

C6648960

MODEL 700™ M24

Model **SMS**™

Action

Barrel Length

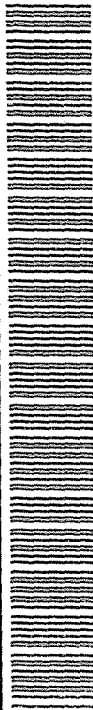
Capacity

Order No. **5716**

\*Includes 1 in chamber.

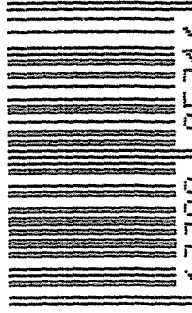


|                                                                                                                                                                        |  |                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|
|   |  | <p>VERY IMPORTANT:<br/>Instruction Book<br/>enclosed to assure<br/>safe use of this<br/>firearm.</p> |
| <p>MODEL 700™ M24</p>                                                                                                                                                  |  | <p>SERIAL NO.<br/>C6648960</p>                                                                       |
| <p>MADE IN ILION, N.Y. U.S.A. Reg. U.S. Pat. &amp; Tm. Off. Marca Registrada. Marque Deposee.</p>                                                                      |  | <p>ORDER NO.<br/>5716</p>                                                                            |



5716 C6648960

LPC



0 47700 25716 7

CONTRACT # DAAA21-87-C-0086

GUN SERIAL # C6648960

| OP. #        | OP. NAME                                                       | READINGS | DATE        | INIT |
|--------------|----------------------------------------------------------------|----------|-------------|------|
| 575 &<br>580 | Assemble Action<br>and Stock                                   | 7 2 9 1  |             | RW   |
| 600          | Proof                                                          | 7 2 9 1  |             | RW   |
| 607          | Check Headspace                                                | 7 2 9 1  |             | RW   |
| 610          | Dis-assemble Gun                                               | 7 2 9 1  |             | RW   |
| 612          | Magnaflux Barrel<br>Action                                     |          | JUL 22 1991 | LS   |
|              | Magnaflux Bolt                                                 |          | JUL 22 1991 | LS   |
| 615          | Rollmark Caliber                                               |          | JUL 22 1991 | LS   |
| 617          | Drill and Tap Sight Holes                                      |          | JUL 22 1991 | LB   |
| 618          | Polish Barrel                                                  |          | 7/24/91     | WB   |
| 620          | Apply Coatings<br>(Barrel Action)                              |          | 8-2-91      | LS   |
|              | Apply Coating (Bolt)                                           |          |             |      |
| 625          | Final Assembly<br>A) Clean inside of<br>Bolt Assembly          |          | 8/9/91      | RW   |
|              | B) Inspect Rear Firing<br>Pin Hole for Chamfer<br>in Bolt Head |          | 8/9/91      | RW   |
|              | C) Inspect Ejector Hole<br>for Chamfer                         |          | 8/9/91      | RW   |
|              | D) Oil Firing Pin Ass'y                                        |          | 8/9/91      | RW   |
|              | E) Adjust Trigger Pull to<br>Min Setting and Stake             |          | 8/21/91     | JS   |

| op. #        | OP. NAME                                                    | READINGS |       |       |     |     | DATE    | INIT |
|--------------|-------------------------------------------------------------|----------|-------|-------|-----|-----|---------|------|
| 625<br>cont. | F) Safety On Force                                          | 6        | 6     | 6     |     |     | 8/21/91 | JK   |
|              | G) Safety Off Force                                         | 3        | 3     | 3     |     |     | 8/21/91 | JK   |
|              | H) Trigger Pull Test & Retainability                        |          |       |       |     |     | 8/24/91 | JK   |
|              | I) Firing Pin Indent                                        | .0225    | .0225 | .0225 |     |     | 8/21/91 | JK   |
|              | J) Assemble Stock                                           |          |       |       |     |     | 8/26/91 | RW   |
|              | K) Assemble Swivel Studs                                    |          |       |       |     |     | 8-27-91 | D/H  |
|              | L) Attach Front and Rear Sight Assemblies                   |          |       |       |     |     | 8/26/91 | RW   |
|              | M) Iron Sight Alignment                                     |          |       |       |     |     | 8/26/91 | RW   |
|              | N) Detach Front & Rear Sights & place in numbered container |          |       |       |     |     | 8/26/91 | RW   |
|              | O) Attach Scope to Rifle                                    |          |       |       |     |     | 8/26/91 | RW   |
|              | P) Detach & Attach Scope 20 Times                           |          |       |       |     |     | 8/26/91 | RW   |
| 640          | Gallery Target & Test                                       |          |       |       |     |     | 8-26-91 | D/H  |
|              | A) Time                                                     |          |       |       |     |     | 8-26-91 | D/H  |
|              | B) Malfunctions                                             |          |       |       |     |     | 8-26-91 | AC   |
|              | C) Pierced Primers                                          |          |       |       |     |     | 8-26-91 | AC   |
|              | D) Optical Clarity of Scope                                 |          |       |       |     |     | 8-26-91 | AC   |
| 645          | Inspect for Live Ammo                                       |          |       |       |     |     | 8-26-91 | AC   |
| 655          | Final Inspection                                            |          |       |       |     |     |         |      |
|              | A) Headspace                                                |          |       |       |     |     | 8-27-91 | D/H  |
|              | B) Trigger Pull                                             | 252      | 252   | 254   | 263 | 263 | 8-26-91 | D/H  |
|              | C) Function                                                 |          |       |       |     |     | 8-27-91 | D/H  |
| 660          | Pack                                                        |          |       |       |     |     | 9-17-91 | D/H  |

## SWS TRIGGER PULL TEST

AVERAGE PULL FORCE BETWEEN

~~INITIAL & CYCLE TESTS~~

2.50# + .50#

3.00# + .75#

4.00# + 1.00#

SERIAL NO. C6648960DATE 8/21/91TESTER JL

|         | 2.50#<br>INITIAL | 2.50# AFTER<br>50 CYCLES | FINAL TEST &<br>TO RESET 2.50# |      | COMMENTS                                                               |
|---------|------------------|--------------------------|--------------------------------|------|------------------------------------------------------------------------|
| PULL #1 | 2.41             | 2.64                     | 2.34                           | 2.52 | MIN. SETTING,<br>NO AVG. OF 5<br>READINGS ACCEPT-<br>ABLE LESS THAN 2# |
| PULL #2 | 2.35             | 2.26                     | 2.55                           | 2.52 |                                                                        |
| PULL #3 | 2.25             | 2.61                     | 2.48                           | 2.54 |                                                                        |
| PULL #4 | 2.23             | 2.60                     | 2.50                           | 2.63 |                                                                        |
| PULL #5 | 2.25             | 2.44                     | 2.61                           | 2.63 |                                                                        |
| TOTAL   |                  |                          |                                |      |                                                                        |
| AVG.    |                  |                          |                                |      |                                                                        |

|         | 3.00#<br>INITIAL | 3.00# AFTER<br>20 CYCLES |  | COMMENTS |
|---------|------------------|--------------------------|--|----------|
| PULL #1 | 3.29             | 3.42                     |  |          |
| PULL #2 | 3.32             | 3.47                     |  |          |
| PULL #3 | 3.69             | 3.39                     |  |          |
| PULL #4 | 3.37             | 3.55                     |  |          |
| PULL #5 | 3.49             | 3.37                     |  |          |
| TOTAL   |                  |                          |  |          |
| AVG.    |                  |                          |  |          |

|         | 4.00#<br>INITIAL | 4.00# AFTER<br>20 CYCLES | MAX SETTING<br>GREATER THAN 4# | RESET TO 4# FOR<br>TARGET & ACCURACY |
|---------|------------------|--------------------------|--------------------------------|--------------------------------------|
| PULL #1 | 4.26             | 4.24                     |                                | 4.27                                 |
| PULL #2 | 4.18             | 4.23                     |                                | 4.28                                 |
| PULL #3 | 4.26             | 4.24                     |                                | 4.27                                 |
| PULL #4 | 4.21             | 4.31                     |                                | 4.23                                 |
| PULL #5 | 4.23             | 4.19                     |                                | 4.25                                 |
| TOTAL   |                  |                          |                                |                                      |
| AVG.    |                  |                          |                                |                                      |

CENTROIDAL DISTANCE CALCULATIONS  
FOR RIFLE # C6648960  
26 Aug 1991

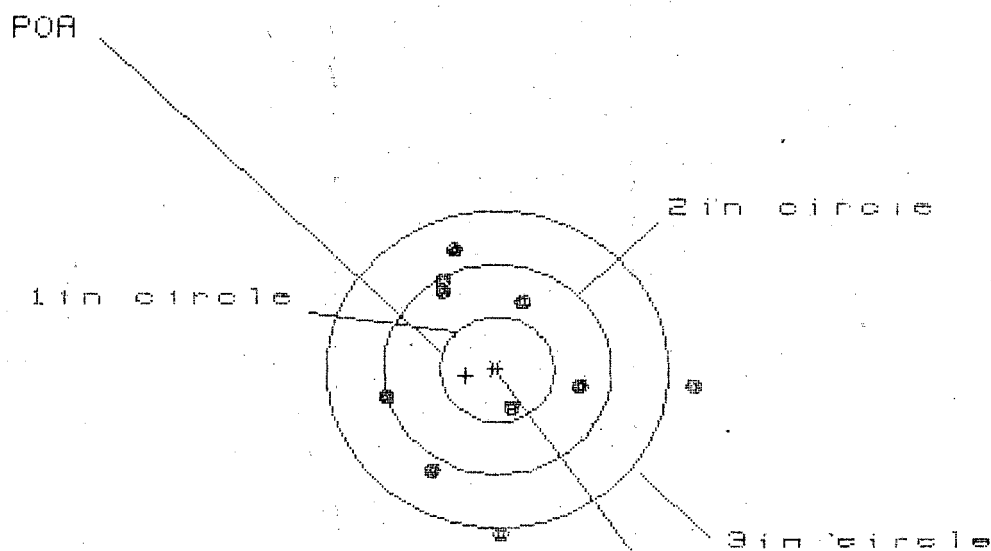
CENTROIDAL DISTANCES

|      |   |          |
|------|---|----------|
| 0 TO | 1 | .281824  |
| 1 TO | 2 | .294478  |
| 1 TO | 3 | .0277308 |
| 1 TO | 4 | .422765  |
| 1 TO | 5 | .289836  |

43 <----FOR

THE AVERAGE X-COORDINATE FOR THIS RIFLE IS: .2072  
THE AVERAGE Y-COORDINATE FOR THIS RIFLE IS: -.0964  
THE RESULTING AVERAGE POI RADIUS FOR THIS RIFLE IS: .228527  
THE AMR FOR THIS RIFLE IS: .883

CENTERFIRE PATTERNS # 1



# OF SHOTS- 10

# IN CIR

1 in = 1

2 in = 4

3 in = 8

HS= 2.738

VS= 2.640

GS= 2.739

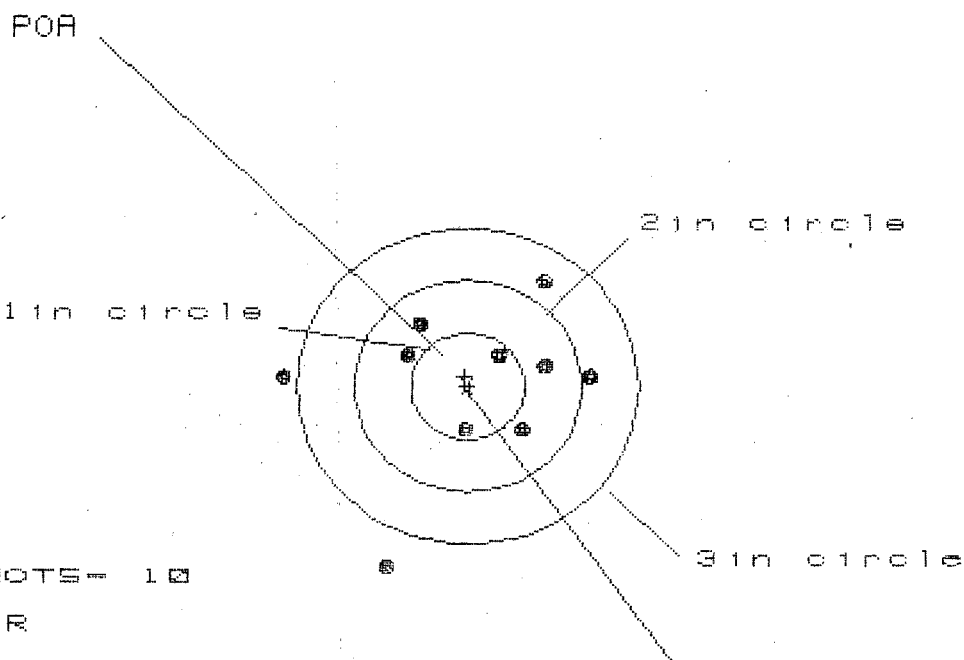
CENTROID \*

|                             |   |        |        |        |
|-----------------------------|---|--------|--------|--------|
| PATTERN #                   | : | 1      | 2      | 3      |
| SHOTS (BEST OF)             | : | 10     | 9      | 8      |
| MAXIMUM X                   | : | 1.747  | .919   | .947   |
| MINIMUM X                   | : | -.991  | -.797  | -.769  |
| MAXIMUM Y                   | : | 1.121  | 1.101  | .909   |
| MINIMUM Y                   | : | -1.519 | -1.539 | -1.190 |
| CENTROID X                  | : | .276   | .082   | .054   |
| CENTROID Y                  | : | .057   | .077   | .269   |
| POR TO CENTROID in.         | : | .282   | .113   | .274   |
| MIN RADIUS                  | : | .353   | .467   | .572   |
| MEAN RADIUS                 | : | 1.022  | .931   | .825   |
| MAX RADIUS                  | : | 1.755  | 1.556  | 1.231  |
| HORIZONTAL SPREAD           | : | 2.738  | 1.716  | 1.716  |
| VERTICAL SPREAD             | : | 2.640  | 2.640  | 2.099  |
| EXTREME SPREAD              | : | 2.739  | 2.676  | 2.103  |
| NUMBER IN ONE INCH CIRCLE   | = | 1      | 1      | 1      |
| NUMBER IN TWO INCH CIRCLE   | = | 4      | 4      | 4      |
| NUMBER IN THREE INCH CIRCLE | = | 8      | 8      | 8      |

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FILE:/PATTERNING/CENTERFIRE\_PATT/C664B960

# CENTERFIRE PATTERNS # 2



# OF SHOTS- 10

# IN CIR

1in = 2

2in = 5

3in = 3

HS= 2.655

VS= 2.724

GS= 3.050

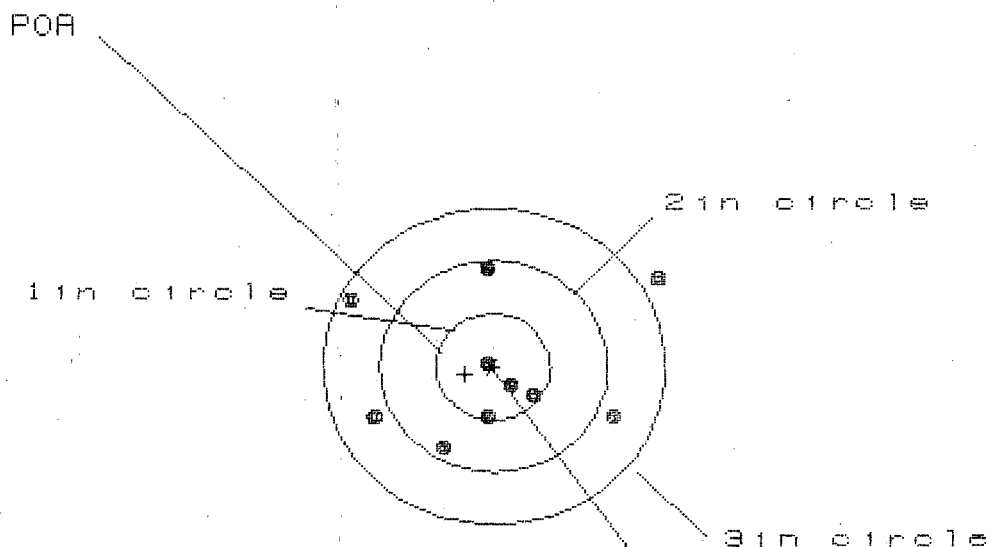
CENTROID #

|                             |   |        |        |       |
|-----------------------------|---|--------|--------|-------|
| PATTERN #                   | : | 2      |        |       |
| SHOTS (BEST OF)             | : | 10     | 9      | 8     |
| MAXIMUM X                   | : | 1.067  | .990   | .782  |
| MINIMUM X                   | : | -1.588 | -1.665 | -.800 |
| MAXIMUM Y                   | : | .989   | .796   | .783  |
| MINIMUM Y                   | : | -1.735 | -.600  | -.613 |
| CENTROID X                  | : | .022   | .099   | .307  |
| CENTROID Y                  | : | -.092  | .101   | .114  |
| POA TO CENTROID in.         | : | .094   | .141   | .327  |
| MIN RADIUS                  | : | .398   | .256   | .132  |
| MEAN RADIUS                 | : | .924   | .790   | .644  |
| MAX RADIUS                  | : | 1.867  | 1.668  | .879  |
| HORIZONTAL SPREAD           | : | 2.655  | 2.655  | 1.582 |
| VERTICAL SPREAD             | : | 2.724  | 1.396  | 1.396 |
| EXTREME SPREAD              | : | 3.050  | 2.655  | 1.606 |
| NUMBER IN ONE INCH CIRCLE   | = |        | 2      |       |
| NUMBER IN TWO INCH CIRCLE   | = |        | 6      |       |
| NUMBER IN THREE INCH CIRCLE | = |        | 8      |       |

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# CENTERFIRE PATTERNS # 3



# OF SHOTS = 10

# IN CIR

1in = 4

2in = 5

3in = 8

HS = 2.740

VS = 1.659

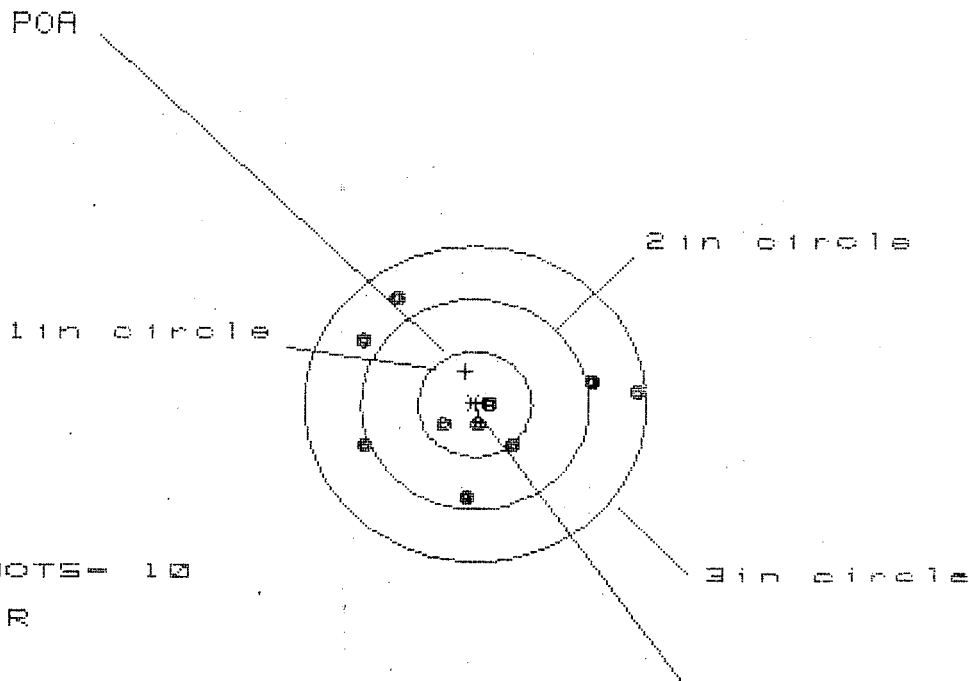
GS = 2.846

|                             |   |        |        |        |
|-----------------------------|---|--------|--------|--------|
| PATTERN #                   | : | 3      |        |        |
| SHOTS (BEST OF)             | : | 10     | 9      | 8      |
| MAXIMUM X                   | : | 1.485  | 1.166  | 1.029  |
| MINIMUM X                   | : | -1.255 | -1.090 | -1.012 |
| MAXIMUM Y                   | : | .925   | 1.022  | 1.114  |
| MINIMUM Y                   | : | -.734  | -.637  | -.545  |
| CENTROID X                  | : | .251   | .086   | .223   |
| CENTROID Y                  | : | .069   | -.028  | -.120  |
| POA TO CENTROID in.         | : | .261   | .091   | .253   |
| MIN RADIUS                  | : | .057   | .223   | .169   |
| MEAN RADIUS                 | : | .828   | .735   | .623   |
| MAX RADIUS                  | : | 1.723  | 1.315  | 1.115  |
| HORIZONTAL SPREAD           | : | 2.740  | 2.256  | 2.041  |
| VERTICAL SPREAD             | : | 1.659  | 1.659  | 1.659  |
| EXTREME SPREAD              | : | 2.846  | 2.519  | 2.041  |
| NUMBER IN ONE INCH CIRCLE   | = |        | 4      |        |
| NUMBER IN TWO INCH CIRCLE   | = |        | 6      |        |
| NUMBER IN THREE INCH CIRCLE | = |        | 9      |        |

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# CENTERFIRE PATTERNS # 4



# OF SHOTS- 10

# IN CIR

1 in = 3

2 in = 5

3 in = 10

HS= 2.420

VS= 1.908

GS= 2.456

CENTROID \*

| PATTERN #                   | : | 10    | 9     | 8     |
|-----------------------------|---|-------|-------|-------|
| SHOTS (BEST OF)             | : | 10    | 9     | 8     |
| MAXIMUM X                   | : | 1.435 | 1.224 | 1.160 |
| MINIMUM X                   | : | -.985 | -.825 | -.889 |
| MAXIMUM Y                   | : | 1.005 | 1.013 | .762  |
| MINIMUM Y                   | : | -.903 | -.895 | -.768 |
| CENTROID X                  | : | .077  | -.083 | -.019 |
| CENTROID Y                  | : | -.316 | -.324 | -.451 |
| POA TO CENTROID in.         | : | .325  | .335  | .452  |
| MIN RADIUS                  | : | .123  | .175  | .153  |
| MEAN RADIUS                 | : | .795  | .724  | .638  |
| MAX RADIUS                  | : | 1.438 | 1.254 | 1.227 |
| HORIZONTAL SPREAD           | : | 2.420 | 2.049 | 2.049 |
| VERTICAL SPREAD             | : | 1.908 | 1.908 | 1.530 |
| EXTREME SPREAD              | : | 2.456 | 2.136 | 2.136 |
| NUMBER IN ONE INCH CIRCLE   | = |       | 3     |       |
| NUMBER IN TWO INCH CIRCLE   | = |       | 5     |       |
| NUMBER IN THREE INCH CIRCLE | = |       | 10    |       |

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# CENTERFIRE PATTERNS # 5

POA

1in circle

2in circle

3in circle

CENTROID #

# OF SHOTS = 10

# IN CIR

1in = 3

2in = 6

3in = 9

HS = 2.451

VS = 2.294

GS = 2.767

PATTERN #

5

SHOTS (BEST OF)

10

9

8

MAXIMUM X

1.562

1.013

.933

MINIMUM X

-.889

-.715

-.795

MAXIMUM Y

1.048

1.007

.817

MINIMUM Y

-1.246

-1.287

-1.161

CENTROID X

.410

.236

.316

CENTROID Y

-.200

-.159

-.285

POA TO CENTROID in.

.456

.285

.426

MIN RADIUS

.206

.068

.169

MEAN RADIUS

.846

.728

.696

MAX RADIUS

1.605

1.358

1.214

HORIZONTAL SPREAD

2.451

1.728

1.728

VERTICAL SPREAD

2.294

2.294

1.978

EXTREME SPREAD

2.767

2.533

2.051

NUMBER IN ONE INCH CIRCLE =

3

NUMBER IN TWO INCH CIRCLE =

6

NUMBER IN THREE INCH CIRCLE =

9