SERVICE LETTER #5

DATE: July 22, 1980 - Revised: October 29, 1980

SUBJECT: Installation of nickel plated washers in the forward and intermediate flexplates.

ROTORCRAFT AFFECTED: Model R22 S/N 0002 thru 0036

TIME OF COMPLIANCE: At installation of new rotor blades

MATERIALS REQUIRED:

1/2" open end wrench
7/10" open end wrench
Torque wrench 0-250 in/lbs.
Supply of A559-3 washers
Supply of A559-4 washers

INSTALLATION PROCEDURE:

The intent of this modification is to prevent the formation of localized stress concentrations in the flexplates due to their movement.

1. Remove the NAS 1305-4 bolts and washers holding the A192 and A194 yokes. NOTE: By disconnecting and reassembling one bolt at a a time, you will eliminate the possibility of misconnecting the flexplate joint.

2. Place 1 (one) A559-3 washer on each side of the 4 (four) flexplate ears.

3. Reinstall the 1305-4 bolts placing a AN516 L washer under the head of the bolt, install the A679-A5 nut placing one AN516 L washer under it.

4. Torque to 200 in/lbs. plus runon torque, install pal nut and torque stripe.

5. To install the A559-4 washers on the intermediate A193-2 flexplate, use the above procedure, substituting the hardware with NAS 1304-3 bolts, 416 L washers, A559-4 washers, NAS 679-A4 nuts and -13 pal nuts. NOTE: The NAS 1304-3 bolts may require additional washers on the nut side to obtain the two to four visible threads above the nut (2 min. - 4 max.). Use AN416 or 416 L washers.

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6. Torque the NAS 1304-3 bolts to 100 in/lbs. plus runon torque, pal nut and torque stripe.

7. Prime and seal all joints to prevent corrosion.

DISPOSITION OF REMOVED PARTS: Discard at site.

PART II

DATE: July 22, 1980 - Revised: October 29, 1980

SUBJECT: Reinforce structure through addition of four blind rivets at T.R. pedal bearing support.

ROTORCRAFT AFFECTED: Model R22 S/N 0002 thru 0041

TIME OF COMPLIANCE: At next inspection

MATERIALS REQUIRED:
2 T.R. pedal jigs A359-1 L.H. & R.H.
4 blind rivets (Huck) NAS19191B04S02
Angle drill
#30 drill bits
Blind rivet set for Hucks above

INSTALLATION PROCEDURE:

1. Locate the L.H. jig on the structure above the pedal mounting block and mark the spots.

2. Remove the jig and check for proper rivet spacing, etc.

3. Replace the jig and drill four #30 holes.

4. Check again for proper spacing.

5. Install the NAS1919B04S02 rivets.

6. Check installations for security.

7. Repeat the above using RH jig on the R.H. side.

DISPOSITION OF REMOVED PARTS: None

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PART III

DATE: July 22, 1980 - Revised: October 29, 1980

SUBJECT: Permanently mount interrupter on swash plate.

ROTORCRAFT AFFECTED: Model R22 S/N #0002 thru 0036

TIME OF COMPLIANCE: At next inspection.

MATERIALS REQUIRED:
Special drill jig RHC
1/4" drill motor
One MS20470AD3-8 rivet
Squeeze rivet set
#40 drill
A769-1 interrupter

INSTALLATION PROCEDURE:

1. Install the special drill jig on the rotating element of the swash plate part #A199-1. CAUTION: Be sure to cross check before drilling to be certain of proper location.
2. Drill thru the aluminum coating very carefully.
3. Clamp the A769-1 interrupter in place, checking for proper location and drill.
4. Remove the special jig.
5. Install the MS20470AD3-8 rivet. Check for proper length before squeezing.
6. Properly set the rivet using a hand squeeze tool with the proper sets installed. CAUTION: DO NOT USE A RIVET GUN.
7. Touch-up with primer and paint.

DISPOSITION OF REMOVED PARTS: None

PART IV

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PART IV

DATE: July 24, 1980 - Revised: October 29, 1980

SUBJECT: Change starter wiring to prevent engagement with engine running.

ROTORCRAFT AFFECTED: Model R22 S/N 0002 thru 0034

TIME OF COMPLIANCE: At next inspection.

MATERIALS REQUIRED:
Wire #50 with terminal & splice
Wire #32 with terminals
Tie wraps
Hand tools
Electricians stripping & crimping pliers

INSTALLATION PROCEDURE:

1. Disconnect wire #50 from the ignition switch terminal marked "start". Clip the terminal off & properly stow loose end in the bundle.

2. Locate wire #50 as it enters the tach power relay in the tunnel. Clip and properly stow the loose end in the bundle. (Early ships have tach power relay behind the instrument panel).

3. Route the new #50 wire along the bundle from the starter relay upper main output terminal into the tunnel and splice it onto the pig tail at the tach power relay.

4. Route wire #32 along the bundle from the R.H. starter solenoid coil over to the oil pressure switch. Use tie wrap as required.

5. Connect the starter solenoid terminal end to starter solenoid base and pressure switch end to the normally closed terminal where #6 wire attaches to the oil pressure switch PN M4014-60.

6. Remove the short piece of #32 wire that provides a ground to the base of the starter solenoid. (Relay coil now gets its ground thru the oil pressure switch with zero oil pressure).

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PART IV (Cont.)

7. On early ships the magnetos were grounded to the base of the starter solenoid. When step #6 is accomplished on early models, the mags no longer have a ground with the engine running. In this case, remove the wire cut and install a terminal and ground directly to the magneto case.

8. Verify system as follows (with ohmmeter):
   a. Check solenoid base to ground - verifies the #32 wire installed.
   b. Start engine and observe tach power "on" during start cycle.
   c. With engine idle, check starter solenoid base to ground, it should show "open" with engine oil pressure up.

DISPOSITION OF REMOVED PARTS: None