

6mm Rem. 80 Grain High Pressure

A customer complaint involving 6mm Rem. 80 grain product was received 2/10/83. The complaint involved excessive recoil with the fired shell lodged in the bolt. Sixteen unfired cartridges were returned and analyzed.

Tests indicated high pressure, 632 CUPS average, compared to 481 CUPS when loaded. SAAMI standard production pressure limits for this product are 520 CUPS nominal and 552 CUPS MPA. SAAMI proof load pressure limits for this product are 709 CUPS nominal and 759 CUPS MPA. All 6mm rounds in question belonged to Lot #3. This lot was loaded with Hercules powder, which appears to have grown (able to generate higher pressures than when originally loaded) for unknown reasons.

Based on the facts on hand, the subcommittee concluded the following:

- The rounds in question (Lot #3) do not pose a safety problem since they do not exceed SAAMI nominal or MPA proof load pressure limits.
- Since the rounds in question do exceed the SAAMI nominal and MPA limits for standard production, that portion of Lot #3 in the warehouse that is in question will be scrapped.
- We will monitor future complaints.
- We will retain a representative sample of the product in question to see if pressures continue to grow.
- We will test a representative sample of the rounds in question in guns produced by Remington and other manufacturers to simulate field conditions.

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