



Marvel

Manufacturing Company

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Stroudsburg, PA 18360 USA
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Propeller Balance Dowty Rotor #4 SBAC Shaft Mount

Balance Equipment

Balance Indicator and Accessory

1 ea	7BAL050	Kit – Balance Indicator
1 ea	2259	Arbor – Balance Indicator
1 ea	2215	Handwheel
1 ea	2201	Spacer
1 ea	2202	Spacer
1 ea	2203	Spacer
1 ea	2204	Spacer
1 ea	2994	Cable – Quick Disconnect
1 ea	-----	Wrench – 1/8 Hex Key
1 ea	2995-100	Case

Propeller Mount

1 ea	2207	Cone – Rear
1 ea	2427	Cone – Front

Propeller Support

4 ea	3031	Stand – Propeller Support
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Preparation

1. Select a draft free area of adequate size. Hoist equipment must be available.
2. Adjust height of 3031 Stands if necessary to provide floor clearance for propeller when supported from blades in nose upward position. Place stands under hoist in approximate position to contact blades.
3. Position propeller nose upward and install on stands.
4. Clean cone surfaces in propeller hub and inspect for raised nicks or pick up. Remove, if present, in accordance with propeller maintenance instructions.
5. Prepare 2259 Balance Indicator Arbor for use in accordance with applicable instruction of Bulletin 79.

Procedure

1. Attach 2994 Quick Disconnect Cable to 2259 Arbor and suspend from hoist. Clean and lightly oil arbor shaft surface.
2. Install 2427 Cone, hub upward, on arbor and position to surface at arbor scale setting specified for the propeller model. Secure with set screw.
3. Install arbor, with cone, into propeller hub to engage cone seat surfaces.
4. Install 2207 Cone, hub downward, over lower end of arbor and engage cone seat surfaces.
5. Install Spacers 2201, 2202, 2203, 2204 as necessary on lower end of arbor to extend from cone to beyond arbor bottom.
6. Engage 2215 Handwheel Thread with that of arbor and tighten to clamp cones firmly into seats of hub.
7. Hoist assembly to clear propeller support stands and adjust blade pitch to balance position specified by the manufacturer.
8. Stabilize swing and rotational movements of the propeller and observe balance indicated by black disc in top surface of the arbor shaft. Check to insure indications are not affected by interferences from the stands, air drafts or movement of nearby personnel.
9. Refer to the applicable propeller maintenance manual for balance tolerances and method for correction.

Sensitivity Setting

Propeller	Setting
R175, R179, R184, R186, R187, R193, R202, R212, R232	9 ³ / ₄ "
R129, R130, R139, R147, R148, R155	10 ³ / ₄ "

Note: Raise Position 2427 Cone to increase sensitivity, lower to decrease.

Change of propeller weight due to blade type or installation of deicer equipment will cause a variation in balance indication sensitivity. This sensitivity, or movement distance of the indicator for a given amount of unbalance, will decrease as the propeller weight decreases. Restore sensitivity to the desired value by repositioning the 2427 Cone. Maintain clamping with 2207 Cone.