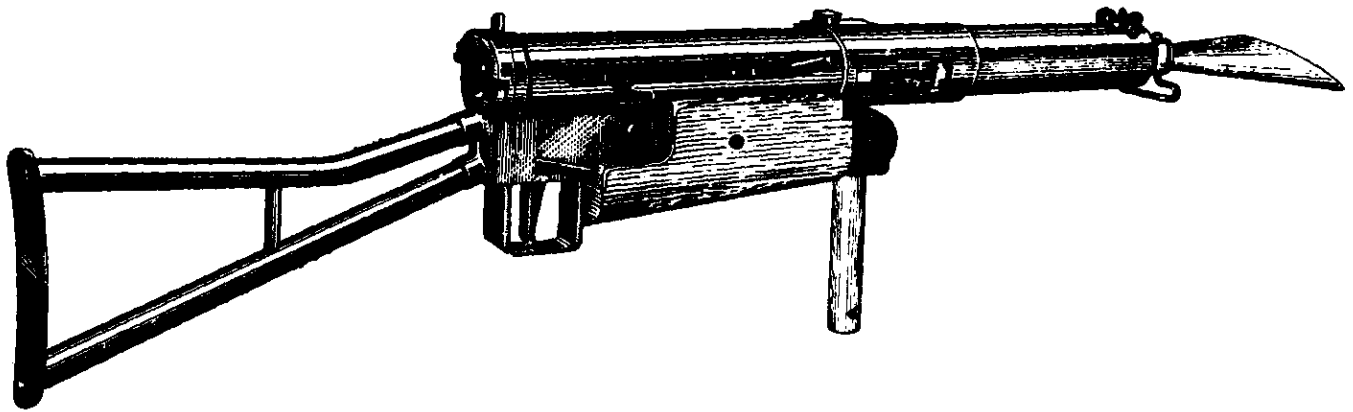


CARBINES, MACHINE, STEN, 9mm. Mks. I, II & III

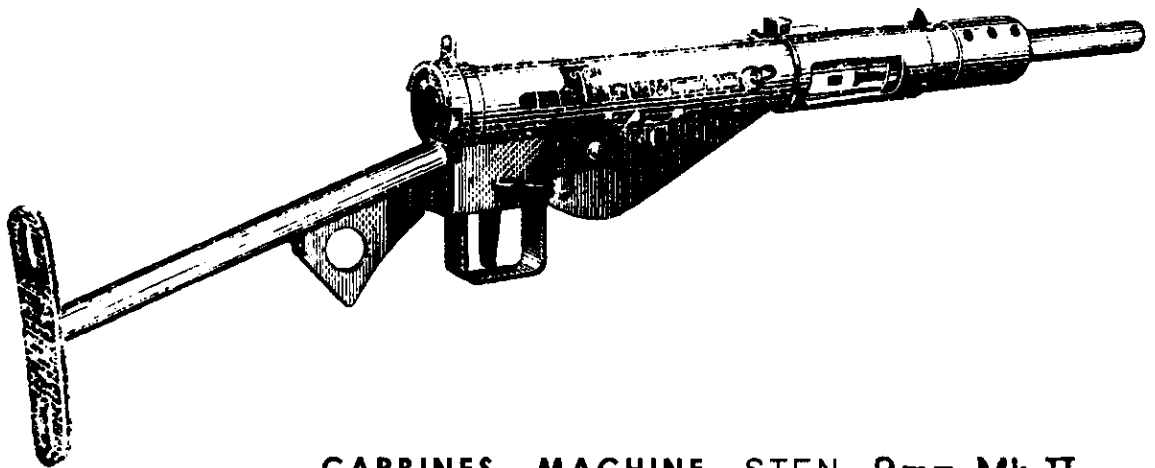
ILLUSTRATED IDENTIFICATION LIST

**C.O.D.
(Technical Branch)
WEEDON**

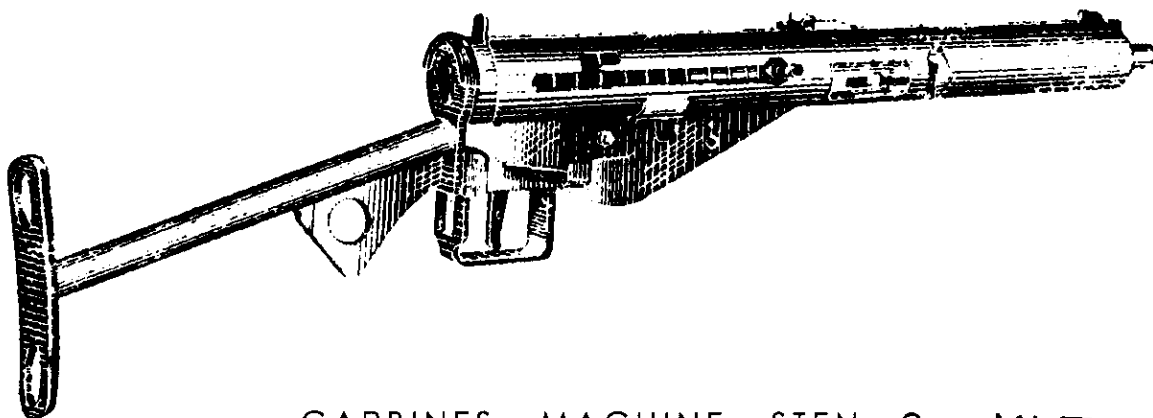
August, 1942



CARBINES, MACHINE, STEN, 9mm. Mk. I.



CARBINES. MACHINE. STEN. 9mm. Mk. II.



CARBINES, MACHINE, STEN, 9mm Mk III.

CAT. NO.

DESIGNATION.

REMARKS.

BE 9952

Butts, Mk. II'

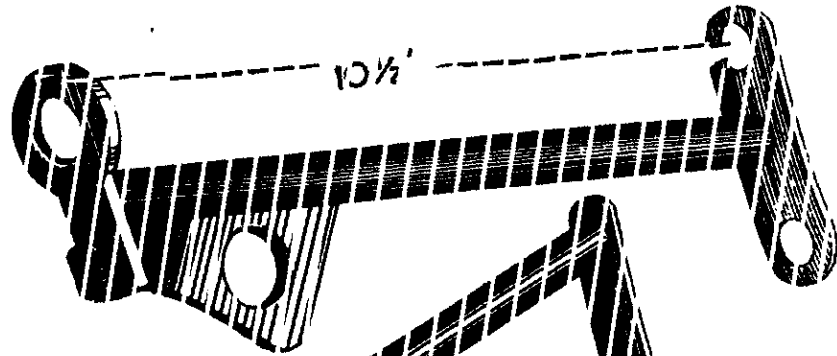
For Mks. II and III Carbines.

BE 9958

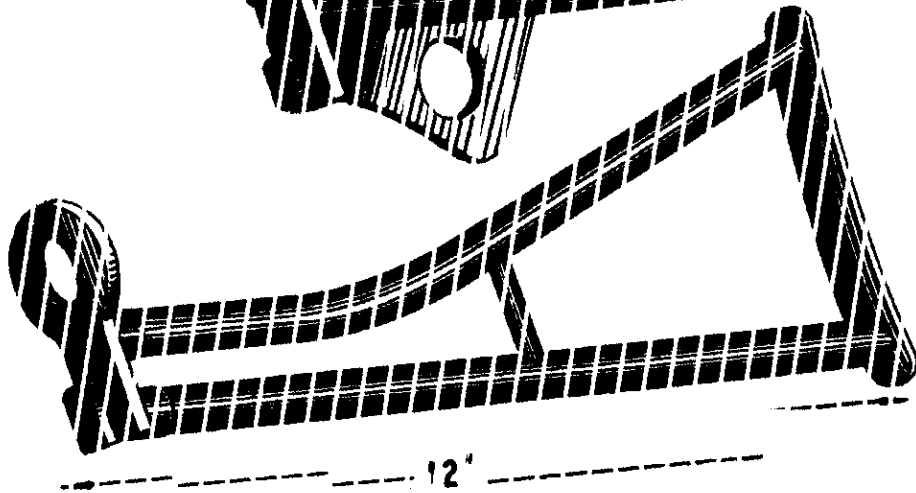
Butts, Mk. I, No. 2

For Mk. I Carbines.

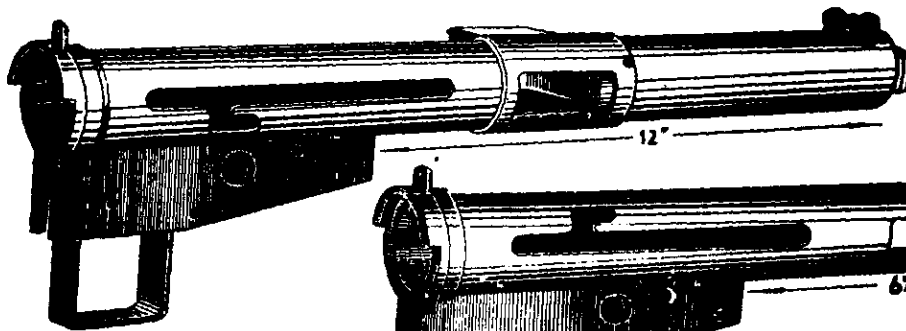
BI: 9952



BI: 9958

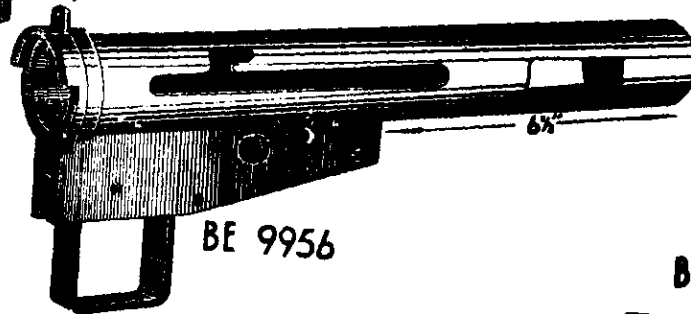


CAT. NO.	DESIGNATION.	REMARKS.
BE 8387	Tubes, casing, Mk. III	For Mk. III Carbines.
BE 9955	Tubes, casing, Mk. I	For Mk. I Carbines.
BE 9956	Tubes, casing, Mk. II	For Mk. II Carbines.
	Foresights :—	
BE 9963	No. 1 (Height of blade from base .53-in.)	For Mk. II Carbines.
BE 8579	No. 2 (Height of blade from base .56-in.)	For Mk. II Carbines.
BE 8580	No. 3 (Height of blade from base .59-in.)	For Mk. II Carbines.



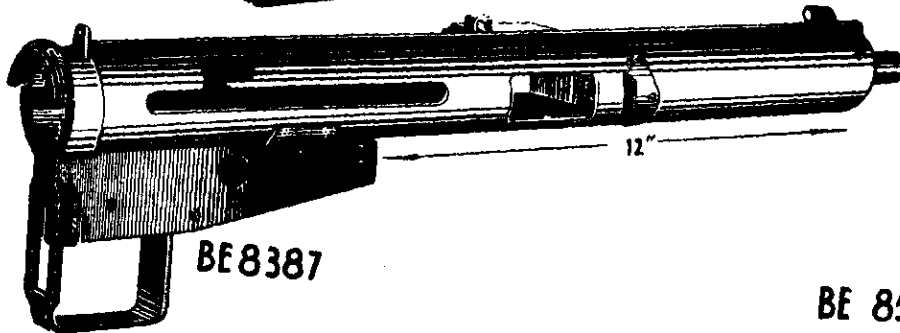
BE 9955

BE 9963



BE 9956

BE 8579

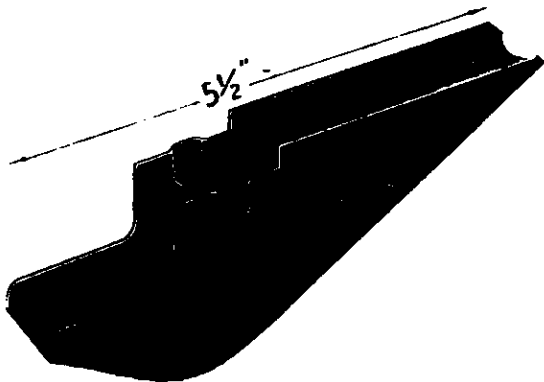


BE 8387

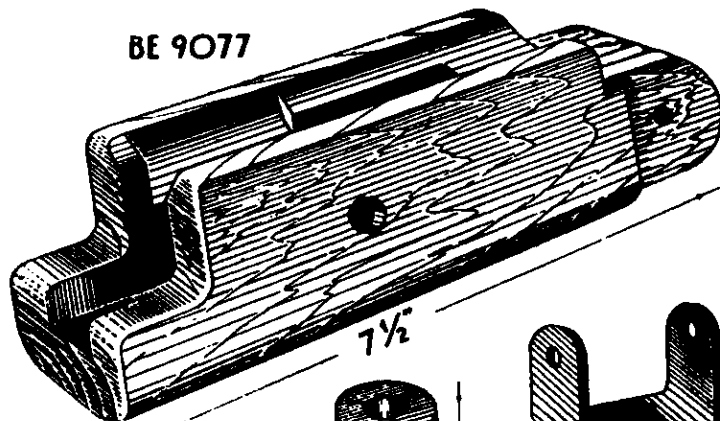
BE 8580



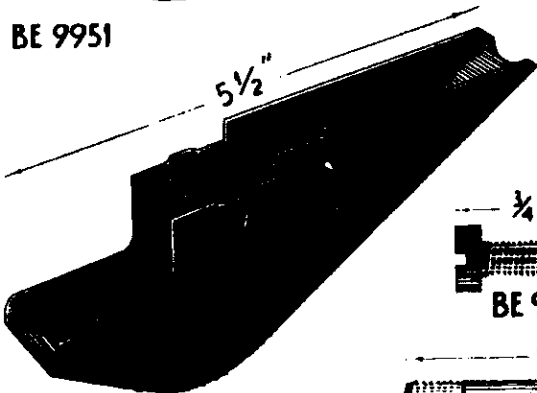
CAT. NO.	DESIGNATION.	REMARKS.
BE 8383	Covers, trigger mechanism, Mk. II	For Mk. II and III Carbines.
BE 9069	Carriers, grip	For Mk. I Carbines.
BE 9074	Grips	For Mk. I Carbines.
BE 9077	Guards, hand	For Mk. I Carbines.
BE 9086	Screws, carrier, grip, long	For Mk. I Carbines.
BE 9087	Screws, carrier, grip, short	Also for Hand guard. For Mk. I Carbines.
BE 9951	Covers, trigger, mechanism, Mk. I	For Mk. II Carbines.



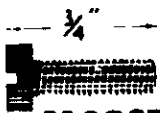
BE 9951



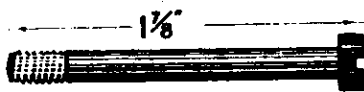
BE 9077



BE 8383

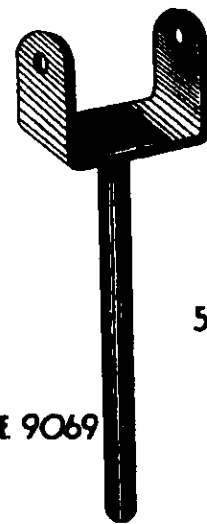


BE 9087



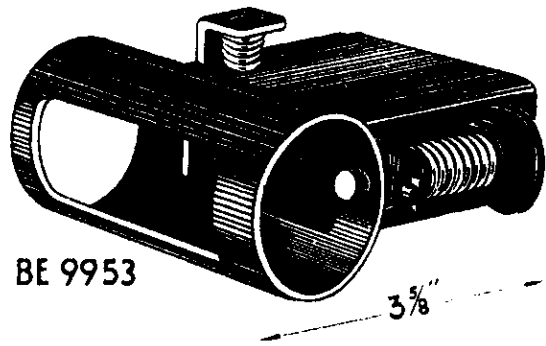
BE 9086

BE 9074



BE 9069

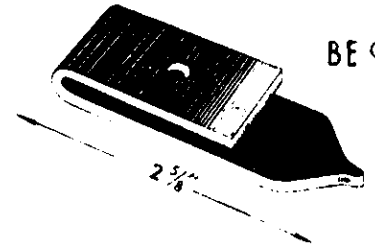
CAT. NO.	DESIGNATION.	REMARKS.
BE 8384	Catches, magazine, Mk. II	For Mks. I, II, and III Carbines.
BE 8388	Rivets, ejector	For Mk. III Carbines.
BE 9070	Catches, magazine, Mk. I (complete with stud)	For Mks. I, II and III Carbines.
BE 9071	Ejectors	For Mks. I and III Carbines.
BE 9089	Screws, ejector	For Mk. I Carbines. Also for trigger mechanism cover and magazine catch retainer on Mk. II Carbines.
BE 9093	Springs, catch, magazine	For Mks. I, II and III Carbines.
BE 9953	Housings, magazine, Mk. II (with magazine catch and plunger assembled)	For Mk. II Carbines.
BE 9959	Washers, screw, ejector	For Mk. I Carbines. Also for trigger mechanism cover screw and magazine catch retainer screw on Mk. II Carbines.
BE 9962	Catches, nut, barrel	For Mk. II Carbines
BE 9967	Plungers, housing, magazine	For Mk. II Carbines.
BE 9968	Retainers, catch, magazine	For Mk. II Carbines.
BE 9969	Springs, plunger, magazine housing	For Mk. II Carbines.



BE 9953



BE 9089



BE 9071

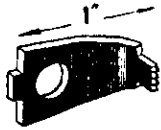
- 3/8" -



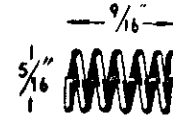
BE9959



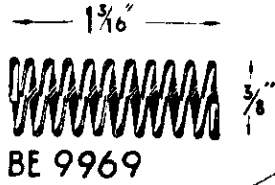
BE 9968



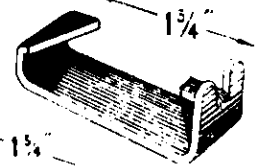
BE 9962



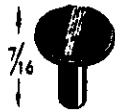
BE9093



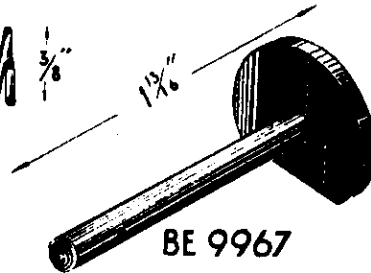
BE 9969



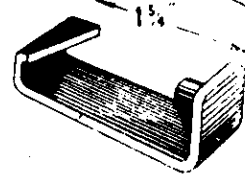
BE 8384



BE 8388

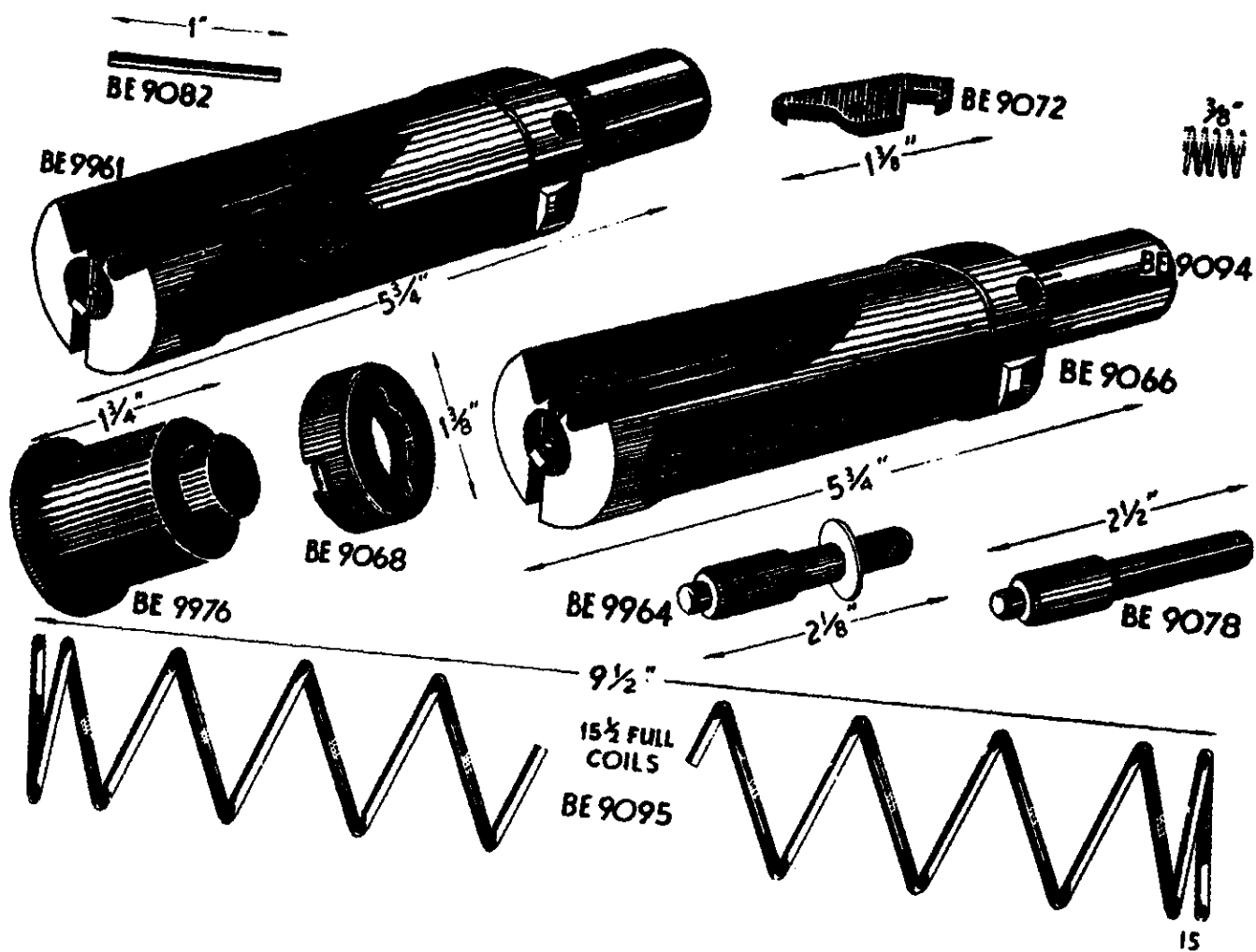


BE 9967



BE 9070

CAT. NO.	DESIGNATION.	REMARKS.
BE 9066	Blocks, breech, Mk. I (with extractor ; spring and pin assembled)	For Mk. I Carbines.
BE 9068	Caps, spring, return	For Mks. I, II and III Carbines.
BE 9072	Extractors	For Mks. I, II and III Carbines.
BE 9078	Handles, cocking, Mk. I	For Mk. I Carbines.
BE 9082	Pins, extractor	For Mks. I, II and III Carbines.
BE 9094	Springs, extractor	For Mks. I, II and III Carbines.
BE 9095	Springs, return	For Mks. I, II and III Carbines.
BE 9961	Blocks, breech, Mk. I* (with extractor ; spring and pin assembled)	For Mks. I, II and III Carbines.
BE 9964	Handles, cocking, Mk. II	For Mks. I, II and III Carbines.
BE 9976	Housings, spring, return	For Mks. I, II and III Carbines.

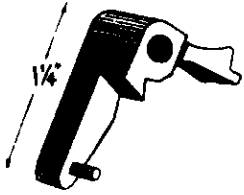


CAT. NO.

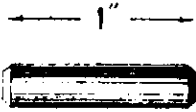
DESIGNATION.

REMARKS.

CAT. NO.	DESIGNATION.	REMARKS.
BE 8575	Levers, change (with spring and balls assembled)	For Mks. I, II and III Carbines.
BE 9079	Levers, tripping	For Mks. I, II and III Carbines.
BE 9080	Pawls, lever, tripping	For Mks. I, II and III Carbines.
BE 9081	Pins, axis, sear	For Mks. I, II and III Carbines.
BE 9083	Pins, lever, tripping	Also for tripping lever pawl. For Mks. I, II and III Carbines.
BE 9085	Pins, trigger	For Mks. I, II and III Carbines.
BE 9092	Sears, Mk. I (with pin)	For Mks. I, II and III Carbines.
BE 9096	Springs, trigger	For Mks. I, II and III Carbines.
BE 9098	Triggers	For Mks. I, II and III Carbines.
BE 9966	Pins, split, lever, change ($\frac{3}{32}$ -in. dia. \times $\frac{1}{4}$ -in. long)	For Mks. I, II and III Carbines. Also for magazine housing plunger on Mk. II Carbines.



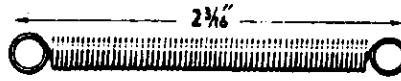
BE 8882



BE 9081



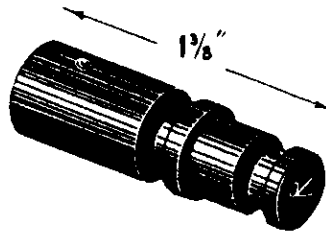
BE 8888



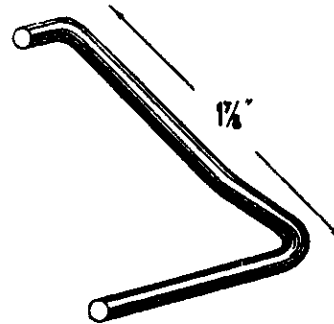
BE 9096



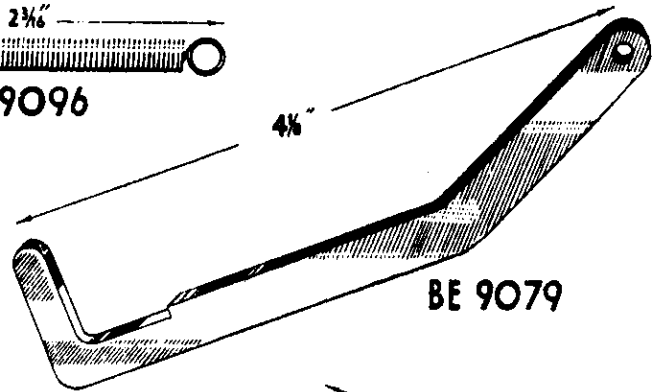
BE 9966



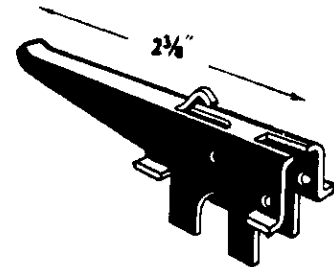
BE 8575



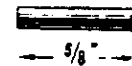
BE 9085



BE 9079



BE 9098

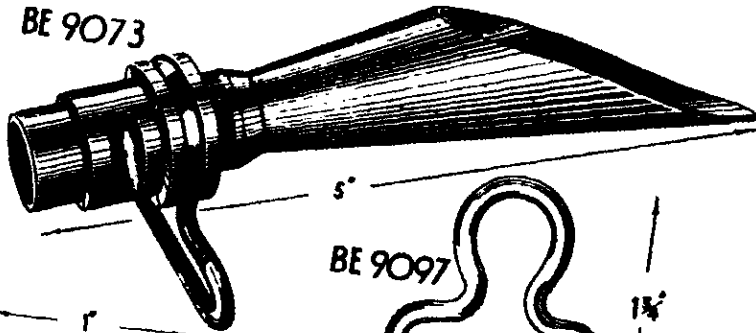


BE 8883

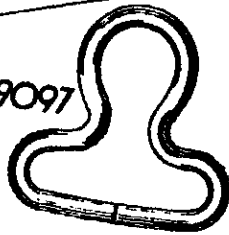
CAT. NO.**DESIGNATION.****REMARKS.**

BE 8573	Screws, fixing barrel	For Mk. I Carbines.
BE 8576	Pins, fixing barrel	For Mk. II Carbines.
BE 9065	Barrels, Mk. I	For Mk. I Carbines.
BE 9073	Eliminators, flash (complete with sling swivel)	For Mk. I Carbines.
BE 9097	Swivels, sling	For Mk. I Carbines.
BE 9960	Barrels, Mk. II (complete with sleeve and pin)	For Mk. II Carbines.
BE 9965	Nuts, barrel	For Mk. II Carbines.

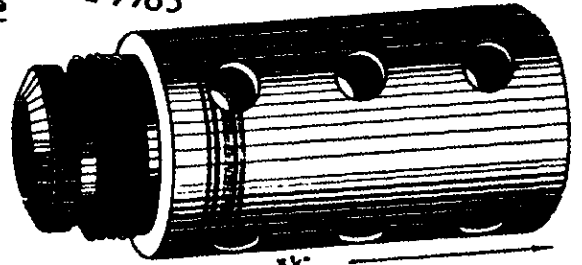
BE 9073



BE 9097



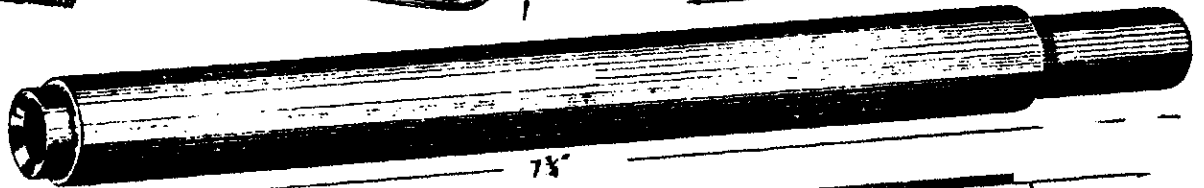
BE 9965



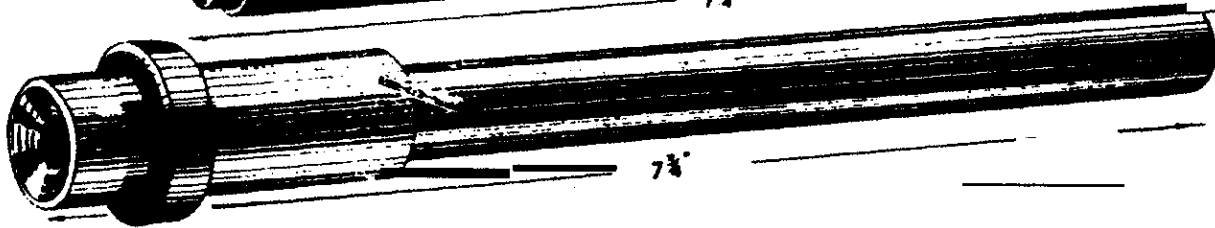
BE 8573



BE 9065



BE 9960



BE 8576

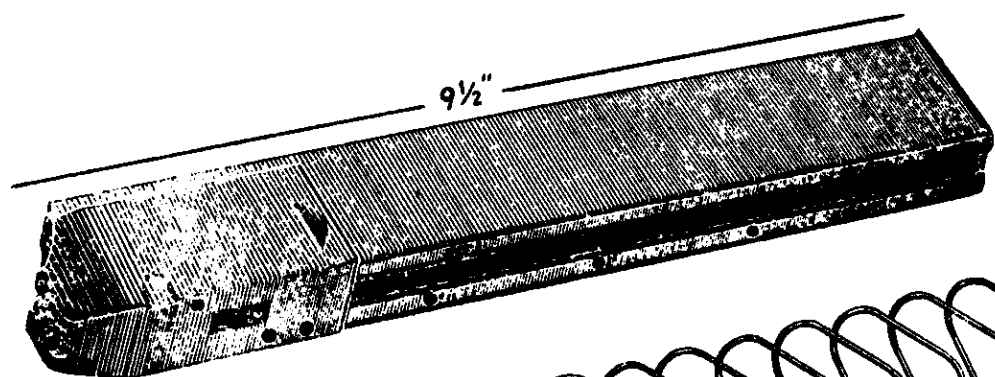


CAT. NO.

DESIGNATION.

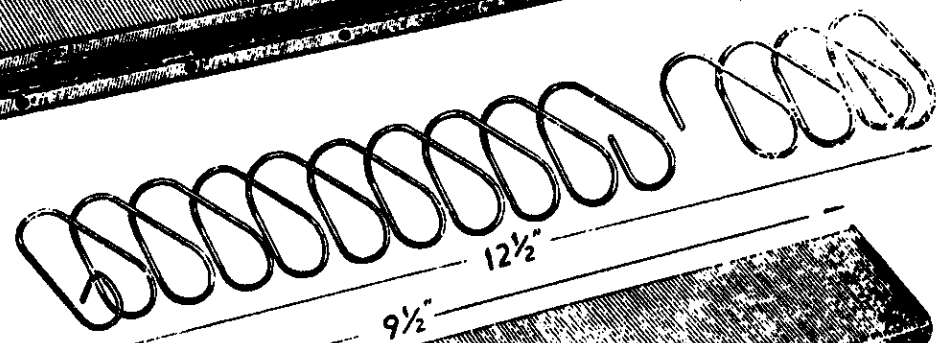
REMARKS.

CAT. NO.	DESIGNATION.	REMARKS.
BE 8345	Cases, magazine.	
BE 9099	Magazines, machine, carbine 9 mm. 32rd. Mk. I.	
BE 9979	Plates, bottom.	
BE 9988	Platforms, Mk. II.	
BE 9989	Retainers, plate, bottom.	
BE 9992	Springs, platform, Mk. I.	



BE 8345

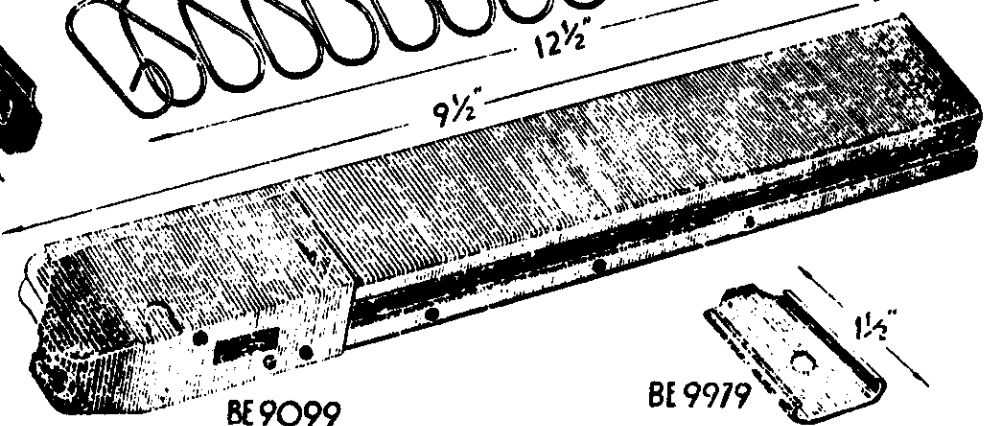
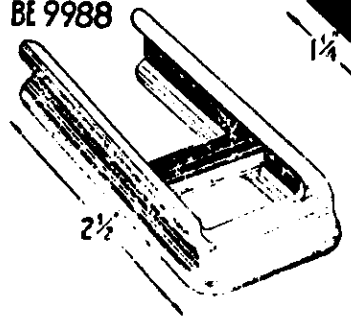
26 FULL COILS
BE 9992



BE 9989

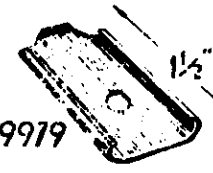


BE 9988



BE 9099

BE 9979

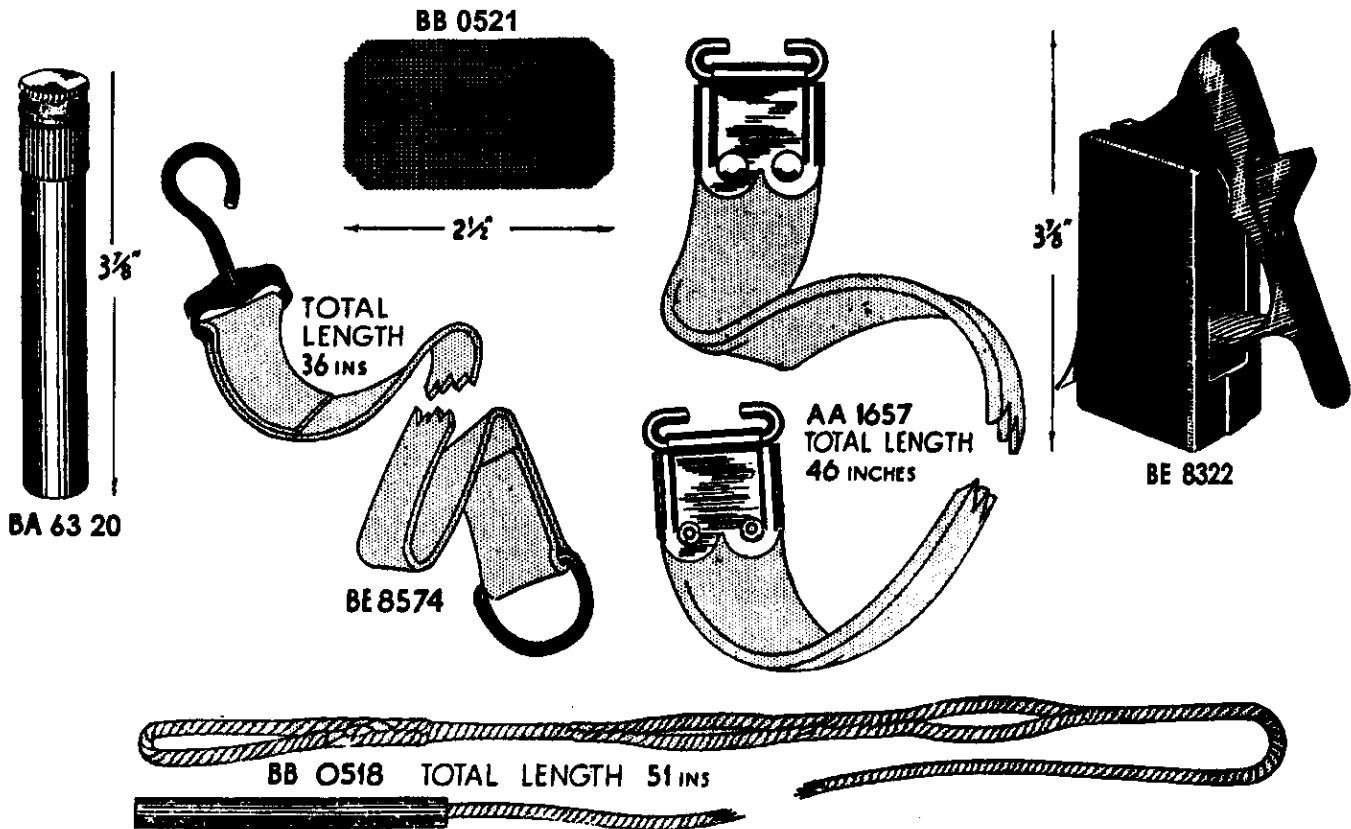


CAT. NO.

DESIGNATION.

REMARKS.

CAT. NO.	DESIGNATION.	REMARKS.
BE 8322	Fillers, magazine, 9 mm. machine, carbine 32rd. Mk. II.	
BE 8574	Slings, carbine, machine, Sten, 9 mm.	For Mk. II and III Carbines.
—	Pullthroughs	To be demanded as :—" Pullthroughs, Single Mk. IV, ' B ' " (Section B.1). (Cat. No. BB 0518.)
—	Bottles, oil	To be demanded as :—" Bottles, Oil, Mk. V " (Section B.1). (Cat. No. BA 6320.)
—	Gauze	To be demanded as :—" Pullthroughs —Gauze " (Section B.1). (Cat. No. BB 0521.)
—	Slings	For Mk. I Carbines. To be demanded as :—" Slings, Rifle, web " (Section A.1). (Cat. No. AA 1657.)





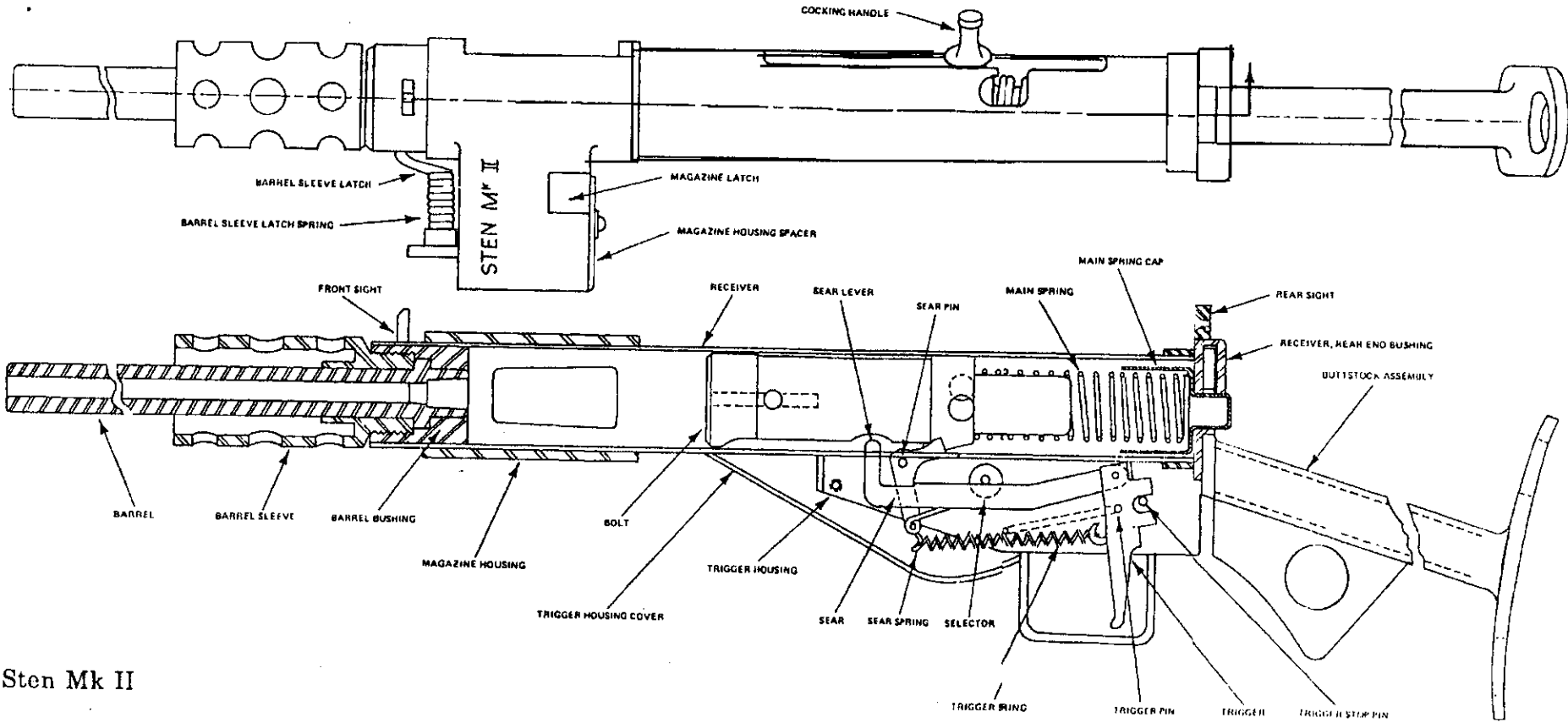
Sten Mk II

PARTS LIST

1. Barrel
2. Barrel sleeve
3. Barrel sleeve lock
4. Barrel sleeve lock spring
5. Front sight
6. Barrel bushing
7. Receiver tube
8. Receiver cap
9. Trigger housing
10. Butt stock assembly: stock tubing
butt plate
stock grip
stock ring
11. Magazine housing
12. Magazine housing spacer
13. Magazine housing spacer screw
14. Magazine latch
15. Magazine latch spring
16. Trigger
17. Trigger spring
18. Trigger pin
19. Disconnecter
20. Disconnecter pin
21. Selector
22. Selector spring
23. Selector plunger (2)
24. Sear
25. Sear spring
26. Sear pin
27. Bolt
28. Firing pin
29. Extractor
30. Extractor spring
31. Extractor pin
32. Bolt Handle
33. Closing spring
34. Closing spring Cup
35. Trigger housing cover
36. Trigger housing cover screw (2)
37. Magazine housing
38. Magazine follower
39. Magazine spring
40. Magazine spring latch
41. Magazine bottom
42. Rear sight

NOTES:

1. Bolt stopping surface on barrel is 1mm forward of magazine well slot.
2. Bolt stroke is



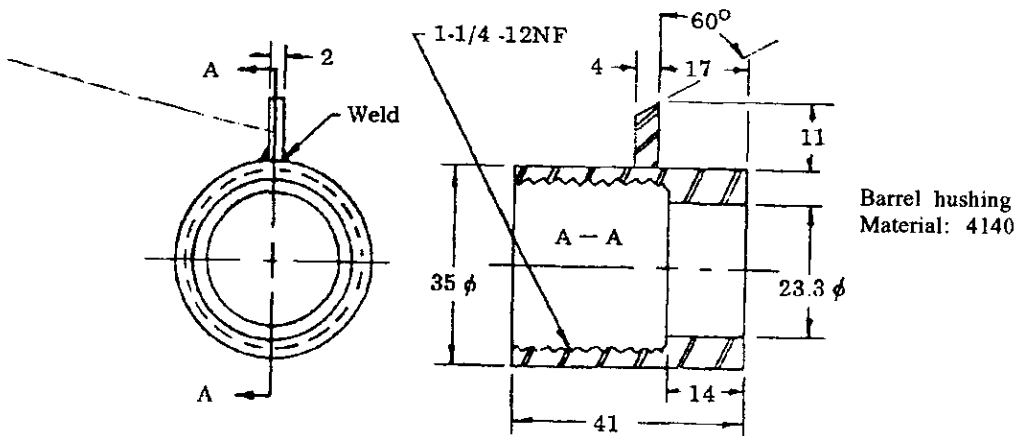
Sten Mk II

STEN Mk II SPECIFICATIONS

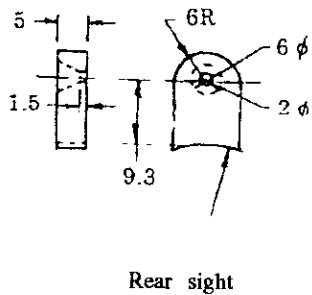
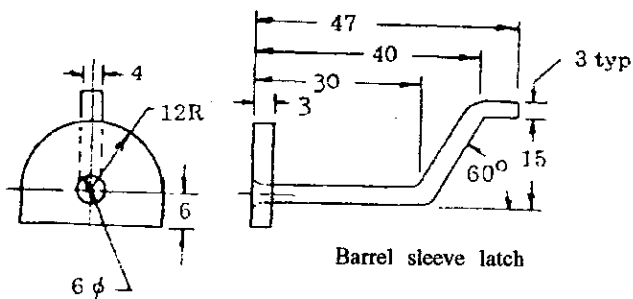
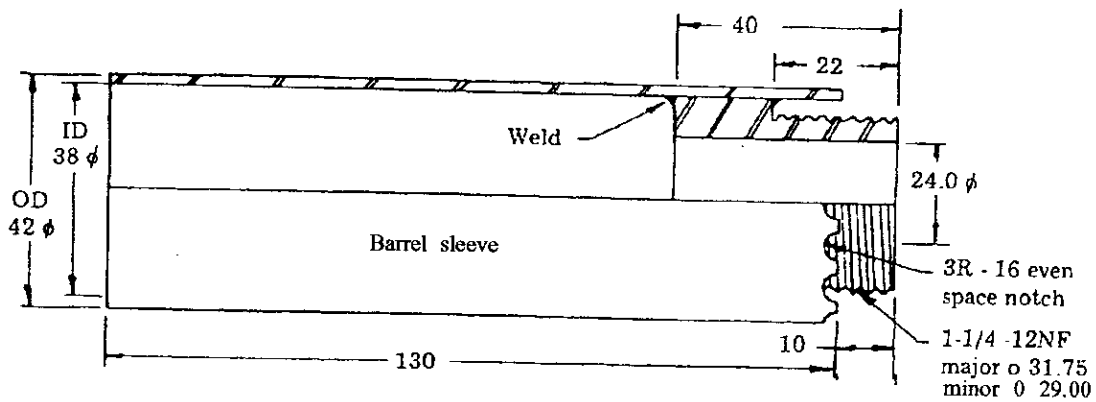
1. Cartridge:	9mm Parabellum	
	Bullet weight	116 grains
	Powder weight	6 grains
	Muzzle velocity	1400 ft./sec.
2. Recoil Spring:	Wire diameter	0.067 in.
	Spring OD	1.00 in.
	Active coils	15
	Free length	9.40 in.
	Initial length	6.80 in.
	Final length	3.20 in.
	Work stroke	3.60 in.
3. Bolt:	Weight (including extractor)	1.327 lb. (9290 grains)
	Cocking handle	0.077 lb. (540 grains)
	Total recoiling weight:	1.404 lb. (9830 grains)
	Bolt maximum dia.	1.381 in.
	Bolt overall dia.	5.75 in.
	Bolt body length	4.21 in.

SUGGESTED STEN MANUFACTURING MODIFICATIONS

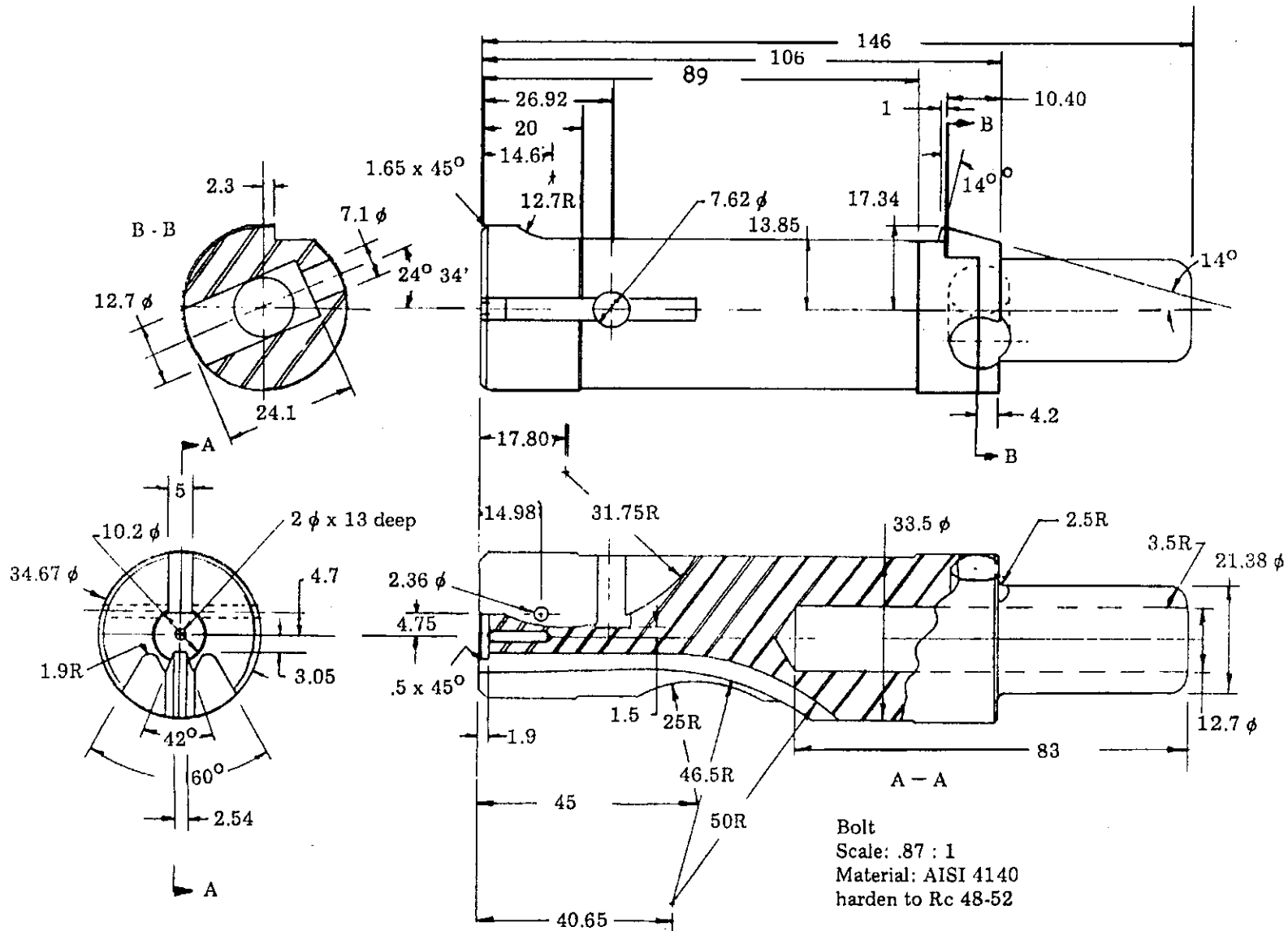
- | | |
|--|--|
| <p>1. Select suitable lightwall steel tubing which is commercially available. For example, a fence post pipe (galvanized) is 38.5mm OD and 35.0mm ID, most suitable for use as a receiver.</p> | <p>8. The trigger housing cover acts only as a guard against dirt entering the trigger assembly. This cover can be eliminated or made from plastic.</p> |
| <p>2. Eliminate barrel sleeve.</p> | <p>9. All pins can be roll pins of standard commercial size, or pieces of drill rod.</p> |
| <p>3. Weld barrel bushing into the front end of the receiver for simple, permanent assembly.</p> | <p>10. All springs can be of a standard commercial size.</p> |
| <p>4. Turn barrel blank OD (outside diameter) without any shoulder, fit the barrel in the bushing by sliding fit.</p> | <p>11. Trigger material may be aluminum or plastic, side tabs may be replaced by spacers or washers to keep the trigger located neutrally.</p> |
| <p>5. Fasten the barrel in the bushing by two roll pins of 3/16" diameter, or equivalent.</p> | <p>12. 1-1/4" diameter nominal size galvanized pipe, schedule 40 is suitable for a modified receiver:
 OD: 42.2mm
 ID: 35.05mm
 Wall thickness: 3.55mm</p> |
| <p>6. Turn the bolt OD to fit the receiver ID.</p> | <p>Note: A 1" galvanized pipe fits loosely inside a 1-1/4" pipe and can be welded as a filler-spacer where needed,</p> |
| <p>7. The external portion of the cocking handle (sticking out of the receiver) may be a straight 8.8mm OD, the same as the inside.</p> | |



Scale:

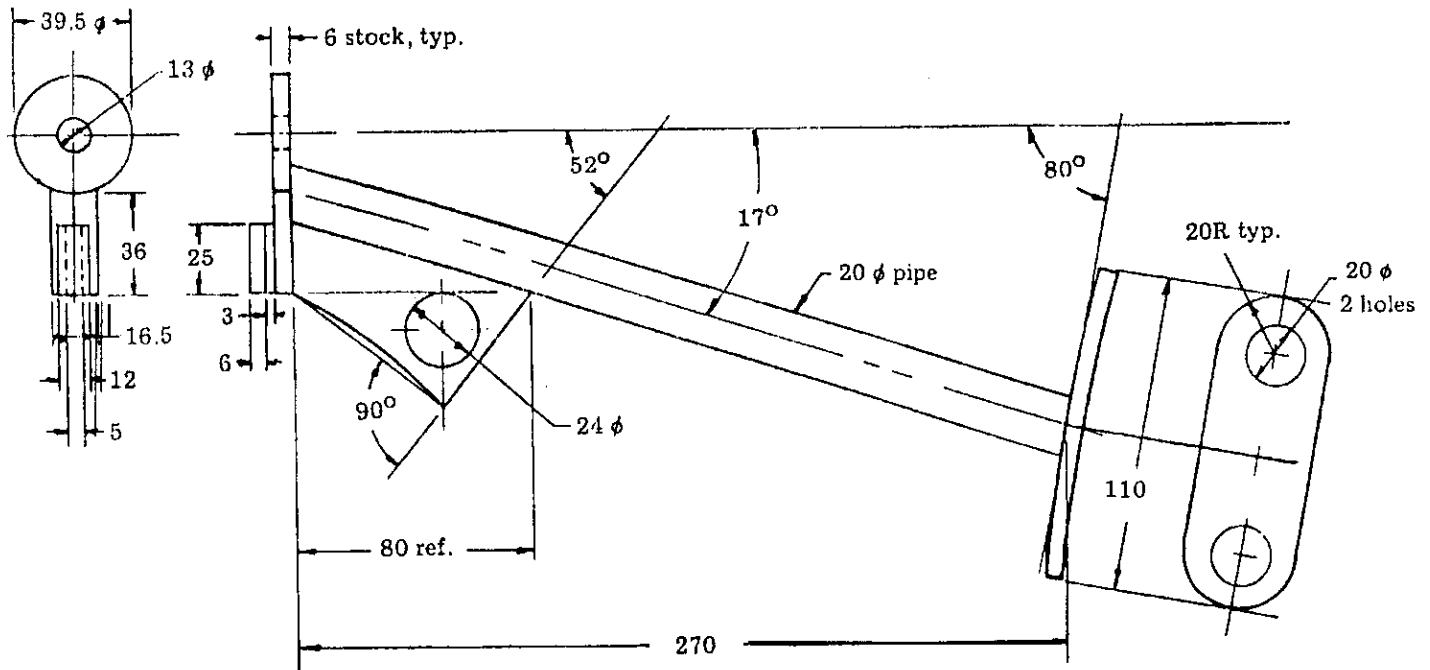


Note: Stake at assembly
with magazine housing



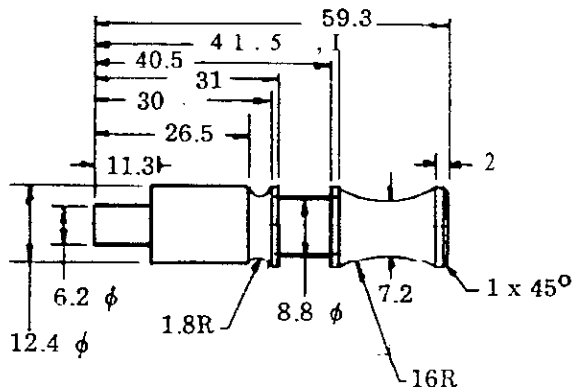
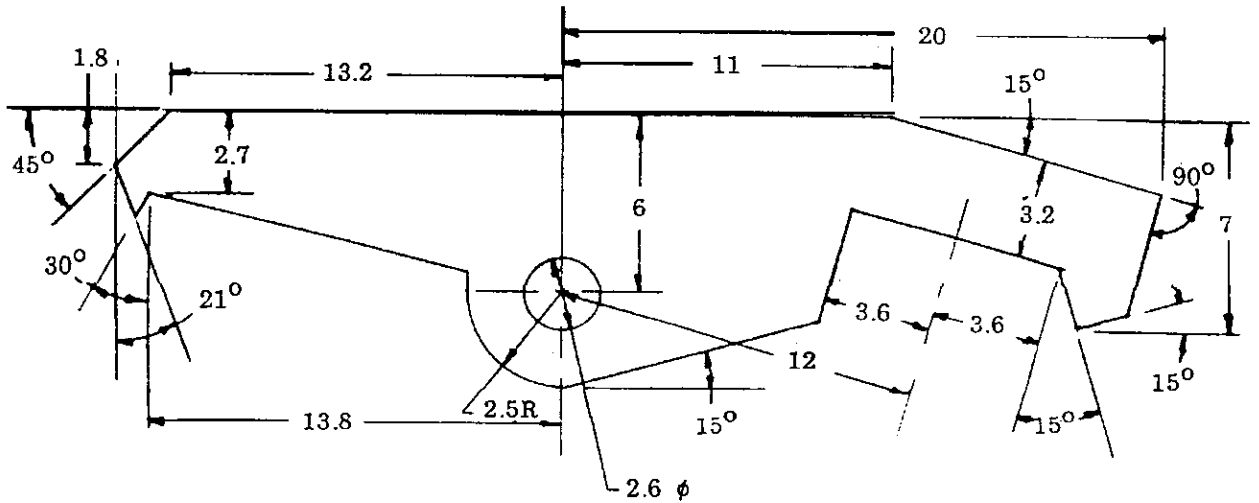
Bolt
 Scale: .87 : 1
 Material: AISI 4140
 harden to Rc 48-52

Butt-stock assembly
Material: low carbon steel
or aluminum, welded construction

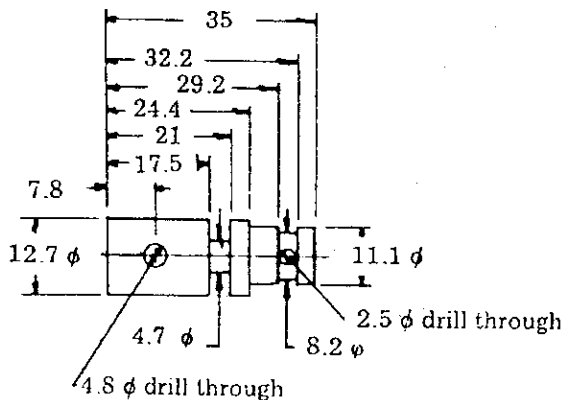


Extractor
Scale: 4.5 : 1

Material: AISI 1040 or equiv., stock 4.7 wide
harden to: Rc 48-52

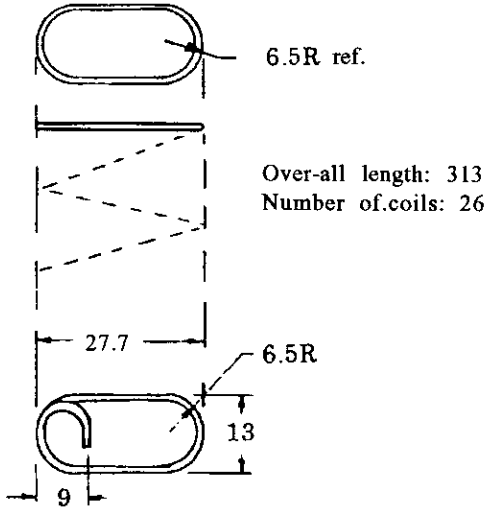


Bolt handle
Scale: .87:1
Material: mild steel
Heat treat: none



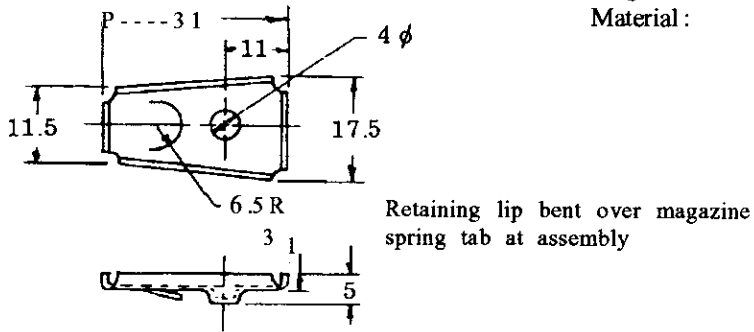
Selector
Scale: .87:1
Material: mild steel
Heat treat: none

Magazine spring
 Material: Music wire 1.5mm dia.

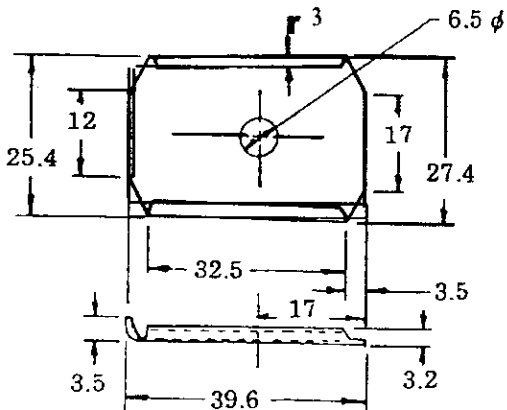


Scale: .87:1

Magazine bottom retainer
 Material: 1mm mild steel



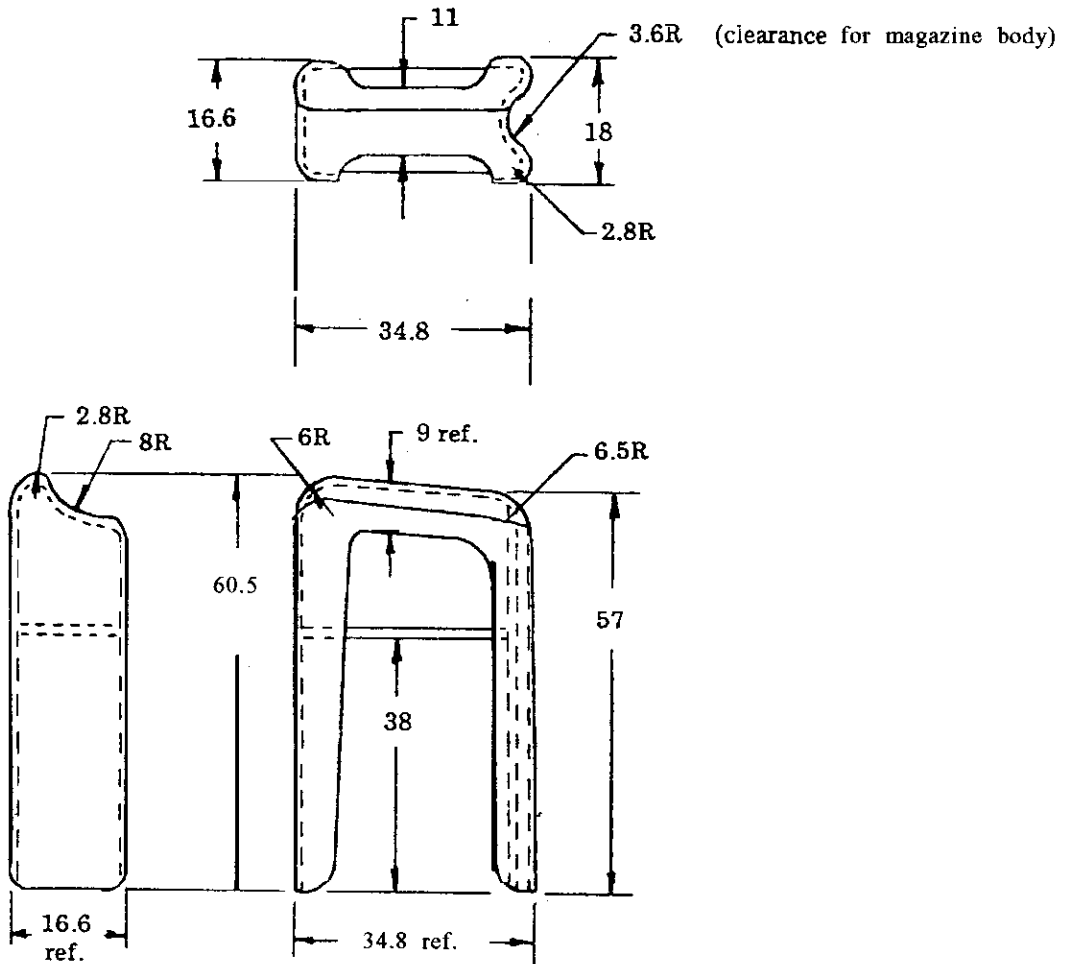
Magazine bottom plate
 Material: 1mm mild steel



Scale: .87: 1

Magazine follower
Material: low carbon steel

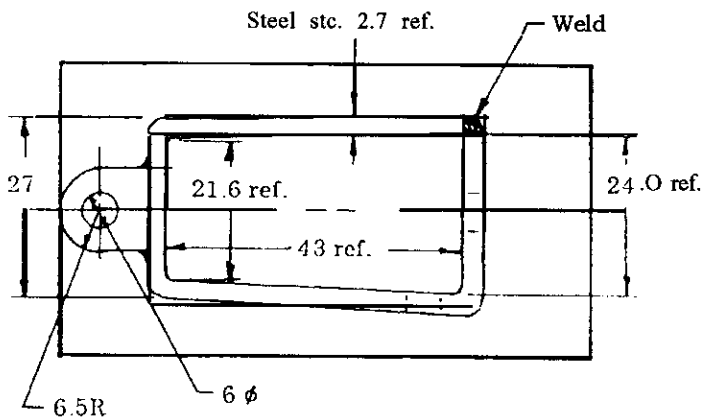
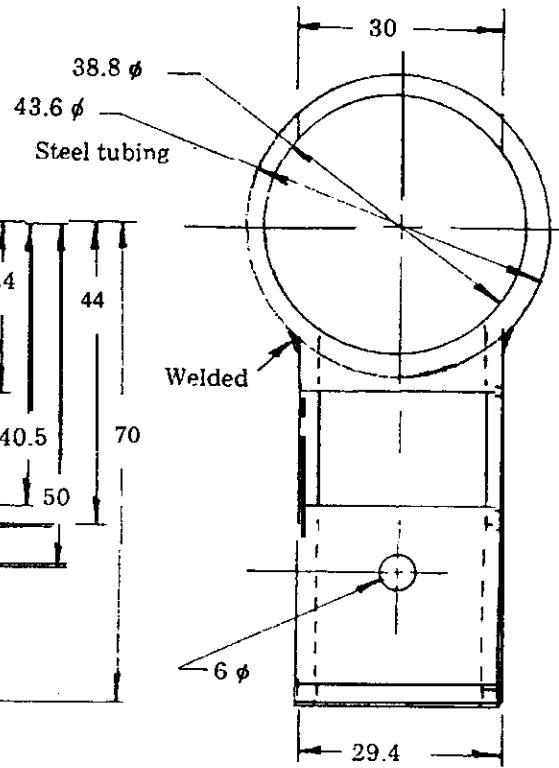
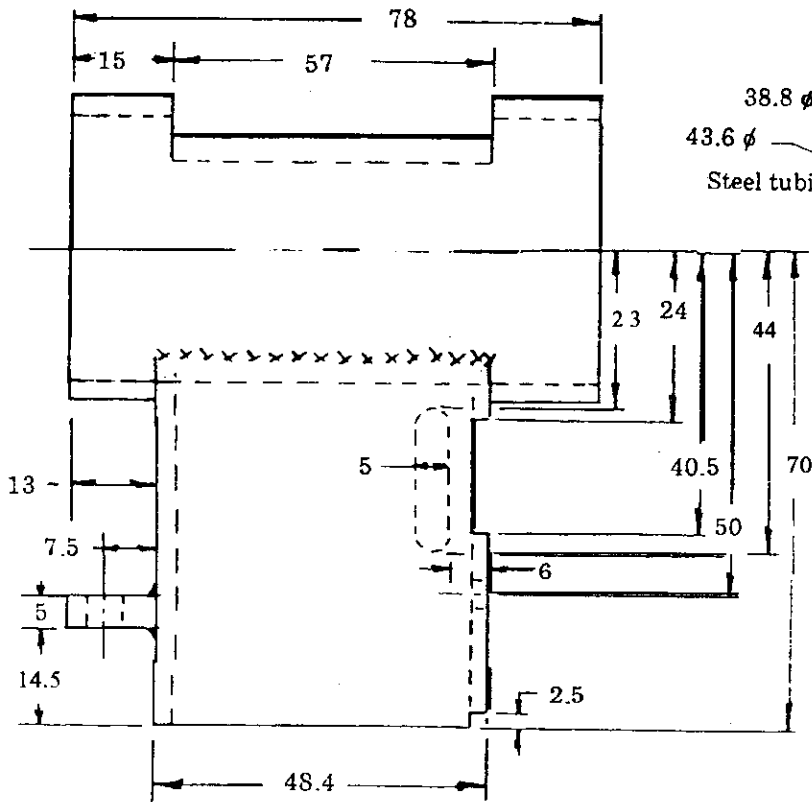
Scale: 1:1



Note: The magazine follower is a complex stamping made on a progressive die. To make a follower in a simpler way is to follow the Degtyarev DP LMG approach — using a dummy round as the last one in the magazine. Thus a simple, flat follower with a dummy round soldered and/or screwed to it will replace a complicated stamping.

Magazine housing
Material: as noted

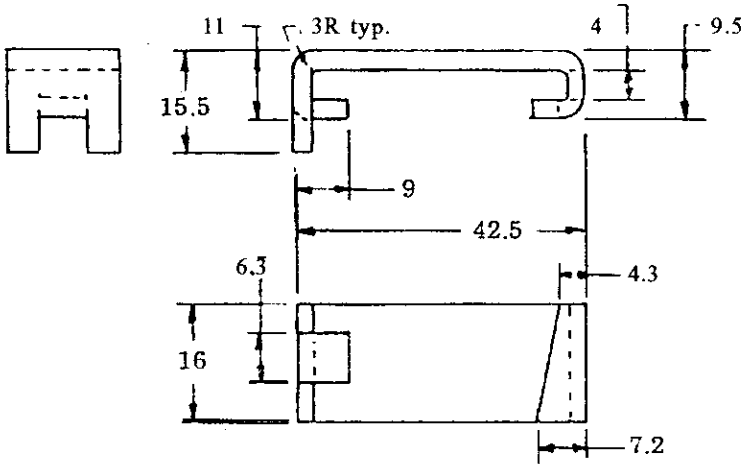
Scale: 1 : 1



Magazine latch

Material: AISI 1010 or equivalent
2.7mm stock. Case harden 0.1mm deep

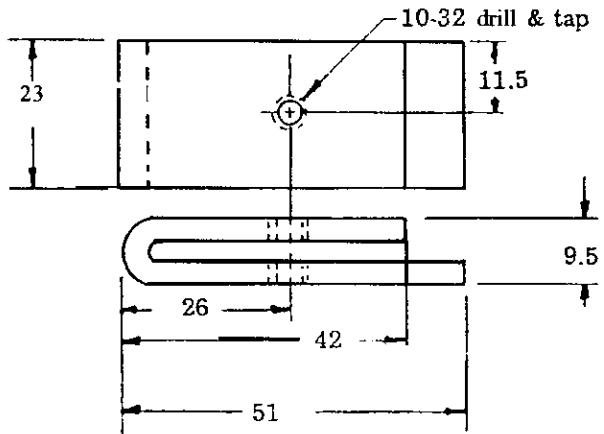
Scale: 1:1



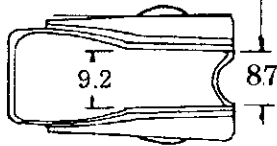
Magazine housing spacer

Material: AISI 1010 or equivalent
3mm stock. Heat treat: none

Scale: 1:1



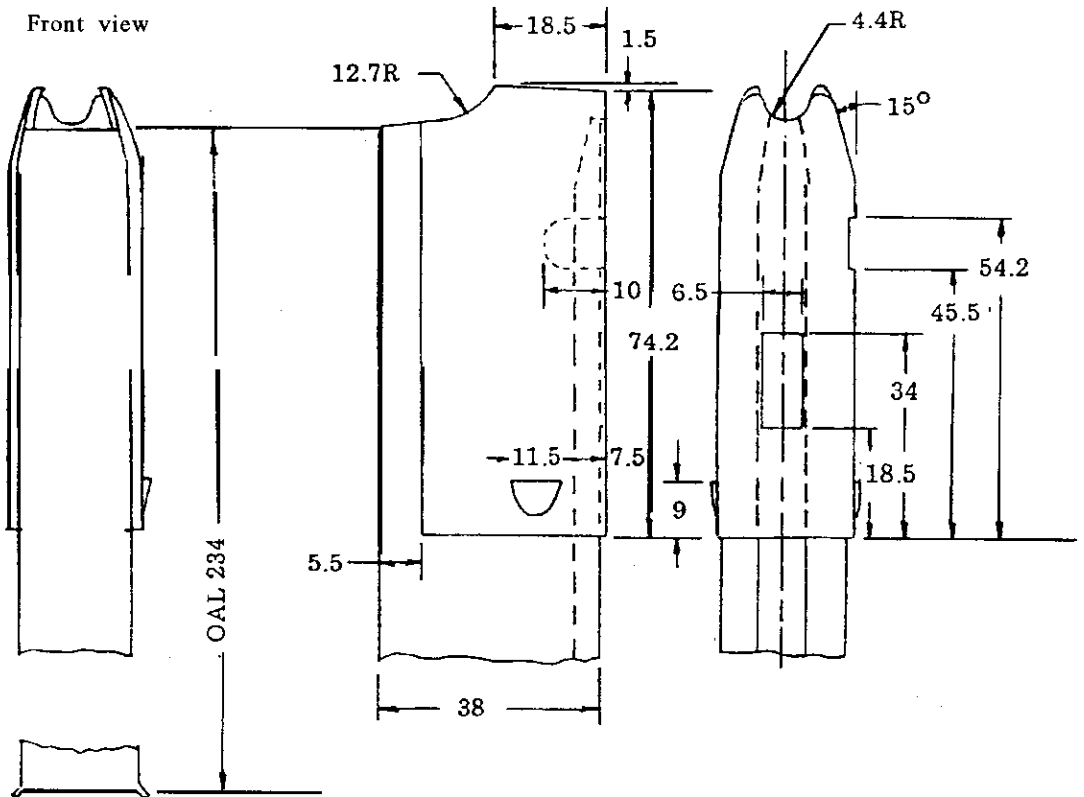
Top view



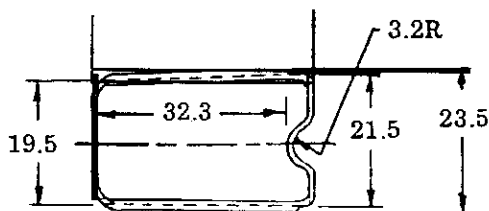
Magazine
Material: 1mm steel stock

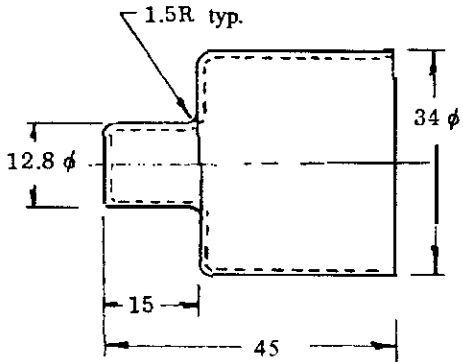
Rear view

Front view



Bottom view

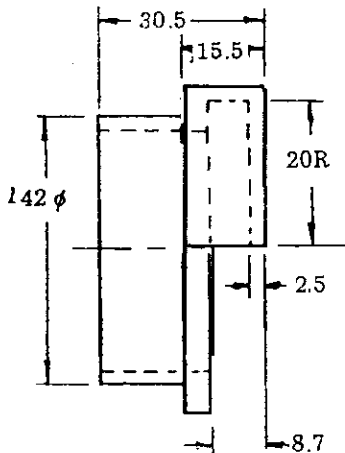




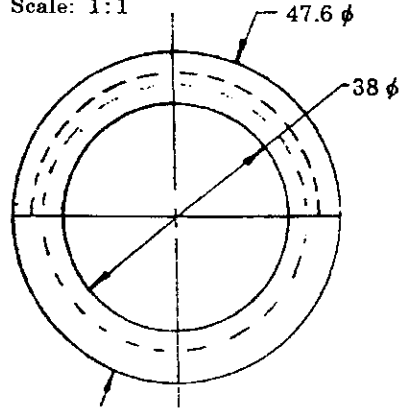
Main spring cap
Material: 1mm stock

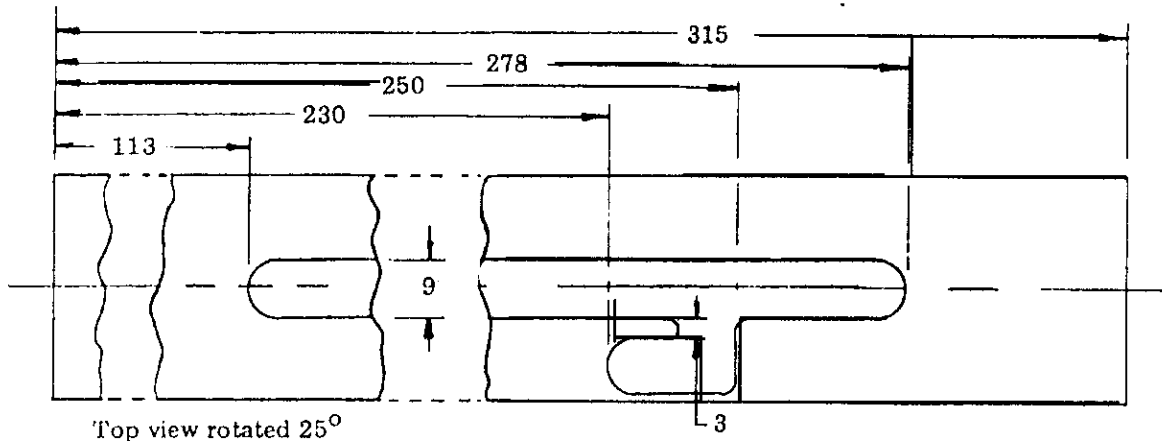
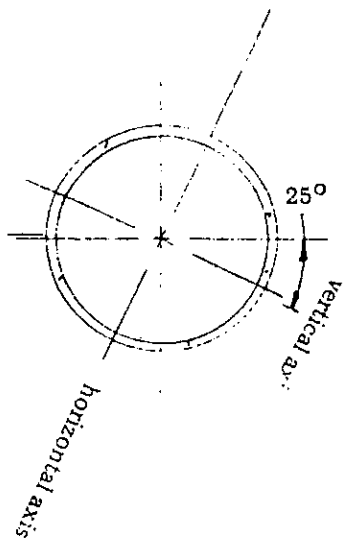
Scale: 1:1

Receiver rear end bushing
Material: AISI 1010 or equivalent



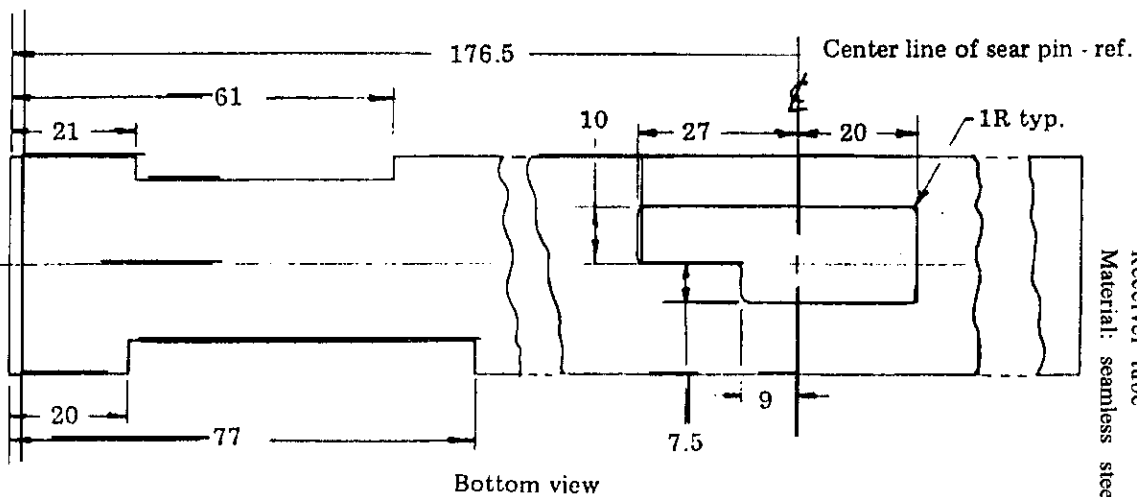
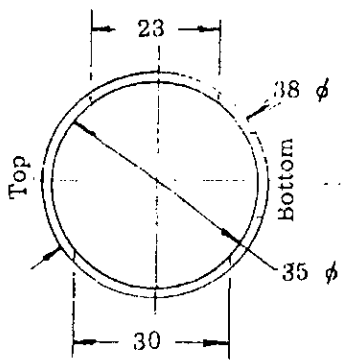
Scale: 1:1





Top view rotated 25°

Scale: .87 : 1

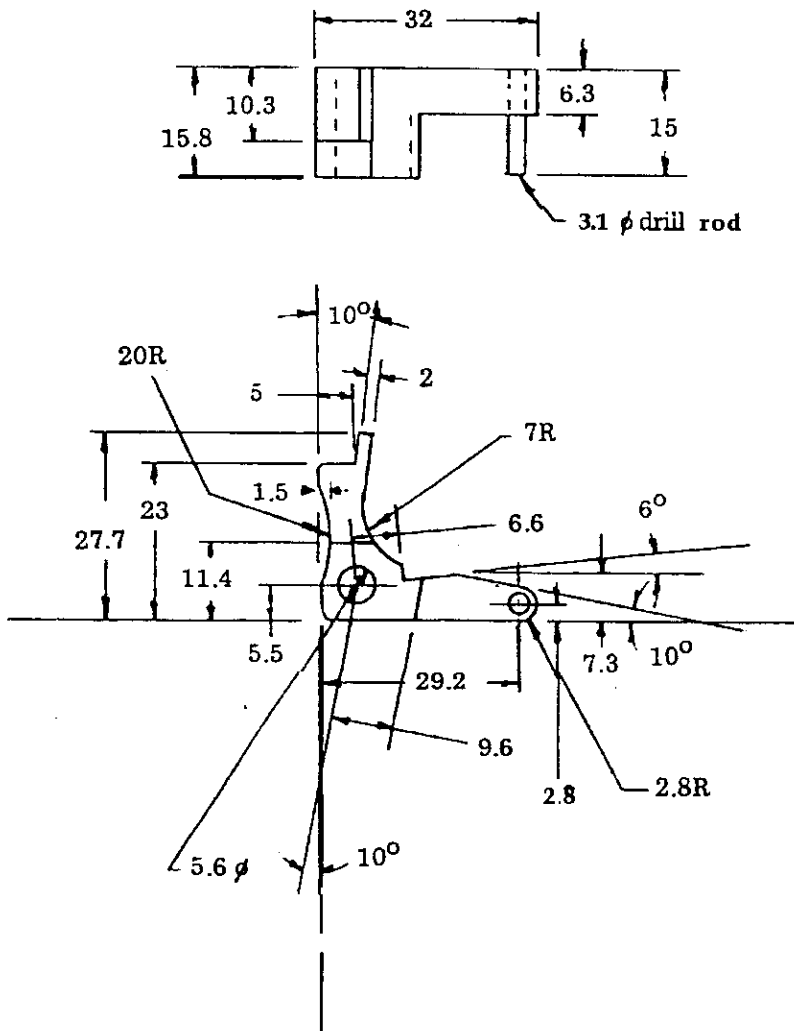


Bottom view

Receiver tube
Material: seamless steel tubing

Sear
Material: AISI 4140 or equivalent
Harden to Rc 55

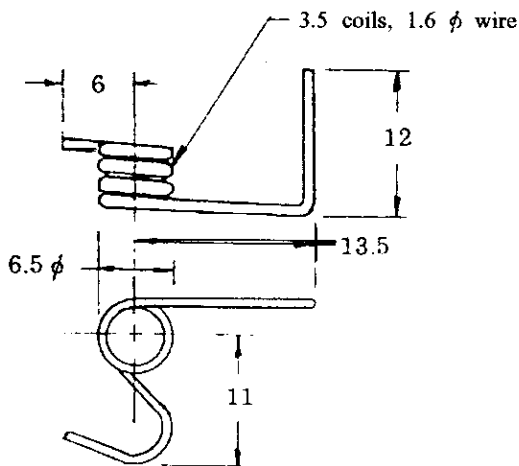
Scale: 1:1



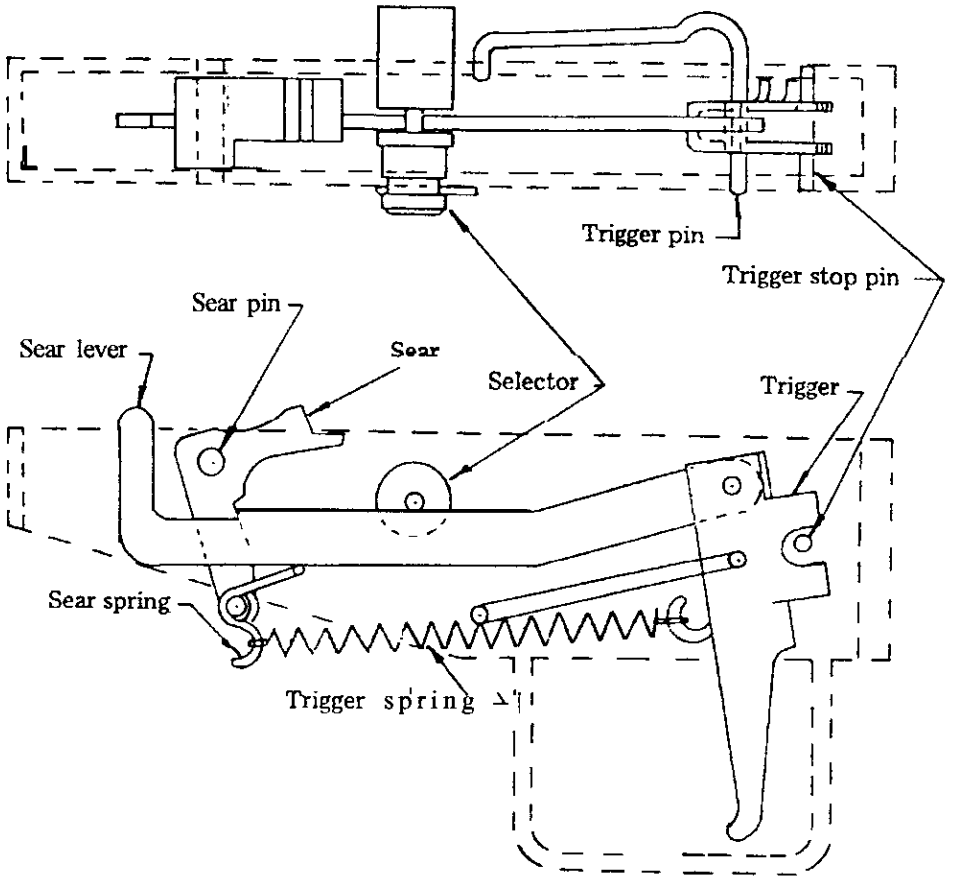
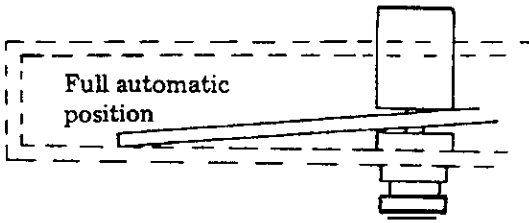
SPRINGS

USE	Wire dia.	Coil OD	Free length	Number of coils	Coil ends	SUBSTITUTE*
Extractor	1	7.1	12	5.5	Sq.	LC-040C-4
Magazine latch	1	8.7	15.5	6	Gr.	LC-040C-6
Closing	1.6	26.5	245	17	Sq.	
Trigger	0.7	4.6	57	72	Extension spring loops	LE-026B-7 or LE-026C-8
Selector	0.45	4.6	14	8	Gr.	LC-018B-6
Barrel sleeve latch	1	8.7	35	15	Sq.	

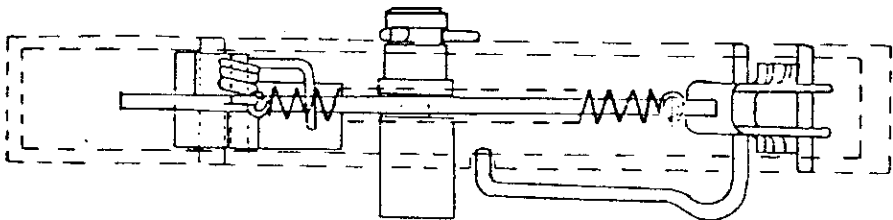
Sear spring, formed substitute LT-059K-1-R

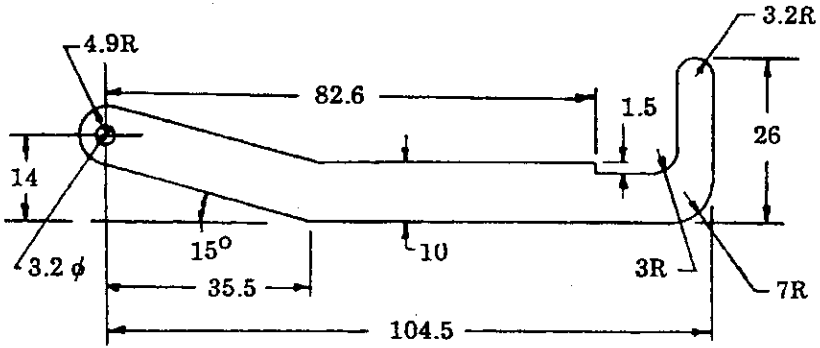


Trigger assembly



Bottom view



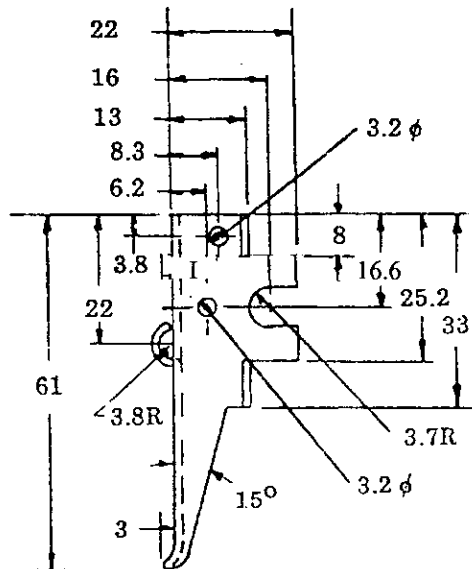
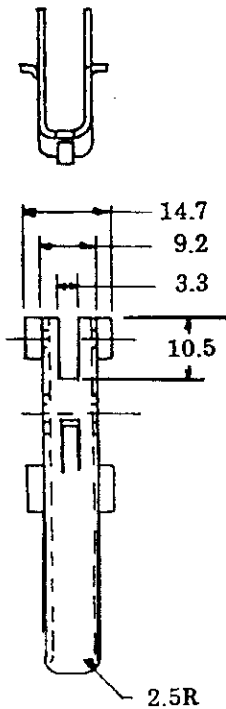


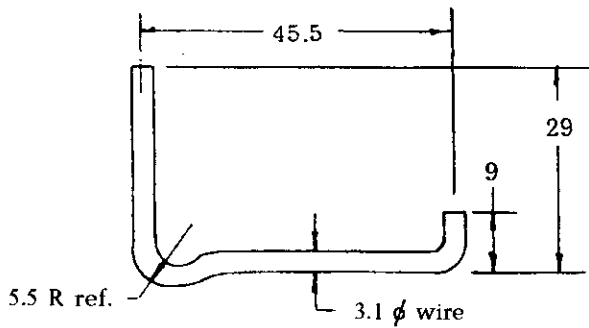
Trigger

Material: AISI 1010 or equivalent,,

1.6mm stock

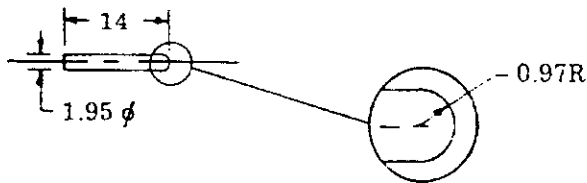
Heat treat: none





Trigger pin

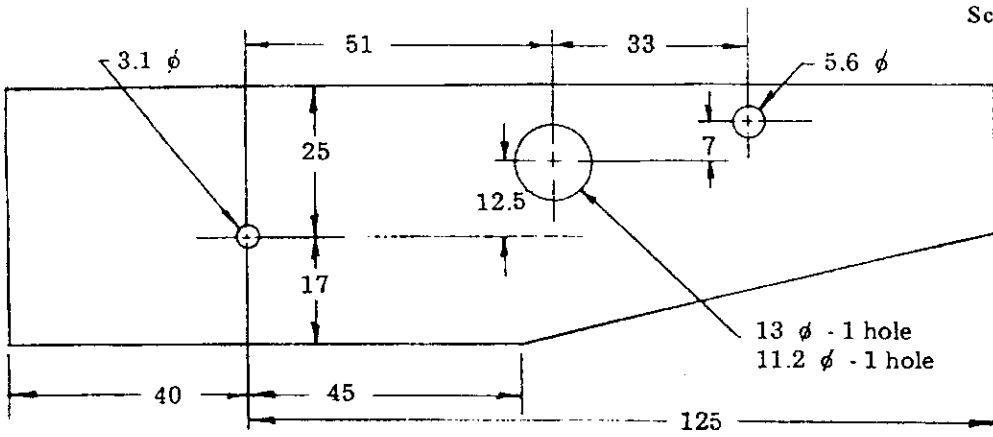
Note: Trigger pin may be substituted by spring pin 3.1 ϕ by 26 long.



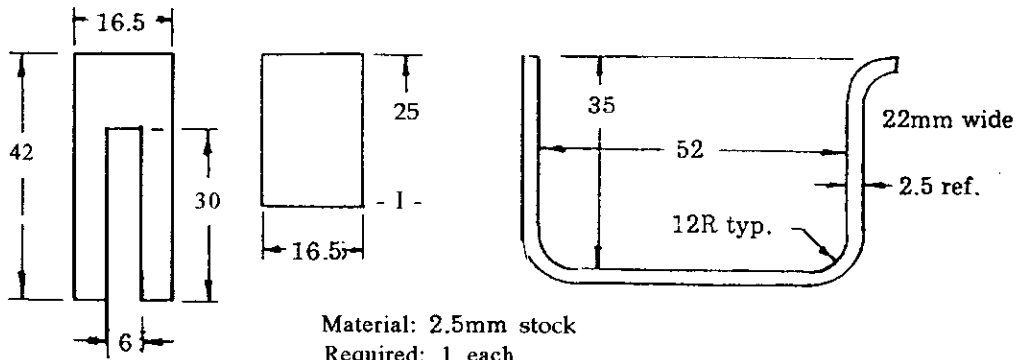
Firing pin
Material: Drill rod
Harden to Rc 50

PINS (Spring pins)

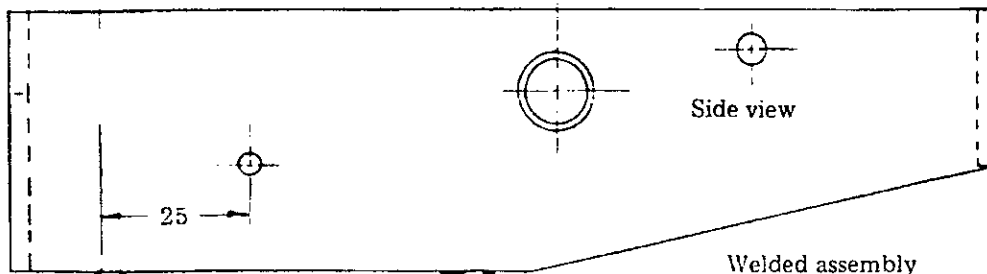
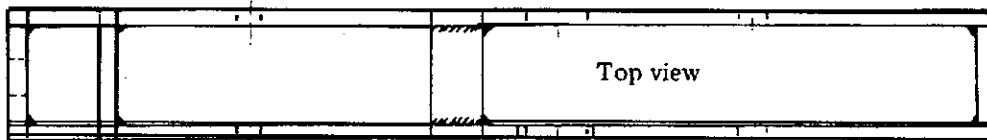
USE	DIAMETER	LENGTH
Extractor	2.5	25
Sear	5.5	24



Material: 2.5mm stock
Required: 2



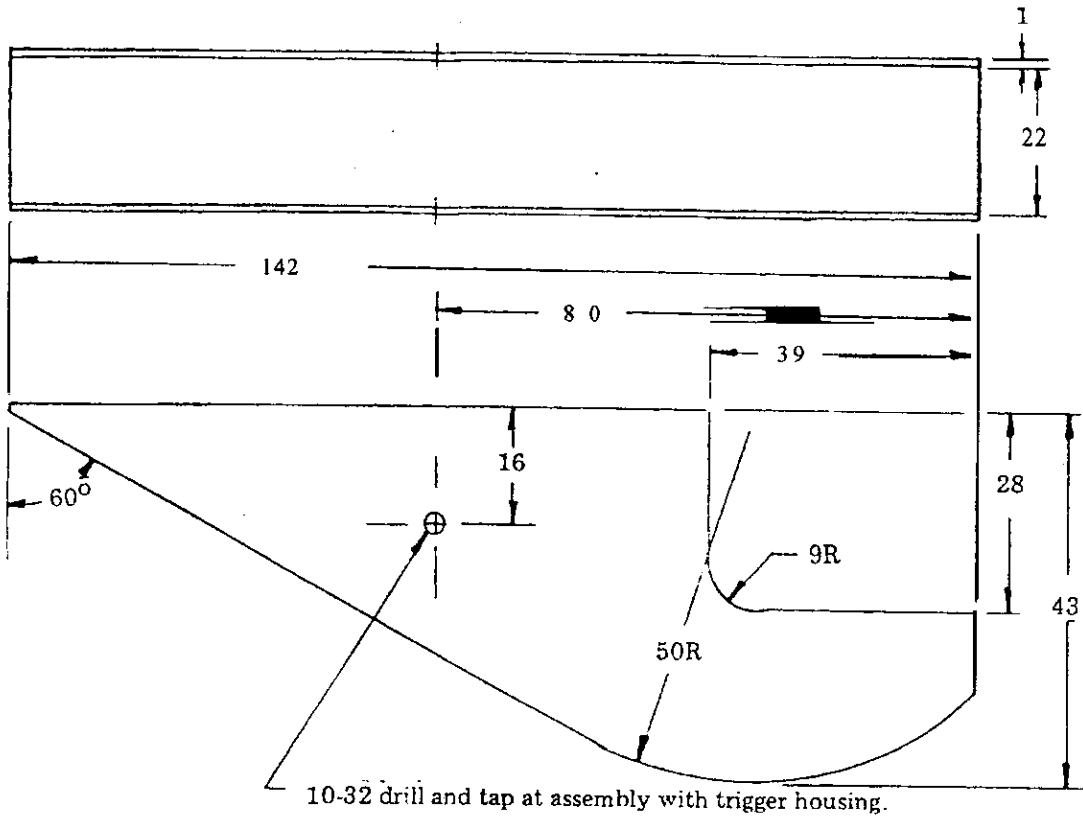
Material: 2.5mm stock
Required: 1 each



Welded assembly

Trigger housing cover
Material: 1mm stock, formed
Required: 1

Scale: 1:1



All Sten screws are 10-32 thread, round head type. Trigger housing screws (2) are 13mm long.