



Manual: CSP-H-5, 369H Series - HMI Appx. C
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FILING INSTRUCTIONS:

1. Before you put this temporary revision in the manual, make sure the manual contains all the revisions from before. Look at the last revision List of Effective Pages.



Do not put this temporary revision in the manual, if the manual does not contain all the revisions from before.

2. To include this temporary revision in the manual, remove old pages and put in new pages as shown below.

Temporary Revision Number/Date	Part	Page	Page Revision
TR08-001/27 September 2008	III	i thru iv	TR08-001
		6-1 thru 6-3	TR08-001
		6-4	Revision 10

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SECTION 6

RUN-IN AND TEST PROCEDURES

1. Run-In and Test Procedures

Tail rotor transmission may be run-in on a test stand or on a helicopter after satisfactory completion of the static wipe test and final reassembly (Ref. Reassembly of Tail Rotor Transmission). If the tail rotor transmission is to be run-in on a helicopter, the helicopter must be checked for proper tail rotor rig (Ref. CSP-H-2).

A. Run-In On Helicopter

Run-in and test reassembled transmission on helicopter as follows:

- (1). Install the transmission on the helicopter according to the Basic HMI. Complete the following run-in and test procedures.
- (2). Ballast the aircraft to a gross weight of 3250 pounds (1474 kg).
- (3). Service the transmission with oil (2, Table 1-2) (Ref. CSP-H-2).
- (4). Measure the pilot's left pedal travel from full left pedal to full right pedal as shown in Figure 6-1. Calculate the

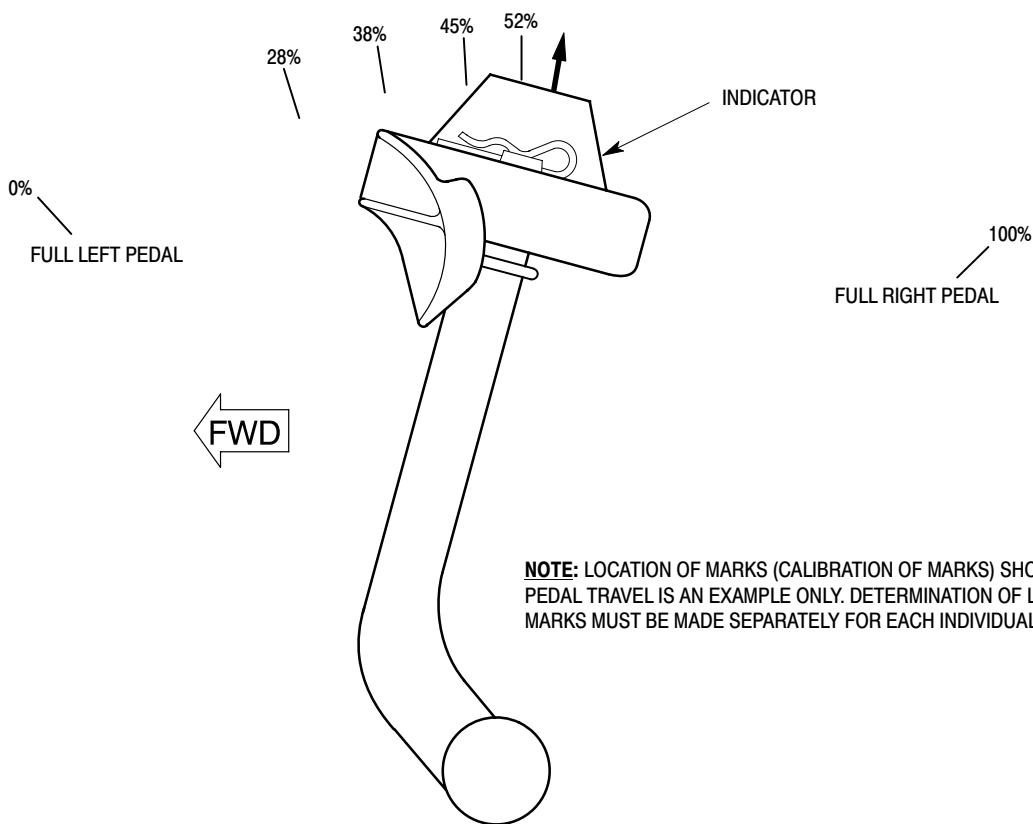
travel required to position the left pedal according to Table 6-1.

- (5). Fabricate an indicator that will allow precise positioning of the left pedal in percent of travel as shown in Figure 6-1.
- (6). Start the helicopter with the left pedal at 52% of travel from full left position. Run the helicopter at 100% N_2 at the various pedal positions for the time specified in Table 6-1.



Monitor the chip detector light during the complete run-in cycle.

- (7). If, during the run-in procedure, the chip detector light indicates a malfunction, stop the test and investigate to determine the cause.
- (8). Upon completion of the run-in procedure, check for oil leakage and note position of any seals that may require replacement. Remove the transmission from the helicopter and check gear tooth contact patterns, backlash and shaft runout. (Ref. Final Inspection).



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Figure 6-1. Pedal Travel Indicator

Table 6-1. Left Pedal Travel/Run-In Time

Step	Tail Rotor Horsepower	% From Full Left Pedal	Time
1	10	52%	10 minutes
2	15	45%	10 minutes
3	21	38%	10 minutes
4	30	28%	5 minutes

B. Run-In On Test Stand

Run-in and test reassembled transmission on test stand as follows:

NOTE: A secure test fixture with motor and suitable braking device is required.

- (1). Secure transmission on test fixture and service with oil (2, Table 1-2) (Ref. CSP-H-2).
- (2). Operate test stand at transmission input speed of 2013-2089 rpm with no load for two minutes.

- (3). Gradually increase load to **624 inch-pounds (89.26 Nm)** on output shaft and run for 10 minutes.
- (4). During test, check for unusual noise or vibration; check for oil leakage; replace leaking seals as required.
- (5). Stop run-in and perform final inspection (Ref. Final Inspection).

2. Final Inspection

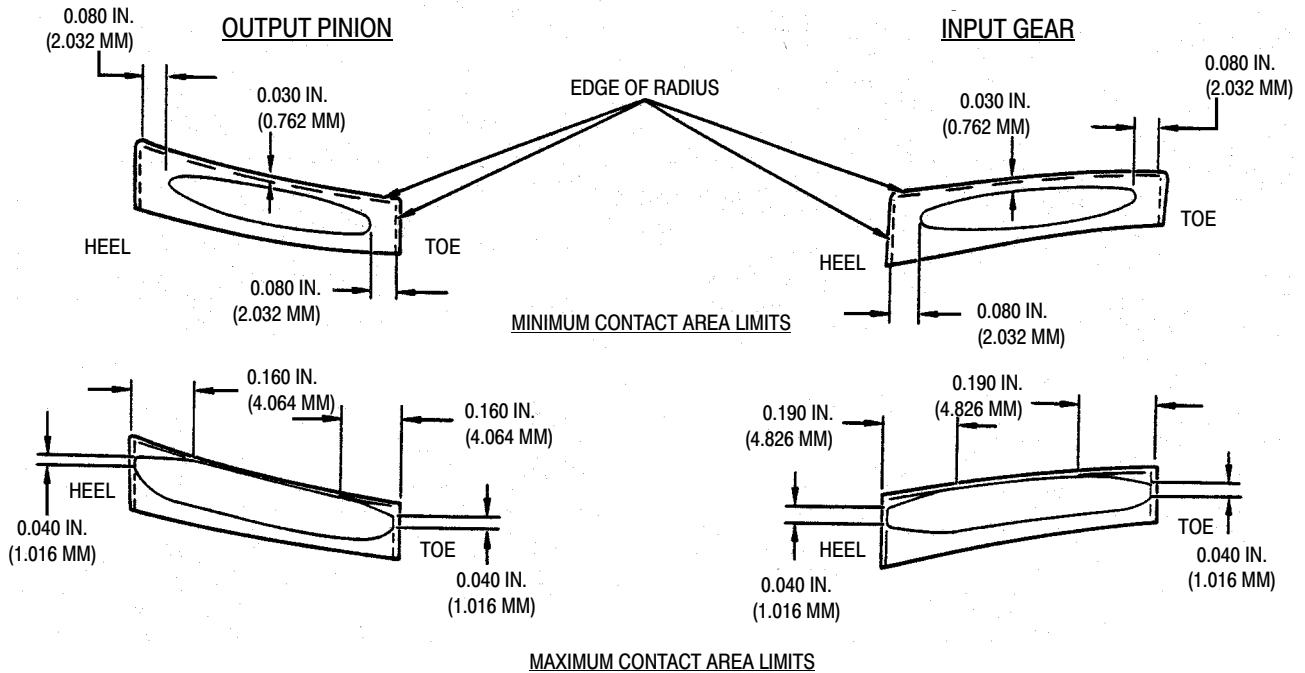
- (1). Check backlash (Ref. Reassembly of Input Shaft and Retainer Assembly).
- (2). Check input and output shaft runout by hand turning shafts with indicators

against shafts in positions shown in Figure 5-1.

- (3). Remove output shaft as an assembly and determine that the gear tooth contact patterns comply with the

patterns shown in Figure 6-2.

- (4). If transmission is to be stored or shipped after final reassembly, flush out with corrosion preventive oil (29, Table 1-2) leaving the residual oil as a preservative.



NOTES:

1. CONTACT PATTERN MUST BE LOCATED WITHIN LIMITS SHOWN.
2. NO HARD CONTACT LINES PERMISSIBLE WITHIN ACTIVE TOOTH AREA.
3. CONTACT PATTERN MUST BE CENTRALLY LOCATED SO THAT DISTANCE FROM TOE AND HEEL IS EQUAL WITHIN 0.080 INCH (2.032 MM).
4. ADJUSTMENT, IF REQUIRED, IS PERFORMED ACCORDING TO FIGURE SHOWING GEARTOOTH CONTACT PATTERN - CORRECTION (REF. SECTION 5).

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Figure 6-2. Gear Tooth Contact Patterns – Input and Output Gears

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