

**OIL INDICATING - ADJUSTMENT/TEST**  
**(PT6A-114/PT6A-114A)**

**1. General**

- A. You must test the oil temperature indicating system when the system is in question or when an oil temperature indicator is replaced. The test that follows will make sure the oil temperature indicator will show the correct indication within the recommended tolerances.

**2. Oil Temperature Indicating System Test**

- A. Test the Oil Temperature Indicating System (Refer to Figure 501).
  - (1) Remove all of the electrical power from the airplane.
  - (2) Open the upper right cowl door.
  - (3) Remove the safety wire from the electrical connector (J14).
  - (4) Disconnect the electrical connector from the oil temperature bulb.
  - (5) Fabricate a harness as follows:
    - (a) Get two pieces of 20 gauge wire approximately nine feet long.
    - (b) Connect a M32029/29-212 connector pin to one end of each wire.
    - (c) Remove approximately 1/2 inch of insulation from the opposite (terminal) ends of the wires.
  - (6) Connect the harness pins to pins A and B of the oil temperature bulb electrical connector.
  - (7) At a convenient location, connect a decade resistor to the terminal ends of the two wires of the fabricated harness.

**NOTE:** A 200 ohm potentiometer, capable of 400 milliamperes, may be substituted for the decade resistor.

- (8) Make sure the pins and wiring will not touch ground or interfere with the adjacent structure.
- (9) Apply electrical power to the airplane.
- (10) Monitor the oil temperature indication.
- (11) Change the resistance of the decade resistor until the oil temperature indicator shows each of the temperatures on the table.

**NOTE:** Refer to table 501 on airplanes that have oil temperature indicators with part numbers 2606015-1, 2606015-2, and 2606015-3. Refer to table 502 on airplanes that have oil temperature indicators with part number 2606015-4.

- (12) Make sure the decade resistor settings are within the minimum and maximum resistance on the table for each temperature indication.

**Table 501. Oil Indicator Temperature versus Gage Tolerance (-1, -2, -3)**

OIL INDICATOR TEMPERATURE INDICATION	GAGE TOLERANCE (-1, -2, -3)		
	MINIMUM RESISTANCE (OHMS)	NOMINAL RESISTANCE (OHMS)	MAXIMUM RESISTANCE (OHMS)
-40°C	76.71	77.29	77.87
10°C	93.15	93.80	94.46
55°C	109.57	110.34	111.11
99°C	127.63	128.42	129.21
110°C	132.40	133.26	134.12
140°C	146.27	147.11	147.95

**Table 502. Oil Indicator Temperature versus Gage Tolerance (-4)**

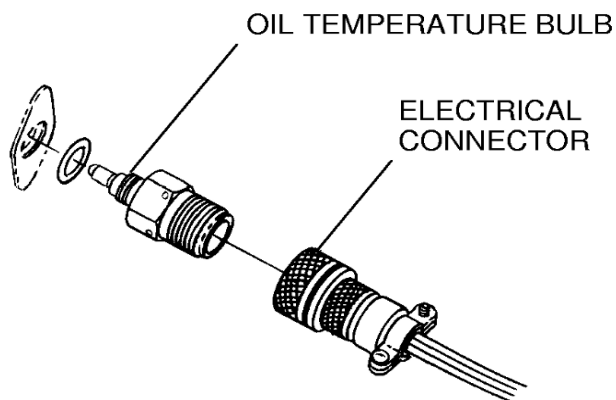
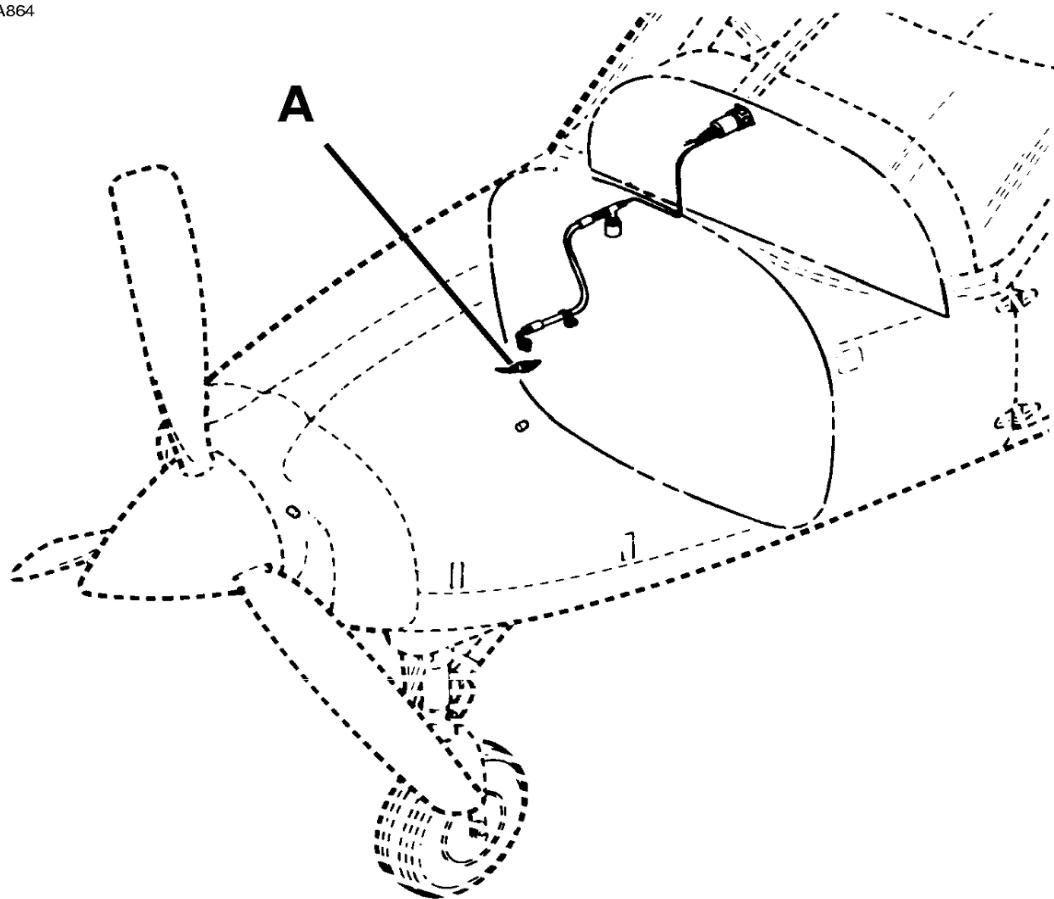
OIL INDICATOR TEMPERATURE INDICATION	GAGE TOLERANCE (-4)		
	MINIMUM RESISTANCE (OHMS)	NOMINAL RESISTANCE (OHMS)	MAXIMUM RESISTANCE (OHMS)
-40°C	76.48	77.39	78.30

10°C	92.80	93.80	94.80
55°C	109.18	110.34	111.50
99°C	127.63	128.42	129.21
104°C	129.79	130.61	131.43
115°C	134.91	135.77	136.63

- (13) When the test is completed, remove the electrical power from the airplane.
- (14) Remove the decade resistor, or potentiometer, and harness from the oil temperature bulb electrical connector.
- (15) Connect the electrical connector (J14) to the oil temperature bulb.
- (16) Install safety wire on the electrical connector. Refer to Chapter 20, Safetying - Maintenance Practices.
- (17) Close the upper right cowl door.

Figure 501 : Sheet 1 : Oil Temperature Indicating System Test

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**DETAIL A**

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