

TEMPEST[™] excellence

Service Letter Number: SL-005

Subject: SIDE Wear Indicator Port Instructions

Applicability: **240 & 400 Series Dry Air Pumps**

Recommended observance intervals:

Aircraft with frequent deice cycles:

At 1st 200 hours of service life.
Then every 100 hours or at annual.

Aircraft with average deice cycles:

At 1st 300 hours of service life.
Then every 100 hours or at annual.

Observance Procedure:

- a. Ground the magnetos and turn off the fuel.
- b. Remove the pump-cooling shroud if necessary.
- c. Ensure the area around the inspection port plug is clean so that when the plug is removed nothing can fall into the pump.
- d. Remove the Inspection Port Plug AND STAR WASHER, Fig. 1. Failure to remove the star washer will cause a false indication.
- e. While looking into the indicator port, have an assistant slowly move the propeller by hand in the normal direction of rotation until a vane slot is centered in the port, Fig. 2. If you go too far just keep turning it to the next slot.
- f. Insert the Vane Wear Indicating Tool, Fig. 3, into the inspection port as illustrated in Fig. 3. Hold the barrel securely and squarely against the pump body. With your fingertip, gently push the plunger into the pump's inspection port. When the plunger touches the vane, slight vane movement may be felt if the vane is not at the bottom of it's slot. Apply pressure until the vane reaches the bottom of its travel.

- g. Observe the plunger's indicating bead land position, Fig. 4. If the indicating bead land is touching the barrel end, the vane is worn to the service limit.
- h. If the vanes are within service limit and the pump is otherwise serviceable, clean the threads on the port plug, install a NEW STAR WASHER and torque to 45-50 inch-pounds.

CAUTION: OMITTING THE STAR WASHER WILL CAUSE DAMAGE OR DESTRUCTION OF THE PUMP

NOTE: If the plunger does not slip easily into the slot, DO NOT force it. Remove the indicator tool and check the alignment of the slot and the port.

DO NOT Rotate propeller or pump's shaft when the indicator tool probe is inserted in the inspection port. Doing so may break or chip the rotor. If the pump is turned with the probe in the pump replace the pump, even if you don't think it is damaged. A cracked or chipped rotor may operate normally for a while then fail without warning.

BE SURE to REMOVE BOTH the PLUG AND the STAR WASHER

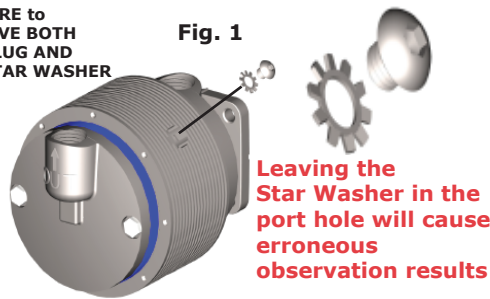
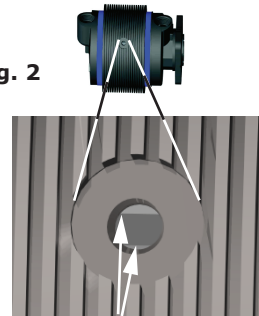


Fig. 1

Fig. 2



NOTE: Edges of rotor slot visible in inspection port hole

Vane length is within service limit - Land not touching top of barrel.

**P/N: 82-50122-2A6
Vane Wear Indicating Tool**

Insert this end into inspection port hole

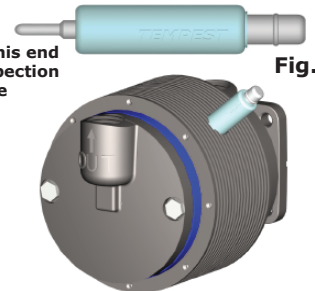


Fig. 3

Fig. 4

New Vane Indication



Pump sectional views - for reference only

Land TOUCHING Barrel Vane at service limit - REPLACE PUMP



Replace PUMP if ANY Vane is at its Service Limit

ISSUED			REVISED		
MO	DAY	YR	MO	DAY	YR
10	01	05	02	10	06


Aero Accessories, Inc.
 1240 Springwood Church Rd
 Gibsonville, N.C. USA

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