

OIL PRESSURE SWITCH - MAINTENANCE PRACTICES (PT6A-140)

1. General

- A. This section gives the removal and installation procedures for the oil pressure switch and the oil pressure switch supply hose installed on the Pratt and Whitney PT6A-140 engine.

2. Oil Pressure Switch Removal/Installation

- A. Remove the Oil Pressure Switch (UN025) (Refer to Figure 201).
 - (1) Remove external electrical power.
 - (2) Make sure that the BATTERY switch (SC005), found on the circuit breaker switch panel, is set to the OFF position.
 - (3) Disengage the PROP ANTI-ICE CONT circuit breaker.
 - (4) Open the upper right cowl door to get access to the oil pressure switch. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.

NOTE: The oil pressure switch is installed on the engine truss assembly.

- (5) Disconnect the switch electrical connector (PN027).
 - (6) Remove the oil hose assembly from the switch as follows:
 - (a) Cut and remove the safety wire from the hose fitting.
 - (b) Loosen the oil line fitting nut.
 - (c) Discard the O-ring from the oil hose fitting.
 - (d) Cap the oil hose fitting to prevent foreign object damage (FOD).
 - (7) Remove the screws and nuts from the two clamps that attach the switch to the truss assembly.
 - (a) Remove the switch from the truss assembly.
- B. Install the Oil Pressure Switch (UN025) (Refer to Figure 201).
 - (1) Put the oil pressure switch with its clamps in its correct position on the truss assembly.
 - (2) Install the screws and nuts in the two clamps that attach the switch to the truss assembly.
 - (3) Install the oil hose as follows:
 - (a) Put a new O-ring on the oil line fitting.
 - (b) Put the oil line fitting in its correct position on the switch.
 - (c) Carefully tighten the nut that attaches the line fitting to the switch.
 - (d) Safety the hose fitting with wire. Reference Chapter 20, Safetying - Maintenance Practices.
 - (4) Connect the electrical connector to the oil pressure switch.
 - (5) Engage the PROP ANTI-ICE CONT circuit breaker.
 - (6) Set the BATTERY switch (SC005) to the ON position.
 - (7) Do a check the oil pressure indications on the MFD and for oil leaks. Operate the engine. Use the Model 208B Pilot's Operating Handbook and FAA-Approved Airplane Flight Manual to do the operational check of the oil pressure indicator.
 - (a) Make sure there are no oil leaks.
 - (8) To troubleshoot the oil pressure indications refer to Chapter 2, Troubleshooting section of the G1000 Line Maintenance Manual (Cessna Caravan) P/N 190-00869-00 found in the Introduction, List of Publications.
 - (9) Close the upper right cowl door. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.

3. Oil Pressure Switch Supply Hose Removal/Installation

- A. Remove the Oil Pressure Switch Supply Hose (Refer to Figure 201).
 - (1) Remove external electrical power.
 - (2) Make sure that the BATTERY switch (SC005), found on the circuit breaker switch panel, is set to the OFF position.
 - (3) Disengage the PROP ANTI-ICE CONT circuit breaker.
 - (4) Open the upper right cowl door to get access to the oil pressure switch. Refer to Chapter 71 Engine Cowling and Nose Cap - Maintenance Practices.

NOTE: The oil pressure switch is installed on the engine truss assembly.

- (5) Remove the oil hose assembly from the oil pressure switch.
 - (a) Cut and remove the safety wire from the hose fitting.
 - (b) Loosen the oil line fitting nut.
 - (c) Discard the O-ring from the oil hose fitting.
 - (d) Cap the oil hose fitting to prevent foreign object damage (FOD).
 - (6) Remove the oil hose assembly from the oil pressure transducer tap fitting as follows:
 - (a) Cut and remove the safety wire from the hose fitting.
 - (b) Loosen the oil line fitting nut.
 - (c) Discard the O-ring from the oil hose fitting.
 - (d) Cap the oil hose fitting to prevent foreign object damage (FOD).
- B. Install the Oil Pressure Switch Supply Hose (Refer to Figure 201).
- (1) Install the oil hose to the oil pressure switch as follows:
 - (a) Put a new O-ring on the oil line fitting.
 - (b) Put the oil line fitting in its correct position on the switch.
 - (c) Carefully tighten the nut that attaches the line fitting to the switch.
 - (d) Safety the hose fitting with wire. Reference Chapter 20, Safetying - Maintenance Practices.
 - (2) Install the oil hose to the oil pressure transducer tap fitting as follows:
 - (a) Put a new O-ring on the oil line fitting.
 - (b) Put the oil line fitting in its correct position on the tap fitting.
 - (c) Carefully tighten the nut that attaches the line fitting to the tap fitting.
 - (d) Safety the hose fitting with wire. Reference Chapter 20, Safetying - Maintenance Practices.
 - (3) Engage the PROP ANTI-ICE CONT circuit breaker.
 - (4) Set the BATTERY switch (SC005) to the ON position.
 - (5) Do a check for oil leaks. Operate the engine. Use the Model 208B Pilot's Operating Handbook and FAA-Approved Airplane Flight Manual to do the operational.
 - (a) Make sure there are no oil leaks.
 - (6) Close the upper right cowl door. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.

Figure 201 : Sheet 1 : Oil Pressure Switch and Supply Hose Installation

