

C6636338

MODEL 700™ M24

Model **SMS**™

Action

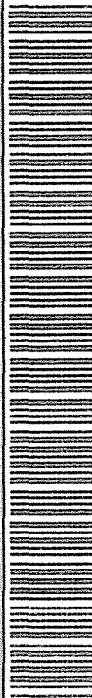
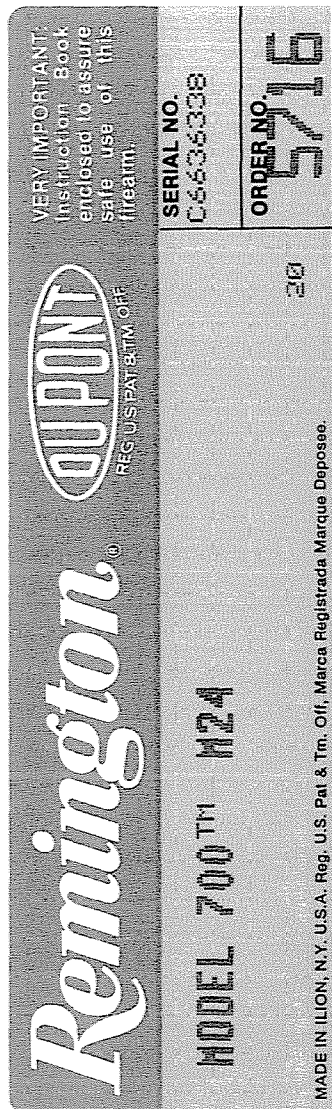
Barrel Length

Capacity

Order No. **5716**

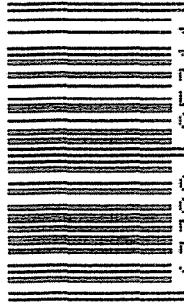
*Includes 1 in chamber.





5716 C6636338

LPC



0 47700 25716 7

CONTRACT # DAAA21-87-C-0086

GUN SERIAL #

C6636338

OP. #	OP. NAME	READINGS	DATE	INIT
575 & 580	Assemble Action and Stock		5/3/91	KS
600	Proof		5/3/91	KS
607	Check Headspace		5/3/91	KS
610	Dis-assemble Gun		5/3/91	KS
612	Magnaflux Barrel Action		JUL 2 1991	KR
	Magnaflux Bolt		JUL 2 1991	KR
615	Rollmark Caliber		JUL 2 1991	KR
617	Drill and Tap Sight Holes		JUL 2 1991	LB
618	Polish Barrel		JUL 7 1991	WB
620	Apply Coatings (Barrel Action)		8/6/91	KA
	Apply Coating (Bolt)		8/6/91	KA
625	Final Assembly A) Clean inside of Bolt Assembly		8/15/91	KA
	B) Inspect Rear Firing Pin Hole for Chamfer in Bolt Head		8/15/91	KA
	C) Inspect Ejector Hole for Chamfer		8/15/91	KA
	D) Oil Firing Pin Ass'y		8/15/91	KA
	E) Adjust Trigger Pull to Min Setting and Stake		8/16/91	WB

op. #	BARBER M24 0033212	READINGS					DATE	INIT
625 cont.	F) Safety On Force	5 1/2	5 1/2	5 1/2			8/16/91	WB
	G) Safety Off Force	2	2	2			8/16/91	WB
	H) Trigger Pull Test & Retainability						8/16/91	WB
	I) Firing Pin Indent	.020	.020	.020			8/16/91	WB
	J) Assemble Stock						8/16/91	KL
	K) Assemble Swivel Studs						8-21-91	Ac
	L) Attach Front and Rear Sight Assemblies						8/16/91	KL
	M) Iron Sight Alignment						8/16/91	KL
	N) Detach Front & Rear Sights & place in numbered container						8/16/91	KL
	O) Attach Scope to Rifle						8/16/91	KL
	P) Detach & Attach Scope 20 Times						8/16/91	KL
640	Gallery Target & Test						8-19-91	NF
	A) Time						"	NF
	B) Malfunctions						"	NF
	C) Pierced Primers						"	NF
	D) Optical Clarity of Scope						"	NF
645	Inspect for Live Ammo						8-19-91	NF
655	Final Inspection							
	A) Headspace						8-21-91	Ac
	B) Trigger Pull	277	280	281	266	280	8-20-91	NH
	C) Function						8-21-91	Ac
660	Pack						9-19-91	NF

AVERAGE PULL FORCE BETWEEN
INITIAL & CYCLE TESTS
2.50# ± .50#
3.00# ± .75#
4.00# ± 1.00#

SERIAL NO. C 6636338
DATE 8/16/91
TESTER WB

	2.50# INITIAL	2.50# AFTER 50 CYCLES	FINAL TEST & TO RESET 2.50#		COMMENTS
PULL #1	2.50	2.46	2.42	2.77	MIN. SETTING, NO AVG. OF 5 READINGS ACCEPT- ABLE LESS THAN 2#
PULL #2	2.53	2.58	2.40	2.80	
PULL #3	2.49	2.50	2.38	2.81	
PULL #4	2.51	2.47	2.36	2.66	
PULL #5	2.43	2.49	2.38	2.80	
TOTAL	12.46	12.50	11.94		
AVG.	2.49	2.50	2.39		

	3.00# INITIAL	3.00# AFTER 20 CYCLES		COMMENTS
PULL #1	3.24	3.16		
PULL #2	3.25	3.29		
PULL #3	3.30	3.20		
PULL #4	3.21	3.29		
PULL #5	3.33	3.27		
TOTAL	16.33	16.21		
AVG.	3.27	3.24		

	4.00# INITIAL	4.00# AFTER 20 CYCLES	MAX SETTING GREATER THAN 4#	RESET TO 4# FOR TARGET & ACCURACY
PULL #1	4.18	4.22		4.12
PULL #2	4.18	4.21		4.10
PULL #3	4.10	4.14		4.02
PULL #4	4.09	4.14		4.07
PULL #5	4.15	4.04		4.05
TOTAL	20.70	20.75		20.36
AVG.	4.14	4.15		4.07

CENTROIDAL DISTANCE CALCULATIONS
FOR RIFLE # C6636338
23 Aug 1991

CENTROIDAL DISTANCES

0 TO	1	.055
1 TO	2	.268477
1 TO	3	.0657951
1 TO	4	.0616604
1 TO	5	3.17606

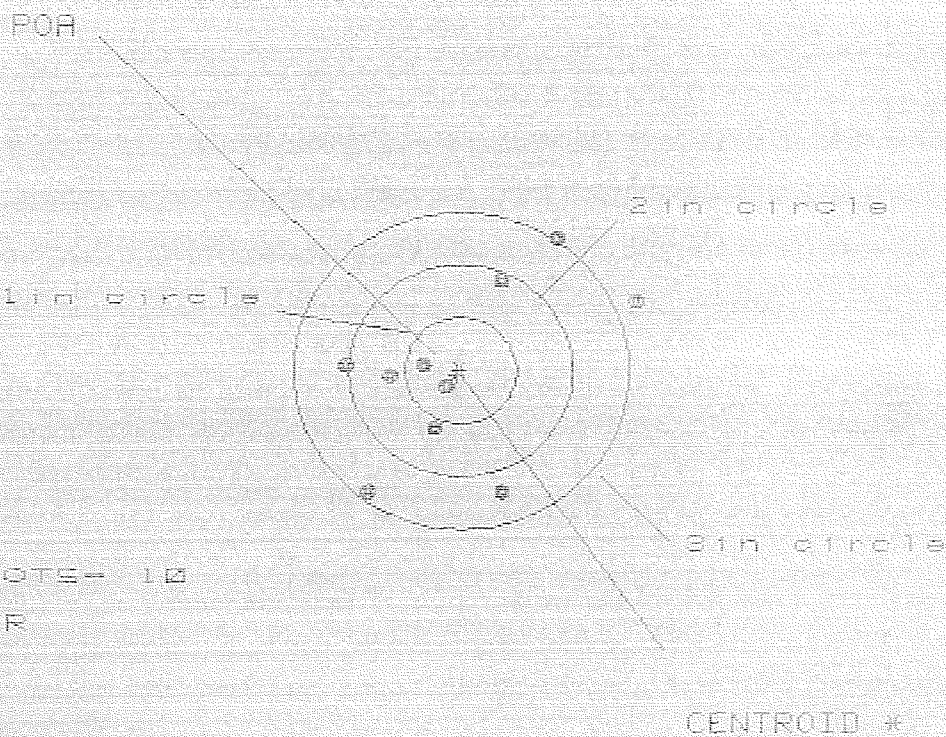
-----POA

THE AVERAGE X-COORDINATE FOR THIS RIFLE IS: .0712
THE AVERAGE Y-COORDINATE FOR THIS RIFLE IS: .613
THE RESULTING AVERAGE POI RADIUS FOR THIS RIFLE IS: .617121
THE AMR FOR THIS RIFLE IS: 1.311

23 Aug 1991

FILE: /PATTERNING/CENTERFIRE_PATT/CAB36338

CENTERFIRE PATTERNS # 1



OF SHOTS= 10

IN CIR

1in = 2

2in = 5

3in = 8

HS= 2.571

VS= 2.461

GS= 3.009

PATTERN #	1	2	3
SHOTS (BEST OF)	10	9	8
MAXIMUM X	1.573	1.018	.673
MINIMUM X	-.998	-.823	-.696
MAXIMUM Y	1.292	1.368	1.151
MINIMUM Y	-1.169	-1.093	-.922
CENTROID X	.033	-.142	-.269
CENTROID Y	.044	-.031	-.202
POA TO CENTROID in.	.055	.145	.336
MIN RADIUS	.184	.087	.212
MEAN RADIUS	.954	.809	.675
MAX RADIUS	1.714	1.705	1.315
HORIZONTAL SPREAD	2.571	1.841	1.369
VERTICAL SPREAD	2.461	2.461	2.073
EXTREME SPREAD	3.009	2.937	2.384
NUMBER IN ONE INCH CIRCLE =	2		
NUMBER IN TWO INCH CIRCLE =	5		
NUMBER IN THREE INCH CIRCLE =	8		

23 Aug 1991

FILE:/PATTERNING/CENTERFIRE_PATT/C6636338

CENTERFIRE PATTERNS # 2

POA

1 in circle

2 in circle

3 in circle

CENTROID #

OF SHOTS= 10

IN CIR

1 in = 1

2 in = 3

3 in = 7

HS= 3.162

VS= 5.909

GS= 5.926

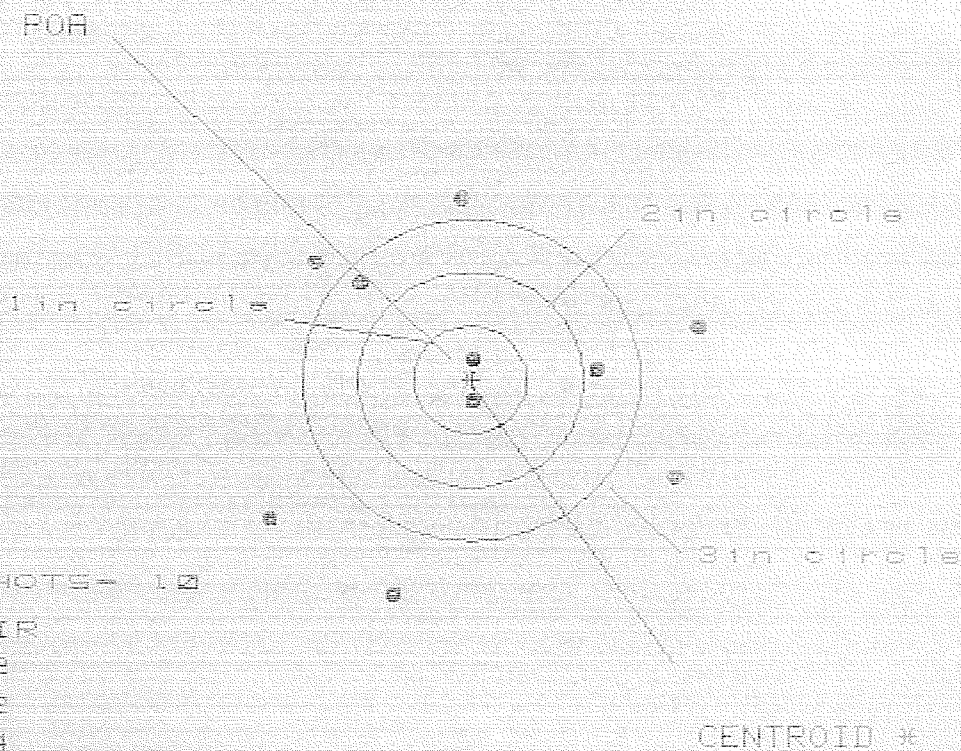
PATTERN #	2		
SHOTS (BEST OF)	10	9	8
MAXIMUM X	2.371	2.337	1.939
MINIMUM X	-.791	-.825	-.593
MAXIMUM Y	2.110	1.688	1.569
MINIMUM Y	-3.799	-1.329	-1.448
CENTROID X	.181	.215	-.077
CENTROID Y	-.180	.242	.361
POA TO CENTROID in.	.255	.324	.369
MIN RADIUS	.217	.124	.217
MEAN RADIUS	1.451	1.127	.924
MAX RADIUS	3.812	2.523	1.646
HORIZONTAL SPREAD	3.162	3.162	1.472
VERTICAL SPREAD	5.909	3.017	3.017
EXTREME SPREAD	5.926	4.092	3.017
NUMBER IN ONE INCH CIRCLE	=	1	
NUMBER IN TWO INCH CIRCLE	=	3	
NUMBER IN THREE INCH CIRCLE	=	7	

23 Aug 1931

FILE:/PATTERNING/CENTERFIRE_PATT/CAB3B398

CENTERFIRE PATTERNS

3



OF SHOTS= 10

IN CIR

1 in = 2

2 in = 2

3 in = 4

HS= 3.745

VS= 3.745

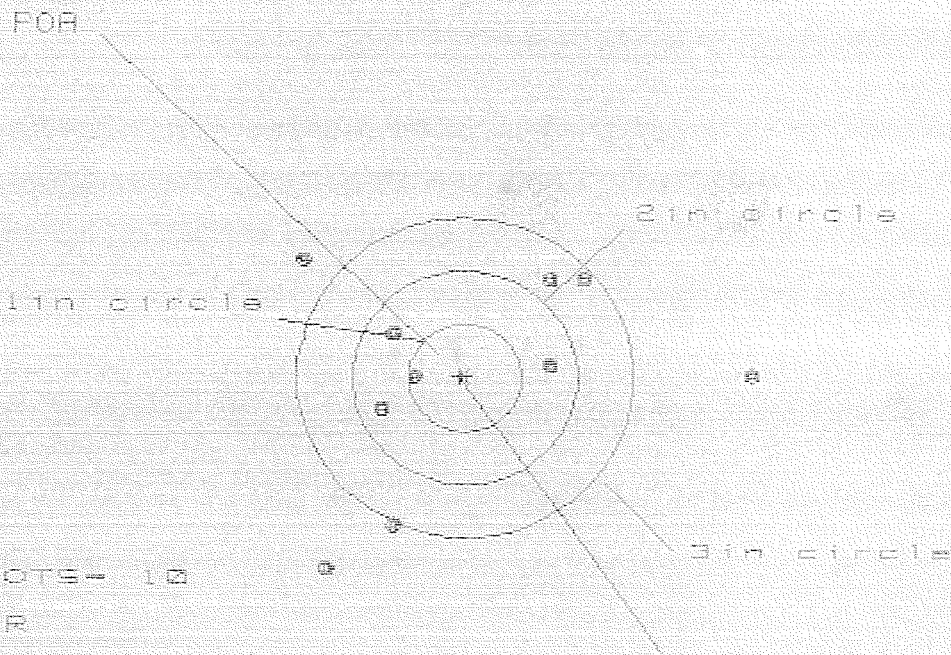
GS= 4.144

PATTERN #	3		
SHOTS (BEST OF)	10	9	8
MAXIMUM X	1.980	1.784	1.677
MINIMUM X	-1.765	-1.572	-1.679
MAXIMUM Y	1.710	1.568	1.296
MINIMUM Y	-2.035	-2.177	-1.295
CENTROID X	-.015	.181	.288
CENTROID Y	-.001	.141	.413
POA TO CENTROID IN.	.015	.229	.504
MIN RADIUS	.162	.139	.360
MEAN RADIUS	1.456	1.363	1.255
MAX RADIUS	2.180	2.339	1.959
HORIZONTAL SPREAD	3.745	3.356	3.356
VERTICAL SPREAD	3.745	3.745	2.591
EXTREME SPREAD	4.144	3.785	3.697
NUMBER IN ONE INCH CIRCLE =		2	
NUMBER IN TWO INCH CIRCLE =		2	
NUMBER IN THREE INCH CIRCLE =		4	

23 Aug 1991

FILE: PATTERNING/CENTERFIRE_PATT/C6B3B338

CENTERFIRE PATTERNS # 4



OF SHOTS= 10

IN CIR

1in = 1

2in = 4

3in = 6

HS= 4.081

VS= 2.909

GS= 4.228

CENTROID *

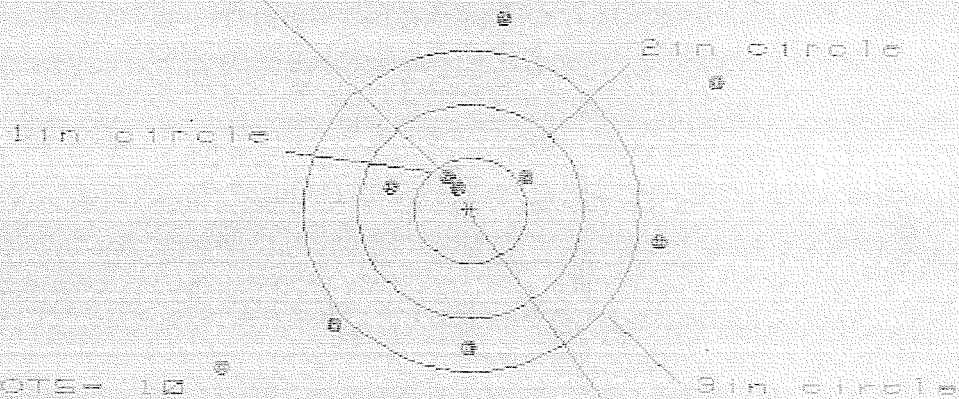
PATTERN #	1	4	8
SHOTS (BEST OF)	10	9	8
MAXIMUM X	2.600	1.384	1.270
MINIMUM X	-1.481	-1.192	-1.306
MAXIMUM Y	1.113	1.114	.889
MINIMUM Y	-1.796	-1.795	-1.612
CENTROID X	.042	-.247	-.133
CENTROID Y	-.017	-.018	.207
FOR TO CENTROID IN.	.045	.248	.246
MIN RADIUS	.397	.108	.310
MEAN RADIUS	1.346	1.151	1.046
MAX RADIUS	2.600	2.013	1.666
HORIZONTAL SPREAD	4.081	2.576	2.576
VERTICAL SPREAD	2.909	2.909	2.501
EXTREME SPREAD	4.228	3.543	2.849
NUMBER IN ONE INCH CIRCLE =		1	
NUMBER IN TWO INCH CIRCLE =		4	
NUMBER IN THREE INCH CIRCLE =		6	

23 Aug 1991

FILE:/PATTERNING/CENTERFIRE_PATT/06635338

CENTERFIRE PATTERNS # 5

FOR



OF SHOTS- 10

IN CIR

1in = 2

2in = 4

3in = 5

HS= 4.358

VS= 3.251

GS= 5.096

CENTROID *

PATTERN #	5		
SHOTS (BEST OF)	10	9	8
MAXIMUM X	2.145	1.899	1.644
MINIMUM X	-2.213	-1.507	-1.269
MAXIMUM Y	1.783	1.620	1.746
MINIMUM Y	-1.468	-1.462	-1.336
CENTROID X	.115	.361	.123
CENTROID Y	-.219	-.056	-.182
FOR TO CENTROID in.	.247	.365	.220
MIN RADIUS	.235	.282	.203
MEAN RADIUS	1.347	1.189	1.038
MAX RADIUS	2.655	2.152	1.761
HORIZONTAL SPREAD	4.358	3.406	2.913
VERTICAL SPREAD	3.251	3.082	3.082
EXTREME SPREAD	5.096	4.061	3.192
NUMBER IN ONE INCH CIRCLE =		2	
NUMBER IN TWO INCH CIRCLE =		4	
NUMBER IN THREE INCH CIRCLE =		5	

CENTROIDAL DISTANCE CALCULATIONS
FOR RIFLE # C6636338
5 Sep 1991

CENTROIDAL DISTANCES

0 TO	1	.123491
1 TO	2	.161003
1 TO	3	.604745
1 TO	4	.354277
1 TO	5	.274155

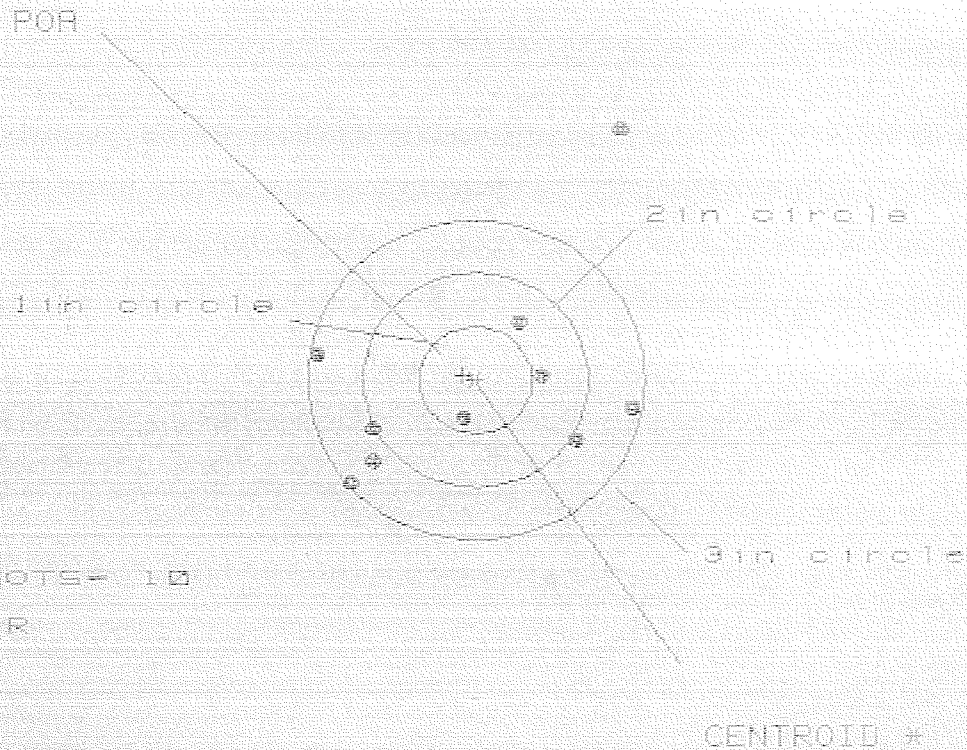
$\sigma_{\bar{x}}$ <----POA

THE AVERAGE X-COORDINATE FOR THIS RIFLE IS: -.1022
THE AVERAGE Y-COORDINATE FOR THIS RIFLE IS: -.0608
THE RESULTING AVERAGE POI RADIUS FOR THIS RIFLE IS: .1232
THE AMR FOR THIS RIFLE IS: 1.056

5 Sep 1991

FILE:/PATTERNING/CENTERFIRE_PATT/C6636338.1

CENTERFIRE PATTERNS # 1



OF SHOTS= 10

IN CIR

1in = 1

2in = 4

3in = 9

HS= 2.820

VS= 3.233

CS= 4.044

PATTERN #	1	2	3
SHOTS (BEST OF)	10	9	8
MAXIMUM X	1.370	1.515	1.352
MINIMUM X	-1.450	-1.305	-1.141
MAXIMUM Y	2.317	.812	.877
MINIMUM Y	-.916	-.659	-.594
CENTROID X	.115	-.030	.133
CENTROID Y	-.045	-.302	-.367
POR TO CENTROID in.	.123	.304	.390
MIN RADIUS	.322	.070	.115
MEAN RADIUS	1.178	.965	.905
MAX RADIUS	2.660	1.516	1.356
HORIZONTAL SPREAD	2.820	2.820	2.493
VERTICAL SPREAD	3.233	1.471	1.471
EXTREME SPREAD	4.044	2.862	2.586
NUMBER IN ONE INCH CIRCLE =	1		
NUMBER IN TWO INCH CIRCLE =	4		
NUMBER IN THREE INCH CIRCLE =	9		

3 Sep 1991

FILE:/PATTERNING/CENTERFIRE_PATT/C663B338.1

CENTERFIRE PATTERNS # 2

POA

1 in circle

2 in circle

3 in circle

CENTROID *

OF SHOTS= 10

IN CIR

1 in = 1

2 in = 5

3 in = 8

HS= 2.406

VS= 2.773

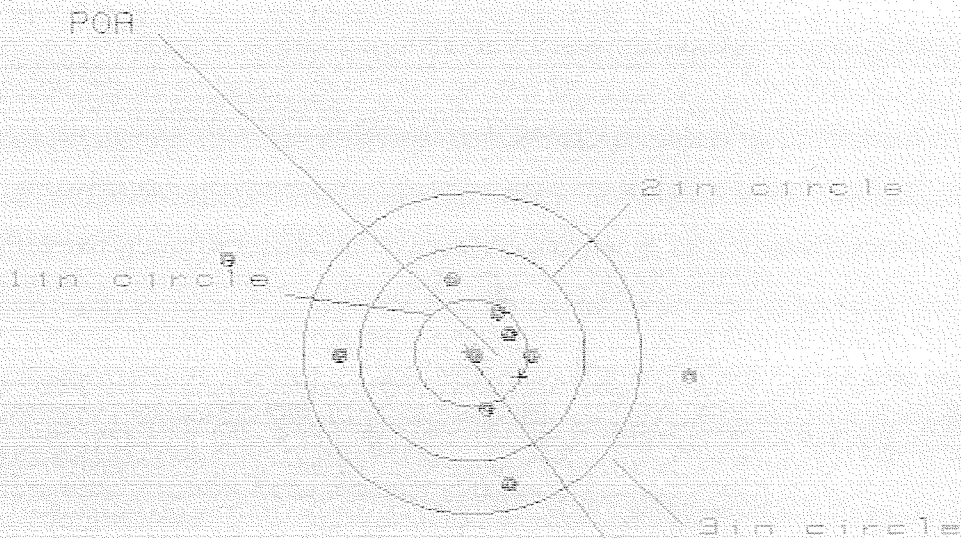
GS= 3.150

PATTERN #	:	2		
SHOTS (BEST OF)	:	10	9	8
MAXIMUM X	:	1.533	1.612	1.412
MINIMUM X	:	-.873	-.794	-.593
MAXIMUM Y	:	.927	.721	.776
MINIMUM Y	:	-1.846	-1.491	-1.400
CENTROID X	:	.054	-.025	-.226
CENTROID Y	:	-.194	.012	-.079
POA TO CENTROID in.	:	.201	.027	.240
MIN RADIUS	:	.443	.332	.169
MEAN RADIUS	:	1.119	.982	.825
MAX RADIUS	:	1.979	1.766	1.440
HORIZONTAL SPREAD	:	2.406	2.406	2.005
VERTICAL SPREAD	:	2.773	2.212	2.176
EXTREME SPREAD	:	3.150	3.085	2.402
NUMBER IN ONE INCH CIRCLE	=		1	
NUMBER IN TWO INCH CIRCLE	=		5	
NUMBER IN THREE INCH CIRCLE	=		8	

5 Sep 1991

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CENTERFIRE PATTERNS # 3



OF SHOTS= 10

IN CIR

1 in = 3

2 in = 6

3 in = 8

HS= 4.086

VS= 2.024

GS= 4.225

PATTERN #	3	9	8
SHOTS (BEST OF)	10	9	8
MAXIMUM X	1.951	1.714	.496
MINIMUM X	-2.135	-1.438	-1.224
MAXIMUM Y	.838	.758	.740
MINIMUM Y	-1.186	-1.093	-1.111
CENTROID X	-.431	-.194	-.408
CENTROID Y	.215	.122	.140
POA TO CENTROID in.	.482	.229	.431
MIN RADIUS	.081	.184	.037
MEAN RADIUS	.927	.750	.621
MAX RADIUS	2.294	1.720	1.225
HORIZONTAL SPREAD	4.086	3.152	1.720
VERTICAL SPREAD	2.024	1.851	1.851
EXTREME SPREAD	4.225	3.159	1.948
NUMBER IN ONE INCH CIRCLE =		3	
NUMBER IN TWO INCH CIRCLE =		6	
NUMBER IN THREE INCH CIRCLE =		8	

5 Sep 1991

FILE:/PATTERNING/CENTERFIRE_PATT/C6B36338.1

CENTERFIRE PATTERNS # 4

POA

1 in circle

2 in circle

3 in circle

CENTROID *

OF SHOTS= 10

IN CIR

1 in = 2

2 in = 7

3 in = 8

HS= 2.319

VS= 3.275

GS= 4.013

PATTERN #

4

SHOTS (BEST OF)

10

9

8

MAXIMUM X

1.169

.886

.752

MINIMUM X

-1.150

-1.020

-.336

MAXIMUM Y

1.652

1.040

.860

MINIMUM Y

-1.623

-1.439

-1.175

CENTROID X

-.239

-.369

-.241

CENTROID Y

-.031

-.215

-.035

POA TO CENTROID in.

.241

.426

.243

MIN RADIUS

.305

.119

.301

MEAN RADIUS

.968

.852

.708

MAX RADIUS

2.024

1.764

1.183

HORIZONTAL SPREAD

2.319

1.906

1.094

VERTICAL SPREAD

3.275

2.479

2.035

EXTREME SPREAD

4.013

2.653

2.036

NUMBER IN ONE INCH CIRCLE =

2

NUMBER IN TWO INCH CIRCLE =

7

NUMBER IN THREE INCH CIRCLE =

8

5 Sep 1991

FILE://PATTERNING/CENTERFIRE_PATT/C063B338.J

CENTERFIRE PATTERNS # 5

POA

1in circle

2in circle

3in circle

CENTROID #

OF SHOTS= 10

IN CIR

1in = 1

2in = 4

3in = 8

HS= 3.811

VS= 3.281

GS= 3.811

PATTERN #	5		
SHOTS (BEST OF)	10	9	8
MAXIMUM X	1.318	1.141	1.162
MINIMUM X	-1.593	-1.223	-1.262
MAXIMUM Y	1.487	1.287	1.046
MINIMUM Y	-1.794	-1.088	-0.927
CENTROID X	-0.010	.167	.146
CENTROID Y	-.289	-.089	-.250
POA TO CENTROID in.	.289	.189	.290
MIN RADIUS	.211	.424	.372
MEAN RADIUS	1.090	.930	.870
MAX RADIUS	2.399	1.345	1.266
HORIZONTAL SPREAD	2.911	2.364	2.364
VERTICAL SPREAD	3.281	2.375	1.972
EXTREME SPREAD	3.811	2.433	2.366
NUMBER IN ONE INCH CIRCLE =		1	
NUMBER IN TWO INCH CIRCLE =		4	
NUMBER IN THREE INCH CIRCLE =		8	