

R66 SERVICE BULLETIN SB-23

DATE: 26 June 2018

TO: R66-series Owners, Operators, and Maintenance Personnel

SUBJECT: Rod Ends for F174-1 Engine Support Weldment

ROTORCRAFT AFFECTED: R66-series Helicopters S/N 0004 thru 0860 except 0018, 0823, 0847, 0858, and 0859.

TIME OF COMPLIANCE: Within next 100 flight hours or by 30 September 2018, whichever occurs first.

BACKGROUND: During recent flight testing, an intermittent vibration was found in the F174-1 engine support weldment. This bulletin requires installing F101-4 elastomeric rod ends where the support weldment attaches to lower frames.

COMPLIANCE PROCEDURE:

1. Obtain two B330-13 palnuts, two B330-16 palnuts, & two F101-4 elastomeric rod ends.
2. Remove engine cowling assembly per R66 Maintenance Manual (MM) § 53-21.
3. Install a protective cap on the engine burner drain valve assembly and place a support under valve to prevent aft end of engine from dropping.
4. Refer to MM Figure 71-2 Detail A. Cut and discard safety wire and remove two bolts securing F174-1 support weldment to engine bottom mount.
5. Refer to MM Figure 53-2 Detail B. Remove hardware securing support weldment A101-4 rod ends to F046 lower frames and remove support weldment.
6. Refer to Figure 1. Measure and record distance between support weldment end to A101-4 rod end bore centerline (rod extension), both sides.
7. Remove rod ends. Retain jam nuts and discard rod ends and palnuts.
8. Install new B330-16 palnut and retained jam nut on each F101-4 rod end. Install rod end in weldment to dimension recorded in step 6 within ½ turn. Do not torque nuts.
9. Position weldment in helicopter and insert bolts thru tabs and rod ends.

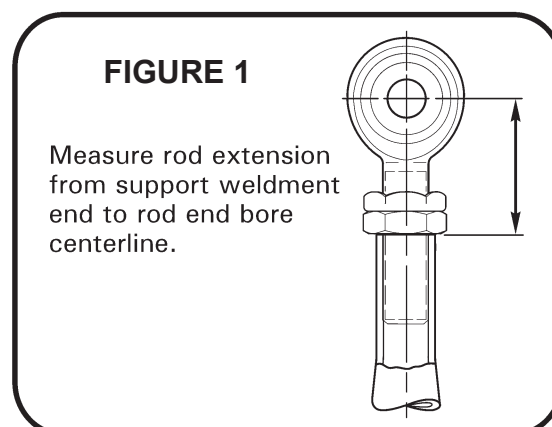
(OVER)

10. a. Install hardware securing support weldment to engine bottom mount; special torque bolts per MM § 20-33 (safety wire will be installed in step 11).
- b. Verify 0.2 inch minimum clearance between F642 shaft and firewall grommet. To adjust clearance:
 - i. Remove two bolts securing support weldment to engine bottom mount and remove support weldment.
 - ii. Refer to Figure 1. Adjust rod extension on both sides as required, ensuring rod extension is no more than 1.10 inches.
 - iii. Repeat steps a. & b. until minimum shaft-to-firewall grommet clearance is achieved.
11. Install 0.032-inch diameter safety wire & safety three engine bottom mount bolts together as shown in MM Figure 71-2 Detail A. Verify safety is correct direction.
12. Install hardware securing support weldment rod ends to lower frames, standard torque nuts and palnuts per MM § 20-32, and torque stripe per MM Figure 5-1.
13. Standard torque jam nuts and palnuts securing rod ends to support weldment per MM § 20-32, and torque stripe per MM Figure 5-1.
14. Remove engine support and protective cap from burner drain valve.
15. Install engine cowling per MM § 53-21.
16. Make appropriate maintenance record entries.

APPROXIMATE COST:

Parts: (2) F101-4 elastomeric rod ends (\$145 each, if ordered by 30 September 2018), (2) B330-13 palnuts (\$0.60 each), and (2) B330-16 palnuts (\$0.40 each) are required to comply with bulletin (\$292 total).

Labor: 2.0 man-hours.



THE DESIGN ENGINEERING ASPECTS OF THIS BULLETIN HAVE BEEN SHOWN TO COMPLY WITH APPLICABLE FEDERAL AVIATION REGULATIONS AND ARE FAA APPROVED.