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File

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE



"CONFINE YOUR LETTER TO ONE SUBJECT ONLY" _____

November 11, 1981

ACTIVE COMMITTEE

C. F. Cieccko
W. R. Globig

G. J. Hill
P. G. Johnson

T. J. McCormack
K. R. Thondukolam

J. P. LINDE

CENTERFIRE GFM "HAMMER MARKS"

A meeting was held to review this problem.

Two M/700 barrels with distinct "Hammer Marks" were repaired by redoing the rough polish, roller burnish, and buff. The colored barrel showed no sign of "Hammer Marks".

The oil used on the polishing operation has always been a 4% oil/water mixture. On 10/27/81 this was revised to the oil manufacturer's recommended 2% mixture.

Three M/7400 barrels were processed through buff, except to skip 100 grit polish. Three additional barrels were processed through buff except to skip 100 grit and broken down 100 grit polish. "Hammer Marks" were visible on all six. They will be inspected after color.

Analysis of the Quality Audit machine study of M/700 rough polish shows:

- a range of material removal of .011 to .023 inch depending on belt wear.
- the mean diameter of the 30 barrels was .017 inch smaller than ~~model drawing~~ after rough polish.

Our design wood margin between barrel and groove is .005 inch to allow for finish and no problems are currently being experienced from .017 inch undersize barrels. In fact, per D. D. Parker, no problem would probably be experienced if an additional .005-.008 inch were removed.

It appears that the small percentage of "Hammer Marked" barrels are the result of an infrequent combination of extra rough forging on GFM and occasional excessive belt breakdown on 100 grit and/or broken down 100 grit polish.

J. P. LINDE

-2-

November 11, 1981

FOLLOW UP ACTION

1. Try harder backing wheel on 100 grit polish. T. J. McCormack
2. Try 80 grit belt. T. J. McCormack

The next meeting will be held on 11/17/81 at 9:00.

W. R. Globig

WRG:hf