

*M. Walker*

CC: G. O. Clifford    P. H. Eccleston    D. S. Foote    W. E. Leek  
W. H. Davis    H. K. Faulkner    R. H. Grace    A. L. VanArnam

Ilion, New York  
November 12, 1948

MINUTES OF MEETING

November 10, 1948

1:30 P. M. - Gun Room

PRESENT:    F. L. Adams            J. W. Miller  
              S. M. Alvis            E. Sapp  
              W. A. Best            E. A. Streed  
              P. Blunt            A. Travostino  
              S. W. Fisher        R. E. Wright  
              D. E. Miller        E. K. Wheat

SUBJECT:    CENTER FIRE RIFLE ACCURACY  
              BARREL PROCESS IMPROVEMENT - TD-475

PURPOSE OF MEETING:

The committee, as listed above, has been organized at the request of P. E. & C. to advise, direct and consummate a program on the study of Center Fire Rifle Accuracy to include the M/721-722, M/81 and M/141. It is hoped that by directing efforts and following a definite program, improved accuracy, more economic handling and practices may result. The overall accuracy reject picture at present is straining all facilities connected with targeting and repairing rejects due particularly to the large volume of guns being manufactured. A prime purpose of this group will be to reduce the number of rejects by analyzing and correcting the contributing factors where possible.

CONCLUSIONS:

1. A program of gun reject study is in order and should be pursued.
2. A new and improved method of Front Sight Ramp attachment would eliminate a good part of the accuracy trouble.
3. Detrimental effect on Accuracy of reheating and re-ramping should be confirmed as recommended by conducting a larger test.
4. Suitable devices for determining both Accuracy and for Bore and Sight Alignment would aid in the present situation.

5. Additional reject data is desirable to classify "Factors" and to place proper weight on emphasis during the course of this study.

RECOMMENDATIONS:

1. Initiate the proposed Target Reject Study.
2. Set aside test lots of reheated and reramped Barrels at the Front Sight Ramp brazing operation for checking the accuracy effect in finished guns.
3. Mark all reheated and reramped Barrels with a character so that they may be identified.
4. Develop an alternate method to attach Front Sight Ramps. (Two methods now under study in Technical).
5. Emphasis is to be placed on "Point of Impact" study as the records now show this defect a larger percentage of the total.
6. Tag each reject with a space for recording reject history. To be removed only when the gun is accepted.

DISCUSSION:

A list of factors expected to contribute to poor accuracy has been compiled with some thought given to their relative importance. A copy of this list is attached for reference. An attempt will be made during this study to classify them according to their proper weight with some type of action or disposition to be recommended on each.

The necessity of accumulating accurate information led to the adoption of a plan to tag rejects for a trial period for recording reject history.

FUTURE PROGRAM:

1. Identify reheat and reramp Barrels with special mark. Set aside 25 Barrels each for accuracy test.  
(Chem & Met - J. W. Miller)
2. "Keep separate" and process test lots under (1) through Target and Test.  
(Production & Technical to follow)
3. Prepare tags and start procedure of tagging rejects.  
(Inspection - W. A. Best)

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4. Develop alternate Front Sight Ramp Attachment.  
(Technical - E. K. Wheat)
5. Point of Impact Study.  
(Technical - E. K. Wheat)
6. Group size study.  
(Technical - E. K. Wheat)
7. Report all cases attributed to "Factors".  
(Committee as a whole)
8. Rejects on M/721-722 to be referred to  
(E. K. Wheat or L. Francisco)
9. Rejects on M/81 and M/141 to be referred to  
(E. Streed)
9. A meeting will be called in approximately two weeks  
to report progress and review program.  
(E. K. Wheat)

E. K. Wheat  
E. K. Wheat  
Mechanical Engineer  
Process Development Unit  
Arms Technical Division

EKW/ml