

Design Improvements - All GaugesGas System

Tests have confirmed the adequacy of the "O" Ring seal to replace the metal seal. The "O" Ring should:

- . Improve performance by its better sealing properties lowering the minimum power required for proper functioning.
- . Reduce leading forward of the sealing ring which interferes with disassembly.
- . Reduce costs.

The "O" Ring life is less than the steel ring, being in the range of 5 to 14 thousand rounds versus 35 thousand rounds for the steel ring. However, the "O" Ring is inexpensive and easily replaced.

Weight

The major contributors to weight are the receiver and the inertia sleeve weight, both of which are necessary to meet the original design specifications for the shotgun. The receiver weight is due to the additional material provided to increase the endurance over the Sportsman 58. The inertia weight is an essential part of the recoil reduction system. Neither of these can be lightened in the 12 gauge without jeopardizing endurance and recoil reduction.

There are two reasonable possibilities to reduce weight:

- . Mahogany stock and fore end to replace walnut in all gauges. This will save five to six ounces.
- . Aluminum inertia sleeve to replace steel in 16 and 20 gauge field guns only. Not feasible in Trap and Skeet grades or 12 gauge due to endurance problem. This will save two to three ounces.

Other means to reduce weight in the 16 and 20 gauge have been considered but are not believed feasible due to their affect on manufacturing costs. These have included:

- . Aluminum receiver
- . Lightening cuts in the steel receiver and barrel extension.
- . Light weight bolt.