



HUGHES SERVICE INFORMATION NOTICE

NOTICE NO. N-52.1*

DATE Nov. 12, 1968

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*Supersedes Service Information
Notice No. N-52, dated June 10, 1968

SUBJECT: REWORK - TAIL RUDDER PEDAL ARMS (P/N 269A7336-5)

MODELS AFFECTED: All 269 Series Helicopters equipped with 269A7336-5 Pedal Arm and 269A7333-3 Rudder Pedal Support Tube (Steel)

TIME OF COMPLIANCE: Shall be accomplished within next 100 hours of helicopter operation, unless already accomplished.

PREFACE: The information given in this Service Information Notice lists alternative procedures to ensure proper operation of tail rudder pedal controls, particularly when excessive opposing pedal loads are exerted by instructor pilot to override student during dual-control flight operations.


STEP I - INSTALLATION OF CLAMPS provides a fail-safe device to help maintain tail rudder control, if excessive override by instructor pilot results in broken pedal attachment.

STEP II - REWORK OF PEDAL ARMS increases the structural strength of the P/N 269A7336-5 Pedal Arm at critical stress points to withstand excessive pedal loads.

Compliance with either Step I or Step II is required.

Reference

269A/A-1/TH-55A Handbook of Maintenance Instruction, Revised 1 June 1968

() Bar denotes portion of text superseded

CUSTOMER SERVICE DEPARTMENT • HUGHES TOOL COMPANY • AIRCRAFT DIVISION • CULVER CITY, CALIFORNIA

PARTS LIST

| <u>Nomenclature</u> | <u>Part No.</u> | <u>Qty.</u> | <u>Mfgr.</u> |
|--|-----------------|-------------|--------------|
| Kit - Rework, Tail Rudder Pedal Arm | M10039 | 1 | HTC-AD |
| Clamp, hose-steel | AN737TW-44 | A/R | Commercial |

TOOLS & EQUIPMENT

| | |
|--------------------------------------|-------------------|
| Drill motor - hand | Commercial |
| Drill bit - Size #30(pilot) | Commercial |
| Drill bit - Size V (0.3770 in. dia.) | Commercial |
| Protractor | Commercial |
| Dial Indicator Set | Commercial |
| Fixture, jig | Field Manufacture |

MATERIALS

| | |
|------------------------|------------|
| Primer - Zinc Chromate | Commercial |
|------------------------|------------|

STEP I - INSTALLATION OF CLAMPS

- a. Remove lower forward fairing assembly.
- b. Install two hose clamps (P/N AN737TW-44) on each RH and LH pedal arm, pilot and copilot sides; torque nut 40 to 60 inch pounds.
- c. Perform operational check of flight controls.
- d. Reinstall lower forward fairing assembly.

STEP II - REWORK OF RUDDER PEDAL ARMS

- a. Remove lower forward fairing assembly.

CAUTION

To prevent binding or other damage, release spring pressure on pedals by removing pin (1), washer (2) and pin (3) from bungee assembly under floor of fuselage. (See Figure 6-9, 269A/A-1/TH-55A HMI)

NOTE

Rod (4) on 269A(TH-55A) helicopter serial numbers 0714 and subsequent does not utilize spring.

- b. Remove LH rudder pedal covers.
- c. Disconnect push rods from LH pedal arm assemblies (pilot and co-pilot sides).
- d. Remove cotter pins (12, Figure 1) to remove foot pedals from both LH pedal arms(4).
- e. Remove bushing assemblies (6) from both LH rudder pedal arms.
- f. Remove bushing assemblies (6) from torque tube (11).
- g. Remove tube (1) from rudder arms (4 and 5) pilot and co-pilot sides.
- h. Using dial indicator, inspect pedal arms for minimum wall thickness of 0.100 inch. in the joint area, as shown in Figure 1.

CAUTION

Replace any pedal with less than 0.100 inch wall thickness.

- i. Place pedal arms on flat surface; mark hole centers, as shown in Figure 1.
- j. Reassemble tubes (1), bearings (2), washer (3) and co-pilot's LH and RH pedal arms (4 and 5); secure tube (1) to pedal arms with two existing bushing assemblies (6). Repeat above for pilot's rudder pedals.
- k. Using jig fixture and drill size #30, drill pilot holes in line through co-pilot's LH pedal arm bearings and tube; repeat above for pilot's LH pedal arm.

NOTE

Fabricate and use jig fixture to minimize "skating" when drilling in-line holes.

- l. Remove bushing assemblies, bearings, washer and tubes; deburr holes.
- m. Using size "V" drill, enlarge holes in each LH pedal arm (4); deburr holes and coat with primer.
- n. Using size "V" drill, enlarge holes in each tube (1); deburr holes and coat with primer.
- o. Reinstall tubes (1) through bearings (8) in brackets (9) and through pedal arms (4 and 5) in the same direction as removed so that bushing holes are in line.

CAUTION

Ensure that corks (1) are installed in outboard end of each tube to seal cabin against carbon monoxide ingestion.

- p. Reinstall existing and new bushing assemblies (6 and 7) in each LH pedal arm.
- q. Reinstall torque tube with four existing bushing assemblies.
- r. Reinstall pedals with pins. (12)
- s. Align LH and RH co-pilot's pedals and reinstall push rods with bushings, bolts, washers, nuts and cotter pins.

NOTE

Adjust length of push rod, as required, so that bellcrank is parallel with beam when pedals are aligned.

- t. Reinstall push rods to LH and RH pilot's pedal arms with bushings, bolts, washers, nuts and cotter pins.
- u. Where applicable, adjust rudder bungee spring on pilot's right-hand pedal rod assembly as follows:
 - (1) Disconnect tail rotor control rod at forward end of tail boom.
 - (2) Install pin through retainer and hole in pedal rod which gives approximately 2.5 pounds forward left-pedal load with pedals in NEUTRAL position.
 - (3) Connect tail rotor control rod.
 - (4) Secure pin with washer and cotter pin.
- v. Check rework of tail rotor pedal arms for discrepancies.
- w. Reinstall LH pedal covers.
- x. Rig tail rotor pitch control pedals. (See HMI, Para. 6-39)
- y. Perform operational check of flight controls.
- z. Reinstall lower forward fairing.

WEIGHT & BALANCE DATA

Weight and balance not affected.

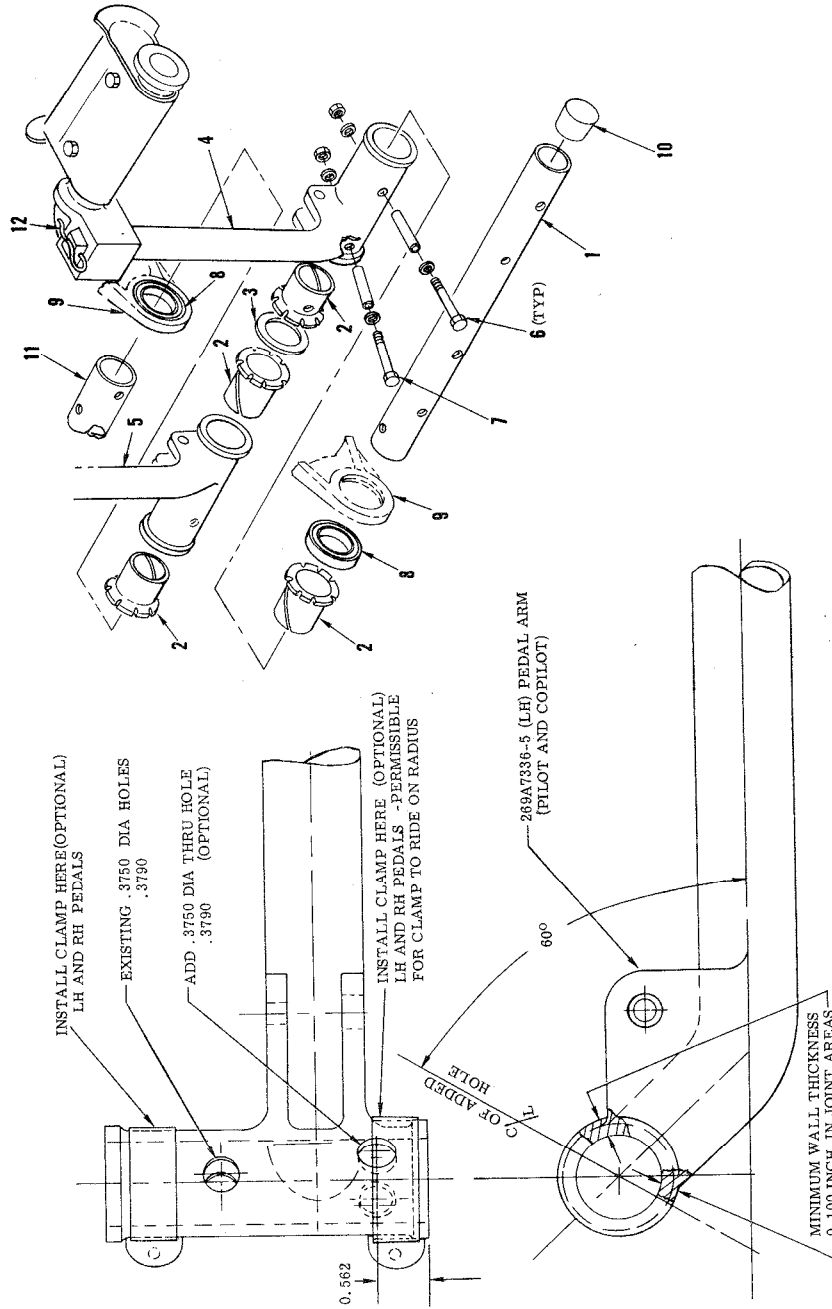


FIGURE 1. (LH) RUDDER PEDAL ARM REVORK

