



Marvel

Manufacturing Company

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Tail Rotor Hub & Blade Assembly Balance Bell Helicopter Model 206 A, B, L Typical

Balance Equipment

Balance Indicator and Rotor Mount

1 each 7HEL090 Kit - Tail Rotor Balance

Note: The 7HEL090 Kit supplies all balance equipment required for this rotor. Due to the multipurpose application, balance equipment for other helicopter models may include one or more of its individual parts. Refer to the installation illustration for identification.

Preparation

1. Select a draft free area. Provide a flat top bench and hoist equipment or other means of suspension.
2. Provide two standard 2" x 4" wood blocks approximately 6" long. Place on edge approximately 3 1/2" apart on bench top.
3. Clean rotor trunnion bore and cone seat surfaces.
4. Remove 3165 Arbor from kit case and disassemble stored adapters from its shaft. Stand upright in bore of case block.
5. Clean oil from indicator area, if present, and depress indicator collar to release internal oil seal. Position collar for minimum free clearance, approximately .005", with arbor end and secure lightly with set screw.

Note: Prior to storing arbor in kit case after use, release set screw to allow oil seal to move upward and seat. Do not retighten set screw.

Balance Procedure

1. Place 3152 Base, hub extension upward, central across 2" x 4" wood blocks.
2. Install 2 ea. 2539-1 Posts (or alternate 2539 Posts + 3063 Spacers) in outer threaded bores labeled "A" (see illustration) of 3152 Base.
3. Place 3077 Adapter, large end downward, over hub extension of base.
4. Position tail rotor to place static stop (machined) surface of yoke section upward and index to locate trunnion bearing restrictions adjacent to flat sides of adapter. Engage trunnion bore with pilot diameter of adapter and seat on shoulder.
5. Place 2586 Plate central on top surface of rotor hub.
6. Install 2533 Bushing, flanged end downward on arbor and position to align its top surface at arbor scale sensitivity setting indicated by the installation illustration. Secure with both set screws.
7. Install arbor downward thru plate, adapter and base to seat tightly on plate. Maintain clamping pressure and secure with both set screws in hub of base.
8. Position rotor and blade pitch to locate pitch horn studs adjacent to post assemblies, below the cross pins. Rotate upper section of posts to position cross pins at 90 degrees to pitch horn studs and manually adjust blade pitch to seat pitch horn studs upward against extending cross pins of posts.
9. Suspend assembly to clear work support approximately 1/4" minimum. Stabilize movements and observe balance condition as indicated by exposure of black disc in top surface of arbor shat. Check to insure indications are not affected by interferences, air drafts or movement of nearby personnel.
10. Refer to applicable helicopter maintenance manual for balance tolerance, method of correction or other assembly requirements.

Balancer Installation – Tail Rotor Bell Model 206 Typical

