NUMBER LA-507

REMINGTON ARMS CO. INC.
RESEARCH & DEV. DEPT.

SCALE 2X | SUPERSEDES-REFERENCE 7-16-63

TITLE CHAMBER .223 REM.

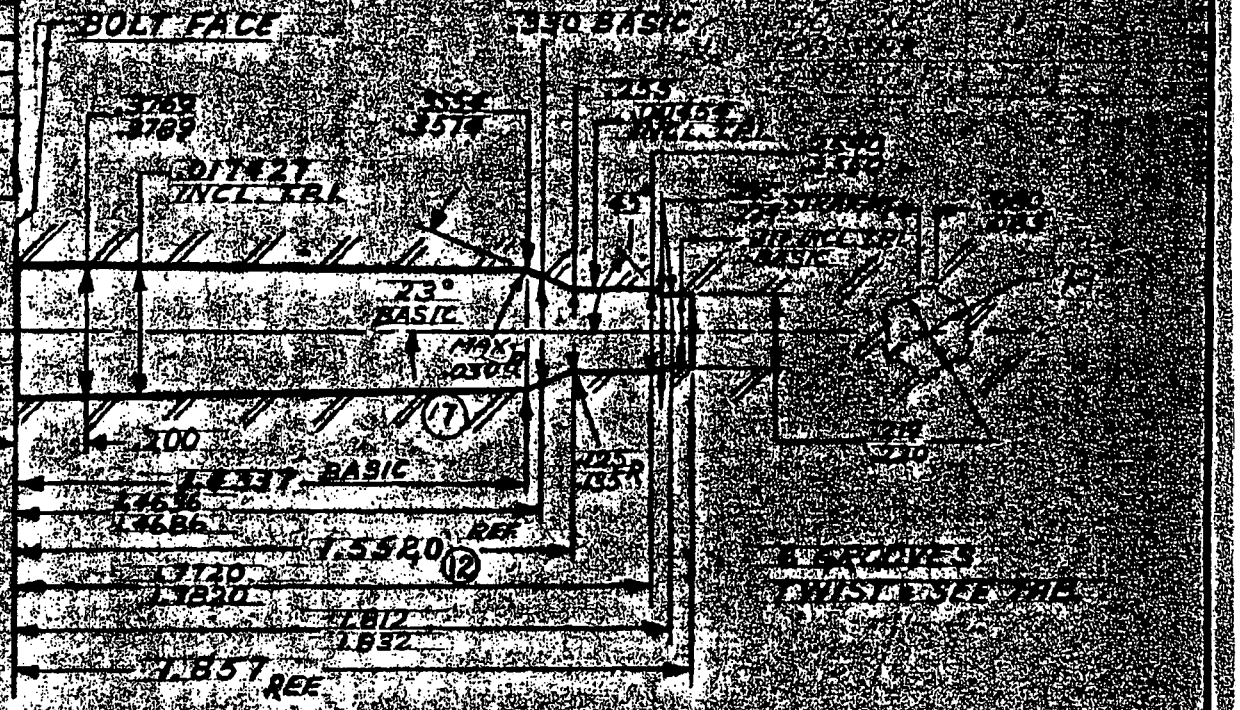
DES. BY DATE | DRN. BY DATE 9P 5/3/66 | CHK. BY DATE | APP. BY DATE
FOR DETAILS, SEE PROCESS RECORD

MODEL	PART USE	QUAN.	SEE
600 &	BBL-223 REM CAL		
	"		
40X-BCF	" " "		
700 VARM.	" " "		
788	" " "		
700 BDL	" " "		

THIS DRAWING OR INFORMATION IS PROPRIETARY INFORMATION TO THE REMINGTON ARMS COMPANY, INC.

DO NOT SCALE THIS DRAWING: WORK TO FIGURES UNLESS OTHERWISE NOTED. TOLERANCES ON DECIMAL DIMENSIONS ARE ±.005 & ON FRACTIONAL DIMENSIONS ± 1/64 & ON ANGULAR DIMENSIONS ±00°-30'. FINISHES ARE DESIGNATED BY ROOT MEAN SQUARE (R.M.S.) MICRO-INCH ROUGHNESS VALUES AND ARE THE MAXIMUM ROUGHNESS ACCEPTABLE UNLESS OTHERWISE SPECIFIED. FINISH ROUGHNESS TO BE 125 OR BETTER.

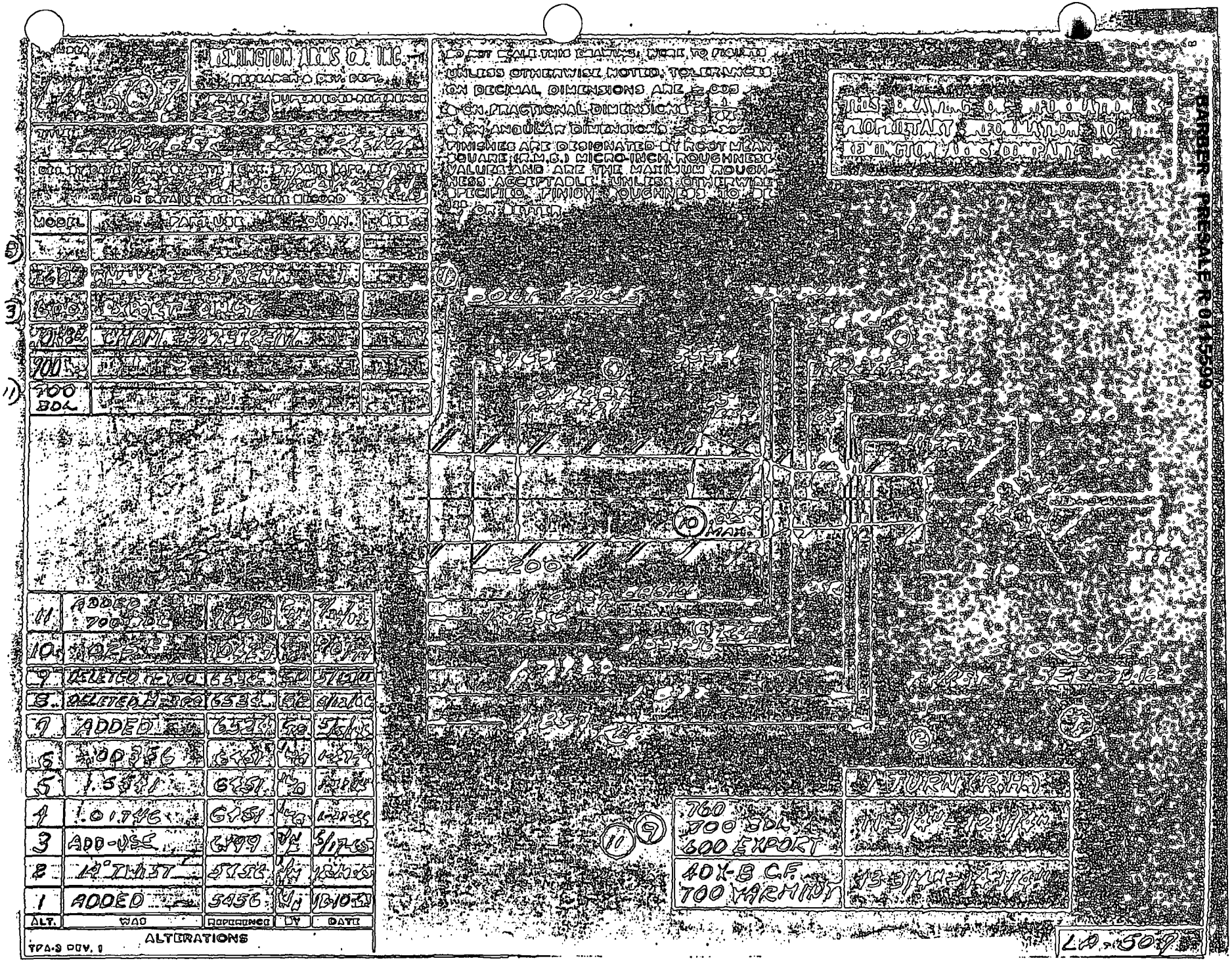
RECOMMENDED MATERIAL AND HEAT TREAT
MATERIAL
HEAT TREAT
HARDNESS
COLOR
HEAT TREAT AND COLOR TO BE DONE BY REMINGTON
APP. BY DATE



ALT.	WAS	REFERENCE	BY	DATE
18	ADDED 700 BDL	11608	FH	7/30/82
17	.025-.030	10429	F.H.	6/7/71
16	ADDED 223	9836	JK	7-19-74
15	REV. START/NG OF GROOVE DIA.	8661	[illegible]	MAR 71
14	REMOVED MODEL 760	7490	J.K.	5-21-68
13	CHANGE TAB ON 700 VARMINT	6877	B.P.	6-27-67
12	1.55196	6560	RJS	6/8/66
11	DELETED M/700	6534	GP	5/12/66
10	DELETED M/700	6534	GP	5/13/66
9	REVISE & REDRAWN	6524	GP	5/4-66

ALTERATIONS

TFA-3 REV. 1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ON ANGULAR DIMENSIONS ±0°30'
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VALUES AND ARE THE MAXIMUM ROUGH-
NESS ACCEPTABLE UNLESS OTHERWISE
SPECIFIED. FINISH ROUGHNESS TO BE
32 OR LESS
MODEL
PART NUMBER
QUAN.
760
600
700 BDL
ADDED
DELETED
ADDED
ALT.
WAO
REFERENCE
BY
DATE
ALTERATIONS
TURN (R.H.)
760
700 BDL
600 EXPORT
40X-8 C.F.
700 VARMINT
LD. 5097

BARBER - PRESALE R 0115600

223 REM 07 5.56 mm

[redacted]

TARGET DATA

A.

	12 IN. TWIST		14 IN. TWIST	
	7511966		7511642	
	223	5.56	223	5.56
RPLHO -	1.85*, 1.65*	2.2*, 1.6*	1.90* 1.65*	2.65*, 1.56
BEST 4 SHOTS	1.50*, 1.00*	1.25*, 1.0*	1.05* 1.50*	1.70*, 1.2
BEST 3 SHOTS	1.40*, 0.75*	1.00*, 1.0*	0.85* 1.00*	0.80*, 0.8
FMJ -40	1.55*, 1.60*	2.22*, 2.44*	1.80* 1.45* (KH)	2.22*, 1.6
BEST 4 SHOTS	1.40*, 1.40*	1.20*, 1.95*	1.55* 1.40*	1.85*, 1.4
BEST 3 SHOTS	0.90*, 0.65*	0.80* 0.85*	0.85* 0.60*	1.25*, 1.3
WINFMC-55	1.85*, 1.20*	1.78*, 2.06*	2.10*, 2.15*	1.34*, 2.4
BEST 4 SHOTS	1.30*, 1.20*	1.20*, 1.65*	1.70*, 1.75*	0.95* 1.9
BEST 3 SHOTS	1.15*, 0.85*	0.65* 0.95*	0.20*, 0.85*	0.40* 1.3
Σ GRAND TOT	23.20	25.80	24.35	27.00
Σ 5 SHOTS	9.70	12.30	11.05	11.85
Σ 4 SHOTS	7.80	8.25	8.95	9.25
Σ 3 SHOTS	5.70	5.25	4.35	5.90
$\bar{X}$ GRAND	~~1.29~~	~~1.43~~	~~1.35~~	~~1.50~~
$\bar{X}$ 5 SHOTS	1.62	2.05	1.84	1.98
$\bar{X}$ 4 SHOTS	1.30	1.38	1.49	1.54
$\bar{X}$ 3 SHOTS	0.95	0.88	0.73	0.98
σ 5 SHOTS	0.24	0.31	0.27	0.53
σ 4 SHOTS	0.18	0.35	0.25	0.40
σ 3 SHOTS	0.28	0.14	0.29	0.38
$\bar{X}$ + 3σ	2.34	2.98	2.65	3.57
[illegible] + 3σ	1.84	2.43	2.24	2.74
[illegible] + 3σ	0.94	1.30	1.60	

[redacted]

OCT. 10, 84 A.

W. CASTON GUNS

B75 12 428 (12), B75 11606 (14), B75 12 214 (14),
B75 08 065 (12), B75 12 261 (14), B75 12 192 (14)

ACCURACY
(TWIST, CHAMBER, BULLET WEIGHTS)

{B75 11966 (12), B75 11642 (14)

FED 40
WIN 65
GALLERY 20TS (PSP & PLHP)

{ (223 REM VS 5.56 GOVT) - FED 40, WIN 65, RPLHP,

END VALUE (STOCK)
100 RDS. FACTORY (SAUG PLHP AMMO - GOOD STUFF

100 RDS. (EXPERIMENTAL PAINTER STOCK)

XP 100 - 223REM DESIGN TEST
PROGRAM. 8-02-85 AAH.

1. DONE OBTAIN TEN 22CFR BARREL BLANKS (MODEL SEVEN)
   (a) FIVE - 222 REM FOR 14 INCH TWIST
   (b) FIVE - 223 REM FOR 12 INCH TWIST.

2. DONE TURN BARREL CONTOUR AND CHAMBER LENGTH TO THAT OF 7mm BR REM BARREL BLANK.

3. DONE WITH DRAW FROM WARE HOUSE TEN XP-100 PISTOLS OF 221 CALIBER.

4. DONE HAVE BARRELS (IN CUSTOM SHOP) REMOVED FROM RECEIVERS AND DELIVER ACTIONS TO CUSTOM SHOP.

5. DONE HAVE BARREL CHANNEL OR STOCKS RE CUT TO THAT OF 7mm BR REM BARREL CHANNEL OR OBTAIN TEN STOCKS WITH 7mm BR REM BARREL CONTOUR VIA INVENTORY WITHDRAWAL.

6. DONE HAVE CUSTOM SHOP FABRICATE XP 100 - 223REM PISTOLS. FIVE TO BE STAMPED (12) FOR 12 INCH TWIST AND FIVE TO BE STAMPED (14) FOR 14 INCH TWIST.

7. DONE PROOF AND ACCURACY TEST ALL TEN PISTOLS WITH 223 REM. AMMO. WITH THREE MAJOR BRANDS (R, W, F).

(a) ACCURACY TEST MAY BE BOTH IN GALLERY FIXTURE AND HAND FIRED. (100 YARD & 200 YARD INDOOR RANGE(S))?

DONE IN PART 8. FINALIZE TEST RESULTS AND PROPERLY TRANSMITTAL DETAILS FOR XP-100-223 REM.

9. DONE SELECT ONE (12) AND ONE (14) XP100 PISTOL AND HAVE CHAMBER RE CUT (DEEPER THROAT) IN PART TO THAT OF 5.56.

10. REFIRE ACCURACY OF ALTERED GUN AND ONE CONTROL GUN.

11. FINALIZE SECOND TEST RESULTS AND COMPARE TO FIRST ACCURACY TEST.

COMMENT: THE LONGER RANGE XP100 BOLT ACTION PISTOL ACCURACY IS EXPECTED TO BE A FUNCTION OF CHAMBER PRESSURE VARIATION(S). A (14) INCH TWIST IS MORE FORGIVING THAN A (12) INCH TWIST BARREL. THE DEEPER THROATED 5.56 IS EXPECTED TO BE MORE FORGIVING THAN A LESSER THROATED 223 REM. CHAMBER. IF SIGNIFICANT INDICATIONS OF ONE GUN WILL INDICATE IF A LARGER SAMPLE IS REQUIRED FOR VERIFICATION OF ACCURACY DIFFERENCE.

NOT TIME

12. WHEN RECUTTING THE 223 REM CHAMBER TO THE 5.56 CHAMBER STRAIN GAGE(S) SHOULD BE PLACED ON GUN FOR STRAIN GAGE PRESSURE DATA AND MUZZLE VELOCITY IF MEAS & TEST TIME ALLOWS.