

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE



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PROGRESS REPORT NO: AI-72-3

Ilion, New York  
September 28, 1972

TO: C. B. WORKMAN

FROM: D. S. HARDY

SUBJECT: .17 CALIBER XP-100 FEASIBILITY TEST

Work Order: E 0212

The purpose of this test was to determine the feasibility of chambering the Model XP-100 Pistol to a .17 Caliber Center Fire Cartridge.

Three (3) guns were made up for this rather limited test.

Two (2) XP-100 Pistols were chambered for two (2) different .17 Caliber Cartridges to afford a direct comparison between a large and a small capacity case. A rifle was also made up to check velocity loss and to make pressure testing safer (by reason of longer barrel).

The calibers used were the standard .17 Remington and the .17 Mach IV (a copyright Wildcat which is the .221 Fireball case necked to .17 with a 30° shoulder.)

Handloads using Remington 25 gr. P-LOKT bullets and 20 gr. SISK S. P. bullets with three (3) different kinds of powder were tried. With the 25 gr. P-LOKT bullets in the .17 Mach IV, the best load appears to be 16 gr. 4198 for a velocity (at 15 feet) with the pistol of 3181 fps and 3704 fps with 53,400 psi pressure with the rifle. This compares with a velocity of 3045 fps in the .17 Remington Pistol with 25 gr. factory loads. Using 20 gr. SISK bullets, the only load tried gave us 3340 fps with the pistol and 3870 fps with 51,850 psi with the rifle.

It would appear from these rather limited tests that if the XP-100 were to be chambered for a .17 Caliber Cartridge something with less case capacity than the .17 Remington should be used.

It also becomes apparent that muzzle velocities with the .17 Mach IV cartridge in a pistol could exceed 3200 fps with 25 gr. bullets and 3350 fps with 20 gr. bullets.

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VELOCITY COMPARISONS17 REMINGTON

<u>Load</u>	<u>Velocity (15')</u>	<u>E. V.</u>
25 gr. P-LOKT Factory Load (20 Rds.)	3045 fps	147 fps

17 MACH IV

<u>Load</u>	<u>Velocity (15')</u>	<u>E. V.</u>
25 gr. P-LOKT 13.7 gr. 4227 (5 rds.)	3059.6 fps	39.2 fps
25 gr. P-LOKT 14.2 gr. 4227 (5 rds.)	3165.4 fps	111.3 fps
25 gr. P-LOKT 14.7 gr. 4227 (5 rds.)	excessive pressure	
25 gr. P-LOKT 15.0 gr. 4198 (5 rds.)	2913.2 fps	47.69 fps
25 gr. P-LOKT 15.5 gr. 4198 (5 rds.)	3074.3 fps	43.28 fps
25 gr. P-LOKT 16.0 gr. 4198 (5 rds.)	3181.4 fps	18.2 fps
25 gr. P-LOKT 17 - 19 gr. BL-C Lot No.2)	excessive muzzle blast	
20 gr. SISK 14.7 gr. 4227 (5 rds.)	3340.5 fps	56.15 fps

THE ABOVE WERE FIRED IN XP-100 PISTOLS WITH 10.75" BARRELS.

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\* PRESSURE TESTS.17 MACH IV

<u>Load</u>			<u>(15') Velocity E. V.</u>		<u>Pressure E. V.</u>	
25 gr. P-LOKT	13.7 gr.	4227 (5 rds.)	3536.1	30.0	58574.5	4424.0
25 gr. P-LOKT	14.2 gr.	4227 (5 rds.)	3653.2	125.0	62998.5	10617.5
25 gr. P-LOKT	14.7 gr.	4227 (5 rds.)	3733.6	47.5	68484.0	4424.0
25 gr. P-LOKT	15.0 gr.	4198 (5 rds.)	3497.0	51.4	42980.0	9100.0
25 gr. P-LOKT	15.5 gr.	4198 (5 rds.)	3647.6	63.8	44064.0	885.0
25 gr. P-LOKT	16.0 gr.	4198 (5 rds.)	3703.7	32.9	53443.0	9733.5
25 gr. P-LOKT	17-19 grs. BI-C Lot No. 2 Excessive muzzle blast					
20 gr. SISK	14.7 gr.	4227 (5 rds.)	3870.8	68.8	51850.0	5309.0

THE ABOVE WAS FIRED IN A M/700 REMINGTON .17 MACH IV WITH 20" BARREL.

\* As Measured with Strain Gage Cemented to Barrel.

D. S. Hardy:bd  
Ilion Research Division