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

**3.4 ENVIRONMENTAL TESTING****3.4.1 Temperature & Humidity Testing****3.4.1.1 TLW0300AG – Hot Function Test**

This test evaluates the effect(s) of extreme high temperatures on the functioning performance of firearms with special interest in the synthetic parts of the product. For this test Rifle C-21 and 100 rounds of ammunition were placed in the environmental chamber set at a temperature of 120°F for a minimum of six hours. After six hours the rifle and 20 rounds of ammunition were removed from the chamber and shot in the test jack, cycling the safety every five rounds. After shooting the 20 rounds the rifle is returned to the chamber and allowed to return to the chamber temperature for two hours. At that point the rifle is again removed from the chamber with another 20 rounds and the shooting test is continued. This procedure is continued until the entire 100 rounds are fired through the rifle. No malfunctions or other items of note were observed during this test.

**3.4.1.2 TLW0300AH – Cold Function Test**

This test evaluates the effect(s) of extreme low temperatures on the functioning performance of firearms. Rifle C-22 and 100 rounds of ammunition were put in the freezer set at a -20°F for a minimum of six hours. After six hours the rifle and 20 rounds were removed from the freezer and shot with the safety being cycled every five rounds. The rifle was then replaced in the freezer for a minimum of two hours. This procedure was repeated until the 100 rounds had been shot through the rifle.

There was one misfire noted at round 88, the second round out of the box.

**3.4.1.3 TLW0300AI – Heat & Humidity Test**

For this test the rifle, C-23 was placed in the environmental chamber with 100 rounds of ammunition for a minimum of six hours. The chamber was set at 100°F and 80-90% Relative Humidity. After the initial six hours of conditioning the rifle and 20 rounds of ammunition were removed and shot in the test jack. The safety was cycled every five rounds. Every 20 rounds the test was repeated. There were no malfunctions noted during this test.

Jan. '01 Trial & Pilot Test - Remington M710 Centerfire Rifle;  
R & D Technical Center Project No. 241039; TLW 0300  
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Page 37

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