DRAFT

Remington Arms Company Inc.
RESEARCH & DEVELOPMENT TECHNICAL CENTER
315 WEST RING ROAD
ELIZABETHTOWN, KY 42701

Results Summary

The Model 710 and Model 700 behaved similarly during this test. The mode of failure and the force level at which it occurred were approximately the same. In all four test runs a high enough load was reached that caused the firing pin head to over-ride the sear safety cam. When this occurred the firing pin assembly was bound or trapped in this condition. In the authors opinion in no case would this mode of failure result in an unsafe condition that would result in an unintentional discharge of the firearm. The following table summarizes the peak load recorded at the instant the over-ride occurred.

	Model 710	Model 700 Control
Test #1	337	394
Test #2	428	----
Test #3 (24 hr. Solvent Soak)	377	----

Table 1. – Maximum Load (lbs.)

In order to cause an over-ride like this some part movement and deformation must occur. In the 710's case it appears that deformation of the synthetic insert resulted in the over-ride. In the 700's case the fire control mounting pins were bent. The loads required to cause this situation are far in excess of normal service loads. In the 710's case the firing pin spring load is in the 23 lb. – 26 lb. range. The lowest load recorded above (337 lbs.) is about 13 times that of the high end service load (26 lbs.). This Factor of Safety (FS) is far in excess of accepted engineering safety levels. This coupled with comparison to the 700 validates the robustness of the 710 design in this area.