

CHAPTER 75
ENGINE AIR SYSTEMS

<u>Section</u>	<u>Title</u>	<u>Page</u>
75-00	Description	75.1
75-10	Engine Anti-Ice	75.1

Intentionally Blank

CHAPTER 75
ENGINE AIR SYSTEMS

75-00 Description

This chapter includes a description of the engine anti-ice system. Refer to RR300 Series Operation and Maintenance Manual (OMM) and manufacturer's maintenance publications for system-specific inspection, repair, and maintenance procedures.

The Rolls-Royce engine model 250-C300/A1 anti-ice system provides hot compressor discharge air to the compressor front support. Areas of the front support are subject to ice formation when the engine is operated near or below freezing temperatures and visible moisture is present. An anti-ice switch located on the cyclic box cover is selected by the pilot in certain conditions (see R66 Pilot's Operating Handbook).

The engine anti-ice system includes an air valve, a solenoid valve, and a pressure switch. The air valve is mounted on top of the compressor scroll; the solenoid valve and pressure switch are mounted on top of the compressor. When anti-ice is switched "ON", the solenoid valve de-energizes, the pressure-activated air valve opens, the pressure switch closes which illuminates the green anti-ice segment on the annunciator panel, and hot, compressed-air is routed to hollow passages in the front support vanes and center hub.

Anti-ice system operation will result in some performance degradation due to hot induction air and reduced air-volume reaching the power and gas producing turbine stages.

The anti-ice solenoid valve is electrically-closed, or powered-off. Anti-ice will automatically function in the event of an electrical failure.

75-10 Engine Anti-Ice

See RR300 Series Operation and Maintenance Manual (OMM) for anti-ice system maintenance.

Intentionally Blank