Complete Construction Plans for the
MARK-1 SUB-MACHINE GUN
Scale Drawings - Parts List

1. (1) brl. cal. .45 blank .750 dia.
2. (1) 16½" seamless tubing 1.250 I.D./.062 wall (@ $1.25 ft.) — Approximately...
3. (2) Aluminum bar “6061 or 2024 .1¼ diameter (3” needed per) @50c per lb. ...
4. (1) ¼" wide x 1/8" thick iron strap @ $1.25 per 20’ — Approximately...
5. (2) ¾" wide x 1/8 thick iron strap @ $1.30 per 20’ — Approximately...
6. (1) Steel bar (C/R or H.S.T.) 6½’ pr.
7. (1) Steel Spring (diameter 1-1/8 to 1-3/16 x 10” long
8. (1) 5/16” x 18” bolt (1-3/8” long) & nut
9. (1) 10 x 32 Allen set screw ¼” long
10. (3) 10 x 32 ovalhead screw ¼" long
11. (2) Pins ¼” diameter & 3/16” diameter (1” long)
12. (2) Cotter pins 1/16” diameter ¼” long @15c for 40 pins.
13. (1) 1/16” thick sheet-metal 3¼” x 6”
14. (1) 5/16” x 24” bolt 1½” long
15. (1) 5/8” wide x ¼” thick Steel Cold Roll or Hot Roll Steel
16. (1) Spring 3/8” diameter x 3/8” long
17. (1) pin, ⅜” long x 1/8” diameter (Steel drill rod)
18. (1) ⅜” x ⅜” Square tubing (Steel with .062 wall) 2” per
19. (1) Wood 1¼” wide x ¼ thick x 5” long, preferably hardwood.
20. (2) Wood screws 1/8” diameter x ¼” long
21. (1) Front sight; make or buy
22. (1) Rear sight; make or buy
*NOTE: BREAK ALL SHARP EDGES*

BREECH-BLOCK INTL-HRS/ C/HARDEN 0.010-0.015 DEPTH

DRILL LINE REAM WITH MATE PART IN PLACE (TUBE) 5/16" DIA THRU

RETAINING PLUG-MTL 6061-T6 ALUM

RETAINING PLUG BOLT & NUT 5/16 X 18 STL PURCHASED (HEX HEAD) & NUT - SELF LOCKING

COCKING KNOB-MTL 5/16 BOLT-STL
WIDTH OF FACE 0.045 - 0.015
0.080

BREAK EDGE INSIDE 4 OUT
3/32" TO 3/64" UNIFORMLY

.750 DIA-FULL LENGTH

CHAMBER TO THIS DEPTH .715 FROM 38° LOADING CONE

3/4" 1/8 - 3/16

THRUST SPRING-STL-NON-FATIGUING (PURCHASED)

* NOTE: LENGTH OF SPRING & TENSION WILL HAVE TO BE ADJUSTED DEPENDING ON TYPE SPRING USED SHOULDBE APPROX 9 1/2" LONG

ASSEMBLY OF TRIGGER & SEAR IN PROPER RELATION WITHIN HOUSING
**Extractor, Pivot Pin & Spring** (Int'l Steel)

1. **Extractor Pin** .062 Dia. x .275 Long (Stl)
2. **Extractor Spring** .110-.120 Dia. x 1/8' Long
3. **Ejector Assembly, MTL STL**

**Note:** This part may require some hand fitting - (1/32"-3/64" lip to snap into extractor groove in case)

**Note:** Loading Ramp Cut Use 1/2 End Mill

** Extraction Relief Cut 7/8" Deep (1/8" Rad)

**Note:** Drill thru with 23/32" threaded section will not have full depth of thread but sufficient

**Loading Ramp & Barrel Alignment Plug** MTL.6061-T6 ALUM

1. This part can be made from the same tubing as the housing (the radius will fit)
2. This part of (.095) flat stock hardened or case hardened as noted

**Position in this manner**

**Spot weld in place**

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SMG Plans Sheet No. 3
SEAR, SEAR PIVOT PINS & SPRING
STL MILD 1/2" x 1/2"

TRIGGER-MTL-ALUM 6061 FLAT SLK

SEAR TO BE C/HARDENED (5/16"x24 BOLT)

BREAK SHARP EDGES

EJECTOR - 1/16" THICK SHEET METAL. CAN BE CUT FROM SAME MATERIAL AS HOUSING, AS RADIUS MATCHES

SEAR ENGAGEMENT AT SLIGHT ANGLE - SEE ABOVE

CLEARANCE HOLES FOR 6-32 SCREWS, APPROX IN THE ABOVE LOCATIONS. SCREW LENGTH FROM HEAD 1/8" LONG.

SMG PLANS SHEET No. 4
MAGAZINE HOUSING, MTL.062 SHEET METAL

2.850±.005

11/16" RADIUS TO MATCH HOUSING QD.

CORNERS 3/16 R APPROX

APPROX .062 WALL

1.145±.005 INSIDE DIMENSION

1.585±.005 INSIDE DIMENSION

WILL WORK VERY WELL CONSTRUCTED IN THIS MANNER, BY SPOT WELDING PLATE ALONG SIDES (FULL LENGTH)

1.4/16" .600 5/8" .250

SPRING SEAT 3/16 DIA X 1/16 DEEP

SPOT WELD

SERRATE THIS AREA

1/6" DIA THRU

MAGAZINE RELEASE, STL.

1/4" X 5/8" LONG, CUT HOLE AFTER WELDING TO MAGAZINE PORT

3/4" 1/2" .343

1/8" DIA THRU

2.187±.005

1.095 1 1/16"

NOTE: CAN BE MADE FROM 3/4" X 3/4" SQ. TUBING

ASSEMBLY OF MAGAZINE HOUSING & MAGAZINE RELEASE

A IT PROBABLY WILL BE NECESSARY TO DO SOME ADJUSTING OR HANDFITTING HERE TO GET THE PROPER FIT, AND AMOUNT OF ENGAGEMENT—but only after magazine housing has been welded to housing.

SPRING DIA .281±.010

.3/16"X.125 DIA PIN REEDED OR CENTER PUNCH IN POSITION (BOTH ENDS) SMG PLANS SHEET NO. 5
SPOT WELD IN PLACE, 5 PLACES EACH SIDE.

MACHINE A MANDREL 14" LONG BY 1.240 I.D. LUBRICATE WITH OIL OR GREASE WHEN USING TO KEEP DOWN SEISURE. TO MINIMIZE DISTORTION QUENCE EACH SPOT WELD WITH WATER AS YOU WELD.

DIMENSIONS FOR POSITIONING TRIGGER HOUSING & RECEIVER

NOTE: SUB-ASSY W/RF.

NOTE: DRAWING AS TEMPLATE TO SCALE USE.