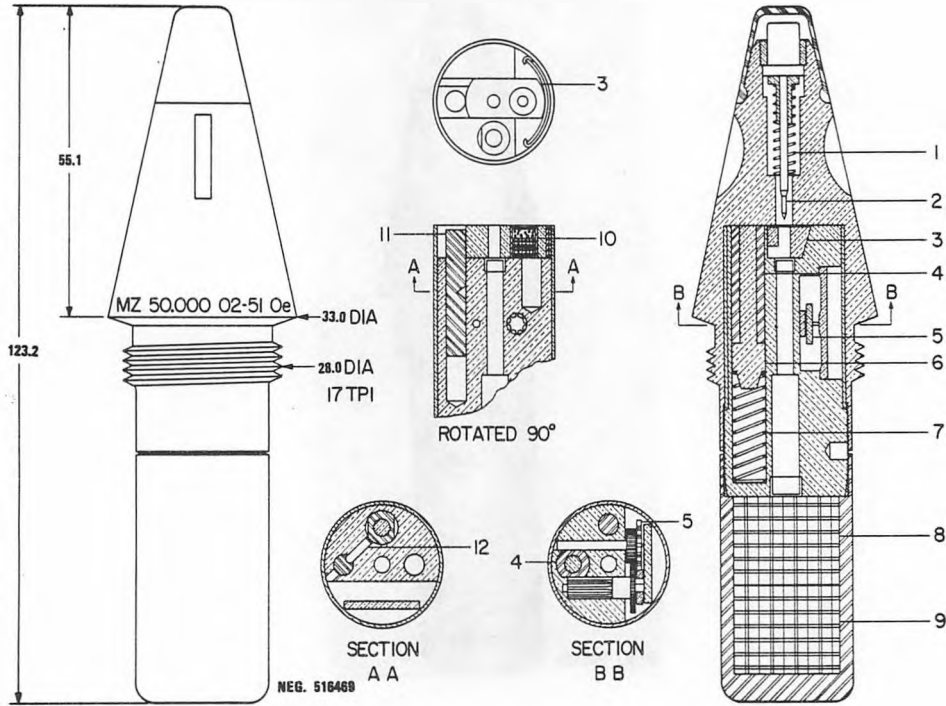
UNCLASSIFIED

FOM-1390-18-2-1-8
NOMEN: FUZE, POINT DETONATING, MODEL KVD (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

PROD. CED/ADOPTED: 1951/?

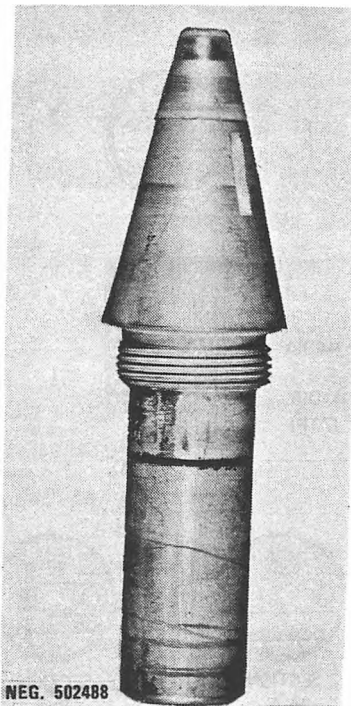
COUNTRY: SWITZERLAND



U N C L A S S I F I E D

FOM-1390-18-2-1-B
NOMEN: FUZE, POINT DETONATING, MODEL KVD (U)
PRODUCED/ADOPTED: 1951/?

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77
COUNTRY: SWITZERLAND



DATE CATALOGED: 01APR67
VOLUME 06 PAGE 374

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-18-2-2-A

CATALOG: TB-381-5-06

NOMEN: FUZE, PIBD, MODEL ? (U)

DATE REVIEWED: 19FEB75

NATIVE DES: ?

DATE UPDATED: 19FEB75

PRODUCED/ADOPTED: ???

COUNTRY: SWITZERLAND

(U)THE POINT-INITIATING, BASE-DETONATING FUZING SYSTEM FOR THE OERLIKON 80-MM HEAT ROCKET FOR AIRCRAFT CONSISTS OF A MODEL 075 POINT-INITIATING NOSE ELEMENT AND A MODEL SV 307 BASE-DETONATING ELEMENT WITH BOOSTER. THE FUNCTIONING OF THE NOSE ELEMENT IS AS FOLLOWS:

(U)DURING HANDLING, THE FIRING PIN (1) IS KEPT FROM PLUNGING INTO THE DETONATOR (6) BY THE ACTION OF THE SPRING (4) AGAINST THE BUSHING (3), WHICH SUPPORTS THE RING (2). IF A RELATIVELY SLOW IMPACT TAKES PLACE DURING HANDLING, THE WEAK POINT (5) WILL FAIL BEFORE THE RING SHEARS OFF; THUS THE ENTIRE DETONATOR ASSEMBLY WILL DROP OFF HARMLESSLY INTO THE WARHEAD INTERIOR. THIS IS ONLY POSSIBLE WHEN THE FUZE CASING IS CRUSHED.

(U)WHEN ROCKET IMPACT OCCURS AT HIGH VELOCITY, THE POLYETHYLENE NOSE CAP IS CRUSHED, AND THE FIRING PIN IS VIOLENTLY PLUNGED AGAINST THE RING, WHICH SHEARS OFF, FORCING THE STRIKER TO ENTER THE DETONATOR.

(U)THE BASE DETONATING ELEMENT IS THE SECOND PART OF THE FUZING SYSTEM. THE PATH TO THE DETONATOR (6) IN THE BASE DETONATING ELEMENT IS BLOCKED BY THE SLIDER ASSEMBLY (1).

(U)WHEN THE ROCKET IS FIRED, THE SETBACK PIN (3) AND RACK (2) MOVES REARWARD: WHILE THE SETBACK PIN COMPRESSES THE SPRING (4), THE MOVEMENT OF THE RACK IS DELAYED BY THE CLOCKWORK MECHANISM (8). WHEN THE RACK HAS MOVED REARWARD FAR ENOUGH, THE SAFETY PIN (10) IS FORCED INTO THE CAVITY ABOVE THE RACK BY ACCELERATION FORCES ACTING ON THE SLIDER RETAINING PIN (9). THE RETAINING PIN NOW MOVES OUT OF THE SLIDER. THE SLIDER BY ACTION OF ITS SPRINGS (7) ALIGNS THE SLIDER HOLE WITH THE BASE DETONATING FLASH HOLE TUBE, OPENING THE PATH FOR THE FLASH TO TRAVEL FROM THE POINT-INITIATING ELEMENT TO THE DETONATOR (6) WHICH IN TURN INITIATES THE BOOSTER (5).

U N C L A S S I F I E D

FOM-1390-18-2-2-A
NOMEN: FUZE, PIBD, MODEL ? (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 19FEB75
DATE UPDATED: 19FEB75

PRODUCED/ADOPTED: ???

COUNTRY: SWITZERLAND

CURRENT STATUS: ----- ? POINT INITIATING ----- ? BASE DETONATING -----

FUZE ASSEMBLY COMPLETE:

TYPE -----	POINT INITIATING	BASE DETONATING
MODEL -----	075	SV 307
BODY MATERIAL -----	BRASS	ALUMINUM ALLOY
LENGTH OA (MM) -----	42.4	78.0
MAX DIAMETER (MM) ----	17.0	28.2
MAJ THREAD DIAM (MM)-	14.9	25.9
WEIGHT COMPLETE (G) -	22.7	150
ARMING VANES - NO ---	IMPACT	NONE
MARKINGS -----	075	NONE

FUNCTIONAL DATA:

ARMING METHOD ---	NONE	SETBACK
SELF-DESTR		
METHOD -----	NONE	NONE
TYPE SAFETY DVC -	*1	OBSTRUCTED PATH TO DETONATOR

BOOSTER:

BODY MATERIAL ---	N/A	ALUMINUM ALLOY
BODY LENGTH (MM)-	N/A	32.0
FILLER MATERIAL -	N/A	PETN
FILLER WT (G) ---	N/A	?

PERFORMANCE:

ARMING DISTANCE -	?	?
ARMING TIMING ---	?	?
VANE REVOLUTIONS		
TO ARM -----	N/A	N/A
SELF-DESTR TIME -	N/A	N/A
DELAY TIME -----	N/A	N/A

USING PROJECTILES: - 80-MM HEAT ROCKET 80-MM HEAT ROCKET

USING WEAPONS: ----- ? ?

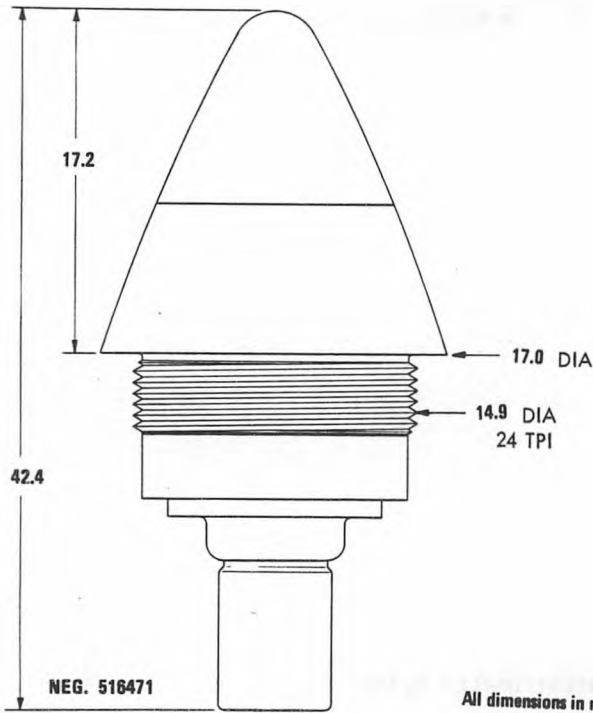
REMARKS:

1/ SHEAR STRENGTH OF SUPPORT RING AND BUSHING

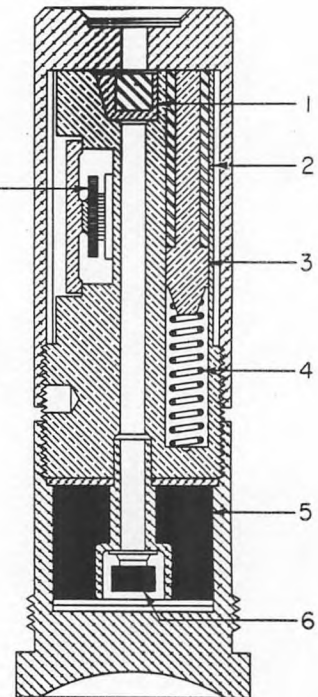
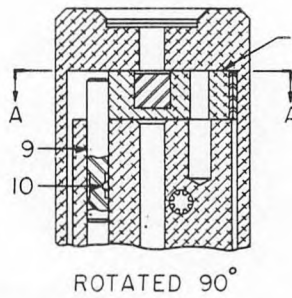
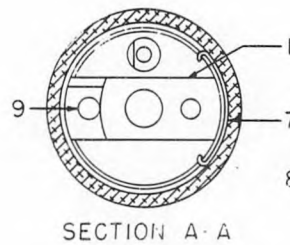
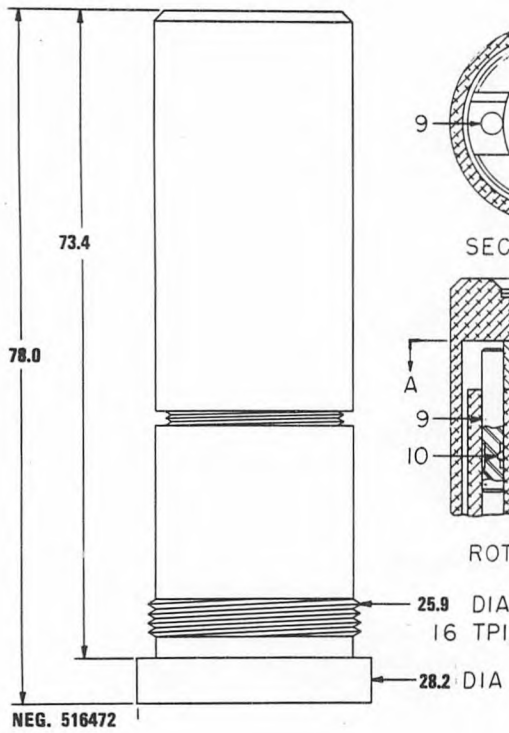
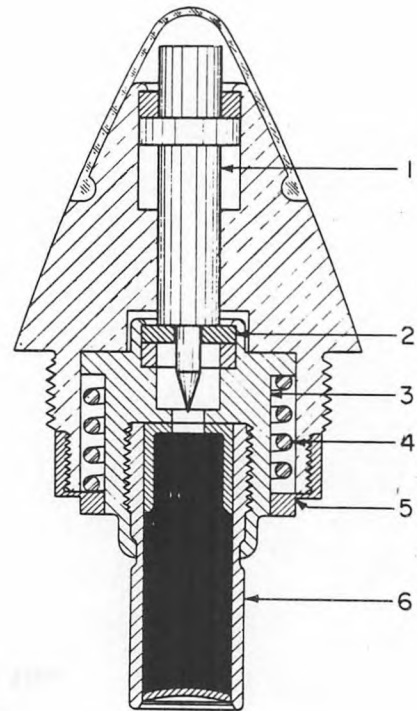
FOM-1390-18-2-2-B
 NOMEN: FUZE, PIBD, MODEL ? (U)
 PRODUCED/ADOPTED: ???

UNCLASSIFIED

CATALOG: TB-381-5-06
 DATE REVIEWED: 19FEB75
 DATE UPDATED: 19FEB75
 COUNTRY: SWITZERLAND



All dimensions in millimeters



DATE CATALOGED: 01APR67
 VOLUME 06

UNCLASSIFIED

PAGE 377

FDM-1390-18-2-2-B
NOMEN: FUZE, PIBD, MODEL ? (U)
PRODUCED/ADOPTED: ???

U N C L A S S I F I E D

CATALOG: TB-381-5-06
DATE REVIEWED: 19FEB75
DATE UPDATED: 19FEB75
COUNTRY: SWITZERLAND

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01APR67
VOLUME 06 PAGE 378

U N C L A S S I F I E D

FOM-1390-19-1-1-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, POINT-DETONATING, SELF-DESTROYING, MODEL FZ-103 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ?

DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ???

COUNTRY: SWEDEN

(U)THE BOFORS 40-MM FUZE MODEL FZ 103 IS A SUPERSENSITIVE, POINT-DETONATING, SELF-DESTROYING FUZE FOR USE AGAINST AIRCRAFT AND OTHER "THIN-SKINNED" TARGETS. A POWDER TRAIN TIME ELEMENT IS USED FOR SELF-DESTRUCTION.

(U)UPON FIRING OF THE PROJECTILE, SETBACK FORCES THE SETBACK INITIATING PRIMER (8) TO THE REAR AGAINST THE SPRING (9). THE SETBACK INITIATING PRIMER IS IGNITED ON IMPACT WITH THE SETBACK FIRING PIN (10). THIS ACTION TAKES PLACE IN THE GUN BARREL. THE SETBACK INITIATING PRIMER, IN TURN, SIMULTANEOUSLY IGNITES THE SELF-DESTROYING POWDER TRAIN (5) AND THE DELAY PELLETT (2) SURROUNDING THE IMPACT FIRING (3) WHEN THE DELAY PELLETT IS CONSUMED, THE SPRING (4) PUSH THE IMPACT FIRING PIN UPWARD, UNLOCKING THE DISK ROTOR (6). CENTRIFUGAL FORCE MOVES THE ROTOR, ALINING THE DETONATOR (7) WITH IMPACT FIRING PIN.

(U)ON IMPACT, THE FIRING PIN EXTENSION (1) DRIVES THE IMPACT FIRING PIN INTO THE DETONATOR, INITIATING THE BOOSTER.

(U)IF IMPACT DOES NOT OCCUR WITHIN THE DESIGNED TIME INTERVAL, THE SELF-DESTROYING POWDER TRAIN BURNS THROUGH AND ACTIVATES THE DETONATOR, INITIATING THE BOOSTER.

U N C L A S S I F I E D

FOM-1390-19-1-1-A
NOMEN: FUZE, POINT-DETONATING, SELF-DESTROYING, MODEL FZ-103 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ???

COUNTRY: SWEDEN

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 019

BOOSTER:
BODY MATERIAL ----- ALUMINUM
BODY LENGTH (MM) -- 12.7 MM
FILLER MATERIAL --- TETRYL
FILLER WEIGHT (G) - ?

PERFORMANCE:
ARMING DISTANCE(M)- 60.0 METERS
ARMING TIME ----- 0.06 SEC APPROX
SELF-DESTRUCT TIME 6 1/2 TO 8 SEC
DELAY TIME ----- ?
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT, SELF-DESTROYING
MODEL ----- FZ-103
BODY MATERIAL ----- ALUMINUM
LENGTH OVERALL (MM) -- 65.0 MM
LENGTH EXPOSED (MM) -- 41.4 MM
MAXIMUM DIAMETER (MM)- 25.4 MM
MAJ THREAD DIAM (MM) - 21.8 MM
THREAD PITCH (METRIC)- 1.00 MM
WEIGHT COMPLETE (G) -- 53.8 GRAMS
MARKINGS ----- FZ-103

USING PROJECTILES: -- 40 MM HE, 40 MM HE-T

USING WEAPONS: ----- 40-MM AA GUN L/70 (BOFORS)

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
SELF-DESTR METHOD ---- PYROTECHNIC
TYPE SAFETY DEVICE --- OUT OF LINE DETONATOR

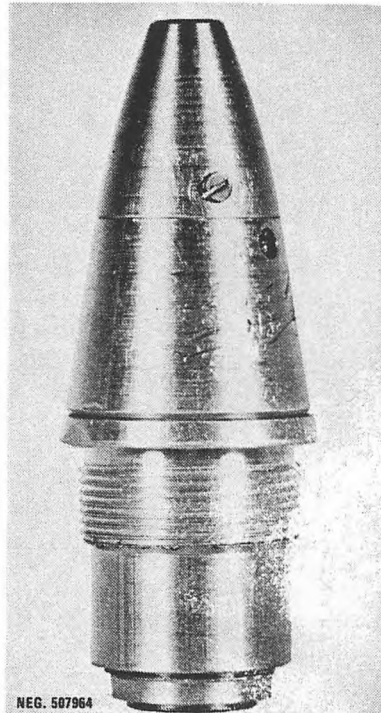
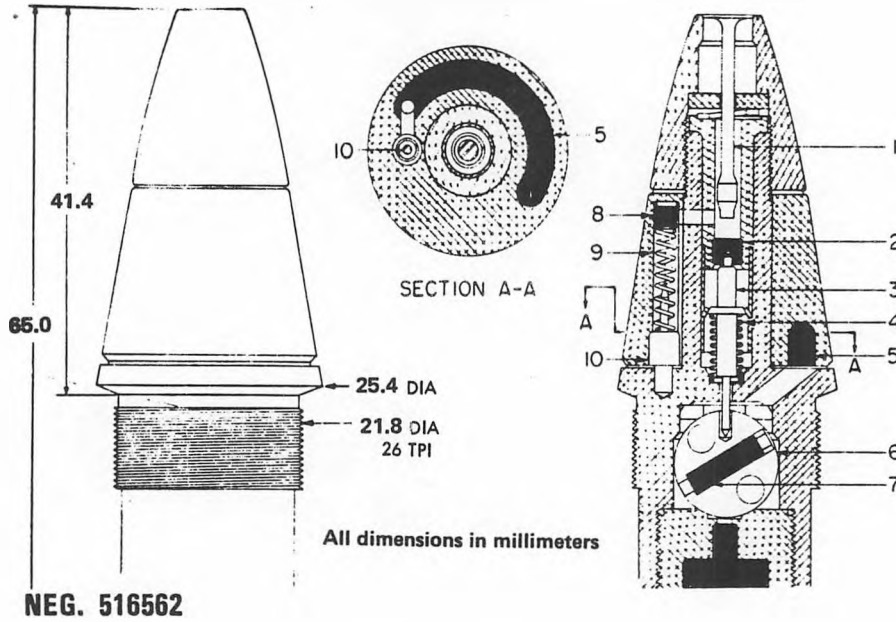
UNCLASSIFIED

FOM-1390-19-1-1-B
NOMEN: FUZE, POINT-DETONATING, SELF-DESTROYING, MODEL FZ-103 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ???

COUNTRY: SWEDEN



DATE CATALOGED: 01APR67
VOLUME 06

UNCLASSIFIED

PAGE 381

FOM-1390-19-1-1-8

U N C L A S S I F I E D

NOMEN: FUZE, POINT-DETONATING, SELF-DESTROYING, MODEL FZ-103 (U)

PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 02FEB77

COUNTRY: SWEDEN

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01APR67
VOLUME 06 PAGE 382

U N C L A S S I F I E D

NOMEN: FUZE, POINT-DETONATING, SELF-DESTROYING, MODEL FZ-104 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ?

DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: 1960/?

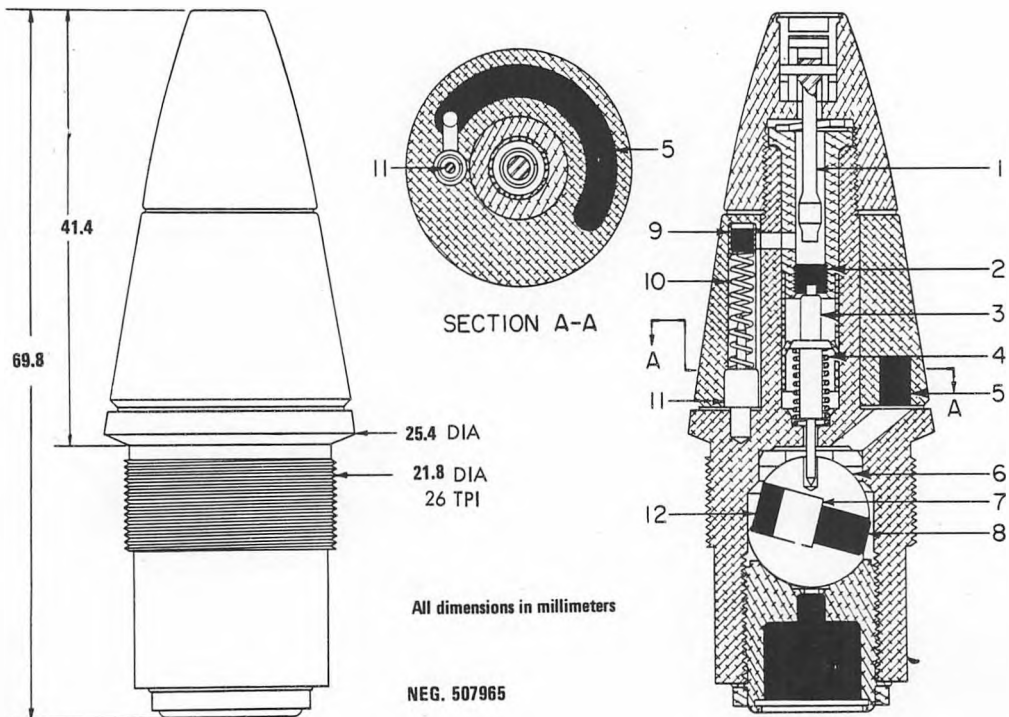
COUNTRY: SWEDEN

(U)THE BOFORS 40-MM FUZE MODEL FZ 104 IS A SUPERSENSITIVE, POINT-DETONATING, SELF-DESTROYING FUZE WITH POST-IMPACT DELAY FOR USE AGAINST AIRCRAFT AND OTHER "THIN SKINNED" TARGETS. A POWDER TRAIN TIME ELEMENT IS USED FOR SELF-DESTRUCTION.

(U)UPON FIRING OF THE PROJECTILE, SETBACK FORCES THE SETBACK INITIATING PRIMER (9) TO THE REAR AGAINST THE SPRING (10). THE SETBACK INITIATING PRIMER IS IGNITED ON IMPACT WITH THE SETBACK FIRING PIN (11). THIS ACTION TAKES PLACE IN THE GUN BARREL. THE SETBACK INITIATING PRIMER, IN TURN, SIMULTANEOUSLY IGNITES THE SELF-DESTROYING POWDER TRAIN (5) AND THE DELAY PELLETT (2) SURROUNDING THE IMPACT FIRING PIN (3). WHEN THE DELAY PELLETT IS CONSUMED, THE SPRING (4) PUSHES THE IMPACT FIRING PIN UPWARD, UNLOCKING THE BALL ROTOR (6). CENTRIFUGAL FORCE MOVES THE ROTOR, ALINING THE DETONATOR (12) WITH THE IMPACT FIRING PIN.

(U)ON IMPACT, THE FIRING PIN EXTENSION (1) DRIVES THE IMPACT FIRING PIN INTO THE DETONATOR. POST-IMPACT DELAY IS OBTAINED BY THE LABYRINTH PYROTECHNIC DELAY COLUMN (7) BETWEEN THE DETONATOR AND THE RELAY (8).

(U)IF IMPACT DOES NOT OCCUR WITHIN THE DESIGNED TIME INTERVAL, THE SELF-DESTROYING POWDER TRAIN BURNS THROUGH AND ACTIVATES THE DETONATOR, INITIATING THE BOOSTER.



U N C L A S S I F I E D

FOM-1390-19-1-2-A

NOMEN: FUZE, POINT-DETONATING, SELF-DESTROYING, MODEL FZ-104 (U)

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: 1960/?

COUNTRY: SWEDEN

CURRENT STATUS: ----- STANDARD

BOOSTER:

BODY MATERIAL ----- ALUMINUM
BODY LENGTH (MM) -- 18.3
FILLER MATERIAL --- TETRYL
FILLER WEIGHT (G) - ?

USING COUNTRIES: ----- 019

PERFORMANCE:

ARMING DISTANCE(M)- 60
ARMING TIME ----- 0.06 SEC APPROX
SELF-DESTRUCT TIME 6 1/2 TO 10 1/2 SEC
DELAY TIME ----- 0.3 SEC APPROX
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT, SELF-DESTROYING
MODEL ----- FZ-104
BODY MATERIAL ----- ALUMINUM
LENGTH OVERALL (MM) -- 69.8
LENGTH EXPOSED (MM) -- 41.4
MAXIMUM DIAMETER (MM)- 25.4
MAJ THREAD DIAM (MM) - 21.8
THREAD PITCH (METRIC)- 1.00 MM
WEIGHT COMPLETE (G) -- 54.9
MARKINGS ----- FZ-104

USING PROJECTILES: -- 40-MM HE-T

USING WEAPONS: ----- 40-MM AA GUN 470

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
SELF-DESTR METHOD ---- PYROTECHNIC
TYPE SAFETY DEVICE --- OUT-OF-LINE DETONATOR

REFERENCES: -----

FOM-1390-19-5-1-3-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, MINE, PULL MODEL 48 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ?
PRODUCED/ADOPTED: ??/?

DATE UPDATED: 02FEB77
COUNTRY: SWEDEN

(U)THE SWEDISH MODELS 41, 42, 42P, AND 48 PULL FUZES ARE BASICALLY THE SAME, BEING SIMPLY PULL FUZES WITH A SPRING-LOADED STRIKERS. STANDARD ANTIPERSONNEL MINE FUZES, THEY ARE ACTIVATED BY A PULL OF FROM 2 TO 5 KG EXERTED ON THE STRIKER-RETAINING PIN RING. THIS FORCE WITHDRAWS THE RETAINING PIN, ALLOWING THE STRIKER, WHICH IS DRIVEN FORWARD BY A COMPRESSED SPRING, TO STRIKE A PERCUSSION CAP, ACTIVATING THE FUZE. THESE FUZES ARE USED IN THE MODELS 41, 42, 42P TRIPFLARE ANTIPERSONNEL MINES.

U N C L A S S I F I E D

FOM-1390-19-5-1-3-A
NOMEN: FUZE, MINE, PULL MODEL 48 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ???

COUNTRY: SWEDEN

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- SWEDEN

BOOSTER:

BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

PERFORMANCE:

ARMING DISTANCE(M)- N/A
ARMING TIME ----- N/A
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- N/A

USING WEAPONS: ----- MINE, ANTIPERSONNEL, M-48

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- MECHANICAL (PULL)
MODEL ----- 48
BODY MATERIAL ----- METAL
LENGTH OVERALL (MM) -- ?
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- ?
MAJ THREAD DIAM (MM) - N/A
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- ?

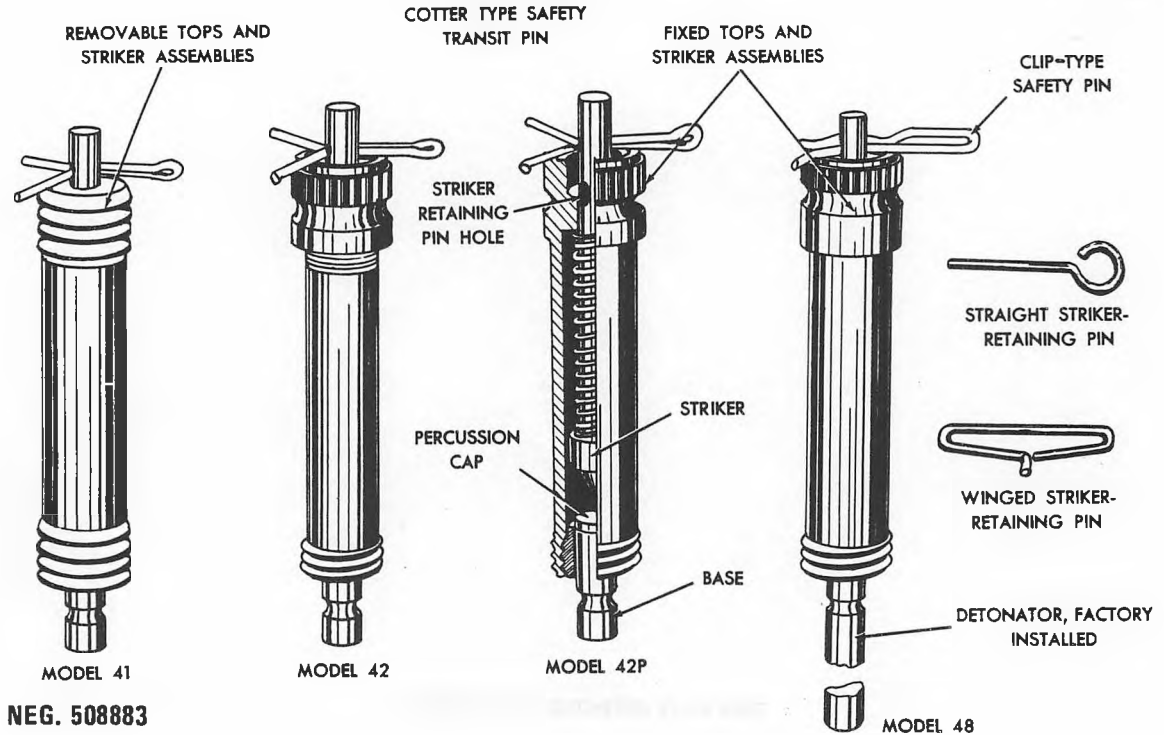
FUNCTIONAL DATA:

ARMING METHOD ----- REMOVE SAFETY PIN
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- PIN

FOM-1390-19-5-1-3-8
NOMEN: FUZE, MINE, PULL MODEL 48 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77
COUNTRY: SWEDEN

PRODUCED/ADOPTED: ???



FOM-1390-19-5-1-3-B
NOMEN: FUZE, MINE, PULL MODEL 48 (U)
PRODUCED/ADOPTED: ???

U N C L A S S I F I E D

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77
COUNTRY: SWEDEN

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01MAR72
VOLUME 06 PAGE 388

U N C L A S S I F I E D

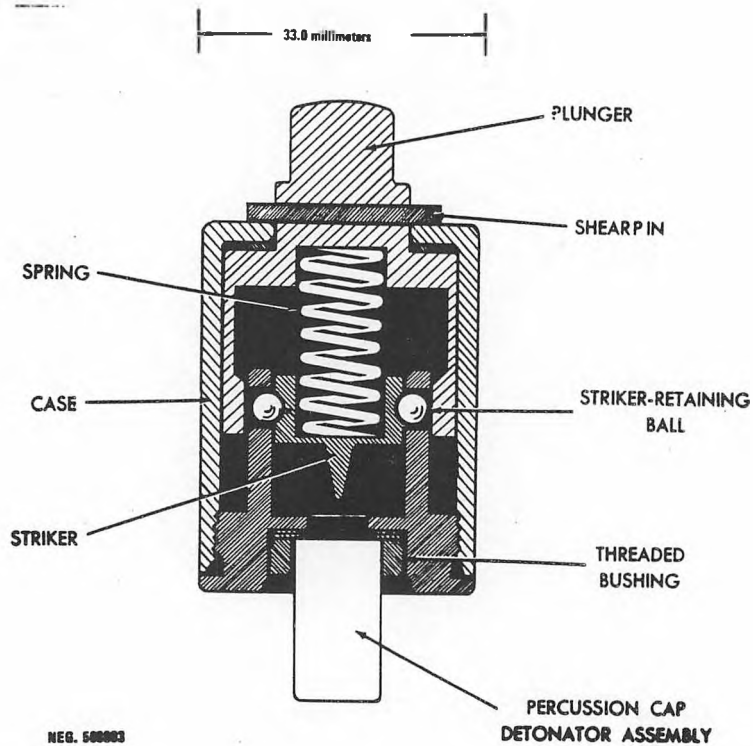
NOMEN: FUZE MINE PRESSURE MODEL 47 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: SLAG-TUNDEL M/47
PRODUCED/ADOPTED: ???

DATE UPDATED: 24JUL74
COUNTRY: SWEDEN

(U)THE SWEDISH MODEL 47 PRESSURE FUZE CONSISTS OF A CYLINDRICAL METAL CASE THAT HOUSES A SHEARPIN-RETAINED PLUNGER AND A BALL-RETAINED SPRING-LOADED STRIKER. THE PLUNGER PROTRUDES THROUGH THE TOP OF THE CASE, AND THE SHEARPIN PASSES THROUGH THE PLUNGER AND RESTS ON THE TOP OF THE CASE. A THREADED BUSHING SCREWED INTO THE BOTTOM OF THE FUZE RETAINS THE PERCUSSION CAP AND DETONATOR ASSEMBLY. A PRESSURE OF 200-KG ON THE PLUNGER CAUSES FAILURE OF THE SHEARPIN, AND THE FUZE IS ACTIVATED WHEN A FORCE OF ONLY 20-KG IS APPLIED.



UNCLASSIFIED

FOM-1390-19-5-2-A

NOMEN: FUZE MINE PRESSURE MODEL 47 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 24JUL74

COUNTRY: SWEDEN

PRODUCED/ADOPTED: ??/?

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- SWEDEN

BOOSTER:

BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

PERFORMANCE:

ARMING DISTANCE(M)- N/A
ARMING TIME ----- N/A
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- N/A

USING WEAPONS: ----- MINE, ANTITANK MODEL 41-47

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- MECHANICAL (PRESSURE)
MODEL ----- 47
BODY MATERIAL ----- METAL
LENGTH OVERALL (MM) -- 55.8
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- 33.0
MAJ THREAD DIAM (MM) - N/A
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- ?

FUNCTIONAL DATA:

ARMING METHOD ----- BY INSTALLING DETONATOR
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- NONE

REMARKS:

FOM-1390-19-5-3-A

CATALOG: TB-381-5-06

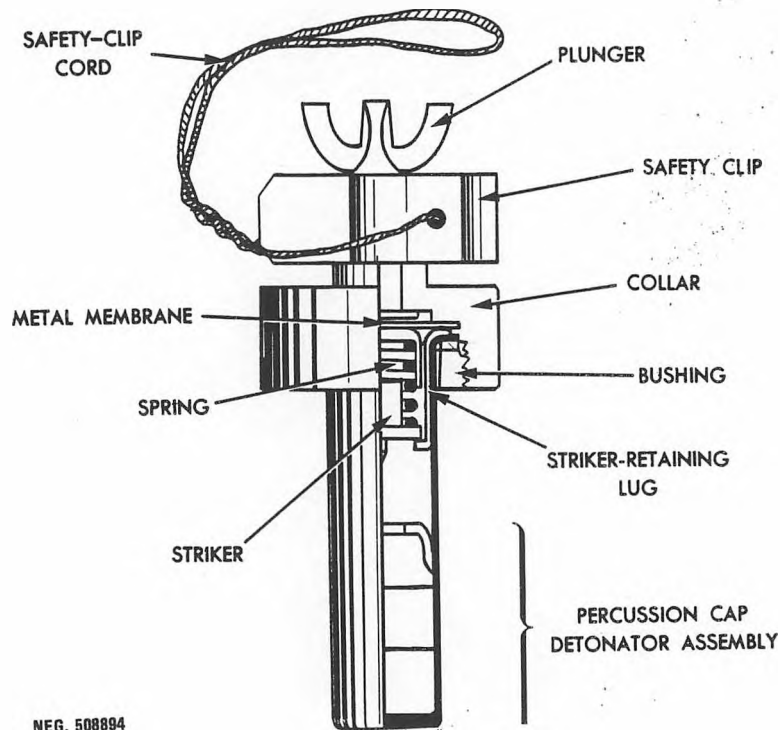
NOMEN: FUZE MINE PRESSURE MODEL 49 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: SLAG-TUNDEL M/49
 PRODUCED/ADOPTED: ???

DATE UPDATED: 02FEB77
 COUNTRY: SWEDEN

(U)THE LOWER PART OF THE SWEDISH MODEL 49 PRESSURE FUZE CONTAINS AN INTEGRAL PERCUSSION CAP AND DETONATOR ASSEMBLY AND A SPRING-LOADED STRIKER RETAINED IN POSITION BY SMALL LUGS. THE TOP OF THIS PORTION OF THE FUZE IS COVERED BY A THIN METAL MEMBRANE, AND THE WHOLE ASSEMBLY IS HELD WITHIN A CYLINDRICAL COLLAR BY A THREADED BUSHING. A FOUR-PRONGED PLUNGER, HELD IN POSITION BY A SAFETY CLIP IS SET INTO THE CYLINDRICAL COLLAR. ONCE THE CLIP HAS BEEN REMOVED, A PRESSURE APPLIED TO THE PLUNGER FORCES THE LATTER THROUGH THE METAL MEMBRANE, COMPRESSING THE STRIKER SPRING. SUFFICIENT PRESSURE WILL CAUSE THE STRIKER-RETAINING LUGS TO FAIL, ALLOWING THE SPRING TO DRIVE THE STRIKER INTO THE PERCUSSION CAP.



U N C L A S S I F I E D

FOM-1390-19-5-3-A

NOMEN: FUZE MINE PRESSURE MODEL 49 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ???

COUNTRY: SWEDEN

CURRENT STATUS: ----- STANDARD

BOOSTER:

BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

USING COUNTRIES: ----- SWEDEN

PERFORMANCE:

ARMING DISTANCE(M)- N/A
ARMING TIME ----- N/A
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- MECHANICAL (PRESURE)
MODEL ----- 49
BODY MATERIAL ----- METAL
LENGTH OVERALL (MM) -- ?
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- ?
MAJ THREAD DIAM (MM) - N/A
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) --- ?
MARKINGS ----- ?

USING PROJECTILES: -- N/A

USING WEAPONS: ----- MINE ANTIPERSONNEL MODEL 49

FUNCTIONAL DATA:

ARMING METHOD ----- REMOVE SAFETY CLIP
SELF-DESTR METHOD ----- NONE
TYPE SAFETY DEVICE --- SAFETY CLIP

REFERENCES: -----

REMARKS:

U N C L A S S I F I E D

FOM-1390-19-5-4-A

CATALOG: T8-381-5-06

NOMEN: FUZE, MINE PRESSURE, PRACTICE, MODEL ? W/SMOKE CHARGE (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ?

DATE UPDATED: 24JUL74

PRODUCED/ADOPTED: ???

COUNTRY: SWEDEN

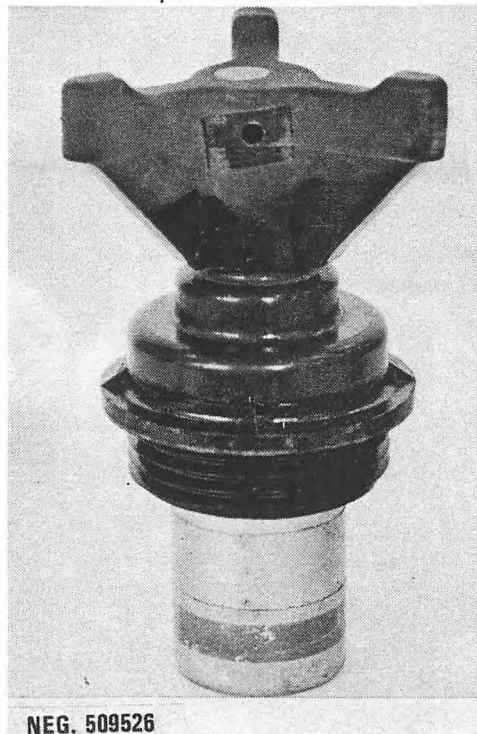
(U)THIS PLASTIC, PRACTICE, PRESSURE MINE FUZE IS USED FOR TRAINING PERSONNEL IN THE USE OF SWEDISH MINES MI 101, 102, AND 103.

(U)THE PRACTICE VERSION OF THE ANTITANK MINES CONSISTS OF MINE FUZE AND MINE BODY.

(U)WITH THE EXCEPTION THAT A SMOKE COMPOUND HAS BEEN SUBSTITUTED FOR THE DETONATOR AND BOOSTER, THE PRACTICE FUZE CONFORMS TO THE SERVICE FUZE. SMOKE PASSES THROUGH CHANNELS IN THE PRACTICE FUZE AND EMERGES, CLEARLY VISIBLE AND WITHOUT FLAME, THROUGH FOUR HOLES IN THE CROSSHEAD. CONSEQUENTLY, THE MINE CAN BE USED UNDER ACTUAL SERVICE CONDITIONS, EVEN IN DRY GRASS, WITHOUT CONSTITUTING A FIRE HAZARD.

(U)THE MINE BODY, WHICH HAS A DURABLE, REUSABLE PLASTIC CASE FILLED WITH A MIXTURE OF SAWDUST AND CONCRETE, IS MADE IN THREE SIZES, WITH THE SAME EXTERNAL FORMS AND WEIGHTS AS THE SERVICE-LOADED MINES MI 101, 102, AND 103.

(U)MADE OF GALVANIZED STEEL, THE CYLINDRICAL SMOKE CHARGE, WHICH CONTAINS THE SMOKE COMPOUND, WEIGHS 34-GRAMS, AND IS 47.7-MM LONG, EXPOSED, WITH A DIAMETER OF 42.5-MM. BURNING TIME OF THE SMOKE CHARGE IS 15 SECONDS. THE AREAS IMMEDIATELY SURROUNDING EACH OF THE FOUR SMOKE HOLES ARE COVERED WITH BLACK TAPE. COLOR OF THE SMOKE IS UNKNOWN.



DATE CATALOGED: 01JUL68
VOLUME 06

U N C L A S S I F I E D

PAGE 393

U N C L A S S I F I E D

FOM-1390-19-5-4-A

NOMEN: FUZE, MINE PRESSURE, PRACTICE, MODEL ? W/SMOKE CHARGE (U)

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 24JUL74

PRODUCED/ADOPTED: ?/?

COUNTRY: SWEDEN

CURRENT STATUS: ----- ?

BOOSTER:

USING COUNTRIES: ----- SWEDEN

BODY MATERIAL ----- ?
BODY LENGTH (MM) -- ?
FILLER MATERIAL --- ?
FILLER WEIGHT (G) - ?

FUZE ASSEMBLY COMPLETE:

TYPE ----- ?
MODEL ----- ?
BODY MATERIAL ----- PLASTIC - STEEL
LENGTH OVERALL (MM) -- 153.4
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM) - 75.8
MAJ THREAD DIAM (MM) - 63.5
THREAD PITCH (METRIC) - ?
WEIGHT COMPLETE (G) -- 23.4
MARKINGS ----- *1

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME ?
DELAY TIME ----- ?
MIN TIME SETTING -- ?
MAX TIME SETTING -- ?

USING PROJECTILES: -- N/A

USING WEAPONS: ----- TRAINING

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- ?
SELF-DESTR METHOD ---- ?
TYPE SAFETY DEVICE --- ?

REMARKS:

1/ BLUE BAND AND DOT, BLACK STENCIL NUMBERS.

NOMEN: FUZE, PIBD, MODEL ? (U)

DATE REVIEWED: 02FEB77

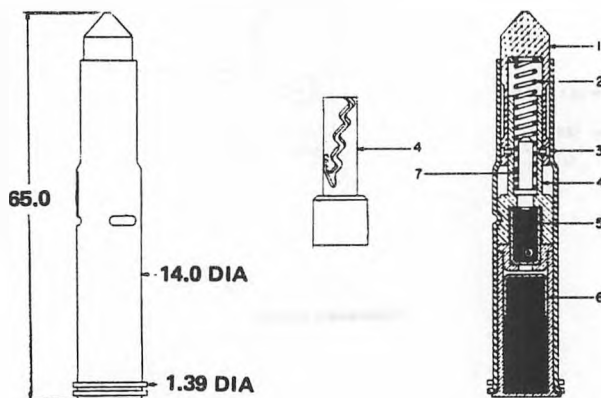
NATIVE DES: ?
PRODUCED/ADOPTED: ?/1951DATE UPDATED: 25FEB75
COUNTRY: BELGIUM

(U)THE BELGIAN POINT-INITIATING, BASE-DETONATING FUZE CONSISTS OF A SETBACK-ARMED, POINT-INITIATING IMPACT-FIRED FUZE WHICH SPITS BACK TO A BASE-DETONATING ELEMENT LOCATED BEHIND THE SHAPED-CHARGE WARHEAD OF THE ENERGA BLINDICIDE 83-MM ROCKET. THIS FUZING SYSTEM USES A TUNGSTEN COBALT PIN IN THE POINT INITIATING FUZE AS AN ANTIRICOCHET DEVICE.

(U)FUNCTIONING OF THE POINT-INITIATING ELEMENT IS AS FOLLOWS: UPON FIRING, SETBACK FORCES MOVE THE SETBACK SLEEVE (2) TO THE REAR. THIS MOVEMENT IS DELAYED BY A ZIGZAG GROOVE OF THE DETONATOR HOLDER (4) WHICH THE PINS (3) IN THE SETBACK SLEEVE MUST FOLLOW. THESE PINS, IN FOLLOWING THE ZIGZAG PATH, DEVELOP AN INTERMITTENT MOTION IN THE SETBACK SLEEVE, RETARDING ITS MOTION AND PROVIDING AN ARMING DELAY. THIS REQUIREMENT FOR SUSTAINED ACCELERATION IS THE ONLY HANDLING SAFETY FEATURE INCORPORATED INTO THE FUZE. THE REARWARD MOVEMENT OF THE SETBACK SLEEVE COMPRESSES THE ARMING SPRING (5). WHEN SETBACK CEASES, THE SETBACK SLEEVE IS MOVED FORWARD BY THE SPRING TO LOCK IN THE TAIL OF THE DETONATOR HOLDER ZIGZAG GROOVES. THE SIX, SMALL, STEEL SAFETY BALLS (8), UNDER THE INFLUENCE OF ROCKET SPIN AND CREEP FORCES, CAN THEN MOVE INTO THE SPACE VACATED BY THE SETBACK SLEEVE. WHEN THE SETBACK SLEEVE HAS COMPLETED ITS MOTION, PROVIDING SPACE FOR THE SAFETY BALLS TO MOVE OUT, THE FUZE IS ARMED AND THE FIRING PIN (1) CAN BE DRIVEN INTO THE DETONATOR (6) ON IMPACT OF THE ROCKET. IT IS NOT NECESSARY FOR THE BALLS TO MOVE OUTWARD: THEY CAN BE DRIVEN OUT BY THE FIRING PIN, AT SOME SMALL LOSS OF SENSITIVITY. ON IMPACT OF THE ROCKET, THE DETONATOR WILL IGNITE THE LARGER CHARGE (7), WHICH SPITS BACK TO THE BASE-DETONATING ELEMENT.

(U)THE BASE-DETONATING ELEMENT FUNCTIONS SIMULTANEOUSLY WITH THE POINT-INITIATING ELEMENT AS FOLLOWS: ON SETBACK, THE SLEEVE COVER (1) MOVES REARWARD OUT OF THE KEYWAY TAIL OF ARMING DELAY GUIDE (4), COMPRESSING THE ARMING SPRING (2) AND SEATING AGAINST THE ARMING DELAY GUIDE SHOULDER. DURING THIS TIME, THE SAFETY PIN (3) COVERS THE FLASH HOLE IN THE DELAY GUIDE TO MAKE CERTAIN THAT THE SPRING DOES NOT ENTER THE FLASH HOLE.

(U)ON SETFORWARD, THE ARMING SPRING (2) EXPANDS PUSHING THE SLEEVE COVER (1) FORWARD. A ZIGZAG MOTION IS IMPARTED TO THE SLEEVE COVER BY ITS ARMING DELAY KEYWAY PINS (7) AS THEY FOLLOW THE KEYWAY PATH. DELAYED ARMING IS ACHIEVED IN A MANNER SIMILARLY DESCRIBED ABOVE FOR THE POINT-INITIATING FUZE. WHEN THE KEYWAY PINS REACH THE END OF THE KEYWAY PATH, THE SPRING (2) PUSHES THE SLEEVE COVER INTO THE CAVITY IN FRONT OF THE SHAPED-CHARGE LINER OF THE ROCKET'S WARHEAD. THE INERTIA OF THE MOVING SLEEVE COVER (1) PULLS THE ARMING SPRING (2) AND SAFETY PIN (3) INTO THE SAME CAVITY, OPENING THE PATH FOR RECEIVING THE FLASH FROM THE POINT-INITIATING FUZE. THIS FLASH IGNITES THE RELAY CHARGE (5) AND IN TURN INITIATES THE DETONATOR (6), WHICH SETS OFF THE BOOSTER AND SHAPED CHARGE.



NEG. 516565

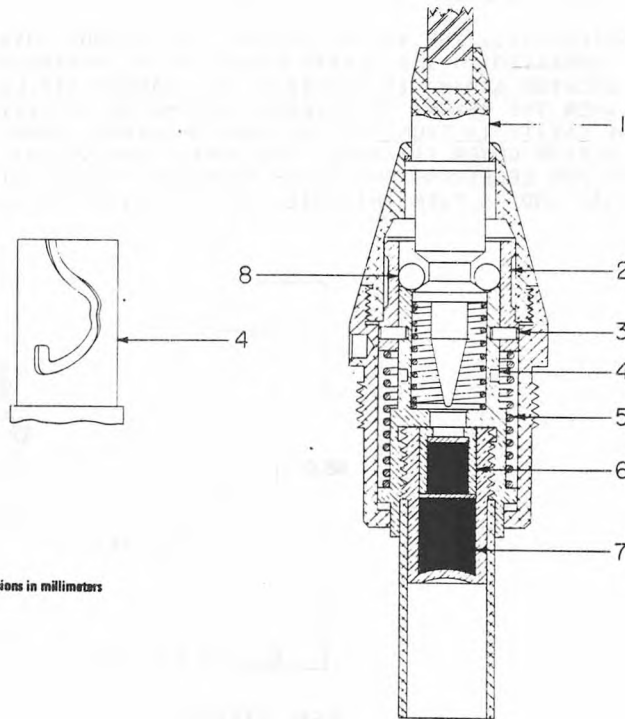
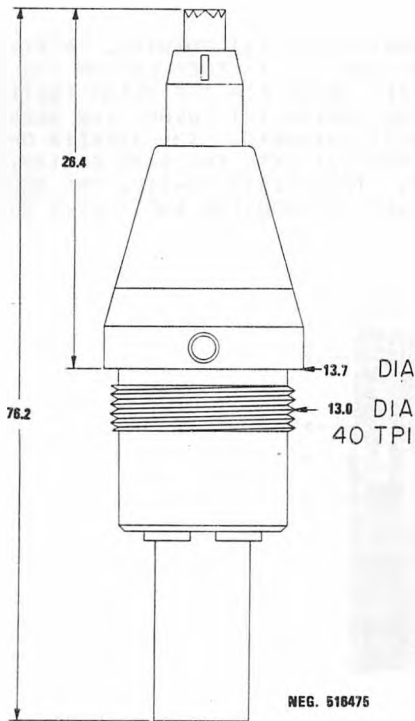
FOM-1390-21-2-1-A
 NOMEN: FUZE, PIBD, MODEL ? (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 25FEB75

COUNTRY: BELGIUM

PRODUCED/ADOPTED: ?/1951

	--- POINT INITIATING ---	----- BASE DETONATING -----
CURRENT STATUS: -----	STANDARD	STANDARD
FUZE ASSEMBLY COMPLETE:		
TYPE -----	POINT INITIATING	BASE DETONATING
MODEL -----	r	?
BODY MATERIAL -----	ALUMINUM	ALUMINUM
LENGTH OA (MM) -----	76.2	65
MAX DIAMETER (MM) -----	13.7	14
MAJ THREAD DIAM (MM) -----	13.0	13.9
WEIGHT COMPLETE (G) -----	8.5	8.5
ARMING VANES - NO -----	NONE	NONE
MARKINGS -----	NONE	NONE
FUNCTIONAL DATA:		
ARMING METHOD ---	SETBACK	SETBACK
SELF-DESTR		
METHOD -----	NONE	NONE
TYPE SAFETY DVC -	NONE	BARRIER IN FLASHPATH
BOOSTER:		
BODY MATERIAL ---	N/A	N/A
BODY LENGTH (MM) ---	N/A	N/A
FILLER MATERIAL -	N/A	N/A
FILLER WT (G) ---	N/A	N/A
PERFORMANCE:		
ARMING DISTANCE -	4.9 M	4.9 M
ARMING TIMING ---	?	?
VANE REVOLUTIONS		
TO ARM -----	N/A	N/A
SELF-DESTR TIME -	N/A	N/A
DELAY TIME -----	N/A	N/A
USING PROJECTILES: -	83-MM ENERGA BLINDICIDE	83-MM ENERGA BLINDICIDE
USING WEAPONS: -----	83-MM ROCKET LAUNCHER	83-MM ROCKET LAUNCHER
	- MODEL 1951	MODEL 1951



All dimensions in millimeters

DATE CATALOGED: 01JAN67
 VOLUME 06 PAGE 396

NOMEN: FUZE, POINT DETONATING, MODEL 81-I-R (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ?
PRODUCED/ADOPTED: ???DATE UPDATED: 02FEB77
COUNTRY: ITALY

(U)THE ITALIAN MORTAR FUZE MODEL 81-I-R IS DESIGNED TO PROVIDE THE USER WITH EITHER SUPERQUICK OR DELAYED FUNCTIONING AFTER IMPACT. THE SELECTION, FOR TYPE OF ACTION DESIRED, MUST BE MADE BEFORE ASSEMBLING THE FUZE INTO THE PROJECTILE. THE ARROW STAMPED AT THE BOTTOM OF THE SLOT IN THE SELECTOR IS SET AT "I" FOR SUPERQUICK ACTION AND AT "R" FOR DELAYED ACTION.

(U)UPON FIRING OF THE PROJECTILE, SETBACK FORCES THE SAFETY COLLAR (5) TO THE REAR AGAINST THE SAFETY SPRING (8). THE COLLAR BECOMES WEDGED ON THE TAPERED SURFACE AT THE REAR END OF THE INERTIA-ELEMENT ASSEMBLY (4). THE PRIMER LOCKING BALL (6) IS THUS RELEASED SO THAT IT CAN MOVE OUTWARD AND FREE THE PRIMER-HOLDER ASSEMBLY (7). IN FLIGHT, THE PRIMER-HOLDER ASSEMBLY CAN THEN MOVE FORWARD UNDER THE INFLUENCE OF CREEP FORCES UNTIL ITS FORWARD END CONTACTS THE FIRING PIN SPRING GUIDE (3). MOVEMENT OF THE INERTIA ELEMENT IS RESTRAINED BY THE SPRING (2).

(U)ON IMPACT, THE FIRING PIN AND STRIKER ASSEMBLY (1) IS PUSHED REARWARD, WHILE THE INERTIA-ELEMENT ASSEMBLY MOVES FORWARD. THE UNRESTRAINED PRIMER-HOLDER ASSEMBLY MOVES FORWARD RELATIVELY MORE RAPIDLY THAN THE INERTIA ELEMENT AND ITS ASSOCIATED COMPONENTS. AS THE FIRING PIN ENTERS THE PRIMER BODY CAVITY, THE TWO PRIMER DETENT BALLS (11) ARE PUSHED OUTWARD TO PROTRUDE INTO THE CAVITY BETWEEN THE FORWARD LIP OF THE INERTIA ELEMENT, THE FIRING PIN SPRING GUIDE, AND THE FIRING PIN. THIS LOCKS THE PRIMER ASSEMBLY TO THE FORWARD-MOVING INERTIA ELEMENT. THE MOMENTUM OF THE ENTIRE INERTIA ASSEMBLY, RATHER THAN ONLY THAT OF THE PRIMER ASSEMBLY, IMPALES THE PRIMER (12) ON THE FIRING PIN POINT.

(U)WHEN THE SELECTOR (9) IS SET FOR DELAY ACTION, THE PRIMER FLASH IGNITES THE CHARGE IN THE DELAY-HOLDER ASSEMBLY (13). THIS, IN TURN, INITIATES THE DETONATOR (10).

(U)ON AN INSTANTANEOUS SETTING, THE PRIMER FLASH PASSES THROUGH THE OPEN FLASH HOLE TO INITIATE THE DETONATOR DIRECTLY. IF FOR SOME REASON THE DETONATOR IS NOT SET OFF IN THIS MANNER, IT CAN STILL BE ACTIVATED THROUGH THE DELAY ELEMENT, WHICH IS ALSO IGNITED BY THE SAME PRIMER FLASH.

U N C L A S S I F I E D

FOM-1390-23-1-1-A
NOMEN: FUZE, POINT DETONATING, MODEL 81-I-R (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

COUNTRY: ITALY

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 023

BOOSTER:

BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

PERFORMANCE:

ARMING DISTANCE(M)- 30
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- 0.08 SEC
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT DETONATING
MODEL ----- 81-I-R
BODY MATERIAL ----- ALUMINUM
LENGTH OVERALL (MM) -- 113.3
LENGTH EXPOSED (MM) -- 49.2
MAXIMUM DIAMETER (MM)- 31.5
MAJ THREAD DIAM (MM) - 23.4
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- 81-I-R

USING PROJECTILES: -- 81 MM, HE; 120 MM, HE

USING WEAPONS: ----- 81-MM MORTAR MODEL 35
- 120-MM MORTAR CEMSA

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- SAFETY SPRING,
LOCKING BALLS

REMARKS:

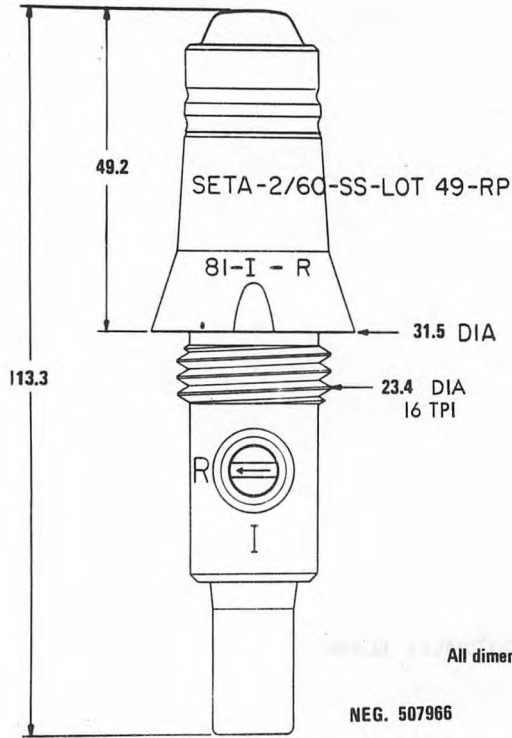
UNCLASSIFIED

FOM-1390-23-1-1-B
NOMEN: FUZE, POINT DETONATING, MODEL 81-I-R (U)

CATALOG: T8-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

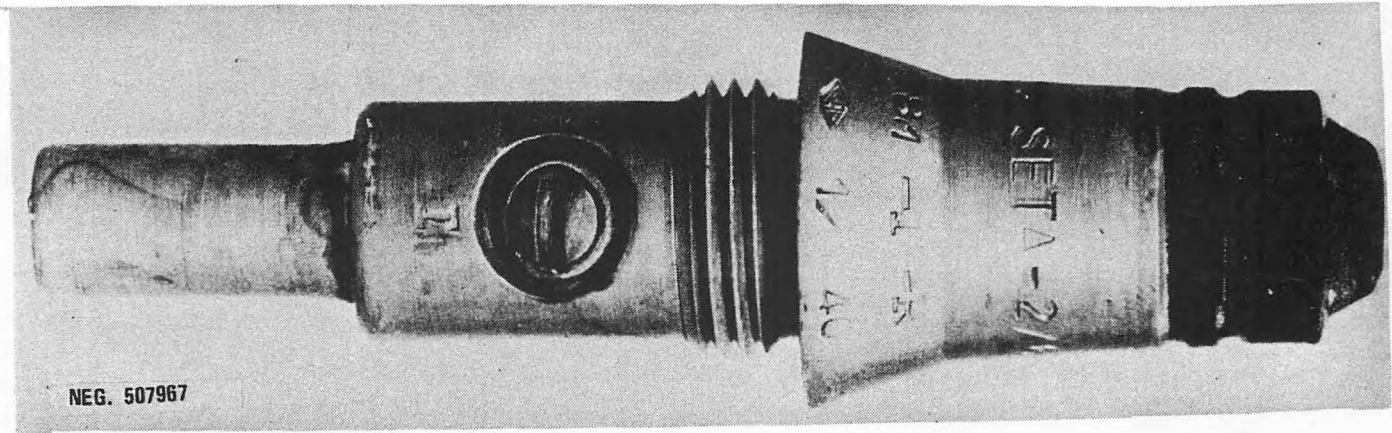
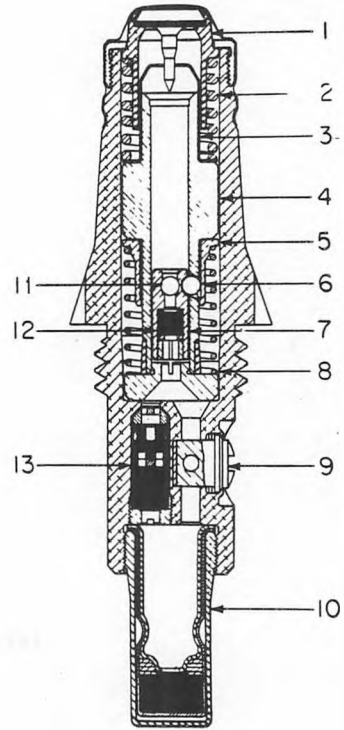
PRODUCED/ADOPTED: ???

COUNTRY: ITALY



All dimensions in millimeters

NEG. 507966



NEG. 507967

U N C L A S S I F I E D

FOM-1390-23-1-1-B

NOMEN: FUZE, POINT DETONATING, MODEL 81-I-R (U)

PRODUCED/ADOPTED: ???

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 02FEB77

COUNTRY: ITALY

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01APR67
VOLUME 06 PAGE 400

U N C L A S S I F I E D

FOM-1390-29-5-2-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, MINE, PRESSURE, NONMETALLIC, MODEL 26 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: DRUKONTSTEKER NR 26
PRODUCED/ADOPTED: 1955/?

DATE UPDATED: 02FEB77
COUNTRY: NETHERLANDS

(U)THE NETHERLANDS NONMETALLIC PRESSURE FUZE MODEL 26, USED WITH THE MODEL 26 NONMETALLIC ANTITANK MINE (FOM-1345-29-1-1), RESEMBLES THE FRENCH MODEL 52 FUZE (FOM-1390-17-5-6) QUITE CLOSELY. THE MODEL 26 FUZE IS MADE ALMGST COMPLETELY OF PLASTIC.

(U)WHEN A FORCE OF FROM 15 TO 50 KG IS APPLIED TO THE TOP OF THE STRIKER, THE SHEAR COLLAR FAILS, AND THE STRIKER'S TAPERED BOTTOM END CARRYING A FRICTION-SENSITIVE COMPOUND STRIKES A MATING TAPERED SURFACE WITHIN THE FUZE BODY. THE RESULTING FLAME INITIATES THE DETONATOR.

(U)MODEL 26 FUZES, AND THEIR DETONATORS, ARE PACKED IN INDIVIDUAL PLASTIC CONTAINERS.

U N C L A S S I F I E D

FOM-1390-29-5-2-A

NOMEN: FUZE, MINE, PRESSURE, NONMETALLIC, MODEL 26 (U)

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 02FEB77

COUNTRY: NETHERLANDS

PRODUCED/ADOPTED: 1955/?

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- NETHERLANDS

BOOSTER:

BODY MATERIAL ----- N/A
 BODY LENGTH (MM) -- N/A
 FILLER MATERIAL --- N/A
 FILLER WEIGHT (G) - N/A

PERFORMANCE:

ARMING DISTANCE(M)- N/A
 ARMING TIME ----- N/A
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- MECHANICAL (PRESSURE-FRIC
 MODEL ----- 26
 BODY MATERIAL ----- PLASTIC
 LENGTH OVERALL (MM) -- 58.8
 LENGTH EXPOSED (MM) -- ?
 MAXIMUM DIAMETER (MM)- 30.4
 MAJ THREAD DIAM (MM) - ?
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- ?
 MARKINGS ----- NONE

USING PROJECTILES: -- N/A

USING WEAPONS: ----- MINE, ANTITANK MODEL 26

REFERENCES: -----

FUNCTIONAL DATA:

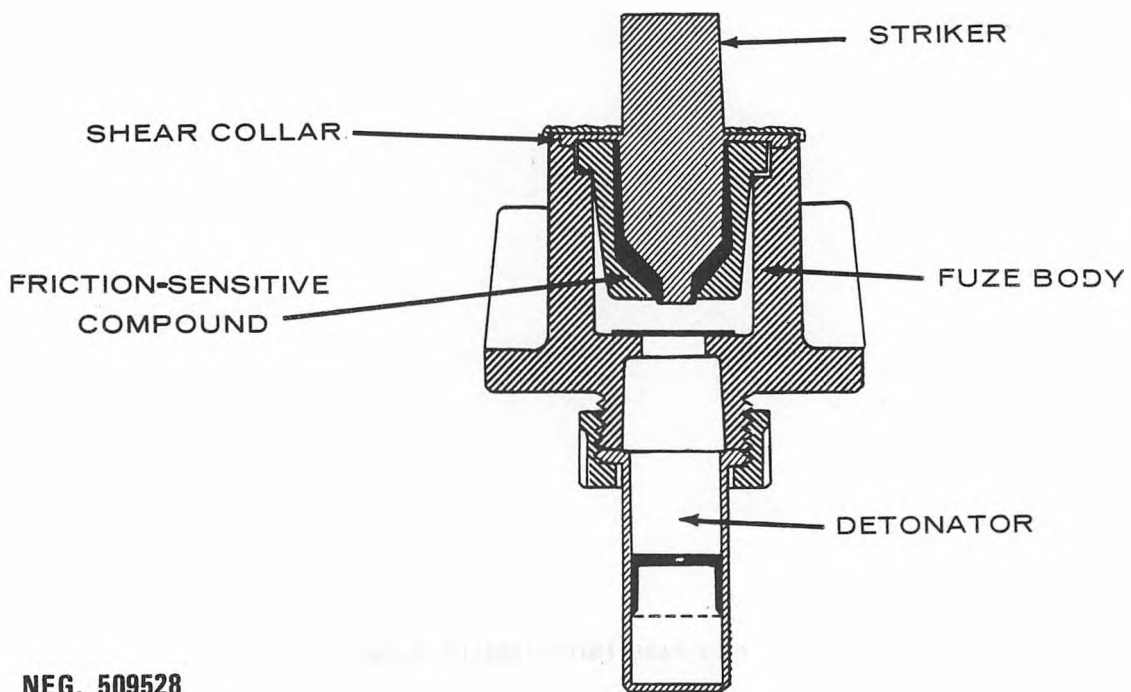
ARMING METHOD ----- INSTALLING DETONATOR
 SELF-DESTR METHOD --- NONE
 TYPE SAFETY DEVICE --- NONE

REMARKS:

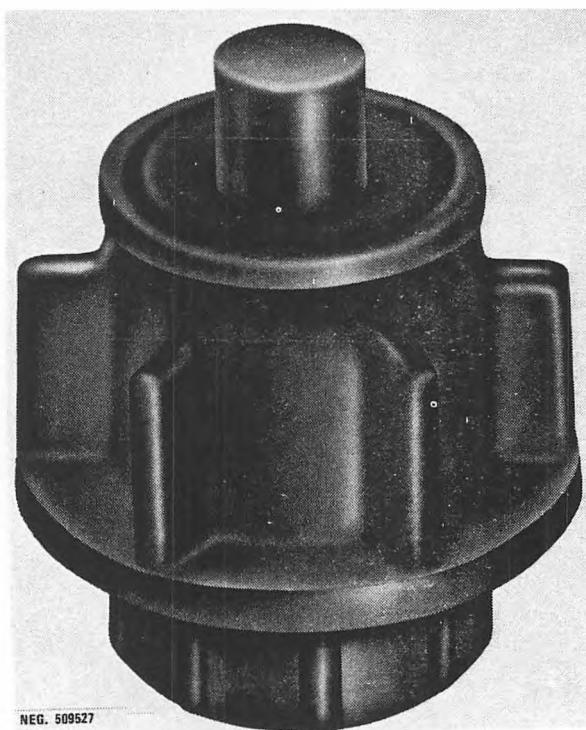
FOM-1390-29-5-2-B
NOMEN: FUZE, MINE, PRESSURE, NONMETALLIC, MODEL 26 (U)

PRODUCED/ADOPTED: 1955/?

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77
COUNTRY: NETHERLANDS



NEG. 509528



U N C L A S S I F I E D

FOM-1390-29-5-2-B

NOMEN: FUZE, MINE, PRESSURE, NONMETALLIC, MODEL 26 (U)

PRODUCED/ADOPTED: 1955/?

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 02FEB77

COUNTRY: NETHERLANDS

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JAN65
VOLUME 06 PAGE 404

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-29-5-3-A

CATALOG: TB-381-5-06

NOMEN: FUZE, MINE, PRESSURE, NONMETALLIC, MODEL 22 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: DRUKONTSTEKER NR-22

DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: 1955/?

COUNTRY: NETHERLANDS

(U)THE NETHERLANDS NONMETALLIC PRESSURE FUZE MODEL 22 CONSISTS OF A PLATIC BODY, A CONE-SHAPED CUP, AND A STRIKER HAVING AN INTEGRAL SHEAR COLLAR. THE BOTTOM END OF THE STRIKER IS CONICAL, TO MATE WITH THE CUP, AND BOTH CONICAL SURFACES HAVE BEEN COATED WITH A FRICTION-SENSITIVE COMPOUND.

(U)WHEN A FORCE OF FROM 5 TO 25 KG IS APPLIED TO THE UPPER END OF THE STRIKER, THE SHEAR COLLAR FAILS, THE STRIKER IS FORCED DOWNWARD, AND THE MATING CONICAL SURFACES CONTACT EACH OTHER, THE RESULTING FLAME INITIATES THE DETONATOR WITHIN THE MINE.

(U)MODEL 22 FUZES, LESS DETONATORS, ARE ISSUED ALREADY ASSEMBLED INTO MODEL 22 NONMETALLIC ANTI-PERSONNEL MINES (FOM-1345-29-1-3). THE MINE IS ARMED SIMPLY BY UNSCREWING THE FUZE, INSERTING A DETONATOR INTO THE MINE, AND REPLACING THE FUZE.

U N C L A S S I F I E D

FOM-1390-29-5-3-A
NOMEN: FUZE, MINE, PRESSURE, NONMETALLIC, MODEL 22 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: 1955/?

COUNTRY: NETHERLANDS

CURRENT STATUS: ----- STNADARD

BOOSTER:
BODY MATERIAL ----- N/A
BODY LENGTH (MM) --- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

USING COUNTRIES: ----- NETHERLANDS

PERFORMANCE:
ARMING DISTANCE(M)- N/A
ARMING TIME ----- N/A
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:
TYPE ----- MECHANICAL
MODEL ----- 22
BODY MATERIAL ----- PLASTIC
LENGTH OVERALL (MM) -- 20.3
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- 22.8
MAJ THREAD DIAM (MM) - ?
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- NONE

USING PROJECTILES: -- N/A

USING WEAPONS: ----- MINE, ANTIPERSONNEL MODEL 22

FUNCTIONAL DATA:
ARMING METHOD ----- N/A
SELF-DESTR METHOD ----- NONE
TYPE SAFETY DEVICE --- NONE

REFERENCES: -----

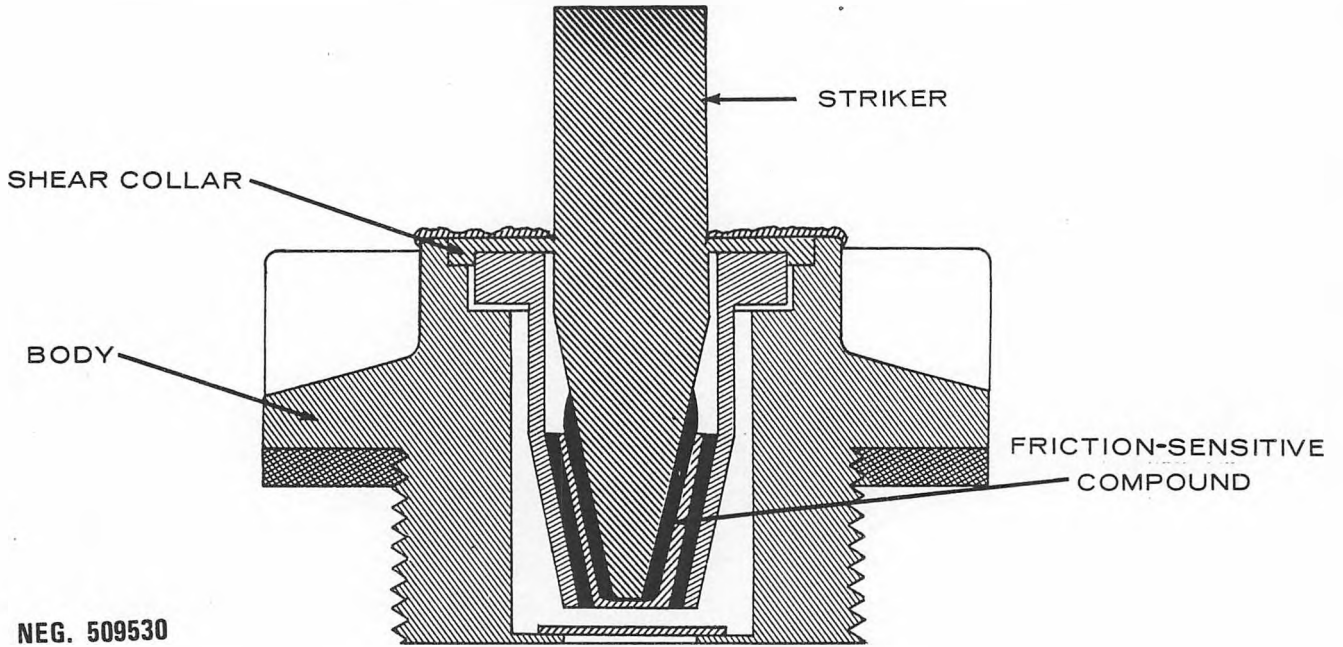
REMARKS:

U N C L A S S I F I E D

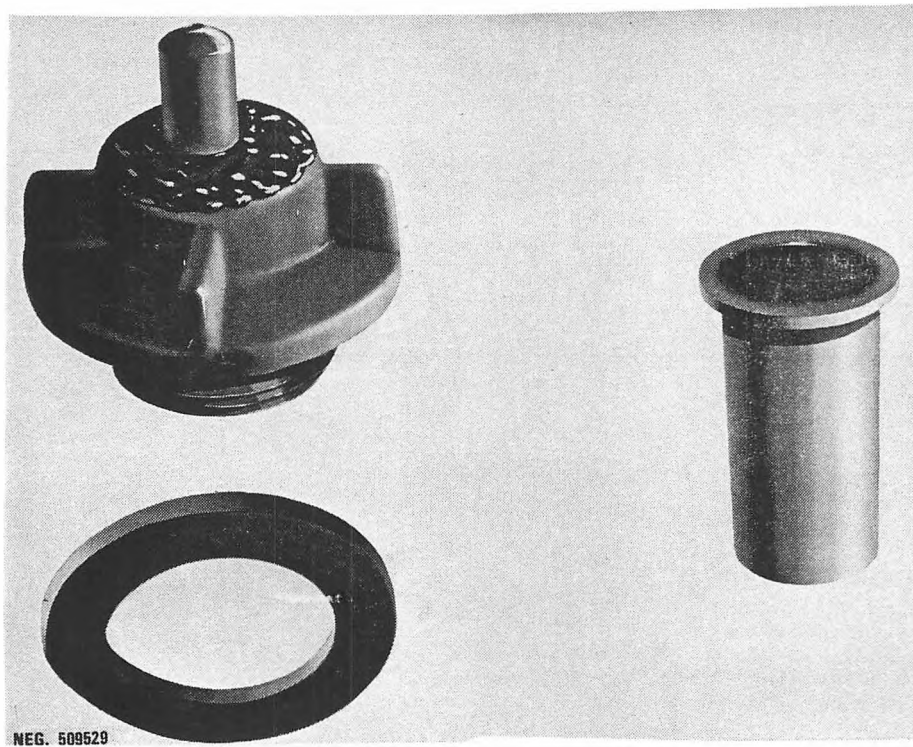
FOM-1390-29-5-3-B
NOMEN: FUZE, MINE, PRESSURE, NONMETALLIC, MODEL 22 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77
COUNTRY: NETHERLANDS

PRODUCED/ADOPTED: 1955/?



NEG. 509530



DATE CATALOGED: 01JAN65
VOLUME 06

U N C L A S S I F I E D

PAGE 407

U N C L A S S I F I E D

FOM-1390-29-5-3-B
NOMEN: FUZE, MINE, PRESSURE, NONMETALLIC, MODEL 22 (U)
PRODUCED/ADOPTED: 1955/?

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77
COUNTRY: NETHERLANDS

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JAN65
VOLUME 06 PAGE 408

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-29-5-4-A

CATALOG: TB-381-5-06

NOMEN: FUZE, MINE, PRESSURE, MODEL 29 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: DRUKONTSTEKER NR 29
PRODUCED/ADOPTED: 1955/?

DATE UPDATED: 02FEB77
COUNTRY: NETHERLANDS

(U)THE NETHERLANDS PRESSURE FUZE MODEL 29 CONSISTS OF A CYLINDRICAL STEEL CASE, A SPRING-LOADED STRIKER, A SHEAR PIN, A SAFETY PIN, A PRIMER HOLDER, AND A DETONATOR RETAINING COLLAR. A FORCE OF FROM APPROXIMATELY 109 TO 145 KG APPLIED TO THE TOP OF THE STRIKER CAUSES THE SHEAR PIN TO FAIL. THE COMPRESSED STRIKER SPRING THEN DRIVES THE STRIKER INTO THE PRIMER, INITIATING THE DETONATOR.

(U)MODEL 29 FUZES ARE USED WITH MODEL 25 ANTITANK MINES (FOM-1345-29-1-2). EACH FUZE, WITH DETONATOR ASSEMBLED, IS PACKED IN A TIN CAN.

DATE CATALOGED: 01JAN65
VOLUME 06

U N C L A S S I F I E D

PAGE 409

U N C L A S S I F I E D

FOM-1390-29-5-4-A

NOMEN: FUZE, MINE, PRESSURE, MODEL 29 (U)

PRODUCED/ADOPTED: 1955/?

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- NETHERLANDS

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 02FEB77

COUNTRY: NETHERLANDS

FUZE ASSEMBLY COMPLETE:

TYPE ----- MECHANICAL
 MODEL ----- 29
 BODY MATERIAL ----- STEEL
 LENGTH OVERALL (MM) -- 83.8
 LENGTH EXPOSED (MM) -- ?
 MAXIMUM DIAMETER (MM)- 22.8
 MAJ THREAD DIAM (MM) - N/A
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- ?
 MARKINGS ----- NR-29

FUNCTIONAL DATA:

ARMING METHOD ----- REMOVE SAFETY PIN
 SELF-DESTR METHOD ----- NONE
 TYPE SAFETY DEVICE --- SAFETY PIN

BOOSTER:

BODY MATERIAL ----- N/A
 BODY LENGTH (MM) --- N/A
 FILLER MATERIAL --- N/A
 FILLER WEIGHT (G) - N/A

PERFORMANCE:

ARMING DISTANCE (M)- N/A
 ARMING TIME ----- N/A
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- N/A

USING WEAPONS: ----- MINE, ANTITAKE MODEL 25

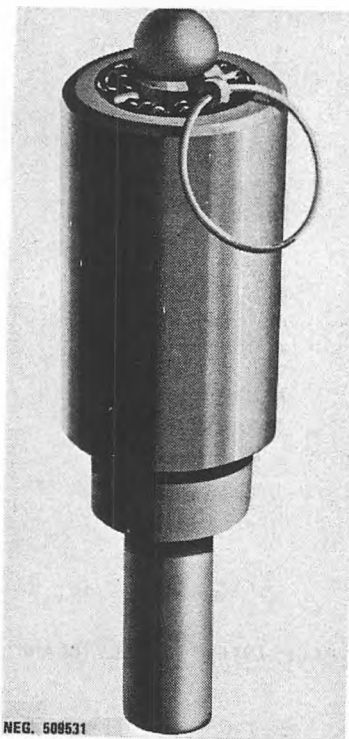
REFERENCES: -----

REMARKS:

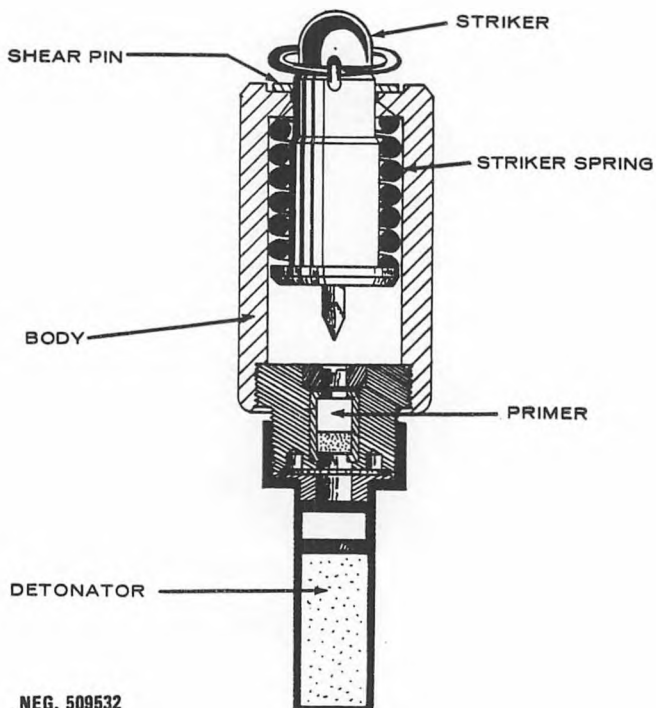
U N C L A S S I F I E D

FOM-1390-29-5-4-8
NOMEN: FUZE, MINE, PRESSURE, MODEL 29 (U)
PRODUCED/ADOPTED: 1955/?

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77
COUNTRY: NETHERLANDS



NEG. 509531



NEG. 509532

U N C L A S S I F I E D

FOM-1390-29-5-4-B
NOMEN: FUZE, MINE, PRESSURE, MODEL 29 (U)
PRODUCED/ADOPTED: 1955/?

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77
COUNTRY: NETHERLANDS

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01JAN65
VOLUME 06 PAGE 412

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-33-5-1-A

CATALOG: TB-381-5-06

NOMEN: FUZE, MINE, PRESSURE/PULL MODEL 47 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: TRAEKTAENDER M/47
PRODUCED/ADOPTED: 1947/?

DATE UPDATED: 02FEB77
COUNTRY: DENMARK

{U}THE DANISH PRESSURE/PULL-ACTUATED FUZE MODEL 47 IS A COPY OF THE WORLD WAR II GERMAN Z.2 42 FUZE. THE MODEL 47 FUZE IS USED IN THE MODEL 47-II ANTITANK MINE (FOM-1345-33-1-3) AND THE MODEL 47-1 ANTIPERSONNEL MINE (FGM-1345-33-1-1). THE FUZE IS ARMED BY UNSCREWING THE TRANSIT CAP SEEN IN THE ILLUSTRATION, AND BY THEN INSTALLING A DETONATOR ASSEMBLY.

{U}THE MODEL 47 FUZE IS ACTUATED EITHER BY PRESSURE OR BY PULL, DEPENDING ON WHETHER OR NOT A TRIPWIRE IS ATTACHED TO THE STRIKER RETAINING PIN. IN EITHER CASE, WITHDRAWAL OF THE RETAINING PIN ALLOWS THE COMPRESSED STRIKER SPRING TO EXPAND, AND TO DRIVE THE TIP OF THE STRIKER INTO THE PERCUSSION CAP, THEREBY INITIATING THE DETONATOR.

U N C L A S S I F I E D

FOM-1390-33-5-1-A
 NOMEN: FUZE, MINE, PRESSURE/PULL MODEL 47 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: 1947/?

COUNTRY: DENMARK

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- DENMARK

BODY MATERIAL ----- N/A
 BODY LENGTH (MM) -- N/A
 FILLER MATERIAL --- N/A
 FILLER WEIGHT (G) - N/A

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

TYPE ----- MECHANICAL
 MODEL ----- 47
 BODY MATERIAL ----- PLASTIC
 LENGTH OVERALL (MM) -- 86.3
 LENGTH EXPOSED (MM) -- ?
 MAXIMUM DIAMETER (MM) - 12.7
 MAJ THREAD DIAM (MM) - 9.9
 THREAD PITCH (METRIC) - ?
 WEIGHT COMPLETE (G) -- 25.5
 MARKINGS ----- NONE

ARMING DISTANCE(M)- N/A
 ARMING TIME ----- N/A
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

USING PROJECTILES: -- N/A

USING WEAPONS: ----- *1

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- INSTALLING DETONATOR
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- NONE

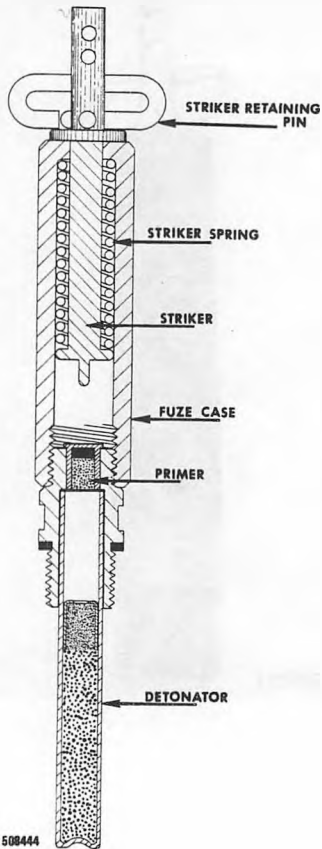
REMARKS:

- 1/ MINE ANTITANK MODEL 47-II
- 1/ MINE ANTIPERSONNEL MODEL 47-I

FOM-1390-33-5-1-B
NOMEN: FUZE, MINE, PRESSURE/PULL MODEL 47 (U)
PRODUCED/ADOPTED: 1947/?

UNCLASSIFIED

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77
COUNTRY: DENMARK

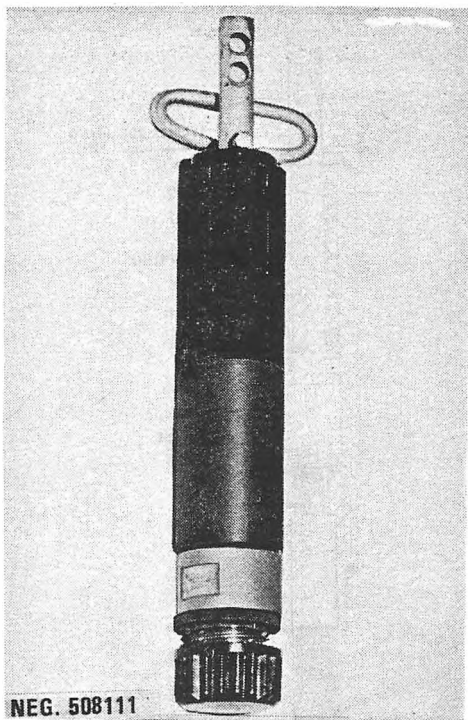


U N C L A S S I F I E D

FOM-1390-33-5-1-B
NOMEN: FUZE, MINE, PRESSURE/PULL MODEL 47 (U)

PRODUCED/ADOPTED: 1947??

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77
COUNTRY: DENMARK



DATE CATALOGED: 01MAR72
VOLUME 06 PAGE 416

U N C L A S S I F I E D

U N C L A S S I F I E D

FOM-1390-33-5-2-A

CATALOG: TB-381-5-06

NOMEN: FUZE, MINE PRESSURE MODEL 47-1 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: PANSERMINETAENDER M/47-2
PRODUCED/ADOPTED: 1947??

DATE UPDATED: 02FEB77
COUNTRY: DENMARK

(U)THE DANISH PRESSURE-ACTUATED MINE FUZE MODEL 47-1 IS A COPY OF THE WORLD WAR II GERMAN TELLERMINE FUZE 42. THE MODEL 47-1 FUZE IS USED IN THE MODEL 47-1 ANTITANK MINE (FOM-1345-33-1-2). THE FUZE IS ARMED BY SCREWING A DETONATOR ASSEMBLY INTO THE BOTTOM OF THE FUZE.

(U)WHEN A SUFFICIENTLY LARGE FORCE, APPROXIMATELY 249 KILOGRAMS, IS APPLIED TO THE STRIKER, THE SHEAR PIN FAILS. THE COMPRESSED STRIKER SPRING THEN EXPANDS, DRIVING THE POINT OF THE STRIKER INTO THE PERCUSSION CAP TO INITIATE THE DETONATOR.

DATE CATALOGED: 01MAR72
VOLUME 06

U N C L A S S I F I E D

PAGE 417

U N C L A S S I F I E D

FOM-1390-33-5-2-A
NOMEN: FUZE, MINE PRESSURE MODEL 47-1 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: 1947??

COUNTRY: DENMARK

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- DENMARK

BOOSTER:

BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

PERFORMANCE:

ARMING DISTANCE(M)- N/A
ARMING TIME ----- N/A
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- N/A

USING WEAPONS: ----- MINE, ANTITANK, MODEL 47-1

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- MECHANICAL
MODEL ----- 47-1
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) -- 58.4
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- 20.3
MAJ THREAD DIAM (MM) - N/A
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 99.2
MARKINGS ----- ?

FUNCTIONAL DATA:

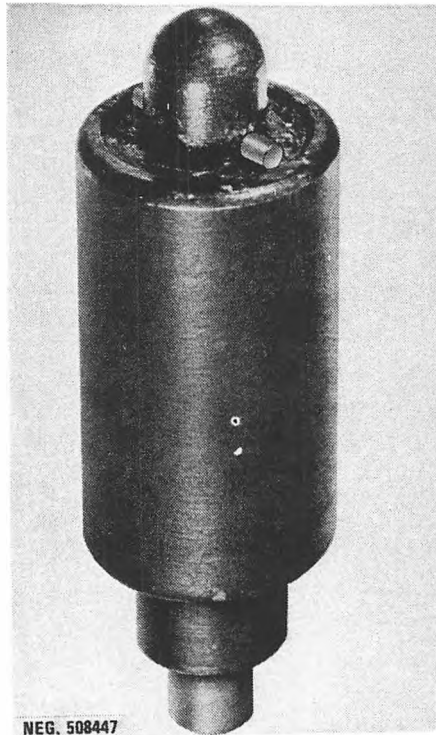
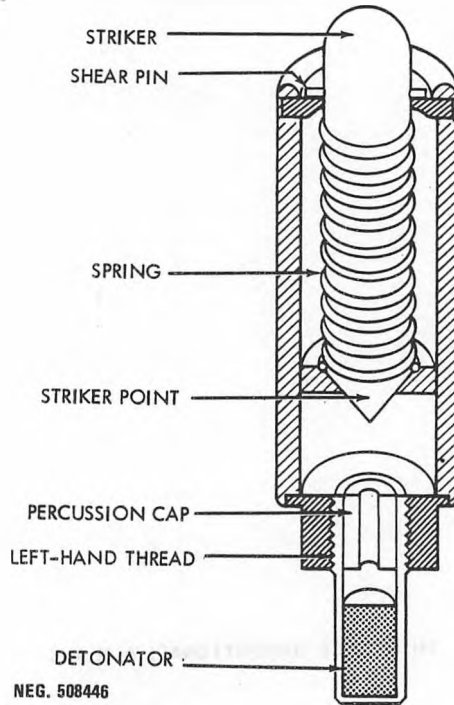
ARMING METHOD ----- INSTALLING DETONATOR
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- NONE

REMARKS:

U N C L A S S I F I E D

FOM-1390-33-5-2-B
NOMEN: FUZE, MINE PRESSURE MODEL 47-1 (U)
PRODUCED/ADOPTED: 1947/?

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77
COUNTRY: DENMARK



DATE CATALOGED: 01MAR72
VOLUME 06

U N C L A S S I F I E D

FOM-1390-33-5-2-B
NOMEN: FUZE, MINE PRESSURE MODEL 47-1 (U)
PRODUCED/ADOPTED: 1947??

U N C L A S S I F I E D

CATALOG: T8-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77
COUNTRY: DENMARK

THIS PAGE INTENTIONALLY BLANK

DATE CATALOGED: 01MAR72
VOLUME 06 PAGE 420

U N C L A S S I F I E D

U N C L A S S I F I E D

CATALOG: TB-381-5-06

FOM-1390-33-5-3-A

DATE REVIEWED: 02FEB77

NOMEN: FUZE, MINE, PRESSURE-CHEMICAL PLASTIC MODEL ? (U)

DATE UPDATED: 02FEB77

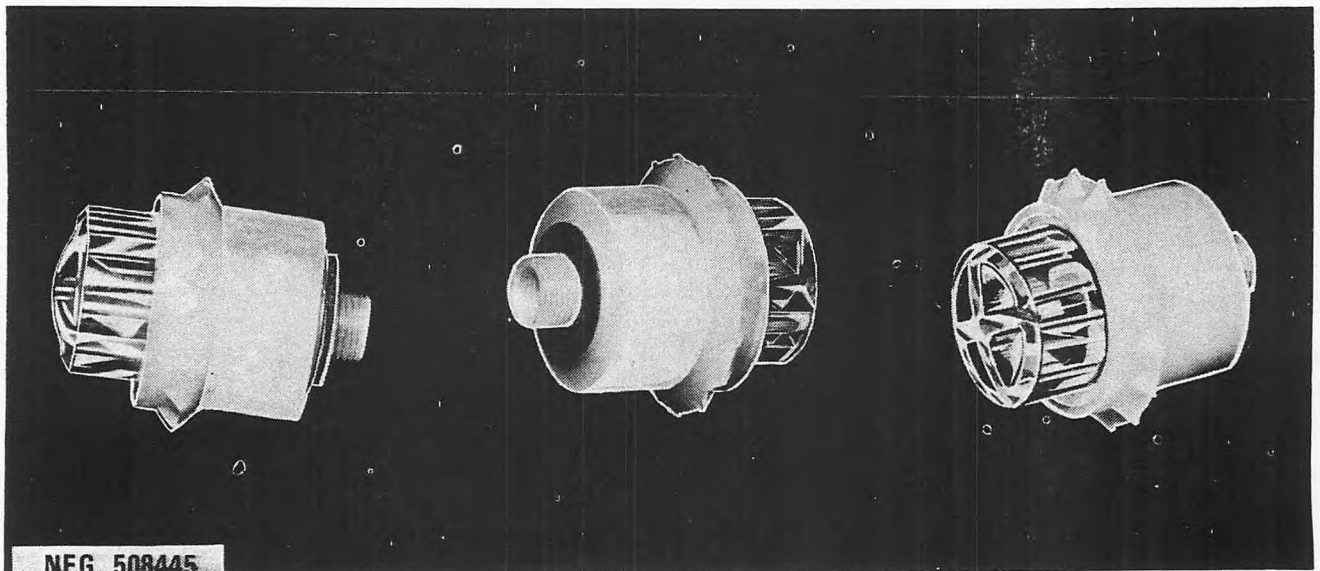
NATIVE DES: ?

COUNTRY: DENMARK

PRODUCED/ADOPTED: 1952/?

(U)THE DANISH PRESSURE-CHEMICAL FUZE IS MADE OF PLASTIC AND ENCLOSES TWO CHEMICAL VIALS. FOUR SUCH FUZES ARE USED IN THE MODEL 52 ANTITANK MINE (FOM-1345-33-1-5). A PLASTIC PLUNGER, RETAINED IN POSITION OVER THE VIALS BY A PLASTIC SHEAR COLLAR, FITS INTO THE TOP OF THE FUZE CASE. PRESSURE APPLIED TO THE TOP OF THE MINE BREAKS THE MINE'S SHEAR LUGS, TRANSFERRING THE PRESSURE TO AT LEAST ONE OF THE FUZE PLUNGERS AND CAUSING FAILURE OF THAT FUZE'S SHEAR COLLAR, CRUSHING THE TWO VIALS.

(U)THE CHEMICALS (SULPHURIC ACID AND POTASSIUM PERCHLORATE) MIX, AND THE RESULTING FLAME INITIATES THE DETONATOR-BOOSTER, MAIN-CHARGE FIRING CHAIN.



DATE CATALOGED: 01MAR72
VOLUME 06

U N C L A S S I F I E D

PAGE 421

U N C L A S S I F I E D

FOM-1390-33-5-3-A
NOMEN: FUZE, MINE, PRESSURE-CHEMICAL PLASTIC MODEL ? (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: 1952/?

COUNTRY: DENMARK

CURRENT STATUS: ----- STANDARD

BOOSTER:

BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL ----- N/A
FILLER WEIGHT (G) - N/A

USING COUNTRIES: ----- DENMARK

PERFORMANCE:

ARMING DISTANCE(M)- N/A
ARMING TIME ----- N/A
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- CHEMICAL
MODEL ----- ?
BODY MATERIAL ----- POLYSTYRENE
LENGTH OVERALL (MM) -- 44.4
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- 26.9
MAJ THREAD DIAM (MM) - 9.3
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- ?

USING PROJECTILES: -- N/A

USING WEAPONS: ----- MINE, ANTITANK MODEL 52

FUNCTIONAL DATA:

ARMING METHOD ----- N/A
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- NONE

REFERENCES: -----

REMARKS:

U N C L A S S I F I E D

FOM-1)-33-5-5-A

CATALOG: TB-381-5-06

NOME FUZE, MINE, PRESSURE/PRESSURE RELEASE MODEL 47-11 (U)

DATE REVIEWED: 02FEB77

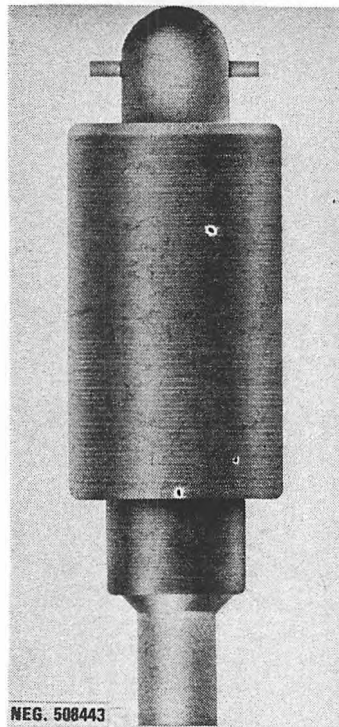
NAT. DES: PANSERMINETAENDER M/47-II
PRODUCED/ADOPTED: 1947/?

DATE UPDATED: 02FEB77
COUNTRY: DENMARK

(U)THE DANISH PRESSURE/PRESSURE RELEASE MINE FUZE MODEL 47-II IS VERY SIMILAR TO THE WORLD WAR II GERMAN TELLERMINE FUZE 43. THE MODEL 47-II FUZE IS USED IN THE MODEL 47-I ANTITANK MINE (FOM-1345-33-1-2). WHEN THE FUZE IS INSTALLED IN A MINE, AND THE PRESSURE PLATE IS SCREWED DOWN, THIS ACTION FORCES THE PLUNGER DOWN, CAUSING THE ARMING SHEAR PIN TO FAIL, THUS ARMING THE FUZE. THE STRIKER SPRING IS NOW ONLY PARTIALLY COMPRESSED, BUT STILL KEEPS THE PLUNGER IN CONTACT WITH THE PRESSURE PLATE. THE LATTER LIMITS FURTHER UPWARD MOTION OF THE PLUNGER, WHILE THE TWO STRIKER RETAINING BALLS PREVENT THE STRIKER FROM BEING FORCED DOWN INTO THE PERCUSSION CAP. THE FUZE CAN NOW FUNCTION BY THE ADDITION OR THE RELEASE OF PRESSURE.

(U)WHEN A LOAD OF 550 POUNDS OR MORE IS APPLIED TO THE PLUNGER, THE LATTER MOVES DOWNWARD AND THE PRESSURE SHEAR PIN FAILS, ALLOWING FURTHER DOWNWARD MOTION. WHEN THE UPPER RECESS WITHIN THE PLUNGER BECOMES ALINED WITH THE STRIKER RETAINING BALLS, THE BALLS ARE FREE TO BE CAMMED OUTWARD BY THE SPRING-LOADED STRIKER. THIS ACTION FRESSES THE STRIKER, WHICH THEN SNAPS DOWNWARD UNTIL IT STRIKES THE PERCUSSION CAP TO INITIATE THE DETONATOR.

(U)WHEN THE PRESSURE PLATE IS REMOVED, THE STRIKER SPRING FORCES THE PLUNGER UPWARD UNTIL THE PLUNGER'S LOWER EDGE CEASES TO RESTRAIN THE STRIKER RETAINING BALLS FROM BEING CAMMED OUTWARD INTO THE LOWER RECESS. WHEN THE BALLS ARE FORCED OUTWARD, THE SPRING-LOADED STRIKER THEN SNAPS DOWNWARD UNTIL IT STRIKES THE PERCUSSION CAP TO INITIATE THE DETONATOR.



U N C L A S S I F I E D

FOM-1390-33-5-5-A

NOMEN: FUZE, MINE, PRESSURE/PRESSURE RELEASE MODEL 47-11 (U)

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: 1947/?

COUNTRY: DENMARK

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- DENMARK

BOOSTER:

BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

PERFORMANCE:

ARMING DISTANCE(M)- N/A
ARMING TIME ----- N/A
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- MECHANICAL
MODEL ----- 47-11
BODY MATERIAL ----- STEEL
LENGTH OVERALL (MM) -- 58.4
LENGTH EXPOSED (MM) -- ?
MAXIMUM DIAMETER (MM)- 20.3
MAJ THREAD DIAM (MM) - N/A
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- 127.5
MARKINGS ----- NONE

USING PROJECTILES: -- N/A

USING WEAPONS: ----- MINE, ANTITANK, MODEL 47-1

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SHEAR PIN
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- NONE

REMARKS:

FOM-1390-35-1-1-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, BASE-DETONATING, NO. 303 MK. 1 (U)

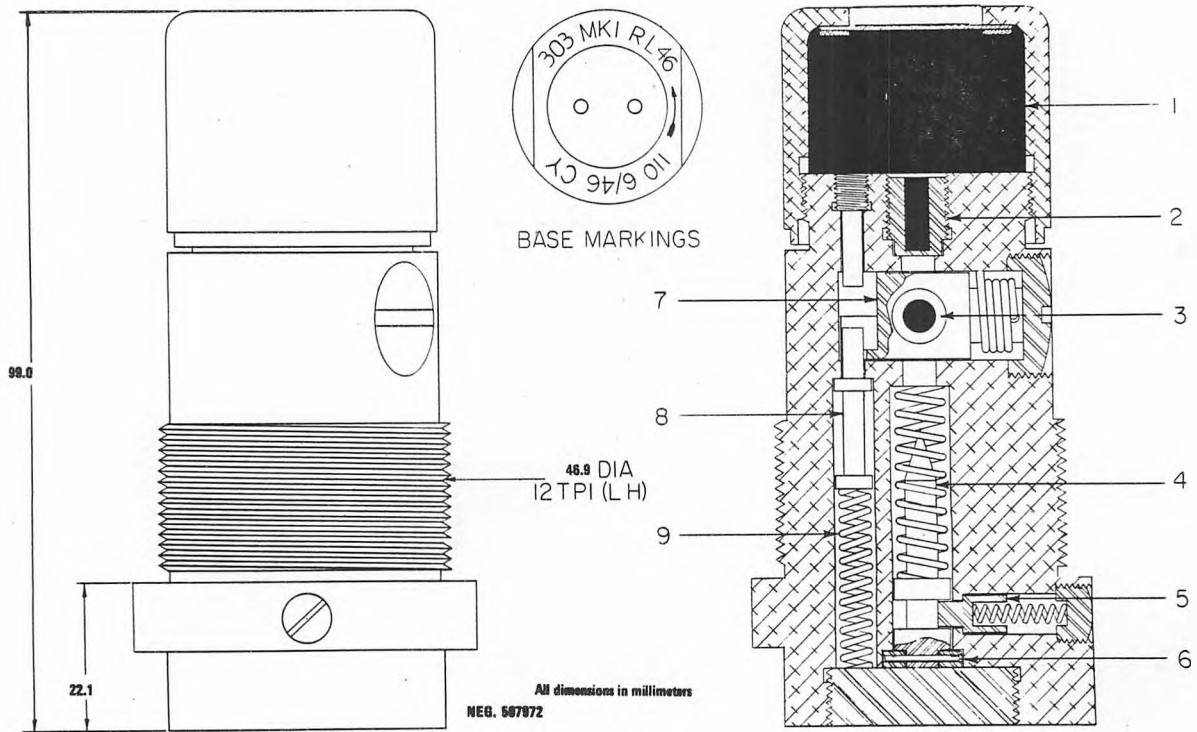
DATE REVIEWED: 02FEB77

NATIVE DES: FUZE, PERCUSSION, BASE, MEDIUM NO. 303 MK. 1
PRODUCED/ADOPTED: ???

DATE UPDATED: 02FEB77
COUNTRY: UNITED KINGDOM

(U)THE NO. 303, MK. 1 BASE-DETONATING FUZE REQUIRES BOTH CENTRIFUGAL AND SETBACK FORCES TO ARM. UPON FIRING OF THE PROJECTILE, SETBACK FORCES THE DETENT (8) TO THE REAR, COMPRESSING ITS SPRING (9). THIS MOTION OF THE DETENT RELEASES THE ROTOR (7). WHEN SETBACK CEASES, THE ROTOR ROTATES A QUARTER OF A TURN, BRINGING THE DETONATOR (3) INTO LINE. AT THE SAME TIME, CENTRIFUGAL FORCES MOVES THE TWO SPIN DETENTS (5) OUT, RELEASING THE FIRING PIN (4). THE FUZE IS NOW FULLY ARMED, HOWEVER, THE DETONATOR AND THE FIRING PIN ARE KEPT SEPARATED BY THE SHEAR WIRE (6) AND THE FIRING PIN SPRING.

(U)ON IMPACT, THE SHEAR WIRE IS BROKEN AND THE FIRING PIN MOVES FORWARD, COMPRESSING THE SPRING AND PIERCING THE DETONATOR. IN TURN, THE DETONATOR INITIATES THE TETRYL LEAD (2) AND THE BOOSTER (1).



U N C L A S S I F I E D

FOM-1390-35-1-1-A
NOMEN: FUZE, BASE-DETONATING, NO. 303 MK. 1 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

COUNTRY: UNITED KINGDOM

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- 035

BODY MATERIAL ----- ALUMINUM ALLOY
BODY LENGTH (MM) -- 25.4
FILLER MATERIAL --- TETRYL
FILLER WEIGHT (G) - 28.3

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

TYPE ----- IMPACT
MODEL ----- NO. 303, MK-1
BODY MATERIAL ----- ALUMINUM ALLOY
LENGTH OVERALL (MM) -- 99.0
LENGTH EXPOSED (MM) -- 22.1
MAXIMUM DIAMETER (MM)- 46.9
MAJ THREAD DIAM (MM) - 40.6
THREAD PITCH (METRIC)- 2.00 MM
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- 303 MKI (BASE)

USING PROJECTILES: -- 165-MM HEP (HESH), LIMK.1

USING WEAPONS: ----- 165-MM A.V.R.E. GUN L9A1

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
SELF-DESTR METHOD --- NONE
TYPE SAFETY DEVICE --- OUT-OF-LINE DETONATOR

REMARKS:

FOM-1390-35-1-2-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, POINT-DETONATING, MODEL L17A3 (U)

DATE REVIEWED: 02FEB77

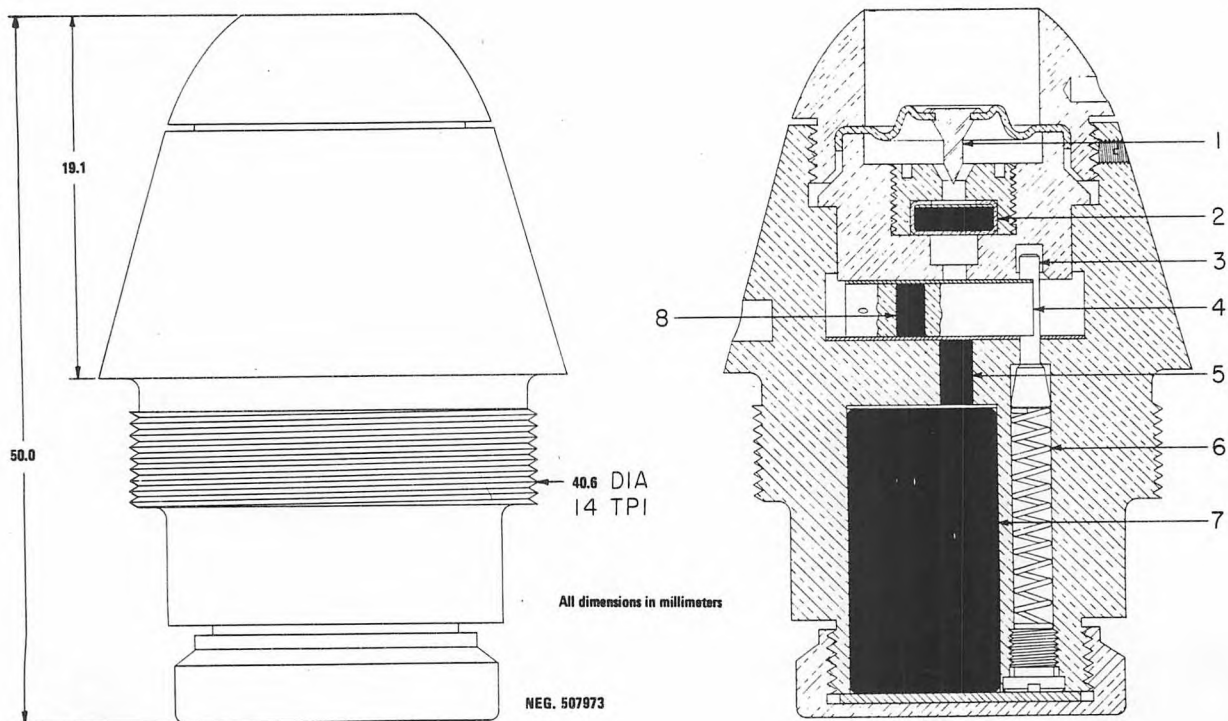
NATIVE DES: FUZE, PERCUSSION, DIRECT ACTION L17A3
PRODUCED/ADOPTED: ???

DATE UPDATED: 02FEB77
COUNTRY: UNITED KINGDOM

(U)THE UNITED KINGDOM POINT-DETONATING FUZE MODEL L17A3 IS DESIGNED FOR USE WITH 76-MM HIGH-EXPLOSIVE, TRACER PROJECTILES. THE A1 AND THE A2 FUZES ARE OBSOLETE AND, WITH THE INTRODUCTION OF THE A5, THE A3 AND THE A4, WILL BE DECLARED OBSOLETE. THE DETENT SPRING OF THE A5 WAS IMPROVED FOR DROP SAFETY.

(U)ON FIRING, SETBACK MOVES THE DETENT (3) TO THE REAR, COMPRESSING THE DETENT SPRING (6). WITH THE DETENT TO THE REAR, THE ROTOR (4) IS FREE; HOWEVER, IT IS HELD IN THE "SAFE" POSITION BY A TOGGLE SPRING. WHEN SETBACK CEASES, SPIN OVERCOMES THE TOGGLE SPRING AND MOVES THE ROTOR AND THE RELAY (8) INTO THE INLINE POSITION. THE FUZE IS NOW FULLY ARMED.

(U)ON IMPACT OF THE PROJECTILE, THE NOSE IS CRUSHED, DRIVING THE FIRING PIN (1) INTO THE DETONATOR (2) AND INITIATING THE TETRYL RELAYS (8) AND (5) AND THE TETRYL BOOSTER (7).



U N C L A S S I F I E D

FOM-1390-35-1-2-A
NOMEN: FUZE, POINT-DETONATING, MODEL L17A3 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

COUNTRY: UNITED KINGDOM

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- OBSOLETE

USING COUNTRIES: ----- 035

BOOSTER:

BODY MATERIAL ----- PART OF FUZE
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- TETRYL
FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
MODEL ----- L17A3
BODY MATERIAL ----- BRASS
LENGTH OVERALL (MM) -- 50.0
LENGTH EXPOSED (MM) -- 19.1
MAXIMUM DIAMETER (MM)- ?
MAJ THREAD DIAM (MM) - 40.6
THREAD PITCH (METRIC)- 1.75 MM
WEIGHT COMPLETE (G) -- 432.3
MARKINGS ----- NONE

USING PROJECTILES: -- 76-MM HE-T
-

USING WEAPONS: ----- 76-MM GUN AC. L5A1
-

REFERENCES: -----
-
-

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- OUT-OF-LINE RELAY

NOMEN: FUZE BASE DETONATING MODEL L29A2 (U)

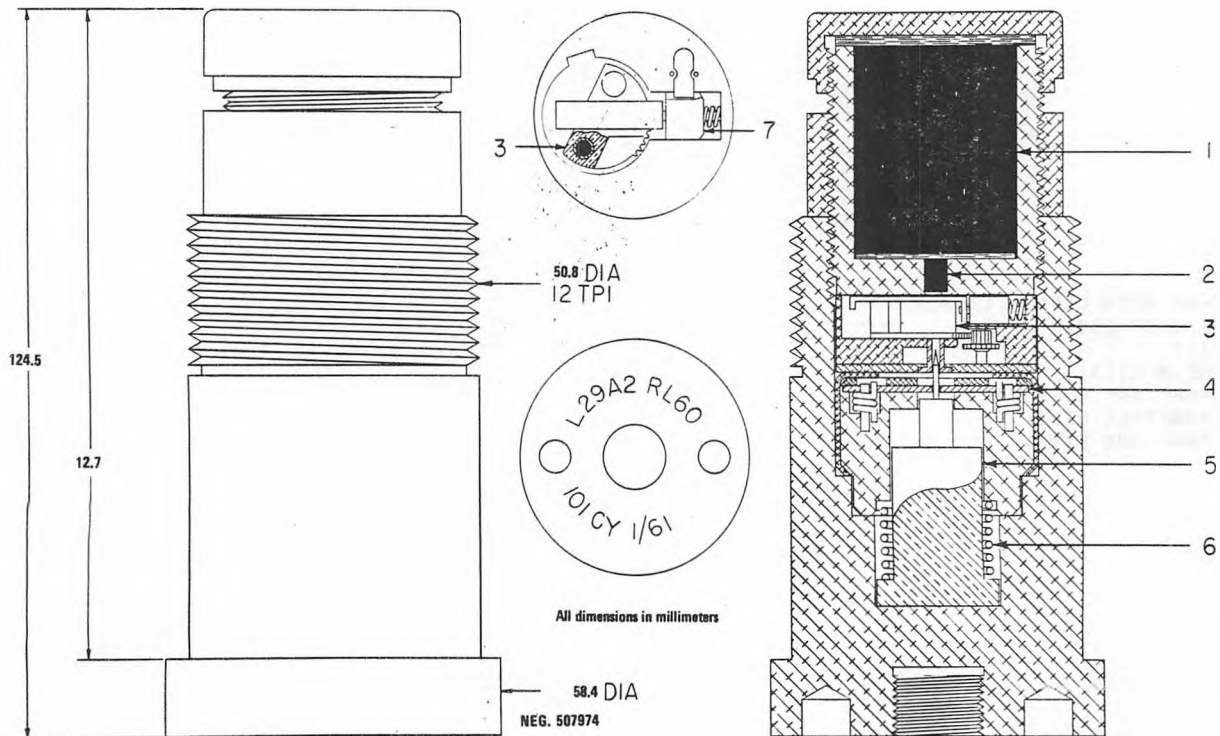
DATE REVIEWED: 02FEB77

NATIVE DES: FUZE PERCUSSION BASE MEDIUM L29A2
 PRODUCED/ADOPTED: ?/?

DATE UPDATED: 04MAR74
 COUNTRY: UNITED KINGDOM

{U}THE MODEL L29A2 BASE DETONATING FUZE DIFFERS FROM THE OBSOLETE MODEL L29A1 ONLY IN THE TYPE OF DELAYED-ARMING MECHANISM AND THE DETONATOR FILLING. DELAYED ARMING IS ACHIEVED BY A PALLET-AND-ESCAPEMENT MECHANISM BENEATH THE ROTOR {3}.

{U}THE ARMING OF THIS FUZE REQUIRES CENTRIFUGAL FORCE. UPON FIRING OF THE PROJECTILE, WHEN SET-BACK CEASES, THE TWO LOCKING SEGMENTS (4) MOVE OUT, AS A RESULT OF CENTRIFUGAL FORCE, UNLOCKING THE FIRING PIN ASSEMBLY (5). AT THIS SAME INSTANT, THE DETENT (7) MOVES OUT, UNLOCKING THE ROTOR. AS A RESULT OF CENTRIFUGAL FORCE THE ROTOR ROTATES, BRINGING THE DETONATOR INTO THE IN-LINE POSITION. THE FUZE IS NOW FULLY ARMED. ON IMPACT OR GRAZE, THE FIRING PIN ASSEMBLY MOVES FORWARD, COMPRESSING THE ANTICREEP SPRING (6) AND PIERCING THE DETONATOR, WHICH IN TURN INITIATES THE TETRYL LEAD (2) AND THE TETRYL BOOSTER (1).



UNCLASSIFIED

FOM-1390-35-1-3-A
 NOMEN: FUZE BASE DETONATING MODEL L29A2 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 04MAR74

PRODUCED/ADOPTED: ???

COUNTRY: UNITED KINGDOM

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 035

BOOSTER:

BODY MATERIAL ----- ANODIZED ALUMINUM ALLOY
 BODY LENGTH (MM) -- 48.3 APRX
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - 70.9

PERFORMANCE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- 0.02 TO 0.06 SEC AT 9000 RPM
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
 MODEL ----- L29A2
 BODY MATERIAL ----- ANODIZED ALUMINUM ALLOY
 LENGTH OVERALL (MM) -- 124.5
 LENGTH EXPOSED (MM) -- 12.7
 MAXIMUM DIAMETER (MM)- 58.4
 MAJ THREAD DIAM (MM) - 50.8
 THREAD PITCH (METRIC)- 2.11 MM
 WEIGHT COMPLETE (G) -- 653
 MARKINGS ----- L29A3

USING PROJECTILES: -- *1

USING WEAPONS: ----- *2

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SPIN
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- OUT OF LINE DETONATOR

REMARKS:

1/ 105-MM HESH L35A2, L37A2,
 PRACTICE HESH L38A20
 HESH L43A1
 120-MM HESH L31A1
 2/ 105-MM TANK GUN L7A1
 105-MM HOWITZER L10A1
 120-MM TANK GUN L11A1

DATE CATALOGED: 01APR67
 VOLUME 06 PAGE 430

UNCLASSIFIED

NOMEN: FUZE, BASE DETONATING MODEL L19A4. (U)

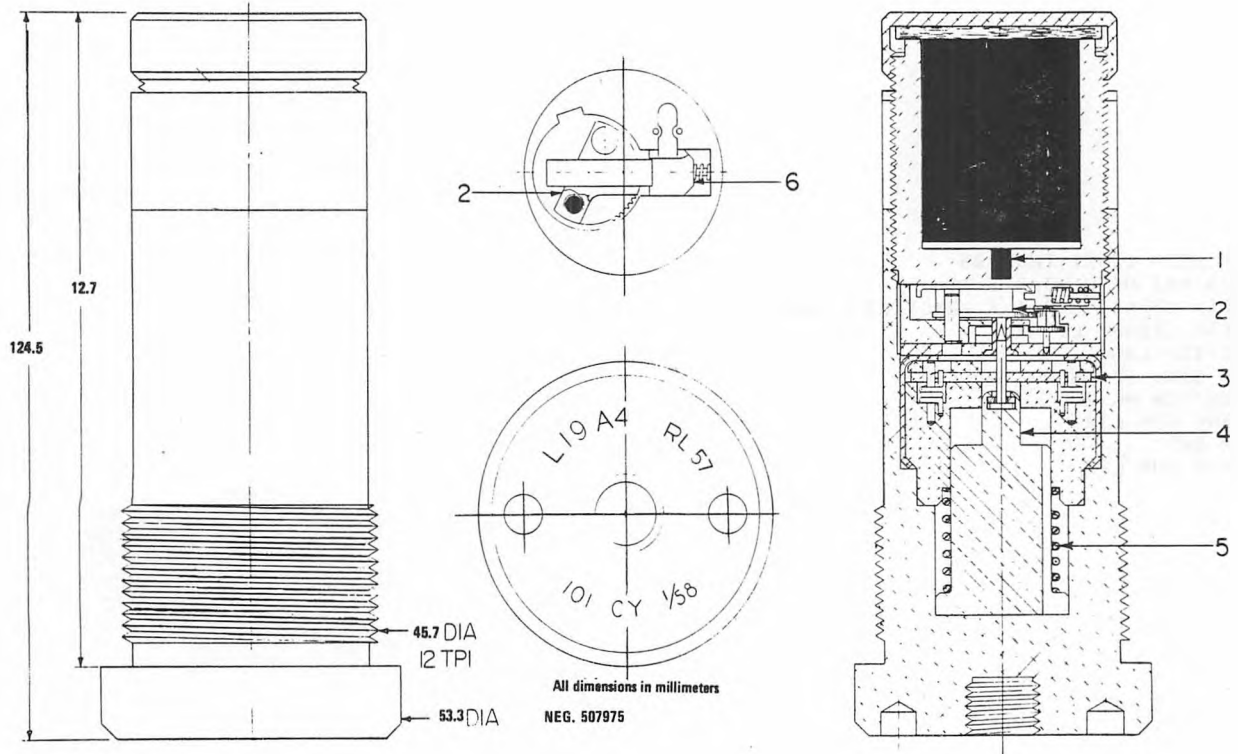
DATE REVIEWED: 02FEB77

NATIVE DES: FUZE, PERCUSSION, BASE MEDIUM L19A4
PRODUCED/ADOPTED: ???

DATE UPDATED: 02FEB77
COUNTRY: UNITED KINGDOM

(U)THE MODEL L19A4 BASE DETONATING FUZE DIFFERS FROM THE OBSOLETE MODELS L19A1, L19A2, AND L19A3 ONLY IN THE TYPE OF DELAYED-ARMING MECHANISM AND THE DETONATOR FILLING. DELAYED ARMING IS ACHIEVED BY A PALLET-AND-ESCAPEMENT MECHANISM BENEATH THE ROTOR (2).

(U)THE ARMING OF THIS FUZE REQUIRES CENTRIFUGAL FORCE. UPON FIRING OF THE PROJECTILE, WHEN SET-BACK CEASES, THE TWO LOCKING SEGMENTS (3) MOVE OUT FROM THE PATH OF THE FIRING PIN ASSEMBLY (4). AT THE SAME INSTANT, THE ROTOR IS UNLOCKED BY THE RELEASING OF THE DETENT (6). AFTER A DELAY OF FROM 0.026 TO 0.055 SECOND (AT 8000 RPM), THE ROTOR MOVES INTO THE ARMED POSITION, WITH THE DETONATOR IN ALINEMENT WITH THE FIRING PIN AND THE TETRYL LEAD (1). THE FUZE IS NOW FULLY ARMED. ON IMPACT OR GRAZE, THE FIRING PIN MOVES FORWARD, COMPRESSING THE ANTICREEP SPRING (5) AND PIERCING THE DETONATOR, WHICH IN TURN INITIATES THE TETRYL LEAD AND THE TETRYL BOOSTER.



U N C L A S S I F I E D

FOM-1390-35-1-4-A

NOMEN: FUZE, BASE DETONATING MODEL L19A4. (U)

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 02FEB77

COUNTRY: UNITED KINGDOM

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 035

BOOSTER:

BODY MATERIAL ----- ANODIZED ALUMINUM ALLOY

BODY LENGTH (MM) -- 45.7

FILLER MATERIAL --- TETRYL

FILLER WEIGHT (G) - 63.8

PERFORMANCE:

ARMING DISTANCE(M)- ?

ARMING TIME ----- ?

SELF-DESTRUCT TIME N/A

DELAY TIME ----- N/A

MIN TIME SETTING -- N/A

MAX TIME SETTING -- N/A

USING PROJECTILES: -- *1

USING WEAPONS: ----- *2

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT

MODEL ----- L19A4

BODY MATERIAL ----- ALUMINUM ALLOY

LENGTH OVERALL (MM) -- 124.5

LENGTH EXPOSED (MM) -- 12.7

MAXIMUM DIAMETER (MM)- 53.3

MAJ THREAD DIAM (MM) - 45.7

THREAD PITCH (METRIC)- 2.11 MM

WEIGHT COMPLETE (G) -- 480.8

MARKINGS ----- L19A4 (BASE)

FUNCTIONAL DATA:

ARMING METHOD ----- SPIN

SELF-DESTR METHOD ----- NONE

TYPE SAFETY DEVICE --- OUT OF LINE DETONATOR

REMARKS:

- 1/ 76-MM HESH L29A1 THRU A3
- 25-PDR (88-MM) HESH L3A8 & A9
- 105-MM HESH L35A1, L37A1 & PRACTICE L38A1
- 120-MM HESH L18A3, L19A3 & HESH PRACTICE L30A1
- 2/ 76-MM GUN, SALADIN ARMD CAR
- 25 PDR GUN/HOW MK 2
- 105-MM TANK GUN L7A1
- 120-MM RR BAT
- 120-MM TANK GUN L1

FOM-1390-35-1-5-A

CATALOG: TB-381-5-06

NOMEN: FUZE, TIME, NO. 390, MK-2A (U)

DATE REVIEWED: 02FEB77

NATIVE DES: FUZE, TIME, NO. 390 MK-2A
PRODUCED/ADOPTED: ???

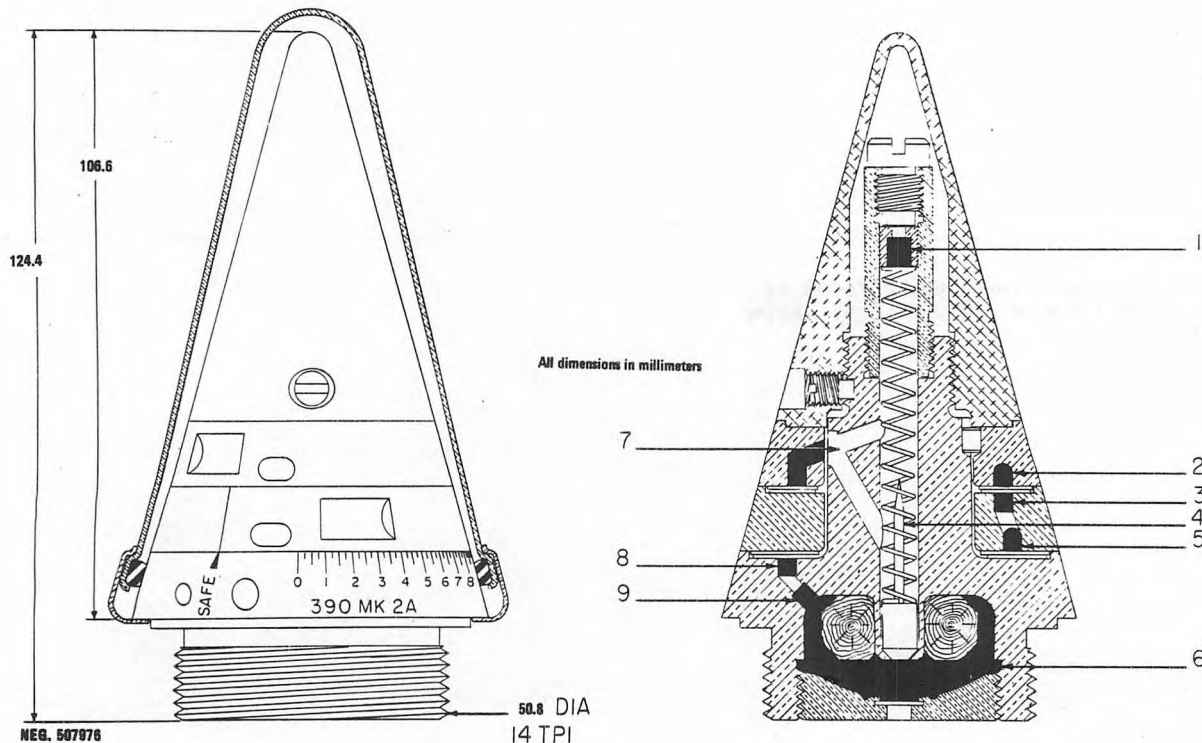
DATE UPDATED: 02FEB77
COUNTRY: UNITED KINGDOM

{U}THE UNITED KINGDOM TIME FUZE NO. 390, MARK 2A IS OBSOLETE. THE MARKS 2, 4, AND 5 ARE ALSO OBSOLETE. ALL FOUR FUZES WERE USED WITH SCREENING-SMOKE AND COLORED-SMOKE AMMUNITION FOR THE 3-INCH (76-MM) MORTAR. THE MARK 1 AND MARK 3 FUZES ARE STANDARD AND ARE USED ONLY WITH SCREENING-SMOKE ARTILLERY AMMUNITION. THE MAXIMUM TIME SETTING FOR THE MARK 1 AND MARK 3 FUZES IS APPROXIMATELY 21.5 SECONDS, WHEREAS THE MAXIMUM FOR THE MARKS 2, 2A, 4, AND 5 IS APPROXIMATELY 46 SECONDS. THE GRADUATIONS ON THE FUZE BODY, NUMBERING FROM 0 TO 30, DO NOT INDICATE SECONDS.

{U}WHEN THE FUZE IS SET ON "SAFE," THE FLASH PATHS TO THE LOWER TIME RING AND TO THE BOOSTER ARE BLOCKED BY THE UPPER AND LOWER TIME RINGS, RESPECTIVELY. WHEN THE FUZE IS SET TO THE DESIRED FUNCTIONING TIME, BY ROTATING THE LOWER RING UNTIL THE INDEX MARK IS ALINED WITH THE REQUIRED GRADUATION, THESE BARRIERS ARE REMOVED.

{U}THE COVER MUST REMAIN ON THE FUZE UNTIL IMMEDIATELY BEFORE FIRING.

{U}ON FIRING, THE DETONATOR (1) SETS BACK, COMPRESSING THE SPRING, UNTIL IT IS INITIATED BY THE FIRING PIN (4). THE RESULTING FLASH PASSES THROUGH THE FLASH CHANNEL (7), IGNITING THE POWDER TRAIN IN THE UPPER TIME RING (2). AFTER AN INTERVAL OF TIME, DETERMINED BY THE SETTING, THE FLAME REACHES THE POWDER PELLET (3), WHICH FIRES AND IGNITES THE POWDER TRAIN IN THE LOWER RING (5). THE LOWER RING BURNS THROUGH UNTIL IT IGNITES THE POWDER PELLET (8). THE OUTPUT OF THIS POWDER PELLET IGNITES THE POWDER PELLET (9) AND THE BLACK POWDER MAGAZINE CHARGE (6).



U N C L A S S I F I E D

FOM-1390-35-1-5-A
 NOMEN: FUZE, TIME, NO. 390, MK-2A (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 02FEB77
 COUNTRY: UNITED KINGDOM

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- OBSOLETE

USING COUNTRIES: ----- 035

FUZE ASSEMBLY COMPLETE: ,
 TYPE ----- TIME
 MODEL ----- NO. 390 MK-2A
 BODY MATERIAL ----- BRASS
 LENGTH OVERALL (MM) -- 124.4
 LENGTH EXPOSED (MM) -- 106.6
 MAXIMUM DIAMETER (MM) -- ?
 MAJ THREAD DIAM (MM) -- 50.8
 THREAD PITCH (METRIC) -- 1.75 MM
 WEIGHT COMPLETE (G) -- 840
 MARKINGS ----- 390 MK 2A

FUNCTIONAL DATA:
 ARMING METHOD ----- FUZE SETTING
 SELF-DESTR METHOD ----- TIME SETTING
 TYPE SAFETY DEVICE --- BLOCKED--FLASH PATHS

BOOSTER:
 BODY MATERIAL ----- N/A
 BODY LENGTH (MM) -- N/A
 FILLER MATERIAL --- N/A
 FILLER WEIGHT (G) - N/A

PERFORMANCE:
 ARMING DISTANCE(M) -- N/A
 ARMING TIME ----- N/A
 SELF-DESTRUCT TIME BASED ON TIME SETTING
 DELAY TIME ----- N/A
 MIN TIME SETTING -- ?
 MAX TIME SETTING -- 46 SEC

USING PROJECTILES: -- *1

USING WEAPONS: ----- 105-MM TANK GUN L7A1; 76-MM
 - GUN AC L5A1; 81-MM MORTAR MK

REFERENCES: -----

REMARKS:
 1/ 105-MM BE, SCREENING SMOKE; 76-MM BE
 SCREENING SMOKE; COLOR SMOKE, BLUE, GREEN
 RED OR YELLOW

NOMEN: FUZE, MECHANICAL, TIME NO. 213 MK-5 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: FUZE, TIME AND PERCUSSION, DIRECT ACTION, NO 213 MK-5
 PRODUCED/ADOPTED: ???

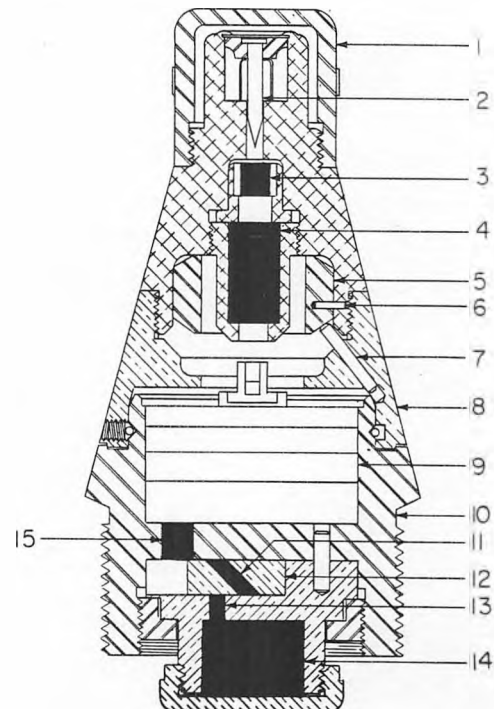
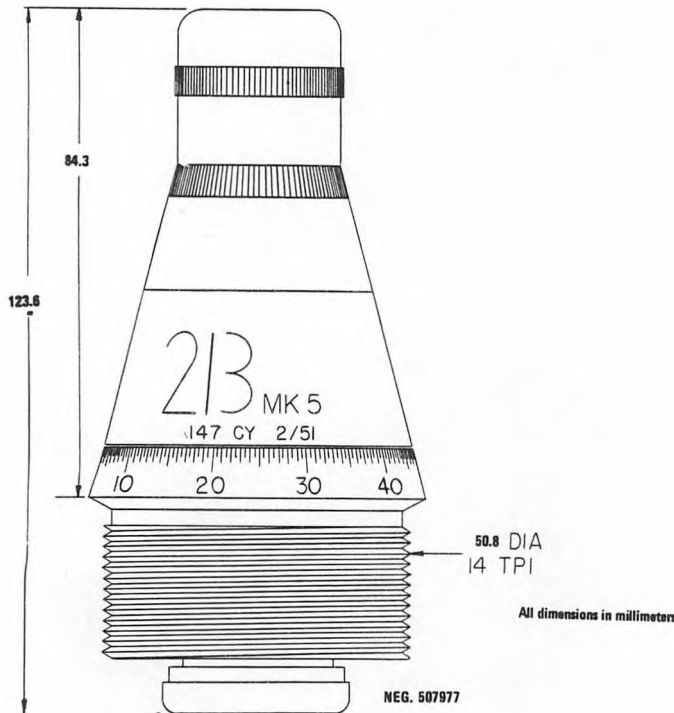
DATE UPDATED: 02FEB77
 COUNTRY: UNITED KINGDOM

(U) THE UNITED KINGDOM MECHANICAL TIME AND SUPERQUICK FUZE NO. 213, MARK 5, HAS A NOSE CAP THAT MUST BE REMOVED PRIOR TO FIRING. THE FUZE IS SET FOR TIME BY ROTATING THE NOSE (8) WITH RESPECT TO THE BODY (10) UNTIL THE DESIRED GRADUATION IS ALINED WITH THE INDEX MARK.

(U) ON FIRING, SETBACK ACTING ON THE WEIGHT (5) CAUSES IT TO SHEAR THE PINS (6) AND DROP BACK. THIS DROPBACK DRIVES THE LOCKING PIN (7) DOWN, LOCKING THE NOSE AND BASE SO THAT THE SETTING CANNOT SHIFT. AFTER THE PROJECTILE LEAVES THE MUZZLE, SPIN RELEASES THE LOCKS ON THE MOVEMENT (9), WHICH THEN BEGINS TO RUN. SPIN ALSO MOVES THE SLIDER (12) OUTWARD, BRINGING THE EXPLOSIVE TRAIN INTO ALINEMENT. WHEN THE MOVEMENT HAS RUN THE PRESCRIBED TIME, IT RELEASES ITS SPRING-LOADED FIRING PIN, WHICH DETONATES THE DETONATOR (15). THIS, IN TURN, DETONATES THE TETRYL LEADS (11) AND (13), THEN THE BOOSTER (14).

(U) IF THE PROJECTILE STRIKES A TARGET BEFORE THE TIMER HAS FUNCTIONED, OR IF THE TIMER FAILS TO FUNCTION, IMPACT CRUSHES THE NOSE AND DRIVES THE FIRING PIN (2) INTO THE DETONATOR (3). THE RESULTING FLASH IGNITES THE BLACK POWDER PELLET (4). THE PELLET IGNITES AND FLASHES TO THE DETONATOR (15).

(U) THIS FUZE USES A TIMER, OR FUZE MOVEMENT. ITS NOMENCLATURE IS: MECHANISM, TIME, 80 SECONDS, NO. 1A. THE TIME MECHANISM WILL NOT ARM WHEN THE FUZE IS FIRED IN THE 25-POUNDER (87.6-MM) GUN USING CHARGES 1 OR 2, WHEN IT IS FIRED IN THE 140-MM GUN AND 183-MM HOWITZER USING CHARGES 1, 2, OR 3.



U N C L A S S I F I E D

FOM-1390-35-1-6-A
 NOMEN: FUZE, MECHANICAL, TIME NO. 213 MK-5 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 02FEB77

COUNTRY: UNITED KINGDOM

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- STANDARD

BOOSTER:

BODY MATERIAL ----- BRASS
 BODY LENGTH (MM) -- 25.4
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - ?

USING COUNTRIES: ----- 035

PERFORMANCE:

ARMING DISTANCE(M)- 365 METERS
 ARMING TIME ----- 0.72 SEC
 SELF-DESTRUCT TIME 1 TO 80 SEC
 DELAY TIME ----- N/A
 MIN TIME SETTING -- 1 SEC
 MAX TIME SETTING -- 80 SEC

FUZE ASSEMBLY COMPLETE:

TYPE ----- TIME AND IMPACT
 MODEL ----- NO. 213-MK-5
 BODY MATERIAL ----- STEEL OR BRASS
 LENGTH OVERALL (MM) -- 123.6
 LENGTH EXPOSED (MM) -- 84.3
 MAXIMUM DIAMETER (MM)- ?
 MAJ THREAD DIAM (MM) - 50.8
 THREAD PITCH (METRIC)- 1.75 MM
 WEIGHT COMPLETE (G) -- ?
 MARKINGS ----- 213-MK-5

USING PROJECTILES: -- 183 MM HE; 140 MM HE;
 - 87.6 MM HE & COLOR

USING WEAPONS: ----- 140 MM GUN MK-3 183 MM HOWIT
 - 87.6 MM FIELD GUN MK-2

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
 SELF-DESTR METHOD ----- TIME SETTING
 TYPE SAFETY DEVICE --- OUT OF LINE LEAD

REMARKS:

NOMEN: FUZE, BASE-DETONATING, MODEL L24A2 (U)

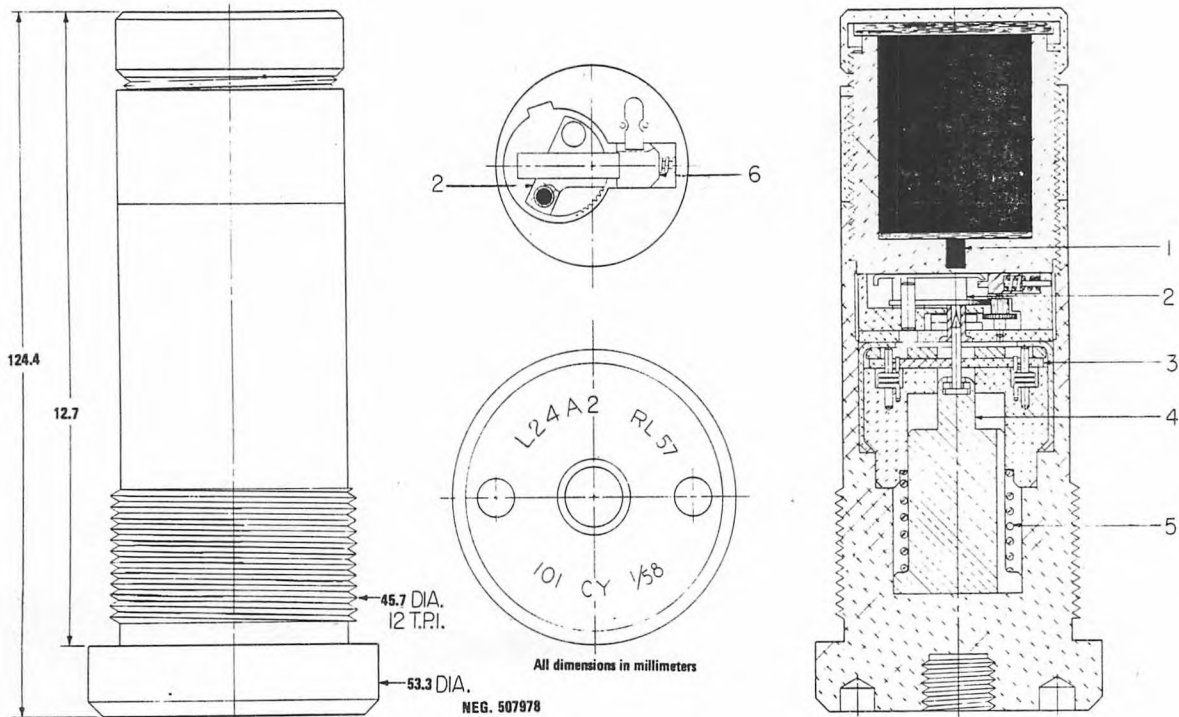
DATE REVIEWED: 02FEB77

NATIVE DES: FUZE, PERCUSSION, BASE MEDIUM L24A2
 PRODUCED/ADOPTED: ?/?

DATE UPDATED: 02FEB77
 COUNTRY: UNITED-KINGDOM

(U)THE MODEL L24A2 BASE DETONATING FUZE DIFFERS FROM THE L19A4 FUZE IN TWO FEATURES, PERMITTING THE FUZE TO ARM AT A LOWER SPIN RATE. THE DIFFERENCES ARE: (A) THE LOCKING SEGMENTS (3) ARE FITTED WITH WEAKER TORSION SPRINGS, AND (B) THE ROTOR (2) IS DESIGNED TO ARM AT A LOWER SPIN RATE. FUNCTIONING OF THE TWO FUZES IS IDENTICAL. DELAYED ARMING IS ACHIEVED BY A PALLET-AND-ESCAPEMENT MECHANISM BENEATH THE ROTOR.

(U)UPON FIRING OF THE PROJECTILE, SETBACK LOCKS THE FUZE MECHANISM, AND THERE IS NO MOVEMENT OF THE COMPONENT PARTS. WHEN SETBACK CEASES, CENTRIFUGAL FORCE MOVES THE LOCKING SEGMENTS OUTWARD, THEREBY REMOVING THE LOCK ON THE FIRING PIN ASSEMBLY (4). AT THE SAME INSTANT, CENTRIFUGAL FORCE MOVES THE DETENT (6) OUT, UNLOCKING THE ROTOR. CENTRIFUGAL FORCE NOW MOVES THE ROTOR TO THE ARMED POSITION AT A RATE CONTROLLED BY AN UNTUNED ESCAPEMENT. WHEN THE ROTOR COMPLETES ITS TRAVEL, THE DETONATOR IS ALINED WITH THE FIRING PIN AND THE TETRYL LEAD (1). THE FUZE IS NOW FULLY ARMED. ON IMPACT OR GRAZE, THE FIRING PIN MOVES FORWARD, COMPRESSING THE ANTICREEP SPRING (5) AND PIERCING THE DETONATOR, WHICH IN TURN INITIATES THE TETRYL LEAD AND THE TETRYL BOOSTER.



U N C L A S S I F I E D

FOM-1390-35-1-7-A
 NOMEN: FUZE, BASE-DETONATING, MODEL L24A2 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ???

COUNTRY: UNITED-KINGDOM

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 035

BOOSTER:

BODY MATERIAL ----- ALUMINUM ALLOY
 BODY LENGTH (MM) --- 45.7
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - 70.8

PERFORMANCE:

ARMING DISTANCE(M)- ?
 ARMING TIME ----- 0.045 TO 0.075 SEC @5900 RPM
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- ?
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
 MODEL ----- L24A2
 BODY MATERIAL ----- ALUMINUM
 LENGTH OVERALL (MM) -- 124.4
 LENGTH EXPOSED (MM) --- 12.7
 MAXIMUM DIAMETER (MM)- 53.3
 MAJ THREAD DIAM (MM) - 45.7
 THREAD PITCH (METRIC)- 2.00 MM
 WEIGHT COMPLETE (G) -- 504
 MARKINGS ----- L24A2 (BASE)

USING PROJECTILES: -- 165-MM HEP (HESH) L33A1

USING WEAPONS: ----- 165-MM A.V.R.E. GUN L9A1

FUNCTIONAL DATA:

ARMING METHOD ----- SPIN
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- OUT-OF-LINE DETONATOR

REFERENCES: -----

REMARKS:

NOMEN: FUZE, TIME AND SUPERQUICK, NO. 221B MK-6 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: FUZE, TIME AND PERCUSSION GRAZE, NO. 221B
 PRODUCED/ADOPTED: ???

DATE UPDATED: 02FEB77
 COUNTRY: UNITED KINGDOM

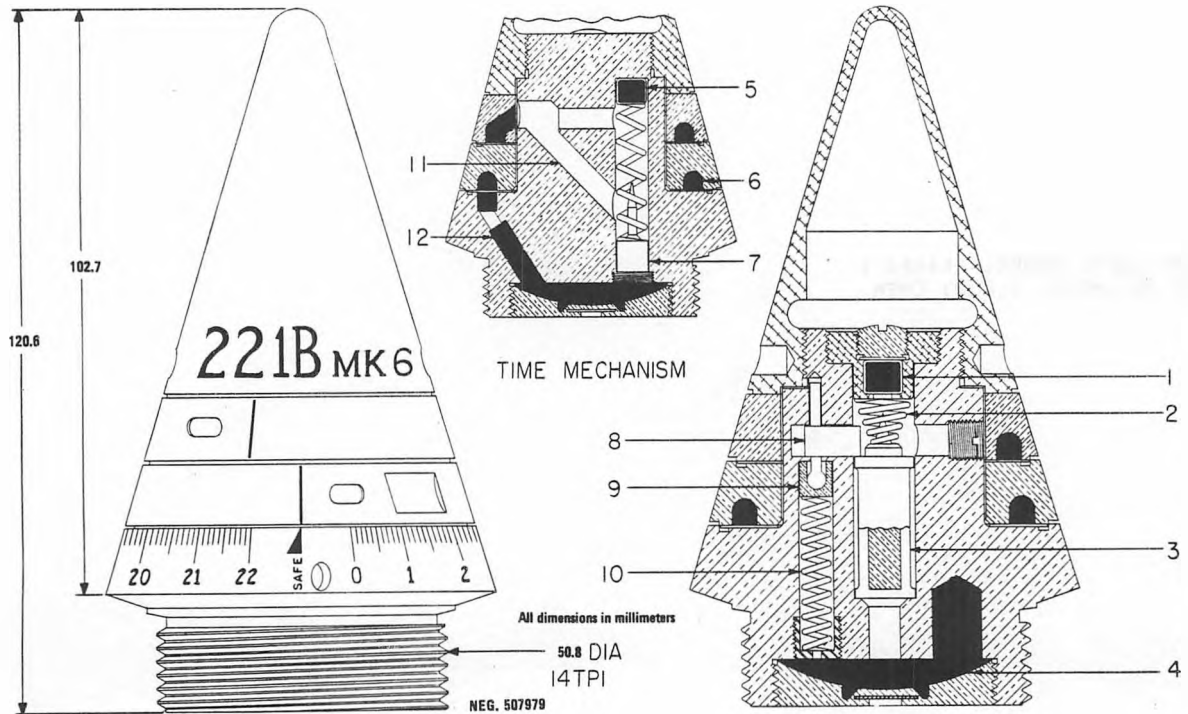
(U)THE UNITED KINGDOM TIME AND SUPERQUICK FUZE NO. 221B, MARK 6, IS STANDARD, WHILE THE MARK 4 IS OBSOLETE IN THE UNITED KINGDOM. THE STATUS OF THE MARK 5, WHICH IS OF PAKISTANI DESIGN, IS UNKNOWN.

(U)WHEN THE MARK 6 FUZE IS SET ON "SAFE," THE FLASH PATHS TO THE LOWER TIME RING AND TO THE MAGAZINE CHARGE ARE BLOCKED. THESE FLASH PATHS ARE OPENED WHEN THE FUZE IS SET FOR TIME. THE FUZE IS SHIPPED WITH A COVER WHICH MUST BE REMOVED BEFORE FIRING. AFTER THE COVER HAS BEEN REMOVED, THE FUZE CAN BE SET TO THE REQUIRED GRADUATION BY ROTATING THE SETTING MARK ON THE BOTTOM RING.

(U)ON FIRING, THE DETONATOR (5) SETS BACK AND IS IGNITED BY THE FIRING PIN (7). THE RESULTING FLASH TRAVELS UP THE FLASH PATH (11) AND IGNITES THE UPPER TIME RING. WHEN THE UPPER TIME RING BURNS THROUGH, IT IGNITES THE LOWER TIME RING (6). AT THE DESIGNATED TIME, THE LOWER TIME RING IGNITES THE POWDER PELLETS (12) WHICH, IN TURN, SET OFF THE BLACK POWDER MAGAZINE CHARGE (4).

(U)ALSO ON FIRING, SETBACK FORCE MOVES THE DETENT (9) TO THE REAR, COMPRESSING THE SPRING (10). THIS MOTION UNLOCKS THE CENTRIFUGAL LOCK (8) ON THE POINT DETONATING ELEMENT. AFTER SETBACK CEASES, SPIN MOVES THE LOCK OUT AND ONLY THE CREEP SPRING (2) KEEPS THE DETONATOR (1) AND FIRING-PIN ASSEMBLY (3) APART. ON IMPACT OR GRAZE, THE FIRING-PIN ASSEMBLY MOVES FORWARD, COMPRESSING THE CREEP SPRING AND DETONATING THE DETONATOR. THE RESULTING FLASH IS CHANNLED THROUGH THE FIRING-PIN ASSEMBLY TO THE MAGAZINE CHARGE.

(U)THE FUZE BODY IS GRADUATED FROM 0 TO 22, BUT THESE GRADUATIONS DO NOT INDICATE SECONDS. THE MAXIMUM BURNING TIME UNDER NORMAL ATMOSPHERIC CONDITIONS IS 49.5 SECONDS.



U N C L A S S I F I E D

FOM-1390-35-1-8-A

NOMEN: FUZE, TIME AND SUPERQUICK, NO. 221B MK-6 (U)

CATALOG: TB-381-5-06

DATE REVIEWED: 02FEB77

DATE UPDATED: 02FEB77

COUNTRY: UNITED KINGDOM

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 035

BOOSTER:

BODY MATERIAL ----- N/A
BODY LENGTH (MM) -- N/A
FILLER MATERIAL --- N/A
FILLER WEIGHT (G) - N/A

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME BASED ON TIME SETTING
DELAY TIME ----- N/A
MIN TIME SETTING -- ?
MAX TIME SETTING -- 49.5 SEC

USING PROJECTILES: -- *1

USING WEAPONS: ----- 140-MM GUN MK-3
- 87.6-MM FIELD GUN MK-2

REFERENCES: -----

FUZE ASSEMBLY COMPLETE:

TYPE ----- TIME AND IMPACT
MODEL ----- NO. 221B MK-6
BODY MATERIAL ----- BRASS
LENGTH OVERALL (MM) -- 120.6
LENGTH EXPOSED (MM) -- 102.7
MAXIMUM DIAMETER (MM)- ?
MAJ THREAD DIAM (MM) - 50.8
THREAD PITCH (METRIC)- 1.75
WEIGHT COMPLETE (G) -- 935
MARKINGS ----- 221B MK-6

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
SELF-DESTR METHOD ---- TIME SETTING
TYPE SAFETY DEVICE --- CENTRIFUGAL LOCK

REMARKS:

1/ 87.6 MM CHEM; SMOKE; FLARE; &
ILLUM. 140 MM SMOKE; ILLUM; CHEM.

NOMEN: FUZE, POINT-DETONATING, NO. 255 MK-5 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: FUZE PERCUSSION NO. 255 MK-5
 PRODUCED/ADOPTED: ???

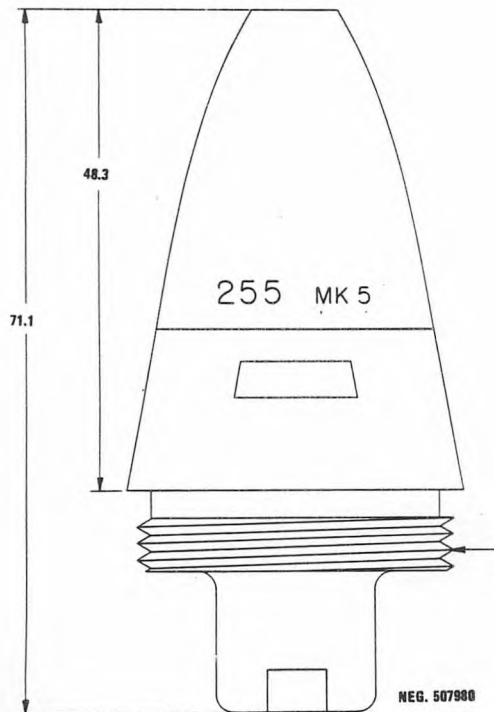
DATE UPDATED: 02FEB77
 COUNTRY: UNITED KINGDOM

(U)THE UNITED KINGDOM POINT-DETONATING FUZE NO. 255, MARK 5, IS IN STANDARD USE, AS IS THE MARK 4. MARKS 1A, 2, AND 3 ARE OBSOLETE. THE MARK 4 HAS A SLIGHT DELAY, BUT THE MARK 5 DOES NOT, MARK 4 FUZES ARE FOUND ON PROJECTILES FIRED FROM L60, MARK 1 AND L70 40-MM GUNS.

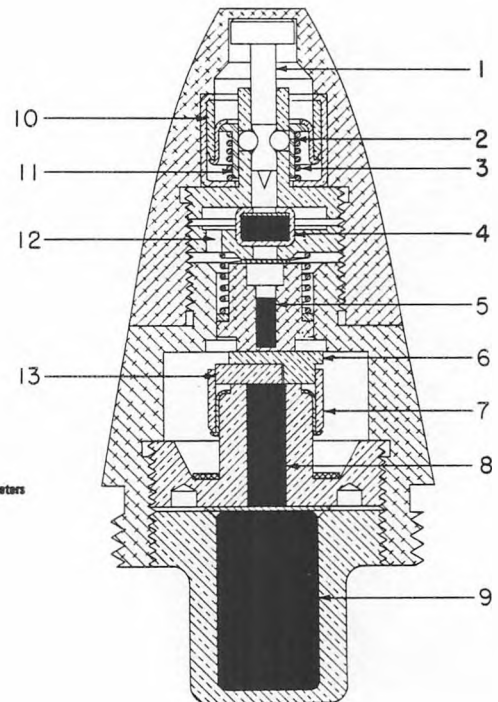
(U)ON FIRING, THE SETBACK SLEEVES (10 AND 7) MOVE BACK AGAINST THEIR STIRRUP SPRINGS. THE REARWARD MOTION OF THE SLEEVE (10) RELEASES THE ARMING SLEEVE (11). REARWARD MOTION OF THE SLEEVE (7) RELEASES THE SHUTTERS (6 AND 13), WHICH PROVIDE A BARRIER IN THE FLASH PATH. WHEN SETBACK CEASES, THE ARMING SLEEVE IS FORCED FORWARD BY ITS SPRING (3), RELEASING THE LOCKING BALLS (2). THE BALLS MOVE OUT TO UNLOCK THE FIRING PIN (1). AFTER SETBACK, SPIN DRIVES THE TWO-PIECE SHUTTER (6) AND (13) OUTWARD, UNLOCKING THE EXPLOSIVE CARRIER WHICH CONTAINS THE RELAY OR DELAY ELEMENT (5). THIS PERMITS THE CARRIER TO BE DRIVEN DOWNWARD BY ITS SPRING INTO CONTACT WITH THE LARGER TETRYL RELAY (8).

(U)ON IMPACT OF THE PROJECTILE, THE NOSE IS CRUSHED AND THE FIRING PIN IS DRIVEN INTO THE DETONATOR (4) WHICH, IN TURN, DETONATES THE RELAYS (5 AND 8) AND THE BOOSTER (9).

(U)THE MARK 4 FUZE RELAY (5) CONTAINS A DELAY COMPOSITION WHICH PROVIDES A SLIGHT DELAY BETWEEN THE DETONATOR, ON THE ONE HAND, AND THE RELAY AND BOOSTER, ON THE OTHER HAND. IF THE FUZE HAS A DELAY ELEMENT, THE OUTPUT OF THE DETONATOR (4) DOES NOT GO DIRECTLY TO THE EXPLOSIVE ELEMENT (5), BUT IS CHANNLED THROUGH THE PORT (12). THIS PERMITS THE DELAY TO BE IGNITED WITHOUT BEING DESTROYED.



All dimensions in millimeters



U N C L A S S I F I E D

FOM-1390-35-1-11-A
 NOMEN: FUZE, POINT-DETONATING, NO. 255 MK-5 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 02FEB77
 COUNTRY: UNITED KINGDOM

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 035

BOOSTER:

BODY MATERIAL ----- BRASS
 BODY LENGTH (MM) -- 20.3
 FILLER MATERIAL ---- TETRYL
 FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE (M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
 MODEL ----- NO. 255 MK-5
 BODY MATERIAL ----- ALUMINUM ALLOY
 LENGTH OVERALL (MM) -- 71.1
 LENGTH EXPOSED (MM) -- 48.3
 MAXIMUM DIAMETER (MM)- ?
 MAJ THREAD DIAM (MM) - 30.4
 THREAD PITCH (METRIC)- 1.75 MM
 WEIGHT COMPLETE (G) -- 106.3
 MARKINGS ----- 255 MK-5

USING PROJECTILES: -- 40-MM HE-T

USING WEAPONS: ----- 40-MM MK-9A AND MK-10A

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE ---- BARRIER TRAIN

REMARKS:

NOMEN: FUZE, POINT-DETONATING, NO. 410 MK 2/2 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: FUZE, PERCUSSION, DIRECT ACTION AND GRAZE, NO. 410, MK 2/2
 PRODUCED/ADOPTED: ???

DATE UPDATED: 02FEB77
 COUNTRY: UNITED KINGDOM

(U)THE UNITED KINGDOM POINT-DETONATING FUZE NO. 410, MARK 2/2, IS DESIGNED TO FUNCTION ON IMPACT OR GRAZE. THE MARK 2/2 IS IN STANDARD USE. THE MARKS 1, 1/2, 1/3, AND 2 FUZES ARE OBSOLETE. THE MARK 2/2 FUZE HAS A NOSE CAP (12) TO PREVENT ACCIDENTAL DAMAGE DURING STORAGE AND TRANSPORTATION. THIS COVER MUST BE REMOVED BEFORE FIRING. THE FUZE IS ALSO DESIGNED TO PROVIDE EITHER SUPERQUICK OR DELAYED DETONATION. THE CHOICE IS MADE PRIOR TO FIRING BY ROTATING THE SELECTOR (6) TO EITHER "D" OR "SQ."

(U)ON FIRING, SETBACK MOVES THE DETENT (2) TO THE REAR, COMPRESSING THE DETENT SPRING (13). THE MOTION OF THE DETENT PERMITS THE UPPER BALLS (3) TO MOVE INTO THE RECESS AT THE TOP OF THE DETENT LOCKING IT TO THE ARMING SLEEVE (4). WHEN SETBACK CEASES, THE DETENT SPRING MOVES THE DETENT AND ARMING SLEEVE FORWARD, AND THE LOWER BALLS FALL CLEAR OF THE FIRING PIN (1) TO UNLOCK IT. THE FIRING PIN IS NOW ARMED AND SUPPORTED BY THE SHEAR WIRE (11). THE DETENT SPRING NOW ACTS AS A CREEP SPRING AND PREVENTS FORWARD MOTION OF THE SLUG (5) AND DETONATOR (14).

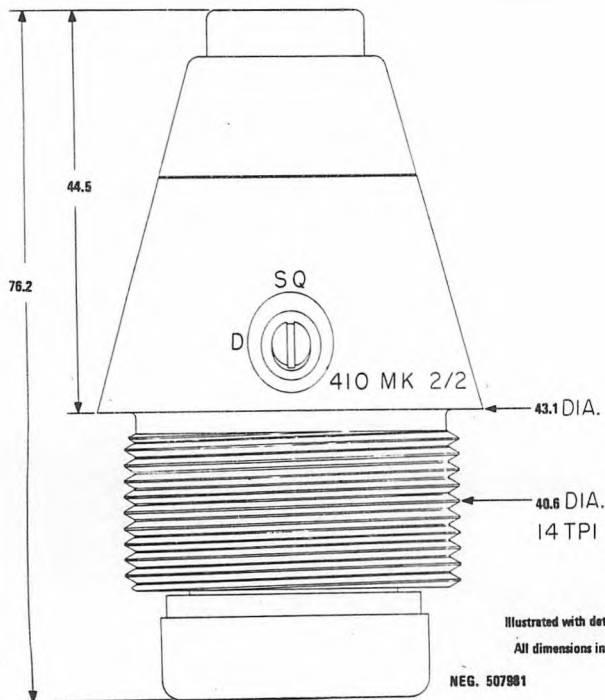
(U)SPIN MOVES THE PLUNGER (16), WHICH IS LOCKING THE ROTOR (8) IN THE UNARMED POSITION, OUTWARD. THIS OUTWARD MOVEMENT PERMITS THE ROTOR TO ROTATE AND MOVE THE DETONATOR (17) INTO THE ARMED POSITION, AT THE SAME TIME THAT IT REMOVES THE BARRIER FROM THE PATH OF THE DETONATOR (14).

(U)ON DIRECT IMPACT OF THE PROJECTILE, THE NOSE AND FIRING PIN COVER (10) ARE CRUSHED, BREAKING THE SHEAR WIRE AND DRIVING THE FIRING PIN INTO THE DETONATOR. ON GRAZE, THE NOSE AND SHEAR WIRE REMAIN INTACT AND THE SLUG AND DETONATOR MOVE FORWARD TO COMPRESS THE SPRING AND DRIVE THE DETONATOR ONTO THE FIRING PIN.

(U)WHEN THE FUZE IS SET FOR SUPERQUICK ACTION, THE BARRIER IN THE FLASH PATH, WHICH IS PART OF THE SELECTOR (6), BUT WHICH IS NOT NUMBERED, MOVES OUT AS A RESULT OF SPIN AND PERMITS THE OUTPUT OF THE DETONATOR (14) TO DETONATE THE DETONATOR (17). THE DETONATOR, IN TURN, INITIATES THE TETRYL LEAD (18) AND THE BOOSTER (9).

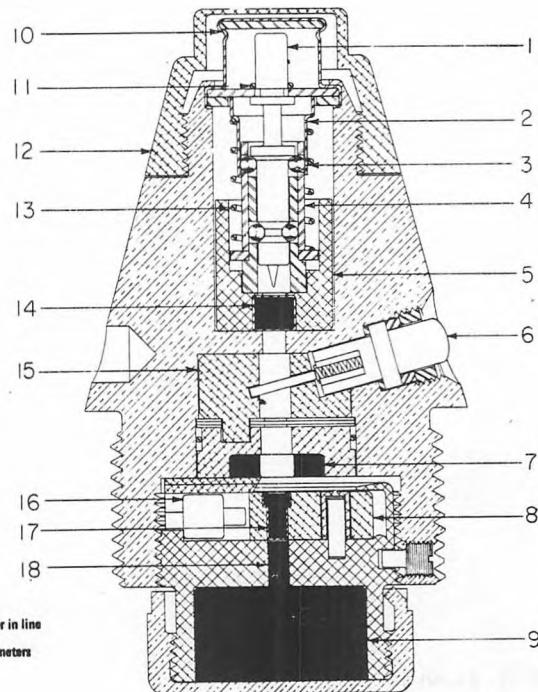
(U)IF THE FUZE IS SET FOR DELAY ACTION, THE BARRIER IN THE FLASH PATH CANNOT MOVE OUT, AND THE OUTPUT OF THE DETONATOR IS CHANNLED THROUGH THE DELAY HOLDER (15) TO IGNITE THE DELAY COMPOSITION (7). THE DELAY COMPOSITION THEN DETONATES THE DETONATOR AND THE REST OF THE EXPLOSIVE TRAIN.

(U)NO. 410 FUZES WHICH HAVE BEEN MODIFIED BY REMOVING THE BARRIER TO THE FLASH PATH ARE NOT AFFECTED BY THE SETTING OF THE SELECTOR. MODIFIED NO. 410 FUZES CAN BE RECOGNIZED BY A 6.4 MM, SIX-POINTED STAR (*) STAMPED IMMEDIATELY AFTER THE MARK NUMBER OF THE FUZES. FUZES MODIFIED IN THIS MANNER WILL FUNCTION ONLY ON SUPERQUICK OR GRAZE.



Illustrated with detonator in line
 All dimensions in millimeters

NEG. 507981



U N C L A S S I F I E D

FOM-1390-35-1-12-A
 NOMEN: FUZE, POINT-DETONATING, NO. 410 MK 2/2 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ???

COUNTRY: UNITED KINGDOM

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- 035

BODY MATERIAL ----- ZINC ALLOY
 BODY LENGTH (MM) -- 25.4
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - 3.9

FUZE ASSEMBLY COMPLETE:

PERFORMANCE:

TYPE ----- IMPACT
 MODEL ----- NO. 410 MK 2/2
 BODY MATERIAL ----- BRASS
 LENGTH OVERALL (MM) -- 76.2
 LENGTH EXPOSED (MM) -- 44.5
 MAXIMUM DIAMETER (MM) - 43.1
 MAJ THREAD DIAM (MM) - 40.6
 THREAD PITCH (METRIC) - 1.75 MM
 WEIGHT COMPLETE (G) -- ?
 MARKINGS ----- 410 MK 2/2

ARMING DISTANCE(M)- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- 0.07 SEC IF SELECTED
 MIN TIME SETTING -- ?
 MAX TIME SETTING -- ?

USING PROJECTILES: -- 84-MM HE-T MK-1; 76-MM HE-T

USING WEAPONS: ----- 84-MM GUN
 - 76-MM GUN ACL5 A1

FUNCTIONAL DATA:

REFERENCES: -----

ARMING METHOD ----- SETBACK AND SPIN
 SELF-DESTR METHOD ----- NONE
 TYPE SAFETY DEVICE --- OUT-OF-LINE DETONATOR

REMARKS:

NOMEN: FUZE, POINT DETONATING, NO 161 MK-4 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: FUZE, DIRECT ACTION MO 161 MK-4
 PRODUCED/ADOPTED: ???

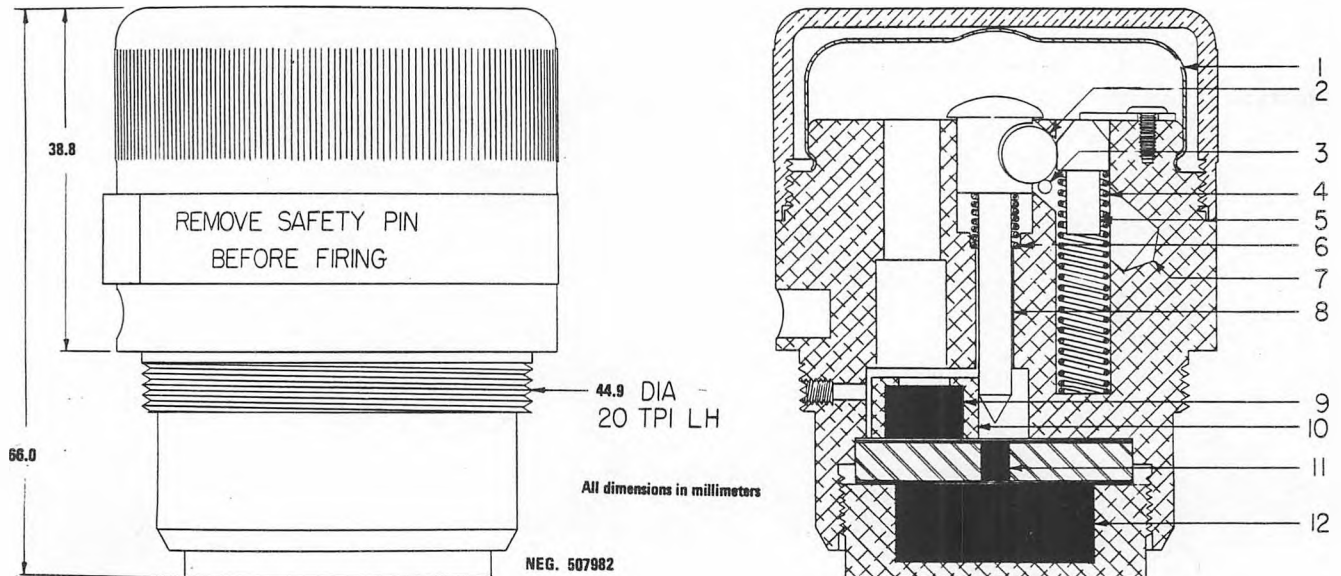
DATE UPDATED: 02FEB77
 COUNTRY: UNITED KINGDOM

(U)THE 161 MK-4 IS A SETBACK ARMED POINT-DETONATING IMPACT FIRED FUZE. HANDLING SAFETY IS PROVIDED BY A SAFETY CAP AND PIN (3). BORE SAFETY IS AFFORDED BY USING A HINGED SPRING-LOADED ROTOR (10) HOUSING A DETONATOR (9) WHICH IS KEPT IN THE OUT-OF-LINE POSITION BY THE FIRING PIN (8).

(U)ON FIRING, SETBACK FORCES MOVE THE DETENT PIN (5) REARWARD COMPRESSING THE DETENT PIN SPRING (4), OPENING THE PATH OF THE OBLIQUE CHANNEL (7). SIMULTANEOUSLY THE FIRING PIN ASSEMBLY (8) SETS BACK, COMPRESSING THE FIRING PIN ASSEMBLY SPRING (6), RELEASING THE FIRING PIN ASSEMBLY'S RETAINING BALL (2) WHICH TRAVELS TO THE OUTER END OF THE OBLIQUE CHANNEL (7).

(U)ON SETFORWARD, THE COMPRESSED DETENT PIN SPRING EXPANDS, MOVING THE DETENT PIN TO ITS ORIGINAL POSITION AND THUS PREVENTING THE RETAINING BALL FROM MOVING BACK TOWARD THE FIRING PIN ASSEMBLY. SIMULTANEOUSLY, THE COMPRESSED FIRING PIN ASSEMBLY'S SPRING EXPANDS, MOVING THE FIRING PIN FORWARD, RELEASING THE SPRING LOADED ROTOR (10) WHICH MOVES THE DETONATOR (9) TO AN IN-LINE POSITION WITH THE FIRING PIN. THE FUZE IS ARMED.

(U)ON IMPACT, THE NOSE CAP (1) CRUSHES, DRIVING THE FIRING PIN INTO THE DETONATOR (9) WHICH IN TURN ACTUATES THE TETRYL LEAD (11) AND BOOSTER (12).



U N C L A S S I F I E D

FOM-1390-35-1-13-A
NOMEN: FUZE, POINT DETONATING, NO 161 MK-4 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

COUNTRY: UNITED KINGDOM

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- OBSOLETE

BOOSTER:

BODY MATERIAL ----- ZINC ALLOY
BODY LENGTH (MM) -- 10.2
FILLER MATERIAL --- TETRYL
FILLER WEIGHT (G) - ?

USING COUNTRIES: ----- UNITED KINGDOM

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT DETONATING
MODEL ----- NO 161 MK-4
BODY MATERIAL ----- ZINC ALLOY
LENGTH OVERALL (MM) -- 66.0
LENGTH EXPOSED (MM) -- 38.8
MAXIMUM DIAMETER (MM)- ?
MAJ THREAD DIAM (MM) - 44.9
THREAD PITCH (METRIC)- ?
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- NONE

USING PROJECTILES: -- 50.8 MM, HE, MK-1

USING WEAPONS: ----- 50.8-MM MORTAR

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE ---- SAFETY CAP & PIN
OUT-OF-LINE DETONATOR

REFERENCES: -----

REMARKS:

FOM-1390-35-1-14-1-A

U N C L A S S I F I E D

CATALOG: TB-381-5-06

NOMEN: FUZE, POINT DETONATING, NO 162 MK.10 (U)

DATE REVIEWED: 02FEB77

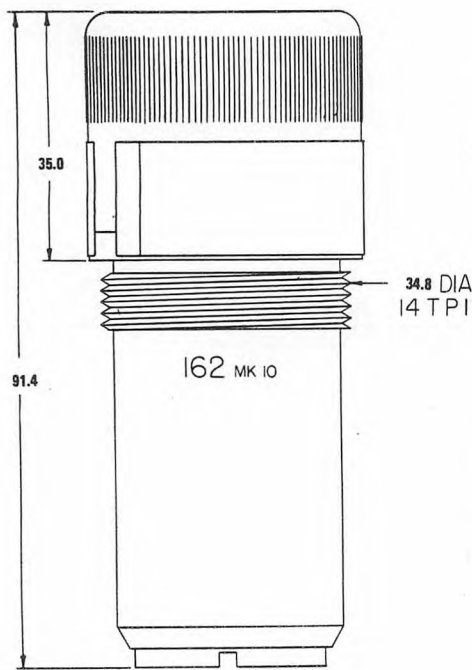
NATIVE DES: FUZE, DIRECT ACTION NO. 162 MK.10
PRODUCED/ADOPTED: ???

DATE UPDATED: 02FEB77
COUNTRY: UNITED KINGDOM

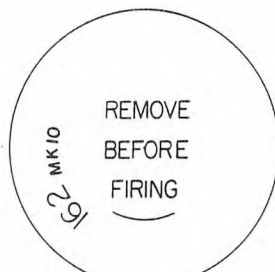
(U)THE 162 MK.10 IS A SETBACK-ARMED, POINT-DETONATING FUZE SIMILAR IN DESIGN TO THAT OF THE UKPD FUZE, NO 161 MK-4 (FOM 1390-35-1-13).

(U)THE MAIN COMPONENTS (SEE DWG) OF 162 MK10 FUZE ARE AS FOLLOWS: DETENT PIN (1), NOSE CAP (2), FIRING-PIN ASSEMBLY (3), FIRING-PIN ASSEMBLY RETAINING BALL (4), SAFETY PIN (5), FIRING-PIN ASSEMBLY SPRING (6) DETENT PIN SPRING (7), DETONATOR (8), SPRING-LOADED ROTOR (9), TETRYL LEAD (10) AND BOOSTER (11).

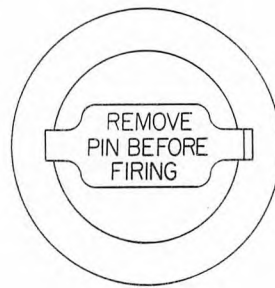
(U)FUNCTIONING OF THE 162 MK10 FUZE IS THE SAME AS THE 161 MK-4 FUZE.



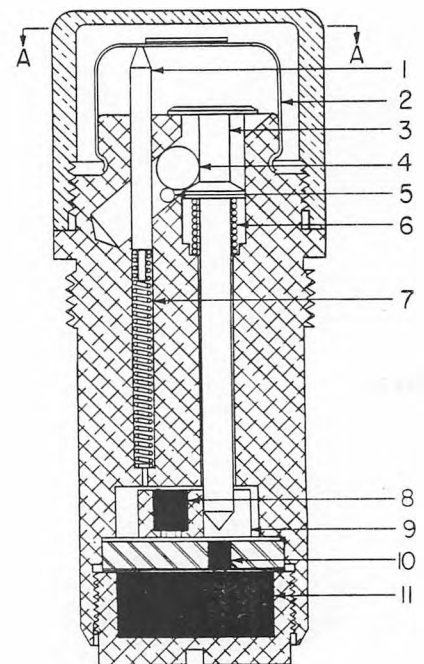
NEG. 507983 All dimensions in millimeters



TOP VIEW



SECTION A A



U N C L A S S I F I E D

FOM-1390-35-1-14-1-A
NOMEN: FUZE, POINT DETONATING, NO 162 MK.10 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

COUNTRY: UNITED KINGDOM

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- OBSOLETE

USING COUNTRIES: ----- 035

FUZE ASSEMBLY COMPLETE:

TYPE ----- POINT DETONATING
MODEL ----- NO 162, MK.10
BODY MATERIAL ----- ZINC ALLOY
LENGTH OVERALL (MM) -- 91.4
LENGTH EXPOSED (MM) -- 35.0
MAXIMUM DIAMETER (MM) - ?
MAJ THREAD DIAM (MM) - 34.8
THREAD PITCH (METRIC) - ?
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- 162 MK 10

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- SAFETY CAP & PIN
OUT-OF-LINE DETONATOR

BOOSTER:

BODY MATERIAL ----- ZINC ALLOY
BODY LENGTH (MM) -- 12.7
FILLER MATERIAL --- TETRYL
FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- 76.2 MM, HE, MK-7

USING WEAPONS: ----- 76.2-MM MORTAR

REFERENCES: -----

REMARKS:

NOMEN: FUZE, POINT-DETONATING, NO. 117 MK 20 (U)

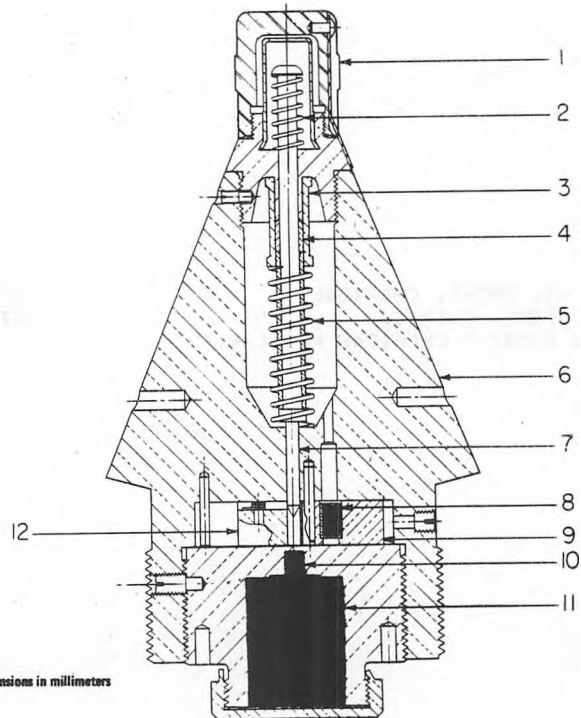
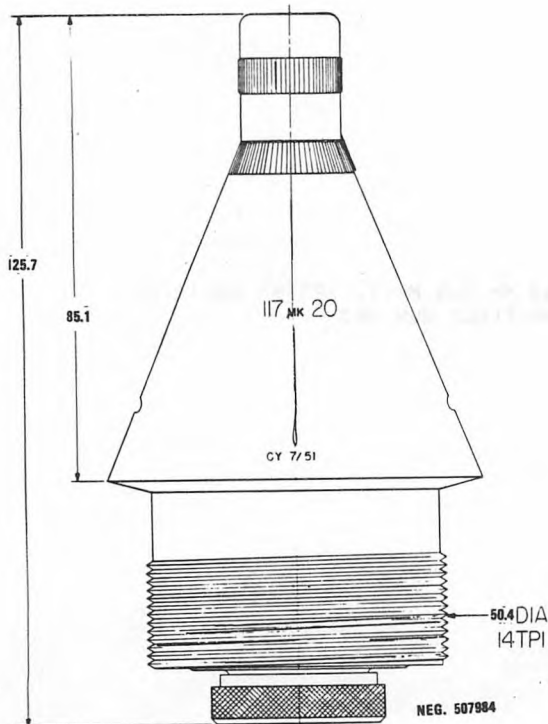
DATE REVIEWED: 02FEB77

NATIVE DES: FUZE DIRECT ACTION NO 117 MK-20
 PRODUCED/ADOPTED: ???

DATE UPDATED: 02FEB77
 COUNTRY: UNITED KINGDOM

(U)THE UNITED KINGDOM POINT-DETONATING FUZE NO. 117, MARK 20, IS USED WHEN NO DELAY IS DESIRED. THE MARK 20 IS IN STANDARD SERVICE, AS IS THE MARK 17.

(U)THE NOSE CAP (1) SHOULD BE REMOVED BEFORE FIRING. ON FIRING, SETBACK CAUSES THE ARMING SLEEVE (3) TO MOVE BACK, COMPRESSING THE SPRING (5). THIS CLEARS THE FOUR SEGMENTS (4) AND, WITH THE SLIGHT SETBACK OF THE FIRING PIN (7), THE SEGMENTS FALL CLEAR INTO THE FUZE BODY (6). IF THIS ACTION DOES NOT DISPLACE THE SEGMENTS, SPIN WILL MOVE THEM. WHEN THE SEGMENTS FALL CLEAR AND ACCELERATION CEASES, THE SPRING (2) MOVES THE FIRING PIN FORWARD, RELEASING THE SPRING-LOADED ROTOR (9). WHEN FREE, THE ROTOR ROTATES, MOVING THE DETONATOR (8) INTO THE ARMED, IN-LINE POSITION. THE ROTOR IS HELD IN THE ARMED POSITION BY THE LOCKING WEIGHT (12). THE FUZE IS NOW FULLY ARMED. ON IMPACT OF THE PROJECTILE, THE NOSE IS CRUSHED DRIVING THE FIRING PIN INTO THE DETONATOR TO DETONATE IT. THE DETONATOR INITIATES THE TETRYL LEAD (10) AND THE TETRYL BOOSTER (11).



U N C L A S S I F I E D

FOM-1390-35-1-15-A
 NOMEN: FUZE, POINT-DETONATING, NO. 117 MK 20 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ???

COUNTRY: UNITED KINGDOM

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- 035

BODY MATERIAL ----- BRASS
 BODY LENGTH (MM) -- 30.7
 FILLER MATERIAL --- TETRYL
 FILLER WEIGHT (G) - ?

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

ARMING DISTANCE(M)-- ?
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- N/A
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

TYPE ----- IMPACT
 MODEL ----- NO. 117-MK-20
 BODY MATERIAL ----- BRASS
 LENGTH OVERALL (MM) -- 125.7
 LENGTH EXPOSED (MM) -- 85.1
 MAXIMUM DIAMETER (MM)- ?
 MAJ THREAD DIAM (MM) - 50.4
 THREAD PITCH (METRIC)- 1.75 MM
 WEIGHT COMPLETE (G) -- 1170
 MARKINGS ----- 117 MK-20

USING PROJECTILES: -- *1

USING WEAPONS: ----- *2

REFERENCES: -----

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ----- NONE
 TYPE SAFETY DEVICE --- OUT-OF-LINE DETONATOR

REMARKS:

1/ 140 MM HE, SMOKE, CHEMICAL
 183 MM HE, SMOKE, CHEMICAL
 87.6 MM HE, SMOKE & CHEMICAL MK1 & MK3

2/ 140 MM GUN MK-3, 183 MM HOWITZER
 87.6 MM FIELD GUN MK2

NOMEN: FUZE, POINT-DETONATING, NO 119B MK-17 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: FUZE, DIRECT ACTION AND GRAZE NO 119B MK-17
 PRODUCED/ADOPTED: ???

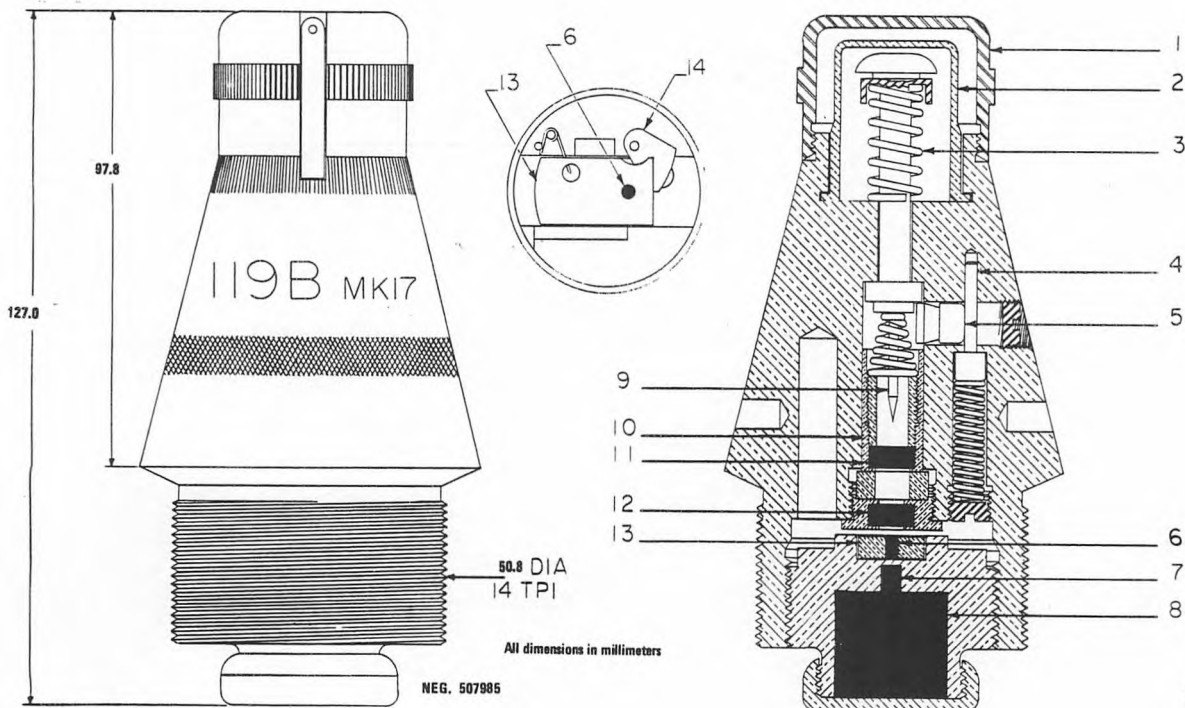
DATE UPDATED: 02FEB77
 COUNTRY: UNITED KINGDOM

(U)THE UNITED KINGDOM POINT-DETONATING FUZE NO. 119B, MARK 17, WAS DESIGNED TO FUNCTION ON EITHER DIRECT IMPACT OR GRAZE. THE MARK 17 IS IN STANDARD USE. THE MARKS 12, 13, AND 16 WERE ALLOCATED TO INDIA. THE MARKS 1 THROUGH 11 AND MARK 14 ARE OBSOLETE. THE FUZE IS SHIPPED WITH A STEEL SAFETY CAP (1) WHICH MAY BE REMOVED OR NOT, DEPENDING ON THE NATURE OF THE TARGET. IF THE SAFETY CAP IS LEFT ON, THE ACTION ON IMPACT IS IDENTICAL TO GRAZE ACTION, WITH THE INHERENT SLIGHT DELAY.

(U)WHEN THE ROUND IS FIRED, SETBACK MOVES THE FIRING PIN (9) AND THE SETBACK PIN (4) TO THE REAR, AGAINST THEIR SPRINGS. THE FIRING PIN CANNOT STRIKE THE DETONATOR (11) AT THIS TIME BECAUSE ITS TRAVEL IS STOPPED BY THE CENTRIFUGAL DETENT (5). THIS ENGAGEMENT, AT FIRING, PREVENTS ARMING OR FUNCTIONING OF THE FUZE IN THE GUN BARREL. WHEN SETBACK CEASES, SPIN CAUSES THE CENTRIFUGAL DETENT TO MOVE OUT, UNLOCKING THE FIRING PIN, AND TO MOVE THE LOCKING DETENT (14) OUTWARD, UNLOCKING THE BARRIER (13). ONCE UNLOCKED, THE BARRIER IS FREE TO MOVE OUT, UNDER THE EFFECTS OF SPIN, TO REMOVE THE BARRIER FROM THE FLASH PATH AND TO BRING THE TETRYL LEAD (6) INTO ALINEMENT WITH THE FLASH PATH. THE FUZE IS NOW ARMED.

(U)WITH THE SAFETY CAP REMOVED, THE NOSE (2) IS CRUSHED ON IMPACT. THE FIRING PIN THEN COMPRESSES THE STRIKER SPRING (3) AND IS DRIVEN INTO THE UPPER DETONATOR (11). THE DETONATOR OUTPUT DETONATES, IN TURN, THE LOWER DETONATOR (12), THE TETRYL LEADS (6) AND (7), AND THE TETRYL BOOSTER (8). ON GRAZING A TARGET, OR ON IMPACT WITH THE SAFETY CAP IN PLACE, THE DETONATOR HOLDER (10) IS DRIVEN FORWARD, DRIVING THE DETONATOR (11) ONTO THE FIRING PIN. THE EXPLOSIVE TRAIN IS THEN INITIATED, AS ON IMPACT.

(U)THIS FUZE MAY BE USED WITH ALL CHARGES IN THE 25-POUNDER (87.6-MM) FIELD GUN-HOWITZER MARK 2 EXCEPT CHARGE 1.



U N C L A S S I F I E D

FOM-1390-35-1-16-A
NOMEN: FUZE, POINT-DETONATING, NO 119B MK-17 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ???

COUNTRY: UNITED KINGDOM

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 035

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
MODEL ----- NO 119B MK 17
BODY MATERIAL ----- BRASS
LENGTH OVERALL (MM) -- 127.0
LENGTH EXPOSED (MM) -- 97.8
MAXIMUM DIAMETER (MM) - ?
MAJ THREAD DIAM (MM) - 50.8
THREAD PITCH (METRIC) - 1.75 MM
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- 119 MK-17

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK AND SPIN
SELF-DESTR METHOD ----- NONE
TYPE SAFETY DEVICE --- OUT-OF-LINE LEAD

BOOSTER:

BODY MATERIAL ----- BRASS
BODY LENGTH (MM) -- 25.4
FILLER MATERIAL --- TETRYL
FILLER WEIGHT (G) - ?

PERFORMANCE:

ARMING DISTANCE(M)- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- ?
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- 87.6-MM HE. MK-1 AND MK-3

USING WEAPONS: ----- 87.6-MM FIELD GUN MK-2

REFERENCES: -----

NOMEN: FUZE, BASE DETONATING, MODEL L16A1 (U)

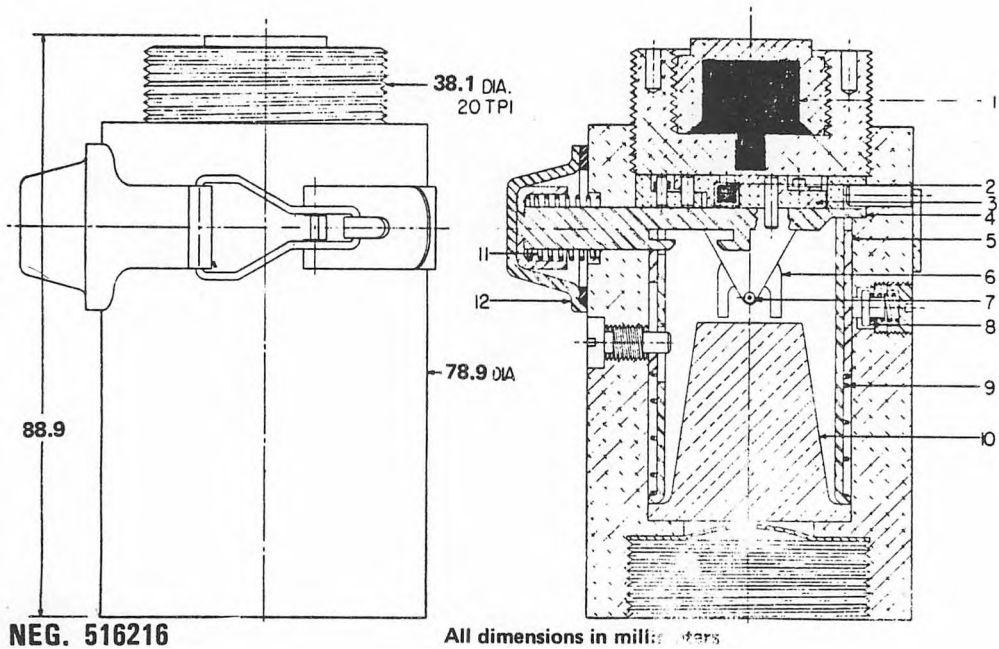
DATE REVIEWED: 02FEB77

NATIVE DES: FUZE PERCUSSION L16A1
 PRODUCED/ADOPTED: ???

DATE UPDATED: 19FEB75
 COUNTRY: UNITED KINGDOM

(U)THE MODEL L16A1 BASE-DETONATING FUZE IS DESIGNED TO FUNCTION WITHOUT DELAY, ON IMPACT. ON ASSEMBLY INTO THE ROCKET, THE FUZE BECOMES A PART OF THE ROCKET BODY. AROUND THE FUZE IS A SAFETY BAND (12), WHICH MUST BE REMOVED WHILE LOADING THE ROCKET INTO THE LAUNCHER. THIS SAFETY BAND RETAINS A BORE-RIDING PIN AND IS MARKED IN RED "SAFETY BAND-NOT TO BE REMOVED UNTIL ROCKET HEAD HAS BEEN LOADED INTO LAUNCHER".

(U)WHEN THE ROCKET IS FIRED, SETBACK FORCES THE SETBACK SLEEVE (5) TO THE REAR, COMPRESSING THE SPRING (9). THE SETBACK SLEEVE IS LOCKED IN THIS REARWARD POSITION BY THE SPRING-LOADED PIN (8). WHEN THE ROCKET LEAVES THE LAUNCHER, THE BORE-RIDING PIN (4) IS THROWN OUT BY THE SPRING (11). WHEN THE PIN IS REMOVED, THE SPRING-LOADED ROTOR (3) ROTATES, MOVING THE DETONATOR (2) INTO THE ARMED POSITION. ON IMPACT, OR ON GRAZE WITH A HEAVY OBJECT, THE INERTIA PLUNGER (10) MOVES FORWARD, PUSHING ON THE PROJECTIONS (6) AND DRIVING THE FIRING PIN (7) INTO THE DETONATOR, WHICH IN TURN INITIATES THE TETRYL LEAD AND THE TETRYL BOOSTER (1), DETONATING THE ROCKET WARHEAD.



U N C L A S S I F I E D

FOM-1390-35-2-1-A
NOMEN: FUZE, BASE DETONATING, MODEL L16A1 (U)

CATALOG: TB-381-5-06
DATE REVIEWED: 02FEB77
DATE UPDATED: 19FEB75

COUNTRY: UNITED KINGDOM

PRODUCED/ADOPTED: ???

CURRENT STATUS: ----- STANDARD

USING COUNTRIES: ----- 035

FUZE ASSEMBLY COMPLETE:

TYPE ----- IMPACT
MODEL ----- L16A1
BODY MATERIAL ----- ALUMINUM ALLOY
LENGTH OVERALL (MM) -- 88.9
LENGTH EXPOSED (MM) -- 78.9 (EST)
MAXIMUM DIAMETER (MM) -- 50.8
MAJ THREAD DIAM (MM) -- 38.1
THREAD PITCH (METRIC) -- ?
WEIGHT COMPLETE (G) -- ?
MARKINGS ----- NONE

FUNCTIONAL DATA:

ARMING METHOD ----- SETBACK
SELF-DESTR METHOD ---- NONE
TYPE SAFETY DEVICE --- BORE-RIDING PIN
OUT-OF-LINE DETONATOR

BOOSTER:

BODY MATERIAL ----- ALUMINUM ALLOY
BODY LENGTH (MM) -- 20.3
FILLER MATERIAL ---- TETRYL
FILLER WEIGHT (G) -- ?

PERFORMANCE:

ARMING DISTANCE (M) -- ?
ARMING TIME ----- ?
SELF-DESTRUCT TIME N/A
DELAY TIME ----- N/A
MIN TIME SETTING -- N/A
MAX TIME SETTING -- N/A

USING PROJECTILES: -- 88.9 MM HEAT ROCKET

USING WEAPONS: ----- 88.9 MM ROCKET LAUNCHER, MK2

REFERENCES: -----

REMARKS:

NOMEN: FUZE, POINT DETONATING, MODEL M.K.E. 101 (U)

DATE REVIEWED: 02FEB77

NATIVE DES: ?
 PRODUCED/ADOPTED: ???

DATE UPDATED: 02FEB77
 COUNTRY: TURKEY

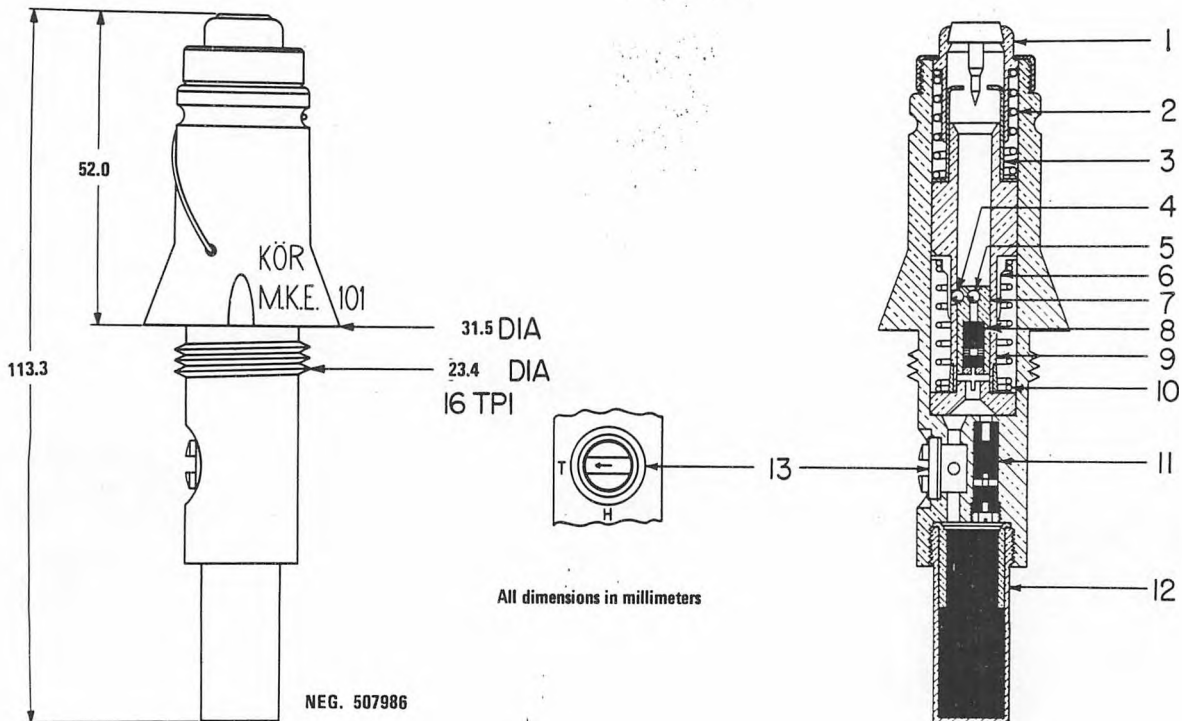
(U)THE TURKISH MORTAR FUZE MODEL M.K.E. 101 IS DESIGNED TO PROVIDE THE USER WITH EITHER SUPER-QUICK OR DELAYED FUNCTIONING AFTER IMPACT. THE SELECTION, FOR TYPE OF ACTION DESIRED, MUST BE MADE BEFORE ASSEMBLING THE FUZE INTO THE PROJECTILE. THE ARROW STAMPED AT THE BOTTOM OF THE SLOT IN THE SELECTOR IS SET AT "H" FOR SUPERQUICK ACTION AND AT "T" FOR DELAYED ACTION. THE SAFETY WIRE MUST ALSO BE REMOVED BEFORE FIRING.

(U)UPON FIRING OF THE PROJECTILE, SETBACK FORCES THE SAFETY COLLAR (6) TO THE REAR AGAINST THE SAFETY SPRING (10). THE COLLAR BECOMES WEDGED ON THE TAPERED SURFACE AT THE REAR END OF THE INERTIA-ELEMENT ASSEMBLY (9). THE PRIMER LOCKING BALL (4) IS THUS RELEASED SO THAT IT CAN MOVE OUTWARD AND FREE THE PRIMER-HOLDER ASSEMBLY (7). IN FLIGHT, THE PRIMER-HOLDER ASSEMBLY CAN THEN MOVE FORWARD UNDER THE INFLUENCE OF CREEP FORCES UNTIL ITS FORWARD END CONTACTS THE FIRING PIN SPRING GUIDE (3). MOVEMENT OF THE INERTIA ELEMENT IS RESTRAINED BY THE SPRING (2).

(U)ON IMPACT, THE FIRING PIN AND STRIKER ASSEMBLY (1) IS PUSHED REARWARD, WHILE THE INERTIA-ELEMENT ASSEMBLY MOVES FORWARD. THE UNRESTRAINED PRIMER-HOLDER ASSEMBLY MOVES FORWARD RELATIVELY MORE RAPIDLY THAN THE INERTIA ELEMENT AND ITS ASSOCIATED COMPONENTS. AS THE FIRING PIN ENTERS THE PRIMER BODY CAVITY, THE TWO PRIMER DETENT BALLS (5) ARE PUSHED OUTWARDS TO PROTRUDE INTO THE CAVITY BETWEEN THE FORWARD LIP OF THE INERTIA ELEMENT, THE FIRING PIN SPRING GUIDE, AND THE FIRING PIN. THIS LOCKS THE PRIMER ASSEMBLY TO THE FORWARD-MOVING INERTIA ELEMENT. THE MOMENTUM OF THE ENTIRE INERTIA ASSEMBLY, RATHER THAN ONLY THAT OF THE PRIMER ASSEMBLY, IMPALES THE PRIMER (8) ON THE FIRING PIN POINT.

(U)WHEN THE SELECTOR (13) IS SET FOR DELAY ACTION, THE PRIMER FLASH IGNITES THE CHARGE IN THE DELAY HOLDER ASSEMBLY (11). THIS, IN TURN, INITIATES THE DETONATOR (12).

(U)ON AN INSTANTANEOUS SETTING, THE PRIMER FLASH PASSES THROUGH THE OPEN FLASH HOLE TO INITIATE THE DETONATOR DIRECTLY. IF FOR SOME REASON THE DETONATOR IS NOT SET OFF IN THIS MANNER, IT CAN STILL BE ACTIVATED THROUGH THE DELAY ELEMENT, WHICH IS ALSO IGNITED BY THE SAME PRIMER FLASH.



U N C L A S S I F I E D

FOM-1390-39-1-1-A
 NOMEN: FUZE, POINT DETONATING, MODEL M.K.E. 101 (U)

CATALOG: TB-381-5-06
 DATE REVIEWED: 02FEB77
 DATE UPDATED: 02FEB77

PRODUCED/ADOPTED: ???

COUNTRY: TURKEY

CURRENT STATUS: ----- STANDARD

BOOSTER:

USING COUNTRIES: ----- 039

BODY MATERIAL ----- N/A
 BODY LENGTH (MM) -- N/A
 FILLER MATERIAL --- N/A
 FILLER WEIGHT (G) - N/A

PERFORMANCE:

FUZE ASSEMBLY COMPLETE:

ARMING DISTANCE(M)-- 30
 ARMING TIME ----- ?
 SELF-DESTRUCT TIME N/A
 DELAY TIME ----- 0.08 SEC
 MIN TIME SETTING -- N/A
 MAX TIME SETTING -- N/A

TYPE ----- POINT DETONATING
 MODEL ----- M.K.E. 101
 BODY MATERIAL ----- BRASS
 LENGTH OVERALL (MM) -- 113.3
 LENGTH EXPOSED (MM) -- 52.0
 MAXIMUM DIAMETER (MM)- 31.5
 MAJ THREAD DIAM (MM) - 23.4
 THREAD PITCH (METRIC)- ?
 WEIGHT COMPLETE (G) -- ?
 MARKINGS ----- KOR M.K.E. 101

USING PROJECTILES: -- 81 MM, HE; 120 MM, HE

USING WEAPONS: ----- 81-MM MORTAR
 - 120-MM MORTAR

FUNCTIONAL DATA:

REFERENCES: -----

ARMING METHOD ----- SETBACK
 SELF-DESTR METHOD ---- NONE
 TYPE SAFETY DEVICE --- SAFETY SPRING, SAFETY
 WIRE, PRIMER LOCKING BALL

★U.S. GOVERNMENT PRINTING OFFICE: 1977- 736-854

REMARKS:

DATE CATALOGED: 01APR67
 VOLUME 06 PAGE 456

U N C L A S S I F I E D

UNCLASSIFIED

TB 381-5-06

By Order of the Secretary of the Army:

BERNARD W. ROGERS
General, United States Army
Chief of Staff

Official:

PAUL T. SMITH
Major General, United States Army
The Adjutant General

DISTRIBUTION:

To be distributed in accordance with DA Form 12-34A, Requirements for TB 381-5-06 Fuzers.

UNCLASSIFIED

UNCLASSIFIED



