

**PRESTART CHECK**

Crew and passenger doors ----- Secured  
 Seat and pedals ----- Adjust  
 Seat and shoulder harness ----- Fasten and adjust  
 Inertial reel ----- Checked  
 Flight controls ----- Freedom of movement  
 Cyclic ----- Centered, friction OFF  
 Collective ----- Full down  
 Xmsn chip detectors ----- Check (if equipped)  
 Lower pedestal CBs ----- IN

Collective switches ----- OFF  
 Hydraulic switches ----- ON  
 Force trim ----- ON  
 GOV switches ----- AUTO  
 PART SEP switches ----- NORM  
 FUEL switches ----- OFF  
 BOOST PUMPS ----- OFF  
 FUEL XFEED ----- NORM  
 FUEL INTCON ----- NORM  
 Radios ----- OFF

FIRE EXT switch ----- OFF  
 FIRE PULL handles ----- IN  
 Instruments ----- Static check  
 Altimeter ----- Set  
 Clock ----- Set

AFT DOME LT rheostat / switch ----- OFF  
 Pitot heat ----- OFF  
 WIPERS ----- OFF  
 CARGO REL ----- OFF  
 VENT BLWR ----- OFF  
 HEAT AFT OUTLET ----- OFF  
 SYSTEM SELECTER ----- OFF  
 NAV AC (if installed) ----- NORM  
 Overhead CBs ----- IN  
 Light rheostats ----- OFF  
 Nav lights ----- OFF  
 Anti-collision lights ----- OFF  
 INV ----- OFF  
 NON-ESS BUS ----- NORM  
 GEN 1 and 2 ----- OFF

External power ----- Connect  
 Or  
 BATT 1 and 2 ----- ON  
 DCVM ----- Check 24±1 VDC  
 INV 1 and 2 ----- ON  
 ACVM ----- Check 104 to 122 VAC  
 MASTER CAUTION switch (overhead) ----- TEST

FIRE PRESS TO TEST ----- Press to test  
 BAGGAGE FIRE ----- Press to test  
 FUEL QTY SEL ----- LEFT then RIGHT  
 MASTER CAUTION PANEL ----- Check lights  
 TEST and RESET

Throttles ----- Full open, idle, closed  
 RPM INCR DECR ----- DECR for 8 seconds

**ENGINE 1 START – alternate engine starts daily**

ENG 1 BOOST PUMP ----- ON  
 ENG 1 FUEL switch ----- ON, check pressure  
 Rotor ----- Clear

Start switch ----- ENG 1  
 Eng 1 OIL PRESS ----- Indicating  
 Eng 1 Throttle ----- Open minimum 12% N1  
 Eng 1 ITT ----- Monitor (1090°C max  
 and above 810°C for 2 seconds  
 Start switch ----- OFF at 55% N1  
 N1 ----- Check idle 61±1%

If battery start:  
 N1 ----- Increase to 71%  
 GEN 1 switch ----- ON, check AMPS at or below 150 amps  
 Temps and Press ----- CHECK  
 Eng 1 PART SEP light ----- OFF  
 Eng 1 throttle ----- Increase to 85% N2

**ENGINE 2 START – alternate engine starts daily**

Same as first engine start procedure

Eng 1 throttle ----- Increase to 85% N2  
 Check sprague clutch engagement

**POST START**

External power ----- Disconnect if used, GEN 1 - ON  
 GEN 2 switch ----- ON, BATT 1 OFF automatically

INV 3 switch ----- ON DC BUS 2  
 Position lights, anti-collision light ----- ON  
 Radios ----- ON  
 Caution lights ----- OUT  
 Temps and Press ----- Check

**SYSTEMS CHECKS – complete daily**

Electrical systems ----- Check AC and DC systems  
 Cabin Heat / Ventilation ----- Check (if required)

Eng 1 and 2 ----- Flight idle

FUEL XFEED VALVE ----- Check  
 GOVERNORS ----- Check  
 FORCE TRIM ----- Check  
 PRELIMINARY HYDRAULICS ----- Check

Eng 1 and 2 throttles ----- Check full beep range  
 Set to 100%

HYDRAULIC SYSTEMS ----- Check

**PRE-TAKEOFF CHECK**

Throttles ----- Open FULL and friction  
 NR ----- 100%  
 Flat pitch Q ----- Check  
 Temps and Press ----- Check within operating limits  
 Fuel quantity ----- Check  
 Caution panel ----- Extinguished  
 Force trim ----- OFF  
 Doors, harnesses, cabin area ----- Secure  
 Lights ----- As required  
 Radios ----- As required

**TAKEOFF CHECK**

Hover height ----- 4 feet  
 Hover Q ----- Check  
 C of G ----- Check  
 Controllability ----- Check

**IN-FLIGHT OPERATIONS / DESCENT AND LANDING / COCKPIT CHECK**

Throttles ----- FULL  
 NR ----- 100%  
 Temps and Press ----- Check within operating limits  
 Fuel quantity ----- Check  
 Caution panel ----- Extinguished  
 Force trim ----- OFF

**ENGINE SHUTDOWN**

Force trim ----- ON  
 Throttles ----- Idle  
 ITT ----- Stabilize one minute  
 Throttles ----- Closed  
 N1 and ITT ----- Check decreasing  
 GEN 1 and 2 ----- OFF  
 INV 1, 2, and 3 ----- OFF  
 FUEL switches ----- OFF  
 BOOST PUMPS ----- OFF  
 Radios ----- OFF  
 BATT 2 ----- OFF

**START MALFUNCTIONS**

**HOT START**

Throttle ----- CLOSED  
 START Switch ----- Engage  
 FUEL VALVE ----- OFF  
 BOOST PUMP ----- OFF  
 START Switch ----- OFF when ITT within limits  
 Engine ----- Shutdown

**FAILURE TO LIGHT**

If engine fails to light off within 15 seconds of the introduction of fuel

IDLE STOP REL ----- Actuate  
 START Switch ----- OFF  
 BOOST PUMP Switch ----- OFF  
 FUEL Switch ----- OFF

After N1 is zero, allow 30 seconds for fuel to drain, and then conduct a dry motoring run.

**DRY MOTORING RUN**

Throttle ----- CLOSED  
 BOOST PUMP Switch ----- OFF  
 FUEL Switch ----- ON  
 ENG IGN SYS CB ----- Pulled  
 START Switch ----- Engage for 15 seconds  
 FUEL Switch ----- OFF  
 BOOST PUMP ----- OFF  
 ENG IGN SYS CB ----- IN

Observe starter limits

TWIN ENGINE TAKEOFF CLIMBOUT SPEED - KIAS							
H <sub>b</sub> (ft)	GROSS WEIGHT (lbs)						
	7000	8000	9000	10000	10500	11000	11200
0	30	30	30	35	38	40	40
1000	30	30	30	35	38	40	40
2000	30	30	30	35	38	40	40
3000	30	30	30	36	38	40	42
4000	30	30	32	36	40	42	42
5000	30	30	32	38	40	42	-
6000	30	30	34	38	42	-	-
7000	30	30	34	40	42	-	-
8000	30	30	34	40	-	-	-
9000	30	30	36	-	-	-	-
10000	30	32	36	-	-	-	-
11000	30	32	38	-	-	-	-
12000	30	34	38	-	-	-	-
13000	30	34	-	-	-	-	-
14000	30	36	-	-	-	-	-

NOTE : ALLOWABLE GROSS WEIGHTS OBTAINED FROM THIS CHART MAY EXCEED CONTINUOUS HOVER CAPABILITY UNDER CERTAIN AMBIENT CONDITIONS. REFER TO HOVER CEILING CHARTS IN SECTION 4

