

# Robinson Helicopter Company

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## SERVICE LETTER #9

Date: July 27, 1981

To: All Owners and Operators of Robinson R22 Helicopters

Subject: Installation of A214-3 Safety Washers

Rotorcraft Affected: R22 S/N 0002 Thru 0161, S/N 0167, S/N 0169, S/N 0170, S/N 0171 and S/N 0172

Time For Compliance: At The Next 100-Hour Inspection Interval

Reason: As a precautionary measure, to provide a failsafe feature in the event of a rod end bearing failure at the locations described herein, the A214-3 safety washer is now being installed on all production rotorcraft. The A214-3 safety washer should be installed on all R22 Helicopters at the next 100-hour inspection.

### Retrofit Procedure:

1. At the following locations the A214-3 safety washer should be installed under the bolt head.

NOTE #1: On all installations, ensure that a minimum of two (2) threads and a maximum of four (4) threads protrude beyond the NAS679-A4 nut for a proper thread engagement. (NAS 1304 bolts to be used at each location to comply with this note.)

- a. Forward rod end installation of the A121-17 push-pull tube--1 place. (NAS1304-8)
- b. Aft jackshaft (A337-1) strut upper rod end installation--1 place. (NAS1304-21)
- c. Upper end of A121-3 push-pull tube rod end installation--forward end of jackshaft--1 place. (NAS1304-23)

NOTE #2: A115-1 spacer is installed between the rod end and the A214-3 safety washer at location 1-c (from above step). The A115-1 spacer is installed with the small end against the rod end bearing.

2. At the following locations, the A214-3 safety washer should be installed as a replacement for the AN960-416L washer under the bolt head.

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- a. Outboard end of tail rotor pitch links--2 places. (NAS1304 as required, change both sides the same amount to maintain balance.)
  - b. Upper end of A121-5 push-pull tube rod end installation-aft swashplate--1 place. (NAS1304-17)
  - c. Upper rod end installations of the A121-7 push-pull tubes-forward swashplate--2 places. (NAS1304-17)
  - d. A205 yoke rod end installation-lower swashplate scissors--1 place. (NAS1304-17)
3. In the following location, the A214-3 safety washer should be installed between the NAS679-A4 nut and the A115-1 coned spacer.
- a. A205 yoke rod end installation-upper swashplate scissors--1 place. (NAS1304-26)

NOTE #3: All NAS679-A4 nuts are to be torqued to 100 in/lb plus run-on torque, MS27151-13 palnuts installed and torque stripe applied per the Robinson R22 Helicopter Maintenance Manual.

Installation kits are available from RHC containing the following parts:

1. 10 - A214-3 Safety Washers
2. 1 - A115-1 Spacer
3. 10 - NAS679-A4 Nuts
4. 10 - MS27151-13 Palnuts
5. 1 - NAS1304-9 Bolt
6. 4 - NAS1304-17 Bolt
7. 2 - NAS1304-21 Bolt
8. 1 - NAS1304-23 Bolt
9. 1 - NAS1304-27 Bolt

NOTE #4: The bolts are included in the above kit to permit proper thread engagement at each installation per Note #1.

By Frank H. Yule  
Service Department

W. P. [Signature] 7/27/81  
Engineering Approval