

NORMAL PROCEDURES CHECKLIST XL2

AIRSPEDS FOR NORMAL OPERATION

Unless otherwise noted, the following speeds are based on a maximum weight of 1653 lbs, and may be used for any lesser weights.

Takeoff Rotation Speed (V_r):	
Flaps 20°.....	55 KIAS
Takeoff Safety Speed:	
Flaps 20° (At 50 ft).....	65 KIAS
Enroute Climb, Flaps Up:	
Normal, sea level.....	80 - 85 KIAS
Normal, 10,000 feet MSL.....	75 - 80 KIAS
Best Rate of Climb Speed, Flaps Up (V_y):	
Sea level.....	80 KIAS
10,000 ft.....	75 KIAS
Best Angle of Climb Speed, Flaps Up (V_x):	
Sea level.....	70 KIAS
10,000 ft.....	65 KIAS
Normal Approach Speed:	
Flaps Up.....	80-85 KIAS
Flaps 20°.....	70-75 KIAS
Flaps 30°.....	65-70 KIAS
Balked Landing Climb Speed:	
Wide Open Throttle, Flaps 30°.....	65 KIAS
Maximum Recommended Turbulent Air Penetration (V_a):	
1653 lbs.....	100 KIAS
1450 lbs.....	94 KIAS
Maximum Demonstrated 90° Crosswind Velocity:	
Takeoff or Landing.....	15 Knots

NOTE

The maximum demonstrated crosswind velocity reflects the greatest crosswind available during certification tests and is not considered a limitation.

PREFLIGHT PREPARATION

1. Airplane AIRWORTHY, REQD DOCUMENTS ON BOARD
2. Weather..... SUITABLE
3. Baggage WEIGHED, STOWED, SECURE
4. Weight and C.G. WITHIN LIMITS
5. Navigation..... PLANNED
6. Charts and Navigation Equipment ON BOARD
7. Performance and RangeCOMPUTED AND SAFE

PREFLIGHT INSPECTION

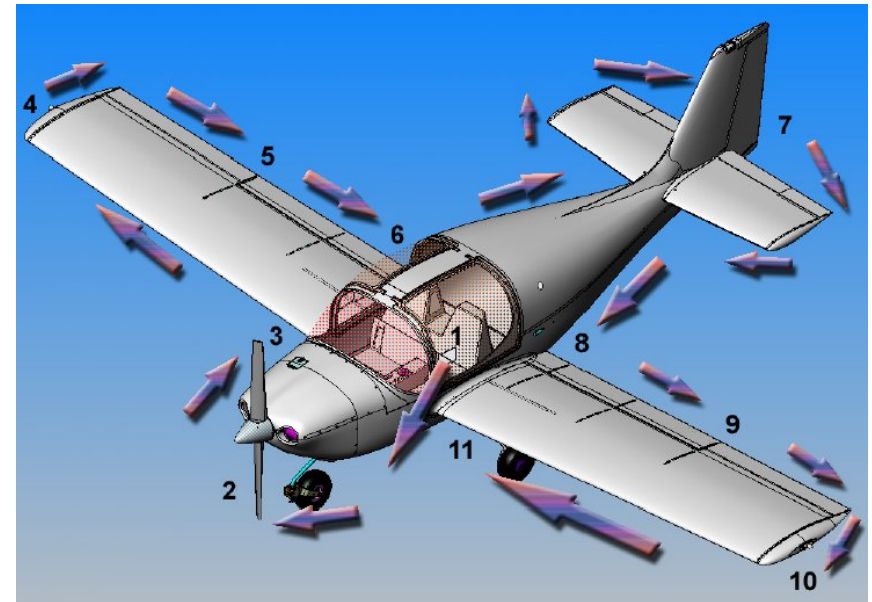


Figure 7-1 WALK- AROUND

Preflight inspection path, starting in cockpit, then out and around aircraft in clockwise direction, ending back in cockpit.

CAUTION

Do not step on flap when entering or leaving the cockpit.

1. COCKPIT

- a. Seat Belt... RELEASE, IF USED TO SECURE CONTROL STICK
- b. Ignition SwitchOFF
- c. FADEC PWR A and B switchesOFF
- d. Avionics Master SwitchOFF
- e. Battery Master SwitchON
- f. Fuel Quantity IndicatorCHECK (Fuel Sufficient for Flight)
- g. VoltmeterCHECK (Min. 11.4 V)
- h. Flaps..... EXTEND FULL DOWN (30°)
- i. Lights.....CHECK OPERATION
- j. Stall Warning VanePULL UP (Check Audible Voice Warning)
- k. Battery Master SwitchOFF
- l. Fire Extinguisher AVAILABLE
- m. Emergency Egress Hammer AVAILABLE

2. COWLING, ENGINE PROPELLER

- a. Upper and Lower Cowling Fasteners..... SECURE
- b. Propeller/Spinner CONDITION, SECURITY
- c. Nose Landing Gear LegCONDITION
- d. Nose Wheel Steering Bearing.....SECURITY
- e. Nose Wheel Tire CONDITION, PROPER INFLATION
- f. Cowling Right/Left Air Intakes CLEAR
- g. Alternator BeltCONDITION, TENSION
- h. Engine Oil.....CHECK QUANTITY (Min. 5 Qts.)
- i. Exhaust CONDITION, SECURITY
- j. Windshield.....CONDITION, CLEANLINESS

3. FWD FUSELAGE, RIGHT

- a. Right Cabin Air Intake CLEAR
- b. Fwd Fuselage.....CONDITION, CHECK FOR DAMAGE
- c. Right Cabin Door.....CONDITION
- d. Right Main Landing Gear LegCONDITION
- e. Brakes CONDITION, NO EVIDENCE OF LEAKS
- f. Tire CONDITION, PROPER INFLATION
- g. Chocks REMOVE

4. RIGHT WING, LEADING EDGE

- a. Leading Edge..... CONDITION
- b. Stall Strip SECURE
- c. Right Wing (Top and Underside) CONDITION
- d. Inspection Access Panels (Underside).....FASTENERS SECURE
- e. Tie-down RopeREMOVE
- f. Wingtip and LightsCONDITION, SECURITY

5. RIGHT WING, TRAILING EDGE

- a. Aileron.....CONDITION, FREE AND CORRECT MOVEMENT
- b. Aileron Hinges (2)CONDITION, SECURITY
- c. Aileron Mass Balance Weights..... UNOBSTRUCTED, SECURE
- d. Aileron PushrodCHECK JAMNUT SECURE
- e. FlapCONDITION
- f. Flap Slot..... CLEAR
- g. Flap Hinges (3)CONDITION, SECURITY (cotter pins)

6. AFT FUSELAGE, RIGHT

- a. Marker Beacon Antenna (Underside)CONDITION, SECURITY
- b. Aft Fuselage.....CONDITION, CHECK FOR DAMAGE
- c. Fuselage Mounted Antennas (Top)CONDITION, SECURITY

7. EMPENNAGE

- a. General ConditionCHECK
- b. Stabilator and Trim TabCHECK
- c. RudderCHECK

8. AFT FUSELAGE, LEFT

- a. Aft Fuselage.....CONDITION, CHECK FOR DAMAGE
- b. Fuel Filler Cap CLOSED AND LOCKED
- c. Fuel Vent (Underside)..... UNOBSTRUCTED
- d. Transponder Antenna (Underside)CONDITION, SECURITY
- e. Outside Air Temp Probe (Underside)ATTACHMENT
- f. Fuselage Belly FairingFASTENERS SECURE

9. LEFT WING, TRAILING EDGE

- a. Check Same As Right Wing (REVERSE ORDER)
- b. Aileron Trim Tab (if installed)..... CONDITION, SECURITY

10. LEFT WING, LEADING EDGE

- a. Check Same As Right Wing (REVERSE ORDER)
- b. Pitot-Static Blade..... CONDITION, OPENINGS CLEAR

11. FWD FUSELAGE, LEFT

- a. Left Main Landing Gear Leg.....CONDITION
- b. BrakesCONDITION, NO EVIDENCE OF LEAKS
- c. Tire CONDITION, PROPER INFLATION
- d. Chocks REMOVE
- e. Fuselage Belly Fairing..... FASTENERS SECURE
- f. Fuel Tank Sump.....SAMPLE, CHECK FOR CONTAMINATION
- g. Fuel Strainer.....SAMPLE, CHECK FOR CONTAMINATION
- h. Left Cabin Air Intake.....CLEAR
- i. Left Cabin DoorCONDITION

BEFORE STARTING ENGINE

1. Preflight Inspection COMPLETE
2. Passenger Briefing..... COMPLETE
3. Seat Belts and HarnessesADJUST, SECURE
4. Rudder PedalsADJUST AS DESIRED
5. DoorsAS REQUIRED
6. Circuit BreakersCHECK IN

If the aircraft has been exposed to temperatures below -7°C / 20°F for more than 2 hours, preheating is required. If engine does not start on the first try, allow 2 minutes for the starter to cool before trying again.

WARNING

If an abnormal HSA indication is observed during any operational check, takeoff is prohibited, abort flight and notify maintenance. Do not attempt flight until the discrepancy has been corrected.

STARTING ENGINE

1. Fuel Selector Valve VERIFY ON
2. BrakesCONFIRM PARKING BRAKE SET
3. Alternate Air OFF
4. Fuel Boost Pump Mode Switch AUTO

NOTE

The FUEL BOOST PUMP MODE and FADEC PWR A and B switches are "lever lock" type. The switch handle must be pulled slightly away from the instrument panel to allow the switch to be moved.

5. Master (battery and alternator) Switch ON
6. Annunciator Lights..... TEST/SET
7. VM 1000 VOLTS>11.4
8. FADEC PWR A and B Switches..... ON
9. Ignition Switch L (Left)
10. Fuel Boost PumpLISTEN FOR OPERATION
11. HSA / Annunciator Lights TEST/SET
12. ThrottleFULL FORWARD
13. HSA WOT Annunciator CHECK ON
14. Throttle 1/4 INCH FORWARD OF IDLE
15. Propeller Area CLEAR
16. Ignition SwitchSTART

NOTE

If airplane has not been operated for an extended period, HSA PPWR FL and/or EBAT FL may remain illuminated before, and for a few minutes after, engine start.

AFTER START

1. Throttle 1000 RPM
2. LightsAS REQUIRED
3. Cockpit Rheostat switchesAS REQUIRED
4. VM 1000 IN LIMITS (no blinking values)
5. Avionics Master Switch ON
6. FlapsUP (0°)
7. Transponder STANDBY
8. Flight Instruments/Nav/Comm.....CHECK/SET
9. Fuel Boost Pump Mode SwitchAS REQUIRED

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ENGINE RUNUP

1. Fuel Selector.....SET
2. Parking BrakeSET
3. ThrottleAPPROX. 1700 RPM
4. Alternate Air CHECK (slight RPM decrease)
5. Fuel Boost Pump Mode Switch.....ON
6. HSA FUEL PMP Annunciator CHECK ON
7. Fuel Boost Pump Mode Switch.....OFF
8. HSA FUEL PMP AnnunciatorCHECK ON
9. Fuel Pressure..... CHECK IN LIMITS
10. Fuel Boost Pump Mode Switch.....AUTO
11. HSA FUEL PMP AnnunciatorCHECK OFF
12. Annunciator LightsTEST/SET
13. HSA Annunciator Lights.....TEST/SET
14. VM 1000.....IN LIMITS
15. FADEC PWR B SwitchOFF
16. Engine..... CHECK, NO RPM DROP OR SURGE
17. HSA EBAT FL Annunciator.....CHECK ON
18. FADEC PWR B SwitchON
19. HSA..... CHECK ALL LAMPS EXTINGUISHED
20. FADEC PWR A SwitchOFF
21. Engine.....NO RPM DROP OR SURGE
22. HSA PPWR FL and EBAT FL Annunciators.....CHECK ON
23. FADEC PWR A SwitchON
24. HSA..... CHECK ALL LAMPS EXTINGUISHED
25. Ignition Switch..... R (Right) POSITION
26. RPM DROP..... 10 RPM MINIMUM, 150 RPM MAXIMUM
27. HSA.....FADEC CAUTION light
28. Ignition Switch.....BOTH
29. HSA..... CHECK ALL LAMPS EXTINGUISHED
30. Ignition Switch..... L (Left) POSITION
31. RPM DROP..... 10 RPM MIN, 150 RPM MAX
(Maximum difference between L and R is 75 RPM.)
32. HSA.....FADEC CAUTION light
33. Ignition Switch.....BOTH
34. HSA..... CHECK ALL LAMPS EXTINGUISHED
35. Throttle IDLE

WARNING

If any abnormal HSA indications are observed after all operational checks are complete, takeoff is prohibited, abort flight and notify maintenance. Do not attempt flight until the discrepancy has been corrected.

BEFORE TAKEOFF

During cold weather operations, the engine should be properly warmed up before takeoff. The minimum oil temperature for takeoff is 100°F.

1. Flight Controls FREE AND CORRECT
2. Fuel Quantity VERIFY
3. Flight Instruments/Nav/Comm.....CHECK, SET
4. Flaps.....20°
5. Trim SET FOR TAKEOFF
6. Canopy DoorsCLOSED AND SECURE
7. Seat Belts & Harness SECURE
8. Brakes RELEASE

CLIMB

1. Flaps.....SET to 0°
2. ThrottleVERIFY FULL FORWARD
3. HSA WOT Annunciator CHECK ON
4. Airspeed 80 KIAS

CRUISE

1. Airspeed MAINTAIN POWER
UNTIL CRUISE AIRSPEED IS ATTAINED
2. PowerSET CRUISE POWER
3. Elevator Trim ADJUST AS REQUIRED
4. Fuel Boost Pump Mode SwitchCHECK AUTO
5. LightsAS REQUIRED
6. Engine Instruments and HSA CHECK OFTEN

NOTE

For optimum fuel economy, do not change the throttle position for approximately five minutes after setting cruise power.

DESCENT

1. Flight Instruments/Nav/Comm CHECK, SET
2. Elevator Trim.....ADJUST AS REQUIRED
3. Engine Instruments and HSA CHECK OFTEN

BEFORE LANDING

1. Fuel Boost Pump Mode Switch..... CHECK AUTO
2. Flaps AS DESIRED (At 80 KIAS or less)
3. Lights AS REQUIRED
4. Seat Belts and Harnesses SECURED

AFTER LANDING

1. FlapsRETRACT
2. Transponder.....STANDBY
3. Lights AS REQUIRED

SHUTDOWN

1. Avionics Master SwitchOFF
2. Ignition KeyOFF
3. FADEC PWR A and B SwitchesOFF
4. All Light Switches.....OFF
5. All Electrical Switches.....OFF
6. Master SwitchOFF
7. Parking Brake AS REQUIRED

CAUTION

If the secondary power (PWR B) switch is left in the ON position after engine shutdown, the aircraft's backup battery will discharge and be drained of power. Be sure to turn the primary (PWR A) and secondary (PWR B) switches off after engine shutdown.

SECURING AIRPLANE

1. WheelsCHOCKED
2. Control Stick..... SECURED by SEAT BELT
3. Pitot Cover ON (as required)
4. Rudder Gust Lock ON (as required)
5. Wings and TailTIE-DOWN
6. DoorsCLOSED AND LATCHED