



# Marvel

Manufacturing Company

40 North 2<sup>nd</sup> Street  
Stroudsburg, PA 18360 USA  
570-421-6221

# Tail Rotor Balance

## Eurocopter Models AS 350, AS 355 Typical

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### Balance Equipment

#### Balance Indicator and Rotor Mount

1      7HEL099                      Kit – Tail Rotor Balance

**Note:** The 7HEL099 Kit provides all balance equipment required for this rotor. For those customers already in possession of Part No. 3165 Arbor, the 7HEL098 Kit is recommended.

### 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 24" apart.
3. Remove Part Number 3165 Arbor from kit case and stand upright in bore of case. Wipe oil from indicator area if present.
4. Depress indicator collar, releasing oil seal, and reposition to provide minimum free clearance (approximately .005") with arbor end. Lightly secure with set screw.

### Balance Procedure

1. Place rotor on wood blocks under hoist.
2. Suspend 3165 Arbor from hoist directly above rotor hub.
3. Install 3262 Weight and 3260 Ring on arbor (as shown in figure) with top of 3262 Weight set at 8-3/4". This is the sensitivity setting.
4. Install 3659 Adapter on arbor high enough to provide access to bottom end of arbor. Temporarily secure adapter by tightening one set screw in shank.
5. Install 3658 Pressure Pad on bottom end of arbor. Be sure arbor bottoms out in bore of pad, secure pad by tightening two set screws in thread of pad (tightening pressure on each screw must be equal.)
6. Loosen set screw securing adapter to arbor and lower adapter onto pad, engaging thread. Thread adapter onto pad until pad is flush with inside surface of adapter.

- 7. Lower entire assembly; arbor, weight/ring, and adapter onto rotor hub so that adapter arms straddle rotor hub.**
- 8. Line up mounting holes in adapter arms with through hole in rotor hub and install mounting bolt, nut, and cotter pin (which are part of rotor assembly). Tighten nut until no clearance is visible and cotter pin hole is exposed. Do not over tighten. Align bolt and nut so that cotter pin slips in hole vertically.**
- 9. Rotate arbor to extend pressure pad downward onto rotor hub to prevent rocking of rotor. Pressure should be snug enough to secure rotor but not over tight. Tighten set screws in adapter shank to secure adapter onto arbor.**
- 10. Install .33-oz weight in ear hole of rotor at head of bolt to compensate for imbalance caused by weight of nut and cotter pin.**
- 11. Raise entire assembly with hoist about 2" to clear 2" x 4" supports. Stabilize movements and observe balance condition indicated by black disc at top of arbor shaft. Check to insure that balance conditions are not being affected by interferences, air drafts or movement of nearby personnel.**
- 12. Refer to applicable helicopter maintenance manual for balance tolerance, method of correction or other assembly requirements.**
- 13. A spanner, Part Number 3660, is provided as part of the kit to facilitate threading the pressure pad into or out of the adapter body.**

**Balancer Installation - Tail Rotor  
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