

April 2, 1947

TO: E. H. Grace
 FROM: E. H. Grace
 SUBJECT: M/22-10074

This memorandum refers to the problem discussed in the meeting of 5/12/47, regarding the response of the M/22 safety in heat treatment. The following steps have been taken on this problem:

1. Quantity of material, material, and heat treatment.

The material was placed in the heat treatment furnace at the temperature of 1000°F. The material was held at this temperature for 1 hour. The material was then cooled to room temperature. The material was then placed in the heat treatment furnace at the temperature of 1000°F. The material was held at this temperature for 1 hour. The material was then cooled to room temperature.

2. Quantity of material, material, and heat treatment.

The material was placed in the heat treatment furnace at the temperature of 1000°F. The material was held at this temperature for 1 hour. The material was then cooled to room temperature. The material was then placed in the heat treatment furnace at the temperature of 1000°F. The material was held at this temperature for 1 hour. The material was then cooled to room temperature.

The total spread in position of this arm after heat treatment was found to be .023". It was noted that the general trend was for the arm to increase in height .002 to .003".

In view of the above, it appears that there are two possible solutions to the problem.

1. Reduce the spread in position of this arm prior to heat treatment.
2. Insert a straightening operation after heat treatment prior to assembly.

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