WET TORQUE INDICATING SYSTEM - DESCRIPTION AND OPERATION

1. General

- A. The torque indicator is located on the upper portion of the instrument panel. The torque indicator monitors the engine torque pressure and converts this pressure into an indication of torque in foot-pounds. Instrument markings indicate that the normal operating range (green arc) is from 0 foot-pounds to 1658 foot-pounds, the alternate power range (striped green arc) is from 1658 foot-pounds to 1970 foot-pounds, and maximum torque (red line) is 1970 foot-pounds.
 - NOTE: Additional information pertaining to the torque sensor is contained in the Pratt/ Whitney PT6
 Maintenance Manual (refer to the List of Publications in the Introduction Section of this manual).
- B. Two lines enter the back of the torque indicator. One line measuring pressure from the torque sensor, and the other line, reference pressure from the engine case. The power turbine, on a separate shaft from the compressor section, supplies power to the propeller through a gear reduction system; a torque sensor is incorporated into the propeller reduction system indicating power changes by increasing or decreasing oil pressure to a direct reading indicator on the instrument panel. The reference pressure line connects the indicator to an oil separator and vent port on the engine case.
- C. A schematic has been provided to aid the maintenance technician in system understanding. Refer to Figure 1.

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A21681 **ORIFICE ENGINE CASE MANIFOLD** SHOW CAP~ **ENGINE TORQUE ENGINE OIL** PRESSURE PORT **PRESSURE ENGINE CASE** REFERENCE PORT REFERENCE LINE OIL **SEPARATOR REFERENCE** LINE (AIR) INDICATOR PRESSURE PORT (MARKED 252P272) **TORQUE INDICATOR** INDICATOR REFERENCE PORT (MARKED 252V272) 26551009

Figure 1: Sheet 1: Wet Torque Sensing Schematic

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