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Ilion, New York
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TO: M. H. WALKER

FROM: A. A. HUGICK - W. R. GOOGIN

Pre-Pilot Design Test of
M/700-350 Rem. Mag. and M/700-6.5mm Cal. Rifles

Six M/700-6.5mm and five M/700-350 Rem. Mag. rifles were delivered to the Test Lab area for design test evaluation.

1. The headspace, firing pin indent, trigger pull were checked and were in design specs. with the following exception--
A. Gun Number one - light indent -- .0175
2. The total average M/700-350 Rem. Mag. group size (3 x 5 shot groups from bench and 6 x 5 shot groups from accuracy device per gun) was 2.49 inch measured center-to-center.
3. The total average M/700-6.5mm group size (3 x 5 shot groups from bench and 6 x 5 shot groups from accuracy device per gun) was 1.79 inch measured center-to-center.
4. Hard closing was noted in five rifles. This hard closing on the chambered round was attributed to the extractor-ejector system.

AAH:c
Attach.

M/700 - 6.5 mm
Pre-Pilot Design Test

Test Function	Gun No. 1	Gun No. 2	Gun No. 3	Gun No. 4	Gun No. 5	Gun No. 6	Design Specs.
Serial Number 350-	752	751	760	770	762	754	
Headspace - Min./Max.	OK	OK	OK	OK	OK	OK	
Firing Pin Indent Ave. of Five	.0175	.0185	.0190	.0192	.0180	.0190	.018-.026
Trigger Pull Ave. of Five	3.50	3.25	4.00	4.25	4.25	5.00	3.0-5.0
Accuracy - 3x5 shot gps, Shoulder Fired	1.23	1.43	1.62	1.80	1.52	1.64	
Accuracy - 3x5 shot gps. First in accuracy device	1.59	1.59	1.52	1.32	2.01	2.15	
Accuracy - 3x5 shot gps. Second in accuracy device	2.16	1.63	2.49	1.97	2.65	1.98	
Horizontal spread Shoulder	0.62	1.31	1.50	1.55	0.94	1.45	
Horizontal Spread Device--First Gps.	1.19	0.95	1.02	1.10	1.82	2.12	
Horizontal Spread Device--Second Gps.	1.60	1.59	2.01	1.51	1.16	1.00	
Vertical Spread Shoulder	1.02	1.09	1.06	0.97	1.25	0.99	
Vertical Spread Device--First Gps.	1.23	1.45	1.23	1.12	1.01	0.98	
Vertical Spread Device--Second Gps.	1.56	1.22	1.97	1.59	2.16	1.77	

Test Function	Gun No. 1	Gun No. 2	Gun No. 3	Gun No. 4	Gun No. 5	Gun No. 11	Design Specs.
Max. Sight Adjust. P.O.I. at 100 yds.	+8.60	+7.40	+10.65	+6.20	+11.20	+10.60	
Min. Sight Adjust. P.O.I. at 100 yds.	-3.00	-4.00	-3.20	-6.80	-3.20	-4.80	
Fired Rounds - Function	120	120	120	120	120	120	
Fired Rounds - Accuracy	45	45	45	45	45	45	
Fired Rounds - Sighters & Sight Adj. - Proof	15	15	15	15	15	15	
Total Rounds Fired	180	180	180	180	180	180	
Malfunctions - Functional Testing	---	---	---	---	---	---	
Parts Replaced	---	---	---	---	---	---	
Parts Adjusted	---	---	---	---	---	---	
Remarks							

*Occasional hard lock-up

M/700 - 350 Rem. Mag.
Pre-Pilot Design Test

Test Function	Gun No. 5	Gun No. 6	Gun No. 7	Gun No. 8	Gun No. 10	Design Specs
Serial Number 350	763	755	753	769	758	---
Headspace - Min./Max.	OK	OK	OK	OK	OK	
Firing Pin Indent Ave. of Five	.0190	.0190	.0190	.0180	.021	.018-.026
Trigger Pull Ave. of Five	4.25	3.75	4.50	4.00	4.25	3.0-5.0
Accuracy - 3x5 shot gps. Shoulder fired	2.36	2.50	2.05	1.99	1.55	
Accuracy - 3x5 shot gps. First in accuracy device	4.14	2.67	2.10	2.78	1.74	
Accuracy - 3x5 shot gps. Second in accuracy device	2.59	2.59	2.19	2.92	3.18	
Horizontal Spread Shoulder	1.98	1.98	1.41	1.95	0.90	
Horizontal Spread First in device	2.48	1.64	1.48	2.02	1.53	
Horizontal Spread Second in device	2.00	1.94	1.11	1.20	2.19	
Vertical Spread Shoulder	1.45	1.89	1.63	0.97	1.45	
Vertical Spread First in device	3.51	2.46	1.89	2.37	1.39	
Vertical Spread Second in device	2.36	1.63	2.08	2.80	2.73	
Max. Sight Adjust. P.O.I. at 100 yds.		+5.50				
Min. Sight Adjust. P.O.I. at 100 yds.		-6.40				

Test Function	Gun No. 5	Gun No. 6	Gun No. 7	Gun No. 8	Gun No. 10	Machine Speed
Fired Rounds - Function	120	120	120	120	120	
Fired Rounds - Accuracy	45	45	45	45	45	
Fired Rounds - Sights, & Sight Adj. Proof	15	15	15	15	15	
Total Rounds Fired	180	180	180	180	180	
Malfunctions - Functional Testing		20DX				
Parts Replaced		*				
Parts Adjusted						
Remarks		**	**			

New Ejector-Extractor

*Occasional Hard Lock-up