

Chapter Eleven

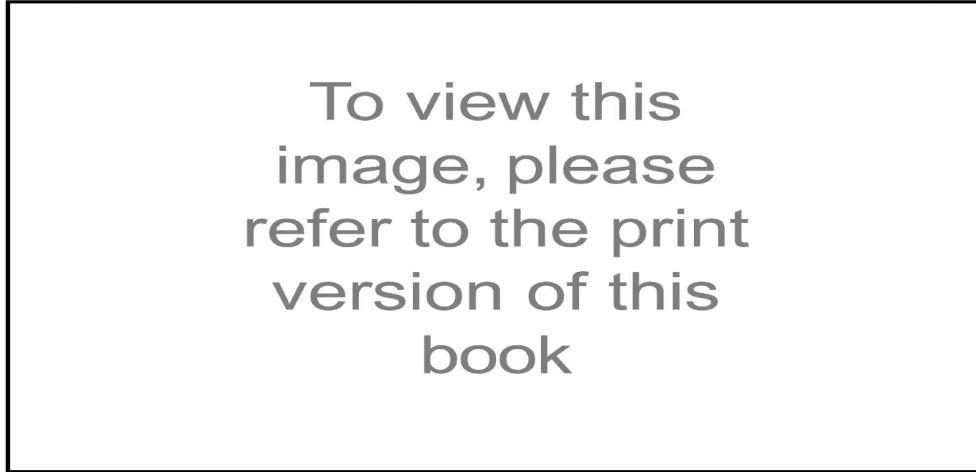


Fig. 11-2. *Janitrol heater cutaway.*

though some aircraft actually may use the engine-driven fuel pump if the fuel pressure output is correct. There must be a ventilating air blower, which also doubles as a cooling fan when the heater is turned off, and a separate combustion air blower. Temperature control is maintained by either a duct switch or cycling switch, which senses heat output and compares it to the selected temperature. And, of course, there are the requisite controls and lights that indicate the operational status of the heater.

Preflight

System preflight should include checking for either blockage or damage to both the ventilation and combustion air inlets, the heater-exhaust outlet, and the heater fuel drain. Additionally, the area around the heater exhaust tube should be checked routinely for soot accumulation; this indicates an excessively rich fuel/air mixture (which is caused by incorrect fuel pressure), a blocked combustion-air inlet line, an inoperative or failed combustion blower, or a clogged fuel nozzle.

In addition to the visual preflight, an operational check should be accomplished. First, turn the heater master switch on and assure that the ventilation and combustion blowers work; the heater-failure light also should illuminate, indicating that the system is activated, but there is no combustion. With the master switch still on, check for excessive current draw, any unusual vibrations, or noises. Then perform the operational check as outlined in your pilot's operating handbook (POH).

Troubleshooting

Six basic operational problems can occur that require troubleshooting on your part: Heater fails to light; ventilating air blower fails to run; combustion air blower fails to run; heater fires but doesn't burn steadily; heater starts, then goes out; and heater fails to shut off.