

SERVICE BULLETIN #57

DATE: 11 May 1987

TO: All R22 Owners and Operators

SUBJECT: Main Rotor Pitch Link Inspection & Fitting Replacement

ROTORCRAFT AFFECTED: All R22 Helicopter S/N 0580 Thru S/N 0644.
All R22 helicopters overhauled or repaired at RHC completed between 15 August 1986 and 7 May 1987.
All pitch link spare parts A258-1, -2, or -4 received from RHC between 15 August 1986 and 7 May 1987.

TIME OF COMPLIANCE: Part A - Prior to next flight and each flight thereafter until Part B is accomplished.

Part B - Within the next 10 flight hours or by 15 June 1987, whichever occurs first.

BACKGROUND:

Flaws have been found in the material used during a production run of the A258-2 and -3 pitch link components. These flaws produce lengthwise cracks in the parts and, if allowed to progress, these cracks could lead to failure of the pitch link and loss of control of the helicopter.

COMPLIANCE PROCEDURE:

Part A - Preflight Inspection

1. Visually inspect the Main Rotor Pitch Links for cracks using 3X or greater magnification. Pay particular attention to any crack or crack-like indication that runs lengthwise of the A258-2 upper fitting or the hexagon shaped A258-3 lower link.

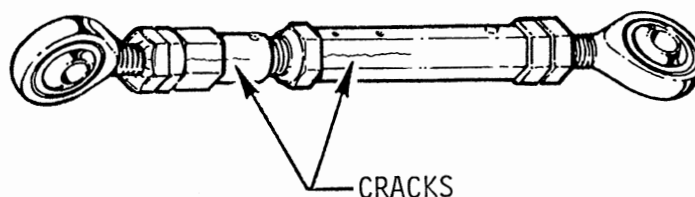


FIGURE 1 CRACK LOCATION

2. If any crack indications are found, immediately ground the helicopter and perform Part B prior to any further flight.
3. Part A may be accomplished by a pilot or mechanic and must continue until Part B is accomplished.

Part B - Fitting Replacement

1. Order replacement A258-2 Fittings from RHC, two required per aircraft.
2. When replacement parts are received, install per Steps 3 thru 10.
3. Color code swashplate arms, pitch horns, and both pitch link rod end bearings.

CAUTION

If matching color marks are lost or length of pitch link changes, a track and balance per Section 10.200 of the Maintenance Manual will be required.

4. Remove pitch links and measure overall length using a caliper or large micrometer. Record length to nearest .001 inch.
5. Disassemble pitch links. Do not remove lower rod end bearing. Replace A258-2 fittings.
6. Remove paint and visually inspect the A258-3 links using a 3X or greater magnification; if any crack indications are found, replace complete A258-1 Pitch Link assembly.
7. Red tag replaced Fittings and any defective Links and return to RHC for warranty credit.
8. Reassemble pitch links as shown in Figure 2. Keep overall length to within $\pm .005$ of length measured before disassembly.
9. Install on helicopter and torque attaching bolts to 100 inch-lbs. See Section 8-412 of Maintenance Manual.
10. Touch up paint using an epoxy primer and grey exterior paint. Torque strip all joints. Final inspect and make appropriate log book entry.

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COLOR CODE BEFORE REMOVING FROM HELICOPTER

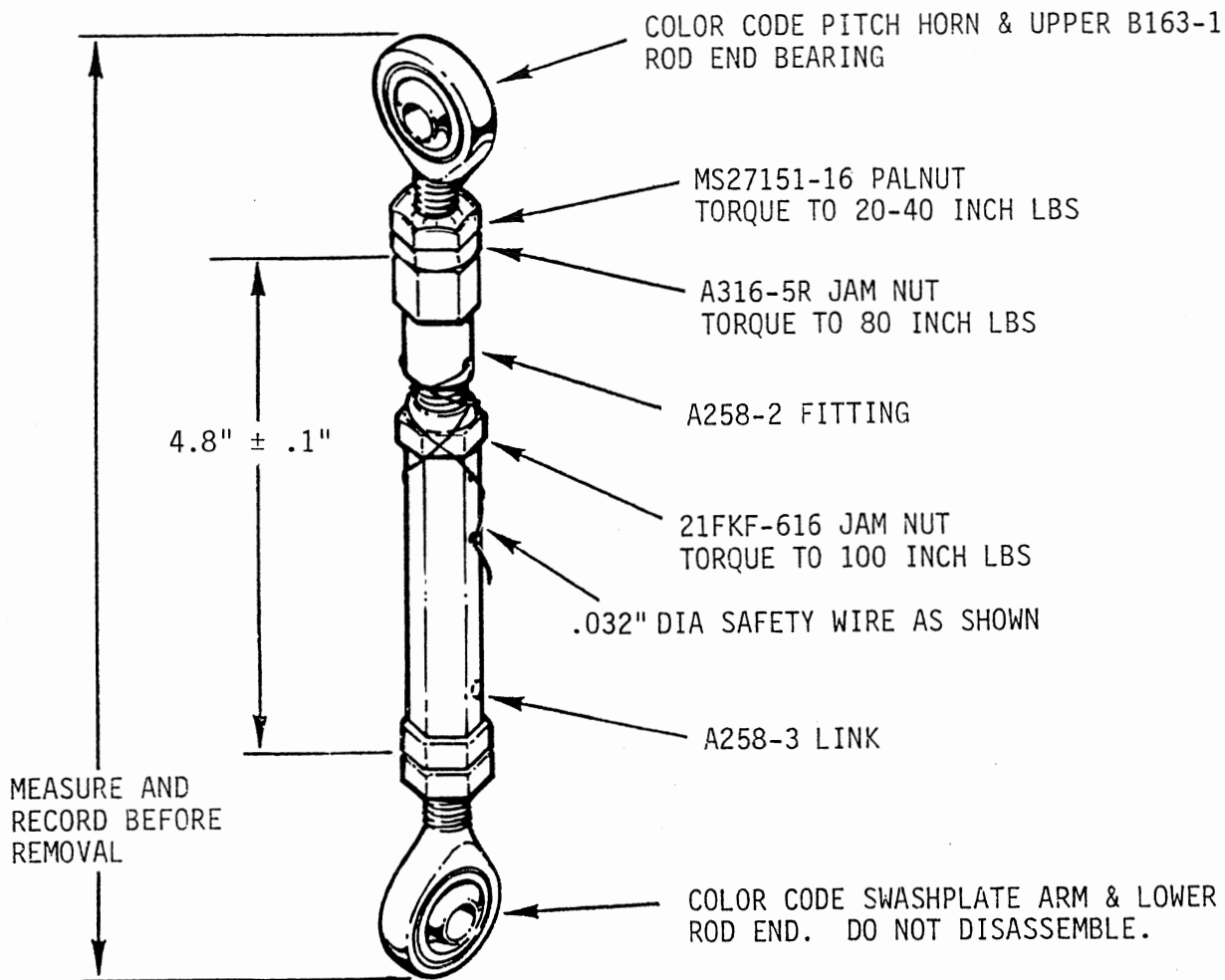


FIGURE 2 MAIN ROTOR PITCH LINK

Approximate Cost of Compliance:

Material: Nil, replaced defective parts covered by warranty.

Labor: 1.5 Manhours