

R66 SERVICE BULLETIN SB-30

DATE: 29 July 2019

TO: R66 Owners, Operators, and Maintenance Personnel

SUBJECT: Lubrication of Swashplate Bearings

EFFECTIVITY: All R66 Helicopters.

TIME OF COMPLIANCE: Every 1000 flight hours or 6 years time in service, whichever occurs first. For helicopters with more than 1000 flight hours or 6 years time in service, comply by 31 October 2019.

BACKGROUND: This bulletin requires lubrication for swashplates at the midpoint of their service lives.

COMPLIANCE PROCEDURE:

1. Examine data plate on C017-6 swashplate and determine revision (“REV”) letters. If revision letters are “AD” or subsequent, proceed to step 2. If revision letters are “AA”, “AB”, or “AC”:
 - a. Obtain following parts from RHC Customer Service or an R66 Service Center:
 - (1) C200-3 retainer
 - (1) C206-2 retainer
 - (1) C217-1 seal
 - (1) C219-3 spacer
 - b. Remove swashplate per R66 Maintenance Manual (MM) § 67-40.
 - c. While holding lower swashplate stationary in one hand, rotate upper swashplate with opposite hand; if bearing roughness is detected, replace swashplate or submit swashplate to RHC for repair.
 - d. Refer to R66 Illustrated Parts Catalog (IPC) Figure 62-9 dated SEP 2018. From swashplate, remove and discard:
 - C200-1 retainer
 - C206-1 retainer
 - C218-1 shield
 - C218-2 shield
 - C219-1 spacer
 - C219-2 spacer

Install (16) NAS1352N08-8 screws & NAS620-8L washers securing C205-1 sleeve and special torque screws per MM § 20-33.

(OVER)

- e. Refer to Figure 1. Perform steps 7 thru 11.
 - f. Using yellow enamel or epoxy paint, apply a 0.2-inch diameter dot on the C017-6's data plate.
 - g. Install swashplate per MM § 67-40.
 - h. Proceed to step 17.
2. Remove ty-rap securing C480 boot to upper (rotating) swashplate.
 3. Remove hardware securing lower rod ends of both C258 pitch links to upper swashplate. Temporarily secure boot, upper A205 fork, and both pitch links up & away from swashplate.
 4. Rotate upper swashplate by hand; if bearing roughness is detected, replace swashplate or submit swashplate to RHC for repair.
 5. Refer to Figure 1. Remove (10) NAS1352 screws (with washers) securing C206-2 & C200-3 retainers to upper swashplate. Raise both retainers and C219-3 spacer and either temporarily secure to chord arm (if on helicopter) or set aside (if on workbench).
 6. Using a 0.006 inch feeler gage, gently pry up outer edge of upper C217-1 seal and expose top ball bearing.
 7. Using a syringe or grease gun, add A257-3 grease into cavity above bearing set until grease is just below top of C205-1 sleeve (approx. 20 ml grease). Do not allow grease into screw holes.
 8. Position C217-1 seal atop grease followed by C219-3 spacer, C200-3 retainer, and NAS1352N08-8 screws with NAS620-8L washers. Finger-tighten all screws, then snug any (4) screws that are 90° apart, depressing seal and forcing grease into underlying bearing set. Rotate upper swashplate several revolutions. Wipe off excess grease.
 9. Repeat steps 5 thru 8 once, then proceed to step 10.
 10. Remove screws & washers and solvent-clean. Raise and clean C200-3 retainer and C219-3 spacer, then reinstall both.
 11. Install C206-2 retainer, NAS620-8L washers, and NAS1352N08-8 screws with A257-9 anti-seize. Special torque screws per MM § 20-33.
 12. Refer to IPC Figure 62-5. Connect upper A205 fork rod end and lower rod end of associated C258 pitch link, to interrupter-side swashplate ear; standard torque bolt per MM § 20-32. Install palnut, standard torque per MM § 20-32, and torque stripe per MM Figure 5-1.

13. Attach two A255-3 counterweights, and lower rod end of C258 pitch link, to swashplate ear opposite interrupter; standard torque bolt per MM § 20-32. Install palnut, standard torque per MM § 20-32, and torque stripe per MM Figure 5-1.
14. Verify safety washers (or counterweight) and C115 spacers installed at all rod ends per MM Figure 5-1.

WARNING

Assembly of flight controls is critical and requires inspection by a qualified person. If a second person is not available, the installer must take a 5-minute break prior to inspecting flight control connections he has assembled.

15. While observing swashplate, have someone fully manipulate cyclic and collective controls. Verify swashplate movement corresponds with cyclic and collective movement, and without interference.
16. Position swashplate boot on upper swashplate and secure with MS3367-6-0 ty-rap.
17. With appropriately rated person at controls, start helicopter, run up to 100% N_R , then shutdown.
18. Remove ty-rap, and raise swashplate boot. Wipe off excess grease from swashplate. Position swashplate boot on upper swashplate and secure with MS3367-6-0 ty-rap.
19. Make appropriate maintenance record entries.

APPROXIMATE COST:

Parts: \$385.50 if swashplate upgrade is required.

Labor: 2.0 man-hours to lubricate bearings on Revision AD & subsequent swashplates.

(OVER)

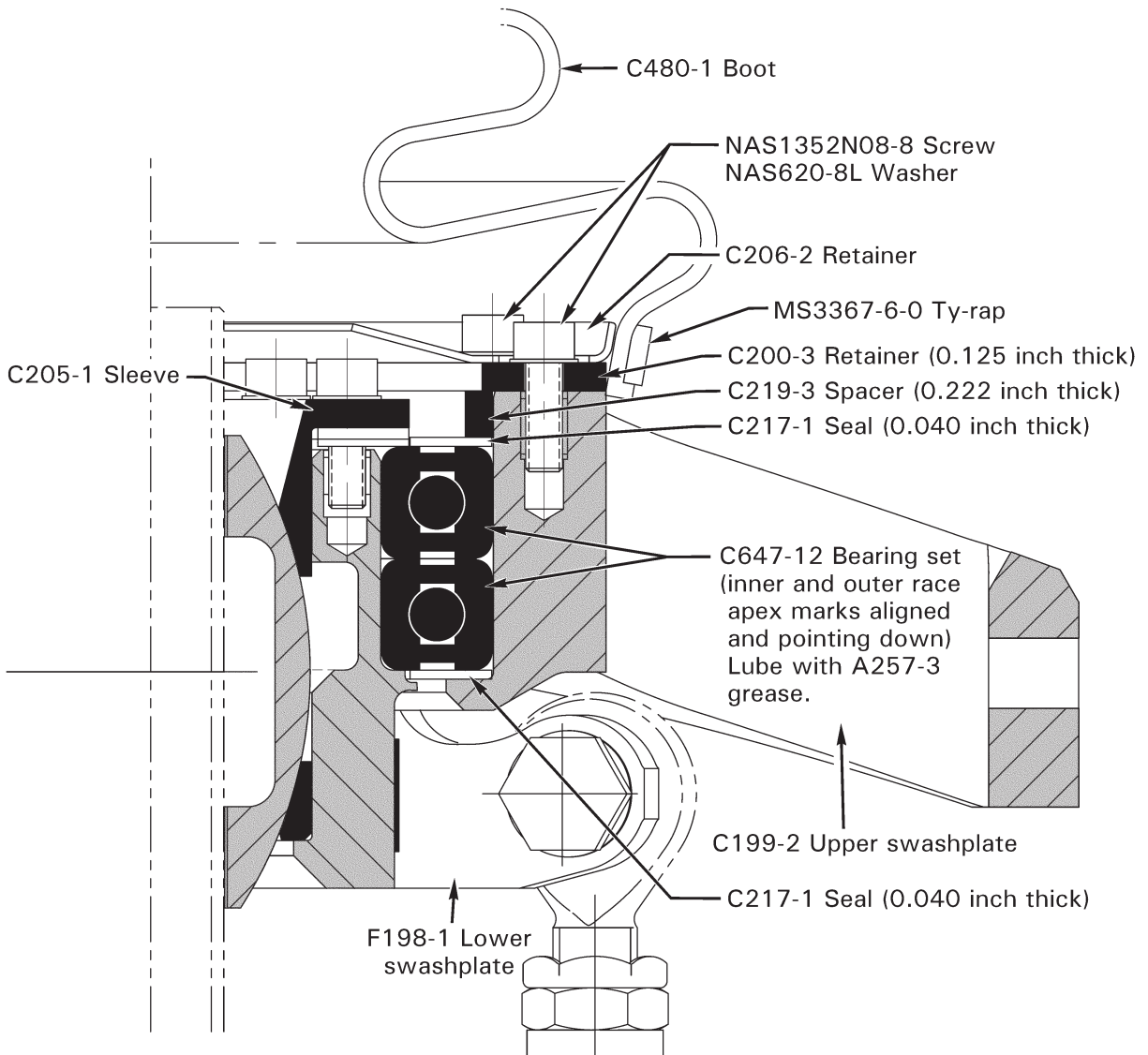


FIGURE 1 C017-6 REV AD OR LATER SWASHPLATE ASSEMBLY

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