



RIFLE, 7.62-MM, M14



GUNsmith

60 Valley Farms, Arizona 85291-0060



M-14 RECIEVER

NOTES

1. FINISH TO SPEC EXCEPT AS NOTED.
2. MATERIAL, SPEC. QQ-S-624, 8620H, EXCEPT RESULPHURIZED (10% PHOSPHOR C35 TO 0.0003) RUN QUALITY. HANDENABILITY OF STEEL SHALL BE CONTROLLED, AS REQUIRED, BY SUT MANUFACTURER'S HEAT TREATMENT PROCESS AND ASSURE THAT SPECIFIC MANDATORY PHYSICAL REQUIREMENTS ARE MET. MAXIMUM SIZE OF FINER.
3. UNLESS OTHERWISE SPECIFIED:
 - a. ALL EXPOSED EXTERIOR EDGES AND CORNERS SHALL BE BUSHEN UP & UP.
 - b. ALL INTERIOR CORNERS SHALL BE ROUNDED WITH A FILLET OF .005 R & .010.
 - c. ALL O.D. HOOKS AND CORNERS SHALL BE BUSHEN UP .005 & .010.
4. DIM. (X) APPLIES TO LENGTH.
5. ESTABLISHED BY BARREL THREAD MINOR DIA. 9.311-04 AND BOLT HOLE DIA. 7.30+0.05 AT BRIDGE.

6. HEAT TREATMENT: RECOMMENDED PROCESS: NORMALIZE BEFORE MACHINING (OIL QUENCHING FOLLOWED BY TEMPERING AT NOT LESS THAN 450°F. MAYBE USED IN LIEU OF AIR COOLING). CARBURIZE AT 1550°F. TO SPECIFIED CASE DEPTH. OIL QUENCH FROM 1550°F. TO 1600°F. TEMPER TO HARDNESS SPECIFIED.
7. MANDATORY REQUIREMENTS:
 - a. NORMALIZE BEFORE MACHINING.
 - b. CARBURIZE TO CASE DEPTH .02 TO .08.
 - c. TEMPER ONE HOUR MINIMUM AT 350°F. TO 450°F.
 - d. CORE, ROCKWELL HARDNESS: C28 TO C42. SURFACE, ROCKWELL HARDNESS: D71 OR (REFEREE METHOD) 50N-74 MINIMUM ON A PROPERLY PREPARED SURFACE.
 - e. MICROSTRUCTURE OF CORE SHALL NOT CONTAIN MORE THAN 10% FREE FERRITE AFTER HEAT TREATMENT.
 - f. THE USE OF A STRAIGHT CYANIDE BATH OR GAS PROCESSES SHALL NOT BE PERMITTED.

8. AFTER HEAT TREATMENT, EACH RECEIVER SHALL BE FREE FROM CRACKS, SEAMS AND OTHER INJURIOUS DEFECTS AS DETERMINED BY MAGNETIC PARTICLE INSPECTION USING A STANDARD 5 TURN MAGNETIZING COIL WITH A CURRENT OF 400 TO 500 AMPERES.
9. MIL-W-13855 SHALL APPLY.

10. CIRCULAR AND LONGITUDINAL RESIDUAL OR CONTINUOUS MAGNETIZATION WITH WET FLUORESCENT SOLUTION (SEE NOTE 8).

11. CODE IDENT NO. 19204 PART NO. 7790189

12. SECTION AJ-AJ (B)

13. SECTION C-C

14. SECTION AK-AK

15. SECTION D-D (K)

16. VIEW A

17. VIEW G

18. SCALE 4/1

19. F7790189

20. MT-MIL-1-6668

21. SECTION AJ-AJ (B)

22. SECTION C-C

23. SECTION AK-AK

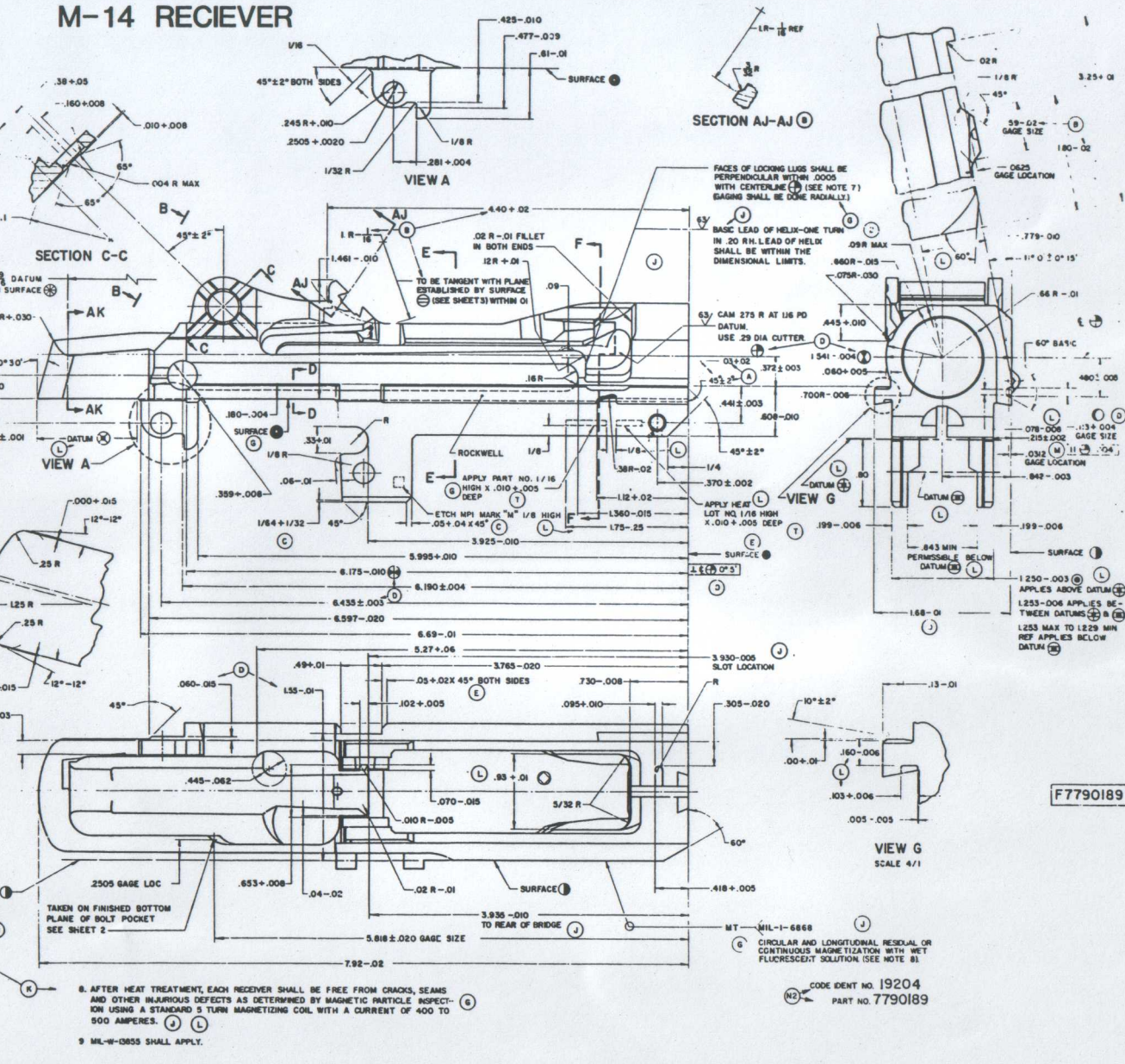
24. SECTION D-D (K)

25. VIEW A

26. VIEW G

27. SCALE 4/1

28. F7790189



[illegible]

THE .775 DIA +.015 (SECTION J-J)
AND THE .400 R +.025 (SECTION K-K)
MUST BE HELD WITHIN .005 OF
EITHER SIDE OF BARREL AS
SHOWN IN SECTION K-K

SECTION K-K

ROUNDED.

SECTION J-J

The diagram shows a cross-section of a rounded object. A dashed line indicates the gage location, with a label 'GAGE LOCATION' pointing to it. A vertical line with an arrow points to the center of the rounded surface.

GAGE LOC-REFER
TO SHEET I FOR
GAGE INFORMATION

SURFACE 1

VIEW N

SCALE : 10/1

.3093 64

[illegible]

5445 \pm .0030
 THREAD GAGE LOC ON .5455 BASIC
 PITCH DIA MEASURED ON HOR C.
 LEFT HAND SIDE OF THREAD CUTTER
 AT RUNCUT SHALL BE 50% OF AS SHOWN,
 BEYOND 5445 \pm .0030 DIMENSION
 THERE SHALL BE FOUR FULL THREADS

.047 \pm .003
 AT BASIC PITCH DIA

10 THREADS PER INCH R H

88° \pm 0° 20'

.007 \pm .003

.518 \pm .004 MINOR DIA

.5455 BASIC PITCH DIA

.975 \pm .005 MAJOR DIA

45° \pm 2°

Technical drawing of a mechanical part, likely a valve or actuator, showing a cross-section and a side view. The drawing includes various dimensions, tolerances, and feature callouts.

Dimensions and Tolerances:

- 7.10 GAGE LOCATION
- 7.000 ± .125
- 4.63 GAGE LOCATION
- 4.400 ± .005
- 4.35 ± .02
- .253 ± .009
- .05 ± .01
- .47 ± .01
- 30°0'±0°15'
- .46 DIA. ± .01
- 1.0 R ± .02
- .315 DATUM SEE SHEET 4 SECTION F-F
- .585 ± .020
- .70 ± .003
- 1/32 R
- .01
- 1.5 ± .01
- 8°0'±0°15'
- 30°0' ± 0°15'
- .840 ± .008
- .414 ± .020 (SEE VIEW AH-AH SHEET 4)
- 1/8
- 1.248 ± .010
- 3.778 ± .004 GAGE SIZE
- 4.273 ± .015 GAGE SIZE
- 5.94 ± .04
- 8.745 ± .040

Feature Callouts:

- L
- J
- C
- K
- M
- AH

Notes:

- NOTE ON SECTION N-K

NOTE ON SECTION N-N

VIEW N

1.248 ± .010

5°

3.778 ± .004 GAGE SIZE

4.273 ± .015 GAGE SIZE

5.94 ± .04

6.745 ± .040

.015 R MAX

Technical drawing of a reamer, labeled 77901B9. The drawing includes the following dimensions and callouts:

- Scale:** 1/4" = 1"
- Top View:**
 - Overall diameter: $1.542 \pm .007$
 - Inner diameter: $1.5 \pm .02$
 - Lead of helix: BASIC LEAD OF HELIX 1 TURN IN 7.92 R.H.
 - Location of F: $385 \pm .050$ DIA. F 3/8 DATUM AND 1/8 DATUM DIA. SEE SECTION F-F.
 - Surface: SURFACE ③
 - Feature: 64°-OH
 - Feature: 37°-008
 - Feature: 24°-OH APPLIES TO HEIGHT OF DIA ①
 - Feature: 68°-50 DIA OF THREAD MILLING CUTTER B C BORE
 - Feature: 48°-J2 ③ DIA
 - Feature: 135° ± .004
 - Feature: 774-.004-
- Side View:**
 - Angle: 50° 0' 20" 30"
 - Angle: 50° 2' 0"
- Callouts:**
 - ① PERMISSIBLE STEP BETWEEN TO-.003 AND TO-.000 SHALL FALL WITHIN THE DISTANCE
 - ②
 - ③
 - ④
 - ⑤
 - ⑥
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LOCATED BY 585+000 DIA F 3/8 DATUM AND 1/8 DATUM DIA. SEE SECTION F-F

SURFACE

64-.01

37-.008

24-.01 APPLIES TO HEIGHT OF DIA 1

D3 R MAX

135+ .104

774-.004

50° 0' 20' 30'

50° 2' 30'

58 F .00 DIA OF THREAD MILLING CUTTER & C-BORE

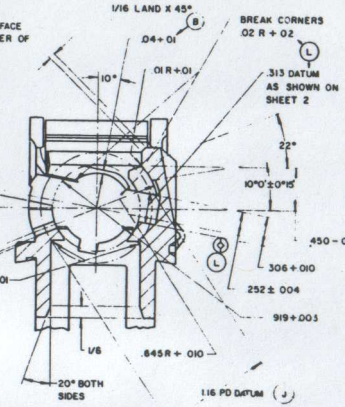
1.48+ .02 5 DIA

F77901B9

(1) TO INTERSECTION OF
 5" & SURFACE (2) 1

CODE IDENT NO. 19204
 PART NO. 7790189

SECTION E-E
(ON SHEET 1)



269 ± .005

(L) 330 ± .008

.015

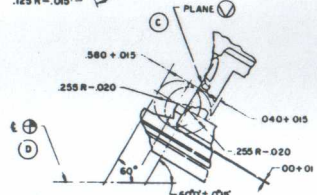
.018 ± .01

.456 ± .010

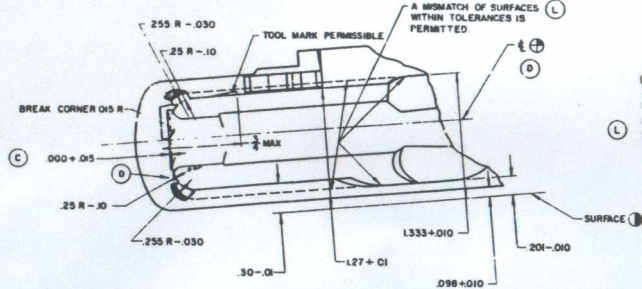
.102 ± .008

.140 ± .004

SECTION E-E
(ON SHEET 1)



VIEW AC
(ON SHEET 3)
SCALE 10/1



3.027 ± .008

(C)

2.860 ± .033

1.991 ± .012

45° ± 2°

0.00 ± .008 (L)

0.05 ± .01

30°

30°

6"

6"

5/16 - 1/16

0.00 ± .008 (L)

REF (L)

(D)

1.025 ± .005
APPLIES ABOVE
DATUM (X)

1.025 ± .008
APPLIES
BELOW DATUM (X)

SEC SEC
C-E

Q, I AND ⊕ SHALL BE SYMMETRICAL WITH ⊙ WITHIN .008 TOTAL
(SEE SHEET 1)

SECTION AG-AG
(ROTATED 180°)

