



**NOTICE PAGE**

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## NOTE

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MANAGER

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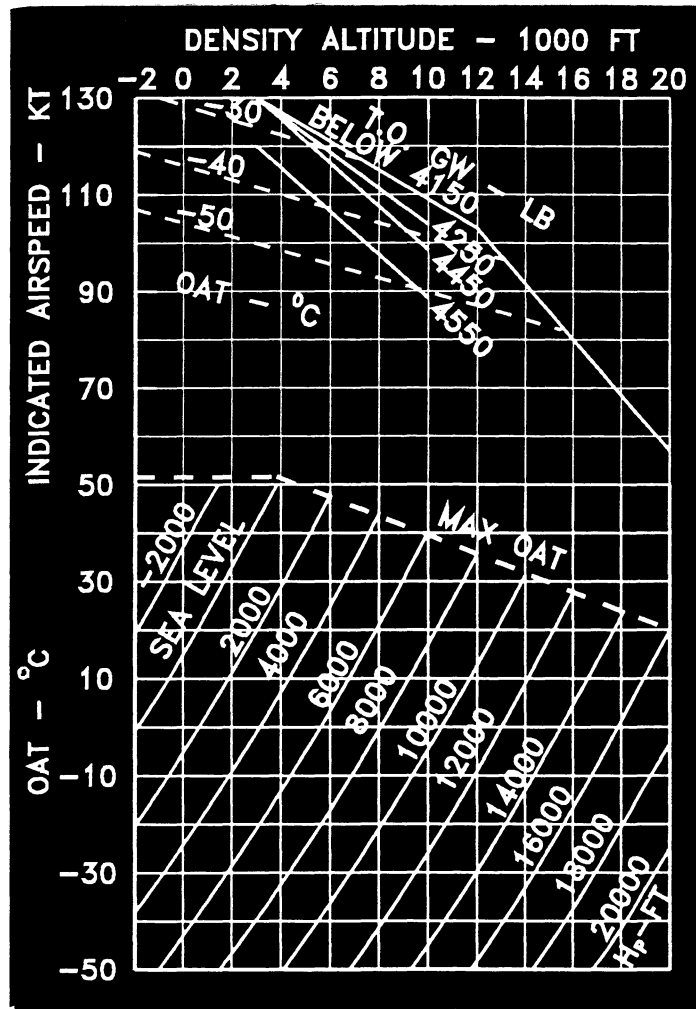


Figure 1-3. Placards and decals (Sheet 1 of 2)



**1-19. POWER TURBINE RPM (N<sub>2</sub>)**



**USE OF THROTTLE TO CONTROL RPM IS NOT AUTHORIZED. REFER TO SECTION 3, EMERGENCY PROCEDURES — ENGINE OVERSPEED FOR EXCEPTION.**

Maximum continuous	752°C
5 minute takeoff range	752 to 810°C
Maximum for takeoff	810°C
Maximum transient (Do not exceed 6 seconds above 810°C)	843°C
Maximum starting or shutdown (Do not exceed 10 seconds above 810°C)	927°C

Steady-state operation 75 to 88% N<sub>2</sub> and engine torque greater than 20% is prohibited. Transient operation through the range is permissible.

Minimum transient (Do not exceed 15 seconds below 99%)	95%
Minimum	99%
Continuous operation	99 to 101%
Maximum continuous	101%
Transient overspeed range (5 minutes maximum)	101 to 104%

**NOTE**

Refer to Rolls-Royce Operations and Maintenance Manual No. GTP 5232-2 for operation in the N<sub>2</sub> speed avoidance range and for transient overspeed limits.

**1-20. TURBINE OUTLET TEMPERATURE (TOT)**

Continuous operation	100 to 752°C
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**NOTE**

Intentional use of power transient area (810 to 843°C) is prohibited. Each TOT module is equipped with a red warning light that will illuminate when either of the following conditions occur:

1. Above 810°C for 10 seconds (power transient).
2. Above 927°C for 1 second (during start sequence).

Momentary peak temperature of 927°C is permitted for no more than 1 second.

**SINGLE ENGINE OPERATION — EMERGENCY ONLY:**

Maximum continuous	810°C
Transient (6 seconds)	810 to 899°C

**NOTE**

Refer to Rolls Royce Operation and Maintenance Manual for action required if TOT exceeds 810 to 899°C for 6 seconds.



During cold weather operations, 150 PSI engine oil pressure is allowable, following an engine start. When the 130 PSI limit is exceeded, operate engine at minimum power until normal limits are attained.

Under normal operations, the transmission oil pressure should not go below 40 PSI. Normal operations are authorized, but not recommended, at a minimum transmission oil pressure of 30 PSI. If the transmission oil pressure cannot be maintained between 40 and 70 PSI, the cause should be determined and corrected prior to continuing normal operations.

11. IDLE STOP RELEASE switch — Activate.

#### NOTE

Excessive throttle pressure against idle release stop will prevent plunger release and throttle advancement.

12. Throttle — Open to approximately 70%  $N_1$ . Hold for 4 seconds to allow idle release solenoid to complete cycle.
13. Throttle — Close to idle position. Check  $N_1$  idle RPM, then open to 70%  $N_1$ .
14. APU — Disconnect.

#### NOTE

During initial charge of a low battery, red light may flash on volt/ammeter display.

15. GEN switch — ON and check ammeter.

16. Observe GEN light is out.

#### WARNING

**AVOID CONTINUOUS OPERATION WHEN BETWEEN 75 TO 88%  $N_2$  AND ENGINE TORQUE GREATER THAN 20%.**

17. Throttle — Set approximately 90%  $N_2$ .
18. Ammeter — 90 amps or less prior to second engine start.
19. Second engine start — Repeat start sequence step 5 to step 14.
20. VDC/Ammeter — Check L, R, L + R and red LEDs out for flight.
21. Throttles — Idle. Check 62 to 64%  $N_1$  after amperage is stabilized.

#### CAUTION

**IF THE ENGINE HAS BEEN SHUT DOWN FOR MORE THAN 15 MINUTES, STABILIZE AT IDLE FOR 1 MINUTE BEFORE INCREASING POWER.**

#### 2-18-A. DRY MOTORING RUN

The following procedure is used to reduce residual TOT to recommended levels for engine start.

1. Throttle — Closed position.
2. STARTER button — Press to engage for 15 seconds, then release.

Follow ENGINE STARTING procedure paragraph 2-18, once 0%  $N_1$  is indicated.

