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MONTHLY REPORT - APRIL 1992: OVER/UNDER SHOTGUN

The redesign effort to reduce gun weight by 4 oz. to meet the revised specification of 7 1/4 lb. for the 26 inch barreled gun has been successfully accomplished. 1.14 oz. were removed from the frame, 0.60 oz. from the stock, and 2.30 oz. from the fore-end assembly. However, the still undefined barrel middle spacer or side ribs might add additional weight and negate some of the weight reduction.

The endurance test gun, with light weight contour barrels, is now at the 8500 round level. This includes 1000 proof rounds and 4750 rounds of heavy magnums. At this level, the fore-end failed through the rear fore-end iron screws and had to be replaced. The front hammer cocking rod bearing area in the frame had also worn sufficiently that cocking of the top barrel hammer was not always accomplished. The new lighter fore-end, and redesign of the frame to greatly increase the cocking rod bearing area, should alleviate these problems.

As theorized, the problems experienced with the new ejector sear detenting mechanism appear to have been entirely jack related. In a recent field test to confirm this, five shooters fired 35 rounds each of both light and heavy loads from the shoulder, with no failures of the ejectors to eject only the fired case. The design will be transmitted to production. The field test also indicated a need to increase the amount of primary extraction. The ejector cam cut in the frame and the ejector hook will be modified to accomplish this.

One prototype, which included all of the MIM fire control parts, has been drop tested to determine if it met SAAMI safety specifications. It easily passed this test. The SAAMI drop height of 12 inches with the safety in the "off" position was then increased to 48 inches. The gun also passed this test. It was then slam tested a number of times with the same result. As expected, the stock and its attachment stud were severely damaged when dropped from the 48 inch height.

Two batches of new hammers and sears, one lot plated with hard chrome and the other with electroless nickel plus teflon, are now available for testing. The nickel plus teflon parts gave the best trigger pull force results, averaging 4.17 pounds for the bottom barrel and 4.28 pounds for the top, with full hammer/sear regain at all times. Specifications call for 3.5 to 5.5 pounds with a max. difference of one pound between barrels.