

AMMUNITION
COMPLETE ROUND CHART

BOOK II

ARTILLERY AMMUNITION



PICATINNY ARSENAL
DOVER, NEW JERSEY

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1 JUNE 1961

PICATINNY ARSENAL
DOVER, NEW JERSEY

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FORWARD

1. The Complete Round Chart (CRC) contains basic data for the items of conventional ammunition currently in the system. The CRC series will cover all type classifications from Obsolete through Standard-A as described in AR705-6, "Research and Development of Material, Type Classification of Material". The CRC series is comprised of three (3) books, Book I, Book II & Book III and supersedes the CRC dated April 1954. The titles of these books are as follows:

Book I - Small Arms Ammunition

Book II - Artillery Ammunition

Book III- Bombs, Pyrotechnics, Mines, Grenades, Rockets, Rocket Motors,
Cartridge Actuated Devices, Demolition Material, Miscellaneous
items of Ammunition

2. The purpose of the CRC series is to provide a source of information for personnel whose official duties require them to be familiar with the data contained therein. The information contained in these charts is constantly subject to change and, therefore should be considered only as a guide or as reference material.

3. It should be noted that the Ordnance Technical Committee Minutes number is applicable only to the type classification of that particular round. In some instances more than one (1) number is referenced to reflect the complete type classification of the round.

4. Book II of the CRC supersedes sheets 1 through 23, inclusive, of the CRC dated April 1954. Book II contains basic data for items applicable to Artillery Ammunition currently in the system.

5. Changes to Book II of the CRC will be made as required. Complete revisions will be accomplished when material in the published changes and/or proposed changes exceed 25% of content of the basic publication as required in AR310-3, "Military Publications, Preparing and Processing". Recommendations, corrections, additions or deletions will be forwarded to the Commanding Officer, Picatinny Arsenal, (ATTN: ORDBB-DC5), Dover, New Jersey

BOOK II - ARTILLERY AMMUNITION

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AMMUNITION FOR 20MM GUN M39A2, M61, M24A1, M3

LINE NUMBER	OTCM NO.	(u) Type Classification	(v) Model of Gun	Cartridge Designation	Complete Assembly Drawing Number	PROJECTILE						FUZE			CARTRIDGE CASE		PROPELLANT			PRIMER		CALIBRATION VALUE		Cartridge Total Weight (Grains)	PACKING		LINE NUMBER		
						Drawing Number	Type	Material	CHARGE			Weight Loaded and Fuzed (Gr)	Drawing Number	Type	Designation	Drawing Number	Designation	Designation	Nominal Weight (GR)	Designation	Type	Drawing Number	Pressure (psi) (MAX)		Velocity (fps)	See Packing Notes		Shipped	
									Loading Assembly Drawing Number	Kind	Weight (Gr)																		(d) M103 Dummy
1	36841	STD (USAF)	M39A2 M61	M51	D7553841	D7553838	Dummy	Steel & ALUM	-	-	-	1521±30	-	-	-	C7553842	M103	Inert Material	600	-	-	-	-	-	3952	-	Complete	1	
2	(NA)	(NA)	M39A2 M61	M51E8	LCA-SK393	LCA-SK394	Dummy	Steel & ALUM	-	-	-	1521±30	-	-	-	D7553843	M103B1	Inert Material	635	(f)	-	-	-	-	3850	-	Complete	2	
3	36841	STD (USAF)	M39A2 M61	M53	D7258802	D7258803	API	Steel & ALUM	C7258806	(x) INC #136 INC #68	85±6	1546±35	-	-	-	D7553815	M103	Ball Powder	595	M52A3B1	ELEC	B7548066	60,500	3,380	3980	-	Complete	3	
4	36841	STD (USAF)	M39A2 M61	M54	D7553821	D7553822	HPT	Steel & Zinc	-	-	-	1965±27	-	-	-	D7553815	M103	Ball or IMR	(w)	(y) M52A5	ELEC	74-2-79	62,500 to 72,500	(NS)	4400	-	Complete	4	
5	(NA)	(NA)	M39A2 M61	M54E2	D7258858	D7258859	HPT	Steel	-	-	-	1965±10	-	-	-	D7553815	M103	Ball or IMR	(w)	M52A3B1	ELEC	B7548066	62,500 to 72,500	(NS)	4392	-	Complete	5	
6	37400	(b) STD (USAF)	M39A2 M61	M55A1	D7553837	D7553838	Ball	Steel & ALUM	-	-	-	1521±30	-	-	-	D7553815	M103	IMR 7005 Powder	480	M52A3B1	ELEC	B7548066	60,500	3,380	3820	-	Complete	6	
7	37400	STD (USAF)	M39A2 M61	M55A2	D7258817	D7258812	Ball	Steel & ALUM	-	-	-	1521±30	-	-	-	D7553815	M103	Ball Powder	595	M52A3B1	ELEC	B7548066	60,500	3,380	3935	-	Complete	7	
8	36841	STD (USAF)	M39A2 M61	M56A1	D7553814	D7553816	HEI	Steel	D7553817	MXX-2B and RDX	180 Min and 22 Min	1536±30	D7258818	PD	M505A1	(a) D7553815	M103	Ball Powder	595	M52A3B1	ELEC	B7548066	60,500	3,380	3950	-	Fuzed	8	
9	36841	LS (USN) & (USAF)	M24A1 M3	M95	(r) 75-1-177	(s) 75-2-333	AP-T	(k)	(h) 75-14-435	-	-	1996	-	-	-	D7553197	M21A1	IMR	470	M52A3 M36A1	(n) ELEC PERC	B7548056 74-2-57	51,000	2,680	3990	-	Complete	9	
10	36841	LS (USN) & (USAF)	M24A1 M3	M96	(r) 75-1-178	(s) 75-2-334	INC	(n)	75-14-439	INC: Body Nose	88.5 78	1933.5	-	-	-	D7553197	M21A1	IMR	470	M52A3 M36A1	(m) ELEC PERC	B7548056 74-2-57	51,000	2,680	3850	-	Complete	10	
11	36841	STD (USN) & (USAF)	M24A1 M3	M97A1	(p) D7553514	C7553632	HEI	Steel	D7553631	(o)	(e)	1981	73-2-332	PD	M505	D7553197	M21A1	IMR	470	M52A3 M36A1	(m) ELEC PERC	B7548056 74-2-57	51,000	2,680	3950	-	Fuzed	11	
12	37403	STD (USAF)	M24A1	M99A1	D7258849	D7258846	TP	Steel	-	-	-	2000±30	-	-	-	D7553197	M21A1	IMR	470	(z) M52A3B1	ELEC	B7548066	51,000	2,680	4000	-	Complete	12	
13	36841	STD (USN) & (USAF)	M24A1 M3	M18A3	(g) 72-3-85	(g) 72-3-86	Drill	Steel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3990	-	Complete	13
14	(NA)	(NA)	M39A2 M61	M51E6	LCA-SK211	LCA-SK212	Dummy	Steel	-	-	-	1500±30	-	-	-	LCA-SK211	Dummy	Inert Material	635	-	-	-	-	-	-	3980	-	Complete	14
Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	Col. No.	

SYMBOLS

STD - Standard
 LS - Limited Standard
 API - Armor Piercing Incendiary
 HEI - High Explosive Incendiary
 AP-T - Armor Piercing with Tracer
 HPT - High Pressure Test
 INC - Incendiary
 TP - Target Practice
 OTCM - Ordnance Technical Committee Minutes
 GR - Grains
 PD - Point Detonating
 IMR - Improved Military Rifle
 PERC - Percussion
 ELEC - Electric
 NS - Not Specified
 COMP - Composition
 CTG - Cartridge
 NA - Not Available
 ALUM - Aluminum
 MAX - Maximum

NOTES

(a) - Fuze, PD, M505A1 is shown on drawing. Model of fuze presently being used is M505A1E2. Other fuze which may be used is M505A1E1.
 (b) - Standard for USAF use until existing stocks are exhausted.
 (c) - This Case, CTG, M103 is a Dummy Case which is issued without provision for a primer.
 (d) - Primer pocket is plugged with Case Plug, Dwg. LCA-SK396.
 (e) - Steel plug is pressed into base to simulate primer. Base is separate from main case which is made as one solid piece. Alternative - same except nose of shell is also made as a separate piece.
 (f) - Loaded with Tracer Composition as follows:
 Igniter Charge 6.17 Grains COMP I-527
 Tracer COMP 15.43 Grains COMP R-322
 (g) - Body Material - Steel
 Windshield Material - Steel
 For details see Dwg. 75-2-341
 (h) - Rounds using Perc primers are fired from M24 Gun. Rounds using Elec primers are fired from M24A1 Gun.
 (i) - Body Material - Steel, Cold Drawn.
 (j) - Nose Material - Zinc Base - Alloy.

(k) - Charge is made of 3 increments as follows;
 Charge #1: 2.75 Grains LM#142, 2 solid pellets.
 Charge #2: 9.5 Grains LM#142 and 25.75 Grains Tetryl, INC COMP, 1 pellet.
 Charge #3: 57.0 Grains Tetryl, 1 pellet.
 (l) - Drawing, D7553514 shows percussion primer and round which is fired from M3 Gun. Rounds fired from M24A1 Gun have the same components as those fired from M3 Gun except Primer is M52A3, Elec. (There is no drawing available for this round).
 (m) - When Perc, Primer, M36A1 is used see Dwg. 75-1-177 or 75-1-178. When Elec, Primer, M52A3 is used see Dwg. 75-1-283.
 (n) - Some M99, TP rounds on hand (STD) (37403).
 (o) - Weights may vary to meet individual ballistic requirements.
 (p) - Refer to AR 705-6.
 (q) - 20MM Gun M39A2 is STD (USAF use only).
 (r) - 20MM Gun M24A1, M24 STD (USAF use only).
 (s) - 20MM Gun M61 is STD (USAF use only).
 (t) - 20MM Gun M3 is STD (USN use only).
 (u) - Powder charge to give average pressure not to exceed 72,500 and not less than 62,500 psi.
 (v) - Uses one (1) increment Incendiary #136 and two (2) increments Incendiary #68.
 (w) - Primers, Elec, M52A4 and M52A3 may also be used.
 (x) - Primer, Elec, M52A3, Dwg. B7548056 may also be used.
 (y) - Primer, Elec, M52A3, Dwg. B7548056 may also be used.
 (z) - Primer, Elec, M52A3, Dwg. B7548056 may also be used.

PACKING NOTES

BULK				LINKED			
Cartridge	Unit & Shipping Container	Packing Drawing Number	Total Cartridges Packed	Link Type	Unit & Shipping Container	Packing Drawing Number	Total Cartridges Packed
USE EITHER COMBINATION				USE ANY COMBINATION			
M53 M55A1 M55A2 M56A1	D7258943	D7258942	100 200	M12 M14 M17	D7258943 D7258943 D7258943	F7258968 F7258969 F7258970	100 100 100
M54 M54E2 M51 M51E8 M51E6	D7258943 D7258943	D7258941 D7258942	100 200	These Cartridges use no Link packing			
M18A3	D7258943	D7258940	150				
M95 M96 M97A1 M99A1	D7258943	D7258940	150	M10	D7258943	D7258967	150

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 SHEET NO. 1

AMMUNITION (FIXED) FOR 37MM AUTOMATIC GUN M1A2 (b/c)

LINE NUMBER	OTCM NO.	CARTRIDGE					PROJECTILE											PROPELLING ASSEMBLAGE						CALIBRATION VALUE		PACKING			LINE NUMBER							
		Designation	Type	Assembly Drawing Number	Model of Gun	(a) Type Classification	LOADING					METAL PARTS			FUZE			Loaded and Fuzed Wt. (LB)	(g) CARTRIDGE CASE		PROPELLANT			Primer	Pressure (psi)	Velocity (fps)	CARTRIDGE									
							Assembly Drawing Number	FILLER		COMPONENTS		Assembly Drawing Number	BODY		Designation	Type	Drawing Number		Designation	Drawing Number	Composition Designation	Nominal Wt. (LB)	Drawing Number				Designation	Type		Drawing Number	Inner Pack Dwg. No.	Outer Pack Dwg. No.	Shipped			
								Composition	Wt. (LB)	Drawing Number	Kind		Wt. (LB)	Drawing Number																				Material	Material Form	Drawing Number
1	37119	(p) M54A1	HE-SD-T	75-1-71	M1A2	OBS	75-14-225	(n) Tetryl	0.07	(d) Tracer	0.025	75-14-225	75-2-279	Steel	Bar		M56	PD	73-2-158	1.34	(r) M17	71-2-100	M1 M2	0.38	75-1-71	(f) M38A1	PERC	8839379	26,700 30,000	2,600 2,600	76-1-1108	76-1-1233	Fuzed	1		
2	37119	M55A1	TP-T	75-1-72	M1A2	OBS	75-14-224	-	-	(o) Tracer	0.02	75-14-224	75-2-278	Steel	Bar		(e) M50	Dummy	72-5-4	1.34	(r) M17	71-2-100	M1 M2	0.38	75-1-71	(f) M38A1	PERC	8839379	26,700 30,000	2,600 2,600	76-1-1108	76-1-1233	Fuzed	2		
3	37119	(a) M59A1	APC-T	75-1-117	M1A2	OBS	75-14-279	-	-	(o) Tracer	0.10	75-14-279	OBS 75-2-289	Steel	Bar		-	-	-	1.91	(r) M17	71-2-100	M1	0.31	75-1-117	(f) M38A1	PERC	8839379	23,500	2,050	76-1-1110	76-1-1234	Complete	3		
4	37119	M21	Drill	72-3-92	M1A2	OBS	-	-	-	-	-	-	(k) 72-3-92	Steel	Bar		(e) M50B2	Dummy	72-5-4	2.67	(m) M17	71-2-100	(h) -	-	-	-	-	-	-	-	76-1-1108	76-1-1233	Fuzed	4		
5																																			5	
6																																				6
7																																				7
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SYMBOLS

- STD - Standard
- OTCM - Ordnance Technical Committee Minutes
- PERC - Percussion
- PD - Point Detonating
- HE-SD-T - High Explosive-Shell Destroying with Tracer
- TP-T - Target Practice with Tracer
- APC-T - Armor Piercing Capped with Tracer
- OBS - Obsolete
- COMP - Composition

NOTES

- (a) - Refer to AR 705-6.
- (b) - 37MM, Automatic Gun M1A2 is obsolete and used only for training purposes.
- (c) - M6 Gun is obsolete, 25 guns will be retained for research and development.
- (d) - Shell destroying type tracer. Contains 63 grains, Tracer Charge, COMP-A45, and 40 grains, Igniter Charge, COMP-K29. Relay Igniting Charge 1.68 grains of Black Powder, Grade-A5.
- (e) - This round issued with obsolete dummy fuze.
- (f) - Some rounds issued with Primer, M23A1 or M23A2. Alternative - Primer, Perc, M38B2, Dwg. 8839378.
- (g) - Some rounds issued with M17B1, Cartridge Case.
- (h) - Steel retaining rod, weight and center of gravity, approximating prototype round, assemble within cartridge case.
- (k) - M21 shell body similar to that of M54A1.
- (m) - Weight of complete cartridge.
- (n) - Alternative - 0.72 Lbs, COMP-A3, Dwg. 75-14-225.
- (o) - Tracer contains 20 grains, Igniter Charge, COMP "K" and 73 grains, Tracer Charge, COMP-M3 (Red).
- (p) - Some rounds on hand designated, M54, which differs from M54A1 only in Igniter and Tracer Charges.
- (r) - Rounds using Steel Cartridge Case M17B1 are used for ground training only.
- (s) - Some rounds on hand designated, M59, APC-T.

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AMMUNITION (FIXED) FOR 40MM GUNS (c)

LINE NUMBER	OTCM NO.	CARTRIDGE					PROJECTILE										PROPELLING ASSEMBLAGE							CALIBRATION VALUE		PACKING			LINE NUMBER								
		Designation	Type	Assembly Drawing Number	(c) Model of Gun	(d) Type Classification	Assembly Drawing Number	LOADING					METAL PARTS			FUZE			Loaded and Fuzed Wt. (LB)	CARTRIDGE CASE		PROPELLANT			PRIMER		Pressure (psi)	Velocity (fps)		Fuze Packing Drawing Number	CARTRIDGE						
								FILLER			COMPONENTS		Assembly Drawing Number	BODY		Designation	Type	Drawing Number		Designation	Drawing Number	Composition Designation	Nominal Wt. (LB)	Drawing Number	Designation	Type					Drawing Number	Inner Pack Dwg. No.	Outer Pack Dwg. No.	Shipped			
								Composition	Wt. (LB)	Drawing Number	Kind	Wt. (LB)		Drawing Number	Material																				Form	Drawing Number	
1	37119 36841 37107	(a/b) M17 M17B1	Drill	72-3-84	All	STD-C	-	-	-	-	-	-	72-3-91	Bronze or Malleable Iron	CSTG	-	Nose	72-3-91	(e) 4.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	76-1-1112	P8796464	Complete	1
2	36841	M25	Drill	72-3-101	All	STD-B	-	-	-	-	-	-	(f) 75-2-298	Steel	Bar	-	(g) M69	Dummy	75-5-9	(e) 4.75	M25B1 Modified	72-3-101	(h)	-	-	-	-	-	-	-	-	-	76-1-1112	P8796464	Fuzed	2	
3	37119	(a) M91	TP-T	75-1-173	All	LS	75-14-433	-	-	-	Tracer	0.02	75-2-329	Steel	Bar	-	(g/k) M69	Dummy	75-5-9	1.96	M25	71-2-122	M1	0.72	(n) M38A1	PERC	8839379	40,000	2,870	-	-	76-1-1112	P8796464	Fuzed	3		
4	37119 36841	(a) MK2	HE-T HEI-T	75-1-166	All	STD-B STD-A	Navy 394620	TNT (Pressed)	(t) 63 Grams	Red Tracer MK11	(p)	Navy 394440	75-2-298	Steel	Bar	-	MK27	PD	Navy 300423	1.99	M25	71-2-122	M1	0.72	(n) M38A1	PERC	8839379	34,400	(u) 2,870	-	-	76-1-1112	P8796464	Fuzed	4		
5	37119	(q/r/s) M81 M81A1	AP-T	75-1-140	All	STD-C	75-14-333	-	-	-	Tracer	0.02	75-2-311	Steel	Bar	75-2-312	-	-	-	1.96	M25	71-2-122	M1	0.65	(n) M22A1 M38A1	PERC PERC	8839458 8839379	40,000	2,870	-	-	76-1-1112	P8796464	Complete	5		
6																																				6	
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SYMBOLS

- STD - Standard
- TP-T - Target Practice with Tracer
- PERC - Percussion
- HE-T - High Explosive with Tracer
- HEI-T - High Explosive Incendiary with Tracer
- SD - Self Destroying
- PD - Point Detonating
- TNT - Trinitrotoluene
- AP-T - Armor Piercing with Tracer
- CSTG - Casting
- LS - Limited Standard

NOTES

- (a) - For training only.
- (b) - M17B1 made from malleable iron.
- (c) - Guns, 40MM, M2 (STD-B), M2A1 (STD-A) and Navy MK1.
- (d) - Refer to AR 705-6.
- (e) - Weight of complete assembly.
- (f) - Metal parts assembly drawing used for MK2 projectile.
- (g) - Alternative fuzes (Inert) - Fuze, PD, MK27 (Navy) Fuze, Dummy, PD, M69B1.
- (h) - Steel retaining rod assembled within cartridge case provides weight and center of gravity of prototype.
- (k) - Some rounds are assembled with Inert, PD, M27, Fuze.
- (m) - Alternative - Case, Cartridge, Steel, M25B1, Dwg. 71-2-130.
- (n) - Alternative. Primer MK22, Navy Dwg. 328952, or Primer, Perc, M38B2, Dwg. 8839378.
- (p) - This round also issued as follows:
SD-Tracer, MK3 & MK3A1 with Tetryl loaded projectile, 2.06 Lbs.
MK3, SD-Tracer with M64A1, PD, Fuze.
MK3A1, SD-Tracer with MK27, PD, Fuze.
- (q) - M81, AP-T, dropped from day of supply listing. (SB9-176).
- (r) - M81A1, AP-T, authorized as training substitute only.
- (s) - Cartridges having vapor-trail-producing dipcoating are intended for early stages of training and not for final stages or combat except in emergency.
- (t) - Also contains Incendiary Charge, Wt. 36 grams (Magnesium, 23%; Aluminum 23%; Paraffin, 3%; Barium Nitrate, 48.5%; Graphite, 2.5%).
- (u) - When using Steel Case, M25B1 muzzle velocity increases to 2,890 fps.
When using SD-Tracer, M3 and M3A1 muzzle velocity is 2,700 fps.

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SHEET NO. 3

AMMUNITION (FIXED) FOR 57MM, M18 & M18A1 RIFLE (k)
57MM, M1 GUN (s)

LINE NUMBER	OTCM NO.	CARTRIDGE					PROJECTILE											PROPELLING ASSEMBLY							CALIBRATION VALUE		PACKING			LINE NUMBER							
		(b) Designation	Type	Assembly Drawing Number	Model of Rifle	(h) Type Classification	LOADING			METAL PARTS			FUZE			Loaded and Fuzed Wt. (LB)	CARTRIDGE CASE		PROPELLANT			PRIMER		Pressure (psi)	Velocity (fps)	Fuze Packing Drawing Number	CARTRIDGE										
							Assembly Drawing Number	FILLER		COMPONENTS			Assembly Drawing Number	BODY			Designation	Type	Drawing Number	Designation	Drawing Number	Composition (g) Designation	Nominal Wt. (LB)				Drawing Number	(d) Designation	Type		(a) Drawing Number	Inner Pack Dwg. No.	Outer Pack Dwg. No.	Shipped			
								Composition	Wt. (LB)	Drawing Number	Kind	Wt. (LB)		Drawing Number	Material																				Material Form	Detail Dwg. No.	
1	37119	M306A1	HE	75-1-216	All	LS	75-14-488	(f) COMP B	0.55		-	-	-	75-2-359	Steel	FORG	75-2-431	M503A1	PD	73-2-320	2.78	M30A1B1	71-2-135	M10	1.00		M60A1	PERC	74-2-63	5,300	1,200	76-1-886	76-1-1114	F8796471	Fuzed	1	
2	37119	M307A1	HEAT	75-1-215	All	LS	75-14-472	(f) COMP B	0.40		-	-	-	75-2-353	Steel	FORG	75-2-354	M90A1	PI	73-2-236	2.75	M30A1B1	71-2-135	M10	1.00		M60A1	PERC	74-2-63	5,300	1,200	76-1-883	76-1-1113	F8796691	Fuzed	2	
3	37119	M308A1	SMOKE	75-1-219	All	LS	75-14-492	WP	0.37		M21 Burst	0.03	73-1-202	75-2-496	Steel	FORG	75-2-364	M503A1	PD	73-2-320	2.75	M30A1B1	71-2-135	M10	1.00		M60A1	PERC	74-2-63	5,300	1,200	76-1-886	76-1-1114	F8796471	Fuzed	3	
4	37119	M306A1	TP	75-2-252	All	LS	75-14-587	Inert	0.45		BP Pellet	0.07	75-14-587	75-2-359	Steel	FORG	75-2-431	M503A1	PD	73-2-320	2.75	M30A1B1	71-2-135	M10	1.00		M60A1	PERC	74-2-63	5,300	1,200	76-1-886	76-1-1114	F8796471	Fuzed	4	
5	35983	M303	HE-T	75-1-188	M1 Gun	OBS	75-14-458	TNT	0.44		Red Tracer	0.006		75-2-347	Steel	Bar	75-2-347	M86	PD	73-2-221	6.57	M23A2	71-2-120	FNH Powder	2.28		M1B1A2	PERC	8839474	5,300	1,200	-	PIF-18	PIF-1	Fuzed	5	
6	35983	M22	Dummy	72-3-93	M1 Gun	OBS	72-3-93	(m) -	-		-	-	-	-	Steel			-	Dummy			12.56	M23A2B1 MOD	71-2-120 72-3-93	-	-	-	-	-	-	-	-	-	76-1-502	20-4-364	Complete	6
7																																				7	
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Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	Col. No.	

SYMBOLS

STD - Standard
 OTCM - Ordnance Technical Committee Minutes
 LS - Limited Standard
 HE-T - High Explosive with Tracer
 HE - High Explosive
 HEAT - High Explosive Anti-Tank
 TP - Target Practice
 WP - White Phosphorus
 PD - Point Detonating
 PI - Point Initiating
 PERC - Percussion
 FORG - Forging
 BP - Black Powder
 CTG - Cartridge
 MOD - Modified
 OBS - Obsolete
 TNT - Trinitrotoluene
 FNH - Flashless Nonhydroscopic

NOTES

(a) - Primer Packing Dwg. 76-8-110.
 (b) - Some Cartridges on hand designated M306 (HE), M307 (HEAT), M308 (SMOKE) and M306 (TP).
 (c) - Some Cartridges assembled with M503 Fuze, Dwg. 73-2-320. M306, HE CTGS assembled with M89, PD Fuze. M306, TP CTGS assembled with M89, Inert Fuze.
 (d) - Some Cartridges on hand assembled with M46 and M60 Primer.
 (e) - Some rounds on hand with inert shell.
 (f) - Cast, COMP B, Grade A (Spec PA-PD-24 & JAN-C-401) for HE Explosives.
 (g) - Type II, Spec No. PA-PD-123.
 (h) - Refer to AR 705-6.
 (k) - 57MM, Rifle, M18 and M18A1 are (STD-B) (OTCM 368h1).
 (m) - 57MM, TP, M76 used for projectile, Dwg. 72-2-309.
 (n) - Total weight of CTG.
 (o) - Alternative - M85, PD, Fuze, Dwg. 73-2-215.
 (p) - Alternative - M1A2, Perc, Primer, Dwg. 8839453 or M1B2, Perc, Primer, Dwg. 8838157.
 (r) - Container, Metal, M194, Dwg. 76-1-636 has been used.
 (s) - 57MM, M1, Gun is OBS.
 (t) - Some rounds on hand assembled with M90, PI, Fuze.
 (u) - M307, HEAT rounds assembled with M90, PI, Fuze and M30, Steel CTG Case.
 (v) - Some M308A1, smoke rounds on hand with M503, PD, Fuzes, also some with M89, PD, Fuzes.
 (w) - M308, smoke rounds assembled with M89, PD, Fuze and M30, Steel CTG Case.

PREPARED BY:
 FICATINNY ARSENAL
 DOVER, NEW JERSEY
 ISSUED: 1 JUNE 1961
 SHEET NO. 4

AMMUNITION FOR 60MM MORTAR M2 & M19 (a)

LINE NUMBER	OTCM NO.	CARTRIDGE					PROJECTILE											PROPELLING ASSEMBLAGE						CALIBRATION VALUE		PACKING			LINE NUMBER							
		Designation	Type	Assembly Drawing Number	Model of Mortar	Type Classification (h)	LOADING						METAL PARTS			FUZE			FIN	Loaded and Fuzed Wt. (LB)	PROPELLANT INCREMENTS				IGNITION CTG	PRIMER	Pressure (psi)	Velocity (fps)		Fuze Packing Drawing Number	CARTRIDGE					
							Assembly Drawing Number	FILLER		COMPONENTS		Assembly Drawing Number	BODY		Designation	Type	Drawing Number	Designation and Dwg. No.			Designation	Total Nominal Wt. (Grains)	No. Used	Drawing Number							Designation (m)	Designation	Inner Pack Dwg. No.	Outer Pack Dwg. No.	Shipped	
								Composition	Wt. (LB)	Drawing Number	Kind		Wt. (LB)	Drawing Number																						Material
1	37119 36564	M49A2 (g)	HE	75-1-82	A11	LS	75-14-257	Fleke TNT	0.34				75-2-288	Steel	FORG (b)	75-20-85	M52A1 (c)	PD	73-1-161	M2 75-2-285	3.030	M3A1	0.021	4	71-12-17	M5A1	M32	3,500	518	B8835933	F7549170	F8796472	Fuzed	1		
2	37119 36564	M83A3 (d)	Illuminating	OBSOL 75-1-143	A11	LS	75-14-350	ILLUM	0.49	78-2-272	1st Fire Charge	0.035	78-2-272	75-2-547	Steel	Tubing		M65A1 (e)	Time	73-1-177	M2 75-2-285	4.150	M3A1	0.021	4	71-12-17	M5A1	M32	3,500	518	B8835933	76-1-390	76-1-1391	Fuzed	2	
3	37119 36564	M302	WP Smoke	75-1-218	A11	LS	75-14-490	WP	0.765		TET PEL. BURST	0.023	73-1-197	75-2-360	Steel	Stamping		M82A1B1 (e)	PD	73-1-195	M2 75-2-285	3.984	M3A1	0.021	4	71-12-17	M5A1	M32	3,500	518	B8835933	76-1-1118	F8796473	Fuzed	3	
4	37119 36564	M69 (k)	TNG (n)		A11	LS	-	-	-	-	-	-	75-2-303	Gray Iron	Casting			-	-	-	M5 (TNG) 75-2-395	4.370	M3A1	0.021	4	71-12-17	M4 (f)	M32	-	-		76-7-669	Without Fins	4		
5	37344	M50A2	TP	75-1-83	A11	OBS		Inert Material	0.29		Black Powder Pellet	0.055	75-2-288	Steel	FORG (b)	75-20-85	M52A1 (c)	PD	73-1-161	M2 75-2-285	3.030	M3A1	0.021	4	71-12-17	M5A1	M32	-	-	B8835933	F7549170	F8796472	Fuzed	5		
6																																			6	
7																																				7
8																																				8
9																																				9
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11																																				11
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14																																				14
Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	Col. No.	

SYMBOLS

STD - Standard
 HE - High Explosive
 CTG - Cartridge
 TP - Target Practice
 WP - White Phosphorus
 TNT - Trinitrotoluene
 FORG - Forging
 PD - Point Detonating
 ILLUM - Illuminant
 TNG - Training
 TET PEL BURST - Tetryl Pellet Burster
 OBSOL - Obsolete
 LS - Limited Standard
 OTCM - Ordnance Technical Committee Minutes
 OBS - Obsolete

NOTES

(a) - 60MM, Mortar, M2 and M19 are LS w/Mount, M2 and w/Mount, M5.
 (b) - For other body forms see Dwg. 75-2-539.
 (c) - Alternative - Fuze, PD, M52A1B1, Dwg. 73-1-199. Some rounds assembled with Fuzes, PD, M52A1, M52A1B1, M52A2, M52A2B1, M525 (T336E7) M52 series and M52A3.
 (d) - CTG'S M83, M83A1, M83A2 on hand (LS).
 (e) - Some rounds assembled with Fuzes, PD, M82A1B1, M82, (M52B1E5), M82A1 and M52B1E1, E2, E3 and E4, M527 and M527A1.
 (f) - Ignition CTG M5A1, Dwg. 75-19-78 and Primer, Perc, M32, Dwg. 74-2-49, or Ignition CTG, M4, Dwg. 75-19-72 used with Fin Assembly for M69 Projectiles.
 (g) - M49A2, Inert Projectiles also on hand, LS, (OTCM 37119) with M52 series Inert Fuzes.
 (h) - Refer to AR 705-6.
 (k) - Without Fin Assembly.
 (m) - Propellant Charge, M3A1; Ignition CTG, M5A1 are LS (OTCM 37119).
 (n) - Correct nomenclature for this round: Projectile, 60MM, Training, M69*.
 (o) - M83, M83A1, M83A2 on hand, assembled with M65, Time, Fuzes.

PREPARED BY:
 PICATINNY ARSENAL
 DOVER, NEW JERSEY
 ISSUED: 1 JUNE 1961
 SHEET NO. 5

AMMUNITION FOR 75MM RIFLE M20 (a)

LINE NUMBER	OTCM NO.	CARTRIDGE					PROJECTILE							PROPELLING ASSEMBLAGE							CALIBRATION VALUE		PACKING			LINE NUMBER													
		(g) Designation	Type	Assembly Drawing Number	(a) Model of Rifle	(b/c) Type Classification	LOADING			METAL PARTS			FUZE			CARTRIDGE CASE		PROPELLANT			PRIMER		Pressure (psi)	Velocity (fps)	Fuze Packing Drawing Number		CARTRIDGE												
							Assembly Drawing Number	FILLER		COMPONENTS			Assembly Drawing Number	BODY		Designation	Type	Drawing Number	Loaded and Fuzed Wt. (LB)	(d) Designation	Drawing Number	(e) Designation					Nominal Wt. (LB)	Drawing Number	(h) Designation	Type	Drawing Number	Inner Pack Dwg. No.	Outer Pack Dwg. No.	Shipped					
								Composition	Wt. (LB)	Drawing Number	Kind	Wt. (LB)		Drawing Number	Material																				Material Form	Drawing Number			
1	37119	M309A1	HE	75-1-221	M20	LS	75-14-498	TNT	1.49		-	-	-	75-2-365	Steel	FORG	75-2-551	(p) M51A5 M500A1	(r) PD M500A1	A8796862 A8796864	14.40	M31A1	D7548024	M10	3.30	75-1-221	M47	PERC	74-2-63	6,800	990	6,800	990	C7548400	76-1-1123	76-1-835	Fuzed	1	
2	37119	M310A1	HEAT-T	75-1-222	M20	LS	75-14-499	COMP B	1.00		Tracer			75-2-366	Steel	FORG	75-20-93	(k) M91A1	(k) BD	73-2-239	13.19	M31A1	D7548024	M10	3.19	75-1-222	M47	PERC	74-2-63	6,050	1,000	6,050	1,000	C7548039	76-1-1122	76-1-835	Fuzed	2	
3	37119	M311A1	WP Smoke	75-1-225	M20	LS	75-14-503	WP	1.35		BURST INIT CHG	0.07 0.11	73-1-224 73-1-184	75-2-371	Steel	FORG		(n) M48A3	(n) PD	73-2-140	15.10	M31A1	D7548024	M10	3.42	75-1-225	M47	PERC	74-2-63	7,400	990	7,400	990	C7549150	76-1-1123	76-1-835	Fuzed	3	
4	37119	M349	HEP-T	75-1-328	M20	LS	75-14-682	COMP A3	2.55		Tracer			75-2-535	Steel	FORG	75-2-536	M91A1	BD	73-2-239	8.66	M31A1	D7548024	M10	3.36	75-1-328	M47	PERC	74-2-63	8,000	1,400	8,000	1,400	C7548039	76-1-1410	76-1-1411	Fuzed	4	
5	37119	M309A1	TP	75-1-251	M20	LS	75-14-586	Inert Material	1.27		BP Pellets	0.22	75-1-251	75-2-365	Steel	FORG	75-2-551	(p) M51A5	(m) PD	A8796862	14.40	M31A1	D7548024	M10	3.30	75-1-221	M47	PERC	74-2-63	6,800	990	6,800	990	C7548400	76-1-1123	76-1-835	Fuzed	5	
6																																						6	
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Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	Col. No.			

SYMBOLS

STD - Standard
TNT - Trinitrotoluene
COMP - Composition
FORG - Forging
PD - Point Detonating
BD - Base Detonating
M500 - Mechanical Time Superquick
PERC - Percussion
HE - High Explosive
HEAT-T - High Explosive Anti-Tank with Tracer
WP - White Phosphorus
HEP-T - High Explosive Plastic with Tracer
BURST INIT CHG - Burst Initiator Charge
BP - Black Powder
OTCM - Ordnance Technical Committee Minutes

NOTES

(a) - Rifle 75MM, M20, LS (OTCM 37119).
(b) - Refer to AR 705-6.
(c) - Retype classification pending (OTCM 36841).
(d) - Some rounds on hand assembled with M31, CTG Cases.
(e) - Loaded with 0.06 Lbs. of Igniter Charge, Dwg. 71-9-234.
(f) - Some rounds assembled with Fuzes, PD, M51A4 and MTSQ, M500.
(g) - Some rounds designated M309, M310, M311.
(h) - Alternative - Primer, Perc, M47B2.
(k) - Some rounds on hand without tracer assembled with Fuze, BD, M62A1.
(m) - Some rounds on hand assembled with Fuze, M51A4, PD and Dummy Fuze, M73.
(n) - Some rounds on hand assembled with Fuze, PD, M57.
(p) - Superseded by 75-2-365, in part.
(q) - Pressures encountered when Case, CTG, M31A1B1, is used are as follows:
M309A1, HE - 6,700 PSI M311A1, SMOKE-WP - 7,500 PSI
M310A1, HEAT-T - 6,200 PSI M309A1, TP - 6,700 PSI

PREPARED BY:
PICATINNY ARSENAL
DOVER, NEW JERSEY
ISSUED: 1 JUNE 1961
SHEET NO. 7

AMMUNITION (SEMI-FIXED) FOR 75MM HOWITZER M1A1 (r/s)
75MM HOWITZER M3 (gg)

LINE NUMBER	OTCM NO.	CARTRIDGE					PROJECTILE										PROPELLING ASSEMBLAGE							CALIBRATION VALUE		PACKING (g)			LINE NUMBER								
		Designation	Type	Assembly Drawing Number	Model of Howitzer	Type Classification	LOADING					METAL PARTS					FUZE			CARTRIDGE CASE			PROPELLANT				PRIMER			Pressure (psi)	Velocity (fps)	Fuze Packing Drawing Number	CARTRIDGE				
							Assembly Drawing Number	FILLER		COMPONENTS			Assembly Drawing Number	BODY		Designation	Type	Drawing Number	Loaded and Fuzed Wt. (LB)	Designation	Drawing Number	Composition Designation	Nominal Wt. (LB)	Drawing Number	Designation	Type	Drawing Number	Inner Pack Dwg. No.					Outer Pack Lwg. No.	Shipped			
								Composition	Wt. (LB)	Drawing Number	Kind	Wt. (LB)		Drawing Number	Material																				Material Form	Drawing Number	
1	37119	M28	TNG	76-1-266	M1A1	OBS	-	-	-	-	-	-	-	Iron & Steel	Casting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	76-1-1121	76-1-1230	Complete	1	
2	37567	M48	HE	75-1-59	M1A1	STD-C	75-14-198	(ff) TNT	1.49	-	-	-	75-2-260	Steel	FORG	75-20-77	(w) M51A5	(c/m)	PD	8796862	14.70	M5A1	71-2-91	M1	1.08	71-9-126	(f) M64	(a/e/h)	PERC	8839461	5,400	700	C7548400	76-1-1124	(k) 76-1-1231	Fuzed	2
3	37567	M48	HE	75-1-183	M1A1	STD-C	75-14-445	TNT	1.04	-	-	-	75-2-269	Steel	FORG	75-20-77	(w) M51A5	(b/c)	PD	8796862	14.69	M5A1	71-2-91	M1	1.06	71-9-126	(f) M64	(a/e/h)	PERC	8839461	5,400	700	C7548400	76-1-1124	(k) 76-1-1231	Fuzed	3
4	37567	M48	HE	75-1-247	M1A1	STD-C	75-14-445	TNT	1.04	-	-	-	75-2-269	Steel	FORG	75-20-77	(w) M97A1	(b/c)	VT	8796862	15.04	M5A1	71-2-91	M1	1.06	71-9-126	(f) M64	(a/e/h)	PERC	8839461	5,400	700	C7548400	76-1-1124	(k) 76-1-1231	W/o Fuze	4
5	37567	M48	HE	75-1-206	M1A1 M3	STD-C	75-14-445	TNT	1.04	-	-	-	75-2-269	Steel	FORG	75-20-77	(w) M500A1	(b/t/u)	MISQ	8796864	14.58	M5A1	71-2-91	M1	0.95	71-9-126	(f) M64	(a/e/h)	PERC	8839461	5,400	700	C7548400	76-1-1124	(k) 76-1-1231	Fuzed	5
6	37567	M48	HE	75-1-87	M1A1 M3	STD-C	75-14-198	TNT	1.49	-	-	-	75-2-269	Steel	FORG	75-20-77	(w) M500A1	(c/t/u)	MISQ	8796864	14.60	M5A1	71-2-91	M1	1.06	71-9-126	(f) M64	(a/e/h)	PERC	8839461	5,400	700	C7548400	76-1-1124	(k) 76-1-1231	Fuzed	6
7	37344	M64	WP	75-1-114	M1A1 M3	OBS	75-14-276	WP	1.34	-	-	-	75-2-294	Steel	FORG	75-2-294	(x/y) M48A3	(z/y)	PD	73-2-140	14.70	M5A1 Type 1	71-2-91	M1	1.06	71-9-126	(f) M64	(a/e)	PERC	8839461	6,200	810	C7549150	76-1-1124	(z/k) 76-1-1231	Fuzed	7
8	37119	M2A2	Dummy	72-3-59	M1A1 M3	OBS	-	-	-	-	-	-	-	Bronze	Casting	-	-	(bb) Inert M1907M	(cc) 73-3-114	19.20	-	-	-	-	-	-	-	-	-	-	-	-	(dd) 20-4-159	Complete	8		
9	37119	M19 M19B1	Dummy	72-3-89	M1A1 M3	OBS	-	-	-	-	-	-	-	Iron & Steel	(d) Casting	-	M59	Dummy	75-5-5	18.24	(ee)	-	-	-	-	-	-	-	-	-	-	-	76-1-1121	76-1-1230	Complete	9	
10	37119	M66	HEAT-T	75-1-141	M1A1 M3	OBS	75-14-499	COMP B	1.00	-	-	-	75-2-314	Steel	FORG	75-20-93	(aa) M91A2	BD	73-2-239	13.37	M5A1	71-2-91	M2	0.41	-	M23A2	PERC	8831161	20,600	1,000	7548039	76-1-1121	76-1-1230	Fuzed	10		
11																																			11		
12																																				12	
13																																				13	
14																																				14	
Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	Col. No.	

SYMBOLS

STD - Standard
 CP - Concrete Piercing
 FORG - Forging
 HE - High Explosive
 PD - Point Detonating
 TNT - Trinitrotoluene
 TSQ - Time and Superquick
 PERC - Percussion
 GA - Gage
 SUPP CHG - Supplementary Charge
 TNG - Training
 ELK CTG - Blank Cartridge
 VT - Variable Time (Proximity)
 COMM - Commercial
 W/O - Without
 OTCM - Ordnance Technical Committee Minutes
 OBS - Obsolete
 COMP - Composition
 HEAT-T - High Explosive Anti-tank with Tracer
 WP - White Phosphorus
 SEC - Seconds

NOTES

(a) - Primer, Perc, M1, M1A1, or M1B1A1 may be used.
 (b) - This round is issued with SUPP CHG of TNT weighing .365 Lbs. SUPP CHG must be in place when Fuze, PD, M51A4, M51A5, Fuze, CP M78A1 or Fuze, TSQ, M55A3 or MISQ, M500A1 is used. Remove this charge for Fuze, VT, M97A1.
 (c) - Fuze, CP, M78A1, Dwg. 73-2-214 and Booster, M25, Dwg. 73-2-213 issued separately for field assembly.
 (d) - Shipped with nose plug and washer, Dwg. 75-14-575.
 (e) - Alternative - Primer, Perc, M1A2.
 (f) - Alternative - Propelling Charge, Dwg. 71-9-225.
 (g) - Packing Dwg: Primer, M1B1A2 - 76-8-111
 Primer, M23A2 - 76-8-53
 Primer, M64 - 76-7-783
 Booster, M21A4 - 76-7-783
 (h) - Some rounds on hand assembled with M1B1A2, Primers.
 (k) - Some rounds on hand in fiber containers are packed in 4-round wooden boxes.
 (m) - Some rounds have been assembled with Fuze, PD, M48A2 or M51A4.
 (n) - Container, Metal, Ammunition. 75MM, M173 series is Limited Standard.
 (o) - Howitzer, Pack, M1A1, (STD-A) procurable only by modification of available Pack Howitzers.
 (p) - Refer to AR 705-6.
 (r) - Blank Ammunition to be used with this gun will be listed on Blank Ammunition Chart.
 (s) - 75MM, Howitzer, M1A1, is (STD-A) for saluting only.

(t) - Some Fuze, MISQ, M500 on hand. Fuze, M67 series may be used.
 (u) - Some rounds on hand with Fuze, M55A3, TSQ.
 (v) - Casing, Burster, M6 Dwg. 73-1-173.
 (w) - This drawing is not mandatory.
 (x) - Uses Initiator, Burster, M1.
 (y) - Some rounds on hand with Fuze, PD, M57
 (z) - Container, M173A2 may be used only when specially authorized.
 (aa) - M62A1, BD, Fuze formerly used is OBS. Some rounds on hand with BD, M91, Fuze.
 (bb) - 21 Sec. combination. Burned-out or inert fuze parts are used.
 (cc) - Weight of complete assembly.
 (od) - Inner Packing Dwg. 75-1-602, 603, 604, 605. See ECO 16419.
 (se) - Uses Burster Initiator, M1.
 (ff) - Alternative - 50/50 Amatol, 1.36 Lb.
 (gg) - 75MM Howitzer, M3 is OBS (OTCM 36608).

PREPARED BY:
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AMMUNITION FOR 76MM GUNS M32 & M48 (k/o)
M1A2 & M1A1C

LINE NUMBER	OTCM NO.	CARTRIDGE					PROJECTILE											PROPELLING ASSEMBLAGE						CALIBRATION VALUE		PACKING			LINE NUMBER								
		Designation	Type	Assembly Drawing Number	(k/e) Model of Gun	(n) Type Classification	LOADING						METAL PARTS			FUZE			Loaded and Fuzed Wt. (LB)	CARTRIDGE CASE		PROPELLANT			PRIMER			Pressure (psi)		Velocity (fps)	Fuze Packing Drawing Number	CARTRIDGE					
							Assembly Drawing Number	FILLER			COMPONENTS			Assembly Drawing Number	BODY		Designation	Type		Drawing Number	(a) Designation	Drawing Number	Composition Designation	Nominal Wt. (LB)	Drawing Number	Designation	Type					Drawing Number	Inner Pack Dwg. No.	Outer Pack Dwg. No.	Shipped		
								Compo-sition	Wt. (LB)	Drawing Number	Kind	Wt. (LB)	Drawing Number		Material	Material Form																				Drawing Number	
1	36841 37107	(h) M331A2	HVAP DS-T	75-1-308	M32 M48	STD-A	75-14-648	-	-	-	Tracer T5E3	0.14	75-17-13	-	(a)	(a)	(a)	-	-	-	8.17	M88B1	F7548079	M17	5.75	75-1-308	M58	PERC	8838153	44,500	4,125	-	76-1-1379	76-1-138	Complete	1	
2	36841	M339	AP-T	75-1-311	M32 M48	STD-A	-	-	-	-	Tracer M5A2B1	0.10	A8796866	75-2-487	Steel	Bar	75-2-488	-	-	-	14.56	M88B1	F7548079	M17	5.60	75-1-311	M58	PERC	8838153	44,200	3,200	-	F7548613	F7548614	Complete	2	
3	36841 37119	M340 M340A1	TP-T	75-1-331	M32 M48	STD-A	-	-	-	-	Tracer M5A2B1	0.10	A8796866	75-2-537	Steel	Bar	75-2-538	-	-	-	14.56	M88B1	F7548079	M17	5.60	75-1-331	M58	PERC	8838153	44,200	3,200	-	F7548613	F7548614	Complete	3	
4	36841	M361	Smoke WP	75-1-367	M32 M48	STD-A	75-14-694	WF	1.38	-	M23 (g) Charge	(g)	(g)	75-2-566	Steel	FORG	75-2-567	M48A3	PD	73-2-140	15.71	M88B1	F7548079	M6	3.64	75-1-367	M68 ^(p)	PERC	8796867	30,700	2,400	07549150	76-1-1320	76-1-1321	Fuzed	4	
5	36841	M363	CSTR	75-1-381	M32 M48	STD-A	-	-	-	-	Steel ^(m) Balls	-	-	P86056	-	-	-	-	-	-	15.00	M88B1	F7548079	M6	4.99	75-1-381	M62 ^(c)	PERC	74-2-63	30,700	2,400	-	76-1-1318	76-1-1319	Complete	5	
6	37107	M352	HR	75-1-293	M32 M48	STD-C	75-14-635	COMP B	1.46	(b)	-	-	-	75-2-434	Steel	FORG	75-2-435	M51A5 M500A1	PD MTSQ	A8796862 A8796864	15.00	M88B1	F7548079	M6	3.64	75-1-293	M68	PERC	8796867	28,400	2,400	07548400	76-1-1320	76-1-1321	Fuzed	6	
7		(r) M352A1	HE-T	F8796853	M32 M48	STD-A	F8796857	COMP B	1.46	(d)	Tracer M5A2B1	0.10	A8796866	D8796860	Steel	FORG	B8796859	M51A5 M500A1	PD MTSQ	A8796862 A8796864	15.17	M88B1	F7548079	M6	3.64	F8796853	M68	PERC	8796867	28,400	2,400	07548400	76-1-1320	76-1-1321	Fuzed	7	
8		M352	TP	75-1-293	M32 M48		75-14-635	Inert Material	1.46	-	-	-	75-2-434	Steel	FORG	75-2-435	M73	Dummy	73-5-11	15.00	M88B1	F7548079	M6	3.64	75-1-293	M68	PERC	8796867	28,400	2,400	07548400	76-1-1320	76-1-1321	Fuzed	8		
9		M352A1	TP-T	F8796853	M32 M48		F8796857	Inert Filler "g"	1.46	(d)	Tracer M5A2B1	0.10	A8796866	D8796860	Steel	FORG	D8796859	M78	Dummy	72-5-11		M88B1	F7548079	M6	3.64	F8796853	M68	PERC	8796867	28,400	2,400		76-1-1320	76-1-1321	Fuzed	9	
10																																					10
11																																					11
12																																					12
13																																					13
14																																					14
Col No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	Col No.	

SYMBOLS

- OTCM - Ordnance Technical Committee Minutes
- STD - Standard
- HVAP-DS-T - High Velocity Armor Piercing with Discarding Sabot with Tracer
- TP-T - Target Practice with Tracer
- HE - High Explosive
- HE-T - High Explosive with Tracer
- CSTR - Canister
- WP - White Phosphorus
- PD - Point Detonating
- PERC - Percussion
- AP-T - Armor Piercing with Tracer

NOTES

- (a) - Core is Tungsten Carbide Steel and Aluminum used for other parts. See Dwgs. 75-2-475 and 75-2-474.
- (b) - Substitute STD - TNT Filler.
- (c) - Alternative - Primer, Perc, T88E1, Dwg. 74-2-112.
- (d) - Alternative - Tracer, M5A2, Dwg. C8853695.
- (e) - Cartridge Cases - M88E1 (T19E1B1) Steel, Dwg. F7548079, 6.22 Lbs; Alternative - M88 (T19E1) Brass, Dwg. F7548021, 6.66 Lbs.
- (r) - Suitable for Arctic use.
- (g) - Charge, Burster - M23, Dwg. 73-1-215, Wt. 0.16 Lbs, Initiator, Burster M2, Dwg. 73-1-227, Wt. 0.06 Lbs, Casing, Burster - M12, Dwg. 73-1-214, Wt. 0.93 Lbs.
- (h) - Some rounds assembled with metal parts of Canadian manufacture, (Dwgs. P82078 and P82083). These rounds retain nomenclature of M331A1 (LS) M331 (T145) HVAPDS-T, round (STD-A) with M33, Case, Cartridge and M58, Perc, Primer (OTCM 33520) supplies of both M331A1 and M331 are on hand.

(Notes and Symbols continued on next sheet)

PREPARED BY:
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ISSUED: 1 JUNE 1961
SHEET NO. 9

AMMUNITION FOR 76MM GUNS M32 & M48 (k/o) (Continued)
MIA2 & MIA1C

LINE NUMBER	OTCM NO	CARTRIDGE					PROJECTILE										PROPELLING ASSEMBLY						CALIBRATION VALUE		PACKING			LINE NUMBER									
		Designation	Type	Assembly Drawing Number	(k/o) Model of Gun	(n) Type Classification	LOADING					METAL PARTS			FUZE			Loaded and Fuzed Wt. (LB)	CARTRIDGE CASE		PROPELLANT			Primer	Pressure (psi)	Velocity (fps)	Fuze Packing Drawing Number		CARTRIDGE								
							Assembly Drawing Number	FILLER		COMPONENTS			Assembly Drawing Number	BODY		Designation	Type		Drawing Number	(e) Designation	Drawing Number	Composition Designation	Nominal Wt. (LB)						Drawing Number	Designation	Type	Drawing Number	Inner Pack Dwg. No.	Outer Pack Dwg. No.	Shipped		
								Composition	Wt. (LB)	Drawing Number	Kind	Wt. (LB)		Drawing Number	Material																					Material Form	Drawing Number
1	36767	M62 M62A1	APC-T	75-1-150	MIA1C MIA2	OBS	75-14-269	Explosive D	.44		Tracer			75-1-150	Steel	Bar & FORG		M66A2 M66A1	RD	73-2-178	15.44	M26	71-2-123	M6	3.75	75-1-150	M40A1	PERC	8839471	42,300	2,600	-	76-1-1126	76-1-1243	Fuzed	1	
2	36841	M20	Dummy	75-3-87	MIA1C MIA2	STD-B	-	-	-	-	-	-	75-3-88	Bronze	Casting		M59	Dummy	72-5-5	24.80	(a)	-	-	-	-	-	-	-	-	-	-	-	76-1-1126	76-1-1243	Complete	2	
3	36767	M42A1	HE	75-1-149	MIA1C MIA2	OBS	75-14-170	COMP B	90		Booster M21A4	.048	D8798123	75-18-33	Steel	FORG	75-20-71	M51A5	PD	A8796862	12.90	M26	71-2-123	M6	3.75	75-1-149	M40A1	PERC	8839471	37,100	2,700	C7548400	76-1-1127	76-1-1244	Fuzed	3	
4	36767	M42A1	HE	75-1-195	MIA1C MIA2	OBS	75-14-170	COMP B	90		Booster M21A4	.048	D8798123	75-18-33	Steel	FORG	75-20-71	M51A5	PD	A8796862	12.90	M26	71-2-123	M6	1.14	75-1-195	M28A2	PERC	8838129	37,100	2,700	C7548400	76-1-1127	76-1-1244	Fuzed	4	
5	36767	M42A1	HE	75-1-244	MIA1C MIA2	OBS	75-14-170	COMP B	90		Booster M21A4	.048	D8798123	75-18-33	Steel	FORG	75-20-71	M50CA1	MTSQ	A8796864	12.90	M26	71-2-123	M6	3.75	75-1-244	M40A1	PERC	8839471	37,100	2,700	C7548400	76-1-1127	76-1-1244	Fuzed	5	
6	36767	M93A1	HVAP-T	75-1-220	MIA1C MIA2	OBS	-	-	-	-	Tracer M5 Series	.01	75-17-11	75-2-361	(a)	Bar Casting FORG	(a)	-	-	-	9.38	M26B1 M26	71-2-123	M17	3.90	75-1-220	M28A2	PERC	8838129	39,800	3,400	-	76-1-1101	76-1-783	Complete	6	
7	36767	M315A1	HVTP-T	75-1-249	MIA1C MIA2	OBS	-	-	-	-	Tracer M5A1B1	.01	75-17-11	75-2-390	Steel	FORG	75-2-391	-	-	-	9.32	M26B1 M26	71-2-123	-	-	-	-	-	-	39,500	3,400	-	76-1-1101	76-1-783	Complete	7	
8	36767	M312	WP	75-1-253	MIA1C MIA2	OBS	75-14-500	WP	.73		Burster Chg M23	.16	73-1-215	75-2-367	Steel	FORG	75-2-368	M48A3	PD	73-2-140	12.95	-	-	-	M6	3.75	75-1-253	M28A2	PERC	8838129	37,100	2,700	C7549150	76-1-1127	76-1-1244	Fuzed	8
9																																			9		
10																																				10	
11																																				11	
12																																				12	
13																																				13	
14																																				14	
Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	Col. No.	

SYMBOLS

COMP - Composition
TNT - Trinitrotoluene
FORG - Forging
MTSQ - Mechanical Time Superquick
LS - Limited Standard
OBS - Obsolete
APC-T - Armor Piercing Capped with Tracer
HVAP-T - High Velocity Armor Piercing with Tracer
HVTP-T - High Velocity Target Practice with Tracer
D - Ammonium Picrate

NOTES

(k) - 76MM, Gun, M32 (T19E3) and M48 (T124E2) are STD-A and STD-C respectively. 76MM Gun MIA1C and MIA2 are obsolete.
(m) - Loaded with approximately 909 steel balls, 0.408 in diameter.
(n) - Refer to AR 705-6.
(o) - Ammunition designed and authorized for use with M32 and M48 Guns cannot be used with MIA1C or MIA2, Guns.
(p) - M5B, Perc, Primer may also be used.
(r) - Some rounds on hand designated M20B1 are obsolete (OTCM 36767).
(s) - Weight of complete cartridge.
(t) - Some rounds on hand with Fuzes, M55A3, TSQ and M51A4, PD.
(u) - Some rounds on hand with M500, MTSQ, Fuze and M55A3, TSQ, M67, MT, Fuze may also be used.
(v) - Tracer used with this round has been superseded for use with standard ammunition. New Tracers are designated Tracer, M5A2B1, Dwg. A8796866 and M5A2, Dwg. 8853695.
(w) - Some rounds designated M315A2.
(x) - Windshield material - Aluminum Casting.
(y) - Some rounds designated M312B1, Dwg. 75-1-227 and M312B2, Dwg. 75-1-253.

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AMMUNITION FOR 81MM MORTAR M1 AND M29 (gg)

LINE NUMBER	OTUM NO	CARTRIDGE					PROJECTILE										PROPELLANT ASSEMBLAGE					CALIBRATION VALUES		PACKING			LINE NUMBER								
		Designation	Type	Assembly Drawing Number	Model of Mortar	(k) Classification	LOADING					METAL PARTS			FUZE			PIN (bb) Designation	Loaded and Fuzed Wt. (Lbs.)	PROPELLANT INCREMENTS			IGNITION CTG (bb)	PRIMER (bb/m)	Pressure (psi)	Velocity (fps)		Fuze Packing Drawing Number	CARTRIDGE						
							Assembly Drawing Number	FILLER		COMPONENTS			Assembly Drawing Number	BODY		Designation	Type			Drawing Number	Designation	Weight (p) Grains							No. Used	Drawing Number	Designation	Designation	Inner Packing Dwg. No.	Outer Packing Dwg. No.	Shipped
								Composition	Wt. (LB)	Drawing Number	Kind	Wt. (LB)		Drawing Number	Material																				
1	36841	(m) M43A1	HE	OBSOL 75-1-88	A11	STD-B	OBSOL 75-14-192	TNT	1.23		-	-	-	OBSOL 75-2-261	Steel	FORG	OBSOL 75-2-540	(ee) M52A2	FD	73-1-161	M3	7.04	M1A1	700	6	71-12-15	M8 (e)	M34	4,600	693	7549157	76-1-1130	76-1-1247	Fuzed	1
2	37119	(r/n) M56A1	HE	75-1-97	A11	LS	75-14-254	TNT	4.30		-	-	-	75-2-283	Steel	(a) Tubing	75-2-283	(c) M53A1	FD	73-1-165	M441	10.92	M2A1	820	4	71-12-16	M6	M34	4,980	573	7549157	F7548994	C7548995	Fuzed	2
3	37119	(r/z) M56A1	HE	OBSOL 75-1-197	A11	LS	75-14-254	TNT	4.30		-	-	-	75-2-283	Steel	(a) Tubing	75-2-283	(u) M77	TSG	73-1-171	M441	11.40	M2A1	820	4	71-12-16	M6	M34	4,980	573	76-1-774	76-1-1132	76-1-1249	Fuzed	3
4	37291 35683	M362	HE	F7549034	A11	STD-B	D7549035	COMP-B	2.10	(kk) A7548665	-	-	-	D7549015	Steel	(w) Bar	D7549020 D7549021	(b/x) M524	FD	F8797514	M141	9.23	M5	1304	8	8839494	M66	(cc) M71E1	7,500	770	F7548123	F7549031	F7549032	Fuzed	4
5	37291 35683	M362	HE	F7549013	A11	STD-B	F7549012	COMP-B	2.10	A7548665	-	-	-	D7549015	Steel	(w) Bar	B7549018	(v) -	-	-	M141	8.62	M5	1304	8	8839494	M66	(cc) M71E1	7,500	770	-	F7549031	F7549032	(v) M/O Fuze	5
6	37291	M362A1	HE	F8838144	A11	STD-A	D8838145	COMP-B	2.10	D8838145	-	-	-	D8596986	(dd) Casting	D8596989	(b/x) M524	FD	F8797514	M141	9.23	M5	1304	8	8839494	M66	(cc) M71E1	7,500	770	F7548123	F7549031	F7549032	Fuzed	6	
7	37291	M362A1	HE	F8839445	A11	STD-A	F8839444	COMP-B	2.10	F8839445	-	-	-	D8596986	(dd) Casting	D8596989	(v) -	-	-	M141	8.62	M5	1304	8	8839494	M66	(cc) M71E1	7,500	770	-	F7549031	F7549032	(v) Unfuzed	7	
8	37196	(n/aa) M57A1	Smoke	75-1-93	A11	STD-C	75-14-255	WF	4.06		M1 Burster	0.08	(g) 73-1-170	75-2-284	Steel	Tubing	(a)	(ee) M52A2	FD	73-1-161	M441	11.38	M2A1	820	4	71-12-16	M6	M34	4,980	573	B8835933	F7548994	F7548995	Fuzed	8
9																																			9
10																																			10
11																																			11
12																																			12
13																																			13
14																																			14
Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	Col. No.

SYMBOLS

STD - Standard
 LS - Limited Standard
 HE - High Explosive
 TP - Target Practice
 PROJ TNG - Projectile Training
 ILLUM - Illuminant
 FORG - Forging
 TNT - Trinitrotoluene
 COMP - Composition

NOTES

(a) - Alternative Material - Steel, FORG - FORG Dwg. 75-2-283.
 (b) - Alternative - Fuze, FD, M526 and Fuze, VT, M517.
 (c) - Alternative - Fuze, FD, M53B1.
 (d) - CTG, Ignition, M6 and Primer, Perc, M33 may be used. See note (bb).
 (e) - CTG, Ignition, M6 and Primer, Perc, M33 formerly used.
 (f) - Alternative - CTG, HE, M56B1, Dwg. 75-2-348, CTG, HE 56B2 Dwg. 75-2-349 and CTG, HE, M56B3, Dwg. 75-2-380. For Casting, Burster, M2, see Dwg. 73-1-169, Wt. 0.56 Lbs.
 (h) - Packing Chest used in field Dwg. 76-1-671. Commercial Packing.
 (k) - Refer to AR 705-6.
 (m) - Some rounds are designated M43A1B1, HE.
 (n) - Alternative - CTG, Chemical, M57B1, Dwg. 75-2-383.
 (o) - CTG Illuminating, M301 and M301A1 with Fuze, Time, M84 are STD-C and STD-B respectively.
 (p) - Total weight for specified number of increments.
 (q) - Alternative - Fuze, FD, M525, may be used (STD-C). Rounds on hand assembled with Fuze, PL, M52 series issued for emergency combat only.
 (r) - Weight is without propellant charge, safety wire and ignition cartridge.
 (s) - Some M68, TNG rounds on hand without Pins.
 (t) - Weight of CTG without Fuze.
 (u) - Fuze, FD, M525 and Fuze, FD, M525A1 may be used (STD-C).
 (v) - Assembled with Nose Plug Dwg. C7549009 or C7549076.
 (w) - Alternative Material - Steel, FORG, stamping, drawn, extruded.
 (Notes and Symbols continued on next sheet)

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AMMUNITION FOR 81MM MORTAR M1 & M29 (gg) (Continued)

LINE NUMBER	OTCM No	CARTRIDGE					LOADING											FUZE					PROPELLANT ASSEMBLAGE					CALIBRATION VALUES		PACKING				LINE NUMBER		
		Designation	Type	Assembly Drawing Number	Model of Mortar	Classification (k)	FILLER			COMPONENTS			METAL PARTS			FUZE			PROPELLANT INCREMENTS			Ignition CTG (bb)	PRIMER (bbj)	Pressure (psi)	Velocity (fps)	Fuze Packing Drawing Number	CARTRIDGE									
							Assembly Drawing Number	Composition	Wt. (LB)	Drawing Number	Kind	Wt. (LB)	Drawing Number	Assembly Drawing Number	BODY		Designation	Type	Drawing Number	Designation (bb)	Fuze Wt. (LBS)						Designation	(p) Weight Grains	No. Used	Drawing Number	Designation	Designation	Inner Packing Dwg. No.		Outer Packing Dwg. No.	Shipped
															Material	Form																				
1	37196	(n/ff) M57A1	Smoke	75-1-94	All	STD-C	75-14-255	FS	4.59		M1 Burster	0.08	73-1-170	75-2-284	Steel	Tubing	(a)	M52A2	PD	73-1-161	M4A1	11.88	M2A1	820	4	71-12-16	M6	M34	4,980	573	B8835933	F7548994	F7548995	Fuzed	1	
2	37196	(n/ff) M57A1	Smoke	75-1-198	All	STD-C	75-14-255	FS	4.59		M1 Burster	0.08	73-1-170	75-2-284	Steel	Tubing	(a)	M77	TSQ	73-1-171	M4A1	13.10	M2A1	820	4	71-12-16	M6	M34	4,980	573	76-1-774	76-1-1132	76-1-1249	Fuzed	2	
3	37196	(n/ea) M57A1	Smoke	75-1-199	All	STD-C	75-14-255	WP	4.06		M1 Burster	0.08	73-1-170	75-2-284	Steel	Tubing	(a)	M77	TSQ	73-1-171	M4A1	12.30	M2A1	820	4	71-12-16	M6	M34	4,980	573	76-1-774	76-1-1132	76-1-1249	Fuzed	3	
4	36841 36782	M370	Smoke	75-1-299	All	STD-A	75-14-639	WP	1.60		M47 Burster	(hh) 0.05	73-1-230	75-2-448	Steel	(w) Bar	75-2-449	M524	PD	F8797514	M441	9.34	M5	1304	8	8839494	M66	(cc) M71E1	7,500	770	F7548123	F7549031	F7549032	Fuzed	4	
5	36841 35781	(O) M301A2	Illuminating	75-1-171	All	STD-B	75-14-428	ILLUM	1.37	78-2-357	First Fire Charge	0.05	78-2-357	75-2-526	Steel	Tubing	75-2-332	M64	TIME	73-3-166	M441	10.56	M2A1	820	4	71-12-16	M6	M34	4,980	573	76-1-1392	F7548648	F7548649	Fuzed	5	
6	36841	M68	Proj. Tng.	75-2-302	All	STD-B	-	-	-	-	-	-	-	75-2-302	Iron	Casting	75-2-302	-	-	-	(h/s) M6	10.79	-	-	-	-	M3	(d)	-	7,500	770	-	-	(h) D7691562	W/O Fuze	6
7	37107	M43A1	TP	OBSOL 75-1-89	All	STD-C	75-14-212	Inert	1.19		Spotting Chg.(B.P.F.)	0.05	OBSOL 75-1-89	75-2-261	Steel	FORG	75-2-540	(q/ee) M52A2	PD	73-1-161	M3	7.16	M1A1	700	6	71-12-15	M8	(e) M34	4,600	693	B8835933	76-1-1130	76-1-1247	Fuzed	7	
8		M362	TP	F7549194	All	STD-A	D7549195	Inert	1.90		Spotting Chg.(B.P.F.)	0.05	A7549196	D7549015	Steel	(w) Bar	D7549020 D7549021	(b) M524	PD	D8797514	M441	9.23	M5	1304	8	8839494	M66	(cc) M71E1	7,500	770	F7548123	F7549031	F7549032	Fuzed	8	
9																																				9
10																																				10
11																																				11
12																																				12
13																																				13
14																																				14
Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	Col. No.	

SYMBOLS

WP - White Phosphorus
 FS - Sulfur Trioxide Solution
 PD - Point Detonating
 TSQ - Time and Superquick
 PERC - Percussion
 BFF - Black Powder Pellets
 CTG - Cartridge
 VT - Proximity Variable Time
 OBSOL - Obsolescent
 OTCM - Ordnance Technical Committee Minutes

NOTES

(x) - Some rounds loaded with PD, M519 (STD-C) for emergency combat use only.
 (y) - When M52A2B1 Fuze is used weight as fired is 6.92 Lbs.
 (z) - M56, HE rounds on hand LS (OTCM 37119 with M5, Fin. Designated M56A1 when assembled with M4A1 Fin.
 (aa) - M57, Smoke rounds on hand assembled with M4 Fin (STD-C). Designated M57A1 when assembled with the M4A1 Fin.
 (bb) - Item Drawing No.
 Primer, Perc. M71E1 7549173
 Primer, Perc. M33 74-2-50
 Primer, Perc. M34 74-2-51
 CTG, Ignition, M3 75-19-76
 CTG, Ignition, M6 75-19-79
 CTG, Ignition, M8 75-19-79
 CTG, Ignition, M66 8837347
 Fin, M3 75-2-262
 Fin, M6 75-2-396
 Fin, M4A1 75-2-377
 Fin, M441 7549030

(cc) - Some rounds on hand with Primer, Perc, M71, Dwg. 74-2-87
 (dd) - Pearlitic Malleable Iron.
 (ee) - Fuze, PD, M525A1 may be used for training purposes.
 (ff) - M57, FS, CTG on hand STD-B (OTCM 37196).
 (gg) - 81MM, Mortar, M1 with Mount M4 is STD-C (OTCM 37196).
 (hh) - 81MM, Mortar, M29 with Mount M23A3 or M23A1 is STD-A (OTCM 36841).
 (ii) - 81MM, Mortar, M29 with Mount M23A2 or R23 is STD-B (OTCM 36841).
 (jj) - When steel tube is used weight will be .07 Lbs.
 (kk) - Alternative Filler - COMP B, Grade B, Dwg. 7548666

PREPARED BY:
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 DOVER, NEW JERSEY
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AMMUNITION FOR 90MM GUNS M36, M41 & M54 (g)

LINE NUMBER	OTOM No.	CARTRIDGE					PROJECTILE											PROPELLING ASSEMBLAGE						CALIBRATION VALUE		PACKING (u)				LINE NUMBER						
		(yy) Designation	Type	Assembly Drawing Number	Model of Gun	(nn) Type Classification	LOADING						METAL PARTS			FUZE		Loaded and Fuzed Wt. (LB)	CARTRIDGE CASE		PROPELLANT			PRIMER			Pressure (psi)	Velocity (fps)	Fuze Packing Drawing Number		CARTRIDGE					
							Assembly Drawing Number	FILLER		COMPONENTS		Assembly Drawing Number	BODY		(n/q) Designation	Type	Drawing Number		Designation	Drawing Number	Composition Designation	Nominal Wt. (LB)	Drawing Number	Designation	Type	Drawing Number					Inner Pack Dwg. No.	Outer Pack Dwg. No.	Shipped			
								Composition	Wt. (LB)	Drawing Number	Kind		Wt. (LB)	Drawing Number																				Material	Material Form	Drawing Number
1	36841 37436	(e) M71	HE	75-1-126	A11	STD-B	75-14-305	(b) COMP B	2.15	-	-	-	75-18-42	Steel	FORG	75-20-92	(aa) M502	MTSQ	73-7-98	23.40	(v) M19B1	F7548080	M6 Sulfated	7.31	(1) M28A2	PERC	8839129	36,200	2,700	C7549150	F7548301	F7548306	Fuzed	1		
2	37436	(e) M71A1	HE-T	XP-98204	A11	STD-A	75-14-305	(b) COMP B	2.15	Tracer XM10		XP-96937	(rr)	Steel	FORG	75-20-92	(aa) M502	MISQ	73-7-98	23.57	(v) M19B1	F7548080	M1	5.31	M28B2	PERC	8839130	35,800	2,400	C7549150	F7548301	F7548306	Fuzed	2		
3	36841 37436	(a) M71	HE	75-1-184	A11	STD-B	75-14-446	(b) COMP B	1.68	SUPPL CHG	0.365	A8797090	75-18-42	Steel	FORG	75-20-92	(bb/t) M502A1	MISQ	73-7-146	(f) 23.52	(v) M19B1	F7548080	M6 Sulfated	7.31	(ff) M28B2	PERC	8839130	36,200	2,700	C7548150	F7548301	F7548306	Fuzed	3		
4	37436	(e) M71A1	HE-T	XP-98208	A11	STD-A	75-14-446	(b) COMP B	1.68	(cc) Tracer XM10		XP-96937	(rr)	Steel	FORG	75-20-92	(bb/t) M502A1	MISQ	73-7-98	23.57	(v) M19B1	F7548080	M1	5.31	M28B2	PERC	8839130	35,800	2,400	C7548150	F7548301	F7548306	Fuzed	4		
5	36841 37436	(e) M71	HE	75-1-246	A11	STD-B	75-14-446	(b) COMP B	1.68	SUPPL CHG	0.365	A8797090	75-18-42	Steel	FORG	75-20-92	(k/t)		(e) 23.45	(v) M19B1	F7548080	M6 Sulfated	7.31	M19B1	PERC	74-2-63	36,200	2,700		F7548301	F7548306	1/0 Fuze	5			
6	37436	(e) M71A1	HE-T	XP-98205	A11	STD-A	75-14-446	(b) COMP B	1.68	(cc) Tracer XM10		XP-96937	(rr)	Steel	FORG	75-20-92	(k/t)		23.57	(v) M19B1	F7548080	M1	5.31	M28B2	PERC	8839130	35,800	2,400		F7548301	F7548306	1/0 Fuze	6			
7	36841 37436	(c) M71	HE	75-1-207	A11	STD-B	75-14-446	(b) COMP B	1.68	SUPPL CHG	0.365	A8797090	75-18-42	Steel	FORG	75-20-92	(z/t) M51A5	PD	A8796862	(gg) 23.45	(v) M19B1	F7548080	M15	7.31	M19B1	PERC	74-2-63	36,200	2,700	C7548400	F7548301	F7548306	Fuzed	7		
8	37436	(c) M71A1	HE-T	XP-98209	A11	STD-A	75-14-446	(b) COMP B	1.68	(cc) Tracer XM10		XP-96937	(rr)	Steel	FORG	75-20-92	(z/t) M51A5	PD	A8796862	23.57	(v) M19B1	F7548080	M1	5.31	M28B2	PERC	8839130	35,800	2,400	C7548400	F7548301	F7548306	Fuzed	8		
9	36841 37436	(c) M71	HE	75-1-243	A11	STD-B	75-14-305	(b) COMP B	2.15	-	-	-	75-18-42	Steel	FORG	75-20-92	(cc) M500A1	MISQ	A8796864	23.52	(v) M19B1	F7548080	M15	7.31	M19B1	PERC	74-2-63	36,200	2,700	C7548400	F7548301	F7548306	Fuzed	9		
10	37436	(c) M71A1	HE-T	XP-98210	A11	STD-A	75-14-305	(b) COMP B	2.15	Tracer XM10		XP-96937	(rr)	Steel	FORG	75-20-92	(cc) M500A1	MISQ	A8796864	23.57	(v) M19B1	F7548080	M1	5.31	M28B2	PERC	8839130	35,800	2,400	C7548400	F7548301	F7548306	Fuzed	10		
11	36841 37436	(c) M71	HE	75-1-157	A11	STD-B	75-14-305	(b) COMP B	2.15	-	-	-	75-18-42	Steel	FORG	75-20-92	(z) M51A5	PD	A8796862	23.52	(v) M19B1	F7548080	M15	7.31	M19B1	PERC	74-2-63	36,200	2,700	C7548400	F7548301	F7548306	Fuzed	11		
12	37436	(a) M71A1	HE-T	XP-98206	A11	STD-A	75-14-305	(b) COMP B	2.15	Tracer XM10		XP-96937	(rr)	Steel	FORG	75-20-92	(z) M51A5	PD	A8796862	23.57	(v) M19B1	F7548080	M1	5.31	M28B2	PERC	8839130	35,800	2,400	C7548400	F7548301	F7548306	Fuzed	12		
13																																		13		
14																																		14		
Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	Col. No.

SYMBOLS

- STD - Standard
- HVAP-T - Hypervelocity Armor Piercing with Tracer
- MTSQ - Mechanical Time and Superquick
- PD - Point Detonating
- PI BD - Point Initiating, Base Detonating
- PERC - Percussion
- TNT - Trinitrotoluene
- TSQ - Time and Superquick
- WP - White Phosphorus
- WP-T - White Phosphorus with Tracer

NOTES

- (a) - TNT is substitute standard filler, Cast Grade, A. Some M71 rounds in stock loaded with 50/50 Amatol.
- (b) - Smokeless-flashless round.
- (c) - Smokeless round.
- (d) - Flashless round.
- (e) - Weight as fired when using M92, M93, and M97, VT, Fuze is 23.50 Lbs.
- (f) - 90MM Guns M41 and M54 are (STD-A), M36 is (STD-B).
- (g) - M332A1 assembled with Sprayed Base Windshield.
- (h) - M332B1A1 assembled with Sheet Steel Erosion Windshield.
- (i) - Shipped with Nose Plug and Washer, Dwg. 75-14-575.
- (j) - Alternative - Primer, Perc, M28B2, Dwg. 8839130.
- (k) - This CTG simulates, CTG, HE, M71 with Fuze WP, M43A5 Dwg. 75-1-126.
- (l) - Fuzes on HE rounds, M71 assembled with Booster, M21A4, Dwg. 8798183. Some rounds assembled with Booster, M20A1, Dwg. 73-2-112.
- (m) - Weight of complete CTG.
- (n) - Casing, Burner, M13, Dwg. 73-1-212. Initiator, Burner, M2, Dwg. 73-1-227.
- (o) - The following fuzes may be used with HE rounds M71, containing normal cavity or deep cavity with supplementary charge: MTSQ, M518 Fuze (STD-B), MTSQ, M520 (STD-A); MTSQ, M500A1 (STD-B); MTSQ, M500 (LS); MT67A3 (LS); TSQ, M55A3 (LS). STD point fuzes may also be used. Fuze CP, M78A1, Dwg. 73-2-214 and Booster, M25, Dwg. 8798209 may be used.
- (p) - Alternative - Case, CTG, M108, Brass Dwg. F7548257.
- (q) - Weight is without SUPPL CHG using VT Fuzes weight with SUPPL CHG and MTSQ, M502 is 23.45 Lbs.

(Notes and Symbols continued on next sheet)

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AMMUNITION FOR 90MM GUNS M36, M41 & M54 (g) (Continued)

LINE NUMBER	OTCM NO	CARTRIDGE					PROJECTILE										PROPELLING ASSEMBLAGE						CALIBRATION VALUE		PACKING (u)				LINE NUMBER							
		(yy) Designation	Type	Assembly Drawing Number	Model of Gun	(nn) Type Classification	LOADING					METAL PARTS					FUZE		Loaded and Fuzed Wt. (LB)	CARTRIDGE CASE		PROPELLANT		PRIMER		Pressure (psi)	Velocity (fps)	Fuze Packing Drawing Number		CARTRIDGE						
							Assembly Drawing Number	FILLER		COMPONENTS			Assembly Drawing Number	BODY			(n/q) Designation	Type		Drawing Number	Designation	Drawing Number	Composition Designation	Nominal Wt. (LB)	Drawing Number					Designation	Type	Drawing Number	Inner Pack Dwg. No.	Outer Pack Dwg. No.	Shipped	
								Composition	Wt. (LB)	Drawing Number	Kind	Wt. (LB)		Drawing Number	Material	Material Form																				Drawing Number
1	36841 37436	(d) M71	HE	75-1-374	All	STD-B	75-14-305	(b) COMP B	2.15	-	-	-	75-18-42	Steel	FORG	75-20-92	M51A5	PD	A8796862	23.52	(v) M19B1	F7548080	M6 Non-sulfated	7.31	(1) M28B2	PERC	8839130	36,200	2,700	C7548400	F7548301	F7548306	Fuzed	1		
2	36841 37436	(d) M71	HE	75-1-375	All	STD-B	75-14-446	(b) COMP B	1.68	SUPPL CHG	0.365	A8797090	75-18-42	Steel	FORG	75-20-92	M51A5	PD	A8796862	23.45	(v) M19B1	F7548080	M6 Non-sulfated	7.31	M28B2	PERC	8839130	36,200	2,700	C7548400	F7548301	F7548306	Fuzed	2		
3	36841 37436	(d) M71	HE	75-1-376	All	STD-B	75-14-305	(b) COMP B	2.15	-	-	-	75-18-42	Steel	FORG	75-20-92	M500	MTSQ	A8796864	23.52	(v) M19B1	F7548080	M6 Non-sulfated	7.31	M28B2	PERC	8839130	36,200	2,700	C7548400	F7548301	F7548306	Fuzed	3		
4	37619	M313	Smoke	75-1-224	All	STD-B	75-14-501	WP	1.97	(zz) M24 Burster	0.31	73-2-21	75-2-369	Steel	FORG	75-2-370	M48A3	PD	73-2-140	23.64	(v) M19B1	F7548080	M15 M6	7.31	M49 M28B2	PERC	74-2-63 8839130	36,200	2,700	C7549150	F7548301	F7548306	Fuzed	4		
5	37619	M313C	Smoke	XP-98203	All	STD-A	75-14-501	WP	1.97	(zz) M24 Burster	0.31	73-2-21	(af) 75-2-369	Steel	FORG	75-2-370	M48A3	PD	73-2-140	23.57	(v) M19B1	F7548080	M1	5.31	M28B2	PERC	8839130	36,200	2,400	C7549150	F7548301	F7548306	Fuzed	5		
6	37119 36841	M318 M316A1	AF-T	75-1-358	All	STD-A	-	-	-	Tracer M5A2B1	0.10	A8796866	75-2-544	Steel	Bar	75-2-545	-	-	-	24.18	(r) M108B1	D7548028	M17 & IGN CHG	8.60 0.22	71-9-234	M58	PERC	8839153	44,000	3,000	-	F7548467	C7548476	Complete	6	
7	37119	M332A1 M332B1A	HVAP-T	(h) 75-1-310	M36	STD-C	-	-	-	Tracer M5A2B1	0.10	A8796866	(h) 75-2-479	(xx) Aluminum Alloy	FORG	75-2-481	-	-	-	12.38	(v) M19B1	F7548080	M17	8.50	M49	PERC	74-2-63	40,200	3,825	-	76-1-1106	76-1-1237	Complete	7		
8	36841	M353	TP-T	75-1-364	All	STD-A	-	-	-	Tracer M5A2B1	0.10	A8796866	75-2-552	Steel	FORG	75-2-553	-	-	-	24.18	(r) M108B1	D7548028	M17 & IGN CHG	8.60 0.22	71-9-234	M58	PERC	8839153	44,000	3,000	-	F7548467	C7548476	Complete	8	
9	36841	(x) M336	CSTR	75-1-361	M36	STD-B	-	-	-	-	-	-	(dd) 75-2-572	Steel	Strip & Bar	75-2-573	-	-	-	23.24	(v) M19B1	F7548080	M2	7.70	75-1-361	M49	PERC	74-2-63	39,200	2,870	-	76-1-1167	76-1-1168	Complete	9	
10	36841	(ab/m) M12B2	Lr111	72-3-76	All	STD-A	-	-	-	-	-	-	-	Bronze	Casting	72-3-77	M8C	Lummy	73-2-13	(o) 42.04	-	-	-	-	-	-	-	-	-	-	-	F7548301	F7548306	Fuzed	10	
11																																			11	
12																																			12	
13																																			13	
14																																			14	
Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	Col. No.

SYMBOLS

CSTR - Canister
 CTG - Cartridge
 CP - Concrete Piercing
 COMP - Composition
 SUPPL CHG - Supplementary Charge
 FORG - Forging
 IGN CHG - Igniter Charge
 HE - High Explosive
 HE-T - High Explosive with Tracer
 ALT - Alternative

NOTES

(t) - Fuze, VT, M515 and VT, M513 may be used with SUPPL CHG removed.
 (u) - Packing Drawings:
 Primer M58 F7548043
 Primer M28A2 76-8-112
 Primer M49 F7548076
 Booster M21A4 F7548175
 Booster M24 CHG B8799223
 (v) - Alternative - Case, CTG, M19, Brass Dwg. F7548413
 (w) - Alternative - Tracer, M5A2, Weight 0.045 Lbs.
 (x) - Suitable for Arctic use (OTCM 36073).
 (y) - Container, Metal, Ammunition 90MM, M519 series. Dwg. 76-1-672, used when only specifically authorized.
 (z) - Some rounds on hand with Fuze, M51A4, PD.
 (aa) - Some rounds on hand with Fuzes MT, M43A4; MT, M43A4, MTSQ, M500 and MTSQ, M502.
 (bb) - Some rounds on hand assembled with Fuzes MT, M43A4, MTSQ, M502; PD, M51A4 and PD, M51A5.
 (cc) - All rounds on hand assembled with Fuze, TSQ, M55A3.
 (dd) - Canister contains approximately 1281 steel slugs, Weight 14.932 Lbs.
 (ff) - Alternative - Primer, Perc, M28A2, Dwg. 8839129.
 (gg) - Weight as fired with VT Fuze, M92 is 23.16 Lbs.
 (hh) - Canister contains approximately 6265 steel flechettes, Weight 23.30 Lbs.
 (kk) -
 (mm) -

(Notes and Symbols continued on next sheet)

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AMMUNITION FOR 90MM GUNS M36, M41 & M54 (g) (Continued)

LINE NUMBER	OTCM NO.	CARTRIDGE					PROJECTILE										PROPELLING ASSEMBLAGE						CALIBRATION VALUE		PACKING (u)					LINE NUMBER						
		(yy) Designation	Type	Assembly Drawing Number	Model of Gun	(nn) Type Classification	LOADING					METAL PARTS			FUZE		Loaded and Fuzed Wt. (LB)	CARTRIDGE CASE		PROPELLANT		PRIMER		Pressure (psi)	Velocity (fps)	Fuze Packing Drawing Number	CARTRIDGE									
							Assembly Drawing Number	FILLER		COMPONENTS		Assembly Drawing Number	BODY		(n/q) Designation	Type		Drawing Number	Designation	Drawing Number	Composition Designation	Nominal Wt. (LB)	Drawing Number				Designation	Type	Drawing Number		Inner Pack Dwg. No.	Outer Pack Dwg. No.	Shipped			
								Compo-sition	Wt. (LB)	Drawing Number	Kind		Wt. (LB)	Drawing Number																				Material	Material Form	Drawing Number
1	36841	M82	APC-T	75-1-145	A11	STD-B	75-14-334	D	0.31	-	-	-	75-18-46	Steel	FORG Or Bar	75-18-47	M68 or M68A1	BD	73-2-181	24.11	M19	F7548413	M6	7.31	75-1-145	M28A2	PERC	8839129	39,500	2,600	76-1-1239	76-1-1105	76-1-1236	Fuzed	1	
2	36841	M82	APC-T	75-1-145	A11	STD-B	75-14-334	D	0.31	-	-	-	75-18-46	Steel	FORG Or Bar	75-18-47	M68 or M68A1	BD	73-2-181	24.11	M19	F7548413	M6 (vv)	8.06	75-1-145	M49	PERC	74-2-63	39,500	2,800	76-1-1239	76-1-1105	76-1-1236	Fuzed	2	
3	37209	M377	CSTR	F94500	M36 & M41	STD-A	-	-	-	-	-	-	(hh) F94502	Steel	Tubing	F94504	-	-	-	-	-	M19B1	F7548080	M6	8.00	F94500	M49	PERC	74-2-63	39,200	2,870	-	F8798640	F8798641	Complete	3
4	37119	M348 M348A1	HEAT	75-1-359	A11	STD-C	75-14-700	COMP B	1.56	75-14-669	-	-	75-2-575	Steel	FORG	75-2-578	M509E6	FI BD	F8799735	14.35	T27E2	F7548087	(qq) M6 IGN CHG	(pp) 0.06	75-1-359 75-1-3-86	T69	PERC	74-2-114	24,300	2,800	-	76-1-1326	76-1-1327	Fuzed	4	
5	37209	M77	AP-T	75-1-136	A11	(uu) LS	75-14-330	-	-	-	Tracer (Red)	0.01	75-14-330	75-18-44	Steel	Bar	75-18-44	-	-	-	23.40	M19	F7548413	-	75-1-336	(tt) M28A2	PERC	8839129	44,000	3,000	-	F7548301	F7548306	Complete	5	
6	37119	M304	HVTF-T	75-1-234	A11	OBS	75-14-523	-	-	-	Tracer	0.01	75-14-523	75-2-375	(xx) Bar	-	-	-	-	-	16.80	M19	F7548413	M6	(d) 8.40	M40A1	PERC	74-2-68	40,600	3,350	-	76-1-1106	76-1-1237	Complete	6	
7	37119	M333A1	HVTF-T	75-1-310	A11	OBS	-	-	-	-	Tracer: M5A2B1 (Alt)M5A2	0.10 0.05	88796866 88853695	75-2-483	Aluminum Alloy	FORG	-	-	-	12.44	M19	F7548413	M17	8.50	-	M49	PERC	74-2-68	40,200	3,825	-	76-1-1106	76-1-1237	Complete	7	
8	36722	M317A2 M317A1	HVTF-T	75-1-262	A11	OBS	-	-	-	-	Tracer: M5A2B1 (Alt)M5A2	0.10 0.05	88796866 88853695	75-2-408	Steel	FORG	-	-	-	16.31	M19	F7548413	M6	(d) 8.40	-	M40A1	PERC	74-2-68	41,100	3,350	-	76-1-1106	76-1-1237	Complete	8	
9	37119	M71	TP	75-1-163	A11	OBS	75-1-163	Inert	2.15	-	-	-	75-18-42	Steel	FORG	75-20-92	(ac) M73	Dummy	8796863	23.40	M19	F7548413	M15	(d/ad) 7.31	(ad) M28B2	PERC	8838130	-	-	-	F7548301	F7548306	Fuzed	9		
10	37119	M71	Colored Marker	75-1-287	A11	OBS	75-14-633	Smoke & Burster	See Table Below	75-14-633A	-	-	-	75-18-42	Steel	FORG	75-20-92	(ae) M500A1	MTSQ	A8796864	23.50	M19	F7548413	M6	(e) 7.01	M28B2	PERC	8838130	-	-	C7548400	F7548301	F7548306	Fuzed	10	
11																																				11
12																																				12
13																																				13
14																																				14
Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	Col. No.

SYMBOLS

- HEAT - High Explosive Anti-Tank
- APC-T - Armor Piercing Capped with Tracer
- D - Ammonium Picrate
- TP-T - Target Practice with Tracer
- AP-T - Armor Piercing with Tracer
- LS - Limited Standard
- OTCM - Ordnance Technical Committee Minutes
- HVTF-T - High Velocity Target Practice with Tracer
- TP - Target Practice
- OBS - Obsolete

NOTES

- (nn) - Refer to AR 705-6.
- (oo) - This round contains SUPPL CHG, Weight 0.365 Lbs, Dwg. A8797090.
- (pp) - Igniter CHG, Weight 400 grains, Black Powder.
- (qq) - Alternative - Propellant, M1, Weight 0.07 Lbs.
- (rr) - This round uses the same steel forging as its' companion M71 round. The only difference being, a different propellant and propellant weight and the addition of a tracer.
- (ss) - This round also contains, Burster M24, 0.11 Lbs, Dwg. 73-2-211.
- (tt) - Alternative - Primer, Perc, M28B1, Dwg. 8839130.
- (uu) - This cartridge LS for training purposes.
- (vv) - This round issued with flashless or smokeless, M6 Propellant.
- (xx) - Core is made of Tungsten Carbide Steel. Other parts made of Aluminum Alloy and Steel.
- (yy) - M71, TP, with Fuze, Dummy, M73 using either flashless or smokeless propellant and brass or steel CTG Case also on hand. These rounds are obsolete (OTCM 37119)
- (zz) - Contains M3, Burster Casing and M2 Initiator Burster.
- (ab) - Some rounds on hand designated M12, Dummy and M12B1, Dummy.
- (ac) - Alternative - M4A2, Fuze; Inert Fuzes M48 and M51 series with boosters as required.
- (ad) - This round also available as smokeless-flashless round and used M49, Perc, Primer.
- (ae) - M67, Fuze series may be used.
- (af) - This round is similar to M313, Smoke WP, difference in propellant and propellant weight.

Smoke Composition	Weight (Lbs)	Bursting Charge	Weight (Lbs)
Red Smoke	0.9	Barium Nitrate, 6% and TNT 33%	1.3*
Yellow Smoke	1.0		1.3*
Alternate (1) Yellow Smoke	0.8		1.3*
Alternate (2) Yellow Smoke	0.8		1.6
Green Smoke	0.7		1.6

* 1.28 Lb. Minimum

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 PICATINNY Arsenal
 DOVER, NEW JERSEY
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AMMUNITION (SEMI FIXED) FOR 105MM GUN, M68 (bb)
105MM HOWITZER M2A1, M2A2, M49 (y)

LINE NUMBER	OTCM NO.	CARTRIDGE					PROJECTILE										PROPELLING ASSEMBLAGE						CALIBRATION VALUE		PACKING (q)				LINE NUMBER									
		Designation	Type	Complete Assembly Drawing Number	Model of Weapon	Type Classification (aa)	LOADING					METAL PARTS					FUZE			Loaded and Fuzed Wt. (LB)		CARTRIDGE CASE		PROPELLANT		PRIMER		Pressure (psi)		Velocity (fps)	Fuze Packing Drawing Number	CARTRIDGE						
							Assembly Drawing Number	FILLER		COMPONENTS			Assembly Drawing Number	BODY			Designation	Type	Drawing Number	Designation	Drawing Number	Composition Designation	Nominal Wt. (LB)	Drawing Number	Designation	Type	Drawing Number					Inner Pack Dwg. No.	Outer Pack Dwg. No.	Shipped				
								Composition	Wt. (LB)	Drawing Number	Kind	Wt. (LB)		Drawing Number	Material	Material Form																			Drawing Number			
1	36841	M1	HE	75-1-75	All HOW	STD-B	75-14-206	COMP-B	5.08		Closing Plug	0.37	75-14-40	75-4-75	Steel	FORG	75-20-76	M51A5	PD	A8796862	33.00		(z)		M1	2.75	71-9-100	M28A2	PERC	8838129	6,600	650	C7548400	F7549073	C7549072	Fuzed	1	
2	36841	M1	HE	75-1-185	All HOW	STD-B	75-14-447	COMP-B	4.60		SUPPL CHG	0.365	A8797090	75-4-75	Steel	FORG	75-20-76	M51A5	PD	A8796862	33.18	(n)	(z)		M1	2.75	71-9-100	M28A2	PERC	8838129	6,600	650	C7548400	F7549073	C7549072	Fuzed	2	
3	36841	M1	HE	75-1-91	All HOW	STD-B	75-14-206	COMP-B	5.08		Closing Plug	0.37	75-14-40	75-4-75	Steel	FORG	75-20-76	M500A1	MTSQ	A8796864	32.50		(z)		M1	2.75	71-9-100	M28A2	PERC	8838129	6,600	650	C7548400	F7549073	C7549072	Fuzed	3	
4	36841	M1	HE	75-1-208	All HOW	STD-B	75-14-447	COMP-B	4.60		SUPPL CHG	0.365	A8797090	75-4-75	Steel	FORG	75-20-76	M500A1	MTSQ	A8796864	33.18	(n)	(z)		M1	2.75	71-9-100	M28A2	PERC	8838129	6,600	650	C7548400	F7549073	C7549072	Fuzed	4	
5	36841	M1	HE	75-1-248	All HOW	STD-A	75-14-447	COMP-B	4.60		SUPPL CHG	0.365	A8797090	75-4-75	Steel	FORG	75-20-76	-	-	-	-	31.04	(n/pp)	(z)		M1	2.75	71-9-100	M28A2	PERC	8838129	6,600	650	-	F7549073	C7549072	W/O Fuze	5
6	36841	M67	HEAT HEAT-T	75-1-142	All HOW	STD-B	75-14-352	COMP-B	3.06	(11)	Tracer			75-4-106	Steel	FORG	75-20-94	M91A1(t) M62A1 OBSOL	BD	73-2-239 73-2-169	29.29 29.45		(z)		M1	1.54	71-9-204	M28A2	PERC	8838129	23,500	1,250	F7548039	F7549074	C7549072	Fuzed	6	
7	36841	M67	TP-T	75-1-191	All HOW	STD-B	75-14-463	Inert	3.89		Tracer	0.01		75-4-106	Steel	FORG	75-20-94	-	-	-	29.29		(z)		M1	1.54	71-9-204	M28A2	PERC	8838129	23,500	1,250	-	F7549074	C7549072	Complete	7	
8	36841	M60	Smoke	75-1-110	All HOW	STD-A	8797654	WP	3.83		Burster: CHG, M5 Casing, M5	0.51	8797655 73-1-172	75-4-91	Steel	FORG	75-20-76	M51A5	PD	A8796862	33.94		(z)		M1	2.75	71-9-100	M28A2	PERC	8838129	8,200	710	C7548400	F7549073	C7549072	Fuzed	8	
9	36841	M60	Gas HD	75-1-109	All HOW	STD-A	8797654	HD	2.69		Burster: CHG, M5 Casing, M5	0.51	8797655 73-1-172	75-4-91	Steel	FORG	75-20-76	M51A5	PD	A8796962	33.94		(z)		M1	2.75	71-9-100	M28A2	PERC	8838129	8,200	710	C7548400	F7549073	C7549072	Fuzed	9	
10																																					10	
11																																					11	
12																																					12	
13																																					13	
14																																					14	
Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	Col. No.		

SYMBOLS

STD - Standard
 HE - High Explosive
 HEAT - High Explosive Anti-Tank
 HEAT-T - High Explosive Anti-Tank with Tracer
 HEP - High Explosive Plastic
 HEP-T - High Explosive Plastic with Tracer
 HC - Hexachloroethane Mixture
 BE - Base Ejection
 HD - Gas, Persistent, Distilled Mustard
 WP - White Phosphorus
 GB - Gas, Non-Persistent
 PD - Point Detonating
 PERC - Percussion
 ILLUM - Illuminant
 BP - Black Powder
 CTG - Cartridge
 FORG - Forging
 COMP - Composition

NOTES

(a) - Chemical Corp. Drawing.
 (b) - Assembled with Booster, M21A1, Dwg. D8798183. Fuze, CP, M78, Dwg. 73-2-214 and Booster, M25, Dwg. C8798209 separate issue for field assembly.
 (c) - Inert Primers, Perc. M1B1A2 or M1A2 may be used.
 (d) - COMP-B loading STD. TNT loading substitute STD.
 (e) - Some rounds on hand assembled with Inert Fuzes, PD, M59 and TSQ, M54.
 (f) - Dual Granulation-Charges 1 and 2, .015 inch Web, single perforated; Charges 3,4,5,6 and 7, .025 inch Web multiple perforated.
 (g) - Alternative Primer, M28B2, Dwg. 8838130.
 (h) - Shipped with Closing Plug, Dwg. A8797086, Wt. 0.39 Lbs.
 (i) - Weight of complete CTG.
 (j) - Material Form: For M314A2, FORG, 75-4-129.
 Material Form: For M314A2B1, Tubing, 75-2-542.
 (m) - SUPPL CHG must be in place when STD, PD, MTSQ and CP Fuzes are used, and removed when VT Fuzes are used.
 (n) - Weight, as fired, with Fuze, VT, M97 (with SUPPL CHG removed) is 33.36 Lbs. as fired with PD, MTSQ Fuze (with SUPPL CHG) 33.18 Lbs.
 (o) - Rounds on hand M314, M314A1, ILLUM, are (STD-B).

(p) - Filler Color Filler Wt. Wt. Loaded & W/O Fuze
 Yellow 4.92 28.87
 Red 5.21 29.27
 Green 5.13 29.07
 Violet 5.13 29.02 (This Filler is OBS (OTCM 37119)).
 (q) - Packing Dwgs: Primer M28A2 - 76-8-112
 M28B2 - 76-8-113
 M1B1A2 - 76-8-111
 Booster M21A4 - 76-7-738
 Burster CHG M5 - 76-16-283
 (r) - Following Fuzes may be used: MTSQ, M520 (STD-A) and MTSQ, M500 series (LS). Rounds on hand assembled with MTSQ, M500; MTSQ, M500A1 and TSQ, M55A3.
 (s) - Rounds on hand assembled Fuzes PD, M51A4 (STD-C) and M51A5 (STD-B).
 (t) - Rounds designated HEAT-T or HEP-T when assembled with Fuze, BD, M91 or M91A1. Designated HEAT or HEP when assembled with Fuze, HD, M62A1.
 (u) - Alternative Primer M28A2, Perc. Dwg. 8838129.
 (v) - Rounds on hand assembled with Fuzes, MTSQ, M501 and M501A1 and TSQ, M54.
 (w) - Some rounds assembled with Fuze, PD, M57 with Booster M22 Dwg. 73-2-252 or Fuze, PD, M51A4.

PREPARED BY:
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 DOVER, NEW JERSEY
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 SHEET NO. 16

(Notes and Symbols continued on next sheet)

AMMUNITION (FIXED) FOR 105MM, RIFLE M27, M27A1 (o)

LINE NUMBER	OTCM NO.	CARTRIDGE					PROJECTILE										PROPELLING ASSEMBLAGE						CALIBRATION VALUE		PACKING			LINE NUMBER								
		Designation	Type	Complete Assembly Drawing Number	Model of Rifle	Type Classification (a)	LOADING					METAL PARTS			FUZE			Loaded and Fuzed Wt. (LB)	CARTRIDGE CASE		PROPELLANT		PRIMER		Pressure (psi)	Velocity (fps)	Fuze Packing Drawing Number		CARTRIDGE							
							Assembly Drawing Number	FILLER		COMPONENTS		Assembly Drawing Number	BODY		Designation	Type	Drawing Number		Designation	Drawing Number	Composition Designation	Nominal Wt. (LB)	Drawing Number	Designation					Type	Drawing Number	Inner Pack Dwg. No.	Outer Pack Dwg. No.	Shipped			
								Composition	Wt. (LB)	Drawing Number	Kind		Wt. (LB)	Drawing Number																				Material	Material Form	Drawing Number
1	37107	M324	HEAT-T	OBSOL 75-1-266	M27	STD-C	OBSOL 75-14-619	COMP B	3.06		Tracer	69	75-2-240	75-4-175	Steel	FORG	75-4-191	M91	BD	73-2-239	29.00	M32	71-2-141	M1C	8.21		M57	PERC	D8838009	8,500	1,650	76-1-1097	76-1-1340	76-1-1341	Fuzed	1
2	37107	M325	Smoke	75-1-267	M27	STD-C	75-14-620	WP	4.06		Burster CHG, M5	51	8797655	75-4-176	Steel	FORG	75-4-192	M51A5	PD	A8796862	34.58	M32	71-2-141	M10	8.14		M57	PERC	D8838009	9,100	1,120	C7548400	76-1-1339	76-1-1341	Fuzed	2
3	37107	M326	HEP-T	75-1-296	M27	STD-C	75-14-637	COMP A3	7.50		Tracer	69	75-2-240	75-4-189	Steel	FORG	75-4-193	M91	BD	73-2-239	24.41	M32	71-2-141	M10	7.70		M57	PERC	D8838009	7,100	1,265	76-1-1097	F7549149	F7549148	Fuzed	3
4	37107	M341	HEAT	75-14-313	M27A1	STD-C	75-14-655	COMP B	2.38					75-2-501	Steel	FORG	75-2-503	M509	FI, BD	73-1-232	17.30	M90B1	7548029	M10	8.10		M63	PERC	8840471	8,400	1,650	-	76-1-1544	76-1-1543	Fuzed	4
5	37107	M345	HEP-T	75-1-323	M27A1	STD-C	75-14-667	COMP A3	7.72		Tracer M5	420	A8796866	75-2-521	Steel	FORG	75-2-522	M91A1	BD	73-2-239	17.54	M95B1	71-2-188	M10	8.25		M57	PERC	D8838009	8,600	1,690	-	F7549071	F7549070	Fuzed	5
6	37119	M323	HR	75-1-263 75-1-264	M27	OBS	75-14-618	TNT	4.38		SUPPL CHG	.365	A8797090	75-4-174	Steel	FORG	75-20-76	M51A5 M50CA1	PD MTSQ	8796862 8796864	32.50	M32	71-2-141	M10	7.95		M57	PERC	D8838009	8,100	1,120	C7548400	76-1-1339	76-1-1341	Fuzed	6
7																																				7
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Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	Col. No.
SYMBOLS										NOTES																										
OTCM - Ordnance Technical Committee Minutes STD - Standard LS - Limited Standard COMP - Composition WP - White Phosphorus HEAT - High Explosive Anti-Tank HEAT-T - High Explosive Anti-Tank with Tracer HEP-T - High Explosive Plastic with Tracer PD - Point Detonating BD - Base Detonating PERC - Percussion FORG - Forging FI, BD - Point Initiating, Base Detonating CTG - Cartridge OBSOL - Obsolete OBS - Obsolete SUPPL CHG - Supplementary Charge										(a) - Refer to AR 705-6. (b) - Bursting Casing, M5, Dwg. 73-1-172. (c) - Weight noted in grains. (d) - Shell may be produced from HEAT, 105MM, M67. (e) - Shell may be produced from Chem, 105MM, M60. (f) - Shell may be produced from Smoke, 105MM, M84. (g) - Cartridge Case liner, Dwg. 71-2-160. (h) - Assembled with Booster, M21A4, Dwg. 8798183. (i) - Some rounds loaded with COMP C4, Wt. 7.2 Lbs., Dwg. 75-14-637. (j) - (k) - 105MM, Rifle, M27 is to be retained pending availability of 106MM Rifle, 105MM Rifle, M27 and M27A1 are (STD-C) (OTCM 37119). (l) - Weight of complete assembly, Burster contains 1800 grains of Tetraytol. (m) - Pressure encountered when using Case, CTG, M90, is 8,500 psi. (n) - Pressure encountered when using Case, CTG, M95, is 8,400 psi. (o) - Weight includes layer of water 1/8-inch deep. (p) - Shell fro CTG, M341, HEAT Assembly Dwg. 75-14-661. (q) - Boom Ignition CTG Loading Assembly Dwg. 74-2-98. (r) - Alternative: COMP-B, 4.61 Lbs. (s) - This round issued with SUPPL CHG. This Charge must be in place when PD or MTSQ Fuzes are used. Remove this Charge if VT Fuze is used. (t) - Fuze, VT, M97A1 may be used with SUPPL CHG removed. (u) - Fuze, MT, M67 series may also be used.										PREPARED BY: PICATINNY ARSENAL DOVER, NEW JERSEY ISSUED: 1 JUNE 1961 SHEET NO. 18																

AMMUNITION (FIXED) FOR 106MM RIFLE, M40A1 & M40A1C (r)

LINE NUMBER	OTCM NO.	CARTRIDGE					PROJECTILE											PROPELLING ASSEMBLAGE						CALIBRATION VALUE		PACKING			LINE NUMBER										
		Designation	Type	Complete Assembly Drawing Number	Model of Rifle	Type Classification	LOADING						METAL PARTS			FUZE			FIN ASSEMBLY	Loaded and Fuzed Wt. (LB)	CARTRIDGE CASE		PROPELLANT			PRIMER				Pressure (psi)	Velocity (fps)	Fuze Packing Drawing Number	CARTRIDGE						
							Assembly Drawing Number	FILLER		COMPONENTS		Assembly Drawing Number	BODY		Designation	Type	Drawing Number	Designation & Drawing Number			Designation	Drawing Number	Designation	Nominal Wt. (LB)	Drawing Number	Designation	Type	Drawing Number					Inner Pack Dwg. No.	Outer Pack Dwg. No.	Shipped				
								Composition	Wt. (LB)	Drawing Number	Kind		Wt. (LB)	Drawing Number																						Material	Form	Drawing Number	
1	37032 35951	M344A1	HEAT	F7549097	All	STD-A	7549096	COMP-B	2.79		-	-	-	7549103	Steel	Tubing	7549077	M509E6	PI, BD	8799735	M8 7549111	17.55	(c/g/h)	M93B1	7548092	M26	8.06		M57	PERC	8838009	8,750	1,650	8825014 8825016	7548962	7548965	Fuzed	1	
2	37032 34899	M346A1	HEP-T	F8837335	All	STD-A	8837336	COMP A3	7.72		(a) Tracer			8596145	Steel	Plate	8596146	M91A2	BD	8737308	-	17.54	(d/g/k)	M94B1	8596150	M26	8.00		M57	PERC	8838009	8,400	1,635	7548039	7549071	7549070	Fuzed	2	
3	36685	M368	Dummy	F8596153	All	STD-A	D8596154	Inert	7.75		-	-	-	8596145	Steel	Plate	8596146	-	-	-	-	38.00	(e)	M94B1	8596150	(f)	(f)		-	Dummy	8596158	-	-	-	7549071	7549070	Complete	3	
4																																							4
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Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	Col. No.		

SYMBOLS

OTCM - Ordnance Technical Committee Minutes
 STD - Standard
 HEAT - High Explosive Anti-Tank
 HEP-T - High Explosive Plastic with Tracer
 PERC - Percussion
 PI, BD - Point Initiating, Base Detonating
 COMP - Composition
 CTG - Cartridge
 BD - Base Detonating

NOTES

(a) - Cast, COMP B, Grade A.
 (b) - M368, Dummy round assembled with modified parts of Inert loaded M346 HEP rounds.
 (c) - Alternatives: Case, CTG, M93, Dwg. 71-2-179.
 (d) - Alternative: Case, CTG, M94, Dwg. 71-2-184.
 (e) - Weight of complete assembly.
 (f) - Inert Propellant loading omitted and Flash Tube replaced with built-up metal bar which provides the same weight and center of gravity as prototype.
 (g) - Plastic liner cemented to inside of CTG, Case to exclude dirt and moisture.
 (h) - Liner Assembly, M6, Dwg. 7549065.
 (k) - Liner Assembly, Dwg. 8596155.
 (m) - Rounds on hand designated M344, HEAT, assembled with Fuze, M509E6, PD and Propellant M10 are (STD-B).
 (n) - Rounds on hand designated M346, HEP-T, assembled with Fuze, BD, M91A1 and Propellant M10 are (STD-B).
 (o) - Fuze, BD, M91A1 may be used.
 (p) - Refer to AR 705-6.
 (r) - 106MM, Rifle, M40A1 and M40A1C are (STD-A) (OTCM 36841).
 (s) - Tracer located in BD, Fuze, M91A2, Dwg. 8737308.

PREPARED BY:
 PICATINNY ARSENAL
 DOVER, NEW JERSEY
 ISSUED: 1 JUNE 1961
 SHEET NO. 19

AMMUNITION FOR 4.2 INCH MORTAR, M30 (bb)

LINE NUMBER	OTCM NO.	CARTRIDGE					PROJECTILE										PROPELLING ASSEMBLAGE						PACKING				LINE NUMBER									
		Designation	Type	Complete Assembly Drawing Number	(bb) Model of Mortar	(t) Type Classification	LOADING			METAL PARTS				FUZE			(b) Obturating Mechanism	Loaded and Fuzed Weight (LB)	PROPELLANT			IGNITION CARTRIDGE		CALIBRATION VALUE		Fuze Packing Drawing Number		CARTRIDGE								
							Assembly Drawing Number	FILLER		COMPONENTS		Assembly Drawing Number	BODY			Designation			Type	Drawing Number	Drawing Number	Designation	Wt. (LB)	Drawing Number	Designation			Drawing Number	Pressure (psi)	Velocity (fps)	Inner Pack Dwg. No.	Outer Pack Dwg. No.	Shipped			
								Composition	Wt. (LB)	Drawing Number	Kind		Wt. (LB)	Drawing Number	Material																			Form	Drawing Number	
1	36841	M329 M329B1	HE	75-1-301	M30	STD-A	75-14-643	TNT	7.80		(y) SUPPL CHG	0.365	8797090	75-2-453	Steel	Tubing FORG	75-2-453 75-2-457	M51A5	PD	A8796862	75-2-534	26.23	M36	0.69	D8797836	M2	D8797831	(x)	(x)	C7548400	7549247	7549248	Fuzed	1		
2	36841	M3A1 (g/k)	HE	75-1-285	M30	STD-B	75-14-631	TNT	7.80		(y) SUPPL CHG	0.365	8797090	(g)	Steel	Tubing FORG	75-2-430 75-2-428	(c/m/s) M51A5	PD	A8796862		(g)	26.03	M6	0.43	71-12-27	M2	D8797831	11,950	822	C7548400	7549247	7549248	Fuzed	2	
3	37013	M328 (d)	Smoke	F8797829	M30	STD-A	F8797838	WP	8.14		Burster INIT M3 CHG M35		(p) 8797844 8797832	(h)	Steel	Tubing FORG	F8797841	M521	PD	7549112		(h)		M36	0.69	D8797836	M2	D8797831	(x)	(x)	C7549150	7549247	7549248	Fuzed	3	
4	36841	M335	Illuminating	75-1-325	M30	STD-A	75-14-668	ILLUM	2.50	75-14-669	Charge (z) Ejection Init Fire	0.157 0.125	75-14-671 75-14-669	75-2-523	Steel	Tubing	75-2-524	(n) M501A1	MTSQ	73-7-136		(h)		M36	0.69	D8797836	M2	D8797831	(x)	(x)	C7549150	7549247	7549248	Fuzed	4	
5	37119 36841	M2 (f) M2A1	Smoke	75-1-284	M30	STD-B	75-14-630	WP	7.50		Casing, Burster, M14	0.73	73-1-228	(f)	Steel	Tubing FORG	75-2-423 75-2-421	M8	PD	73-2-311		(f)	25.10	M6	0.43	71-12-27	M2	D8797831	11,950	822	76-1-1194	76-1-1189	76-1-1188	Fuzed	5	
6	37119 36841	M2 (f) M2A1	Smoke	75-1-284	M30	STD-B (aa)	75-14-630	FM	7.50		Casing, Burster, M14	0.73	73-1-228	(f)	Steel	Tubing FORG	75-2-423 75-2-421	M8	PD	73-2-311		(f)	25.10	M6	0.43	71-12-27	M2	D8797831	11,950	822	76-1-1194	76-1-1189	76-1-1188	Fuzed	6	
7	37119 36841	M2 (f) M2A1	Smoke	75-1-284	M30	STD-B	75-14-630	PWP	6.25		Casing, Burster, M14	0.73	73-1-228	(f)	Steel	Tubing FORG	75-2-423 75-2-421	M8	PD	73-2-311		(f)	23.80	M6	0.43	71-12-27	M2	D8797831	11,950	822	76-1-1194	76-1-1189	76-1-1188	Fuzed	7	
8	37119 36841	M2 (f) M2A1	Gas	75-1-284	M30	STD-B (a)	75-14-630	H-Persistent	6.20		Casing, Burster, M14	0.73	73-1-228	(f)	Steel	Tubing FORG	75-2-423 75-2-421	M8	PD	73-2-311		(f)	23.70	M6	0.43	71-12-27	M2	D8797831	11,950	822	76-1-1194	76-1-1189	76-1-1188	Fuzed	8	
9	37119 36841	M2 (f) M2A1	Gas	75-1-284	M30	STD-B (a)	75-14-630	HD-Persistent	6.00		Casing, Burster, M14	0.73	73-1-228	(f)	Steel	Tubing FORG	75-2-423 75-2-421	M8	PD	73-2-311		(f)	23.50	M6	0.43	71-12-27	M2	D8797831	11,950	822	76-1-1194	76-1-1189	76-1-1188	Fuzed	9	
10	37119 36841	M2 (f) M2A1	Gas	75-1-284	M30	STD-B (a)	75-14-630	HT-Persistent	5.75		Casing, Burster, M14	0.73	73-1-228	(f)	Steel	Tubing FORG	75-2-423 75-2-421	M8	PD	73-2-311		(f)	23.30	M6	0.43	71-12-27	M2	D8797831	11,950	822	76-1-1194	76-1-1189	76-1-1188	Fuzed	10	
11	37119 36841	M2 (f) M2A1	Gas	75-1-284	M30	STD-B	75-14-630	CK-Nonpersistent	5.00		Casing, Burster, M14	0.73	73-1-228	(f)	Steel	Tubing FORG	75-2-423 75-2-421	M8	PD	73-2-311		(f)	22.60	M6	0.43	71-12-27	M2	D8797831	11,950	822	76-1-1194	76-1-1189	76-1-1188	Fuzed	11	
12	37119 36841	M2 (f) M2A1	Gas	75-1-284	M30	STD-B	75-14-630	CG-Nonpersistent	6.25		Casing, Burster, M14	0.73	73-1-228	(f)	Steel	Tubing FORG	75-2-423 75-2-421	M8	PD	73-2-311		(f)	23.80	M6	0.43	71-12-27	M2	D8797831	11,950	822	76-1-1194	76-1-1189	76-1-1188	Fuzed	12	
13	NA	M328 Modified	Smoke	75-1-284	M30	STD-A	75-14-630	WP	7.50		Casing, Burster, M14	0.73	73-1-228	(f)	Steel	FORG		(v) M8	PD	73-2-311		(f)	(w)		M6	0.43	71-12-27	M2	D8797831	11,950	822	76-1-1194	76-1-1189	76-1-1188	Fuzed	13
14	37119	M2 M2A1	Smoke	75-1-284	M30	OBS	75-14-630	FS	7.50		Casing, Burster, M14	0.73	73-1-228	(f)	Steel	Tubing FORG	75-2-423 75-2-421	M8	PD	73-2-311		(f)	25.10	M6	0.43	71-12-27	M2	D8797831	11,950	822	76-1-1194	76-1-1189	76-1-1188	Fuzed	14	
Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	Col. No.		

SYMBOLS

- OTCM - Ordnance Technical Committee Minutes
- STD - Standard
- LS - Limited Standard
- CG - Phosgene Gas (Nonpersistent)
- FM - Titanium Tetrachloride
- H - Mustard Gas (Persistent)
- HD - Distilled Mustard Gas (Persistent)
- HE - High Explosive
- HT - Mustard-T Mixture Gas (Persistent)
- PWP - Plasticized White Phosphorus
- TSQ - Time and Superquick
- WP - White Phosphorus
- ILLUM - Illuminant
- TNT - Trinitrotoluene
- ALT - Alternate
- SUPPL CHG - Supplementary Charge
- FORG - Forging
- INIT - Initiator
- CHG - Charge
- CTG - Cartridge
- MTSQ - Mechanical Time and Superquick
- PD - Point Detonating
- CK - Cyanogen Chloride Gas (Nonpersistent)
- OBS - Obscure
- FS - Sulfur Trioxide-Chlorosulfonic Acid
- MOD - Modified
- NA - Not Available

NOTES

- (a) - Substitute Standard.
- (b) - Also designated as, Tail Assembly.
- (c) - Fuze, TSQ, M5, Dwg. 73-3-181, separate issue for field assembly.
- (d) - Packing Dwg. 76-1-1192.
- (e) - Alternative - CTG, M328B1 (E84R7) (STD-B).

CTG	METAL PARTS				OBTURATING MECHANISM	
	Designation (Column 1)	Assembly Dwg. No. (Column 13)	SHELL BODY		Assembly Dwg. No. (Column 20)	Ignition CTG Container Extension
			Form (Column 15)	Dwg. No. (Column 16)		
(f) -	M2	75-2-420	FORG	75-2-421	75-2-426 *	-
	M2 ALT	75-2-422	Tubing	75-2-423	75-2-426 *	-
	M2A1	75-2-443	FORG	75-2-421	75-2-534	Without
	M2A1 ALT	75-2-445	Tubing	75-2-423	75-2-534	Without
(g) -	M3	75-2-427	FORG	75-2-428	75-2-426 *	-
	M3 ALT	75-2-429	Tubing	75-2-430	75-2-426 *	-
	M3A1	75-2-441	FORG	75-2-428	D8797834	With
	M3A1 ALT	75-2-442	Tubing	75-2-430	D8797834	With
(h) -	M335	75-2-523	Tubing	75-2-524	D8797834	With
	M328	F8797829	Tubing	F8797841	D8797834	With
	M328B1	F8797829	FORG	F8797841	D8797834	With
	M329	75-2-453	Tubing	75-2-455	D8797834	With
	M329B1	75-2-453	FORG	75-2-457	D8797834	With

* Indicates right-hand thread. Others are left-hand thread.

- (k) - Some rounds on hand designated M3, HE rounds.
 - (l) - Some rounds on hand with improved M3, PD Fuzes. (For emergency combat use only.)
 - (m) - Some rounds on hand with M501, MTSQ Fuzes.
 - (n) - Casing, Burster, T31, Dwg. 8800316.
 - (o) - Weight of M3A1 ALT is 26.20 Lbs.
 - (p) - Fuzes, MTSQ, M500, M500A1 and M520 may be used.
 - (q) - Some rounds on hand with M9, PD, Fuzes.
 - (r) - Refer to AR 705-6.
 - (s) - This round is a modification M2A1, Smoke, WP rounds.
 - (t) - M2A1, Smoke, WP Round Body is used for this round with certain modifications, Dwg. OAC-RA-100062.
 - (u) - Weight of M328MOD, Round is the same as the Minimum weight of the M328 Smoke round.
 - (v) - Round Pressure Velocity Propellant Increments
- | | Pressure | Velocity | Propellant | Increments |
|--------|----------|----------|------------|------------|
| M329B1 | 11,500 | 964 | M36 | 41 |
| | 11,300 | 845 | M6 | 25 |
| M328 | 11,500 | 964 | M36 | 41 |
| | 11,300 | 845 | M6 | 25 |
| M328 | 11,500 | 964 | M36 | 41 |
| | 11,300 | 845 | M6 | 25 |
- (y) - Fuze Seat Liner, Dwg. 8797092.
 - (z) - Parachute Assembly, Dwg. 75-14-670.
 - (aa) - M2A1, FM rounds are OBS. (OTCM 37119).
 - (bb) - 4.2-Inch, Mortar, M30 W/Mount, M241 is (STD-B), 4.2-Inch, Mortar, M30 W/Mount, M241A1 is (STD-A) (OTCM 36841).

PREPARED BY:
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ISSUED: 1 JUNE 1961
SHEET NO. 20

AMMUNITION FOR 120MM GUN, M1A3 & M58

LINE NUMBER	OTCM NO.	PROJECTILE													PROPELLING ASSEMBLAGE							CALIBRATION VALUE		PACKING					LINE NUMBER									
		Designation	Type	Complete Assembly Drawing Number	(v) Model of Gun	(r) Type Classification	LOADING					METAL PARTS			FUZE		Loaded and Fuzed Wt. (LB)	PROPELLING CHG ASSEMBLY		CARTRIDGE CASE		PROPELLANT		PRIMER		Pressure (psi)	Velocity (fps)	Fuze Packing Drawing Number		Propel-ling Charge Assembly Dwg. No.	PROJECTILE							
							Assembly Drawing Number	FILLER		COMPONENTS		Assembly Drawing Number	BODY		Designation and Type	Drawing Number		Designation	Drawing Number	Designation	Drawing Number	Designation	Nominal Wt. (LB)	Designation and Type	Drawing Number						Inner Pack Dwg. No.	Outer Pack Dwg. No.	Shipped					
								Compo-sition	Wt. (LB)	Drawing Number	Kind		Wt. (LB)	Drawing Number																				Material	Material Form	Drawing Number		
1	36841	M73	HE	75-18-48	M1A3	STD-B	75-14-318	TNT	5.26		SUPPL CHG	0.365	8797090	75-18-40	Steel	FORG	75-18-59	M506 MTSQ	73-7-237	50.00	M15A2	71-9-161	M34	71-2-161	M6	24.00	M57 PERC	8838009	37,200	3,100	F7548406	F7548593	F7548598	F7548599	Fuzed	1		
2	36841	M73	HE	75-18-56	M1A3	STD-B	75-14-477	TNT	4.83		SUPPL CHG	0.365	8797090	75-18-40	Steel	FORG	75-18-59	M506 MTSQ	(c/p)	(m)	47.33	M15A2	71-9-161	M34	71-2-161	M6	24.00	M57 PERC	8838009	37,200	3,100	-	F7548593	F7548598	F7548599	With & W/O Fuze	2	
3	36841	M356	HE-T	75-1-377	M58	STD-A	75-14-708	COMP B	7.95		Tracer M5A3B1 (Mod)	0.10	75-17-15	75-2-585	Steel	FORG	75-2-581	M51A5 PD	8796862	50.41	M45	71-9-270	M109	D7548022	M15	12.30	M67 PERC ELEC	F7548520	38,500	2,500	F7548120	F7548593	F7548597	F7548596	Fuzed	3		
4	-	M357 (T16E3)	Smoke WP-T	75-1-372	M58	-	75-14-707	WP	7.51		Tracer (w) BTR-CHG BTR-ITR	0.10 0.55 0.06	8796866 73-1-226 73-1-225	P85052	Steel	FORG	P84998	M51A5 PD	73-2-140	50.41	M45	71-9-270	M109	D7548022	M15	12.30	M67 PERC ELEC	F7548520	38,500	2,500	C7549150	F7548593	F7548597	F7548596	Fuzed	4		
5	36841	M358	AP-T	F7548465	M58	STD-A	7548465	-	-	-	Tracer M5A2B1	0.10	8796866	D8593352	Hardened Steel & Aluminum	FORG	P8593350	-	-	50.02	M46	F7548559	M109	D7548022	M17	29.00	M67 PERC ELEC	F7548520	44,800	3,500	-	F7548593	F7548595	F7548596	Complete	5		
6	36841	M359	TP-T	F7548465	M58	STD-A	7548466	-	-	-	Tracer M5A2B1	0.10	8796866	D8593614	Low Carbon STL & ALUM	FORG	P8593612	-	-	50.93	M46	F7548559	M109	D7548022	M17	29.00	M67 PERC ELEC	F7548520	45,500	3,500	-	F7548593	F7548595	F7548596	Complete	6		
7	36841	M15	Dummy	72-1-84	M1A3	STD-B	72-1-84	Inert	5.26	72-1-84	-	-	-	75-18-40	Steel	FORG	75-18-59	M29 Dummy	72-5-12	49.53	M13	72-2-94	M24	71-2-113	M13 Dummy	24.00	Inert	74-2-42A	-	-	76-2-124	F7548593	F7548598	F7548599	Complete & W/Fuze	7		
8																																					8	
9																																						9
10																																						10
11																																						11
12																																						12
13																																						13
14																																						14
Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	Col. No.		

SYMBOLS

STD - Standard
 OTCM - Ordnance Technical Committee Minutes
 LS - Limited Standard
 HE - High Explosive
 HE-T - High Explosive with Tracer
 AP-T - Armor Piercing with Tracer
 TNT - Trinitrotoluene
 COMP - Composition
 MTSQ - Mechanical Time and Superquick
 MT - Mechanical Time
 PD - Point Detonating
 FORG - Forging
 SUPPL CHG - Supplementary Charge
 PERC - Percussion
 ELEC - Electric
 CTG - Cartridge
 CHG - Charge
 STL - Steel
 ALUM - Aluminum
 BTR-CHG - Burst-Charge
 BTR-ITR - Burst-Initiator

NOTES

(a) - Inert Head on primer only.
 (b) - With M21A4 Booster Body only.
 (c) - Fuzes, VT, M504 and M514B1 may be used with Supplementary Charge removed. Fuze, MTSQ, M506 with Booster, M21A4 is used with Supplementary Charge.
 (d) - See Dwg. 72-1-84 for additional information.
 (e) - See Dwg. P82892 for Closing Cup, M5.
 (f) - See Dwg. C8593349 for Plug and Obturator Assembly.
 (g) - Some rounds on hand assembled with Fuze, MT, M61A1, Inert.
 (h) - Cartridge Case, M24 Dwg. 71-2-113 (LS) may be used.
 (k) - Propelling CHG, M15A2 (STD-B), M15A1 and M15 (LS).
 (m) - Also Forging for Shell, M73 Dwg. 75-20-82.
 (n) - Weight includes Supplementary CHG with projectile unfuzed.
 (p) - Some rounds assembled with (LS) Fuzes, M61, M61A1 and M61A2.
 (q) - Some rounds assembled with M1B1A2 Primers.
 (r) - Refer to AR 705-6.
 (s) - See Dwg. P82074 for Bag Assembly.
 (t) - Propelling CHG Assembly includes CTG Case, Propellant and Primer.
 (u) - Wt. without Supplementary Charge.
 (v) - Anti-aircraft Guns M1A1, M1A2 and M1A3 (STD-B), Tank Gun M58 (STD-A).
 (w) - Also available with M48A3, PD, Fuze and without Tracer.

PREPARED BY
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 DOVER, NEW JERSEY
 ISSUED: 1 JUNE 1961
 SHEET NO. 21

AMMUNITION (SEPARATE LOADING) FOR 155MM HOWITZER M1, M1A1 AND M45 (f)

LINE NUMBER	OTCM NO.	PROJECTILE											PROPELLING ASSEMBLY						CALIBRATION VALUE		PACKING					LINE NUMBER								
		(a) Designation	Type	(f) Model of Howitzer	(d) Type Classification	Assembly Drawing Number	LOADING			METAL PARTS			FUZE			Weight Loaded and Fuzed (LB)	(b/z) PROPELLING CHARGE			PRIMER		(v) Pressure (psi)	(v) Velocity (fps)	Fuze Packing Drawing Number	Propelling Charge Metal Container Drawing Number		(t) Primer Retainer Drawing Number		PROJECTILE					
							FILLER			COMPONENTS			Assembly Drawing Number	BODY			Designation	Type	Drawing Number	Designation	Drawing Number						Nominal Wt. of Charge (LB)	(u) Designation	Type	Drawing Number	Pallet Drawing Number	(c) Shipped		
							Composition	Wt. (LB)	Drawing Number	Kind	Wt. (LB)	Drawing Number		Material	Form																		Drawing Number	
1	36841	M107	HE	All	(h) STD-C	75-14-616	TNT	15.34				75-4-99	Steel	FORG	75-20-80	M51A5 M520	(p/q) PD MTSQ	8796862 73-7-277	95.32	M3 M4A1	71-9-177 71-9-180	5.50 13.19	MK2A4	PERC	8840362	-	-	7548120 7548400	7548187	7548626	7549274	Unfuzed	1	
2	36841	M107	HE	All	(h) STD-A	75-14-449	TNT	14.61				75-4-99	Steel	FORG	75-20-80	M514 M51A5 M520	(p/q) PD MTSQ	8796862 73-7-277	92.47	M3 M4A1	71-9-177 71-9-180	5.50 13.19	MK2A4	PERC	8840362	-	-	7548120 7548400	7548187	7548626	7549274	Unfuzed	2	
3		M107	HE (Colored Marker)	All	STD-A							75-4-99	Steel	FORG	75-20-80					M3 M4A1	71-9-177 71-9-180	5.50 13.19	MK2A4	PERC	8840362	-	-	7548120 7548400	7548187	7548626	7549274	Unfuzed	3	
4	36841	M110	Gas HD	All	STD-A	75-14-317	HD Persistent	9.70				75-4-207	Steel	FORG	75-4-100	M51A5	(q) PD	8796862	92.50	M3 M4A1	71-9-177 71-9-180	5.50 13.19	MK2A4	PERC	8840362	-	-	7548120 7548400	7548187	7548626	7549274	Unfuzed	4	
5	36841	M110	Gas H	All	STD-A	75-14-317	H-Persistent	11.70				75-4-207	Steel	FORG	75-4-100	M51A5	(q) PD	8796862	93.10	M3 M4A1	71-9-177 71-9-180	5.50 13.19	MK2A4	PERC	8840362	-	-	7548120 7548400	7548187	7548626	7549274	Unfuzed	5	
6	36841	M121	Gas GB	All	(h) STD-A	75-14-656	GB Nonpersistent	6.50				75-4-199	Steel	FORG	75-4-100	M508	(q) PD	7549041	101.23	M3 M4A1	71-9-177 71-9-180	5.50 13.19	MK2A4	PERC	8840362	-	-	7548120 7548400	7548187	7548626	7549274	Unfuzed	6	
7	36841	M110	Smoke	All	(h) STD-A	75-14-317	WP	15.60				75-4-207	Steel	FORG	75-4-100	M51A5	(q) PD	8796862	97.50	M3 M4A1	71-9-177 71-9-180	5.50 13.19	MK2A4	PERC	8840362	-	-	7548120 7548400	7548187	7548626	7548274	Unfuzed	7	
8	36841 37107	M116B1	Smoke	All	(h) (o) STD-B	75-14-381	(m/n) (m/n) (m/n) Ejection & Ignition Charge	0.28	73-14-381	75-4-112	Steel	FORG	75-4-121	M501A1	(r) MTSQ	73-7-136	(m) M3 M4A1	71-9-177 71-9-180	5.50 13.19	MK2A4	PERC	8840362	-	-	7549150	7548187	7548626	7549274	Unfuzed	8				
9	37107	M105	Smoke	All	(y) STD-C	OBSOL 75-14-293	WP	15.60				OBSOL 75-4-90	Steel	FORG	75-20-80	M51A5	(q) PD	8796862	98.21	M3	71-9-177	5.50	MK2A4	PERC	8840362	-	-	7548120 7548400	7548187	7548626	7549274	Unfuzed	9	
10	36841 37107	M118A2 M118A2B1	Illuminating	All	(k) STD-B	75-14-480	ILLUM	4.30	75-14-679	Charges: Ejection 1st Fire	0.14 0.09	75-4-201 75-14-679	75-4-120	Steel	(k) FORG Tubing	75-4-121	(r) M501A1	MTSQ	73-7-136	103.06	M3 M4A1	71-9-177 71-9-180	5.50 13.19	MK2A4	PERC	8840362	-	-	7549150	7548187	7548626	7549274	Unfuzed	10
11	36841	M7 M7B1	Dummy	All	(aa) STD-A	-	-	-	-	-	-	72-1-69	MN, STL, BRZ	Casting	-	-	-	-	95.00	(e) M2 Dummy	72-2-54	7.37	Inert MK2A4	PERC	8840362	-	-	-	-	76-3-9 (Crate Packing)	Complete	11		
12	37119	MK1	Dummy	M1 & M1A1	OBS	-	-	-	-	-	-	72-1-28	(bb) Iron	Casting	-	-	-	-	-	M2 Dummy	72-2-54	7.37	Inert MK2A4	PERC	8840362	-	-	-	-	76-3-9 (Crate Packing)	Complete	12		
Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	Col. No.

SYMBOLS

OTCM - Ordnance Technical Committee Minutes
 STD - Standard
 LS - Limited Standard
 H - Mustard Gas, Persistent
 HD - Mustard Gas, Distilled Persistent
 HE - White, screening smoke, Hexachloroethane Mixture
 HT - High Explosive
 MT - Mechanical Time
 MTSQ - Mechanical Time and Superquick
 TSQ - Time and Superquick
 VT - Variable Time (Proximity)
 TNT - Trinitrotoluene
 STL - Steel
 CP - Concrete Piercing
 MN - Manganese
 BRZ - Bronze
 ILLUM - Illuminant
 GB - Gas, Non-persistent
 OBSOL - Obsolete
 FORG - Forging
 PD - Point Detonating
 SUPPL CHG - Supplementary Charge
 BE - Base Ejection
 WP - White Phosphorus
 CSTR - Canister
 ELEC - Electric
 PERC - Percussion

NOTES

(a) - This charge must be removed for the VT Fuze. The charge must be in place for Fuze, PD, M51A5 or M51A4; MT, M67A3; TSQ, M55A3; CP, M78; or MTSQ, M500A1.
 (b) - M3 Charge, Zones 1-5. M4A1 Charge, Zones 3-7.
 (c) - Use Eyebolt lifting plug, Dwg. 75-14-42, and Grommet, Dwg. 75-14-371.
 (d) - Refer to AR 705-6.
 (e) - Weight of complete assembly.
 (f) - Howitzers, 155MM, M1, M45 are (STD-B), M1A1 with carriage M1A2 is (STD-A) and M1A1 with carriage M1A1 is (STD-B) (OTCM 36841).
 (g) - Weight with supplementary charge and without fuze.
 (h) - Also authorized for use with 155MM guns, fired with normal charge only. (OTCM 35783)
 (k) - M118, M118A1, M118B1, M118A1B1 - STD-C, M118A2 shell body - Forging. M118A2B1 shell body - Tubing.
 (m) - Smoke, Filler

Color	Total Wt., Canister Assembly, (LB)	Wt. Loaded and Fuzed (LB)
Green	17.19	86.44
Red	17.19	86.44
Yellow	17.19	86.44
(o) Violet	17.19	86.44
HC	25.84	94.35

 (n) - Smoke, Filler

Color	Smoke Canister Dwg. Chemical Corps. Dwg.
Green	M3, Color, Dwg. C15-11-67
Red	M4, Color, Dwg. C15-11-70
Yellow	M1, HC, Dwg. C15-11-33
(o) Violet	M2, HC, Dwg. C15-11-41

(o) - Projectile, Smoke, Violet. M116 and M116B1, (STD-C) (OTCM 37107).
 (p) - Fuze, MT, M67 series may be used. Some Fuzes, MTSQ, M500A1 and M500 (LS) on hand. Fuze, CP, M78A1, Dwg. 73-2-214 and Booster, M25, may be used, non-delay or 0.025 second.
 (q) - Other combinations of Fuze, TSQ, M55; MT, M67; or PD, M51A4 are on hand.
 (r) - Some Fuzes, TSQ, M54 are on hand.
 (s) - Projectiles, HE, 155MM, M101 modified for use with Howitzer, M1, designated Projectile, HE, 155MM, M107B2 (OTCM 37107), (STD-C).
 (t) - Primer, Retainer packed in Propelling charge metal container.
 (u) - MK2A4, Perc, Primer, Dwg. 8840362, used with M1 Firing Lock. MK15, Elec, Perc, Primer, Dwg. 74-8-5 and MK34, Elec, Perc, Primer, Navy Dwg. LD276295, used with the T95 Firing Lock.
 (v) - Zone 3,4,5,6,7, are used with M4A1 Charge. Zone 1,2,3,4,5, are used with M3 Charge.
 When M3 Charge is used Pressure and Velocity are as follows:

Zone	Pressure	Velocity
1	4,800	680
2	6,200	770
3	8,400	880
4	12,000	1,020
5	18,900	1,220

 When M4A1 Charge is used Pressure and Velocity are as follows:

Zone	Pressure	Velocity
3	5,500	880
4	7,000	1,020
5	10,200	1,220
6	17,500	1,520
7	31,000	1,850

 These Pressures and Velocities apply to all Rounds using either M4A1 or M3 Propellant or both.

(w) - Burster Casing, M1 is used.
 (x) - Burster Casing, M15 is used.
 (y) - Projectile, M105, Smoke, WP is issued only for training purposes.
 (z) - Flash Reducer, M2 is used with M4A1 Propelling Charge and is intended primarily for night firings.
 (aa) - M7B1 is the same as the M7 except that the cap is Malleable Iron instead of Bronze.
 (bb) - Body is Cast Iron, other parts made of Steel or Bronze.

PREPARED BY:
 PICATINNY ARSENAL
 DOVER, NEW JERSEY
 ISSUED: 1 JUNE 1961
 SHEET NO. 22

AMMUNITION (SEPARATE LOADING) FOR 155MM GUN M2, M2A1 AND M46

LINE NUMBER	OTCM NO.	PROJECTILE											PROPELLING ASSEMBLY						CALIBRATION VALUE		PACKING					LINE NUMBER									
		Designation	Type	(c) Model of Gun	(u) Type Classification	Assembly Drawing Number	LOADING			METAL PARTS			FUZE			Weight Loaded and Fuzed (LB)	PROPELLING CHARGE (aa)			Primer (q)	Pressure (psi)	Velocity (fps)	Fuze Packing Drawing Number	Propelling Charge Metal Container Drawing Number	(s) Primer Retainer Drawing Number		PROJECTILE								
							FILLER		COMPONENTS		Assembly Drawing Number	BODY		Designation	Type		Drawing Number	Designation	Drawing Number								Nominal Wt. of Charge (LB)	Designation	Type	Drawing Number	Pallet Drawing Number	(r) Shipped			
							Composition	Wt. (LB)	Drawing Number	Kind		Wt. (LB)	Drawing Number																				Material	Form	Drawing Number
1	36841	M101	HE	All	STD-B	75-14-692	TNT	14.61		(d) SUPPL CHG	0.365	8797090	75-4-80	Steel	FORG	75-20-80	M514A1 M51A5 M520	VT (g/m) PD MTSQ	8796862 73-7-277	92.82	M19	71-9-94	31.60	MK2A4	PERC	8840362	17,300 38,600	2,100 2,800	7548120 7548400	7548187	7548626	7549274	Unfuzed	1	
2		M101	HE	All	STD-C	75-14-616	TNT	15.48		-	-	-	75-4-80	Steel	FORG	75-20-80	M51A5 M520	(g/m) PD MTSQ	8796862 73-7-277	92.94	M19	71-9-94	31.60	MK2A4	PERC	8840362	17,300 38,600	2,100 2,800	7548120 7548400	7548187	7548626	7549274	Unfuzed	2	
3	36841	M104	Smoke	All	STD-B	75-14-296	WP	15.60		(x) Burster M6	0.83	73-1-179	75-4-89	Steel	FORG	75-20-80	M51A5	PD	8796862	98.17	M19	71-9-94	31.60	MK2A4	PERC	8840362	17,300 38,600	2,100 2,800	7548120 7548400	7548187	7548626	7549274	Unfuzed	3	
4	36841	M104	Gas	All	STD-B	75-14-296	HD Persistent	11.70	(t)	(x) Burster M6	0.83	73-1-179	75-4-89	Steel	FORG	75-4-100	M51A5	PD	8796862	(t/h) 92.67	M19	71-9-94	31.60	MK2A4	PERC	8840362	17,300 38,600	2,100 2,800	7548120 7548400	7548187	7548626	7549274	Unfuzed	4	
5	36841	M122	Gas	All	STD-B		GB Nonpersistent	6.50	(y)	(z) Burster M37	2.72	73-1-264	75-4-208	Steel	FORG	75-4-206	M508	PD	7549041	(h) 97.78	M19	71-9-94	31.60	MK2A4	PERC	8840362	17,300 38,600	2,100 2,800	7548120 7548400	7548187	7548626	7549274	Unfuzed	5	
6	36841	M107	HE	All	STD-A	75-14-449	TNT	14.61		(d) SUPPL CHG	0.365	8797090	75-4-99	Steel	FORG	75-20-80	M514A1 M51A5 M520	VT (g/m) PD MTSQ	8796862 73-7-277	92.47	M19	71-9-94	31.60	MK2A4	PERC	8840362	17,300 38,600	2,100 2,800	7548120 7548400	7548187	7548626	7549274	Unfuzed	6	
7		M107	HE	All	STD-C	75-14-616	TNT	15.34		-	-	-	75-4-99	Steel	FORG	75-20-80	M51A5 M520	(g/m) PD MTSQ	8796862 73-7-277	92.66	M19	71-9-94	31.60	MK2A4	PERC	8840362	17,300 38,600	2,100 2,800	7548120 7548400	7548187	7548626	7549274	Unfuzed	7	
8	36841 37107	M116B1	Smoke	All	STD-B	75-14-381	(n)	(n)	(n)	Ejection & Ignition Charge	0.28	75-14-381	75-4-112	Steel	FORG		M501A1	MTSQ	73-7-136	(k)	M19	71-9-94	31.60	MK2A4	PERC	8840362	17,300 38,600	2,100 2,800	7548120 7548400	7548187	7548626	7549274	Unfuzed	8	
9	36841	M110	Smoke	All	STD-A	75-14-317	WP	14.70		(x) Burster M6	0.83	73-1-179	75-4-207	Steel	FORG	75-4-100	M51A5	PD	8796862	97.50	M19	71-9-94	31.60	MK2A4	PERC	8840362	17,300 38,600	2,100 2,800	7548120 7548400	7548187	7548626	7549274	Unfuzed	9	
10	36841 37107	M118A2 M118A2B1	Illuminating	All	STD-B	75-14-480	ILLUM	4.30	75-14-679	Charges: Ejection 1st Fire	0.14 0.09	75-4-201 75-14-697	75-4-120	Steel	FORG Tubing	75-4-121	M501A1	MTSQ	73-7-136	(e)	M19	71-9-94	31.60	MK2A4	PERC	8840362	17,300 38,600	2,100 2,800	7548120 7548400	7548187	7548626	7549274	Unfuzed	10	
11	36841	M7 M7B1	Dummy	All	STD-A	-	-	-	-	-	-	72-1-69	Bronze Steel MN BRZ	Casting	-	-	-	-	-	(p)	M100 Dummy	72-2-28	32.20	Inert MK2A4	PERC	8840362	-	-	-	-	-	76-3-9 (Crte Packing)	Complete	11	
12																																		12	
13																																			13
14																																			14
Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	Col. No.	

SYMBOLS

- OTCM - Ordnance Technical Committee Minutes
- STD - Standard
- LS - Limited Standard
- HE - High Explosive
- MT - Mechanical Time
- PD - Point Detonating
- BE - Base Ejection
- TNT - Trinitrotoluene
- TSQ - Time and Superquick
- WP - White Phosphorus
- MTSQ - Mechanical Time and Superquick
- PERC - Percussion
- FORG - Forging
- MN - Manganese
- BRZ - Bronze
- CP - Concrete Piercing
- HD - Mustard Gas, Distilled, Persistent
- GB - Gas, Persistent
- HC - Gas, Nonpersistent
- STL - White Screening Smoke, Hexachlorethane Mixture
- SUPPL CHG - Supplementary Charge
- ILLUM - Illuminant
- VT - Variable Time (Proximity)
- OBSOL - Obsolete
- CTG - Cartridge
- CSTR - Canister
- ELEC - Electric

NOTES

- (a) - Authorized for use with 155MM Gun with normal charge only, and for 155MM Howitzers, (OTCM 35783).
- (b) - Projectile, HE, 155MM, M101, modified for use in Howitzer, 155MM, M1, designated M107B2 (STD-C) (OTCM 37107).
- (c) - Guns, 155MM, M2 and M2A1 are (STD-B), Gun M46 is (STD-A) (OTCM 36841).
- (d) - This charge must be removed when using VT Fuze. The charge must be in place for Fuze, PD, M51A5 or M51A4; MT, M67A3; TSQ, M55A3; CP, M78; or MTSQ, M500A1.
- (e) - M118, M118A1, M118B1, M118A1B1, (STD-C) M118A2, shell body - Forging; M118A2B1, shell body - Tubing.
- (f) - Use Eyebolt Lifting Plug, Dwg. 75-14-42 and Grommet, Dwg. 75-14-371.
- (g) - Fuze, MT, M67 series may be used. Some fuzes, MTSQ, M500A1 and M500 (LS) on hand. Fuze, CP, M78A1, Dwg. 73-2-214 and Booster, M25, may be used, non-delay or 0.025 second.
- (h) - Weight is without fuze, grommet and lifting plug.
- (i) - Some fuzes TSQ, M54 are on hand.
- (m) - Other combinations of fuzes, TSQ, M55; MT, M67; or PD, M51A4 are on hand.
- (n) - Smoke, Filler Total Wt. Canister Wt. Loaded Smoke, Canister Dwgs. Color Assembly (LB) & Fuzed (LB) (Chemical Corp. Dwgs.)

Green	17.19	86.44
Red	17.19	86.44
Yellow	17.19	86.44
Violet	17.99	86.44
HC	25.84	94.35
- (o) - Projectile, Smoke, Violet, M116B1 (STD-C).
- (p) - Weight of complete assembly.

- (q) - Gun Primer
M2 and M2A1 Perc. MK2A4
M46 (T80) Elec/Perc. M15 or M34
- (r) - M21A4 Booster, assembled to some fuzes.
- (s) - Primer Retainer in propelling charge metal container.
- (t) - Weights pertain to M104, H, Gas projectile.
- (u) - Refer to AR 705-6.
- (v) - 17,300 and 2,100 are with reduced CHG, 38,600 and 2,800 are with full CHG.
- (w) - M7B1, Projectile same as M7, Projectile except that the cap is Malleable Iron instead of Bronze.
- (x) - Burster Casing, M1 is used.
- (y) - Burster Casing, M15 is used.
- (z) - 2.72 Lbs. of Tetrytol. Burster Assembly weight 4.70 Lbs.
- (aa) - Flash Reducer, M1 is used with M19 (normal charge) and is intended primarily for night firings.

PREPARED BY:
PICATINNY ARSENAL
DOVER, NEW JERSEY
ISSUED: 1 JUNE 1961
SHEET NO. 23

AMMUNITION FOR 165MM GUN M57 (a)

LINE NUMBER	OTCM NO.	CARTRIDGE					PROJECTILE										PROPELLING ASSEMBLAGE						CALIBRATION VALUE		PACKING			LINE NUMBER											
		Designation	Type	Assembly Drawing Number	Model of Gun	(b) Type Classification	LOADING			METAL PARTS			FUZE			Loaded and Fuzed Wt. (LB)	CARTRIDGE CASE		PROPELLANT			PRIMER			Pressure (psi)	Velocity (fps)	Fuze Packing Drawing Number		CARTRIDGE										
							Assembly Drawing Number	FILLER		COMPONENTS			Assembly Drawing Number	BODY			Designation	Type	Drawing Number	Designation	Drawing Number	Composition Designation	Nominal Wt. (LB)	Drawing Number					Designation	Type	Drawing Number	Inner Pack Dwg. No.	Outer Pack Dwg. No.	Shipped					
								Compo-sition	Wt. (LB)	Drawing Number	Kind	Wt. (LB)		Drawing Number	Material																				Material Form	Drawing Number			
1	36841	M123	HEP	P87701	M57	STD-A	P87702	COMP A3	34.35		-	-	-	P87703	Steel	Plate	P87704	M91A1 (Mod 7)	BD	73-2-239	64.96	M104	P88055	M2	1.88	P88977	M73	Elec	8840278	(f)	(f)	(c)	7548039	8796483	8795482	Fuzed	1		
2																																					2		
3																																						3	
4																																						4	
5																																						5	
6																																						6	
7																																						7	
8																																						8	
9																																						9	
10																																						10	
11																																						11	
12																																						12	
13																																							13
14																																							14
Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	Col. No.			

SYMBOLS

- OTCM - Ordnance Technical Committee Minutes
- STD - Standard
- HEP - High Explosive Plasticized
- BD - Base Detonating
- PERC - Percussion
- ELEC - Electric
- COMP - Composition
- OBSOL - Obsolescent
- LS - Limited Standard

NOTES

- (a) - Gun, 165MM, M57 - (STD-B).
- (b) - Refer to AR 705-6
- (c) - Alternative - Fuze packing drawing during interplant shipment only is P8799812.
- (d) - Handle for Case, Cartridge M104 - Assembly Dwg. P88991.
- (e) - Also Charge, Ignition, Supplementary, Black Powder, 0.046 Lbs., Dwg. P88978.
- (f) - Not available.
- (g) - M62A1, BD formerly used is now LS, M91A1, BD is STD-B.

PREPARED BY:
 PICATINNY ARSENAL
 DOVER, NEW JERSEY
 ISSUED 1 JUNE 1961
 SHEET NO. 2A

AMMUNITION (SEPARATE LOADING) FOR 8-INCH HOWITZER M2, M2A1 AND M47

LINE NUMBER	OTCM NO.	PROJECTILE														PROPELLING ASSEMBLY						CALIBRATION VALUE		PACKING					LINE NUMBER					
		Designation	Type	(f) Model of Howitzer	(a) Type Classification	LOADING						METAL PARTS			FUZE			Weight Loaded and Fuzed (LB)	PROPELLING CHARGE			PRIMER			Pressure (psi)	Velocity (fps)	Fuze Packing Drawing Number	Propelling Charge Metal Container Drawing Number		(h) Primer Retainer Drawing Number	PROJECTILE			
						Assembly Drawing Number	FILLER		COMPONENTS		Assembly Drawing Number	BODY		Designation	Type	Drawing Number	(c) Designation		Nominal Wt. of Charge (LB)	Drawing Number	Designation	Type	Drawing Number	Fallet Drawing Number							Shipped			
							Composition	Wt. (LB)	Drawing Number	Kind		Wt. (LB)	Drawing Number																			Material	Form	Drawing Number
1	36841	M106	HE	All	STD-A	75-14-616	TNT	36.75	-	-	-	75-4-76	Steel	FORG	75-4-160	(d)			200	M1 M2	13.30 28.30	71-9-165 71-9-169	(g)			(o)	(o)	(d)	7548187	7548626	7548346	(m) Unfuzed	1	
2	36841	M106	HE	All	STD-A	75-14-457	TNT	36.32	(e) SUPPL CHG	0.365	8797090	75-4-76	Steel	FORG	75-4-160	(d)			200	M1 M2	13.30 28.30	71-9-165 71-9-169	(g)			(o)	(o)	(d)	7548187	7548626	7548346	(m) Unfuzed	2	
3	36841	(n) M4	Dummy	All	STD-A	-	-	-	-	-	-	75-1-82	Steel	Casting	72-1-83	-	-	-	200	M4 Dummy	28.75	72-2-68	Inert MK2A4	PERC	C8840362	-	-	-	7548187	-	76-3-9	(k) Complete	3	
4	37119	MK1A1	Dummy	All	OBS	-	-	-	-	-	-	72-1-29	Steel	Casting		-	-	-	200	M4 Dummy	28.75	72-2-68	Inert MK2A4	PERC	C8840362	-	-	-	7548187	-	76-3-9	(k) Complete	4	
5	37368	(w) M424	HE Spotting	All	STD-A	8787836	Tri-tonal 80/20	11.75	-	-	-	8787837	Steel		8787839	(t) M543	MT	8594379	243.16	T94	(u)	8797290	(g)			(w)	(w)	8794406	8786326 76-5-85	8786329	8787063 Box Packing	(a) Unfuzed	5	
6																																	6	
7																																	7	
8																																	8	
9																																	9	
10																																	10	
11																																	11	
12																																	12	
13																																	13	
14																																	14	
Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	Col. No.

SYMBOLS

- OTCM - Ordnance Technical Committee Minutes
- STD - Standard
- LS - Limited Standard
- HE - High Explosive
- TNT - Trinitrotoluene
- MTSQ - Mechanical Time and Superquick
- PD - Point Detonating
- CP - Concrete Piercing
- VT - Variable Time (Proximity)
- FORG - Forging
- PERC - Percussion
- SUPPL CHG - Supplementary Charge
- CI - Cast Iron
- STL - Steel
- BRZ - Bronze
- OBS - Obsolete
- MT - Mechanical Time

NOTES

- (a) - Refer to AR 705-6.
 - (b) - Dwg. 75-20-88 may be used.
 - (c) - Propelling Charge M1 contains M6 propellant loaded in green bag for inner (1-5) zones of fire. Propelling Charge M2 contains M1 propellant loaded in white bag for outer (5-7) zones of fire. Ignition charge (0.313 Lbs. Black Powder) is sewn to base charge.
 - (d) - Fuzes acceptable for use:
- | Designation | Type | Drawing Number | Booster Designation | Fuze packing Box Drawing Number |
|-------------|------|----------------|---------------------|---------------------------------|
| M51A5 | PD | 8796862 | M21A4 | F7548400 |
| M51A4 | | | | |
| M520 | MTSQ | 73-7-277 | M125 | F7548400 |
| M500A1 | | | M21A4 | F7548400 |
| M500 | | | | |
| M78A1 | CP | 73-2-214 | M25 | F8796522 |
| M78 | | | | |
| * M51A1 | VT | (Navy Dwg.) | None | (Navy Dwg.) |
| M514 | | | | |
- * For use in deep cavity projectiles with the supplementary charge removed.
 - (e) - Some deep cavity rounds on hand without supplementary charge.
 - (f) - Howitzer, 8-inch, M2 and M2A1, on towed vehicles, (STD-B) and (STD-A) respectively, M47 (T69) on self-propelled vehicle (STD-B).

- (g) - Primers used on 8-inch Howitzers: M2 and M2A1, Howitzer: - Primer, Perc, MK2A4, M47, Howitzer: - Primers, Perc and Elec. MK15 Mod 1 or MK34 Mod 0.
 - (h) - Also see Dwgs. 8797608 and 7548627.
 - (k) - Wooden crate packing box drawing.
 - (m) - Use Eyebolt Lifting Plug, Dwg. 75-14-42 and Grommet, Dwg. 75-14-371.
 - (n) - M4, Dummy round simulates, M106, HE rounds.
 - (o) - Pressure Velocity Zone (p)
- | Pressure | Velocity | Zone (p) |
|----------|----------|----------|
| 7,600 | 820 | 1 |
| 9,600 | 900 | 2 |
| 12,400 | 1,000 | 3 |
| 17,100 | 1,150 | 4 |
| 27,000 | 1,380 | 5 |
| 12,900 | 1,380 | 5 |
| 19,800 | 1,640 | 6 |
| 32,000 | 1,950 | 7 |
- (p) - Zones 1 through 5 are loaded with M1 Charge. Zones 5 through 7 are loaded with M2 Charge.
 - (r) - Shell body is Cast Steel, other components are made of Cast Iron or Bronze.
 - (s) - Fuze and Nose Plug are removed during shipping.

- (t) - Uses Booster, M21A4, Dwg. 8798183.
 - (u) - Contains 3 charges: Charge #1 - 7 Lb. 10 Oz. Charge #2 - 7 Lb. 12 Oz. Charge #3 - 15 Lbs. Also Black Powder Igniter, .5 Oz.
 - (v) - This round is used as a spotting round for the Atomic Cannon.
 - (w) - Pressure Velocity Charge
- | Pressure | Velocity | Charge |
|----------|----------|--------|
| 5,800 | 820 | #1 |
| 11,000 | 1,150 | #2 |
| 32,500 | 1,795 | #3 |

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 PICATINNY ARSENAL
 DOVER, NEW JERSEY
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AMMUNITION (SEPARATE LOADING) FOR 240MM HOWITZER M1 (h)

LINE NUMBER	OTCM NUMBER	(k) Type Classification	(h) Model of Howitzer	PROJECTILE									BOOSTER		FUZE			(p) PROPELLING CHARGE				PRIMER		PACKING					LINE NUMBER		
				Designation	Type	Metal Parts Drawing Number	MATERIAL			CHARGE			Weight Loaded and Fuzed (LB)	Designation	Drawing Number	Designation	Type	Drawing Number	CARTRIDGE BAG		Designation	Nominal Weight Charge (LB)	Designation and Type	Drawing Number	Fuze Drawing Number	Booster Drawing Number	Propellant Drawing Number	Primer Retainer Drawing Number		(n) PROJECTILE	
							Kind	Type	Drawing Number	Loading Assembly Drawing Number	Kind	Weight (LB)							Type	Drawing Number										Designation	Drawing Number
1	36683	OBS	M1	M114	HE	75-4-92	Steel	FORG	75-20-89 (m)	75-14-616	TNT	54.06	360	M21A4	D8798183	M51A5 (d)	PD	D8796862	Base & Increment	71-9-190	M23	78.5 (e)	MK2A4 PERC	8840362	C7548400	76-7-738	20-4-422	F7548626	(a)	Unfuzed	1
2	36683	OBS	M1	M114	HE	75-4-92	Steel	FORG	75-20-89 (m)	75-14-616	TNT	54.06	360	M21A4	D8798183	M500A1 (d/f)	MTSQ	D8796864	Base & Increment	71-9-190	M23	78.5 (e)	MK2A4 PERC	8840362	C7548400	76-7-783	20-4-422	F7548626	(a)	Unfuzed	2
3	36683	OBS	M1	M114	HE	75-4-92	Steel	FORG	75-20-89 (m)	75-14-456	TNT	53.64 (b)	361.40 (o)	SUPPL CHG (b)	A8797090	M96 (b/d)	VT		Base & Increment	71-9-190	M23	78.5 (e)	MK2A4 PERC	8840362	-	20-4-422	F7548626	(a)	Unfuzed	3	
4	36683	OBS	M1	M12	Dummy	72-1-79	CI, STL Bronze	Casting & FORG	72-1-80 72-1-81	-	-	-	360	-	-	-	-	-	Base & Increment	72-2-86	M12	80.0	MK2A4 PERC	8840362	-	-	20-4-422	F7548626	(a) 76-3-9	Complete	4
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Col No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Col No.

SYMBOLS

- OTCM - Ordnance Technical Committee Minutes
- STD - Standard
- OBS - Obsolete
- HE - High Explosive
- CI - Cast Iron
- FD - Point Detonating
- MT - Mechanical Time
- PERC - Percussion
- CP - Concrete Piercing
- VT - Variable Time (Proximity)
- MTSQ - Mechanical Time Superquick
- SUPPL CHG - Supplementary Charge
- CHG - Charge
- STL - Steel
- TNT - Trinitrotoluene

NOTES

- (a) - Use Eyebolt Lifting Plug, Dwg. 75-14-42 and Grommet, Dwg. 75-14-371.
- (b) - Weight is with supplementary charge in place and weighing .365 Lbs. This charge is removed when using VT, Fuze, M96. Charge must be in place when using the following Fuzes; PD, M51A5; PD, M51A4; MTSQ, M500A1 and MT, M67A3.
- (c) - Wooden Crate Packing Dwg. For Packing and Marking Instructions see Dwg. 20-4-90.
- (d) - Fuze, CP, M78A1, non-delay or .025 Sec. delay, Dwg 73-2-214 and Booster, M25 may be used.
- (e) - Weight of M6 Propellant, Also contains .5 Lbs. of Black Powder in Igniter.
- (f) - Fuze, MT, M67 series may be used.
- (h) - 240MM, Howitzer, M1 is OBS.
- (k) - Refer to AR 705-6.
- (m) - This Dwg. not mandatory.
- (n) - Primer Retainer packed in Propelling CHG metal container.
- (o) - Weight is w/o fuze, but with Lifting Plug and Grommet in place.
- (p) - Pressure and Velocity for M114, HE, rounds:

Zone	Pressure	Velocity
1	10,400	1,500
2	15,100	1,740
3	22,900	2,020
4	34,000	2,300

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AMMUNITION (SEPARATE LOADING) FOR 280MM GUN M66 (b)

LINE NUMBER	OTCM NO.	PROJECTILE											PROPELLING ASSEMBLAGE					CALIBRATION VALUES		PACKING					LINE NUMBER											
		Designation	Type	Model of Gun	Type Classification	LOADING			METAL PARTS			FUZE			Loaded and Fuzed Wt. (LB)	PROPELLING CHARGE			PRIMER (g)		Pressure (psi)	Velocity (fps)	Fuze Packing Drawing Number	Propelling Charge Metal Container Dwg. No.		PROJECTILE										
						Assembly Drawing Number	FILLER		COMPONENTS		Assembly Drawing Number	BODY		Designation		Type	Drawing Number	Designation	Nominal Weight (LB)	Drawing Number						Designation	Type	Drawing Number	Shipping Crate Drawing Number	(d) Shipped						
							Composition	Wt. (LB)	Drawing Number	Kind		Wt. (LB)	Drawing Number																		Material	Form	Drawing Number			
1	37255	M124 (T122E4)	HE	M66	STD-A	P84206	TNT	101.70		SUPPL CHG	0.365	8797090	P85476	Steel	FORG	P85477	(h)			597.66	M43 (T44)	156.92	P84119	MK15 (Mod.) 1	PERC ELEC	74-8-5	(k)	(k)	(h)	F7548187	F7548626	F7548603	Unfuzed	1		
2	37119	M124A1 (T122E3)	HE	M66	STD-B	P84206	TNT	101.70		SUPPL CHG	0.365	8797090	P85208	Steel	Casting	P84207	(h)			597.66	M43 (T44)	156.92	P84119	MK15 (Mod.) 1	PERC ELEC	74-8-5	(k)	(k)	(h)	F7548187	F7548626	F7548603	Unfuzed	2		
3																																			3	
4																																				4
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SYMBOLS

OTCM - Ordnance Technical Committee Minutes
 STD - Standard
 LS - Limited Standard
 HE - High Explosive
 TNT - Trinitrotoluene
 SUPPL CHG - Supplementary Charge
 FORG - Forging
 PERC - Percussion
 ELEC - Electric
 ED - Point Detonating
 MTSQ - Mechanical Time and Superquick
 VT - Variable Time (Proximity)
 CP - Concrete Piercing

NOTES

(a) - Refer to AR 705-6.
 (b) - Gun, 280MM, M66 - (STD-B).
 (c) - For use in deep cavity projectile with SUPPL CHG removed.
 (d) - Shipped with Grommet, Dwg. P81921 and Lifting Plug, Dwg. 75-14-42.
 (e) - Primer Retainer shipped in propelling charge metal container. Also see Dwgs. P8797608 and F7548627.
 (f) - Propelling Charge M43 (T44) contains M6 propellant loaded in green bag for (1-4) zones of fire. Igniter pad (1.50 Lbs. of Black Powder) strapped to base charge.
 (g) - Primer, Perc and Elec, MK15, Mod. 1, is adopted for interim use until Primer, Perc and Elec, T106E1 Dwg. P86729 has successfully completed tests.

(h) - Fuzes acceptable for use:

Fuze Designation	Type	Assembly Drawing Number	Booster Designation	Fuze Packing Box Dwg. No.
M535	PD	73-2-341	T35E7	F7548400
M520	MTSQ	73-7-277	M125	F7548400
M51A5	PD	8796862	M21A4	F7548400
M51A4				
M50CA1	MTSQ	8796864	M21A4	F7548400
M500				
M78A1	CP	73-2-214	M25	F8796522
M78				
(a) M514B1				
M514	VT	(Navy Dwg.)	None	(Navy Dwg.)

(k) - Pressure, Velocity and Zone for M124 and M124A1, HE Rounds:

Pressure	Velocity	Zone
8,800	1,380	1
15,400	1,780	2
2,200	2,100	3
33,400	2,500	4

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AMMUNITION FOR SUBCALIBER WEAPONS

LINE NUMBER	OTCM NO.	CARTRIDGE					PROJECTILE						PROPELLING ASSEMBLAGE					PACKING			WEAPON									LINE NUMBER				
		Caliber	Designation	Type	Assembly Drawing Number	Type Classification	LOADING			METAL PARTS			FUZE			CARTRIDGE CASE		PROPELLANT			Primer	CARTRIDGE			SUBCALIBER ASSEMBLAGE						PARENT GUN			
							Assembly Drawing Number	FILLER		Assembly Drawing Number	BODY		Designation	Type	Drawing Number	Loaded and Fuzed Weight (LB)	Designation	Drawing Number	Designation	Nominal Weight (LB)		Inner Pack Drawing Number	Outer Pack Drawing Number	Shipped	GUN						Mount Designation	Caliber	Type	Designation
								Compo-sition	Wt. (LB)		Material	Form													Caliber	Designation	Type	Description	Type Classification					
1	37119	Cal. 30	M2	Ball	B6137544 G7553431	STD-A	-	-	-	B8595558 B6171959	GM GM-CS	Bullet	-	-	-	(b) 390.0 376.0	Brass Steel	06000045 B6000045A	WC852	50.00 Grains				Complete	Cal.30	M7	Rifle	Simulate Ammo	LS		75MM	Rifle	M20	1
2	36841																							Cal.30	M9	Rifle	Simulate Ammo	STD-A		106MM	Rifle	M40	2	
3	37119 36841	37MM	M63 Mod 1	TP	75-1-172	STD-B	75-14-429	Blank Powder	0.056	GA2299	Steel	Bar	M58 (PRAC)	BD		1.63	(c) MK1A2	71-2-73	M2	0.56	PERC M23A2	76-1-1160	76-1-1263	Fuzed	37MM	M12	Gun	Interior Mount	STD-A		75MM	Howitzer	M1A1, M2, LVT(A) 4 and LVT(A) 5	3
4	36841																							37MM	M13	Gun	Interior Mount	STD-A		105MM	Howitzer	M2A1, M2 Series M4 Series	4	
5	37119																							37MM	M14	Gun	Interior Mount	STD-C		90MM	Gun	M1, M1A1, M3	5	
6	36841																							37MM	M15	Gun	Interior Mount	STD-A		76MM	Gun	M1A2, M1A1C, M4 on 76mm SP	6	
7	36841																							37MM	M1916	Gun	Exterior Mount	STD-A	M5	75MM	Pack Howitzer	M1, LVT(A) 4 LVT(A) 5	7	
8	37198																							37MM	M1916	Gun	Exterior Mount	STD-A	M10	155MM 8 inch	Gun Howitzer	M2 M1	8	
9	36841																							37MM	M1916	Gun	Exterior Mount	STD-A	M1A1	155MM 155MM	Gun Howitzer	M2 M1, M1A1, M1A2	9	
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Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	Col. No.

SYMBOLS

- OTCM - Ordnance Technical Committee Minutes
- STD - Standard
- LS - Limited Standard
- BD - Base Detonating
- PD - Point Detonating
- PRAC - Practice
- HOW - Howitzer
- LVT(A) - Landing Vehicle, Tracked (Armored)
- SP - Self Propelled

NOTES

- (a) - This item simulates ammunition but is actually a subcaliber rifle. Formerly designated CTG., Training, Subcaliber, 75mm, M34 (T13E2) (OTCM 33471).
- (b) - Total weight of CTG. in grains.
- (c) - M49A2 Inert Projectiles without fins on hand.
- (d) - Ignition Cartridge M5A1, Dwg. 75-19-78 and Primer, PERC, M32, Dwg. 74-2-49, or Ignition CTG M4, Dwg. 75-19-72 used with Pin Assembly for M69, Projectile.
- (e) - For other body forms see Dwg. 75-2-539.
- (f) - Alternative - Fuze, PD, M52A1B1, Dwg. 73-1-199. Some rounds assembled with Fuzes, PD, M52A1, M52A1B1, M52A2, M52A2B1, M525 (T136E7) and M52 series.
- (g) - Refer to AR 705-6.

(Notes and Symbols continued on next sheet)

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AMMUNITION FOR SUBCALIBER WEAPONS (Continued)

LINE NUMBER	OTCM NO.	CARTRIDGE					PROJECTILE							PROPELLING ASSEMBLY					PACKING			WEAPON										LINE NUMBER			
		Caliber	Designation	Type	Assembly Drawing Number	(g) Type Classification	LOADING			METAL PARTS		FUZE		Loaded and Fuzed Weight (LB)	CARTRIDGE CASE		PROPELLANT		Primer	CARTRIDGE			SUBCALIBER ASSEMBLY					PARENT GUN							
							Assembly Drawing Number	FILLER		Assembly Drawing Number	BODY		Designation		Type	Drawing Number	Designation	Drawing Number		Designation	Nominal Weight (LB)	Inner Pack Drawing Number	Outer Pack Drawing Number	Shipped	GUN					Mount Designation	Caliber		Type	Designation	
								Composition	Wt. (LB)		Material	Form													Description	Type	Description	Type Classification							
1	37196 37119	60MM	M49A2 (c)	HR	75-1-82	LS	75-14-257	Flake TNT	0.34	75-2-288	Steel	FORG	(e) M52A1 (f)	PD	73-1-161	3.03	-	-	M3A1	0.022	M32	F7549170	F8796472	Fuzed	60MM	M31	Mortar	Interior Mount	STD-C		4.2-Inch	Mortar	M30	1	
2	37344	60MM	M50A2	TP	75-1-83	OBS	-	Inert	0.29	75-2-288	Steel	FORG	(f) M52A1	PD	73-1-161	3.03	-	-	M3A1	0.021	M32	F7549170	F8796472	Fuzed											2
3	37119	60MM	M69	Training	-	LS	-	-	-	75-2-303	Gray Iron	Casting	-	-	-	4.37	-	-	-	-	(d)		D7691562	W/o Pins											3
4	37567	75MM	M48	HE	75-1-59	STD-C	75-14-198	TNT	1.49	75-2-269	Steel	FORG	(j/k) M51A5	PD	8796862	14.70	M5A1	71-2-91	M1	1.08	(m/n) M64	76-1-1124	76-1-1231	Fuzed	75MM	M1A1	Pack Howitzer	Exterior Mount	STD-B	M20	8-Inch 240MM	Gun Howitzer	M1 M1	4	
5	37567	75MM	M48	HE	75-1-183	STD-C	75-14-445	TNT	1.04 (h)	75-2-269	Steel	FORG	(j/k) M51A5	PD	8796862	14.69	M5A1	71-2-91	M1	1.06	(m/n) M64	76-1-1124	76-1-1231	Fuzed											5
6	37567	75MM	M48	HE	75-1-206	STD-C	75-14-445	TNT	1.04 (h)	75-2-269	Steel	FORG	(j/p) M500A1	MTSQ	8796864	14.58	M5A1	71-2-91	M1	0.95	(m/n) M64	76-1-1124	76-1-1231	Fuzed											6
7	37567	75MM	M48	HE	75-1-247	STD-C	75-14-445	TNT	1.04 (h)	75-2-269	Steel	FORG	(h/j) M97A1	VT		15.04	M5A1	71-2-91	M1	1.06	(m/n) M64	76-1-1124	76-1-1231	W/o Fuze											7
8	37244	75MM	M64	Smoke	75-1-114	OBS	75-14-276	WP	1.34	75-2-294	Steel	FORG	M48A3	PD	73-2-140	14.70	M5A1	71-2-91	M1	1.06	M1B1A2	76-1-1124	76-1-1231	Fuzed											8
9																																			9
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Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	Col. No.	

SYMBOLS

- TNG - Training
- SUPPL CHG - Supplementary Charge
- TNT - Trinitrotoluene
- CTG - Cartridge
- VT - Variable Time (Proximity)
- FORG - Forging
- OBS - Obsolete
- WP - White Phosphorus

NOTES

- (h) - This round is issued with SUPPL CHG of TNT weighing .365 Lbs. This must be in place when Fuze, PD, M51A4, M51A5; Fuze, CP, M78A1, is used. Remove this charge when Fuze, M97A1, VT is used.
- (j) - Fuze, CP, M78A1 Dwg. 73-2-214 and Booster M25 Dwg. 73-2-213. Separate issue for field assembly.
- (k) - Some rounds have been assembled with Fuze, PD, M48A2, M51A4.
- (m) - Alternative - Primer, PERC, M1A2.
- (n) - Some rounds on hand assembled with M1B1A2 Primers.
- (o) - Some cartridges on hand with Steel Cartridge Case, MK1A2B1.
- (p) - Some Fuze, M500, MTSQ on hand. M67 series may be used. Also some rounds on hand with Fuze, TSQ, M55A3.

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BLANK AMMUNITION

LINE NUMBER	OTCM NO.	CARTRIDGE				COMPONENT PARTS										PACKING		WEAPON			LINE NUMBER			
		Caliber	Designation	Assembly Drawing Number	(a) Type Classification	CARTRIDGE CASE		CHARGE			PRIMER		CLOSING CUP			Inner Pack Drawing Number	Outer Pack Drawing Number	Caliber	Type	Designations				
						Designation	Drawing Number	Composition	Charge Wt. (LB)	Type Loading	Bag Material	Designation	Type	Drawing Number	Material							Drawing Number		
1	36841	75MM	M337	D7549273	STD-B	M9A1	71-2-99	BLK FWD POT NIT	1.00	Loose Loaded	-	(b) M1B1A2	PERC	8839474	PPRBD	75-14-626	76-1-1119	76-1-1228	75MM	Gun HOW	M5 (3-Inch) M1A1, M1A1C (Pack Howitzer)	(h/k/m)	1	
2	36841	75MM	M337A1	D7549273	STD-B	M9A1	71-2-99	BLK FWD POT NIT	1.00	Loose Loaded	-	(b) M1B1A2	PERC	8839474	PPRBD	75-14-626	76-1-1119	76-1-1228	75MM	Gun HOW	M5 (3-Inch) M1A1, M1A1C (Pack Howitzer)	(h/k/m)	2	
3		75MM	M337A1E1	D7549273		M9A1	71-2-99	BLK FWD POT NIT	1.00	Loose Loaded	-	(b) M1B1A2	PERC	8839474	Plastic	B7549272	F7549269	C7549268	75MM	Gun HOW	M5 (3-Inch) M1A1, M1A1C (Pack Howitzer)	(h/k/m)	3	
4	36841	75MM		75-1-67	STD-A	M9A1	71-2-99	BLK FWD SOD NIT	0.87	(g) Double Pellet	CELO. WPR.	(b) M1B1A2	PERC	8839474	PPRBD	75-14-626	76-1-1119	76-1-1228	75MM	Gun HOW	M5 (3-Inch) M1A1, M1A1C (Pack Howitzer)	(h/k/m)	4	
5	36841	75MM		75-1-107	STD-A	M9A1	71-2-99	BLK FWD SOD NIT	0.43	(g) Single Pellet	CELO. WPR.	(b) M1B1A2	PERC	8839474	PPRBD	75-14-626	76-1-1119	76-1-1228	75MM	Gun HOW	M5 (3-Inch) M1A1, M1A1C (Pack Howitzer)	(h/k/m)	5	
6	37119	76MM	M351 ⁽ⁿ⁾	P38089 ^(p)	STD-A	M29	71-2-133	(o) 6.94 (6x)	Loose Loaded	Ctg. Cloth Cotton Grade C		M1B1A2	PERC	8839474	PPRBD	75-14-626	76-1-1128	76-1-528	76MM	Gun	M1A1C & M1A2		6	
7		76MM	M355E1	D7549267	STD-A	M101B1 ^(d)	D7548121	BLK FWD	1.25 (f) or 1.50	Bag	Cloth ^(e) Cotton	M70	PERC	74-2-63	PPRBD	B7549266	F7548523	F7548524	76MM	Gun	M32 & M48		7	
8	36841	90MM	M394	D7549210	STD-A	M27 M27B1	71-2-126 71-2-149	BLK FWD POT NIT	1.75	Loose Loaded	-	(b) M1B1A2	PERC	8839474	Plastic	B7549212	F7549250	C7549249	90MM	Gun	M36, M41 & M54		8	
9	36841	105MM	M395	D7549251	STD-A	M15 ^(a)	D7548402	BLK FWD POT NIT	1.60	Loose Loaded	-	(b) M1B1A2	PERC	8839474	Plastic	B7549253	F7549255	C7549254	105MM	HOW	M2A1, M2A2 & M49		9	
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12																								12
13																								13
14																								14
Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		Col. No.	

SYMBOLS

OTCM - Ordnance Technical Committee Minutes
 STD - Standard
 BLK FWD - Black Powder
 POT NIT - Potassium Nitrate
 SOD NIT - Sodium Nitrate
 PERC - Percussion
 HOW - Howitzer
 PPRBD - Paperboard
 CELO WPR - Cellophane Wrapper
 LS - Limited Standard

NOTES

(a) - Refer to AR 705-6.
 (b) - Alternative - Primer, M1A2, PERC, Dwg. 8839453.
 (c) - Alternative - Case, Cartridge, M15B1, Steel. Blank cartridge case can be made from M14 series, either brass or steel case.
 (d) - Alternative - Case, Cartridge, M101, Dwg. 71-2-196.
 (e) - Alternative Material - Bag, Cloth, Silk.
 (f) - Load with 1.00LB Approx., Black Powder, Grade A1, Spec JAN-P-223.
 (g) - Black Powder Pellet, Sodium Nitrate (Class A), Dwg. 75-1-66.
 (h) - 75mm, M1A1, Pack Howitzer (STD-A) and M5 (3-Inch) Gun (STD-C) are for saluting purposes only. All M5 (3-Inch) Gun Chambers have been relined to use 75mm Blank Ammunition. Former 3-inch ammunition has been obsolete.
 (k) - 75mm, M1A1C w/carriage M8 is STD-C (OTCM 37107) 75mm, M1A1C mounted on other carriages are (LS) and are used for saluting only (OTCM 36623).
 (m) - 75mm, M1A1 saluting Pack Howitzer procurement is to be accomplished only by modification of available Pack Howitzers.
 (n) - Some rounds designated M351A1 are STD-B, (OTCM 37119).
 (o) - M351, Blank rounds contain Potassium Nitrate, Black Powder.
 M351A1, Blank rounds contain Sodium Nitrate, Black Powder.
 (p) - Also see Dwg. 75-1-212.
 (r) - Double Pellet Charge also on hand.

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