Smith & Wesson

Light Rifle

Smith & Wesson
SPRINGFIELD, MASSACHUSETTS
U.S.A.

HANDBOOK

of the

Smith & Wesson

Semi-Automatic

Light Rifle

Caliber—9 MM.

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Model of 1940

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GENERAL INFORMATION

This arm is a semi-automatic, recoil operated light rifle especially designed for military use under service conditions. It fills the need for a light, fast, easy handling, multiple fire weapon. It is rugged, dependable and easy to operate. Its effective range is 400 yards and is very accurate up to and including that distance.

The cartridge for which it is adapted is of 9 M/M caliber and the maximum magazine capacity is 20 cartridges. (See Figure 1.) A pull on the trigger is required for each shot fired and the rifle is self-loading and cocking after the first shot is fired and until the magazine is emptied.

The safety is very simple and positive. When moved to the forward or safety position, it blocks both the trigger guard and the sear, making firing of the rifle impossible. When swung to rear, it is in firing position.

The insertion of the magazine into its case is quickly and easily done either in light or darkness. (See Figure 2.) Empty cartridge cases are ejected downward through the ejector tube. This is a distinct improvement over the common method of side ejection.

Disassembling and reassembling for cleaning and oiling are accomplished entirely without the use of tools.

The rifle is composed of five distinct units, namely: frame, receiver, ejector tube housing, bolt and barrel. (See Figure 3.) Manufacturing tolerances are such as to permit interchangeability of these units as well as their component parts.

THE DIRECTIONS ON THE FOLLOWING PAGES ARE IMPORTANT AND SHOULD RECEIVE CLOSE ATTENTION

Load magazine. Hold the magazine in the right hand, thumb over top, bottom against hip or belt. Pick up the cartridges with thumb and index finger of the left hand, bullet toward the palm. Place cartridge on top of magazine and insert by pressing into magazine with right thumb. (See Figure 4.)

Figs. 1 and 4

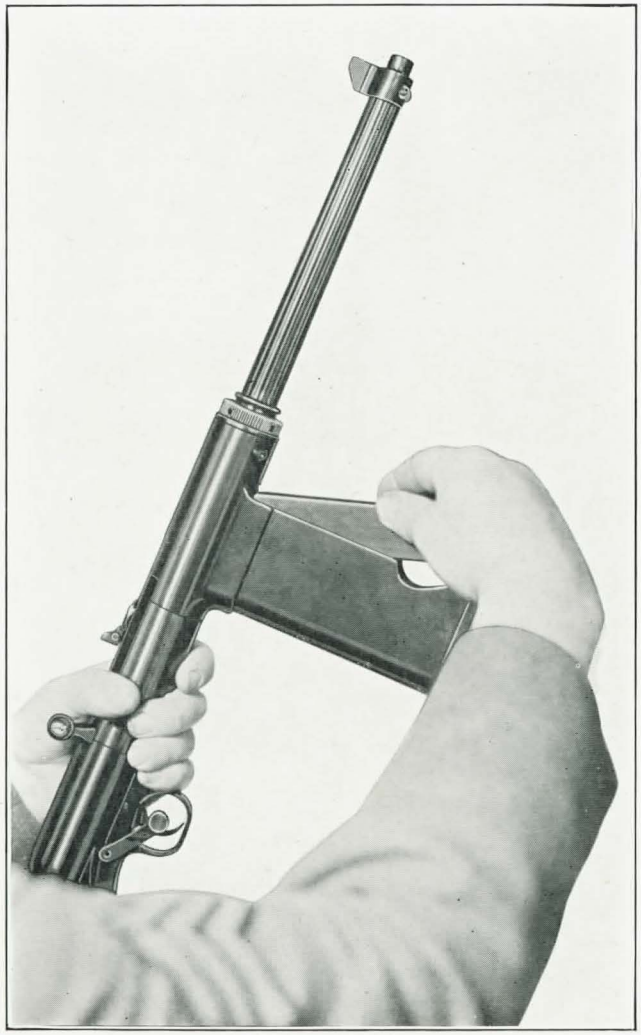


Fig. 2

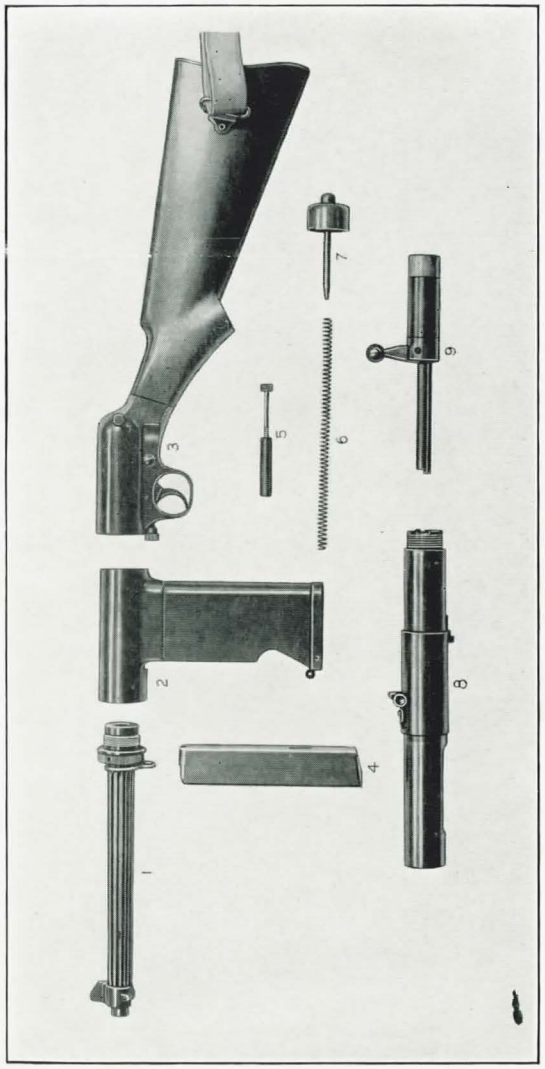


Fig. 3—Showing units dismounted (9 parts)

1. Barrel. 2. Ejector Tube. 3. Frame Assembly. 4. Magazine. 5. Bolt Cover. 6. Main Spring. 7. Butt Nut. 8. Receiver. 9. Bolt.

DIRECTIONS FOR OPERATION

1. Pull bolt to rear against main spring until sear notch is engaged. Bolt is now in firing position.

2. Move safety lever forward to safety position. Never attempt to retract bolt with safety lever forward.

3. Load magazine. Hold the magazine in the right hand, thumb over top, bottom against hip or belt. Pick up the cartridges with thumb and index finger of the left hand, bullet toward the palm. Place cartridge on top of magazine and insert by pressing into magazine with right thumb. (See Figure 4.)

4. Hold rifle in vertical position, barrel up and butt against thigh. Insert magazine into case until held by magazine catch. (See Figure 2.)

5. Raise rifle to shoulder and remove safety by swinging safety lever to rear firing position.

6. Pull trigger once for each shot fired or until magazine is empty. When last shot is fired, bolt will be left in firing position. Let bolt forward by pulling trigger before reloading. If firing is suspended before magazine is empty, swing safety lever to forward safety position before lowering rifle from shoulder. Leave in forward safety position until rifle is again raised to shoulder.

7. When using the rifle in rapid fire, the magazine may be changed quickly by the following method. Remove the empty magazine, place butt of rifle to hip, seize the receiver with the left hand, thumb forward of the bolt, slide the hand back drawing the bolt with it until sear notch is engaged. Put on safety. With right hand insert loaded magazine into magazine case. (See Figure 2.)

8. If gun misfires, pull bolt back until sear engages. Put on safety. Remove magazine. Elevate muzzle and cartridge will fall out.

9. Always remember that the safety position is with safety lever forward and that the firing position is with safety lever to the rear.

DIRECTIONS FOR DISASSEMBLY (Fig. 3)

1. Remove magazine.
2. Be certain that the bolt is in forward position.
3. Press the trigger stop screw latch up into the receiver. Unscrew trigger stop screw as far as it will go. Trigger will now drop down so that trigger spring plunger and trigger tail are clear of receiver.
4. Pull out frame locking bolt as far as it will go.
5. Hold trigger forward and pull frame and receiver apart.
6. Pull bolt cover forward and hold forward by means of corrugations.
7. Unscrew the butt nut and remove main spring. This allows the bolt assembly to be drawn out of the receiver.
8. Pull backward on barrel nut plunger knob. Unscrew barrel nut. Remove barrel.
9. Slide ejector tube off receiver.

DIRECTIONS FOR REASSEMBLY (Fig. 3)

1. Press sear into bolt and slide bolt into receiver. Press sear into bolt to clear sear notch. Push all the way forward.
2. Replace bolt cover with corrugations up.
3. Insert main spring.
4. Hold bolt cover forward and screw butt nut into place until it locks into position.
5. Hold trigger forward and press trigger stop screw latch up into receiver.
6. Slide receiver into frame and push frame locking bolt into place.
7. Screw in trigger stop screw until trigger stop screw latch springs downward.
8. Slide ejector tube onto receiver.
9. Insert barrel. Screw in barrel nut as far as it will go.

When disassembling be sure to press trigger stop screw latch into receiver before unscrewing the trigger stop screw.

When reassembling be sure to press sear into bolt before sliding bolt into the receiver and past sear notch.

DIRECTIONS FOR CLEANING AND OILING

Rifle should be cleaned and oiled after each 1000 rounds fired, or after firing any number of shots if a considerable time is to elapse before again firing. Gasoline or kerosene is a good cleaner and is usually available. Also a hot solution of ¼ lb. Sal Soda to 1 pint of water makes a good cleaner. Any good grade of light oil may be used. A minimum of oil should be applied. Do not flood the mechanism with oil. This only serves to seize and hold powder residue and dirt. In sub-zero climates the rifle may be used without any oil whatever and will function well.

Disassemble the rifle. Thoroughly clean the chamber and bore of barrel. Be sure to clean barrel from breech end. Clean receiver, bolt, sear, ejector and extractor. Wipe all surfaces of these parts with oily cloth leaving a light film of oil over parts. Clean magazine and lightly oil follower spring. Place a drop or two of oil on the pivotal points of the trigger mechanism.

BEWARE OF OBSTRUCTIONS IN BARREL!

After cleaning and oiling, look through the barrel to be sure that it is free from any obstruction. Obstructions such as a bullet, cloth patch, heavy oil or grease, snow, mud or twigs may cause a bulged barrel upon the first shot fired. If cosmoline or other heavy grease is introduced into the barrel, wipe out well before firing.

LIST OF COMPONENT PARTS (Fig. 5)

10. Barrel
11. Ejector Tube.
12. Frame.
13. Stock.
14. Front Sight.
15. Front Sight Mount Screw.
16. Barrel Nut.
17. Magazine.
18. Trigger.
19. Trigger Plunger.
20. Frame Locking Bolt.
21. Magazine Catch.
22. Magazine Catch Plunger.
23. Trigger Stop Screw.
24. Safety Lever.
25. Safety Lever Screw.
26. Safety Cam.
27. Tang Bolt.
28. Tang Screw.
29. Rear Sight Binding Screw.
30. Rear Sight Slide.
31. Notch Plate.
32. Bolt Cover Spring.
33. Rear Sight Base.
34. Rear Sight Adjustment Screw.
35. Trigger Stop Screw Latch.
36. Bolt Cover.
37. Butt Nut Lock.
38. Firing Pin.
39. Sear.
40. Butt Nut.
41. Butt Plate
42. Extractor.
43. Hammer.
44. Receiver.
45. Bolt.
46. Main Spring.

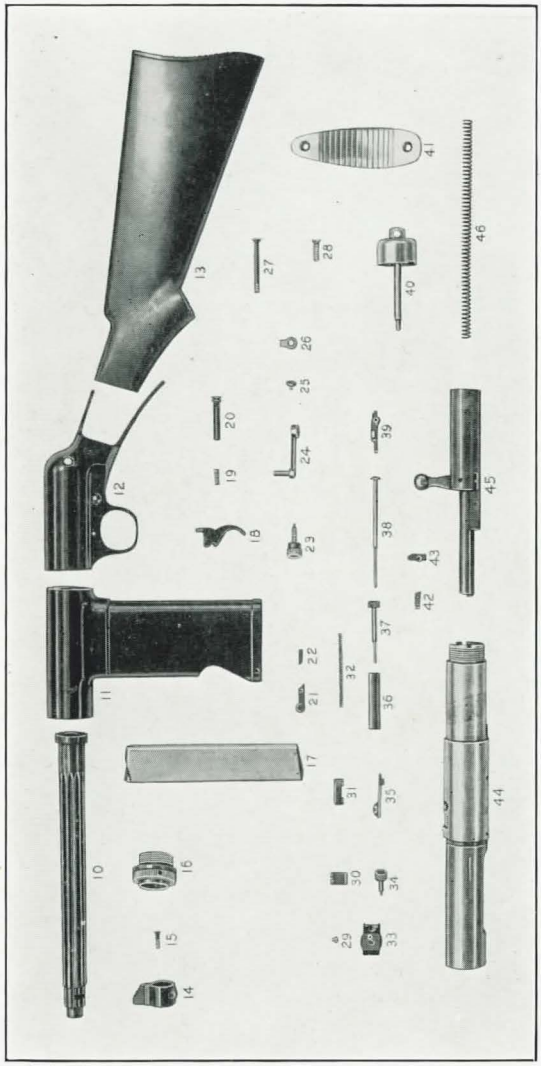


Fig. 5—Plate showing Components

Fig. 6—Showing Firing Position

Fig. 7—Showing Carrying Position

Fig. 8—Showing Carrying Position

Fig. 9—Showing Carrying Position

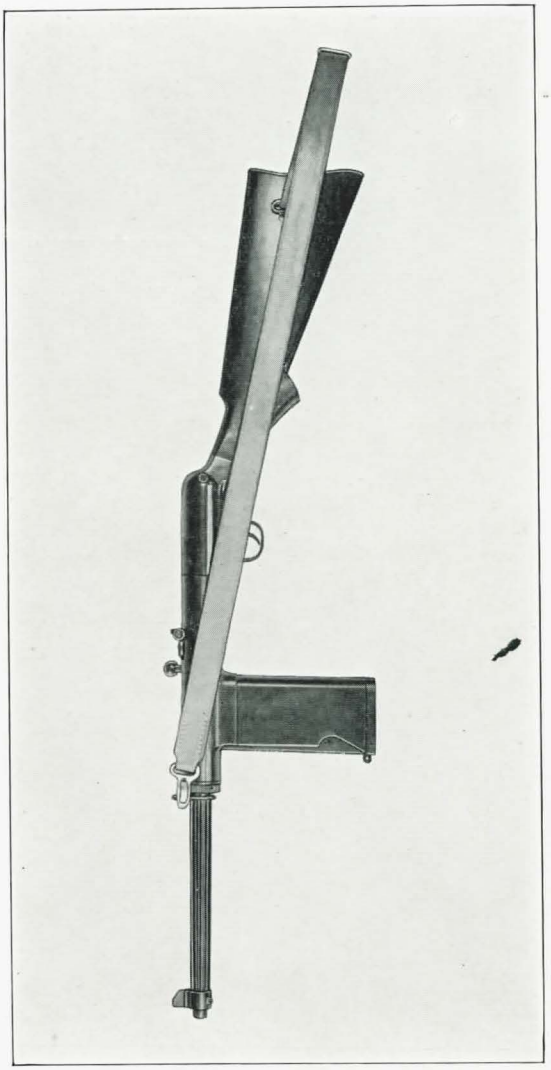


Fig. 10—Showing rifle with sling

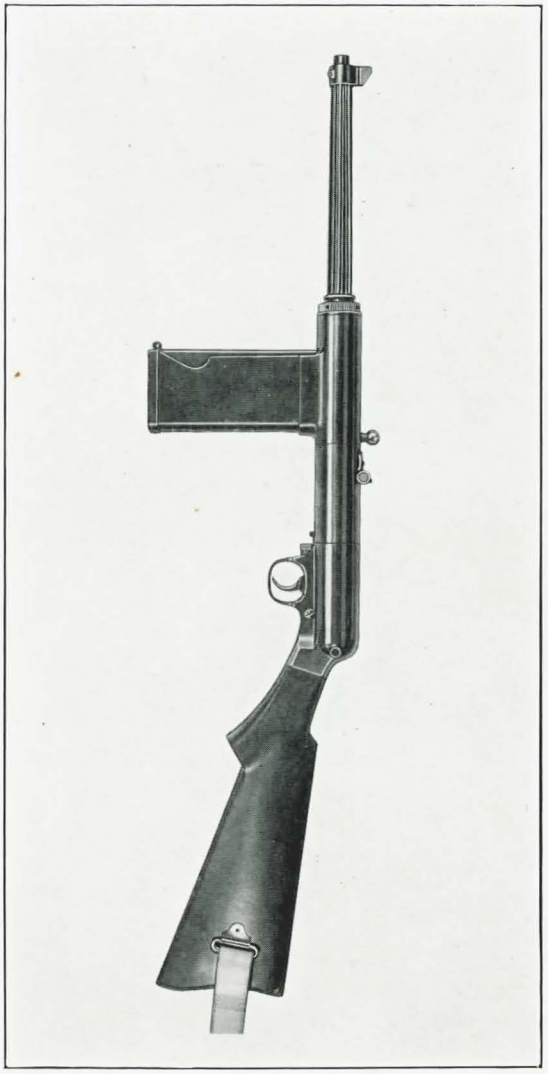


Fig. 11—Showing rifle without sling

SIGHTING DATA

This rifle is equipped with micrometer click sights for elevation. Windage adjustment is fixed. Each click of the elevating knob moves the rear sight .014-in.

RANGE:

Yards	*Elevation*
50	Flat
100	1 Click
200	6 Clicks
300	15 Clicks
400	22 Clicks

Graduations for use at the above distances are shown on the rear sight slide. Elevation for intermediate ranges may be had by means of the clicks between these graduations.

BALLISTICS:

Range Yards	*Velocity Feet per Second*	*Energy Foot Pounds*	*Penetration*
0	1410	510	12½–⅞"
50	1240	395	Pine boards
100	1115	320	
200	975	245	
300	875	195	

GENERAL SPECIFICATIONS

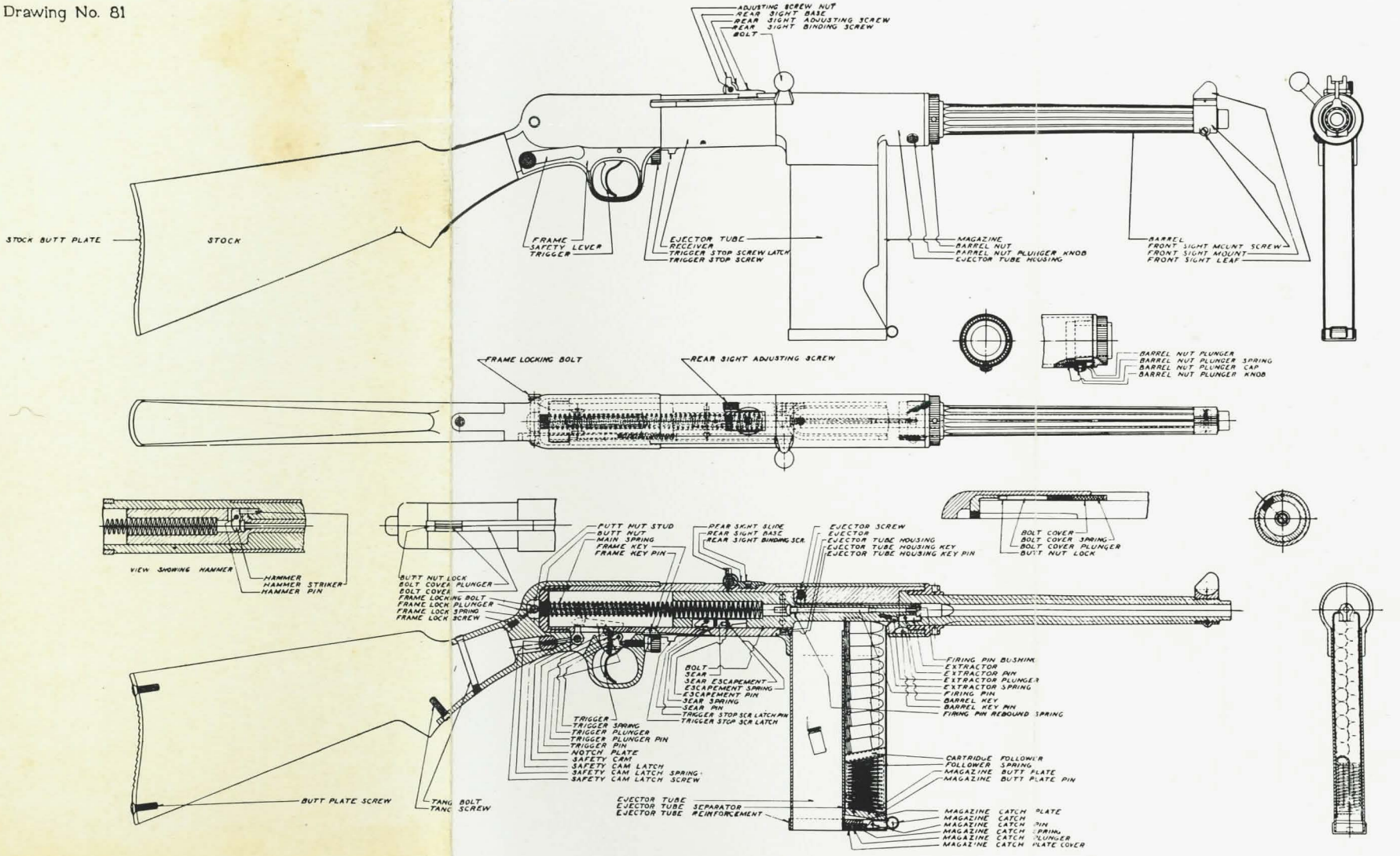
WEIGHTS:

	Lbs.	*Oz.*	*Kg.*
Weight of rifle without magazine	8	4	3.74
Weight of loaded magazine.		14	.396
Weight of empty magazine...		6	.170

DIMENSIONS:

	Inches	*MM.*
Over all length of rifle	32⅜	822.5
Depth through magazine	7½	191
Length of barrel	9¾	248
Number of lands and grooves—6		
Rifling, right twist, one turn in	18¾	476

MATERIAL:

Frame	Drop forged manganese steel
Receiver	Drop forged manganese steel
Ejector tube housing	Drop forged manganese steel
Lockwork	Chrome nickel steel
Bolt	Nickel steel
Barrel	Chrome nickel steel

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