NUMBER LA-507

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

SCALE 2X | SUPERSEDED-REFERENCE 7-14-63

TITLE CHAMBER .223 REM.

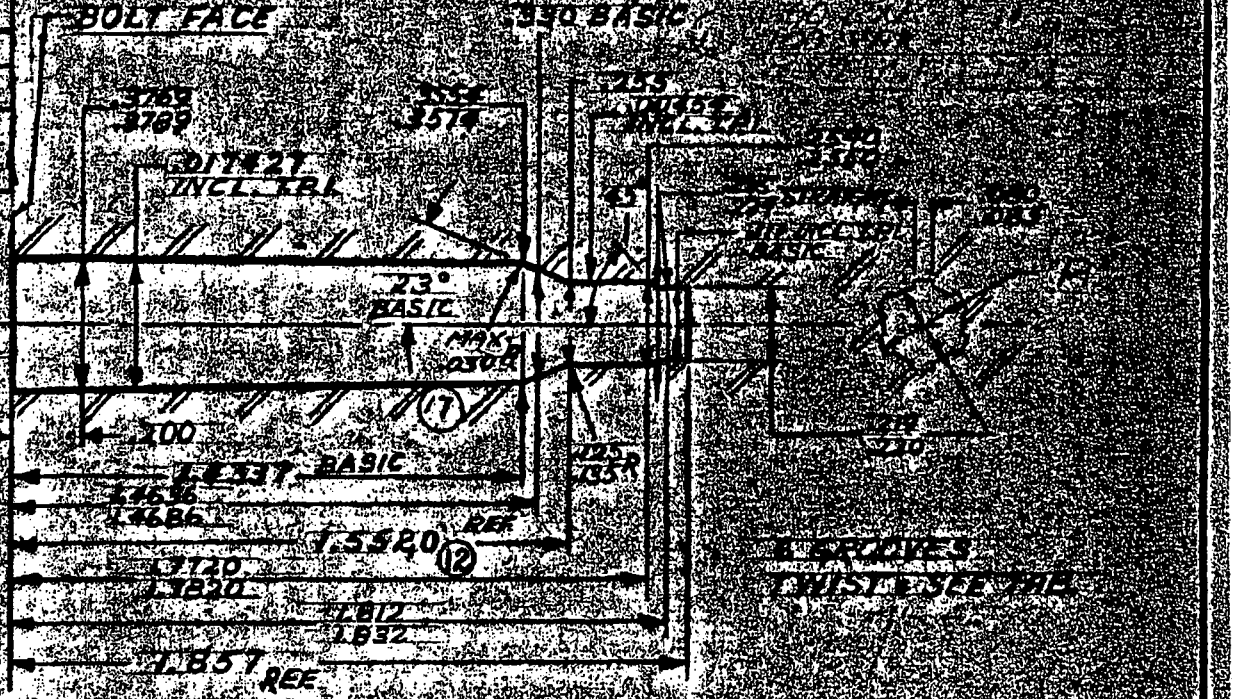
DES. BY DATE | DRN. BY DATE 9P 5/3/66 | CHK. BY DATE | APP. BY DATE
FOR DETAILS, SEE PROCESS RECORD

MODEL	PART USE	QUAN.	SEE
600 & 2	BBL-223 REM CAL		
	" " "		
40X-BCF	" " "		
700 VARMT	" " "		
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



18	ADDED 700 BDL	11608	FH.	7/29/68
17	.025-.030	10429	F.H.	6/7/67
16	ADDED 223	9836	JK	5.15.67
15	REV: CHNRTING OF GROOVE DIA.	8661	[illegible]	MAR 67
14	REMOVED MODEL 760	7490	J.K.	5-21-66
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	5/13/66
10	DELETED M/700	6534	GP	5/13/66
9	REVISED REDRAWN	6524	GP	5/4-66
ALT.	WAS	REFERENCE	BY	DATE

ALTERATIONS
TFA-3 REV. 1

	1 TURN (R.H.)
40X-B C.F.	13 3/4 - 14 1/4
760, 788	
600 EXPT.	11 3/4 - 12 1/4
700 VAR.	
700 BDL	

1 TURN (R.H.)

GROOVE DIA.	MANUF. DIM.	"A" FINISH DIA.
VARMINT	.2238 .2242	.2240 .2243
ALL OTHER		.2240 .2250

LA-507

CONFIDENTIAL-SUBJECT TO PROTECTIVE ORDER
KINZER V. REMINGTON

R2516587

223 REM 07 5.56 mm

TARGET DATA

	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
HP - 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	
$\bar{X}+3\sigma$	2.34		2.98		2.65		3.57	
$+3\sigma$	1.64		2.43		2.24		2.74	
$+3\sigma$	0.94		1.30		1.60			

OCT. 10, 85 RO

WRITER GUNS

B7512428 (12), B7511606 (14), B7512214 (14),
B7508065 (12), B7512261 (14), B7512192 (14)

ACCURACY

(TWIST, CHAMBER, BULLET WEIGHTS)

{B7511966 (12), B7511642 (14)

{FED 40
WIN 65
GALLERY 2075 (PSP & PLHP)

{(223 REM VS 5,56 GOV'T) - FED 40, WIN 65, RPLHP,

ENDURANCE (STOCK)

100 RDS. FACTORY (SAME PLHP AMMO - GOOD STUF

100 RDS. (EXPERIMENTAL PAINTED STOCK)

XP 100 - 223 REM. DESIGN TEST

PROGRAM. 8-02-85 AAH.

1. DONE OBTAIN TEN 22 CFR 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 CUT TO LENGTH TO THAT OF 7mm BR REM BARREL BLANK.

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

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

5. DONE HAVE BARREL CHANNEL OR STOCKS RECUT 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 - 223 REM 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 PISTOLS AND HAND FIRED. (100 YARD & 200 YARD INDOOR RANGE(S)?

DONE IN PART EMAILED TEST RESULTS AND PROPOSED TRANSMITTAL DETAILS FOR XP-100-223 REM.

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

10 X ROUNDOUT ACCURACY OF ALTERED GUN AND ONE CONTROL GUN.

11 FINAL 12# 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 CHAMBER SAMPLE IS REQUIRED FOR VALIDATION OR ACCURACY DIFFERENCE.

NOT TIMED

1/2 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.