L. L. Presnell Page 2 December 13, 1972

History of process development and changes in draw and heading punch tooling which have some bearing on this problem have been reviewed by F. L. Coursey in letter of October 31, 1972 from R. M. Malcom to E. G. Larson, a copy of which is attached. However, the severe folds evidenced in complaint exhibits and responsible for rupture can only be caused by reworking or extreme wear of end taper of draw punch to the extent that heading punch does not fit as intended. This can be and has been demonstrated.

During the prolonged learning period at Lonoke in which different caliber products were introduced into the line for the first time, some difficulty was experienced relative to unauthorized reworking of tools on the jeb by toolsenters. This practice has since been essentially stopped through the efforts of Production supervision.

Recent examination under magnification of sectioned and etched shell components taken at various stages in the manufacturing process, and of fired shells from ballistic testing, revealed no abnormal condition with respect to folds or cold shuts. Obviously, however, product manufactured prior to June of 1971, and to a lesser degree, January of 1972, must have been contaminated with defective work.

A total of 22,060 9mm Luger cartridges were fired in control testing from loading and packing at Lonoke during the years 1971 and 1972 with no report of case rupture. Of this quantity 10,190 rounds, or nearly half, were fired in S&W Model 39 pistols.

Dimensional discrepancies pertaining to finish draw punch and heading punch referred to by F. L. Coursey have been corrected by revision of drawings. Old tools will be reworked.

Renewed emphasis is being placed on need to eliminate completely all unauthorized reworking of tooling on the job.

In our opinion no further action in this matter is indicated.

A. J. HERMANDORFER
PLANT MANAGER

W. L. PENN
SUPT., P.E.& C.

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