

REMINGTON ARMS CO., INC.
LONOKE, ARKANSAS

To: T.C. Douglas
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Bunters

Once again the problem of obtaining accurate bunter data has been addressed with the appropriate individuals in the plant. A new system for tracking bunters has been implemented which seems to be working. At present, only regular production bunters are being tracked. This will set up a guide line as to what average lifespan is and also test the reliability of the system. Several new bunters made of CPM REX M-2 and M-4 tool steels have been ordered. These should be in soon. Results from the 38 SPL test bunters made of T-15, M-42 and Vascomax 350 tool steels are not very promising. All three materials appeared to perform worse than regular production M-2 bunters. However, only five bunters from each material were run and only about 40% of these bunters were returned with what appears to be somewhat reliable data. More of these bunters need to be run in the future.

Work is still being done in the area of post-tempering. Most high alloyed tool steels (M-2, M-42, T-15, etc.) require a double or triple temper after hardening to impart good toughness. It is possible that this is not being performed at the heat treater. To test this, several as-received bunters have been, and are, being treated in house and run. Work in this area to date has not shown any increase in lifespan.

22 Stress Relief

The 22 Rimfire stress relief anneal test shells are still in ballistics waiting to be fired. This project is now in the hands of a Production Engineer. The results will be summarized when they come in.

Failure Investigations

A procedure was written on how to improve the integrity of the mixhouse bowls and to implement an inspection system. This report was written as a consequence of a failure analysis performed on a mixhouse bowl. The report revealed that the bowls locator pin failed by fatigue.

Several months ago a failure analysis was performed on a heater element support frame from a center fire annealing furnace. Preliminary results indicated that the corroded rails were made of plain carbon steel rather than designated stainless steel. To confirm this, samples were sent out for chemical analysis. The chemical analysis results confirm that the corroded rails are made of 316L stainless steel, while the corroded rails were made of plain carbon steel. As a result of this study, the structure was repaired by the vendor free of charge (23k).

General

In ending, much time has been spent on day to day project such as reviewing metallurgically related customer correspondences and running tests for other engineers in the plant.