



TECHNICAL BULLETIN

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FIELD INSPECTION AND CORROSION REPAIR – MAIN ROTOR DRIVE SHAFT, PN 369A5500

1. PLANNING INFORMATION:

A. Models Affected:

All 500 Model 369H Series Helicopters

B. Time of Compliance:

At owners and operators discretion; recommended whenever subject main rotor drive shaft is removed from helicopter

C. Preface:

The information given in this Service Information Notice lists a procedure for field repair of the main rotor drive shaft, if evidence of corrosion pitting through the original phosphate coating on the drive shaft is noted.

D. Weight and Balance:

Weight and balance not affected.

E. Reference Publications:

500 Series - Basic HMI, Issued 1 October 1972; Revision No. 7, 15 October 1976

| MATERIAL | |
|---|--|
| Nomenclature | Source |
| 1,1,1 Trichloroethane (O-T-620) | Commercial |
| Surface Cleaner TT-C-490 or WO#1 (MIL-C-10578, Type II) | Turco Products Inc. Wilmington, CA |
| Crocus Cloth (P-C-458) | Commercial |
| Primer, Zinc Chromate (MIL-P-8585) | W.P. Fuller & Co., Los Angeles, CA |
| Oil, Preservative (VV-L-800) | Commercial |
| Sealing Compound (MIL-S-7502) | Product Research (PR1221) Burbank, CA or Coast Pro Seal (EP711) Compton, CA |

2. PROCEDURE

- (1). Remove main rotor drive shaft, per Basic HMI.
- (2). Inspect all surfaces of drive shaft for dents, nicks, scratches and evidence of deformation. Inspect apertures on end of drive shaft for excessive wear. (Refer to Basic HMI.)

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- (3). Inspect all external surfaces of shaft for corrosion. Remove corrosion as follows:
- (a). Degrease corroded area of drive shaft with clean cloth saturated in trichloroethane.

WARNING

Surface cleaner irritates hands on repeated exposure, Rubber gloves should be worn.

- (b). Swab shaft exterior with diluted solution of surface cleaner (mix one part Turco # 1 with four parts water). Keep wet with solution for ten minutes, or until corrosion appears to be removed. Wipe, clean and inspect, and repeat as necessary until there is no further evidence of corrosion.
- (c). Rinse with water and dry thoroughly with compressor[air.

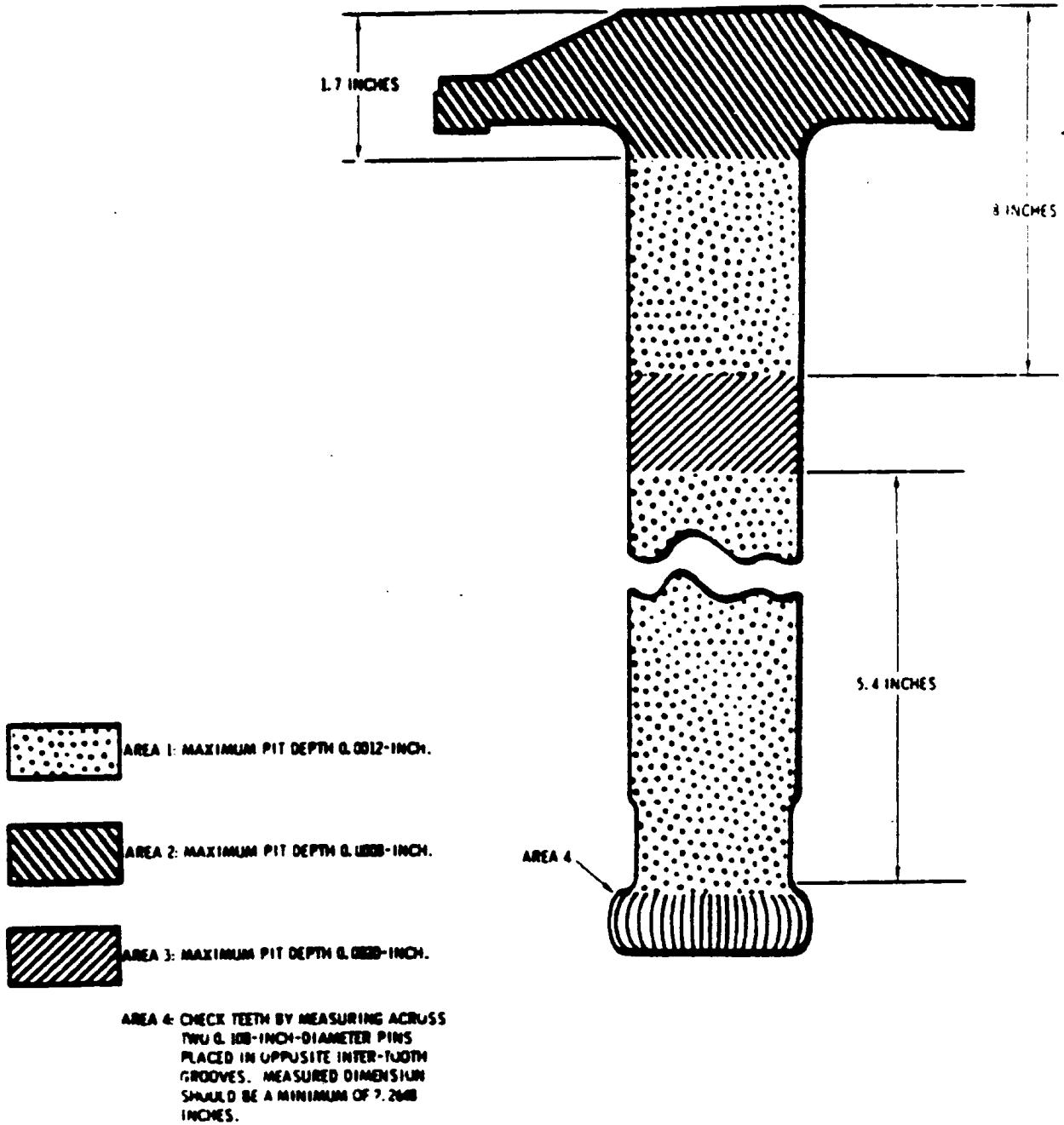
CAUTION

Exercise care when removing pits to ensure that shot peening is not completely penetrated. Also, remove only minimum material necessary to remove pits. Minimum wall thickness of c). 1775 inch **MUST** be maintained.

- (d). Lightly abrade corroded surface with crocus cloth to remove pits. If pit removal exceeds depth of 0.0012'-inch in Area I or 0.0008'-inch in Area 2 (See Figure 1), shaft is unserviceable and must be replaced.
- (e). Repeat a through c above.
- (f). Spray two coats of zinc chromate primer on shaft exterior. Do NOT prime spline teeth or mounting surface.
- (4). Apply preservative oil to spline teeth and mounting surface.
- (5). Immediately reinstall main rotor drive shaft, per Basic HMI.
- (6). Apply 0.06-inch bead of sealing compound around interface of hub and drive shaft.

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Figure 1. Inspection and Repair - Main Rotor Drive Shaft