

C6349159

MODEL 700™ M24

Model **SMS**™

Action

Barrel Length

Capacity

Order No. **5715**

*Includes 1 in chamber.



CONTRACT # DAAA21-87-C-0086

GUN SERIAL #

C6349159

OP. #	OP. NAME	READINGS	DATE	INIT
575 & 580	Assemble Action and Stock	10-9	89	RW
600	Proof	10-9	89	A
607	Check Headspace	10-9	89	RW
610	Dis-assemble Gun	10-9	89	RW
612	Magnaflux Barrel Action	REJECTED	11/2/89	KCR
	Magnaflux Bolt		11/2/89	KCR
615	Rollmark Caliber			
7	Drill and Tap Sight Holes			
618	Polish Barrel			
620	Apply Coatings (Barrel Action)			
	Apply Coating (Bolt)			
625	Final Assembly A) Clean inside of Bolt Assembly			
	B) Inspect Rear Firing Pin Hole for Chamfer in Bolt Head			
	C) Inspect Ejector Hole for Chamfer			
	D) Oil Firing Pin Ass'y			
	E) Adjust Trigger Pull to Min Setting and Stake			

op. #	OP. NAME	READINGS				DATE	INIT
625 cont.	F) Safety On Force						
	G) Safety Off Force						
	H) Trigger Pull Test & Retainability						
	I) Firing Pin Indent						
	J) Assemble Stock						
	K) Assemble Swivel Studs						
	L) Attach Front and Rear Sight Assemblies						
	M) Iron Sight Alignment						
	N) Detach Front & Rear Sights & place in numbered container						
	O) Attach Scope to Rifle						
	P) Detach & Attach Scope 20 Times						
640	Gallery Target & Test						
	A) Time						
	B) Malfunctions						
	C) Pierced Primers						
	D) Optical Clarity of Scope						
645	Inspect for Live Ammo						
655	Final Inspection						
	A) Headspace						
	B) Trigger Pull						
	C) Function						
660	Pack						

CONTRACT # DAAA21-87-C-0086

INTERCHANGEABILITY

GUN SERIAL #

C6349159

OP. #	OP. NAME	READINGS	DATE	INIT
575 & 580	Assemble Action and Stock	QUALITY AUDIT	11-8 89	RW
600	Proof		11-8 89	RW
607	Check Headspace		11-8 89	RW
610	Dis-assemble Gun		11-8 89	RW
612	Magnaflux Barrel Action		11-9-89	KCR
	Magnaflux Bolt		11-9-89	KCR
615	Rollmark Caliber			
617	Drill and Tap Sight Holes		11 9 89	LB
618	Polish Barrel RB		11 9 89	BT
620	Apply Coatings (Barrel Action)		11-17-89	TA
	Apply Coating (Bolt)			
625	Final Assembly A) Clean inside of Bolt Assembly		11/28/89	RW
	B) Inspect Rear Firing Pin Hole for Chamfer in Bolt Head		11/28/89	RW
	C) Inspect Ejector Hole for Chamfer		11/28/89	RW
	D) Oil Firing Pin Ass'y		11/28/89	RW
	E) Adjust Trigger Pull to Min Setting and Stake		40 lbs	LB

op. #	OP. NAME	READINGS					DATE	INIT
625 cont.	F) Safety On Force	5	5	5			4 Dec 89	JS
	G) Safety Off Force	3	3	3			4 Dec 89	JS
	H) Trigger Pull Test & Retainability						4 Dec 89	JS
	I) Firing Pin Indent	.021	.021	.0215			4 Dec 89	JS
	J) Assemble Stock						12/8/89	RW
	K) Assemble Swivel Studs						8 Dec 89	JS
	L) Attach Front and Rear Sight Assemblies						12/8/89	RW
	M) Iron Sight Alignment						12/8/89	RW
	N) Detach Front & Rear Sights & place in numbered container						12/8/89	RW
	O) Attach Scope to Rifle						8 Dec 89	JS
	P) Detach & Attach Scope 20 Times						8 Dec 89	JS
640	Gallery Target & Test						12-8-89	AC
	A) Time						12-8-89	AC
	B) Malfunctions						12-8-89	AC
	C) Pierced Primers						12-8-89	AC
	D) Optical Clarity of Scope						12-8-89	AC
645	Inspect for Live Ammo						12-8-89	AC
655	Final Inspection							
	A) Headspace						8 Dec 89	JS
	B) Trigger Pull	248	250	267	264	262	8 Dec 89	JS
	C) Function						8 Dec 89	JS
660	Pack						14 Dec 89	JS

AVERAGE PULL FORCE BETWEEN
INITIAL & CYCLE TESTS

2.50# ± .50#

3.00# ± .75#

4.00# ± 1.00#

SERIAL NO. C6349159

DATE 3/27/90

TESTER RW

	2.50# INITIAL	2.50# AFTER 50 CYCLES	FINAL TEST & TO RESET 2.50#		COMMENTS
PULL #1	2.46	2.51		2.44	MIN. SETTING, NO AVG. OF 5 READINGS ACCEPT- ABLE LESS THAN 2#
PULL #2	2.34	2.50		2.44	
PULL #3	2.36	2.52		2.43	
PULL #4	2.37	2.49		2.43	
PULL #5	2.31	2.50		2.41	
TOTAL	11.84	12.52		12.15	
AVG.	2.37	2.50		2.43	

	3.00# INITIAL	3.00# AFTER 20 CYCLES		COMMENTS
PULL #1	3.05	3.07		
PULL #2	3.04	3.05		
PULL #3	3.08	3.02		
PULL #4	3.05	3.03		
PULL #5	3.07	3.04		
TOTAL	15.29	15.21		
AVG.	3.06	3.04		

	4.00# INITIAL	4.00# AFTER 20 CYCLES	MAX SETTING GREATER THAN 4#	RESET TO 4# FOR TARGET & ACCURACY
PULL #1	4.13	4.12		
PULL #2	4.15	4.08		
PULL #3	4.10	4.10		
PULL #4	4.19	4.00		
PULL #5	4.13	4.11		
TOTAL	20.70	20.41		
AVG.	4.14	4.08		

CENTROIDAL DISTANCE CALCULATIONS
FOR RIFLE # C6349159
8 Dec 1989

CENTROIDAL DISTANCES

0 TO	1	.699623
1 TO	2	.52897
1 TO	3	.66503
1 TO	4	1.08639
1 TO	5	.275801

4
#5
1 <----POA

THE AVERAGE X-COORDINATE FOR THIS RIFLE IS: .218
THE AVERAGE Y-COORDINATE FOR THIS RIFLE IS: -.0738
THE RESULTING AVERAGE POI RADIUS FOR THIS RIFLE IS: .238153

THE AMR FOR THIS RIFLE IS: 1.039

6 Dec 1989

FILE:/PATTERNING/CENTERFIRE_PATT/C8349159

CENTERFIRE PATTERNS # 1

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 = 2.821

VS = 2.330

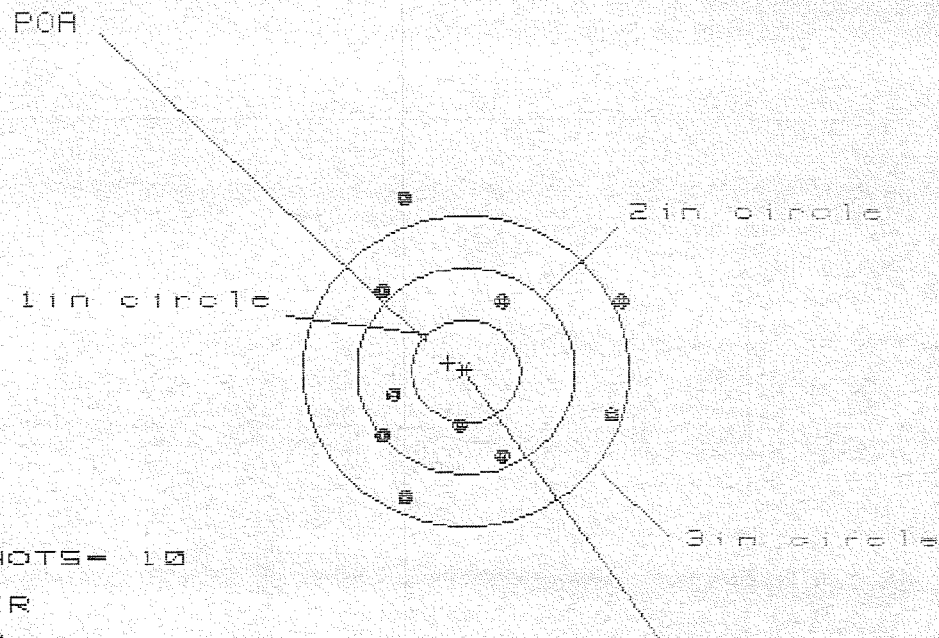
GS = 3.000

PATTERN #	1	9	8
SHOTS (BEST OF)	10	9	8
MAXIMUM X	1.275	1.103	.905
MINIMUM X	-1.546	-1.586	-1.861
MAXIMUM Y	1.202	1.287	1.215
MINIMUM Y	-1.128	-1.043	-1.115
CENTROID X	.493	.665	.863
CENTROID Y	-.495	-.580	-.508
POA TO CENTROID in.	.699	.882	1.001
MIN RADIUS	.204	.365	.497
MEAN RADIUS	1.026	.939	.830
MAX RADIUS	1.723	1.685	1.216
HORIZONTAL SPREAD	2.821	2.689	1.766
VERTICAL SPREAD	2.330	2.330	2.330
EXTREME SPREAD	3.000	2.718	2.336
NUMBER IN ONE INCH CIRCLE =	1		
NUMBER IN TWO INCH CIRCLE =	5		
NUMBER IN THREE INCH CIRCLE =	8		

8 Dec 1989

FILE:/PATTERNING/CENTERFIRE_PATT/06349159

CENTERFIRE PATTERNS # 2



OF SHOTS= 10

IN CIR

1 in = 0

2 in = 4

3 in = 8

HS= 2.232

VS= 2.861

GS= 2.879

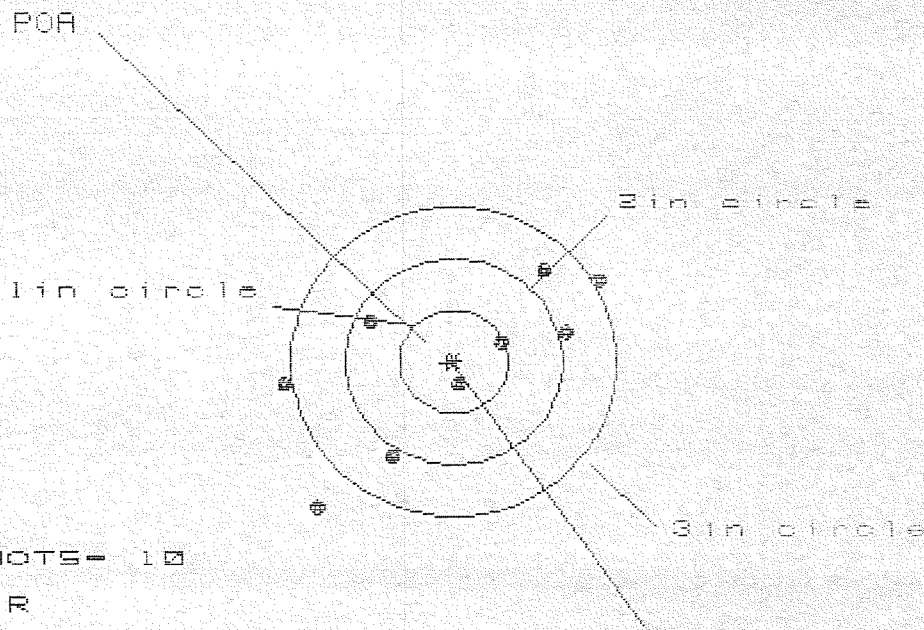
CENTROID *

PATTERN #	:	2		
SHOTS (BEST OF)	:	10	9	8
MAXIMUM X	:	1.437	1.370	1.465
MINIMUM X	:	-0.795	-0.862	-0.691
MAXIMUM Y	:	1.671	0.934	1.036
MINIMUM Y	:	-1.190	-1.004	-0.902
CENTROID X	:	0.165	0.232	0.061
CENTROID Y	:	-0.080	-0.266	-0.368
POA TO CENTROID in.	:	0.184	0.353	0.373
MIN RADIUS	:	0.521	0.349	0.243
MEAN RADIUS	:	1.106	1.003	0.886
MAX RADIUS	:	1.775	1.596	1.473
HORIZONTAL SPREAD	:	2.232	2.232	2.156
VERTICAL SPREAD	:	2.861	1.938	1.938
EXTREME SPREAD	:	2.879	2.715	2.461
NUMBER IN ONE INCH CIRCLE	=		0	
NUMBER IN TWO INCH CIRCLE	=		4	
NUMBER IN THREE INCH CIRCLE	=		8	

8 Dec 1989

FILE:/PATTERNING/CENTERFIRE_PATT/06349159

CENTERFIRE PATTERNS # 3



OF SHOTS= 10

IN CIR

1 in = 3

2 in = 4

3 in = 7

HS= 2.946

VS= 2.210

GS= 3.390

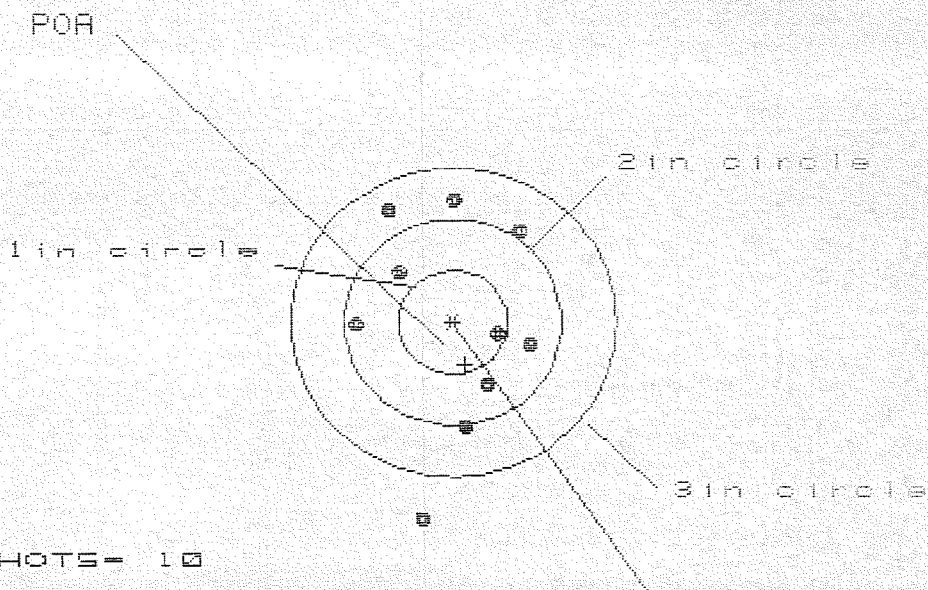
CENTROID *

PATTERN #	3
SHOTS (BEST OF)	10
MAXIMUM X	1.347
MINIMUM X	-1.599
MAXIMUM Y	.840
MINIMUM Y	-1.370
CENTROID X	.065
CENTROID Y	.014
POA TO CENTROID in.	.065
MIN RADIUS	.185
MEAN RADIUS	1.040
MAX RADIUS	1.872
HORIZONTAL SPREAD	2.946
VERTICAL SPREAD	2.210
EXTREME SPREAD	3.390
NUMBER IN ONE INCH CIRCLE =	3
NUMBER IN TWO INCH CIRCLE =	4
NUMBER IN THREE INCH CIRCLE =	7

8 Dec 1989

FILE:/PATTERNING/CENTERFIRE_PATT/C6349159

CENTERFIRE PATTERNS # 4



OF SHOTS= 10

IN CIR

1 in = 1

2 in = 6

3 in = 9

HS= 1.564

VS= 3.124

GS= 3.141

PATTERN #	:	4	9	8
SHOTS (BEST OF)	:	10	9	8
MAXIMUM X	:	.716	.695	.602
MINIMUM X	:	-.848	-.879	-.962
MAXIMUM Y	:	1.231	1.021	1.135
MINIMUM Y	:	-1.893	-1.193	-1.079
CENTROID X	:	-.105	-.074	.009
CENTROID Y	:	.412	.622	.508
POA TO CENTROID in.	:	.425	.627	.508
MIN RADIUS	:	.413	.469	.336
MEAN RADIUS	:	.994	.879	.828
MAX RADIUS	:	1.913	1.197	1.137
HORIZONTAL SPREAD	:	1.564	1.564	1.564
VERTICAL SPREAD	:	3.124	2.214	2.214
EXTREME SPREAD	:	3.141	2.243	2.215
NUMBER IN ONE INCH CIRCLE	=	1		
NUMBER IN TWO INCH CIRCLE	=	6		
NUMBER IN THREE INCH CIRCLE	=	9		

8 Dec 1989

FILE:/PATTERNING/CENTERFIRE_PATT/G8349153

CENTERFIRE PATTERNS

5

POR

1in circle

2in circle

3in circle

CENTROID *

OF SHOTS- 10

IN CIR

1in = 1

2in = 3

3in = 10

HS= 2.261

VS= 2.281

GS= 2.582

PATTERN #	5	9	8
SHOTS (BEST OF)	10	9	8
MAXIMUM X	1.023	.947	.782
MINIMUM X	-1.238	-1.314	-1.767
MAXIMUM Y	1.138	1.263	1.222
MINIMUM Y	-1.143	-1.017	-1.058
CENTROID X	.472	.548	.713
CENTROID Y	-.220	-.346	-.305
POR TO CENTROID in.	.521	.649	.775
MIN RADIUS	.193	.327	.447
MEAN RADIUS	1.029	1.001	.954
MAX RADIUS	1.331	1.356	1.307
HORIZONTAL SPREAD	2.261	2.261	1.549
VERTICAL SPREAD	2.281	2.280	2.280
EXTREME SPREAD	2.582	2.343	2.343
NUMBER IN ONE INCH CIRCLE =	1		
NUMBER IN TWO INCH CIRCLE =	3		
NUMBER IN THREE INCH CIRCLE =	10		

INTERCHANGEABILITY

CENTROIDAL DISTANCE CALCULATIONS
 FOR RIFLE # C6349159
 13 Dec 1989

CENTROIDAL DISTANCES

0 TO	1	.0430813
1 TO	2	.5472
1 TO	3	.185173
1 TO	4	.968033
1 TO	5	.725827

² 54 <----POA

THE AVERAGE X-COORDINATE FOR THIS RIFLE IS: .2122
 THE AVERAGE Y-COORDINATE FOR THIS RIFLE IS: -.0018
 THE RESULTING AVERAGE POI RADIUS FOR THIS RIFLE IS: .212208
 THE AMR FOR THIS RIFLE IS: .9932

13 Dec 1989

FILE:/PATTERNING/CENTERFIRE_PATT/06349139.1

CENTERFIRE PATTERNS # 1

POA

1 in circle

2 in circle

3 in circle

OF SHOTS= 10

IN CIR

1 in = 2

2 in = 7

3 in = 9

HS= 2.745

VS= 1.774

GS= 2.866

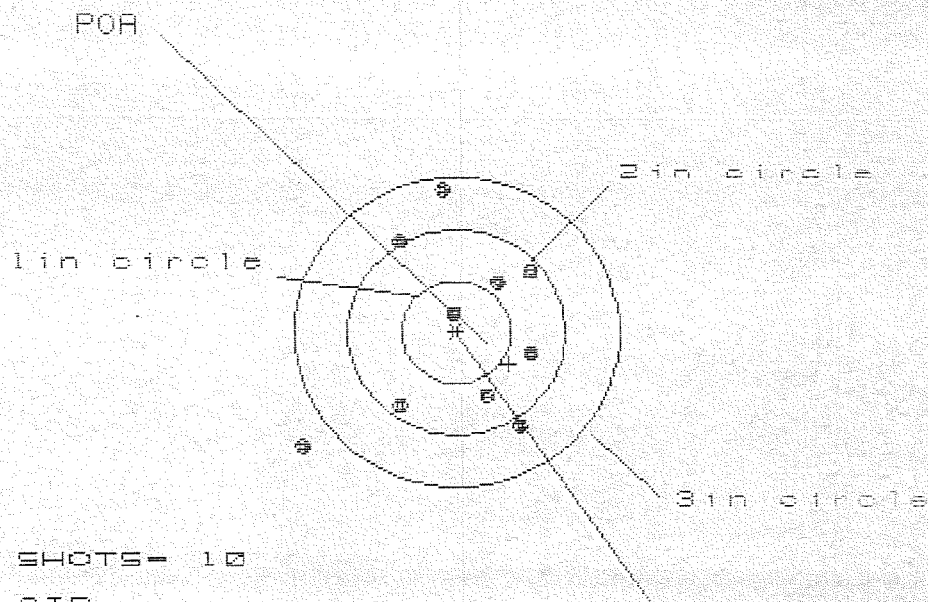
CENTROID #

PATTERN #	1	2	3
SHOTS (BEST OF)	10	9	8
MAXIMUM X	1.772	1.314	.829
MINIMUM X	-.973	-.776	-.612
MAXIMUM Y	.917	.889	.649
MINIMUM Y	-.857	-.885	-.774
CENTROID X	-.040	-.237	-.401
CENTROID Y	-.016	.012	-.099
POA TO CENTROID in.	.043	.237	.413
MIN RADIUS	.441	.248	.201
MEAN RADIUS	.889	.734	.585
MAX RADIUS	1.791	1.586	.914
HORIZONTAL SPREAD	2.745	2.090	1.441
VERTICAL SPREAD	1.774	1.774	1.423
EXTREME SPREAD	2.866	2.376	1.652
NUMBER IN ONE INCH CIRCLE =	2		
NUMBER IN TWO INCH CIRCLE =	7		
NUMBER IN THREE INCH CIRCLE =	9		

13 Dec 1989

FILE:/PATTERNING/CENTERFIRE_PATT/06349159.1

CENTERFIRE PATTERNS # 2



OF SHOTS= 10

IN CIR

1 in = 1

2 in = 6

3 in = 9

HS= 2.162

VS= 2.471

GS= 2.778

PATTERN #	2
SHOTS (BEST OF)	10
MAXIMUM X	.721
MINIMUM X	-1.441
MAXIMUM Y	1.400
MINIMUM Y	-1.071
CENTROID X	-.478
CENTROID Y	.312
POA TO CENTROID in.	.571
MIN RADIUS	.169
MEAN RADIUS	.936
MAX RADIUS	1.796
HORIZONTAL SPREAD	2.162
VERTICAL SPREAD	2.471
EXTREME SPREAD	2.778
NUMBER IN ONE INCH CIRCLE	1
NUMBER IN TWO INCH CIRCLE	6
NUMBER IN THREE INCH CIRCLE	9

13 Dec 1989

FILE:/PATTERNING/CENTERFIRE_PATT/C8349159.1

CENTERFIRE PATTERNS # 3

POA

1 in circle

2 in circle

3 in circle

OF SHOTS- 10

IN CIR

1 in = 0

2 in = 5

3 in = 9

HS= 2.047

VS= 2.756

GS= 2.917

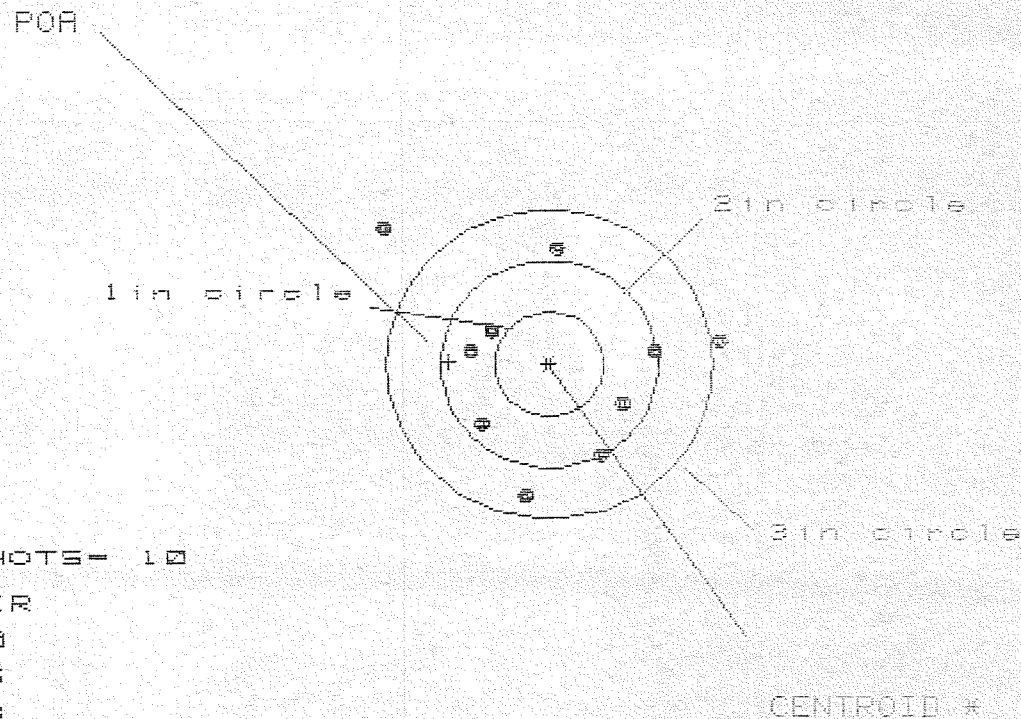
CENTROID #

PATTERN #	3
SHOTS (BEST OF)	10
MAXIMUM X	.942
MINIMUM X	-1.105
MAXIMUM Y	.982
MINIMUM Y	-1.774
CENTROID X	-.032
CENTROID Y	-.201
POA TO CENTROID in.	.204
MIN RADIUS	.542
MEAN RADIUS	1.056
MAX RADIUS	1.817
HORIZONTAL SPREAD	2.047
VERTICAL SPREAD	2.756
EXTREME SPREAD	2.917
NUMBER IN ONE INCH CIRCLE	= 0
NUMBER IN TWO INCH CIRCLE	= 5
NUMBER IN THREE INCH CIRCLE	= 9

13 Dec 1989

FILE:/PATTERNING/CENTERFIRE_PATT/08349159.1

CENTERFIRE PATTERNS # 4



OF SHOTS= 10

IN CIR

1 in = 0

2 in = 5

3 in = 8

HS= 3.084

VS= 2.563

GS= 3.288

PATTERN #	:	4		
SHOTS (BEST OF)	:	10	9	8
MAXIMUM X	:	1.565	1.396	1.006
MINIMUM X	:	-1.519	-.931	-.757
MAXIMUM Y	:	1.325	1.230	1.271
MINIMUM Y	:	-1.238	-1.091	-1.058
CENTROID X	:	.928	1.097	.923
CENTROID Y	:	-.024	-.171	-.212
POA TO CENTROID in.	:	.929	1.110	.947
MIN RADIUS	:	.648	.519	.663
MEAN RADIUS	:	1.092	.969	.895
MAX RADIUS	:	2.016	1.435	1.272
HORIZONTAL SPREAD	:	3.084	2.327	1.763
VERTICAL SPREAD	:	2.563	2.321	2.321
EXTREME SPREAD	:	3.288	2.335	2.335
NUMBER IN ONE INCH CIRCLE	=		0	
NUMBER IN TWO INCH CIRCLE	=		5	
NUMBER IN THREE INCH CIRCLE	=		8	

13 Dec 1989

FILE:/PATTERNING/CENTERFIRE_PATT/08049159.1

CENTERFIRE PATTERNS # 5

POA

1 in circle

2 in circle

3 in circle

OF SHOTS= 10

IN CIR

1 in = 1

2 in = 5

3 in = 9

HS= 2.566

VS= 2.246

GS= 2.808

CENTROID #

PATTERN #	:	5		
SHOTS (BEST OF)	:	10	9	8
MAXIMUM X	:	1.618	1.131	1.130
MINIMUM X	:	-.948	-.768	-.769
MAXIMUM Y	:	.874	.961	.800
MINIMUM Y	:	-1.372	-1.285	-.871
CENTROID X	:	.688	.503	.504
CENTROID Y	:	-.088	-.167	-.086
POA TO CENTROID in.	:	.688	.530	.504
MIN RADIUS	:	.484	.285	.296
MEAN RADIUS	:	.993	.863	.814
MAX RADIUS	:	1.797	1.307	1.233
HORIZONTAL SPREAD	:	2.566	1.899	1.899
VERTICAL SPREAD	:	2.246	2.246	1.671
EXTREME SPREAD	:	2.808	2.312	2.087
NUMBER IN ONE INCH CIRCLE	=		1	
NUMBER IN TWO INCH CIRCLE	=		5	
NUMBER IN THREE INCH CIRCLE	=		9	



VERY IMPORTANT:
Instruction Book
enclosed to assure
safe use of this
firearm.

MODEL 700TM H24

SERIAL NO.
C6349159

ORDER NO.
5716

MADE IN ILION, N.Y. U.S.A. Reg. U.S. Pat & Tm. Off, Marca Registrada Marque Deposee.

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5716 C6349159

UPC



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