

NOTES:

1. FINISH  EXCEPT AS NOTED.  
2. END OF LANDS AND GROOVES TO BE SHARP AND FREE FROM BURRS.  
3.  THESE DIMENSIONS ARE IDENTICAL.  
4. EACH BARREL SHALL WITHSTAND THE FIRING OF ONE GOVERNMENT STANDARD HIGH PRESSURE TEST CARTRIDGE WITHOUT EVIDENCE OF FAILURE.  
5. AFTER PROOF FIRING, EACH BARREL SHALL BE MAGNETIC PARTICLE INSPECTED FOR CRACKS, SEAMS, AND OTHER INJURIOUS DEFECTS USING A CURRENT OF 400 TO 800 AMPS.

6. MARKING NOTES:  
A DEFENSE ACCEPTANCE STAMP (EAGLE IN A SQUARE) ( $\frac{1}{2}$  HIGH).  
B MAGNETIC PARTICLE TEST MARK "M" ( $\frac{1}{4}$  HIGH).  
C PROOF MARK LETTER "P" ( $\frac{1}{4}$  HIGH AFTER PROOF FIRING).  
D MANUFACTURERS IDENTIFICATION MARK.  
E PART NUMBER.  
F MONTH AND YEAR OF MANUFACTURE.  
G MATERIAL LOT NUMBER.

- ALL LETTERING  $\frac{1}{16}$  HIGH UNLESS OTHERWISE SPECIFIED.  
ALL MARKING DIMENSIONS  $\pm .002$  UNLESS OTHERWISE SPECIFIED.

- ITEM A, WHEN APPLIED, SHALL BE STAMPED SEPARATELY UNDER GOVERNMENT SURVEILLANCE AFTER FINAL INSPECTION AND ACCEPTANCE OF BARRELS; ITEMS B AND C SHALL BE STAMPED SEPARATELY UNDER GOVERNMENT SURVEILLANCE AFTER RESPECTIVE APPROPRIATE OPERATIONS. ITEMS D, E, F AND G SHALL BE STAMPED IN LINE FROM ONE CONTINUOUS ROLL.

7.  THESE DIMENSIONS ARE MIN REF AT MIN DIA FOR CALCULATIONS ONLY.

8. DIMENSIONS SHOWN ON SECTION D-D APPLY AT INTERSECTION OF STRAIGHT LINES.

9. FOR CIRCUMFERENTIAL AREA  ZONE  SHALL BE HEATED TO 1500° BRINN LOCALY AND COOLED IN AIR. ROCKWELL HARDNESS APT TO 62. HORNINGS OF THE LEFT HAND BULLET RAMP AND  RUMOUT ZONES IS OPTIONAL. DEPTH OF HARDNESS AT  SHALL NOT EXCEED  $\frac{3}{16}$  AS MEASURED FROM THE BORE END FACE. DEPTH OF HARDNESS AT THE LEFT HAND BULLET RAMP SHALL NOT EXCEED  $\frac{3}{8}$  AS MEASURED FROM THE LEFT HAND BULLET RAMP EDGE WHICH INTERSECTS THE .875-.004 DIA. (SEE SECTION D-D, VIEW M-N AND VIEW L.)

10. HEAT TREATMENT: BEFORE MACHINING, BARS AND BLANKS SHALL MEET THE HARDNESS AND PHYSICAL REQUIREMENTS SPECIFIED IN MIL-S-13585 FOR THE QUENCHED AND TEMPERED CONDITION.

11.  AXIS ESTABLISHED BY DIAMETERS  AND .

12. THE CENTERLINE OF THE BORE () WITHIN  $3.00 \pm .03$  OF THE MUZZLE END MAY HAVE AN ANGULAR DEVIATION FROM AN AXIS ESTABLISHED BY  AND  OF  $0^{\circ} 2' 23''$ .

13. UNLESS OTHERWISE SPECIFIED, SURFACES REQUIRING  $\frac{32$  AND FINER ROUGHNESS HEIGHT RATINGS MAY BE PROCESSED AFTER APPLICATION OF FINAL PROTECTIVE FINISH. BRIGHT AREAS RESULTING FROM SUCH PROCESSING ARE PERMISSIBLE.

14. ALL EDGES SHALL BE BROKEN  $.005 \pm .00$  UNLESS OTHERWISE SPECIFIED.

15. MATERIAL: STEEL, SPEC MIL-S-13585: CHROME-MOLY-VANADIUM OR 4150 RESPHURIZED.

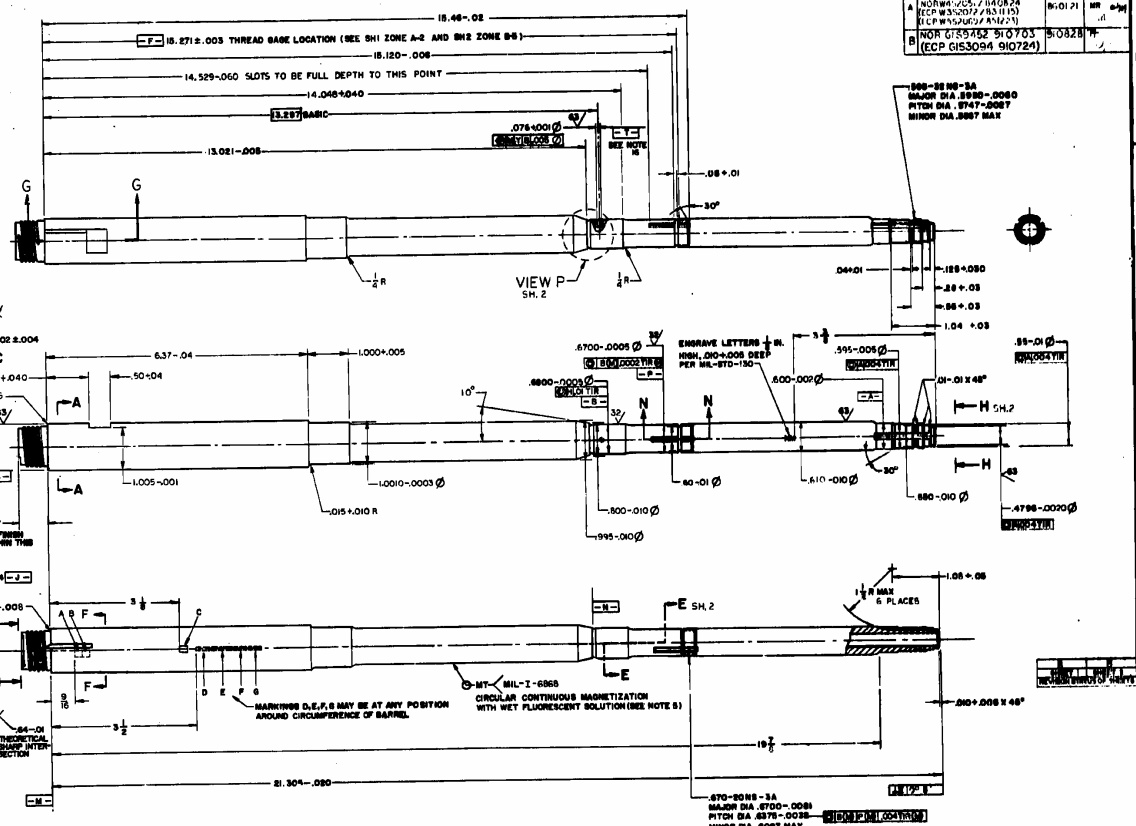
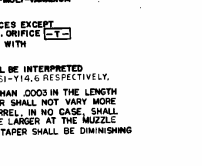
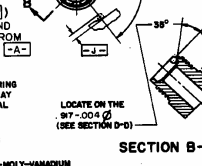
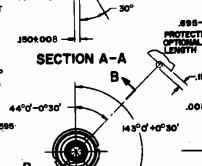
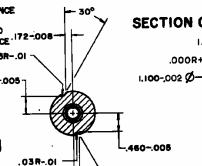
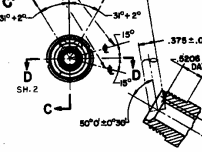
16. FINAL PROTECTIVE FINISH: EXTERIOR SURFACES EXCEPT AS NOTED: FINISH NO. 5.3.1.2 OF MIL-STD-171 OFFICE MAY BE BRIGHT OR FINISHED IN ACCORDANCE WITH 5.3.2 OF MIL-STD-171.

17. THREAD DIMENSIONS AND DESIGNATIONS SHALL BE INTERPRETED IN ACCORDANCE WITH FED-STD-228 AND ANSI-Y14.6 RESPECTIVELY.

18. THE BORE DIAMETER SHALL NOT VARY MORE THAN  $.0003$  IN THE LENGTH OF ANY ONE BARREL. THE GROOVE DIAMETER SHALL NOT VARY MORE THAN  $.0003$  IN THE LENGTH OF ANY ONE BARREL. IN NO CASE, SHALL THE BARREL BORE OR GROOVE DIAMETER BE LARGER AT THE MUZZLE END THAN AT THE CHAMBER END AND ANY TAPER SHALL BE DIMINISHING FROM THE CHAMBER TOWARD THE MUZZLE.

19. MIL-W-13555 SHALL APPLY.

THE  $\epsilon$  OF THE HOZ SHALL BE WITHIN  $15^{\circ}$  OF HORIZONTAL  $\epsilon$  OF BARREL, AS SHOWN, WHEN CUTTING THREAD START AND RUNOUT.



NO.	DESCRIPTION	DATE	APPROVAL
1	TRW M32005	15-06-10	[Signature]
2	PRODUCTION RELEASE		
3	NORMAN, G. S. / 1140424	01-01-21	MR. [Signature]
4	ECR M32005 / 1140424		
5	ECR M32005 / 1140424		
6	NOR G35752 310 703	5-08-28	[Signature]
7	ECR G35752 310 703		

320-22 NB-3A  
MAJOR DIA. 8700-.0080  
PITCH DIA. 8747-.0087  
MINOR DIA. 8887 MAX

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PART NO. 0349847

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6	NOR G35752 310 703	5-08-28	[Signature]
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BARREL

F 19200

1349847

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APPLICATION