

Model 700 Trigger FEA

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PURPOSE

The purpose of this report is to detail three modifications of the current Model 700 trigger design and discuss the results of a finite element stress analysis performed on them.

COMPARISON OF PROFILES

In Figure 1, three modified versions of the current Model 700 trigger are compared with the profile of the current Model 700 trigger and the original version. All the material added in these modifications of the current design lies within the shape of the old Model 700 trigger.

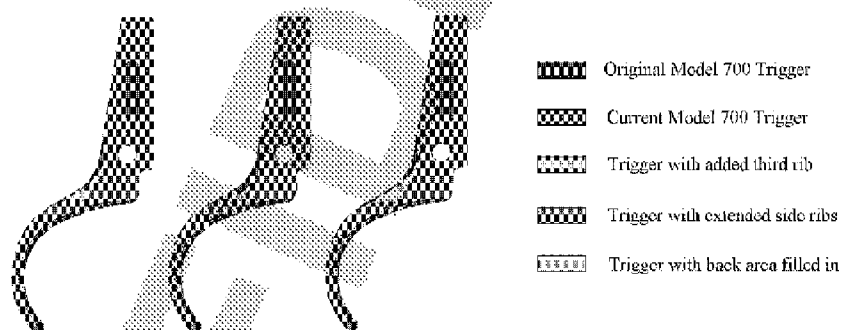


Figure 1. Comparison of trigger profiles.

Figure 2 contains another comparison of the trigger shapes. The first modification, in orange, involves the addition of a third strengthening rib in the area of the trigger where the hoop meets the main trigger body. In the second modification, in green, the two ribs that run along the sides of the trigger hoop were extended up onto the trigger body. In the third modification, in yellow, material was added in the area where the trigger hoop and body meet.