Aircraft Checklist
Commander 114

This is an abbreviated checklist. Most explanatory items, notes cautions and warnings have been omitted for brevity. Procedures in red/bold text in this checklist should be committed to memory. All performance speeds should be computed prior to flight using the Aircraft Owner's Manual. This checklist is for training purposes only; users must be familiar with and operate in accordance with the official Aircraft Owner's Manual.

Commander 114 Preflight Checklist

CABIN PREFLIGHT INSPECTION

REMOVE GUST LOCKS IF INSTALLED & PITOT COVER IF INSTALLED

1. Fuel Quantities ..... CHECK
2. Inspections ..... CHECK DATES and TIMES
3. Weight and CG ..... WITHIN LIMITS
4. Documents ..... CHECK
5. Control Wheel Lock ..... REMOVE
6. Ignition Switch ..... OFF
7. Circuit Breakers ..... SET
8. Landing Gear Lever ..... DOWN
9. Avionics Switch ..... OFF
10. Master Switch ..... ON
11. Landing Gear Position Indicator ..... CHECK ON
12. Fuel Quantity Indicators ..... CHECK
13. Flaps ..... EXTEND
14. Interior and Exterior Lights ..... CHECK
15. Pitot Heat ..... CHECK THEN OFF
16. Stall Warning Vane ..... CHECK
17. Master Switch ..... OFF
18. Fuel Selector Valve ..... BOTH
19. Fire Extinguisher ..... CHECK CHARGE

EXTERIOR PREFLIGHT INSPECTION

EMPENNAGE

1. Antennas ..... CHECK
2. Baggage Door ..... LOCKED
3. Left Side of Fuselage ..... CHECK
4. Static Port ..... UNOBSTRUCTED
5. Control Surfaces ..... CHECK
6. Tail Tie-down ..... REMOVE
7. Position Light ..... CHECK
8. Flashing Beacon ..... CHECK
9. Right Side of Fuselage ..... CHECK
10. Static Port ..... UNOBSTRUCTED

RIGHT WING

1. Flap and Aileron ..... CHECK
2. Position Light ..... CHECK
3. Strobe ..... CHECK
4. Wing ..... CHECK
5. Fuel Tank Vent ..... CHECK for BLOCKAGE
6. Fuel Quantity ..... CHECK/CAP SECURE
7. Wing Tie-down ..... REMOVE
8. Fuel Tank Sumps ..... DRAIN and CHECK
9. Right Main Gear and Wheel Well ..... CHECK
10. Wheel Well Fuel Drain ..... DRAIN and CHECK

NOSE

1. Fuel Gascolator .....DRAIN and CHECK
2. Cowl Fasteners..... SECURED
3. Oil Cooler.....CHECK
4. Lower Cowl and Cowl Flap.....CHECK and SECURE
5. Nose Wheel Assembly.....CHECK
6. Air Inlets ..... CLEAR
7. Alternator Belt .....CHECK
8. Propeller and Spinner.....CHECK
9. Oil Quantity ..... (6-8 Quarts) CHECK
10. Air Filter.....CHECK
11. Windshield .....CLEAN and CHECK

LEFT WING

1. Wheel Well Fuel Drain .....DRAIN and CHECK
2. Left Main Gear and Wheel Well.....CHECK
3. Fuel Tank Sump.....DRAIN and CHECK
4. Fuel Quantity .....CHECK/CAP SECURE
5. Wing Tie-down .....REMOVE
6. Wing.....CHECK
7. Pitot Mast.....CHECK
8. Fuel Tank Vent .....CHECK for BLOCKAGE
9. Position Light.....CHECK
10. Strobe .....CHECK
11. Flap and Aileron .....CHECK

BEFORE STARTING ENGINE

1. Preflight Inspection ..... COMPLETE
2. Passenger Briefing ..... COMPLETE
3. Seat Belts/Shoulder Harnesses ..... ADJUSTED/SECURE
4. Fuel Selector ..... BOTH
5. Circuit Breakers ..... CHECK IN
6. Avionics Master Switch ..... OFF
7. Autopilot ..... OFF
8. Cowl Flaps ..... OPEN
9. Landing Gear Leaver ..... CHECK – DOWN
10. Landing Gear Emergency Extension Valve Knob ..... STOWED
11. Brakes ..... TEST and SET

V SPEEDS

Vso		58 KIAS
Vs		65 KIAS
Vr		69 KIAS
Vx		80 KIAS
Vy		89 KIAS
Va	3140 lbs	116 KIAS
	2658 lbs	107 KIAS
Vfe	0-20˚	150 KIAS
	25-35˚	109 KIAS
Vno		147 KIAS
Vne		187 KIAS
Glide	3140 lbs	82 KIAS
	2600 lbs	74 KIAS
Vlo		129 KIAS
Vle		187 KIAS

STARTING ENGINE

1. Mixture.....IDLE CUT-OFF
2. Propeller.....HIGH RPM
3. Throttle.....OPEN 1/4 TO 1/2 INCH
4. Alternate Induction Air.....COLD
5. Beacon.....ON
6. Battery Switch.....ON
7. Voltmeter.....CHECK
8. Fuel Pump.....ON
9. Mixture.....FULL RICH
   UNTIL FUEL PRESSURE RISES
10. Mixture.....IDLE CUT-OFF
11. Fuel Pump.....OFF
12. Propeller Area.....CLEAR
13. Ignition.....ENGAGE
14. Mixture.....WHEN ENGINE STARTS FULL RICH
15. Throttle.....1000 RPM
16. Oil Pressure.....INDICATING GREEN
17. Mixture.....LEAN for TAXI
18. Alternator.....ON
19. Ammeter.....CHECK
20. Voltmeter.....CHECK (13-16V)
21. Flaps.....RETRACT
22. Avionics Master Switch.....ON
23. Transponder.....STANDBY/1200
24. Heading Indicator.....SET
25. ASOS/ATIS.....OBTAIN
26. Altimeter.....SET
27. Advisory/Departure & Taxi Clearance.....CONTACT

TAXI

1. Brakes ..... CHECK
2. Instrument Cross-Check..... CHECK

BEFORE TAKEOFF

1. Nose Wheel..... STRAIGHT
2. Brakes ..... SET and HOLD
3. Flight Controls ..... FREE and CORRECT
4. Fuel Selector Valve..... BOTH
5. Throttle..... 2000 RPM
6. Mixture..... SET for DENSITY ALTITUDE
7. Magnetos..... (175 max drop, 50 diff.) CHECK
8. Propeller..... CYCLE
9. Alternate Induction Air Control..... CHECK FOR DROP
10. Engine Gauges and Ammeter ..... CHECK
11. Suction Gauge..... GREEN ARC
12. Throttle..... CHECK IDLE
13. Throttle..... 1000 RPM
14. Throttle Friction Lock..... ADJUST
15. Communication/Navigation Radios..... SET
16. Flight Instruments ..... SET and CHECKED
17. Fuel Quantities ..... CHECKED
18. Elevator and Rudder Trim ..... SET for TAKEOFF
19. Autopilot ..... TEST/OFF
20. Flaps..... SET for TAKEOFF

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21. Cabin Doors & Windows.....CLOSED and LATCHED
22. Seats .....ADJUSTED/ LOCKED
23. Departure Briefing .....CLEARANCE / EMERG. PLAN
24. Advisory/ Tower .....CONTACT

CLEARED FOR TAKEOFF

1. Lights ..... AS REQUIRED
2. Fuel Pump Switch .....ON
3. Transponder .....ALTITUDE
4. Brakes .....RELEASE
5. Traffic .....CHECK

NORMAL TAKEOFF

1. Wing Flaps .....10°
2. Throttle..... FULL OPEN
3. Elevator Control.....LIFT NOSE AT 69 KIAS
4. Climb Speed..... 72 KIAS
5. Landing Gear ..... RETRACT
6. Wing Flaps ..... RETRACT

SHORT FIELD TAKEOFF

1. Wing Flaps ..... 20°
2. Brakes ..... HOLD
3. Throttle ..... FULL OPEN
4. Engine Gauges ..... GREEN
5. Brakes ..... RELEASE
6. Elevator Control ..... LIFT NOSE AT 66 KIAS
7. Obstacle Clearance Speed ..... 69 KIAS
8. Landing Gear ..... RETRACT

After Clearing Obstacle:

1. Airspeed ..... ACCELERATE FOR NORMAL CLIMB
2. Wing Flaps ..... RETRACT

SOFT FIELD TAKEOFF

1. Wing Flaps ..... 20˚
2. Throttle ..... FULL OPEN
3. Elevator Control ..... TAIL LOW
4. Accelerate ..... WHILE IN GROUND EFFECT
5. Climb Speed ..... 69 KIAS
6. Landing Gear ..... RETRACT
7. Wing Flaps ..... RETRACT

ENROUTE CLIMB

1. Airspeed ..... 100-120 KIAS
2. Throttle ..... AS REQUIRED
3. Propeller ..... AS REQUIRED
4. Mixture ..... AS REQUIRED
5. Cowl Flaps ..... AS REQUIRED FOR ENGINE TEMP

CRUISE

1. Cowl Flaps ..... AS REQUIRED
2. Manifold Pressure ..... AS REQUIRED
3. Propeller ..... AS REQUIRED
4. Power ..... 75% MCP or less (Check EDM)
5. Fuel Pump ..... OFF
6. Mixture ..... AS REQUIRED
7. Fuel Selector Valve ..... AS REQUIRED
8. Heading Indicator ..... CROSS-CHECK

DESCENT

1. ASOS/ATIS ..... OBTAIN
2. Altimeter ..... SET
3. Arrival/Passenger Briefing..... COMPLETE
4. Mixture..... ADJUST AS REQUIRED
5. Throttle..... AS REQUIRED
6. Propeller..... AS REQUIRED
7. Cowl Flaps ..... AS REQUIRED
8. Landing Light.....ON
9. Wing Flaps ..... AS REQUIRED
10. Fuel Selector Valve.....BOTH

BEFORE LANDING

1. Seats, Belts, and Shoulder Harnesses ... ADJUST/LOCKED
2. Propeller..... HIGH RPM
3. Fuel Selector .....BOTH
4. Fuel Pump Switch.....ON
5. Landing Gear .....EXTEND
6. Mixture..... AS REQUIRED
7. Autopilot ..... OFF

NORMAL LANDING

1. Power ..... AS REQUIRED
2. Wing Flaps..... 35˚ (RECOMMENDED)
3. Airspeed ..... 80 KIAS
4. Touchdown .....MAIN WHEELS FIRST
5. Brakes ..... APPLY AS NECESSARY

SHORT FIELD LANDING

1. Power ..... AS REQUIRED
2. Wing Flaps ..... 35˚
3. Airspeed ..... 71 KIAS
4. Touchdown .....MAIN WHEELS FIRST
5. Wing Flaps ..... RETRACT
6. Brakes ..... APPLY AS NECESSARY

SOFT FIELD LANDING

1. Power ..... AS REQUIRED
2. Wing Flaps ..... 35˚
3. Airspeed ..... 71 KIAS
4. Touchdown .....MAIN WHEELS FIRST
5. Landing Roll ..... TAIL LOW

GO AROUND (BALKED LANDING)

1. Throttle..... FULL OPEN
2. Landing Gear ..... RETRACT
3. Wing Flaps ..... RETRACT TO 20°
4. Climb Speed..... 69 KIAS
5. Cowl Flaps ..... OPEN

At Positive Rate:

6. Airspeed ..... 80 KIAS
7. Wing Flaps ..... RETRACT

AFTER LANDING / CLEAR OF RUNWAY

1. Wing Flaps ..... UP
2. Mixture.....LEAN for TAXI
3. Cowl Flaps ..... OPEN
4. Fuel Pump Switch ..... OFF
5. Landing Light..... OFF
6. Strobes..... OFF
7. Transponder .....STANDBY
8. Taxi Clearance / Advisory .....CONTACT

SECURING AIRPLANE

1. Avionics Master Switch ..... OFF
2. Throttle..... IDLE
3. Magnetos.....CHECK GROUNDING
4. Throttle..... 1000 RPM
5. Mixture.....IDLE CUT-OFF
6. Ignition..... OFF
7. Master Switch ..... OFF
8. Beacon..... OFF
9. Fuel Selector ..... OFF
10. Control Lock .....INSTALL
11. Flight Information..... RECORD
12. Pitot Tube Cover.....INSTALL
13. Wheel Chocks & Tie Downs ..... SECURE
14. Post Flight Walk-Around..... COMPLETE
15. Doors..... LOCKED

ABNORMAL PROCEDURES

Flooded Start

1. Mixture.....IDLE CUT-OFF
2. Propeller.....HIGH RPM
3. Throttle.....FULL OPEN

Proceed with item 4 of "Starting Engine" checklist on page 6

Ammeter Shows Excessive Rate Of Charge

1. Alternator.....OFF
2. Nonessential Electrical Equipment.....OFF
3. Flight.....LAND AS SOON AS PRACTICAL

Alternator Failure

1. Alternator Switch.....OFF then ON
2. Circuit Breakers.....CHECK IN

If Low Voltage Annunciator Illuminates Again:

3. Alternator.....OFF
4. Nonessential Electrical Equipment.....OFF
5. Flight.....TERMINATE

Landing Gear Fails To Retract

1. Master Switch.....CHECK ON
2. Landing Gear Lever.....(Full Up) CHECK
3. Landing Gear and Gear Pump Circuit Breakers.....IN
4. Landing Gear Lever.....RECYCLE
5. Gear Motor.....CHECK OPS(AMMETER and Noise)

Landing Gear Fails To Extend

1. Master Switch ..... ON
2. Landing Gear Lever ..... (Full Down) CHECK
3. Gear Pump Circuit Breakers ..... IN
4. Gear Position Indicators ..... PRESS TO TEST
5. Airspeed ..... < 80KIAS
6. Emergency Extension Valve ..... PULL OUT & DOWN
7. Gear Locked Lights ..... ON

If gear fails to extend it may be necessary to cycle rudder pedals, reduce power, or reduce airspeed

Landing with Gear Retracted

1. Landing Gear Lever ..... UP
2. Power ..... AS REQUIRED
3. Wing Flaps ..... 20°
4. Airspeed ..... 74 KIAS
5. Propeller ..... HIGH RPM
6. Touchdown ..... SLIGHTLY TAIL LOW
7. Mixture ..... IDLE CUT OFF
8. Fuel Selector Valve ..... OFF
9. Ignition Switch ..... OFF
10. Airplane ..... EVACUATE

Landing With A Flat Main Tire

1. Seats, Belts, & Shoulder Harnesses ..... ADJUST/LOCKED
2. Loose Objects..... SECURE
3. Mixture..... FULL RICH
4. Landing Gear .....EXTEND
5. Flaps..... 35°
6. Airspeed ..... 71 KIAS
7. Propeller..... HIGH RPM
8. Touchdown ..... GOOD TIRE FIRST
9. Directional Control ..... MAINTAIN

Landing With A Defective Nose Gear (Or Flat Nose Tire)

1. Seats, Belts, & Shoulder Harnesses ..... ADJUST/LOCKED
2. Mixture..... FULL RICH
3. Landing Gear .....EXTEND
4. Flaps..... 35°
5. Airspeed ..... 71 KIAS
6. Propeller..... HIGH RPM
7. Before Landing Checklist ..... COMPLETE
8. Runway ..... HARD SURFACE or SMOOTH SOD
9. Touchdown ..... GOOD TIRE FIRST
10. Touchdown ..... SLIGHTLY TAIL LOW
11. Elevator Control.....HOLD NOSE OFF GROUND
12. Mixture..... IDLE CUT OFF
13. Master Switch ..... OFF
14. Ignition Switch..... OFF
15. Fuel Selector Valve..... OFF
16. Airplane..... EVACUATE

EMERGENCY CHECKLIST

This is an operational checklist. Procedures in red/bold text in this section should be committed to memory. The official aircraft AFM contains additional procedures and expanded procedures not listed in this checklist. Users should be familiar with all procedures.

AIRSPEEDS FOR EMERENCY OPERATION

Maximum Glide
3140 Lbs..... 82 KIAS
2600 Lbs..... 74 KIAS
2023 Lbs..... 65 KIAS

Maneuvering Speed
3140 Lbs..... 116 KIAS
2658 Lbs..... 107 KIAS
2123 Lbs..... 93 KIAS

Landing Without Engine Power:
Flaps Down ..... 71 KIAS

FIRE DURING ENGINE START

1. **Cranking ..... CONTINUE**
2. **Mixture..... IDLE CUTOFF**
3. **Fuel Selector .....OFF**
4. **Ignition Switch .....OFF**
5. **Master Switch.....OFF**
6. **Cowl Flaps ..... CLOSED**
7. **Fire Extinguisher ..... DISCHARGE**

ENGINE FAILURE DURING TAKEOFF ROLL

1. **Throttle** ..... **RETARD**
2. **Brakes** ..... **APPLY**
3. Flaps ..... RETRACT
4. Mixture ..... IDLE CUT-OFF
5. Fuel Selector ..... OFF
6. Ignition Switch ..... OFF
7. Master Switch ..... OFF
8. Roll/Land ..... STRAIGHT AHEAD

ENGINE FAILURE / POWER LOSS DURING FLIGHT

1. **Airspeed** ..... **82 KIAS**
2. **Auxiliary Fuel Pump** ..... **ON**
3. **Alternate Induction Air** ..... **HOT**
4. **Mixture** ..... **FULL RICH**
5. **Propeller** ..... **FULL FORWARD**
6. **Throttle** ..... **OPEN**
7. **Fuel Selector Valve** ..... **FULLEST TANK**
8. **Magnetos** ..... **CHECK BOTH**

EMERGENCY LANDING WITHOUT ENGINE POWER

1. **Airspeed** ..... **82 KIAS**
2. **Landing Site** ..... **DETERMINE**
3. Mixture ..... IDLE CUTOFF

Continued Next Page >

4. Ignition Switch ..... OFF
5. Fuel Selector ..... OFF
6. Flaps ..... UP
7. Landing Gear ..... RETRACTED
8. Cowl Flaps ..... CLOSED
9. Emergency Locator Transmitter ..... ON
10. Transponder 7700
11. Seats, Seat Belts and Shoulder Straps ..... SECURE
12. Loose Objects ..... SECURE
13. Ground Controller Briefing ..... ACCOMPLISH

PRECAUTIONARY LANDING WITH ENGINE POWER

1. Seats, Seat Belts and Shoulder Straps ..... SECURE
2. Loose Objects ..... SECURE
3. Emergency Locator Transmitter ..... ON
4. Ground Controller Briefing ..... ACCOMPLISH
5. Mixture ..... FULL RICH
6. Landing Gear ..... DOWN
7. Flaps ..... AS REQUIRED
8. Power ..... AS REQUIRED
9. Flaps ..... 35˚
10. Airspeed ..... 71 KIAS MINIMUM
11. Propeller ..... HIGH RPM
12. Mixture ..... IDLE CUTOFF
13. Fuel Selector ..... OFF
14. Avionics Power and Master Switch ..... OFF
15. Doors ..... UNLATCH
16. Touchdown ..... SLIGHTLY TAIL LOW
17. Brakes ..... APPLY

ENGINE FIRE IN FLIGHT

1. **Mixture.....IDLE CUT-OFF**
2. **Fuel Selector Valve .....OFF**
3. **Master Switch.....OFF**
4. **Cabin Heat and Defrost.....OFF**
5. **Airspeed .....INCREASE**
6. **Forced Landing ..... EXECUTE**

ELECTRICAL FIRE IN FLIGHT

1. **Master Switch.....OFF**
2. **All Electrical Switches (except ignition)..... OFF**
3. **Vents, Cabin Heat and Air ..... CLOSED**
4. **Avionics Master Switch .....OFF**
5. **Fire Extinguisher ..... ACTIVATE**

If Fire Appears Out:

6. Master Switch .....ON
7. Circuit Breakers .....CHECK – DO NOT RESET
8. Essential Electrical Equipment .....(one at a time) ON
9. Vents, Cabin Heat and Air .....AS DESIRED
10. Storm Window ..... OPEN

CABIN FIRE

1. **Master Switch.....OFF**
2. **Vents, Cabin Heat and Air.....OFF and CLOSED**
3. **Fire Extinguisher (if available ..... ACTIVATE**
4. Emergency Descent Procedure .....PERFORM
5. Flight..... TERMINATE

Should any mechanical difficulty, accident, incident or delay occur, please contact a Leading Edge Aviation representative before continuing any flight. **DO NOT FLY** any aircraft that may have been damaged, until it has been inspected and certified airworthy by a certified mechanic. Call Leading Edge Aviation 435-752-5955

Passenger/Crew Briefing Checklist

Before Engine Start:

1. Normal and emergency exit procedures
2. Seatbelt operations
3. Fire extinguisher location & operations
4. Identify PIC for the flight
5. Positive exchange of flight controls process

Before Take-Off:

1. Verify runway in use
2. Type of take-off
3. Direction of departure (VFR)
4. Departure clearance (IFR)
5. Emergency plan
    a. Emergency on runway
    b. Emergency after liftoff
    c. Emergency at altitude
    d. Flying/non-flying pilot roles during emergency operations

Approach:

1. Verify runway in use
2. Type of landing
3. Expected crosswind direction/intensity
4. Traffic pattern (VFR)
5. Instrument approach briefing (IFR)

Emergency Transponder Codes:

Air Piracy: **7500**
Lost Communication:..... **7600**
General Emergency: **7700**

Emergency 2-Way Communication Frequency:

Guard Frequency: **121.5**