Marvel

Manufacturing Company

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Propeller Balance
Hamilton Std. Model 14RF Typical

Balance

Balance Indicator

1 ea	**7BAL152**	**Kit - Balance Indicator**
	Alternate	
1 ea	**7BAL162**	**Kit – Balance Indicator**
1 ea	**7BAL150**	**Kit – Balance Indicator**
1 ea	**7BAL160**	**Kit – Balance Indicator**

Propeller Mount

1 ea	**7A066N1**	**Kit – Propeller Balance Adapter**

Propeller Support

1 ea	**3565-4**	**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 opposite support arms of 3565-4 Stand at 14” between centers and adjust overall height to receive propeller from assembly bench arm.**
4. **Carefully inspect mount surfaces of propeller and adapter flanges for and stone to remove all raised portion of nicks or other irregularities.**

Balance Procedure

1. **Position 3565-4 propeller Support Stand to receive Propeller. Index flats of rollers approximately 30° inward from horizontal and transfer propeller, nose downward, less spinner, to seat sloped edge of hub body at blade locations on roller flats.**
2. **Attach 2994 Quick Disconnect Cable to 3015 Arbor and suspend from hoist.**
3. **Install 2742 Anchor Ring on arbor and temporarily position about mid length. Install 3520 Propeller Balance Adapter, flange downward, on arbor and temporarily 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. Lightly lubricate threads, attach with 3558 Nuts, evenly torque and air pressurize hub to Hamilton Standard specifications.**
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 indicated by the Installation Illustration. Tighten clamp screw to secure.**
8. **Install 2998 Backbalance Weight on arbor and seat on anchor ring.**
9. **Remove protector from arbor and reinstall cable.**
10. **Position blade pitch if required, hoist propeller to provide clearance for spinner installation and install.**
11. **Lower assembly to assist view on balance indication but maintain spinner floor clearance. Stabilize movement and observe balance condition as indicated by exposure of black disc in top surface of arbor shaft. Check to insure indications are not offered by air drafts or movement of nearby personnel.**
12. **Refer to applicable propeller maintenance manual for balance tolerance, method or correction or other assembly requirement.**

Balancer Installation - Propeller
Hamilton Standard Model 14RF Typical