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HYDRAULIC LINE CLOSURE CAPS AND PLUGS(U) ARMY AIR  
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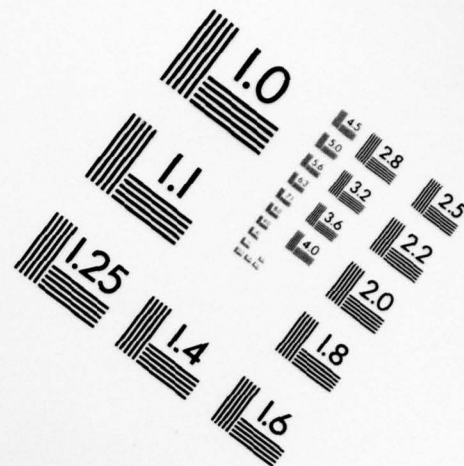
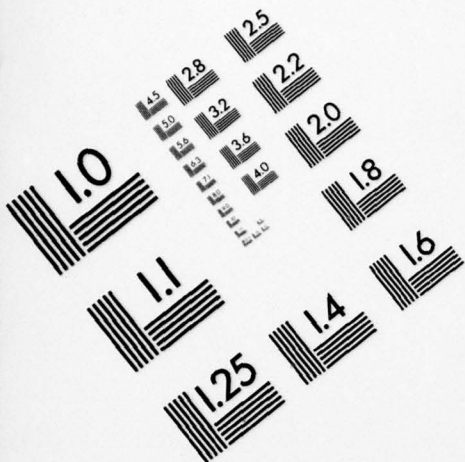




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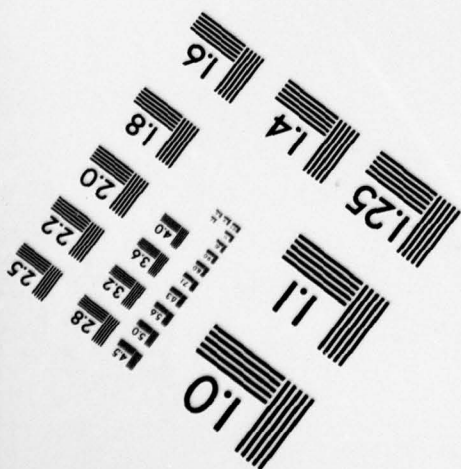
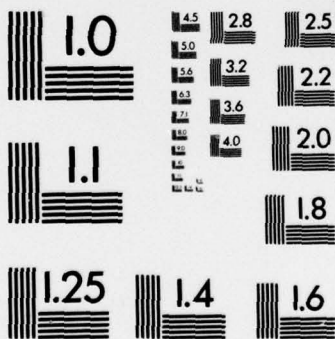
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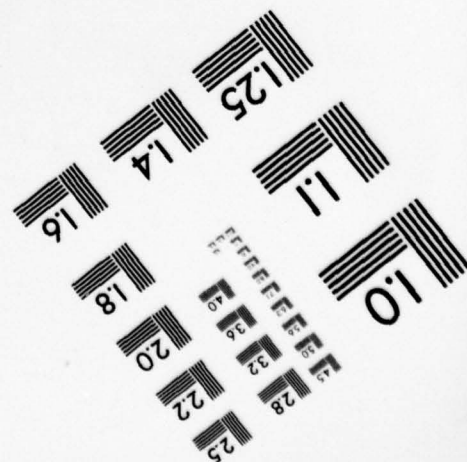
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ARMY AIR FORCES  
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REPORT

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SUBJECT Hydraulic Line Closure Caps and Plugs

AAF EQUIPMENT BOARD PROJECT NO. (M-4) 74

2334

DATE SEP 27 1943

94-28079

Hydraulic systems - components

ARMY AIR FORCES EQUIPMENT BOARD  
ARMY AIR FORCES SCHOOL OF APPLIED TACTICS  
Orlando, Florida

SEP 27 1943

Report on AAF Equipment Board Project No. (M-4) 74.

Hydraulic Line Closure Caps and Plugs.

1. DIRECTIVE

Test was requested by letter from Commanding General, Materiel Command, dated 31 May 1943, to Commandant, AAFSAT, Orlando, Florida.

2. FACTS BEARING ON PROJECT

a. Equipment tested consisted of a kit of caps and plugs to be used on hydraulic lines to prevent the entrance of foreign matter in the hydraulic system when the lines are disconnected, and to prevent spillage of the hydraulic fluid.

b. The object of the test was to test the suitability of subject equipment for use by Army Air Forces units, with consideration to its standardization and inclusion in Tables of Equipment.

3. DISCUSSION

Subject equipment was tested by the AAF Service Center, Leesburg, Florida, and by the 85th Sub-Depot, Orlando, Florida. There is a definite military requirement for an improved method to prevent wastage of hydraulic fluid and the entrance of foreign matter into the hydraulic system of aircraft. The present practice is to use masking tape or plugs made of wood or cloth. None of these methods is satisfactory. The variety of plugs and caps provided proved satisfactory for the airplanes serviced during the period of the test. It is believed, however, that an increase in variety is necessary to make the kit suitable for all types of AAF aircraft. The number of plugs and caps of the various sizes proved insufficient, and should be increased. Since the quantity and sizes required will vary with the type of airplane serviced, since the caps and plugs will be subject to loss and damage, it is believed that they should be issued in bulk in the Combat Supply Tables.

4. CONCLUSIONS

a. Equipment fulfills purpose for which it was designed and there is a military requirement for the equipment.

5. RECOMMENDATIONS

a. That variety and quantity of caps and plugs be as determined



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by the Supply and Maintenance Divisions of the Air Service Command and issued in Combat Supply Tables.

b. That pertinent Technical Orders be amended to instruct in and require the use of subject caps and plugs.

6. PRODUCTION FACTORS

See Appendix A for production factors.

*George W. McGregor*  
GEORGE W. MCGREGOR  
Colonel, Air Corps  
President, AAF Equipment Board

2 Incls.

Incl. 1 - Appendix A

Incl. 2 - Photograph

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APPENDIX A

PRODUCTION DATA  
FOR  
HYDRAULIC LINE, CLOSURE CAPS AND PLUGS

- a. Availability of materials: Tubing Seal Cap, Inc., 428 New Center Bldg., Detroit, Michigan, are furnishing these items to various aircraft manufacturers in million lots and the soft steel required for these caps and plugs is available in their plant.
- b. Reason for using any critical materials which may be involved: no suitable substitute.
- c. Availability of manufacturing facilities: Manufacturing facilities are available as they are continuously producing these items and an additional order for a small quantity such as this request would in no way hinder production on present orders they have in their plant.
- d. Estimated date when deliveries could commence: These various items can be shipped in bulk within 10 days after receipt of order.
- e. Estimated maximum delivery schedule: See above.
- f. Approximate estimated cost per item: Price of these closures, depending on size, range from .01 to .05 each.

Report on AAF Equipment Board Project No. (M-4) 74.  
Hydraulic Line Closure Caps and Plugs. (Continued)





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**DATE:**

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