

May 6, 1974

CALIBER 243 - REPORTS OF HIGH PRESSURE

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In our investigation of two damaged gun complaints in this caliber early in 1974, we found that failure to properly neck ream or turn after resizing a larger caliber center fire cartridge case to a smaller caliber produced extremely high pressures. The product involved was 7.62 NATO cases resized to caliber 243 Win., and reloaded with powder and charge recommended in the loading manual.

This information was passed on to the Director of Product Safety (SAAMI), who in turn contacted other SAAMI members to gain additional information if available. Information relating to this subject was not forthcoming, but several members reported instances of high pressures involving factory loaded caliber 243 cartridges.

This data was presented in summary form by the Director to an ad hoc group of SAAMI members representing ammunition manufacturers. He advised that over a ten-year period approximately 100 guns of various makes and types had been damaged while factory loads were allegedly used and that one member reported receiving ammunition back from the field that showed a rise in pressure. Breaking down the available information, the Director noted that these incidents were reported to have occurred with the greatest frequency when the following conditions were present:

- 1) Barrels showed wear and erosion characteristics that had the appearance of dried mud flat.
- 2) 100 grain bullets were used.
- 3) Barrels had .068 groove widths.
- 4) 4350 powder was used.

Frequency of occurrence was about once in 900M rounds.

Based on the above, the ad hoc group proposed a test program that would hopefully reduce the number of variables and give an

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