DEPARTMENT OF THE ARMY PAMPHLET NO. **30-7-4**

FOREIGN MILITARY WEAPONS AND EQUIPMENT

Vol. III

INFANTRY WEAPONS

DEPARTMENT OF THE ARMY • WASHINGTON 25, D. C.

FOREWORD

The object in publishing the essential recognition features of weapons of Austrian, German, and Japanese origin as advance sections of DA Pam 30–7–4 is to present technical information on these weapons as they are used or held in significant quantities by the Soviet satellite nations (see DA Pam 30–7–2).

The publication is in looseleaf form to facilitate inclusion of additional material when the remaining sections of DA Pam 30–7–4 are published.

Items are presented according to country of manufacture. It should be noted that, although they may be in use or held in reserve by a satellite country, they may be regarded as obsolete in the country of manufacture.

PAMPHLET
No. 30-7-4

DEPARTMENT OF THE ARMY
WASHINGTON 25, D. C., *24 November 1954*

FOREIGN MILITARY WEAPONS AND EQUIPMENT

VOL. III INFANTRY WEAPONS

SECTION IV. OTHER COUNTRIES

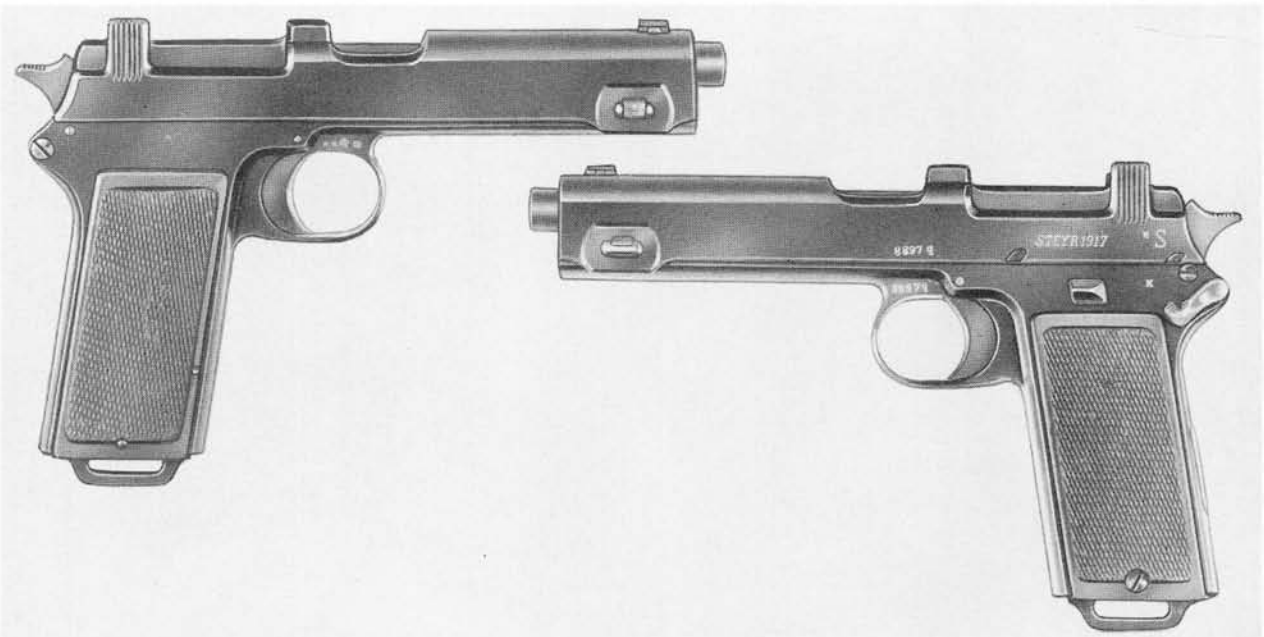
GLOSSARY OF AUSTRIAN TERMS

Austrian	*Translation*	*English Meaning*
PISTOLE	Pistol	Pistol
GEWEHR	Rifle	Rifle
KARABINER	Carbine	Carbine (short rifle)
GRANATE		Grenade
HAND GRANATE		Hand grenade
MASCHINENPISTOLE	Machine pistol	Submachine gun
MASCHINENGEWEHR	Machine gun	Machine gun
GRANATWERFER		Mortar(s)
PANZERGAUST	Armored fist	Name for recoilless HEAT projectile launcher
RAKETENPANZERBÜCHSE	Antitank rocket gun	Antitank rocket launcher
PARABELLUM		Name for Luger pistol and its ammunition
SCHNELLFEUER	Quick fire	Automatic fire
KLEIN	Small	Small
SCHWER	Heavy	Heavy

A. PISTOLS

9-mm Pistol M12 Steyr

(PISTOLE MOD M12 STEYR)



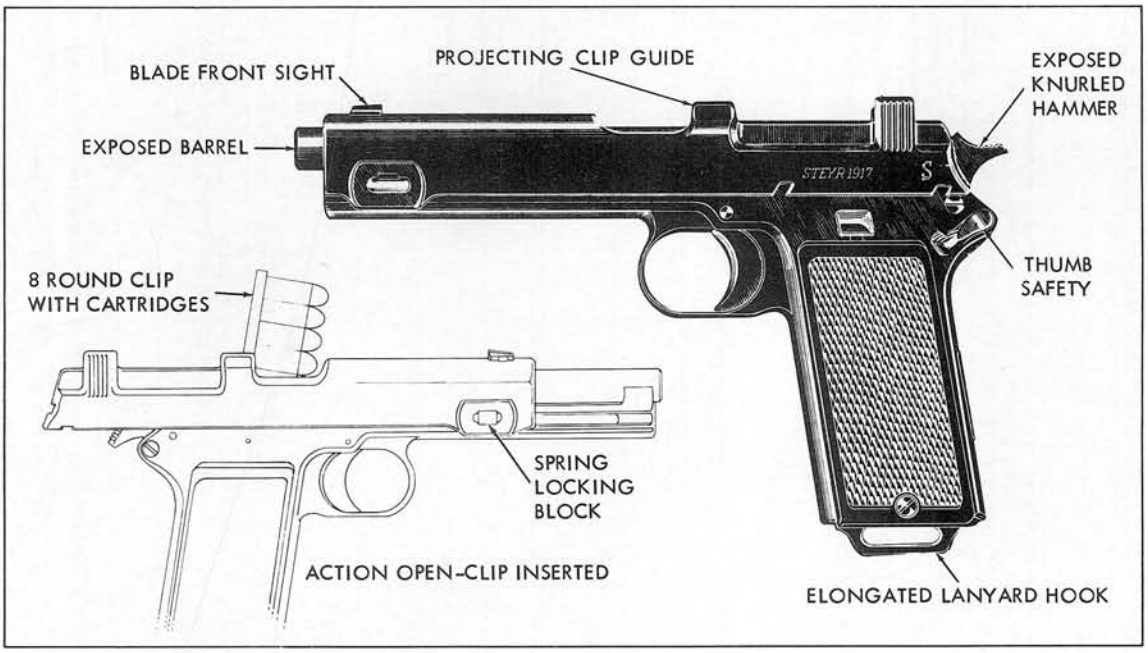
This Austrian pistol, of pre-World War II design, has been widely used in Austria and the Balkan countries. Although resembling to some extent the U. S. Colt caliber .45 pistol in exterior appearance, the M12 has loading and locking arrangements of unique design. The muzzle velocity and range of the cartridge used are considerably higher than normally found in other pistols of this caliber.

This pistol fires the 9-mm Steyr cartridge, which is approximately one-fourth inch longer than the 9-mm parabellum (or Luger) cartridge. Many were converted to fire the 9-mm parabellum cartridges by Germany during World War II. The Steyr cartridge will not function in the weapons that fire the parabellum cartridge. The weapon is loaded from the top by stripping cartridges from a clip into the integral magazine. It employs the recoil principle, with return action caused by a forward tension of the recoil spring. The trigger must be pulled for each round fired and the receiver is locked open when the last round is fired.

Salient recognition features are: (1) Thumb safety on left rear of receiver; (2) elongated lanyard hook underneath the pistol grip; (3) exposed knurled hammer; and (4) the clip guide on top of the receiver.

9-mm Pistol M12 Steyr

RECOGNITION FEATURES



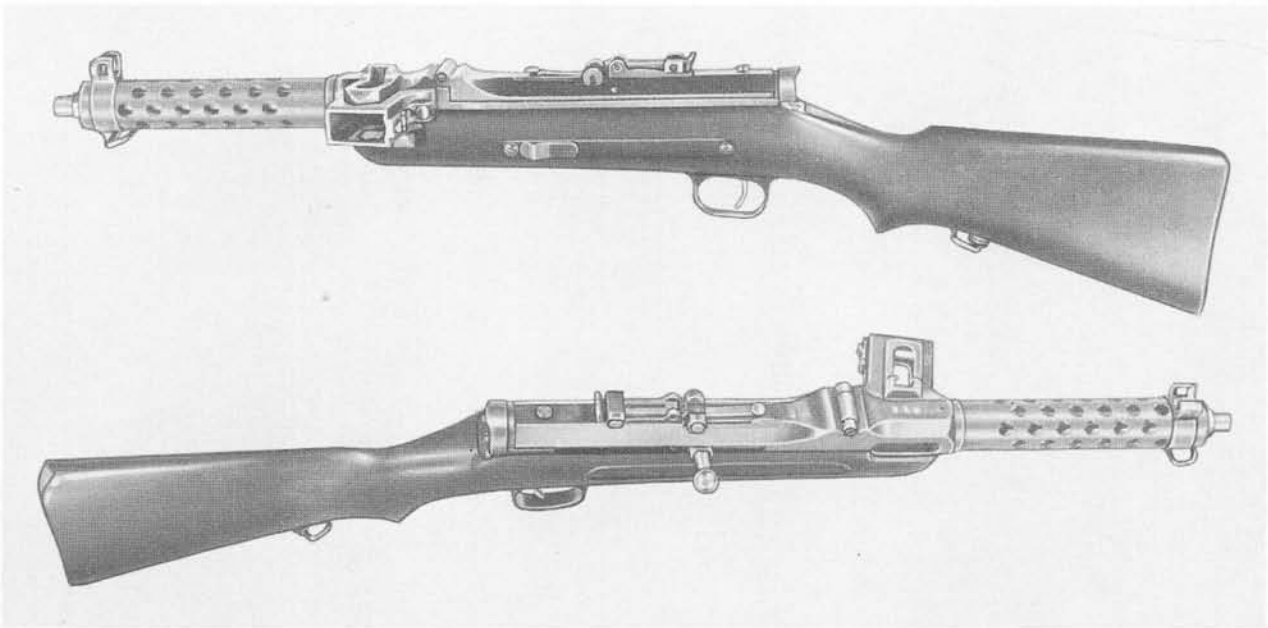
CHARACTERISTICS

System of operation	Recoil, semiautomatic
Caliber	9-mm (cal. .354 in)
Weight:	
Unloaded	524 g (1.1 lb. aprx)
Loaded	585 g (1.2 lb. aprx)
Length over-all	216-mm (8.5 in)
Length of barrel	127-mm (5 in)
Feed device	8-round magazine
Sight:	
Front	Adjustable blade
Rear	Fixed V-notch
Muzzle velocity	360 m/s aprx. (1200 fps aprx)
Effective rate of fire	8–10 rpm
Effective range	70 m (aprx 75 yd)
Ammunition	9-mm Steyr cartridge

B. SUBMACHINE GUNS

9-mm Submachine Gun MP 34 (Steyr-Solothurn)

(MASCHINENPISTOLE MP 34)



This weapon was manufactured by both Austria and Germany during World War II. In the German Army it was used largely for rear-area troops. Prior to 1940, large numbers of this submachine gun were sold to Japan. It was replaced by the later and more advanced designs of submachine guns developed by the Germans. Models of this weapon stamped "MP 34 (o)" indicate that the weapon was issued for Austrian use and fired the long 9-mm Steyr cartridge. Models used by the Germans fire the 9-mm parabellum cartridge and were made with an attachment for mounting a bayonet on the right side of the barrel jacket.

Large numbers of these weapons were captured by the Soviets during World War II, and the satellite countries acquired many of these weapons at the end of the war. Some satellite countries probably still hold them in reserve stocks.

The MP34 can be recognized by: (1) The one-piece wooden stock; (2) the projecting magazine holder on the left side of the receiver; (3) the built-in magazine loading device on the top of the magazine holder; and (4) the type operating bolt handle found on bolt-action rifles.

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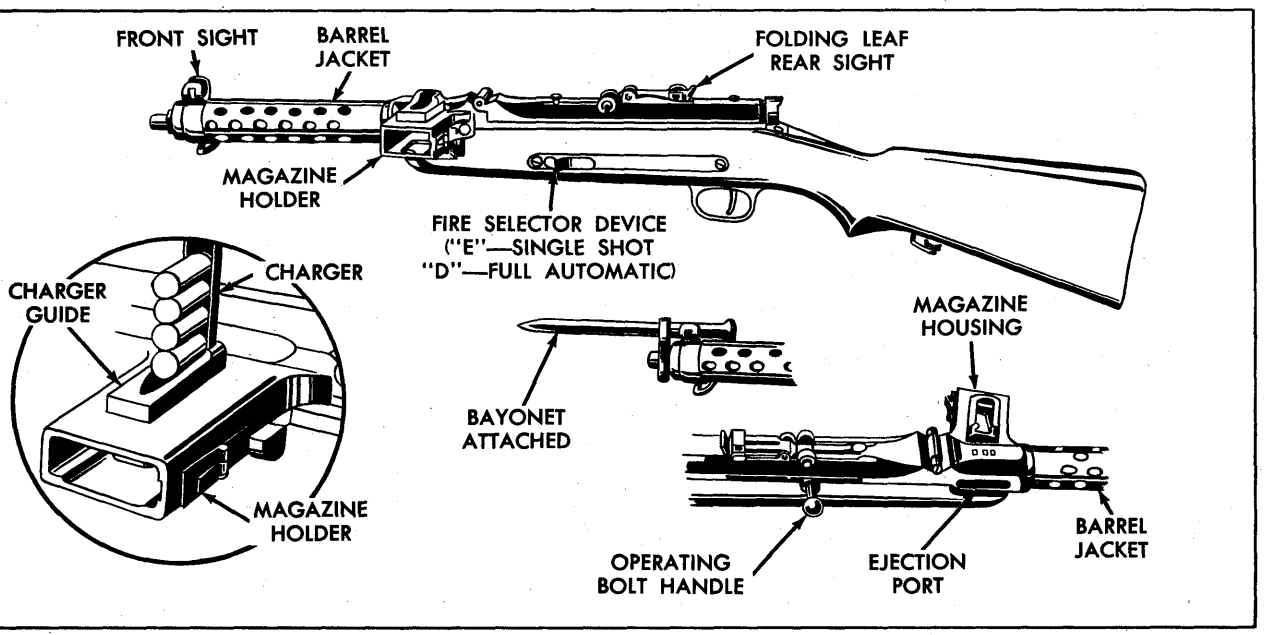
9-mm Submachine Gun MP 34 (Steyr-Solothurn)

RECOGNITION FEATURES



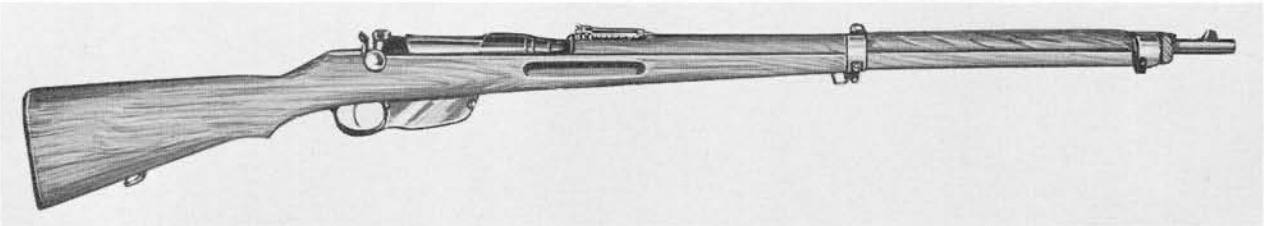
CHARACTERISTICS

System of operation	Blowback, selective automatic and semiautomatic fire
Caliber	9-mm (cal. .354)
Weight:	
Gun without magazine	4.2 kg (9.3 lb)
Gun with loaded 32-rd magazine	4.8 kg (10.2 lb)
Length over-all	850-mm (33.5 in)
Length of barrel	200-mm (7.8 in)
Sights:	
Front	Fixed blade
Rear	Leaf with open notch graduated to 500 meters in 100 meter increments
Muzzle velocity	418 mps (aprx 1,371 fps)
Effective rate of fire	90–120 rpm
Effective range	200-m (220 yd, aprx)
Ammunition	Austrian 9-mm ball (Steyr), German 9-mm Parabellum ball

C. RIFLES AND CARBINES

8-mm M1895 Mannlicher Rifle

(8-mm ÖSTERREICHISCHES REPETIER-GEWEHR M95)



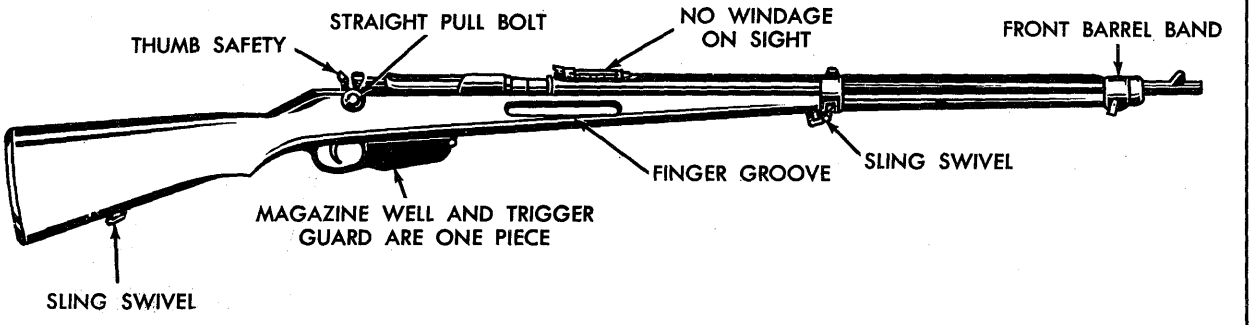
This weapon, the most widely used of all the Mannlicher rifles, was the standard Austro-Hungarian rifle of World War I, and huge quantities were surrendered to Italy under provisions of the Peace Treaty. Many small European nations acquired significant numbers of this weapon through purchases from Italy. It was widely used in the Balkan countries in World War II. The Hungarian 8-mm M 35M rifle is a copy of this weapon, but it fires different ammunition. Other weapons similar are the 8-mm Model 1890 rifle (the earlier model) and the 8-mm Model 1895 carbine. Since STEYR of Austria was the chief manufacturer of this rifle, it is often referred to as a "STEYR-MANNLICHER".

The model 1895 rifle employs the straight-pull bolt-action. It is drawn straight back to unload, pushed straight forward to load. The Mannlicher system of clip feeding is used. The five-round loaded clip is inserted in the top and falls out the bottom of the weapon when empty.

Salient recognition features of this rifle are: (1) The straight-pull bolt; (2) the thumb safety at rear of bolt; (3) the finger grooves in the sides of the stock; (4) the lack of a windage adjustment on the rear sight; (5) the horizontal, rather than turned-down, bolt handle; and (6) the magazine well and trigger guard are of one-piece construction.

8-mm M1895 Mannlicher Rifle

RECOGNITION FEATURES



CHARACTERISTICS

System of operation	Manually operated, bolt action
Caliber	8-mm (cal. .315)
Weight (including sling, bayonet):	
Unloaded	4.0 kg (8.9 lb)
Loaded	4.1 kg (9.0 lb)
Length over-all:	
With bayonet	152 cm (59.5 in)
W/o bayonet	127 cm (50.0 in)
Length of barrel	76 cm (30.2 in)
Feeding device	5-round clip, integral box
Sights:	
Front	Blade, barley corn type
Rear	Upright leaf, V-notch, graduated 600-2,600 m. battle sight set at 500 m
Muzzle velocity	620 m/s (2034 fps)
Effective rate of fire	8–10 rpm
Effective range	400 m (440 yards)
Ammunition	8-mm M1893 rimmed ball, round

GLOSSARY OF GERMAN TERMS

German	*Translation*	*English Meaning*
PISTOLE (P)	Pistol	Pistol
MASCHINENPISTOLE (M. P.)	Machine Pistol	Submachine Gun
STURMGEWEHR (STU. G)	Assault Rifle	Light selective fire rifle
KARABINER (K)	Carbine	Short Rifle
FALLSCHIRMJÄGERGEWEHR (F. G.).	Paratroop Rifle	Paratroop automatic rifle
PARABELLUM		German name for Luger pistol and its ammunition.
SCHNELLFEUER	Quick fire	Automatic fire
FELDER UND ZÜGE	Lands and grooves	Launds and grooves-Rifling
PANZERFAUST (PZFST)	Armored fist	Name for recoilless HEAT projectile launcher
RAKETENPANZERBÜCHSE	Rocket Antitank Gun	Antitank Rocket Launcher
KARABINER	Carbine	Rifle
KLEIN (KL)	Small	Small
KURZ (K)	Short	Short
P. P. (POLIZEI PISTOLE)	Police Pistol	Police Pistol
P. P. K. (POLIZEI PISTOLE KRIMINAL).	Police Pistol—Criminal Model(s).	Police Detective Pistol
HANDGRANATE	Hand Grenade	Hand Grenade
EIERHANDGRANATE	Egg Hand Grenade	Hand Grenade-Type without handle
STIELHANDGRANATE	Stick Hand Grenade	Hand Grenade-with handle
SCHWER(S)	Heavy	Heavy
GRANATWERFER	Grenade-Thrower	Mortar(s)
LEICHTES MASCHINENGEWEHR (iMG).	Light machine gun	Light machine gun
SCHWERES MASCHINENGEWEHR (sMG)	Heavy machine gun	Heavy machine gun
SCHARFSCHÜTZENGEWEHR	Sharpshooter rifles	Sniper rifles
SCHMEISSER		German designer of submachine guns.
ÜBERSCHWERESMASCHINENGEWEHR.	Very heavy machine gun	Heavy machine gun (Cal. .50 and .60)

A. PISTOLS

9-mm Walther Pistol M1938

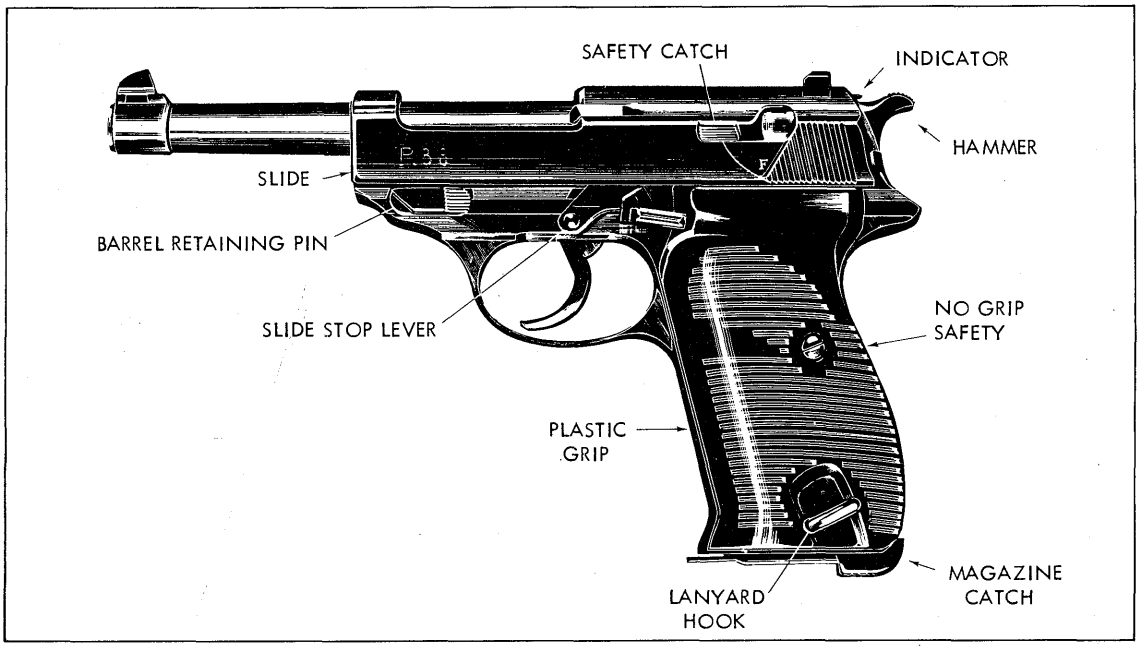
(PISTOLE 38 or P–38)

This weapon was steadily replacing the Luger (Pistole '08) as the standard issue, official, German military side-arm on VE-day. It is a recoil-operated, magazine-fed, double-action weapon of excellent design and balance. The double-action feature enables the weapon to be fired by simply squeezing the trigger without manually cooking the hammer. It is one of the few military automatic pistols with this feature. Large numbers of this pistol were produced in Germany during World War II and are still found throughout Europe in considerable numbers.

Salient recognition features are: (1) Double action; (2) no grip safety; (3) the forward portion of the barrel is not covered by the slide mechanism; (4) the magazine catch is on the rear bottom of the hand grip butt; and (5) the thumb safety is on the left side of the receiver.

9-mm Walther Pistol M1938

RECOGNITION FEATURES



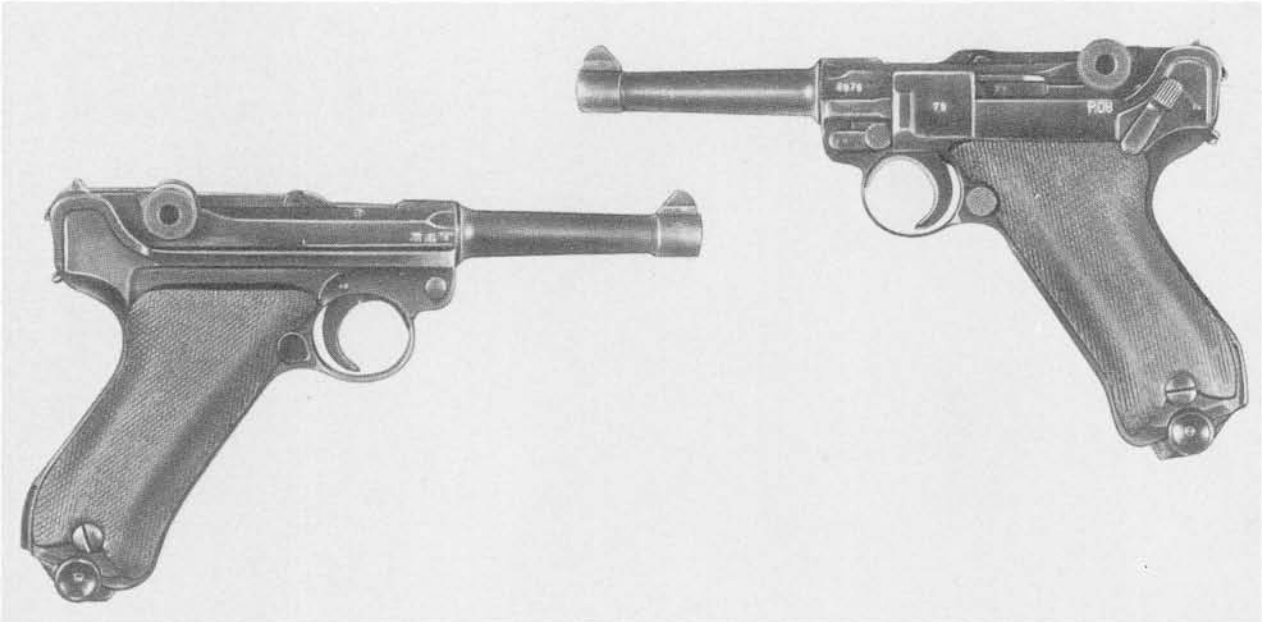
CHARACTERISTICS

System of operation	Short recoil, double-action
Caliber	9-mm (cal. .354)
Weight:	
Unloaded	940 g (2.11 lb)
Loaded	1.004 kg (2.2 lb)
Length over-all	.215 m (8.3 in)
Length of barrel	.125 m (4.7 in)
Feeding device	8-rd magazine.

Sights:	
Front	Blade, adjustable laterally
Rear	Open V-notch, fixed
Muzzle velocity	340 m/sec (1,100 fps)
Effective rate of fire	8–16 rounds per minute
Effective range	50 m (55 yd aprx)
Ammunition	9-mm parabellum ball; (British, U. S. 9-mm Parabellum or Luger and Italian M1938 9-mm rounds will also function)

9-mm Luger Pistol M1908

(PISTOLE 08 or P–08)



The 9-mm Luger 08, or parabellum, pistol was the official German military sidearm from its adoption in 1908 until the beginning of World War II when the Walther P–38 began to replace it.

The Luger action is based upon the design development by an American, Hugo Borchardt, during the 1890's. The original action, which was heavy, clumsy, and badly balanced, was redesigned in 1900 by Georg Luger of the German D. W. M. firm and since has been designated the Luger in the United States. It was initially manufactured on a large scale under the name Borchardt-Luger, later shortened to the present name "Luger." It has been widely distributed throughout the world.

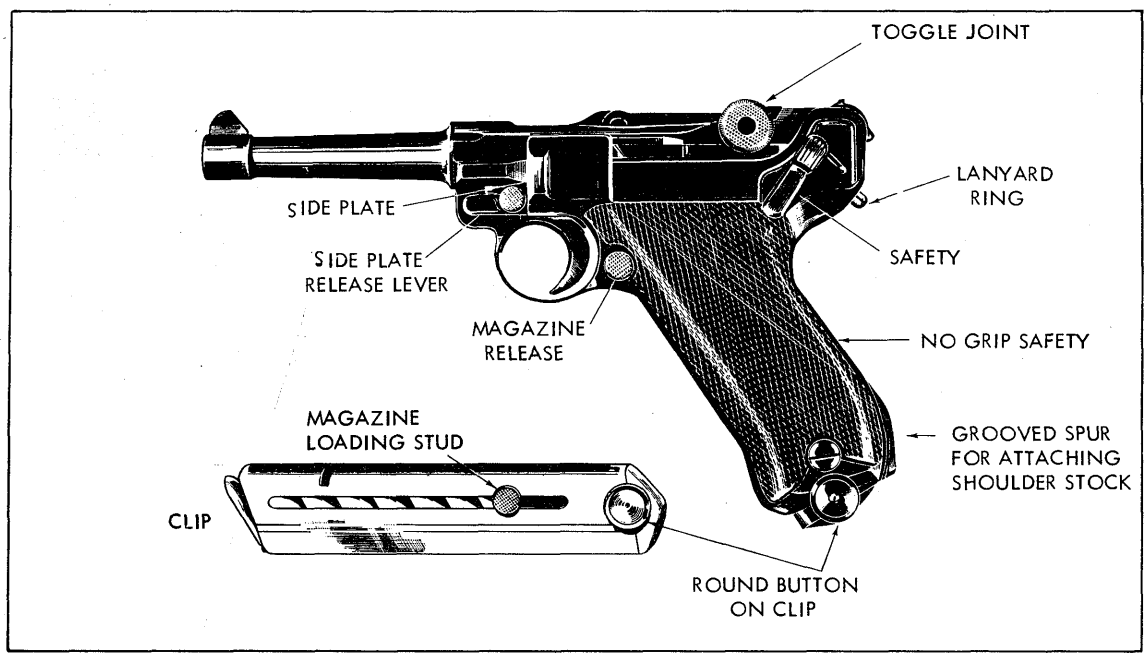
It is found in three models, one with a short (3.94 inch) barrel, one a navy model with a 6-inch barrel, and the other with an 8-inch barrel and shoulder stock attachment. A 32-round drum magazine, which enables a higher fire capacity, may be used with all models. The long-barrel type with the shoulder stock and drum magazine was replaced by the submachine gun during World War II.

Although the 9-mm was the official German Army caliber, commercial versions of this weapon may also be found in .30 caliber (7.63-mm).

The weapon is recognized by: (1) Its unique toggle locking system with the two milled knobs on the top of the receiver; (2) a square side plate above the trigger on the left side of the pistol; (3) a semicircular recess cut in the bottom of the grip to receive the circular magazine buttons; and (4) a grooved spur milled on the lower, rear portion of the hand-grip butt for attaching a shoulder stock.

9-mm Luger Pistol M1908

RECOGNITION FEATURES



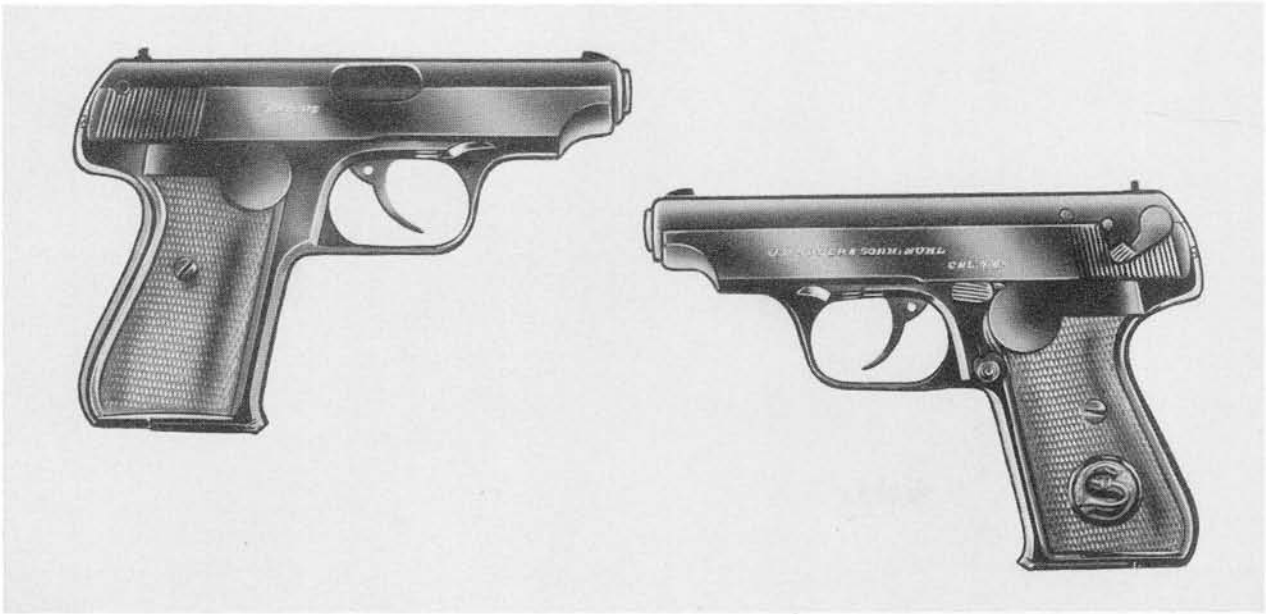
CHARACTERISTICS

System of operation	Short recoil
Caliber	9-mm (cal. .354)
Weight:	
Unloaded	890 g (1.9 lb)
Loaded	988 g (2.1 lb)
Length over-all	220 m (8.6 in)
Length of barrel	100-mm (3.9 in) (6-in and 8-in barrels are also found)
Feeding device	8-rd magazine
Sights:	
Front	Blade, adjustable laterally
Rear	Open V-notch fixed
Muzzle velocity	322 m/s (1,040 fps)
Effective rates of fire	8 to 16 rds per minute
Effective range	50 m (55 yd, aprx)
Ammunition	9-mm Parabellum ball round; (British, Italian, and American ammunition will function)

Special note. While the 9-mm was the official German Army caliber, this weapon may be found in .30 caliber (7.63-mm). This model shoots a bottle-neck cartridge with a 93-mm grain bullet. Magazine capacity is the same as the 9-mm model. It was manufactured in barrel lengths ranging from 3.94 inches up to 16 inches.

7.65-mm Sauer Pistol M1938

(7.65-mm SAUER PISTOLE, MODELL 1938)

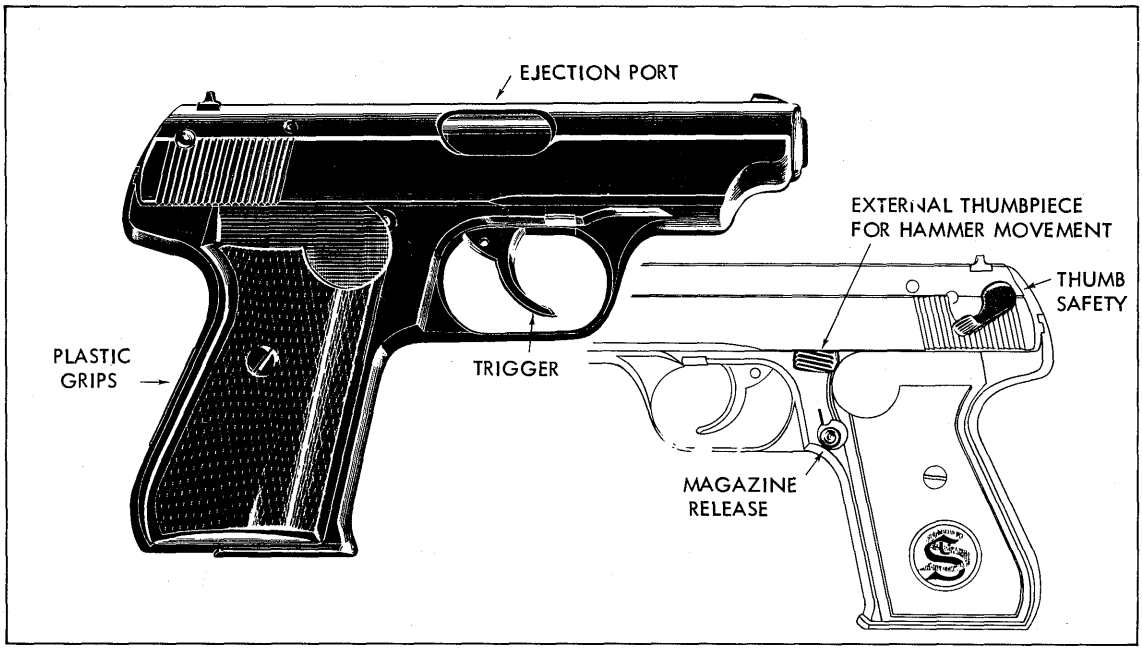


The Sauer M1938 pistol, a commercial product, was adopted as substitute-standard by Germany during World War II and was widely used by the air, armored, and police units. This weapon, one of the most advanced types of pocket automatic pistols, was originally designed and issued as a police pistol. The barrel on the M38 patrol is mounted rigidly to the receiver in the same manner as on the Walther PP and PPK pistols. The double-action system is one of the simplest and best yet devised, and is fitted with a unique external lever to permit lowering or raising the concealed hammer manually. This weapon also has an unusual magazine in that a projection on the right side of the magazine wall forces the trigger bar up to make rear contact when the magazine is inserted, thereby functioning as a safety feature.

Salient recognition features are: (1) Thumb safety on left rear of slide; (2) checkered top of slide for an aid in quick sighting; (3) external thumbpiece for raising and lowering the hammer; (4) magazine catch on left side behind the trigger guard; and (5) double-action feature of the trigger mechanism.

7.65-mm Sauer Pistol M1938

RECOGNITION FEATURES



CHARACTERISTICS

System of operation	Blowback; double-action
Caliber	7.65-mm (cal. .301)
Weight:	
Unloaded	620 g (1.3 lb)
Loaded	670 g (1.4 lb)
Length over-all	145 mm (5.7 in)
Length of barrel	76 mm (2.9 in)
Feeding device	7-round magazine
Sights:	
Front	Blade, adjustable laterally
Rear	Fixed, open U-notch
Muzzle velocity	270 m/s (885 fps)
Effective rate of fire	8–16 rpm
Effective range	50 m (aprx. 55 yd)
Ammunition	European 7.65-mm Browning (U. S. cal. .32 ACP is the same round)

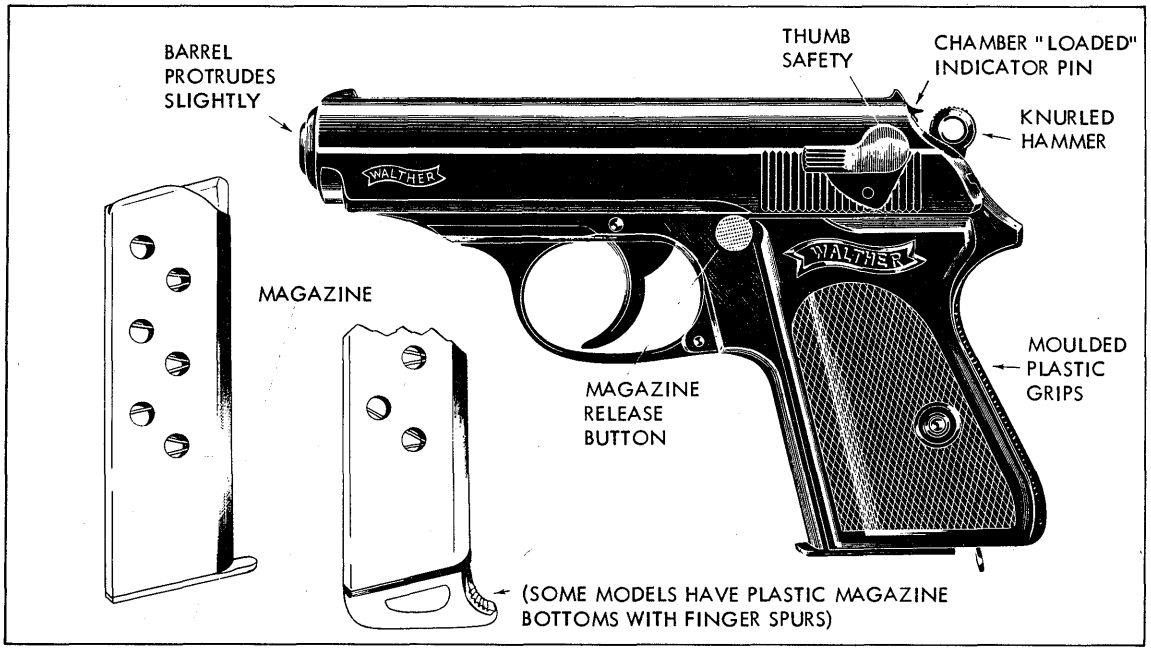
7.65-mm Walther Pistols Model PP and PPK

(WALTHER-POLIZEI-PISTOLEN W.PP & PPK)

The Walther models PP and PPK were the official German police side arms from 1929 until VE-day. Both models were widely adopted by the police departments in numerous other European countries. They are almost identical in appearance, but the model PP is ⅝ inch longer and weighs 4½ ounces more than the PPK. A loading-pin indicator, similar to that found on the Walther P-38, is found on both models of this weapon produced prior to World War II, but on many wartime models of the PPK no indicator pins were furnished. Because of the excellent balance, dependability, and compactness these pistols were widely used by German military personnel. Both models are recognized by: (1) Their streamlined receivers; (2) a barrel which protrudes beyond the forward end of the slide; (3) and a barrel mounted solidly to the receiver.

7.65-mm Walther Pistol Model PP and PPK

RECOGNITION FEATURES



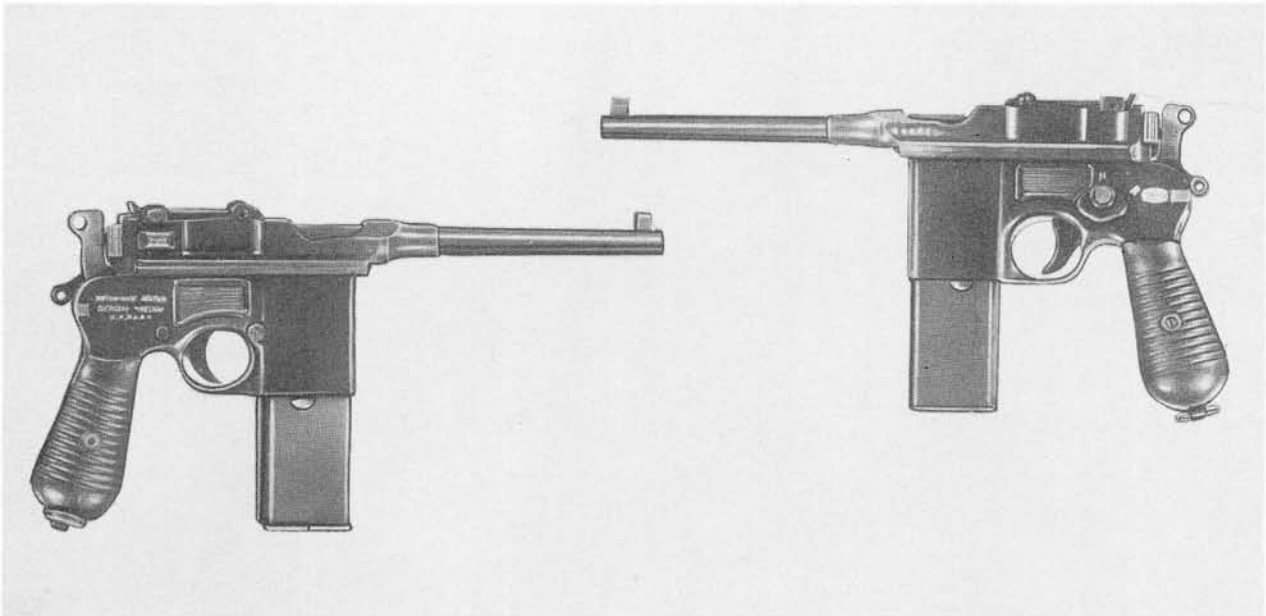
CHARACTERISTICS

System of operation ..... Straight blowback; double action
Caliber ..... 7.65-mm (cal. .301)
Weight:
  Unloaded:
    PP ..... 650 g (1.3 lb)
    PPK ..... 530 g (1.1 lb)
  Loaded:
    PP ..... 711 g (1.5 lb)
    PPK ..... 591 g (1.2 lb)
Length over-all:
  PP ..... 170-mm (6.6 in)
  PPK ..... 150-mm (5.9 in)
Length of barrel:
  PP ..... 98-mm (3.2 in)
  PPK ..... 83-mm (3.2 in)
Feeding device ..... 8-round magazine (for both models)

Sights:
  Front ..... Fixed blade
  Rear ..... Fixed, open U-notch
Muzzle velocity:
  PPK ..... 280 m/s (913 fps)
  PP ..... 289 m/s (920 fps)
Effective rate of fire ..... 8–16 rpm
Effective range ..... 50 m (aprx 55 yd)
Ammunition ..... 7.65-mm Browning Short (U. S. cal. 32 ACP pistol ball will also function)

7.63-mm Mauser Pistol M1932

(7.63-mm MAUSER SCHNELLFEUER PISTOLE MODEL 1932)

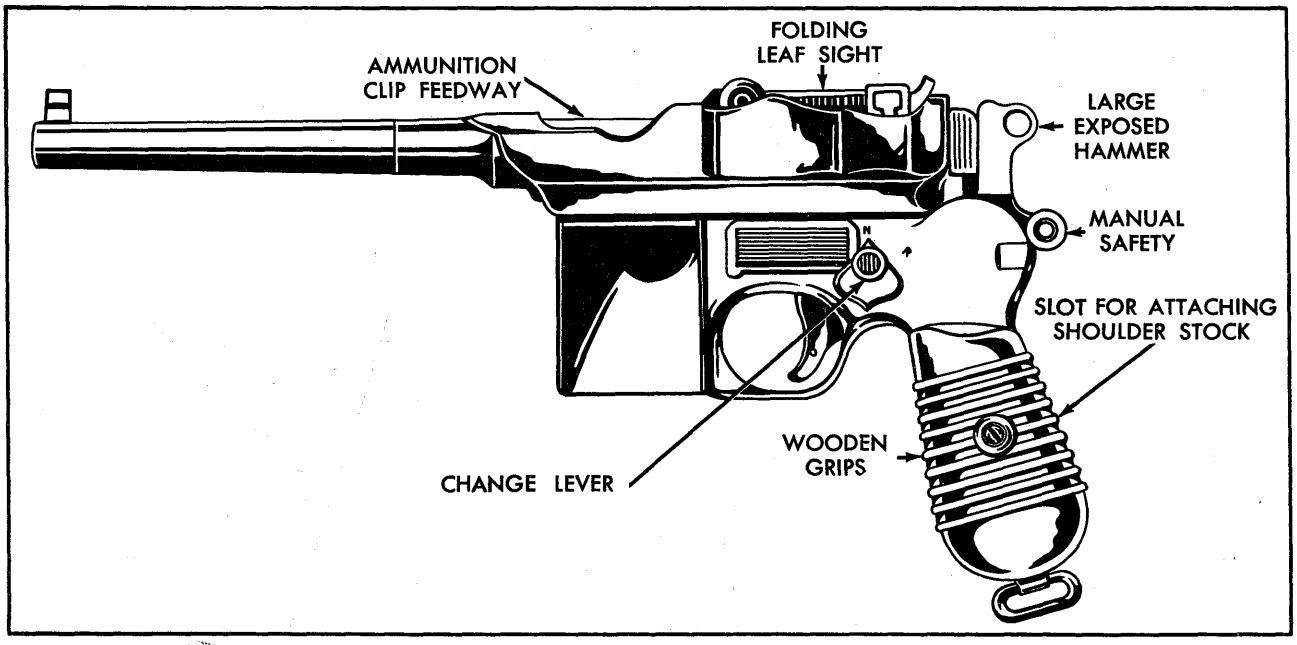


This Mauser pistol was first manufactured in 1896. An intermediate between a pistol and a machine carbine, it was the first successful military automatic pistol developed and, except for minor modifications in 1912 and 1932, has retained its original features.

Originally designed and produced for police use, it was widely used as an unofficial substitute arm by the German military forces during World War I. After World War I, it was largely replaced by the Luger M'08 and the later Walther designs. It was widely used in Russia during the 1917 Revolution and is still found in substantial numbers throughout the Orient and Central Europe. The weapon has been manufactured by Spain, China, and Switzerland. It is unique in design in that: (1) All parts are fitted together or dovetailed and only one screw (in the pistol grip) is used; (2) it has a slotted attachment on the pistol grip, which can be used to attach a wooden stock; (3) it has a folding-leaf rear sight graduated from 100 to 1,000 meters. The magazine is solidly attached to the receiver, and the weapon is loaded from the top by means of metal clips in the same manner as a bolt-action rifle.

7.63-mm Mauser Pistol M1932

RECOGNITION FEATURES



CHARACTERISTICS

System of operation	Short recoil, selective semi- or full automatic
Caliber	7.63-mm (cal. .30)
Weight:	
Unloaded:	
Without stock, with 10-rd magazine	1.26 kg (2.78 lb)
Without stock, with 20-rd magazine	1.32 kg (2.92 lb)
With stock and 10-rd magazine	1.7 kg (3.75 lb)
Loaded	For 10-rd magazine add 105 g; for 20-rd magazine add 210 g to figures above
Length over-all:	
With stock	630-mm (24.8 in)
Without stock	288-mm (11.3 in)
Feeding device	Fixed box type, loaded by 10 or 20-rd clip
Sights:	
Front	Fixed blade
Rear	Leaf with open notch, adjustable from 100 to 1,000 m in 100 m increments
Muzzle velocity	425 m/s (1,392 fps)
Effective rate of fire	60 rpm (semiautomatic); 280 rpm (full automatic)
Effective range:	
As a pistol	68 m (75 yd)
With stock	914 m (1,000 yd)
Ammunition	Mauser 7.63-mm pistol/SMG ball

7.65-mm Mauser Pistol Model HSc

(7.65-mm MAUSER PISTOLE, MODELL HSc)

The Mauser HSc pistol was the latest and one of the finest designs developed by the Germans during World War II. Basically it is a commercial pocket-pistol type rather than a military arm. It is very well streamlined, has an excellent balance, and is of exceedingly simple construction. The salient recognition features of this weapon are: (1) A very short, knurled exposed hammer; (2) a matted rib on top of receiver; (3) a solid metal rib extending from the forward portion of the trigger housing to the end of the barrel; (4) manufacturer's stamping on the left side of the slide "Mod. HSc. KAL. 7.65-mm, Mauser-Werke A. G. Oberndorf a/N", which is found on all Mauser HSc pistols; and (5) the slide release button in the forward wall of the trigger guard.

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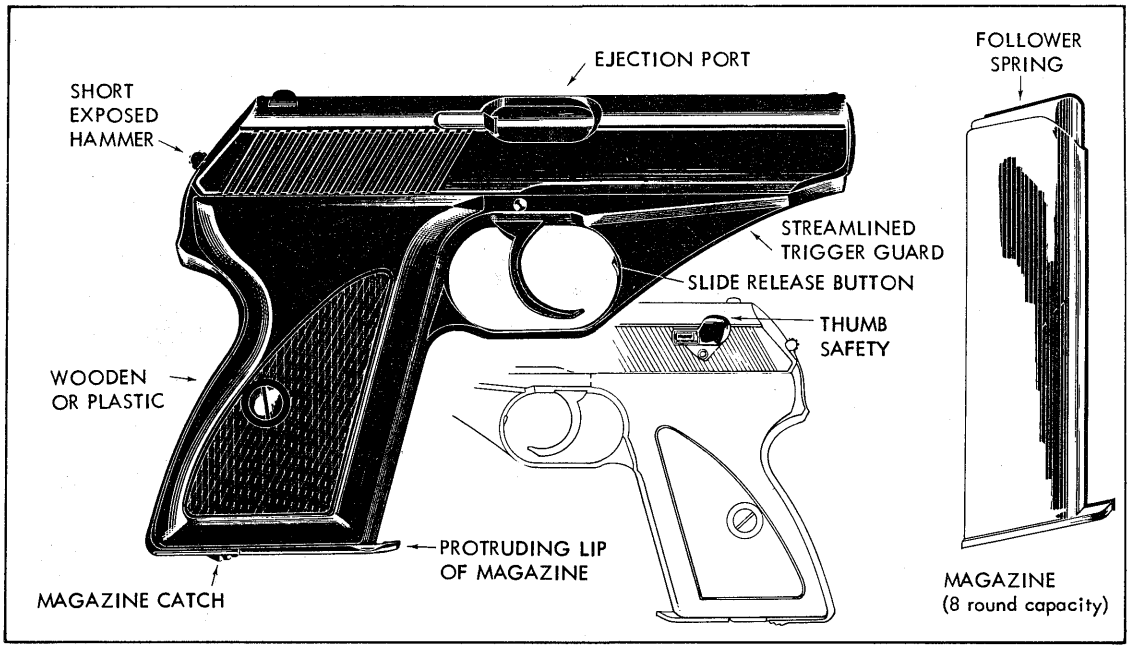
7.65-mm Mauser Pistol Model HSc

RECOGNITION FEATURES



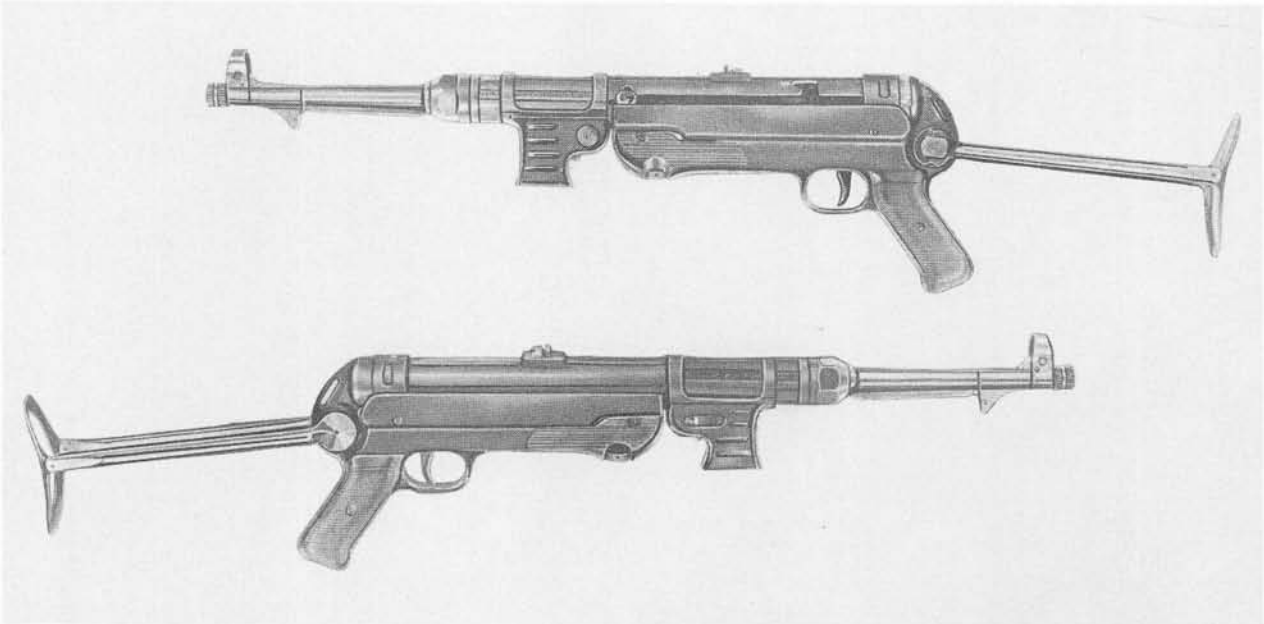
CHARACTERISTICS

System of operation	Straight blowback, double-action
Caliber	7.65-mm (cal .301 in)
Weight:	
Unloaded	585 g (1.2 lb)
Loaded	646 g (1.4 lb)
Length over-all	162 mm (6.3 in)
Length of barrel	85-mm (3.3 in)
Feeding device	8-round magazine
Sights:	
Front	Blade
Rear	Open U-notch, adjustable laterally
Muzzle velocity	290m/s (951 fps)
Effective rate of fire	8-16 rpm
Effective range	50 m (55 yd aprx)
Ammunition	European 7.65-mm Browning (U. S. cal. .32 ACP pistol ball will function)

B. SUBMACHINE GUNS

9-mm Submachine Gun MP40 (Schmeisser)

(MACHINENPISTOLE M40)



This weapon is an improved version of the MP 38 which was designed for use by parachute troops. Because of its simple construction and general reliability it was produced and issued in large quantities to all Army units. Of excellent design, these "machine pistols", as the Germans called them, proved superior to all other types of German submachine guns and rapidly replaced all earlier weapons of this type.

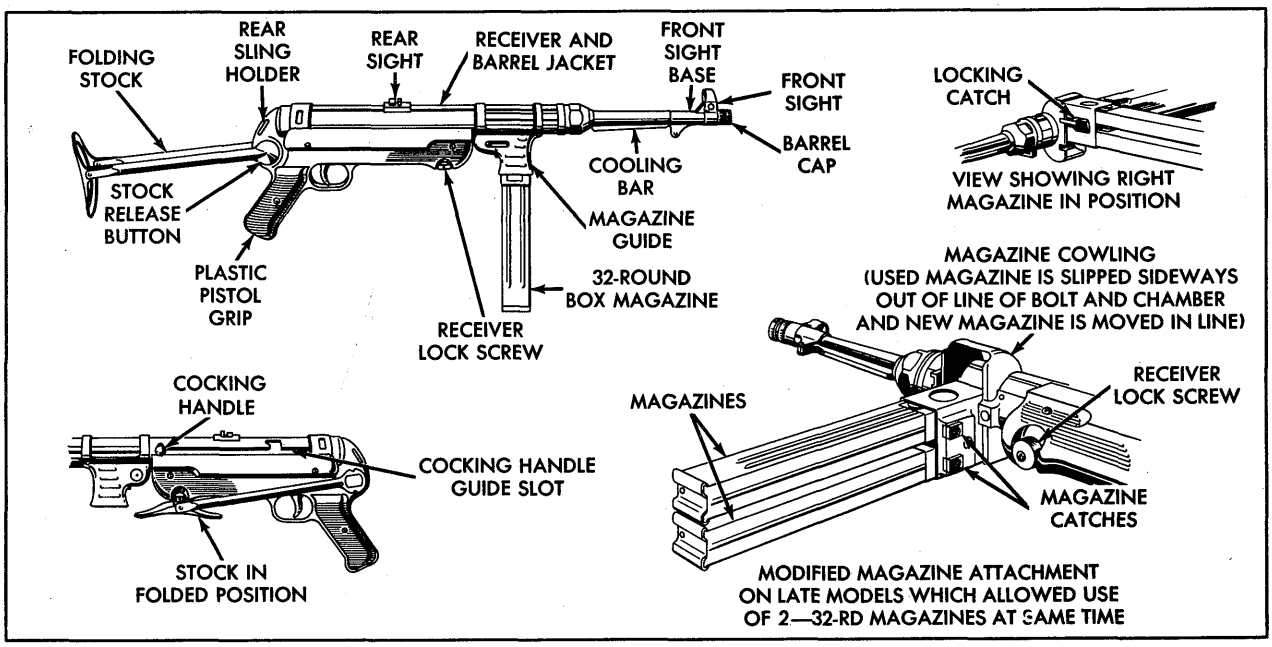
The MP38 and the MP40 are almost identical in appearance and operation. However, the M40 is slightly lighter in weight, has a slower (and more practical) rate of fire, and has a smooth barrel and receiver jacket in place of the corrugated jacket on the M38. To increase the firepower, some of the late models of the M40 weapons have a modified magazine housing which will accommodate two 32-round magazines mounted side by side. When one magazine has been emptied, it can be moved out of the bolt-barrel line and the unused magazine moved into line for firing.

The MP40 is recognized by: (1) The folding metal stock; (2) the curved magazine guide; (3) the corrugated metal fore-end; (4) the prominent receiver lock screw just rearward of the magazine guide; and (5) the slotted sling holder cut through the rear of the receiver housing just above the stock release button.

Large numbers of these weapons were captured and used by the Soviets during World War II and may still be held in reserve stocks.

9-mm Submachine Gun MP40 (Schmeisser)

RECOGNITION FEATURES



CHARACTERISTICS

System of operation	Blowback; automatic fire only
Caliber	9-mm (caliber .354)
Weight:	
Without magazine	4.0 kg (aprx. 9 lb)
With one loaded magazine	4.7 kg (aprx. 10.4 lb)
With two loaded magazines	5.3 kg (aprx. 11.4 lb)
Length over-all:	
With stock folded	625-mm (25 in. aprx)
With stock extended	856-mm (34 in. aprx)
Length of barrel	250-mm (9.8 in)
Feeding devices	32-round box magazine
Sights:	
Front	Hooded blade
Rear	Open V. Standing leaf sight. One folding leaf sight for use at 100 meters. Behind this is another folding leaf, sighted for use at 200 meters
Muzzle velocity	390 m/s (1,280 fps)
Effective rate of fire	80–90 rpm in short bursts; 120–180 rpm in long bursts
Cyclic rate of fire (aprx)	400–500 rpm
Effective range	200 m (aprx 220 yd)
Ammunition	9-mm Parabellum cartridges

9-mm Submachine Gun MP 34/I (Bergmann)

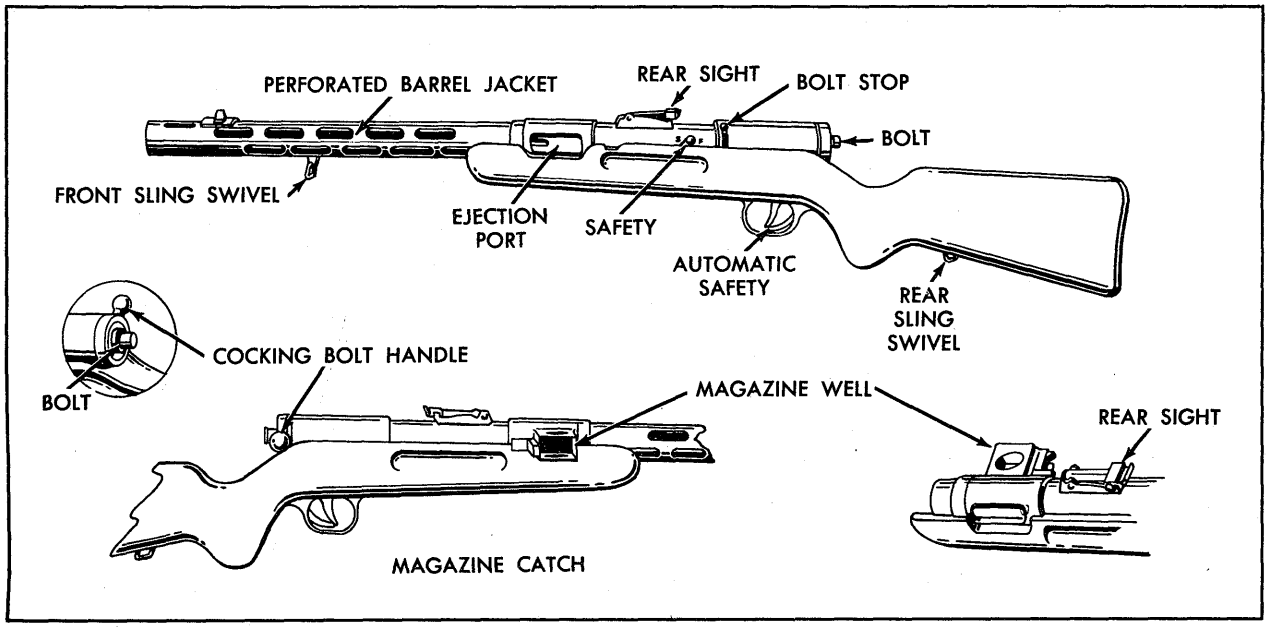
(MASCHINENPISTOLE MP 34)

This weapon is a development of the original German Bergmann machine pistol Model 1918. It was in wide use in the German Army and was also used extensively by U. S. S. R. It is the original of all blowback-type submachine guns and is the forerunner of practically every submachine gun manufactured today. It was adopted as the official submachine gun of the Swedish Army in 1937 and was widely distributed throughout Europe during the years immediately before World War II.

This weapon can be recognized by: (1) The cocking handle at the rear of the receiver; (2) the protruding magazine well on the right side of the receiver (on the Soviet Bergmann the magazine well on the left side of the receiver); (3) the automatic safety device placed behind the trigger to prevent firing of the weapon unless the cocking handle is locked down; (4) the cylindrical body tube which is threaded at the front end to receive the barrel and barrel jacket; and (5) the method of selective fire, i. e., slight trigger depression results in single fire, greater trigger depression results in full automatic fire.

9-mm Submachine Gun MP 34/I (Bergmann)

RECOGNITION FEATURES



CHARACTERISTICS

System of operation	Blowback, selective automatic and semiautomatic
Caliber	9-mm (cal. .354)
Weight:	
Unloaded, w/o magazine	4.3 kg (9.4 lb)
Loaded, w/32 rd. magazine	4.9 kg (10.9 lb)
Length over-all	955-mm (37.6 in)
Length of barrel	200-mm (7.8 in)
Feeding device	Box type 32-round
Sights:	
Front	Blade
Rear	Leaf w/open notch, graduated 50-500 m (aprx 55 to 550 yd)
Muzzle velocity	360 m/s (1,180 fps)
Effective rate of fire	90-100 rpm
Effective range	200 m (aprx 220 yd)
Ammunition	9-mm Parabellum (Luger) ball

7.92-mm Submachine Gun MP–44

(STURMGEWEHR M44)

The German MP44 was developed in 1942 to provide an intermediate weapon between the rifle and the submachine gun. The standard 7.92-mm rifle cartridge was shortened and bottle-necked to take a 120-grain boattail bullet. With this cartridge the weapon provided better ballistic characteristics than those available with the standard German 9-mm submachine guns. It also had provisions for full automatic fire and thus a greater firepower capability.

Ease of mass production was achieved by the extensive use of steel stampings. The receiver, frame, gas cylinder, and barrel jacket are all made from stampings. The parts of the trigger mechanism are riveted in place; therefore, the trigger assembly cannot be disassembled, although a complete trigger mechanism can be quickly inserted into the weapon.

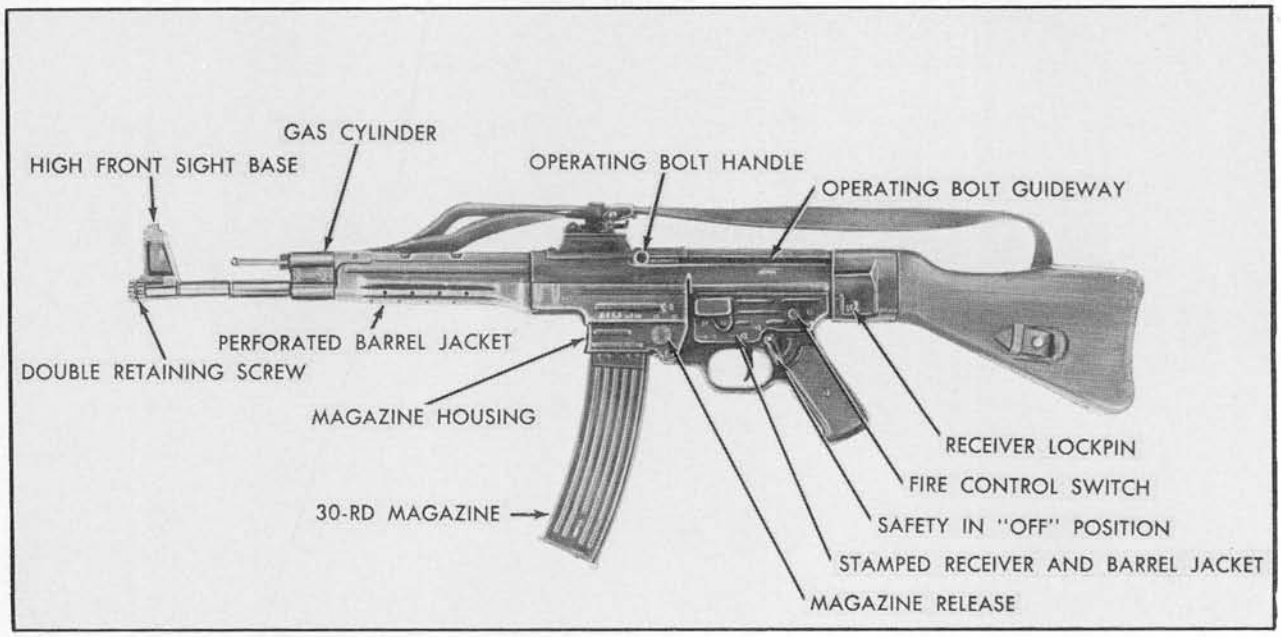
Despite its cheap construction, it is a very serviceable weapon. The various models of this weapon, including the MP43, MP43/1, and the MP44, were all designated the STURMGEWEHR 44 in 1944. They differ only in minor detail. Ballistically, they are identical.

This weapon can be recognized by: (1) The stamped receiver and barrel jacket; (2) the prominent front sight base; (3) the curved, stamped magazine; (4) the gas cylinder on top of the barrel; and (5) the short, bulky buttstock.

Large numbers of these weapons were captured by the Soviets during World War II, and many probably are still held in reserve stocks.

7.92-mm Submachine Gun MP44

RECOGNITION FEATURES



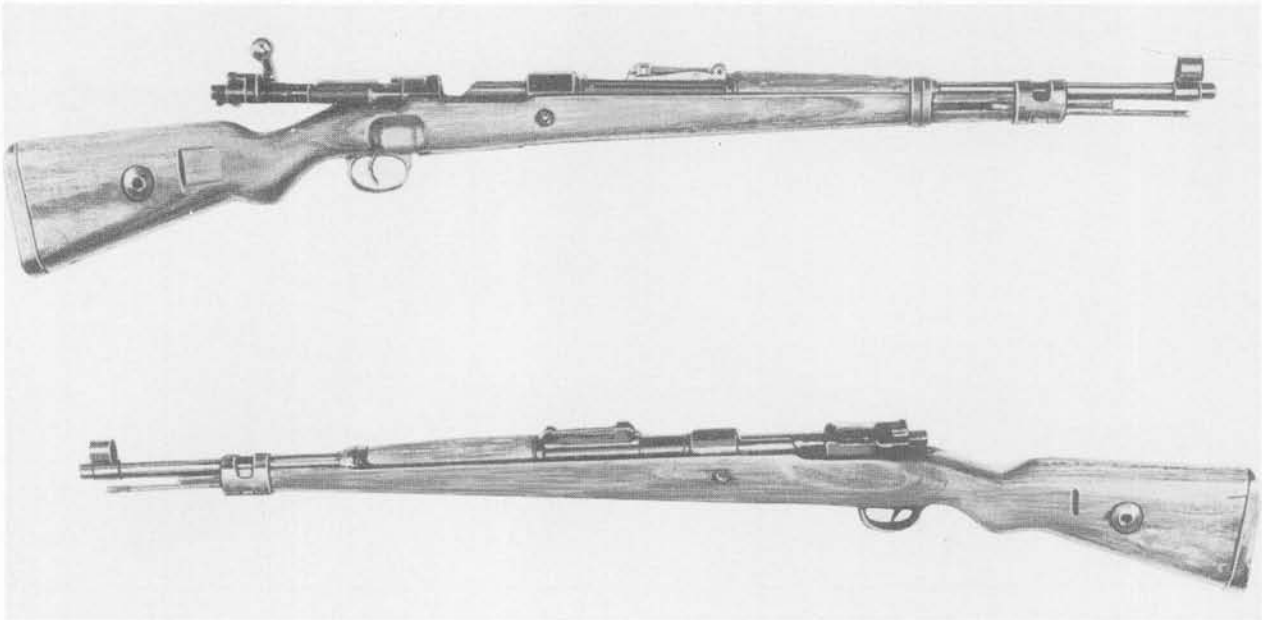
CHARACTERISTICS

System of operation	Gas-operated, selective fire, air-cooled, magazine-fed
Caliber	7.92-mm (.312 in)
Weight:	
With empty magazine	4.5 kg (10 lb aprx)
With loaded magazine	5.2 kg (11.2 lb aprx)
Length over-all	933-mm (36.7 in aprx)
Length of barrel	413-mm (16.2 in aprx)
Feeding device	30-rd curved magazine
Sights:	
Front	Hooded blade
Rear	Tangent leaf and peep, 100 to 800 meters graduated in 100 meter increments
Muzzle velocity (aprx)	686 m/s (2,250 fps)
Effective rates of fire:	
Automatic	100–120 rpm
Semiautomatic	40–50 rpm
Cyclic rate of fire (aprx)	800 rpm
Effective ranges:	
Automatic	Up to 200 m (aprx 220 yd)
Semiautomatic	Up to 400 m (aprx 440 yd)
Ammunition	7.92-mm Pistolen Patronen, semi AP, M. P. 43. This is a shortened version of the 7.92-mm rifle cartridge used in the standard 7.92-mm Mauser rifles

C. RIFLES AND CARBINES

7.92-mm Karabiner M98K Mauser Rifle

(KARABINER 98K (Kar 98K))



This bolt-operated rifle was the standard German Army shoulder weapon during World War II. It is very similar in both appearance and operation to the U. S. Army M1903 (Springfield) rifle. It was made for export sale by Mauser before 1936, being called "the Mauser Standard". Czechoslovakia, Poland, China, and Austria also have manufactured this weapon. It is still widely found in many of the satellite countries and is believed to be held in reserve stocks in considerable quantities.

Older models, the Gewehr 98 and Kar. 98b, operate in the same manner but have longer barrels. Comparatively, the 98K is often referred to as a "carbine."

The 98K has no windage adjustment or peep sight, but it gives good results at medium range. It is adaptable to use as a sniper rifle, being equipped with brackets for the mounting of a telescope sight. It is loaded in the same manner as the U. S. Army cal. .30 M1903 rifle, a five-round clip being inserted into the opening in the top of the receiver. The safety also operates in the same manner as on the M1903 rifle.

It is fitted for a short knife bayonet, several types of silencers, and at least two types of rifle grenade launchers.

Salient recognition features of this weapon are: (1) Metal sling swivel on left side of piece just forward of rear sight; (2) metal-lined hole through stock which serves as an aid in dismounting the firing pin; (3) rectangular cut in stock which serves as a rear sling attachment; and (4) the grooved bayonet stud extending forward from the front barrel retaining band.

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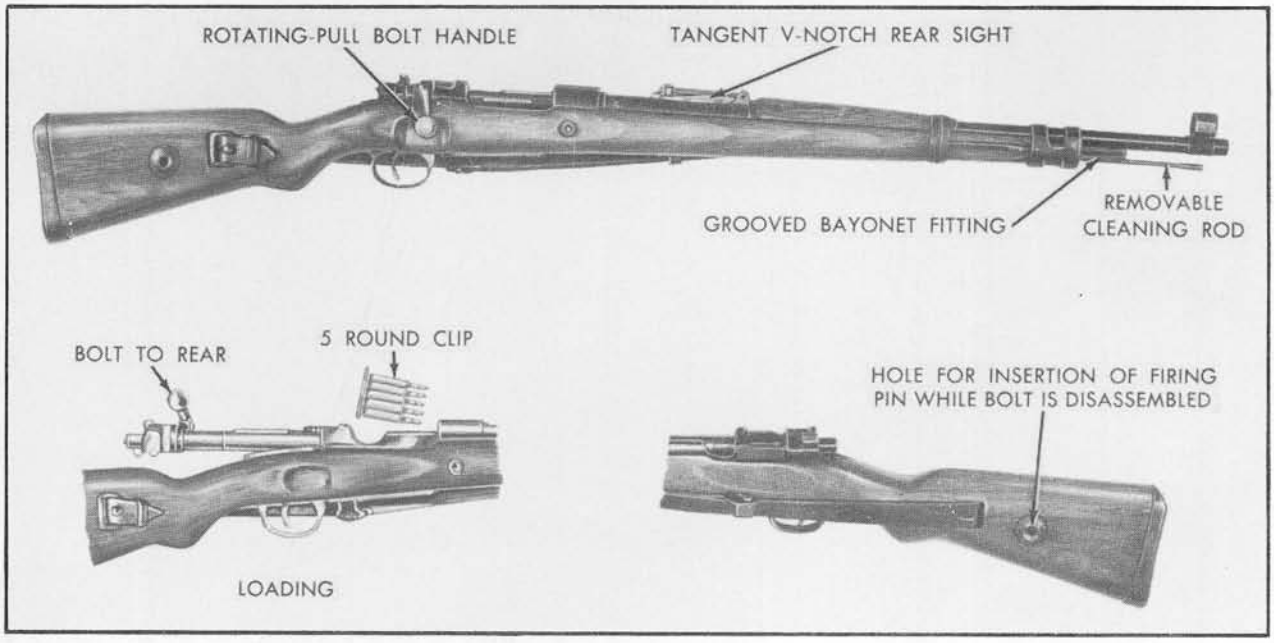
7.92-mm Karabiner M98K Mauser Rifle

RECOGNITION FEATURES

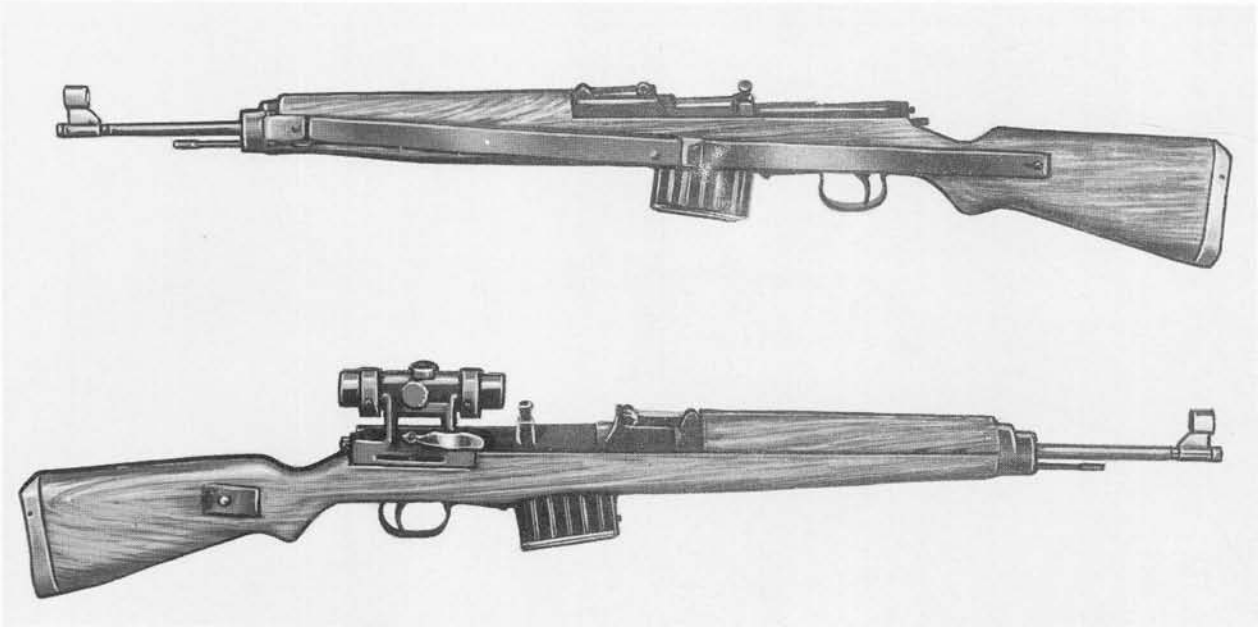


CHARACTERISTICS

System of operation	Manually operated, turning bolt action
Caliber	7.92-mm(cal. .312)
Weight (including sling):	
Unloaded	4.2 kg (9.21 lb)
Loaded	4.3 kg (9.316 lb)
Length over-all:	
With bayonet	125 cm (49.5 in)
W/o bayonet	110 cm (43.5 in)
Length of barrel	61 cm (23.5 in)
Feeding device	5-round, single column clip
Sights:	
Front	Pyramidal blade
Rear	Tangent leaf, open V-notch, graduated 100–2,000 m in 100 m increments
Muzzle velocity	755 m/s (2,477 ft/s) w/"s" heavy ball.
Effective rate of fire	9–10 rpm
Effective range	400 m (440 yd)
Ammunition	German "s" heavy ball 7.92-mm 7.92-mm "SmK" AP and "S. m. K. L." AP tracer 7.92-mm "SmE" Iron-cored ball 7.92-mm "SmE" Lg-cored ball 7.92-mm "SmK.H" tungsten-carbide AP

7.92-mm Model 43 Semi-Automatic Rifle

(KARABINER 43 (GEWEHR 43))



This rifle is a semi-automatic, gas-operated, air-cooled, magazine-fed, shoulder weapon. The original designation was the Gewehr 43, but this nomenclature was later changed to Karabiner 43.

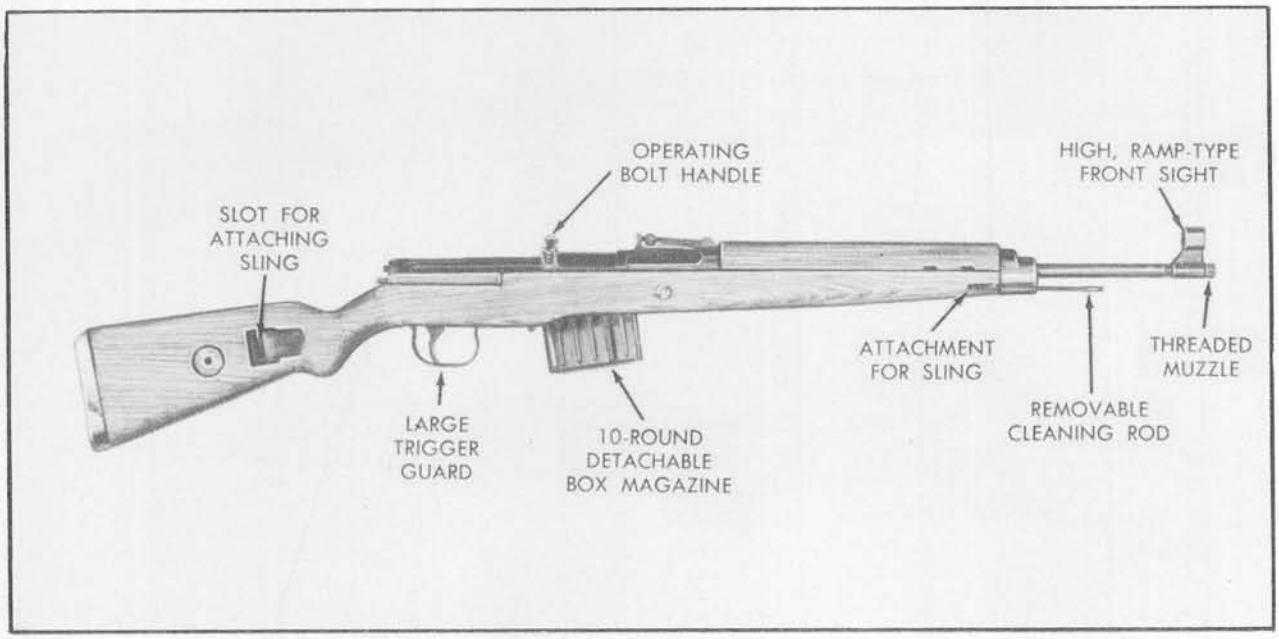
It is a simplified and improved development of the 41M and 41W, earlier World War II German models. The major changes are that the M43: (1) Uses principally forgings and stampings rather than machined parts; (2) is lighter and better balanced; (3) employs a better system of gas operation, a gas vent and gas piston being used rather than a gas trap assembly and long piston rod; and (4) does not have a bayonet stud for use of a bayonet.

Salient recognition features of this rifle are: (1) Location of telescopic sight base on right side of the receiver near the rear; (2) a high ramp-type front sight base; (3) an enlarged trigger guard to permit the firer to wear heavy gloves; and (4) three-eighths of an inch of the muzzle is threaded for attachment of a flash hider.

This rifle is in service in the Czechoslovak Army as a sniper rifle.

7.92-mm Model 43 Semi-Automatic Rifle (Gewehr 43)

RECOGNITION FEATURES



CHARACTERISTICS

System of operation	Gas-operated, air-cooled, magazine-fed semi-automatic
Caliber	7.92-mm (cal. .312)
Weight: (incl. sling, bayonet)	
Unloaded	4 kg (9 lb. aprx)
Loaded	4.5 kg (10 lb aprx)
Length over-all	112 cm (44.2 in)
Length of barrel	56 cm (22 in)
Feeding device	10-round detachable box magazine
Sights:	
Front	Flat-top blade
Rear	Tangent, U-notch; graduated 100–1,200 m in 100 m increments (equipped for telescopic sight)
Muzzle velocity	745 m/sec (2,445 fps)
Effective rate of fire	30 rpm
Effective range	400 m (440 yd)
Ammunition	Standard German 7.92-mm ammunition

7.92-mm M42 (FG42) Automatic Rifle

(7.92-mm FALLSCHIRMJÄGERGEWEHR 42)

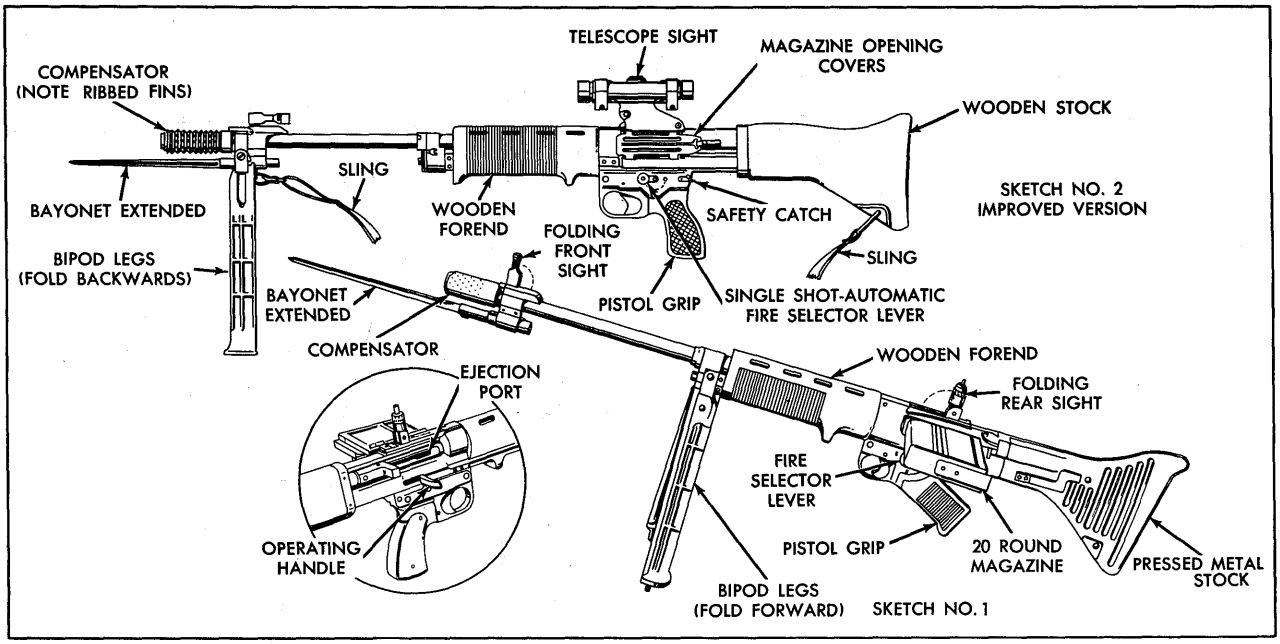
This weapon, referred to very often as the German "Paratroop" rifle, is designed more like a light machine gun than a rifle. It is gas-operated, has selective automatic or semi-automatic fire, is fitted with a permanently attached folding bipod, and is fed from a 20-round magazine. It was originally designed for use by parachute troops as an automatic rifle, but it can be used as a light machine gun or as a machine carbine.

The FG42 underwent extensive tests and progressed through several design stages before a final model was adopted by the German High Command. It was late 1944 before the rifle was finally introduced in combat in significant numbers. It is fitted for a bayonet, compensator, telescopic sight, and rifle grenade launcher.

The salient recognition features of this weapon are: (1) A horizontal box magazine which feeds from the left side of the weapon; (2) a pronounced rearward slope of the hand grip; (3) the attached folding bipod; (4) folding post-type sights; and (5) a selector lever on the left side of the trigger housing permitting settings for automatic or semi-automatic fire or for "safe".

7.92-mm M42 (FG42) Automatic Rifle

RECOGNITION FEATURES



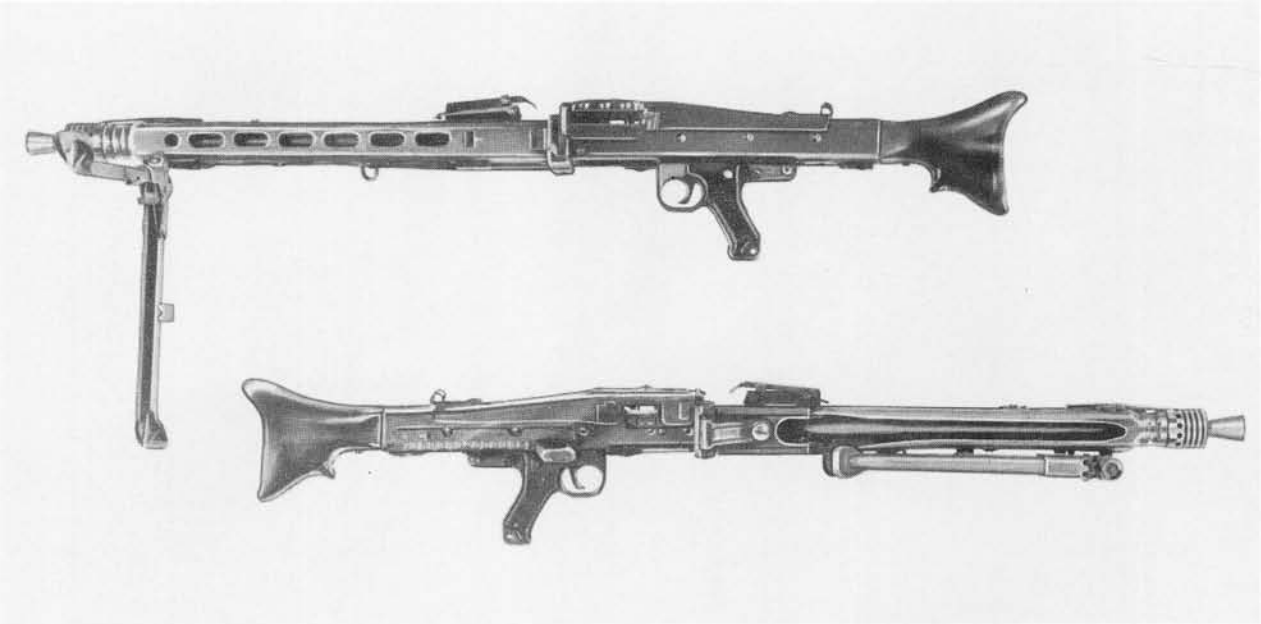
CHARACTERISTICS

System of operation	Gas-operated, air-cooled, selective automatic or semi-automatic fire
Caliber	7.92-mm (.312 in)
Weight (incl. sling, bipod, and bayonet):	
Unloaded	4.9 kg (10.5 lb)
Loaded	5.5 kg (11.5 lb)
Length over-all:	
With bayonet	110 cm (43.5 in)
W/o bayonet	98 cm (38.5 in)
Length of barrel	48 cm (19 in)
Feeding device	20-round magazine
Sights:	
Front	(Both have special folding post sights
Rear	Graduated 100–1,200 m
Muzzle velocity	750 m/s (2,461 fps)
Effective rate of fire	Semiautomatic 20 rpm; auto 40–60 rpm
Effective range	400 m(440 yd)
Ammunition	Standard German 7.92-mm automatic

D. MACHINE GUNS

7.92-mm Machine Gun Model 42 (MG 42)

(MASCHINENGEWEHR 42)



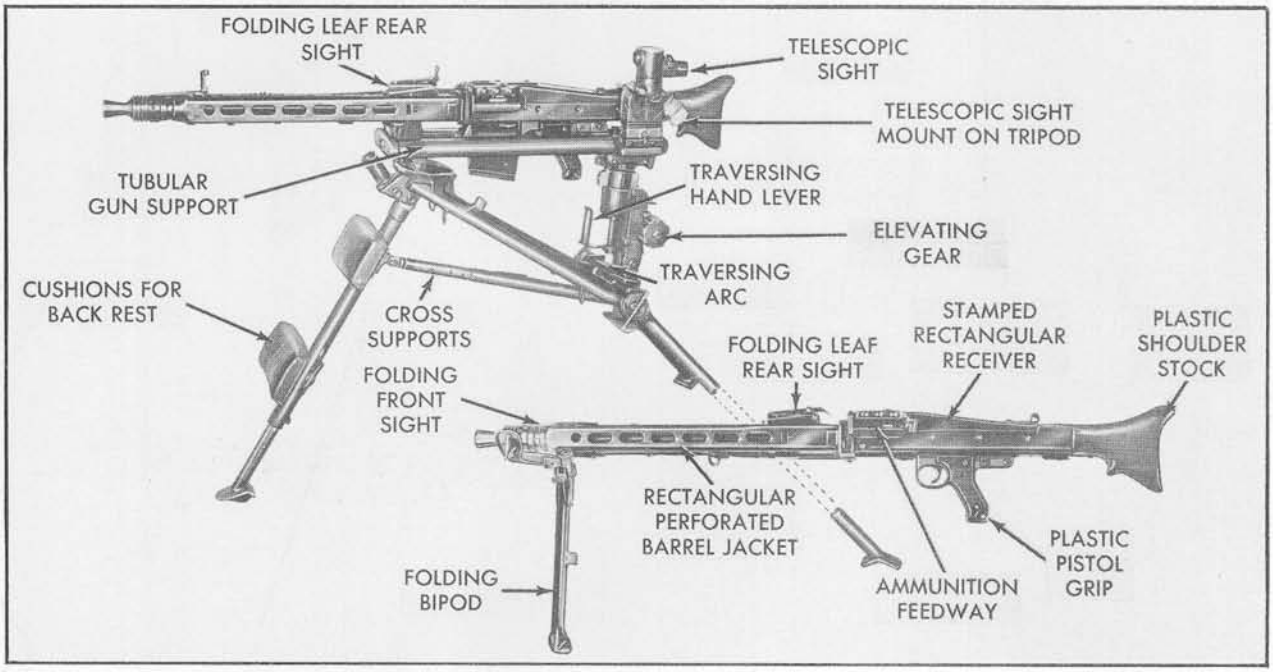
The MG 42 replaced the MG 34 as the standard dual-purpose machine gun of the German Army in World War II. It is similar in appearance and use to the MG 34, but it is easier to manufacture and has a less finished appearance. Like the MG 34, the MG 42 can be fired from a bipod, a tripod, or an AA mount. It has a higher automatic rate of fire than the MG 34 and is less accurate than the MG 34 when fired in long bursts. It has a quick-change barrel removable from the breech end of the weapon and a relatively simple field-stripping procedure.

The MG 42 employs the recoil-operated principle, assisted by a muzzle recoil booster. It is belt- or drum-fed from the left side only. Best results are obtained when fired in short bursts of five to seven rounds, since the high rate of fire causes wide dispersion in longer bursts. The mounts are not interchangeable with those of the MG 34, although they are very similar in appearance. Large quantities of these weapons were captured by the Soviets during World War II, and sizable numbers probably are still held in reserve stocks.

Salient recognition features are: (1) The rectangular shape of the receiver and perforated barrel jacket; (2) folding leaf rear sight, which slides on ramp; (3) plastic pistol grip and shoulder stock; and (4) the large grooved operating handle on the right side of the receiver.

7.92-mm Machine Gun Model 42 (MG 42)

RECOGNITION FEATURES

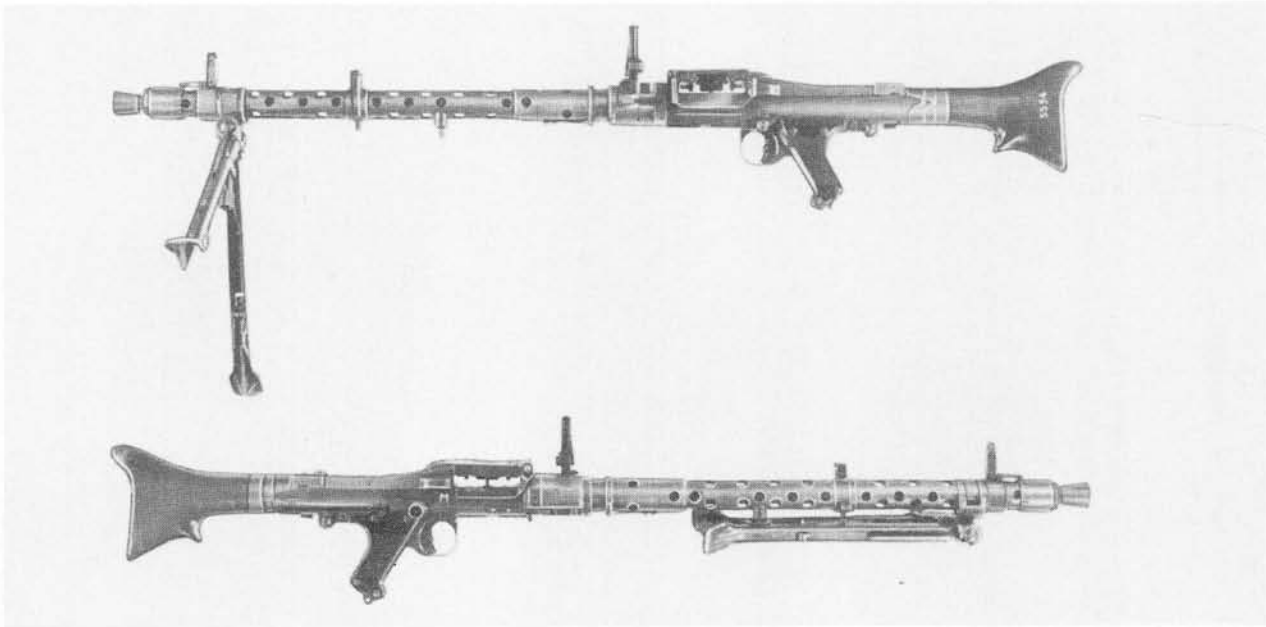


CHARACTERISTICS

System of operation	Short recoil with muzzle blast assist, automatic fire only
System of cooling	Air
Caliber	7.92-mm (.312 in)
Weight:	
Without mount	10.6 kg (23.2 lb)
With bipod	11.6 kg (25.5 lb)
With tripod	29.7 kg (65.5 lb)
With antiaircraft tripod	18.3 kg (40.4 lb)
Length over-all	122 cm (48 in)
Feed device	50-round metallic nondisintegrating link belt, usually linked in 250-round belt
Sights:	
Front	Inverted V on a folding base
Rear	Tangent leaf, open V-notch graduated from 200 to 2,000 meters in 100-meter increments A separate antiaircraft rear sight can be attached to the rear sight base and a ring sight fitted to the barrel jacket A telescopic sight may be used when the gun is used on the tripod as a heavy machine gun
Muzzle velocity	740 m/s (2,475fps)
Practical rate of fire	250 rpm (when used as a light machine gun) 500 rpm (when used as a heavy machine gun)
Effective range	550 m (600 yd as light machine gun) 2,000 m (2,200 yd as a heavy machine gun)
Ammunition	All standard German 7.92-mm rimless ammunition

7.92-mm Machine Gun Model 34 (MG 34)

(MASCHINENGEWEHR 34 (MG 34))



This weapon was the original standard World War II dual-purpose machine gun of the German Army. Although it was replaced by the improved version, the MG 42, it was still used in large numbers until VE-day.

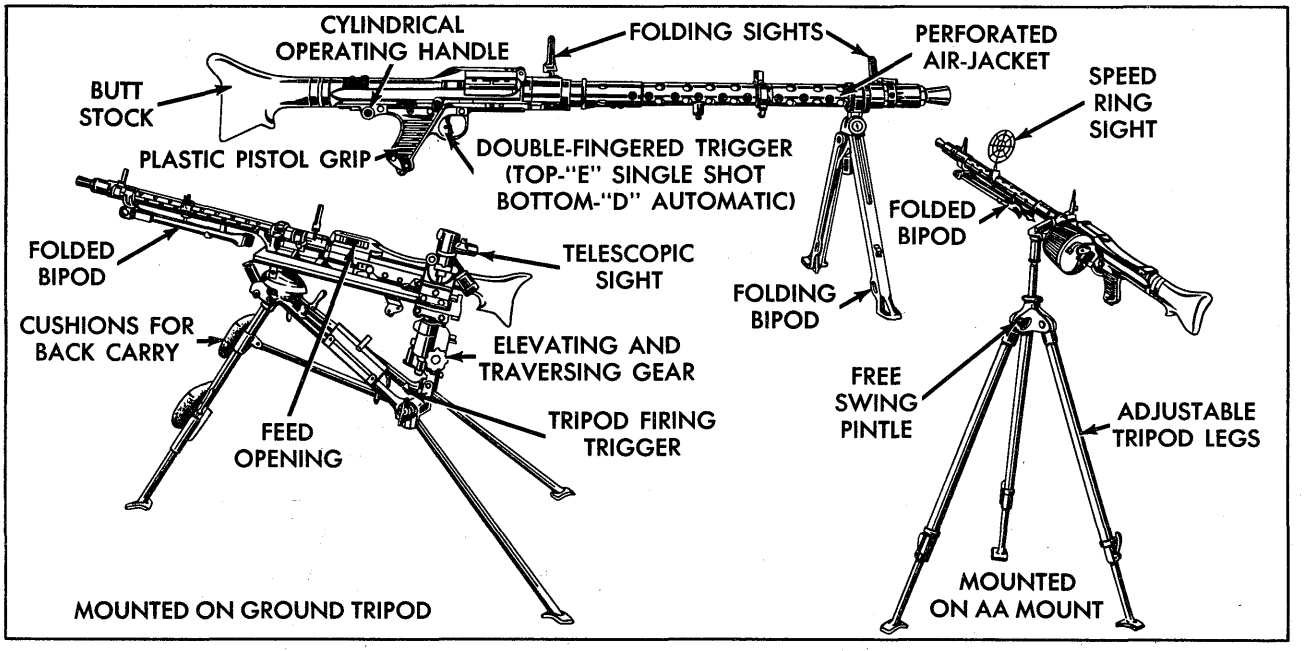
It may be used on a bipod as a light machine gun, on a tripod as a heavy machine gun, or on an AA mount as an antiaircraft machine gun. It was also modified to fire from tanks and other vehicles. Although this gun has a very high rate of fire, it is not particularly accurate when fired full automatic because of its light weight. The weapon has a quick-change barrel and can be easily disassembled in the field; however, the over-all complicated design and necessity for fine adjustments lessen its reliability.

This weapon works on the short-recoil principle and is belt- or magazine-fed from the left side normally; it can be fed from the right side by the substitution of a special feed arm in the feed cover. Selective automatic or semiautomatic fire is provided by a double-fingered trigger; pressing the top part permits a single shot fire and pressing the bottom part permits full automatic fire. The air-cooling system is effective since the open-bolt principle allows air to circulate through the breech opening and the barrel between shots. Large numbers of this weapon were captured by the Soviets in World War II and may still be held in reserve stocks.

Salient recognition features are: (1) The perforated air-jacket; (2) plastic pistol grips and double-fingered trigger; (3) folding front and rear sights; (4) cylindrical operating handle in right side of receiver; and (5) short, bulky shape of plastic shoulder stock.

7.92-mm Machine Gun Model 34 (MG 34)

RECOGNITION FEATURES

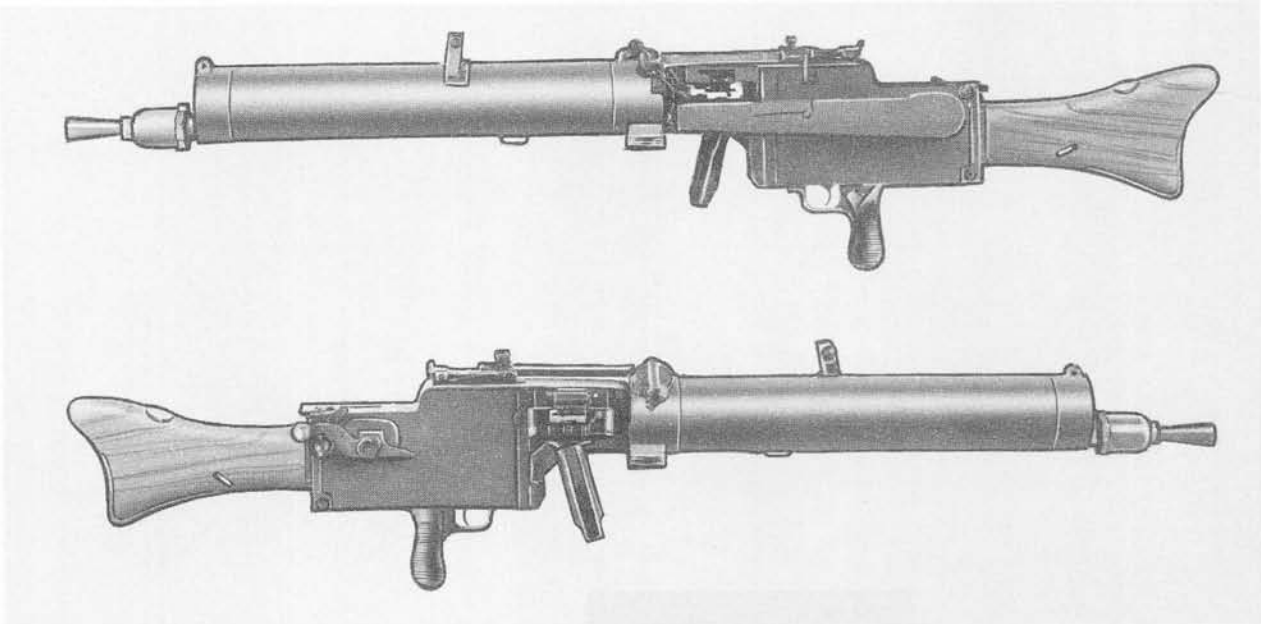


CHARACTERISTICS

System of operation	Short recoil, assisted by muzzle blast, semi- and full-automatic fire
System of cooling	Air
Caliber	7.92-mm (.312 in)
Weight:	
Weight without mount	11 kg (24.2 lb)
Weight with bipod	12 kg (26.4 lb)
Weight with bipod and tripod	35.6 kg (78.4 lb)
Length over-all	122 cm (48.2 in)
Feeding devices	50-round metallic, nondisintegrating link belt, usually linked in 250-round belt; 75-round saddle-type drum; 50-round belt drums
Sights:	
Front	Folding blade
Rear	Vertical leaf with open V-notch graduated from 200–2,000 meters (220–2,200 yards) in 100-meter increments; an aperture rear sight for use with a "cart-wheel" type antiaircraft front sight; a telescope sight is used on the heavy machine gun tripod mount
Muzzle velocity	755 m/s (2,480 fps)
Practical rate of fire	100–120 rounds per minute as light machine gun; 300 rounds per minute when used as heavy machine gun
Effective range:	
As heavy machine gun	3,501 m (3,827 yd)
As a light machine gun	550 m (600 yd)
Ammunition	All standard German 7.92-mm rimless ammunition

7.92-mm Maxim Light Machine Guns MG 08/15 and 08/18

(MASCHINENGEWEHR 08/15 and 08/18)



The 08/15 machine gun was standard in the German Army in World War I. It was still in use as a second-line weapon in World War II, and large quantities of reserve stocks were captured by the Soviet Army. Although it lacks the improved characteristics found in later machine guns, the MG 08/15 has certain basic characteristics which still make it an effective weapon. It is a water-cooled weapon fitted with a rifle-type shoulder stock and designed to be carried by one man. However, the water-cooled barrel adds to the weight and required maintenance.

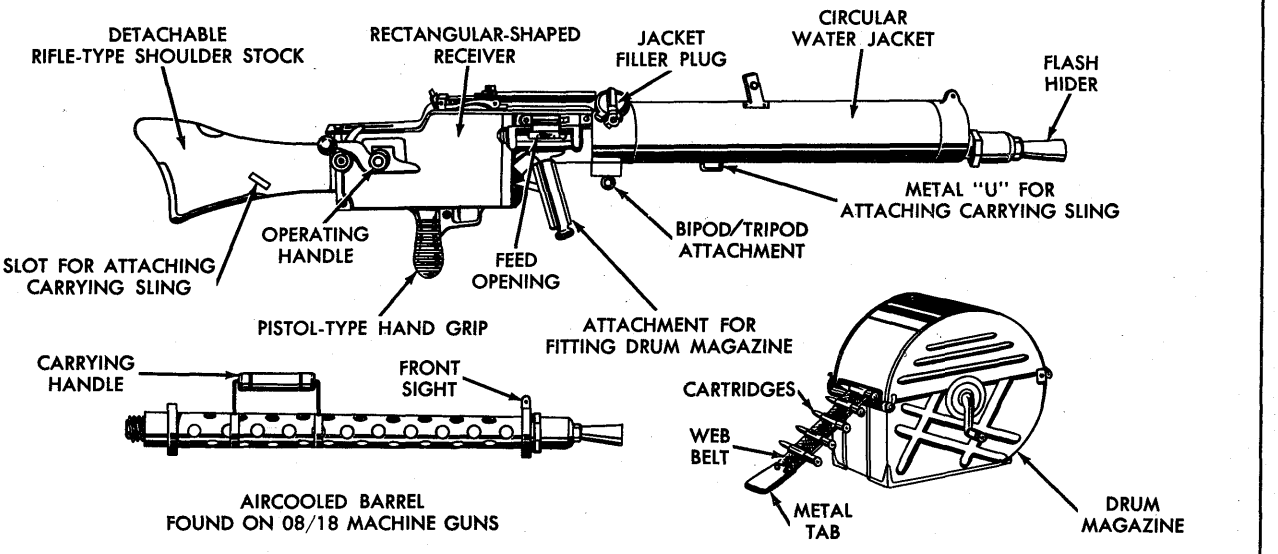
The machine gun is fed from the right side only, from either a box magazine or a metal drum. When the gun is loaded, and the manual safety set on "F" (Feuer-Fire) pressing the trigger will fire the gun as long as cartridges are fed into the chamber. Changing the barrel requires removal of most of the receiver parts, dropping the shoulder stock down, and withdrawing the barrel to the rear.

Another Maxim light machine gun, the 08/18, is practically identical with the model 08/15 except that it has no water jacket. To reduce weight it was fitted with an air-cooled heavy barrel with a slotted barrel jacket. The barrel has a carrying handle fitted just forward of the feed block. With these exceptions, the gun is identical with the MG 08/15.

Salient recognition features of the MG 08/15 are: (1) The circular water jacket; (2) the large rectangular shape of receiver; (3) the wooden rifle-type shoulder stock; (4) the feed opening on right side of receiver; (5) the irregular-shaped operating handle on right side of the receiver; and (6) the pistol-type hand grip.

7.92-mm Maxim Light Machine Gun Model 08/15

RECOGNITION FEATURES

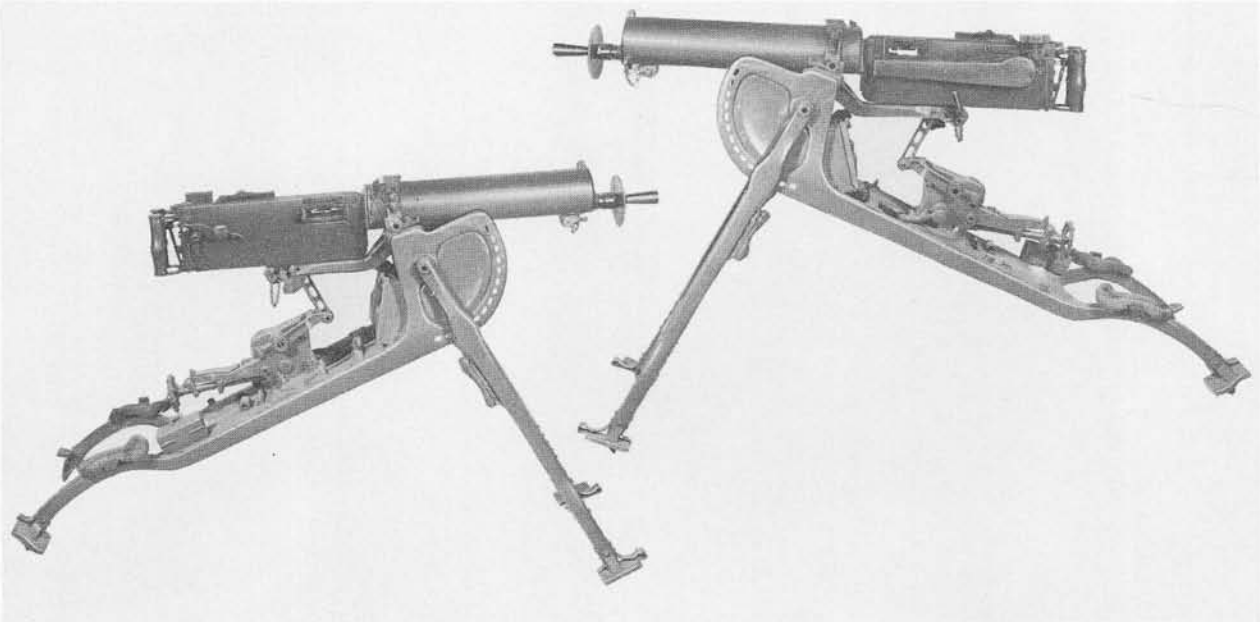


CHARACTERISTICS

System of operation	Recoil operated; automatic fire only
System of cooling	M08/15 water-cooled
Caliber	7.92-mm (.312 in)
Weight:	
With bipod mount	15.5 kg (34 lb aprx)
With tripod mount	23.5 kg (52 lb aprx)
Length over-all, including flash hider	110 cm (43 in. aprx)
Feeding device	100 and 200 rd web belts—loaded in drum magazine or fed from open box
Sights:	
Front	Fixed post
Rear	Radial leaf with a V-notch; graduated from 400 to 2,000 meters (437 to 2,200 yd. aprx)
Muzzle velocity	755 m/s (2,480 fps)
Effective range	521 m (600 yd)
Ammunition	7.92-mm German service types

7.92-mm Machine Gun MG 08, Maxim

(SCHWERES MASCHINENGEWEHR 08) (SMG 08)



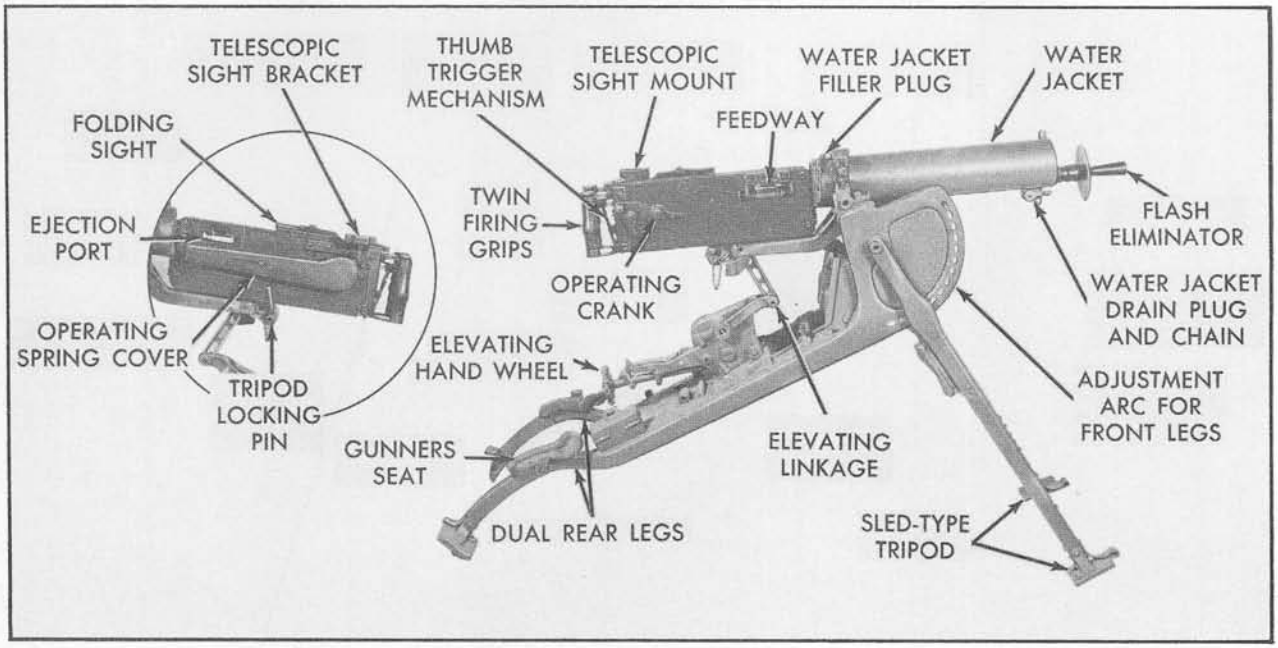
This weapon was widely used by the German Army in World War I, and up to shortly before World War II, when it was replaced by the MG 34. During World War II it was used as a second-line weapon. It is still held in reserve by several Soviet satellites. It can be considered in the heavy machine gun class.

The MG 08 is cooled by water contained in a jacket surrounding the barrel. Single-shot fire can be obtained only by quick pull and release of the trigger· otherwise, full automatic fire is obtained. Feeding is from the right side by a 100- or 250-round fabric belt. The two spade grips on the rear of the receiver are similar to those on the U. S. cal. .50 machine gun.

Salient recognition features are: (1) The irregular-shaped crank handle; (2) circular water jacket around the barrel; (3) feed opening in right side of receiver; (4) twin spade grips at rear of receiver; and (5) the split-thumb trigger with safety lever.

7.92-mm Machine Gun MG 08 (Maxim)

RECOGNITION FEATURES



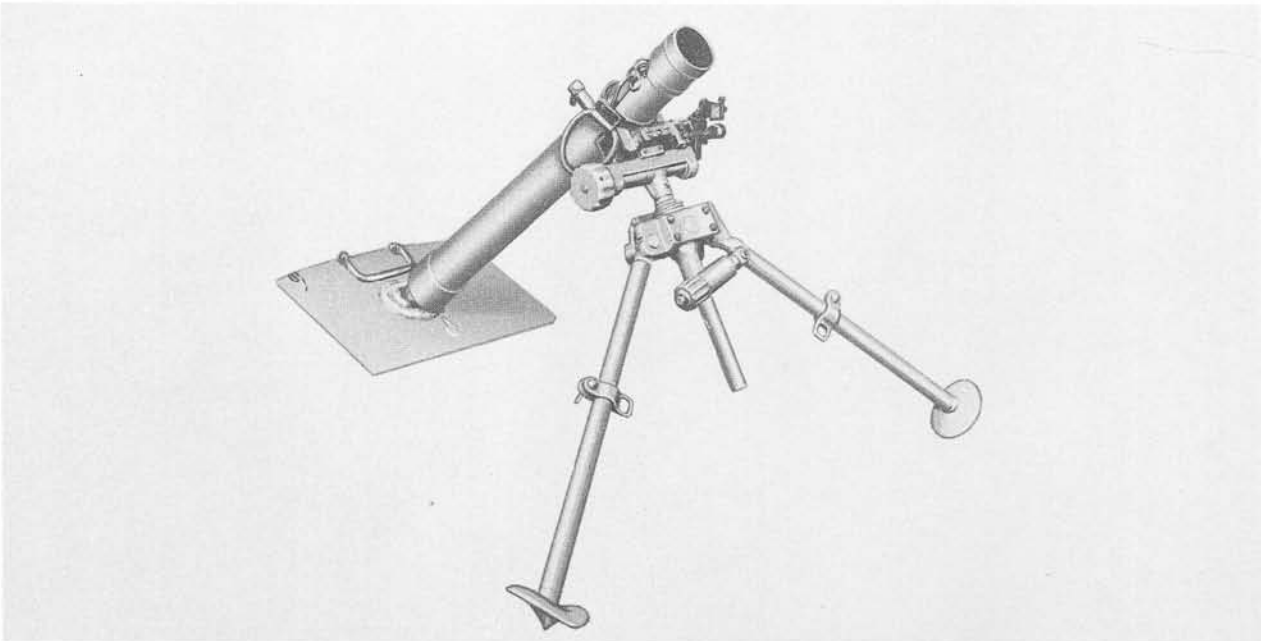
CHARACTERISTICS

System of operation	Recoil operated, automatic fire only
System of cooling	Water
Caliber	7.92-mm (.312 in)
Weight:	
With sled mount	66.4 kg (146.4 lb)
With tripod mount	58.4 kg (128.8 lb)
Gun only	20 kg (44 lb)
Length over-all (gun only)	1.1 m (43 in)
Feeding device	Fabric belt in 100–250 round lengths
Sights:	
Front	Fixed blade, adjustable laterally
Rear	Folding leaf with adjustable sliding cross bar with open V graduated from 400-2,000 meters in 100-meter increments
Muzzle velocity	
Practical rate of fire	250 rpm
Effective range	900 m (aprx) 1,000 yd direct fire; 3,500 m (3,800 yd) with telescopic sight
Ammunition	All 7.92-mm Mauser service types

E. MORTARS

81-mm Model 1934 Medium Mortar

(8CM SCHWERE GRANATWERFER 34) (8cm sGr.W34)



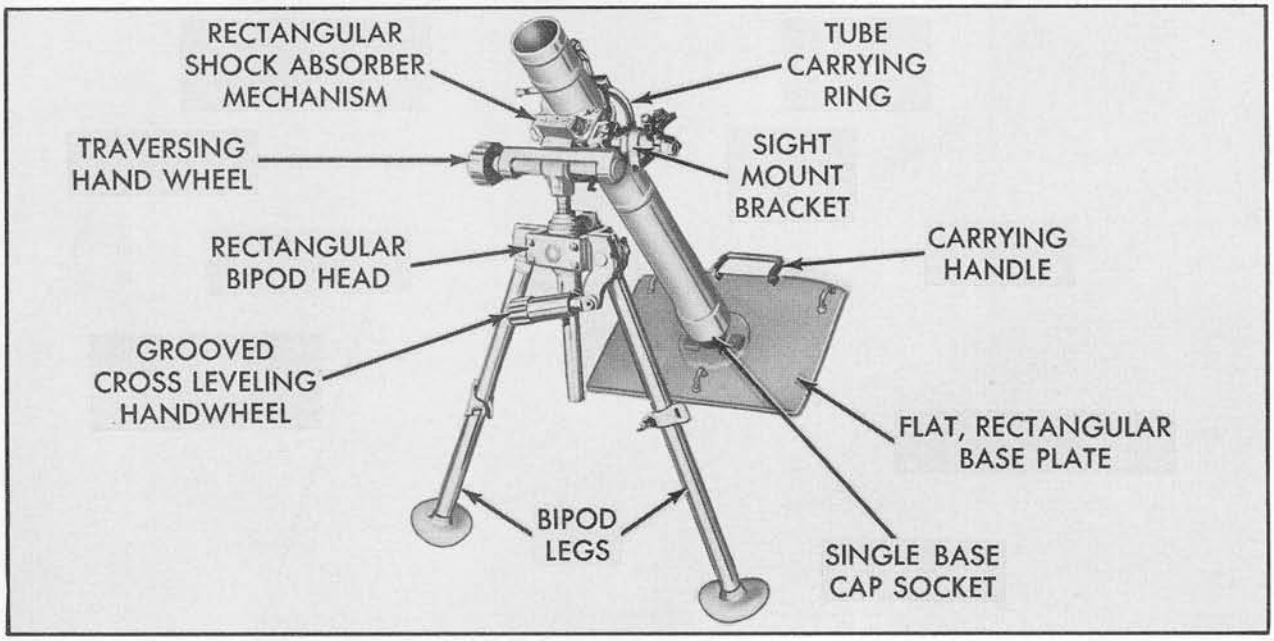
This mortar was the standard heavy infantry mortar of the German Army in World War II. It is a conventional smooth-bore, muzzle-loading mortar, and basically is similar to the U. S. 81-mm mortar. It is equipped with an optical panoramic sight, the R. A. 35, mounted on the left side of the bipod. The mortar breaks down into three man loads or one horse-drawn cart load.

Ammunition which can be fired by this weapon is: The standard German 81-mm round; the rebounding ("Bouncing Betty") round, which detonates in the air after hitting the ground; and United States, French, Italian, and Dutch 81-mm types. One interesting feature of this mortar is the manual safety located in the spherical projection of the tube, which allows the firing pin to be retracted away from the propelling cartridge in event of a misfire.

Salient recognition features of this weapon are: (1) The cross-leveling handwheel on the guide tube between the bipod legs; (2) the rectangular baseplate having only one socket for the breech end of the tube; (3) the safety bolt in the spherical projection of the tube; (4) the rectangular-shaped shock absorbing mechanism on the bipod; and (5) the elevating handle on the reverse side of the elevating mechanism.

81-mm Model 1934 Medium Mortar

RECOGNITION FEATURES



CHARACTERISTICS

I. PHYSICAL DATA

Caliber	81.4-mm (3.2 in)
Method of loading	Muzzle loading
Method of firing	Drop fire
Weight in firing position	56.7 kg (124 lb aprx)
Component weights, including harness:	
Bipod assembly	18.3 kg (40 lb aprx)
Base plate assembly	20.4 kg (44 lb aprx)
Barrel assembly	20.4 kg (44 lb aprx)
Sight with case	1.7 kg (4 lb aprx)
Two loaded ammunition cases (8 rounds)	29 kg (64 lb aprx)
Elevation limits	700 to 1,600 mils
Traverse limits	160 to 260 mils (14°)

II. AMMUNITION (main types and projectile weights)

HE with Wgr 34 fuze	3.5 kg (7.7 lb aprx)
HE with Wgr 38 fuze	3.2 kg (7.5 lb aprx)
HE with Wgr 39 fuze	3.2 kg (7.5 lb aprx)
Smoke with Wgr 38 Deut	3.5 kg (7.7 lb aprx)

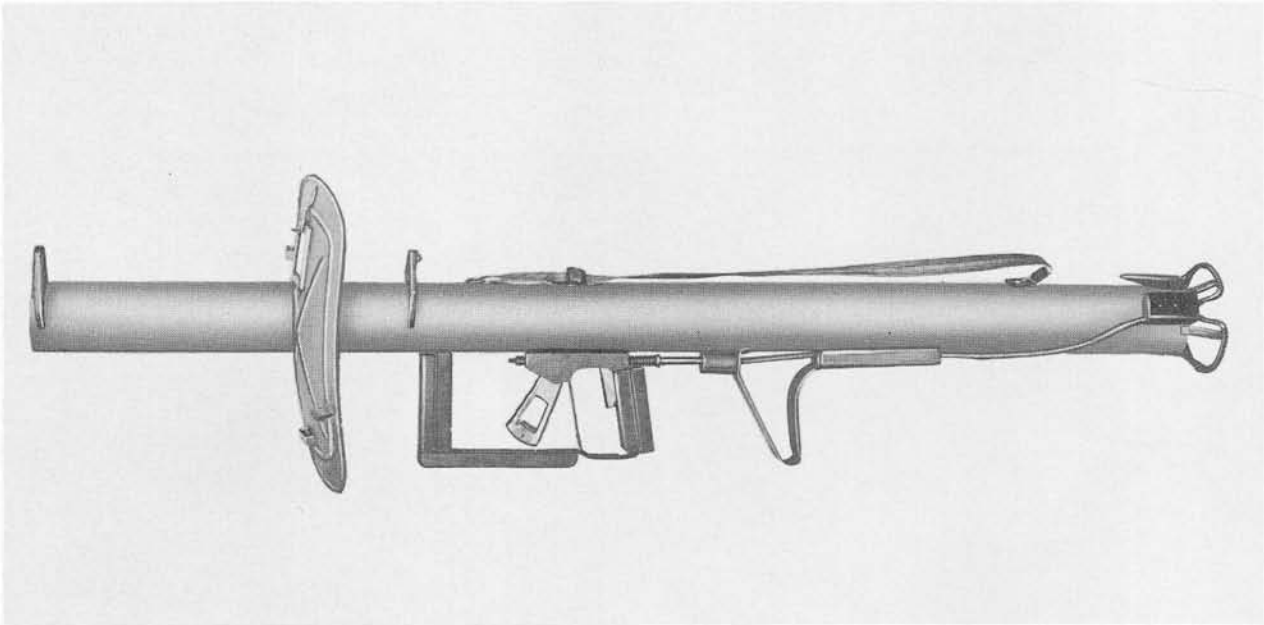
III. PERFORMANCE

Maximum range with HE	2,400 m (2,625 yd)
Minimum range with HE	55 m (60 yds)
Muzzle velocity:	
With HE (maximum	(Aprx) 174 m/s (570 fps)
With HE (minimum)	(Aprx) 75.1 m/s (246 fps)
Rate of fire	18 to 36 rpm
Fragmentation radius of HE shell:	
Versus standing targets	32 m (35 yd aprx)
Versus prone targets	18 m (18 yd aprx)

F. INFANTRY ANTITANK WEAPONS

88-mm Recoilless Antitank Rocket Launcher M54

(RAKETENPANZERBÜCHSE 54 [PzB54])



The Recoilless Antitank Launcher Model 54, a shoulder weapon consisting of a metal tube 64½ inches long, is generally fired by a two-man crew. It is similar in appearance and operation to the United States 3.5 inch "Bazooka", except for the face shield forward of the trigger mechanism on the Model 54 launcher.

This launcher is an improved version of the Racketenpanzerbüchse Model 43. The Model 54 incorporates a "clip-on" face shield to protect the firer, better ballistic characteristics both in range and armor penetration, and a greater degree of reliability under adverse combat conditions.

A muzzle rest may be clipped to the barrel immediately behind the front sight bracket. The front sight is adjustable for use with either the two rounds, i. e., a summer round and a winter round. The rear sight is graduated left and right of center for sightings on targets at speeds of 15 and 30 kilometers per hour. The launcher is equipped with a web carrying sling.

When the projectile is fired, the "back-blast" of flame reaches a length of about 16 feet; for this reason, it is a dangerous weapon to fire, unless the firer is thoroughly trained or is protected with protective clothing if the face shield is not used.

This weapon has a self-contained and very simple electric-thrust generator which is built into the weapon to provide the necessary spark to ignite the propelling charge. This feature eliminates the use of batteries.

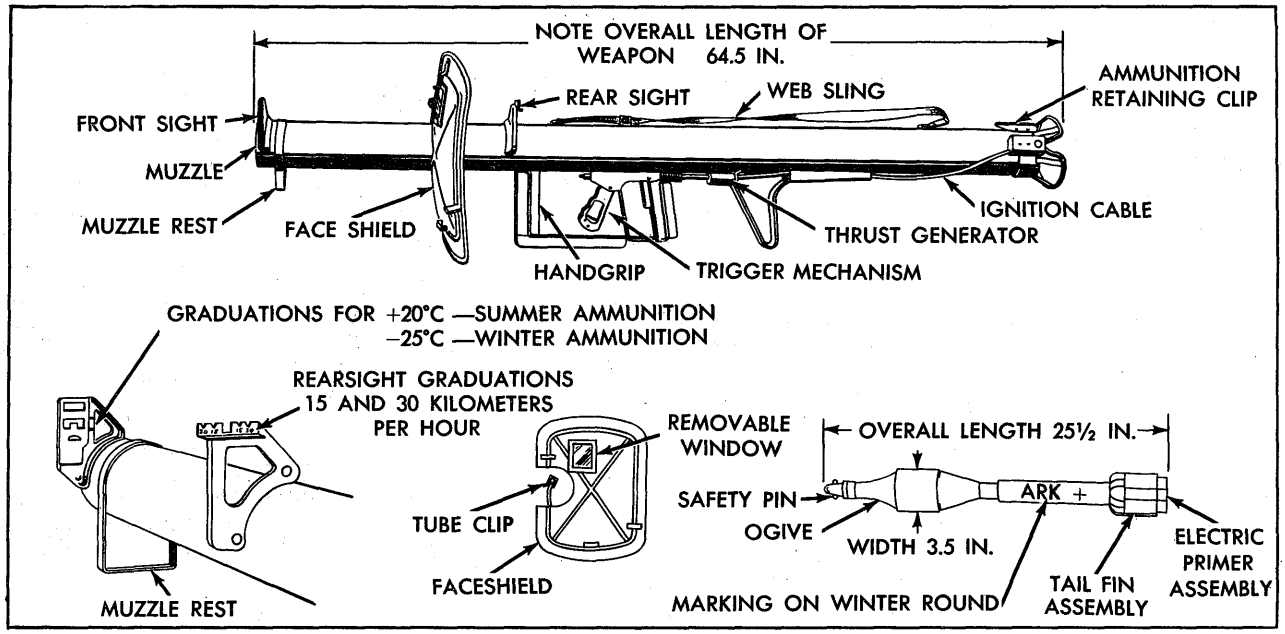
The low muzzle velocity of the projectile has no effect on the efficiency of the shaped-charge projectile.

This weapon, although limited in range, provides excellent armor penetration at ranges up to 165 yards.

This weapon can be recognized by: (1) The clip-on face shield; (2) the thrust generator located just forward of the shoulder rest; (3) the muzzle rest behind the front sight; and (4) the metal hand grip which incloses the trigger mechanism.

88-mm Recoilless Antitank Rocket Launcher M54

RECOGNITION FEATURES



CHARACTERISTICS

System of operation ..... Electrically fired rocket
Caliber ..... 88-mm (3.5 in)
Weight, unloaded ..... 9 kg (20.5 lb)
Length over-all ..... 166 cm (64.5 in)
Feeding device ..... Hand loaded from rear of launcher, single shot
Sights:
- Front ..... Welded to tube with two settings +20° C. for summer ammunition and −25° C. for winter ammunition
- Rear ..... Fixed, with notched V- graduations of 15 and 30 kilometers per hr, left and right of center

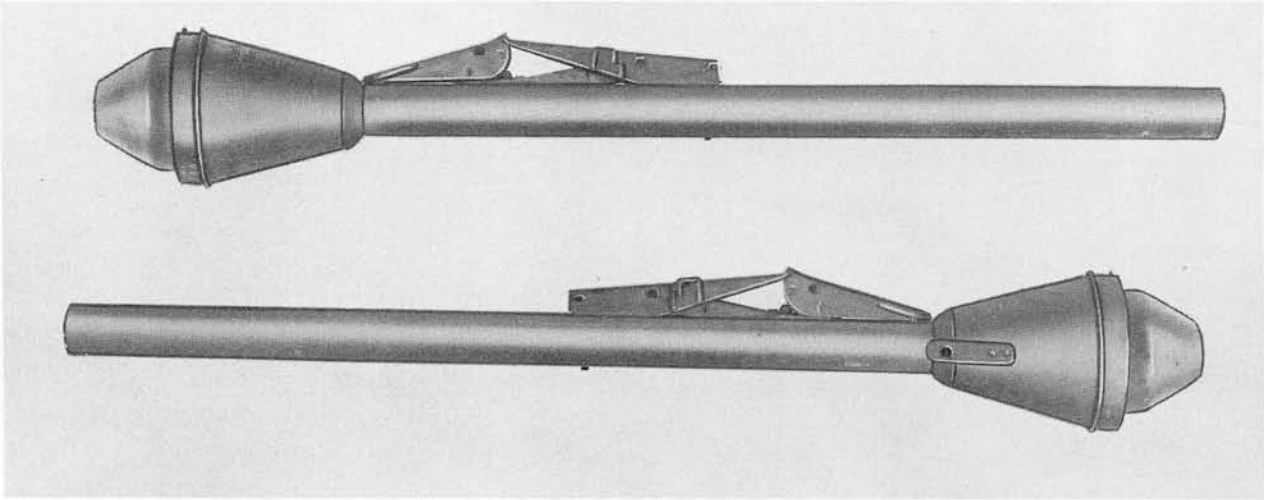
Maximum effective range ..... 150.7 m (165 yd aprx)
Ammunition:
- Weight of round (shaped charge) ..... 3.3 kg (7.1 lb aprx)
- Total weight (3 rounds to a box) w/case ..... 10 kg (22 lb aprx)
- (There are two types of ammunition, one round for winter use [temperature range −40° to +30° C.]; and one round for summer use [temperature range −5° to +50° C.].)

Muzzle velocity ..... 105.8 m/s (346 fps aprx)
Armor penetration:

Angle of attack	Range	Penetration
30°	120 m (132 yd)	216 mm (8.5 in aprx)

Recoilless Antitank Grenade Launcher 100

(PANZERFAUST 100)



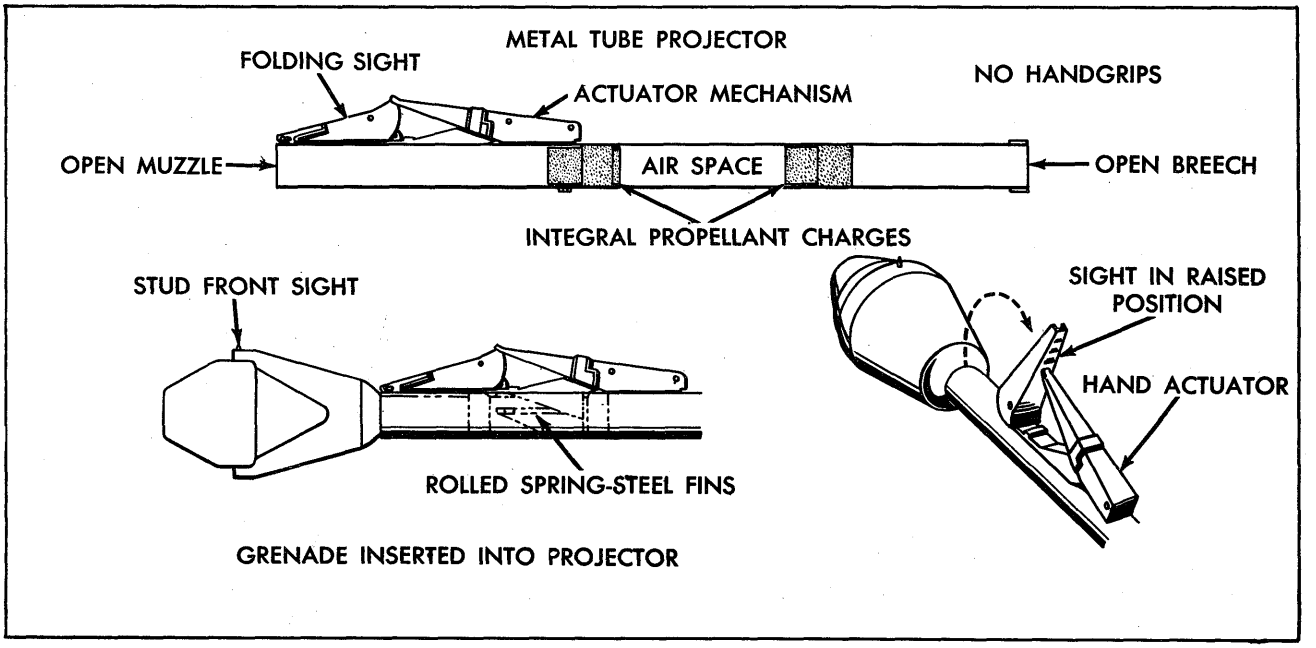
The Recoilless Antitank Grenade Launcher Model 100 was one of a series of Panzerfausts used by the Germans in World War II. The other significant models, with the same principle of operation and very similar in appearance, were the Klein 30 and the Panzerfaust 30 and 60. Major differences were in tube weight and maximum range. These weapons resulted from the German requirement for an effective antitank weapon that could be handled by one person. These weapons consist principally of an open-end metal tube projector with integral firing mechanism and propellant charge, and a hollow-charge antitank grenade which is fitted onto the muzzle end of the projector. The tube projector is not reloadable and is discarded after a single grenade is discharged. One model, the 150, was developed in early 1945 which was reloadable, but it was not employed in significant numbers by German troops.

For loading and firing, the spring steel fins on the tail of the grenade are rolled around the shaft and the grenade is fitted onto the muzzle end of the tube. The fuze safety pin is withdrawn, and the metal sighting rail on the projector is raised to a vertical position. The weapon is then hand-cocked, sighted, and the actuator depressed. This causes an ignition of the propellant charge which in turn discharges the grenade. The tail fins spring outward and stabilize the grenade during flight.

Salient recognition features are: (1) Lack of hand-grips on the projector; (2) the folding sight along the top of the tube; (3) small pointed stud on the grenade, which is used as a front sight; (4) the spring steel fins on the tail of the grenade; and (5) the two propellant charges in the projector, separated by an air gap for staggered ignition.

Recoilless Antitank Grenade Launcher 100

RECOGNITION FEATURES



CHARACTERISTICS

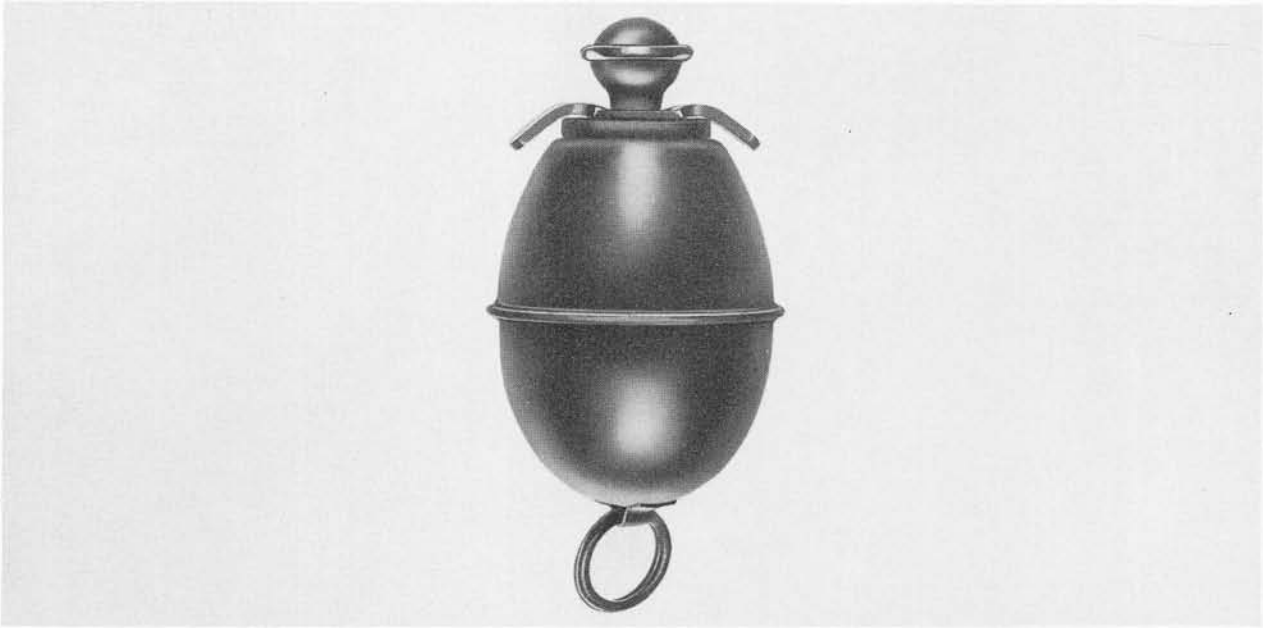
System of operation	Recoilless
Caliber	149.5-mm (5.89 in)
Weight, unloaded	7.2 kg (15 lb aprx)
Length, over-all	
Feeding device	Single shot, projector discarded after one shot
Sights:	
Front	Flat top post, fixed on grenade head
Rear	Folding leaf sight graduated for 50 m, 100 m and 150 m ranges
Maximum effective range	150 m (164 yd, aprx)
Effective rate of fire	1 rpm
Ammunition:	
Weight of round	3.2 kg (6.7 lb aprx)
Muzzle velocity	62 m/s (204 fps)
Armor penetration:	

Angle of attack	Range	Penetration
30°	1	200 mm (7.8 in)

G. GRENADES

Egg-Type Hand Grenade M39

(EIHANDGRANATE)



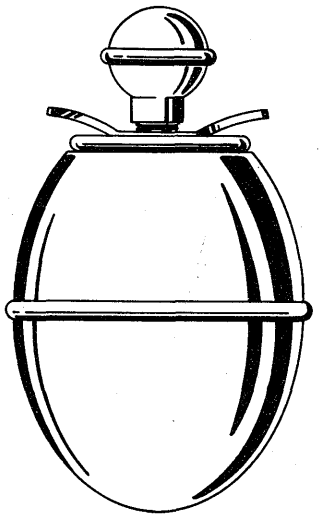
This grenade was a standard infantry grenade of the German Army in World War II. It was manufactured in two sizes, standard and large. Although an offensive type depending on blast for effect, it can be fitted with a fragmentation jacket to increase its casualty-producing capability. This grenade was used frequently as a booby trap, by replacing the delay tube with a nondelay friction igniter, causing immediate detonation when the friction wire of the igniter was pulled.

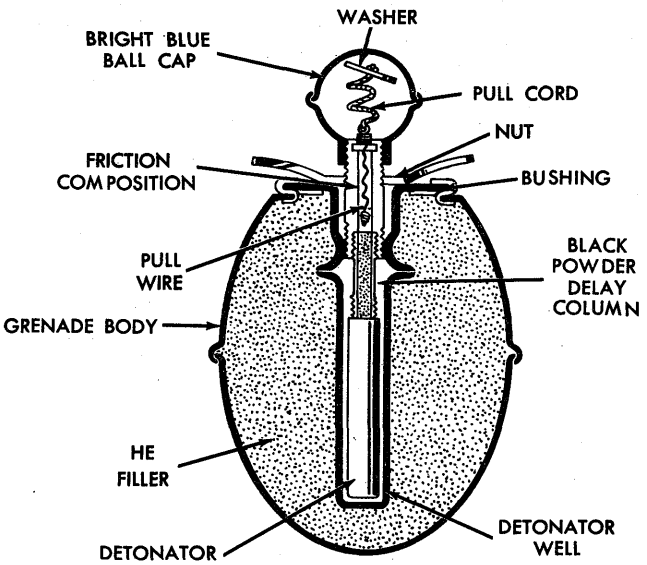
The M39 (standard weight) grenade consists of a thin egg-shaped case with igniter and delay column. The upper end of the friction wire is attached to the knob of the grenade. Unscrewing and pulling the knob cause the friction wire to ignite the 4–5 second delay column. The column in turn, initiates the detonation which sets off the explosive filler.

Salient recognition features of the grenade are: (1) Its egg shape; (2) the projecting igniter knob on top; (3) the circular flange around the circumference; (4) the metal carrying ring in the bottom of the grenade; and (5) the turned-down winged nut below the knob. (Early models did not have the latter two parts.)

Egg-Type Hand Grenade, M39

RECOGNITION FEATURES



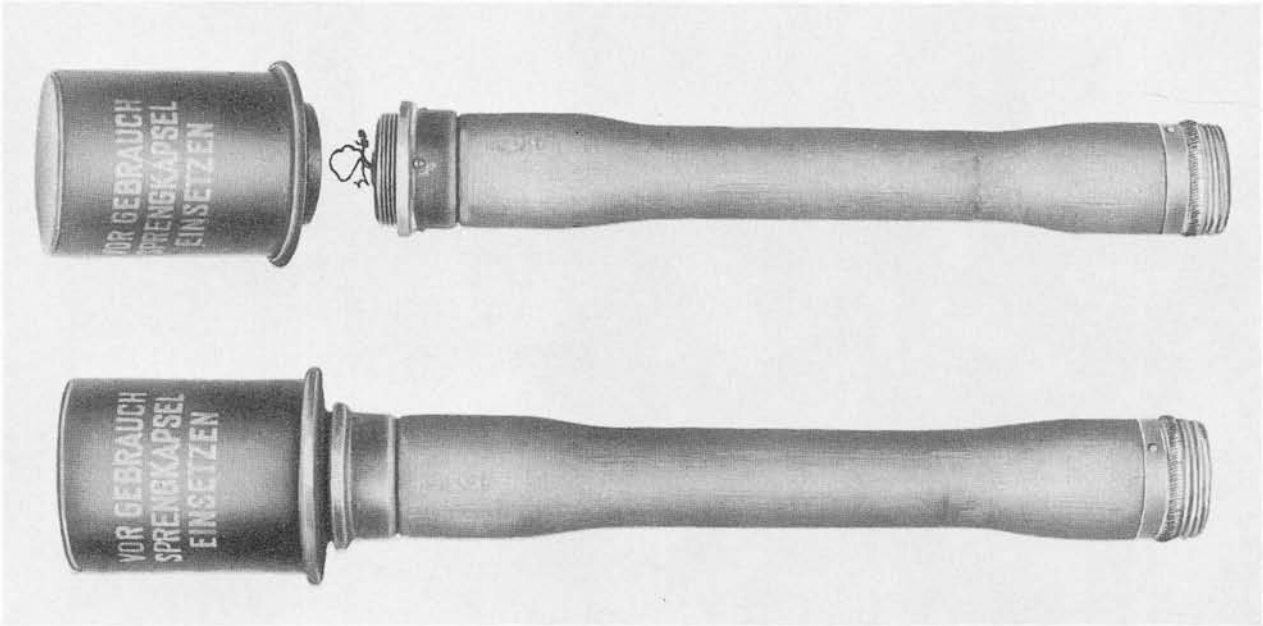


CHARACTERISTICS

Type	Offensive
Method of operation	Manually cocked, time delay element
Weight: (Standard)	
With fragmentation jacket	Not available
W/o fragmentation jacket	227–284 Gr. (8–10 oz)
Length over-all	5 cm (3 in)
Fuze delay time	4–5 seconds
Average range	30–40 m (32–43 yd)
Effective fragmentation radius:	
With fragmentation jacket	15–20 m aprx (16–21 yd)
W/o fragmentation jacket	6–8 m aprx (6.5 to 8.7 yd, aprx)

Stick Hand Grenade M39

(STIELHANDGRANATE 39)



The M39 grenade was one of several offensive stick-type hand grenades used by the Germans in World War II. The head consists of a thin-gauge steel cover containing the bursting charge. This is screwed onto a hollow wooden handle through which runs a cord. This cord connects to a friction pull igniter at one end and to a porcelain ball in a metal cap at the other end.

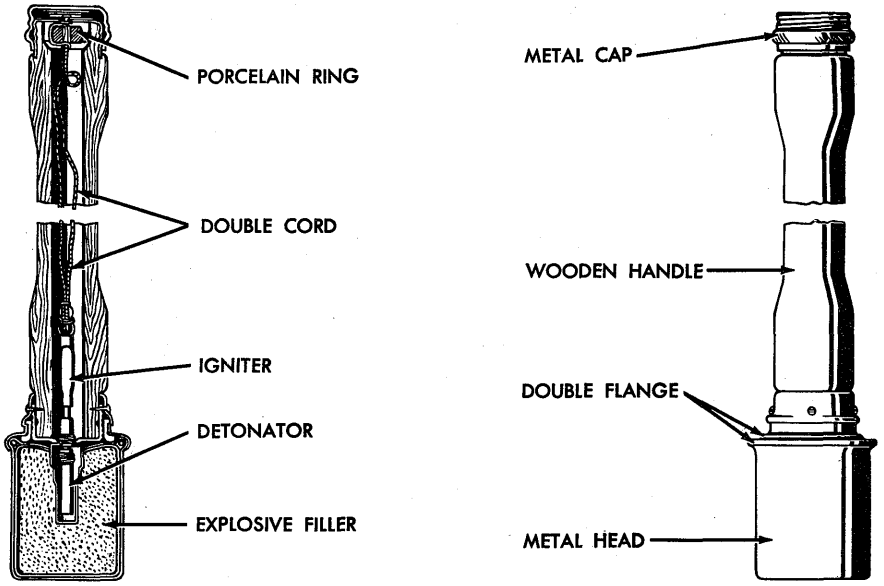
To operate the grenade, the metal cap on the end of the wooden handle is unscrewed, the porcelain ring removed, and the grenade thrown. Removal of the porcelain ball causes initiation of the friction igniter which sets off the detonator, followed by the bursting charge. There is a 4–5 second delay between removal of the porcelain ring and the explosion.

Salient recognition features of the Model 39 grenade are: (1) The wooden handle with metal cap, (2) the double flange on the bottom of the head, and (3) the smooth metal head.

A metal fragmentation jacket may be fitted over the metal head for greater fragmentation.

Stick Hand Grenade M39

RECOGNITION FEATURES



CHARACTERISTICS

Type	Offensive
Method of operation	Manually cocked, time delay element
Weight:	
With fragmentation jacket	625–675 g (aprx)—(1.3–1.5 lbs)
W/o fragmentation jacket	500 g (1.2 lb)
Length over-all	36 cm (14 in)
Diameter of head	7 cm (2.7 in)
Fuze delay time	4–5 seconds
Average range	30 yd
Effective fragmentation radius:	
With fragmentation jacket	9–14 m (10–15 yd, aprx)
W/o fragmentation jacket	5–6 m (6–7 yd, aprx)

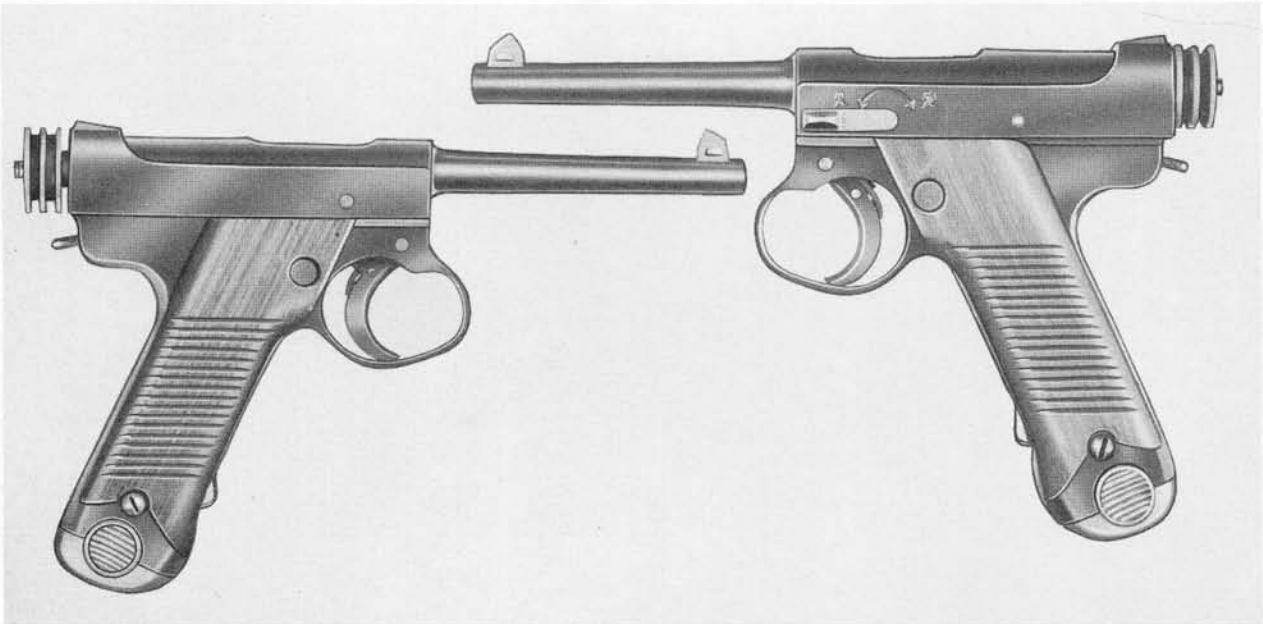
GLOSSARY OF JAPANESE TERMS

Transliteration of Japanese Terms	*English Meaning*
SHIKI	Type (model)
KEIKIKANJU	Light machine gun
KENJU	Pistol
JUKIKANJU	Heavy machine gun
JUYONEN	14th year (1925)
KYUKYU SHIKI KEIKI	Type 99 light machine gun
KYUROKU SHIKI KEIKI	Type 96 light machine gun
SHURYUDAN	Hand grenade
KYUKYU SHIKI TANSHOJU	Type 99 short rifle
KYUNANA SHIKI KYOKUSHA HOHEIHO.	Type 97 high-angle infantry gun
KYUNI SHIKI JUKIKANJU	Type 92 heavy machine gun
JUKIKANJU DANYAKU	Type 92 heavy machine gun ammunition
KYUNI SHIKI FUTSU JIPPO	Type 92 ordinary ball ammunition
SHOHAKUGEKIHO	Small trench mortar
KIJU	Carbine
HOHEIJU	Infantry rifle

A. PISTOLS

8-mm Pistol Type 14 (1925)

(JUYONEN SHIKI YENJU)



The model 14 pistol is a semiautomatic, recoil-operated, magazine-fed weapon. It closely resembles the Nambu pistol but can be distinguished from that weapon by: (1) Absence of a grip safety; (2) absence of the folding leaf rear sight; (3) the large circular, ribbed cocking piece; and (4) the safety lever located on the left side of the receiver above the trigger guard. It also somewhat resembles the German Luger pistol, but the locking design is more like that of the German 7.63-mm Mauser and the Italian 9-mm Glisenli.

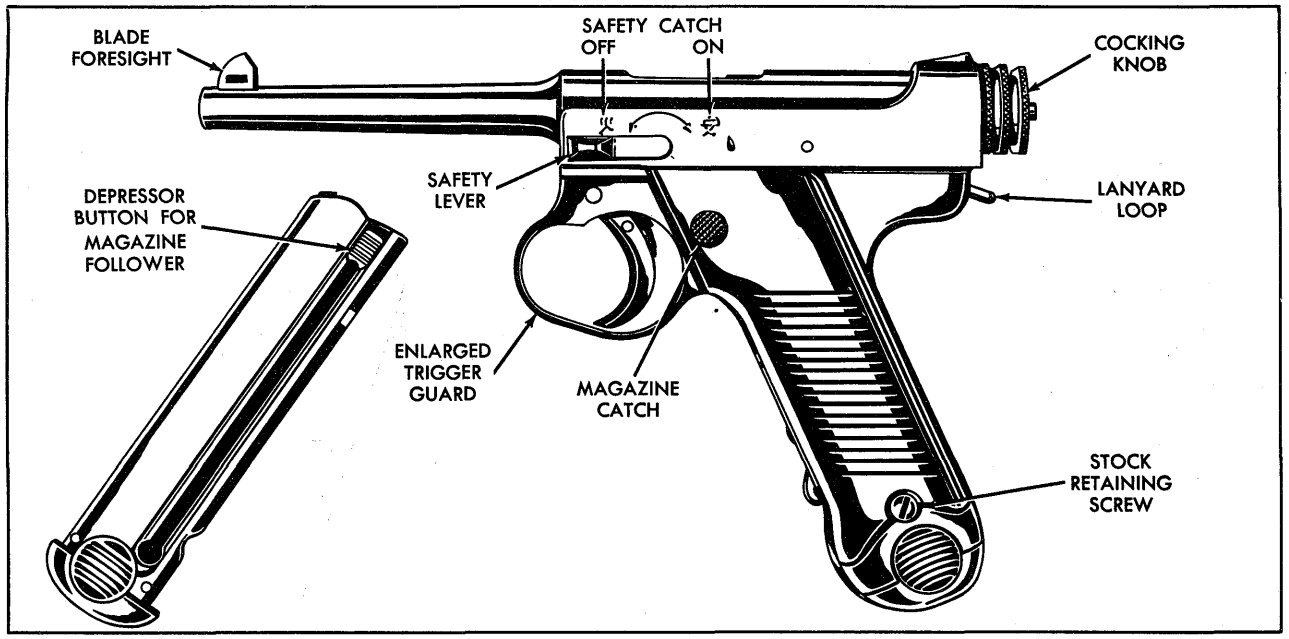
This pistol was replacing the original Nabu pistol as the standard hand weapon in the Japanese Army at the end of World War II.

Large numbers of these weapons were acquired by the Chinese Communists at the end of World War II. Although some of these weapons have been recovered in Korea, they probably are replaced by the standard Soviet pistols.

The Type 14 can be recognized by: (1) The large circular, ribbed cocking piece; (2) the enlarged trigger guard; and (3) the safety lever on the left side of the receiver above the trigger guard.

8-mm Pistol Type 14 (1925)

RECOGNITION FEATURES



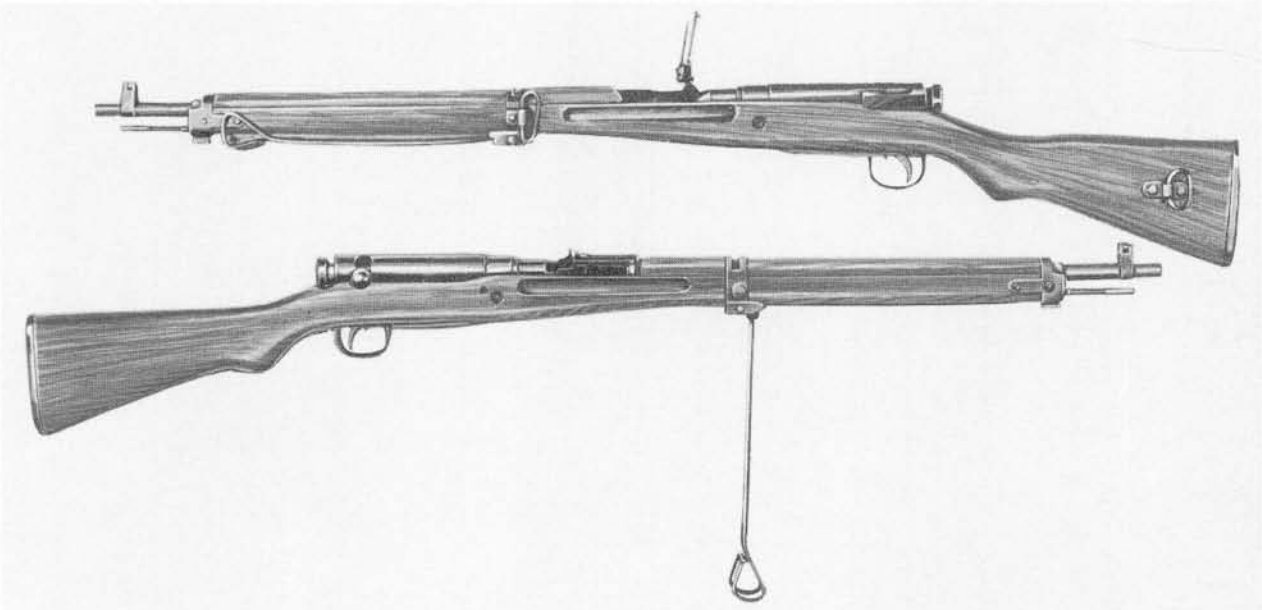
CHARACTERISTICS

System of operation	Recoil; semiautomatic
Caliber	8-mm (.315 in)
Weight:	
Unloaded	910 g (2 lb aprox)
Loaded	943 g (2.2 lb aprox)
Length over-all	230 m (9 in aprox)
Length of barrel	115-mm (4.5 in)
Feeding device	8 round magazine
Sights:	
Front	Inverted V-notch
Rear	Open V-notch, nonadjustable
Muzzle velocity	290 m/s (950 fps)
Effective rate of fire	8 rounds in 18–25 seconds
Effective range	50 m (55 yd aprox)
Ammunition	8-mm ball; semirimmed, bottlenecked case

C. RIFLES AND CARBINES

7.7-mm Rifle, Type 99 (1939)

(KYUKYU TANSHOJU)



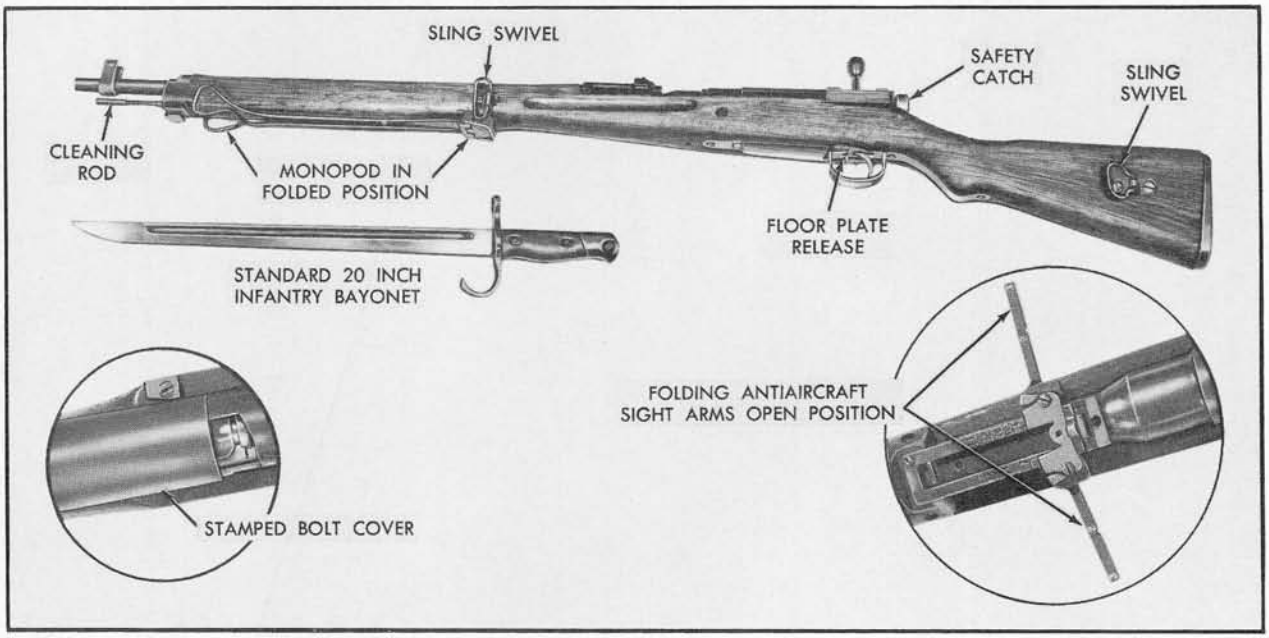
This simple, bolt-action rifle was designed to meet the need for a more powerful weapon when the standard Japanese 6.5-mm rifle proved lacking in killing power. It was one of the standard rifles used by the Japanese during World War II. The action of this rifle is of the Mauser type but cocks on the closing stroke of the bolt. To facilitate mass production of this weapon the bolt cover, butt plate, floor plate, and follower are stamped.

Large numbers of these rifles were obtained by the Chinese Communists at the end of World War II. Many were converted to fire 7.92-mm ammunition. Some of these weapons were captured in Korea, but they are being replaced in increasing numbers by the Soviet M1891/30 and the M1944 carbine.

The Model 99 can be recognized by: (1) A folding monopod attached to the lower stock band; (2) the rear sight, which has two folding arms that can be opened for use when firing on aircraft; (3) the stamped bolt cover; and (4) the steel cleaning rod fitted under the barrel.

7.7-mm Rifle, Type 99 (1939)

RECOGNITION FEATURES



CHARACTERISTICS

System of operation	Manually operated; turning bolt
Caliber	7.7-mm (.303 in)
Weight:	
Unloaded (w/o sling or bayonet)	3.9 kg (8.3 lb aprx)
Loaded (w/sling, w/o bayonet)	4 kg (8.8 lb aprx)
Length over-all:	
Without bayonet	114 cm (45 in aprx)
With bayonet	165 cm (65 in aprx)
Length of barrel	65 cm (28.8 in aprx)
Feeding device	5-round box magazine
Sights:	
Front	Inverted V
Rear	Leaf and slide, graduated from 300 to 1,500 meters; no windage adjustment; folding arms to use in antiaircraft fire; peep-battle sight set for 300 meters
Muzzle velocity	702 m/s (2,300 fps, aprx)
Effective rate of fire	8 to 10 rpm
Effective range	548 m (600 yd aprx for individual targets)
Ammunition	Japanese 7.7-mm M99 rimless ball, armor-piercing and incendiary

D. MACHINE GUNS

6.5-mm Light Machine Gun Type 96 (1936)

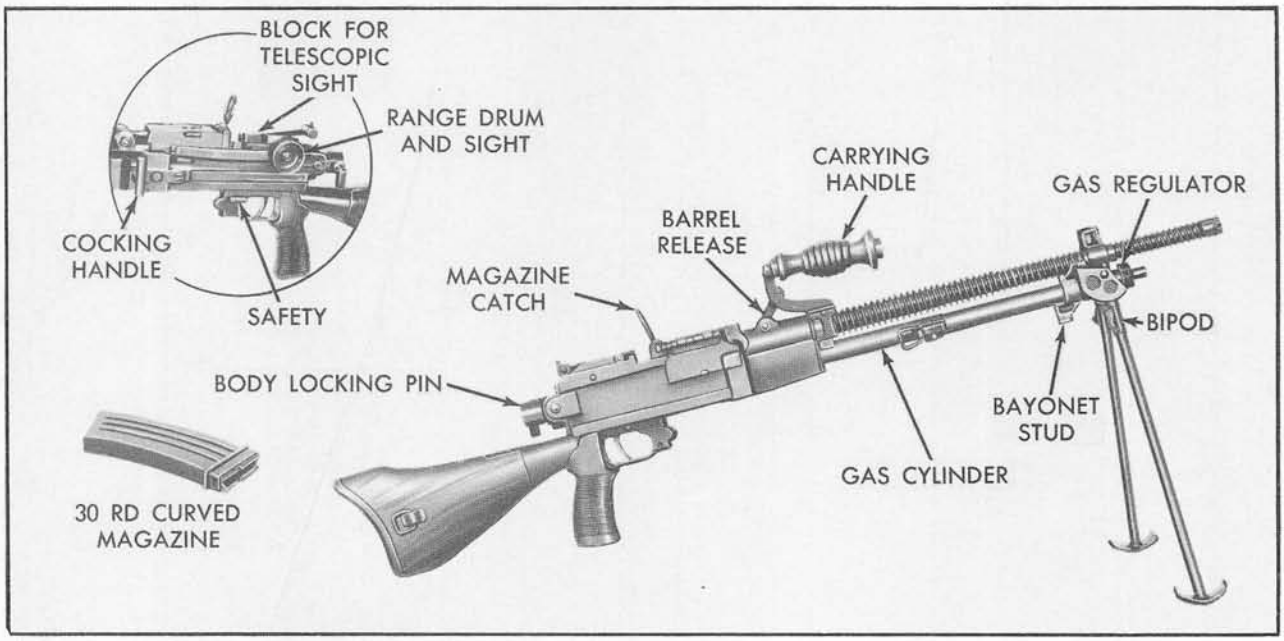
(KYURONKU SHIKI KEIKI)

The Type 96 light machine gun is based on the French Hotchkiss design. It is similar in appearance to the British BREN gun and the Czechoslovak ZB model light machine guns. The locking mechanism is the same as that employed in the Russian SIMONOV M1936 Rifle. It is a gas operated, air-cooled, magazine-fed weapon. A bipod is fitted for prone firing. The gun fires automatic fire only and uses special reduced charge ammunition. Although the Type 96 was the most widely used light machine gun in the Japanese Army during World War II, it was being gradually replaced by the 7.7-mm Type 99 light machine gun. It is fitted for a 2.5 power optical sight for antiaircraft fire.

The Type 36 can be recognized by: (1) The carrying handle directly in front of the receiver; (2) the cocking handle on the left of the receiver; (3) the swinging-arm quick-change barrel release located just behind the carrying handle; (4) the folding bipod; and (5) the prominent body locking pin on the rear of the receiver.

6.5-mm Light Machine Gun Type 96 (1936)

RECOGNITION FEATURES

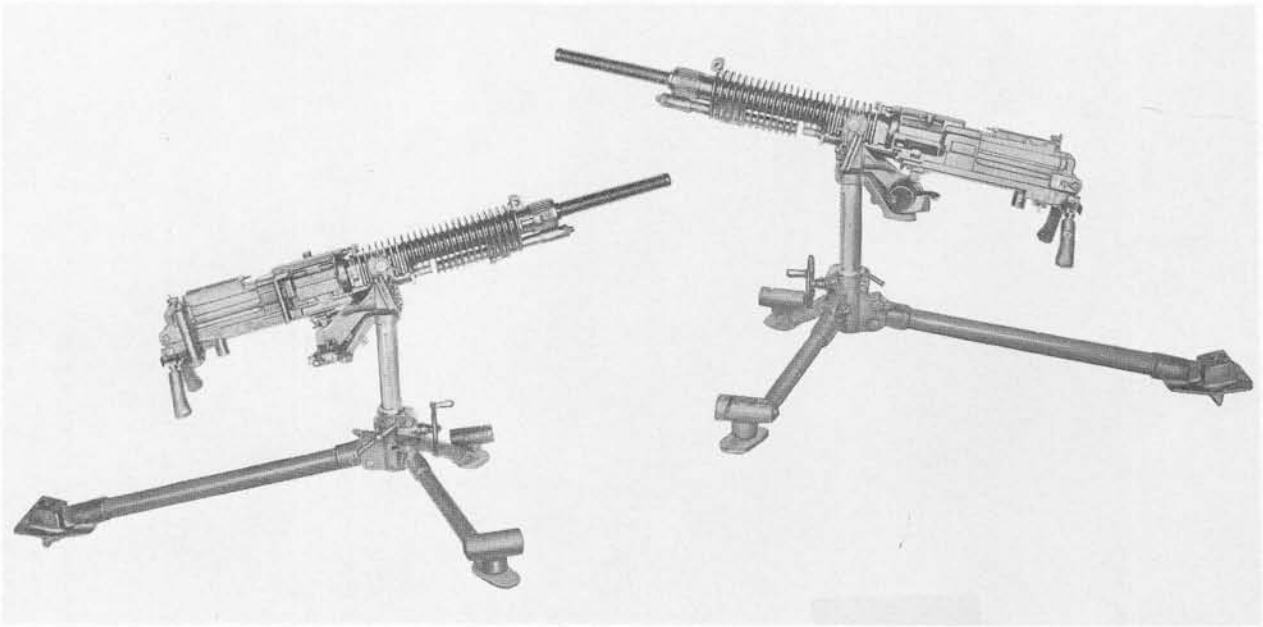


CHARACTERISTICS

System of operation	Gas operated, automatic fire only
System of cooling	Air
Caliber	6.5-mm (.256 in)
Weight:	
With loaded magazine	9.2 kg (20 lb aprx)
Without loaded magazine (estimated)	8.5 kg (18.6 lb aprx)
Length over-all:	
Without bayonet	105 cm (41.5 in aprx)
With bayonet	135 cm (53.2 in aprx)
With flash eliminator	119 cm (47 in)
Feeding device	30 round curved box magazine
Sights:	
Front	Inverted V-blade with guards; offset to the left
Rear	Drum-controlled peep sight, with windage adjustment; graduated from 200 to 1,500 meters in increments of 100 meters; offset to the left
Optical:	
Magnification	2.5 power
Weight	480 g (aprx 1 lb)
Field of view	10 degrees
Muzzle velocity	735 m/s (aprx 2,410 fps)
Practical rate of fire	120–150 rpm
Effective range	1,500 m (1,640 yd) against group targets
Ammunition	Japanese 6.5-mm M38 semirimmed reduced-charge ball and tracer

7.7-mm Heavy Machine Gun Type 92 (1932)

(KYUNI SHIKI JUKIKANJU)



The Type 92 heavy machine gun is based on a modified Hotchkiss design. It was the standard heavy machine gun of the Japanese Army during World War II. Although normally it was mounted on a tripod mount for ground use, there is an adapter that can be used on the standard ground mount for antiaircraft firing. The weapon has a slow cyclic rate of fire, which prevents overheating of the barrel and results in unusually long barrel life.

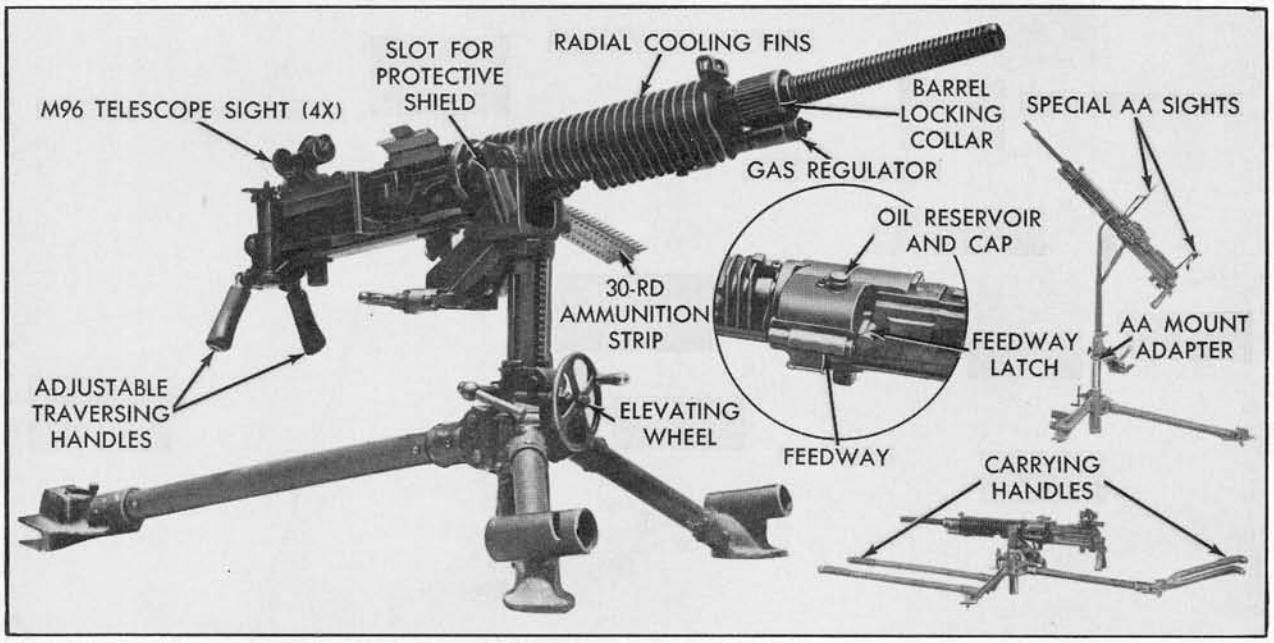
Telescopic sights of four, five, and six power are used in addition to the standard iron sights.

For carrying purposes, detachable handles are fitted into brackets on the tripod legs, thus enabling a team of four men to transport the weapon. The gun is fed by 30-round metallic strips. This is one of the factors involved in the slow cyclic rate of fire. The Chinese Communists acquired considerable numbers of these weapons at the end of World War II, and some have been converted to fire 7.92-mm ammunition.

The Type 92 can be recognized by: (1) The large cooling fins on the barrel; (2) the adjustable traversing handles; and (3) the oil reservoir, which is located directly over the feedway.

7.7-mm Heavy Machine Gun Type 92 (1932)

RECOGNITION FEATURES



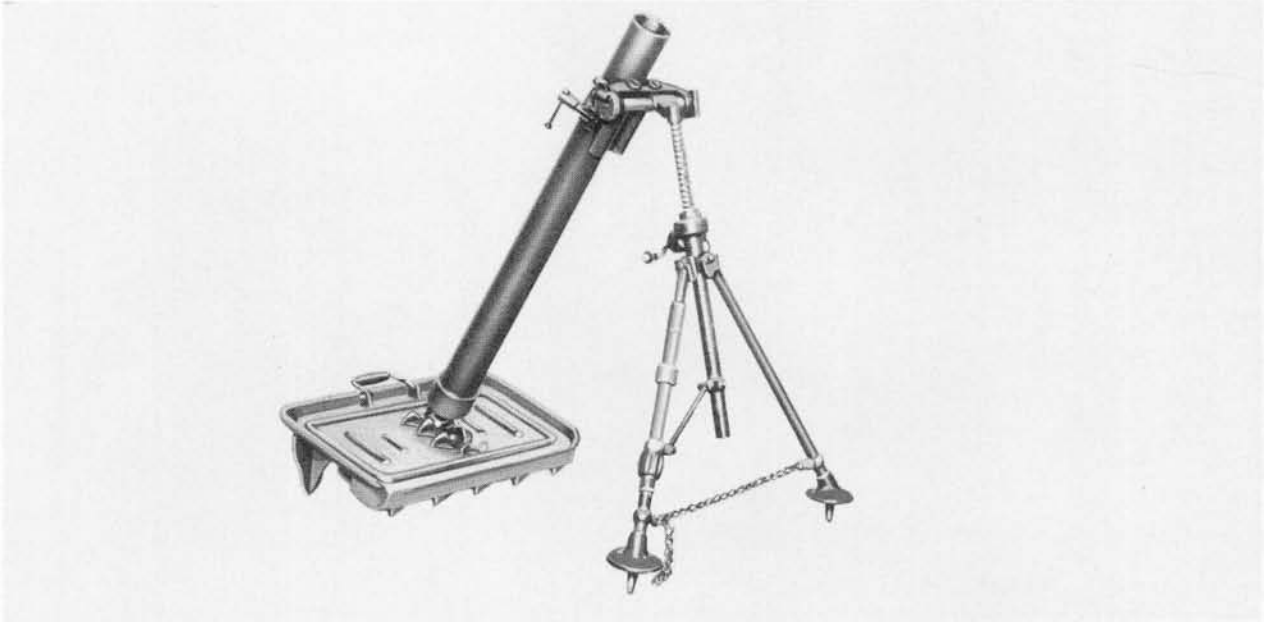
CHARACTERISTICS

System of operation	Gas operated; full automatic fire only
System of cooling	Air
Caliber	7.7-mm (cal. 303)
Weight:	
Gun only	27.5 kg (61 lb aprx)
With tripod mount, telescopic sight, carrying handles.	58.5 kg (129 lb aprx)
Length over-all	117 cm (45.5 in aprx)
Feeding device	30 round metallic strips; strips can be joined together
Sights:	
Front	Either V-blade with guards, offset to right or a cart-wheel AA sight
Rear (iron)	Post type with windage adjustment graduated from 300 to 2,700 meters, offset to right
Telescopic	Model 96 (4x) Model 93 (6x) Model 94 (5x)
Muzzle velocity	732 m/s (aprx 2,400 fps)
Practical rate of fire	200–250 rpm
Effective range	1,371 m (1,500 yd against ground targets; 732 m (800 yd) estimated, against aircraft
Ammunition	Japanese M92 7.7-mm semirimmed ball, tracer, incendiary, and armor piercing

E. MORTARS

81-mm Battalion Mortar Type 97

(KYUNANA SHIKI KYOKUSHA HOHEIHO)



This mortar is a conventional (Stokes-Brandt) type, smooth-bore, muzzle-loading, high angle-fire weapon. It can be broken down into three man loads. The Type 97 was used extensively by the Japanese during World War II. It is almost identical to the United States 81-mm M1 mortar. The most obvious difference between the Japanese and the United States mortars are: (1) The cross-leveling mechanism and traversing handle are located on the right side of the Japanese weapon, while the sight is located on the left side; (2) Type 97 used the buttress type threads on the traversing and elevating screws; and (3) the use of welding to fasten the bipod legs to the leg hinges on the Type 97.

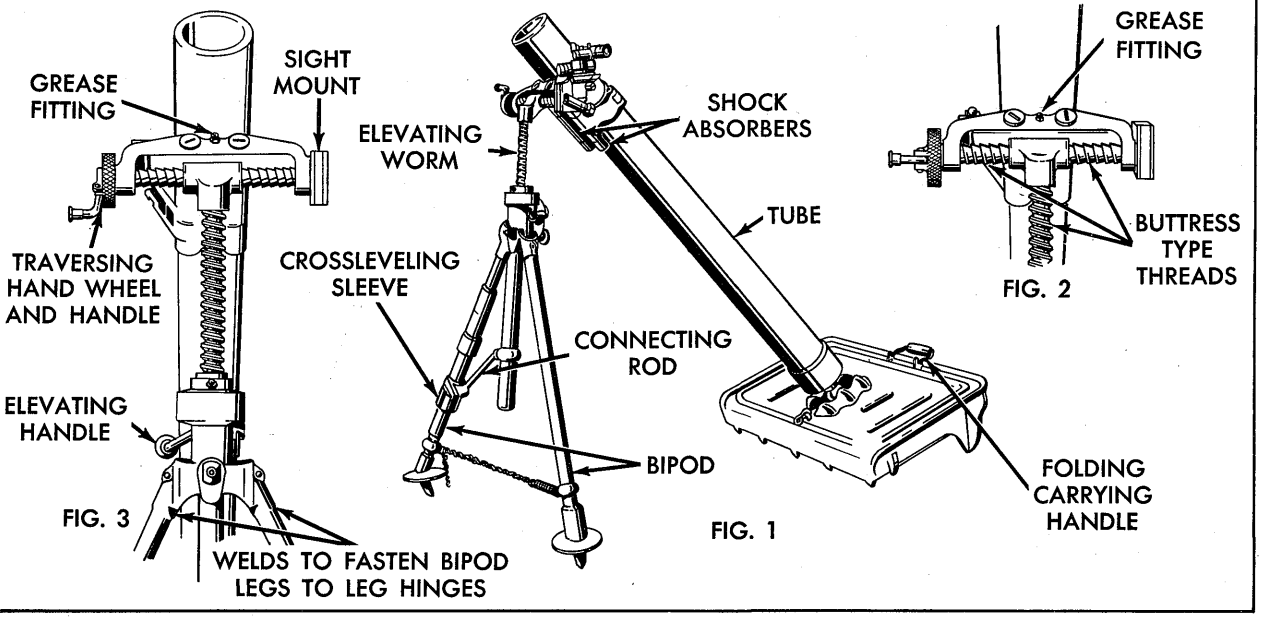
United States and Japanese 81-mm ammunition is interchangeable; however, the Japanese Model 100 round has a slightly shorter range than the United States 81-mm round.

Large numbers of the Type 97 mortar were acquired by the Chinese Communists at the conclusion of World War II. It is believed that this mortar is being replaced in the Chinese Communist Army by the Chinese 82-mm Model 20 mortar and the Soviet 82-mm Model 1941 mortar.

Chief recognition features of the Type 97 are: (1) The hinged carrying handle on the base plate; (2) the cross-leveling mechanism and the connecting rod located on the right side of the weapon; and (3) the buttress type threads on the elevating and traversing screws.

81-mm Battalion Mortar Type 97

RECOGNITION FEATURES



CHARACTERISTICS

I. PHYSICAL DATA	
Caliber	81-mm (3.189 in)
Method of loading	Muzzle loading
Method of firing	Drop fire
Weight in firing position	65.3 kg (145 lb aprx)
Component weights:	
Bipod	21.6 kg (47.7 lb)
Base plate	23.2 kg (51.7 lb)
Barrel assembly	20.5 kg (45.5 lb aprx)
Sight	2 kg (4 lb aprx)
Elevation limits	+700 to +1600 mils
Traverse limits (aprx)	90 mils right or left of center
II. AMMUNITION	
HE (Light) with PD fuze	3.2 kg (6.9 lb aprx)
HE (Heavy) with PD fuze	6.7 kg (14.3 lb aprx)
III. PERFORMANCE	
Maximum range:	
HE (light)	3,000 m (3,280 yd aprx)
HE (heavy)	1,312 m (1,422 yd aprx)
Minimum range:	
HE (light)	500 m (546 yd aprx)
HE (heavy)	190 m (208 yd aprx)
Muzzle velocity:	
HE (light)	200 m/s (656 fps aprx)
HE (heavy)	Unknown
Rate of fire (estimated)	18 to 30 rpm
Fragmentation radius of HE shell:	
Versus standing targets (estimated)	25 m (27 yd aprx)
Versus prone targets (estimated)	10 m (11 yd aprx)

[AG 353 (2 Sep 54)]

BY ORDER OF THE SECRETARY OF THE ARMY:

M. B. RIDGWAY,
General, United States Army,
Chief of Staff.

OFFICIAL:

JOHN A. KLEIN,
Major General, United States Army,
The Adjutant General.

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For explanation of abbreviations used, see SR 320–50–1.

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