

R22 SERVICE LETTER SL-90

DATE: 30 June 2021

TO: R22-series Owners, Operators, and Maintenance Personnel

SUBJECT: A017-2 Revision AN Swashplate Assembly Shimming Procedure and Parts

BACKGROUND: A017-2 Revision AN and subsequent swashplates have a simplified design and use a shimming procedure not yet included in the R22 Maintenance Manual (MM).

COMPLIANCE PROCEDURE:

If inspection indicates swashplate shimming is required and swashplate's data plate indicates revision (REV) letters AN or subsequent:

1. Remove ty-rap securing boot to upper (rotating) swashplate.
2. Disconnect left and right A121-7 push-pull tube assemblies from lower (non-rotating) swashplate.
3. Mark pitch link connected to swashplate ear having A769-3 interrupter. Remove hardware securing lower rod ends of both pitch links and upper scissors to upper swashplate. Temporarily secure boot, upper scissors, 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 on page 2. Remove (4) NAS1352 screws & washers securing A206-2 retainer to upper swashplate. Raise retainer and temporarily secure to chord arm.
6. Rotate upper swashplate so the ears are aligned with the lateral axis of the helicopter i.e. ears point to helicopter's left and right. Measure tilting friction by pulling up or down with scale attached to pitch link hole in ear; force required to tilt swashplate must be 3 to 8 pounds.
7. To adjust tilting friction, remove (8) NAS1352 screws & washers securing A202-4 sleeve assembly to lower swashplate. Adjust C197-11 thru -16 shim stack-up as required; decreasing shim stack-up increases tilting friction. Position A202-4 sleeve assembly on lower swashplate, secure with (8) NAS1352 screws & washers, and special torque screws to 35 in.-lb wet with A257-9 anti-seize (ref. MM § 23-78). Measure tilting friction per step 6; repeat as required until correct tilting friction is obtained.

(OVER)

Shim part no.	Shim thickness
C197-11	0.016 in.
C197-12	0.020 in.
C197-13	0.025 in.
C197-14	0.032 in.
C197-15	0.040 in.
C197-16	0.050 in.

8. Connect left and right A121-7 push-pull tube assemblies to lower swashplate. Standard torque bolts per MM § 23-32. Install palnuts, standard torque per § 23-32, and torque stripe per MM Figure 2-1.
9. Position A206-2 retainer on upper swashplate, secure with (4) NAS1352 screws & washers, and special torque screws to 35 in.-lb wet with A257-9 anti-seize.
10. Connect upper scissors and marked pitch link to swashplate ear having interrupter. Connect opposite pitch link to opposite ear. Standard torque bolts per MM § 23-32. Install palnuts, standard torque per § 23-32, and torque stripe per MM Figure 2-1.
11. Position boot on upper swashplate and secure with ty-rap. Trim ty-rap tip flush.

