Marvel

Manufacturing Company

40 North 2nd Street
Stroudsburg, PA 18360 USA
570-421-6221

Propeller Balance
British Aerospace Model 6/5500/F

Balance Equipment

Balance Indicator

1	**7BAL162**	**Kit – Balance Indicator**
	Alternate	
1	**7BAL160**	**Kit – Balance Indicator**

Note: Balance Indicator Kits #7BAL152 or 7BAL150 may be used upon procurement of an additional 2998 Backbalance Weight and 2742 Anchor Ring. Parts will store within the Kit Case. Hoist equipment is included in Kits 7BAL160 and 7BAL150.

Propeller Mount

1	**7A067N2**	**Kit – Propeller Balance Adapter**

Propeller Support

1	**3565-3**	**Stand – Propeller Support**

Preparation

1. **Provide shop hoist facilities in a draft free area of adequate size.**
2. **Prepare 3015 Balance Indicator Arbor for use. Stand upright and remove rubber seals (2) for damping oil at indicator collar and clean indicator surfaces. Reinstall indicator collar to provide minimum free clearance, approximately .005", with end of arbor and secure. Maintain arbor in upright position after removal of seals and replace after use if arbor is to be stored horizontally.**
3. **Position and secure support arms (3) of 3565-3 Propeller Support Stand on a common centerline radius of 7 inches. Select caster or post type leg floor contact option and adjust overall heights to receive propeller.**
4. **Carefully inspect mount surfaces of propeller and adapter flanges for and stone to remove all raised portions of nicks or other irregularities.**

Balance Procedure

1. **Position 3565-3 Propeller Support Stand to receive propeller and index flat of rollers downward. Install propeller nose downward, less spinner, seating curvature of barrel at blade locations on roller supports.**
2. **Attach 2994 Quick Disconnect Cable to 3015 Balance Indicator Arbor and suspend from hoist.**
3. **Install 2742 Anchor Ring on arbor and temporarily position about mid length. Install 3560 Propeller Balance Adapter, flange downward, on arbor and position against anchor. Secure with set screw.**
4. **Assemble 3009 Retaining Ring Section pair in arbor groove at the 2 inch scale position and lower adapter to seat on retaining ring. Reposition anchor ring to seat on adapter and tighten clamp screw to secure.**
5. **Lower balancer assembly to seat adapter on propeller flange and index to align attachment bores. Lightly lubricate threads of 2882 bolts (8) and install symmetrically in alternate bores. Torque evenly to 190 – 210 inch pounds.**
6. **Remove quick disconnect cable from arbor and install 3007 Protector. Lightly tighten retaining set screw.**
7. **Install 2742 Anchor Ring on arbor and position to align upper surface with arbor scale "Sensitivity Setting" (lower) indicated by the Installation Illustration. Tighten clamp screw to secure and install 3020 Backbalance Weight to seat on anchor.**
8. **Install 3742 Anchor Ring on Arbor and position to align upper surface with arbor scale Sensitivity Setting (Upper) indicated by the Installation Illustration. Tighten clamp screw to secure and install 2998 Backbalance Weights (2) to seat on anchor.**
9. **Remove protector from arbor and reinstall cable.**
10. **Position blade pitch and air pressurize barrel to British Aerospace specifications. Hoist propeller to provide clearance for spinner installation and install.**
11. **Lower assembly to assist view of arbor balance indicator but maintain spinner floor clearance. Stabilize movements and observe balance condition as indicated at black disc in top surface of arbor shaft. Check to insure indications are not affected by air drafts or movement of nearby personnel.**
12. **Refer to applicable propeller maintenance manual for balance tolerance, method of correction or other assembly requirement.**

Balancer Installation - Propeller
British Aerospace Model 6/5500/F TYP.