N7183A (1956 Cessna 172)

V Speeds

(Knots at Full Gross Weight: 2,300)

Vr: 55

Vx: 62

Vy: 73

Vso: 50

Vs: 43

Vno: 126

Vne: 158

Vg: 68

Va:

2,300: 97

1,950: 89

1,600: 80

Vfe: 85

Max Window Open: 158

Max Demonstrated Crosswind: 15

Normal Procedures

Preflight Inspection (Cabin)

1. POH/Registration: CHECK
2. Hobbs/Tach: CHECK
3. Control Wheel Lock: REMOVE
4. Fuel Selector: BOTH
5. Elevator Trim: SET FOR TAKEOFF
6. Ignitions Switch: OFF
7. Avionics Power Switch: OFF
8. Circuit Breakers: CHECK
9. Master Switch: ON
10. Fuel Quantity: CHECK
11. All Lights/Pitot Heat: CHECK
12. Flaps: LOWER
13. Master Switch: OFF

Preflight Inspection (Empennage)

1. Tie Down: REMOVE
2. Control Surfaces: CHECK SURFACE/MOVEMENT
3. Bolts/Cotter Pins on Elevator and Rudder: CHECK
4. Antennas: CHECK
5. Lights: CHECK

Preflight Inspection (Right Wing)

1. Tiedown: REMOVE
2. Flaps/Hinges: CHECK
3. Aileron/Hinges: CHECK
4. Surface Condition: CHECK
5. Wingtip/Lights: CHECK
6. Fuel Tank: CHECK QUANTITY/CAP
7. Fuel Sump: DRAIN
8. Main Gear Tire/Brake Pads/Discs: CHECK
9. Door Hinge: CHECK

Preflight Inspection (Nose)

1. Engine Oil: 6-8 Quarts
2. Fuel Strainer: DRAIN
3. Propeller/Spinner: CHECK
4. Air Filter: CHECK
5. Nose Wheel Strut/Tire: CHECK
6. Cowling: CHECK
7. Static Port: CHECK
8. Wheel Chocks: REMOVE

Preflight Inspection (Left Wing)

1. Tiedown: REMOVE
2. Flaps/Hinges: CHECK
3. Ailerons/Hinges: CHECK
4. Surface Condition: CHECK
5. Stall Warning : CHECK/TEST
6. Wingtip Lights: CHECK
7. Landing Lights: CHECK
8. Fuel Tank: CHECK QUANTITY/CAP
9. Fuel Sump: DRAIN
10. Pitot Tube/ Drain Hole: CHECK
11. Fuel Vent: CHECK
12. Main Gear Tire/Brake Pads/Disc: CHECK

Before Starting Engine

1. Passenger Brief:
    a. PIC AUTHORITY
    b. DOOR
    c. SEATS/SEATBELTS
    d. FRESH AIR
    e. FIRE EXTINGUISHER
    f. EMERGENCY EXIT
    g. POSITIVE EXCHANGE OF FLIGHT CONTROLS
    h. STERILE COCKPIT
    i. QUESTIONS
2. Seats/Seatbelts: LOCKED/FASTENED
3. Brakes: CHECK PRESSURE
4. Fuel Selector: BOTH
5. Circuit Breakers: CHECK IN
6. Electrical Switches: OFF
7. Avionics Switch: OFF

Starting Engine

1. Mixture: RICH
2. Carburetor Heat: OFF
3. Master Switch/Beacon Light: ON
4. Prime: AS REQUIRED
5. Throttle: 1/8 inch open
6. Fuel pump: ON
7. Propeller Area: CLEAR
8. Ignition Switch: START (RELEASE WHEN ENGINE STARTS)
9. Oil Pressure: CHECK
10. Mixture: LEAN AS REQUIRED
11. Throttle: 1,000 RPM
12. Amps/Volts: CHECK
13. Beacon/Navigation/Strobe Lights: ON AS NECESSARY
14. Avionics Switch: ON
15. Radios: ON

Hot Start

1. Throttle: ½" OPEN
2. Mixture: IDLE CUTOFF
3. Fuel Pump: ON
4. Starter: ENGAGE
5. Mixture: RICH
6. Throttle: REDUCE

Flooded

1. Throttle: FULL OPEN
2. Mixture: IDLE CUTOFF
3. Starter: ENGAGE
4. Mixture: RICH
5. Throttle: REDUCE

After Start Checklist

1. Flaps: UP
2. Avionics: SET
3. Radios: SET
4. Weather: AWOS/ATIS
5. Altimeter: SET
6. Transponder: SET
7. Flight Instruments: CHECK
8. Clearance: IFR/TAXI

Taxi Checklist

1. Airport Diagram: AVAILABLE
2. Taxi Route: BRIEF
3. Taxi Area: CLEAR
4. Flight Controls: POSITION FOR WIND
5. Brakes: TEST
6. Flight Instruments: CHECK

Run Up Checklist

1. Brakes: SET
2. Doors/Windows: CLOSED/LOCKED
3. Flight Controls: FREE/CORRECT
4. Flight Instruments: SET
5. Fuel Selector Valve: BOTH
6. Mixture: RICH
7. Elevator/Rudder Trim: SET FOR TAKEOFF
8. Throttle: 1,700 RPM
9. Magnetos: 125/50
10. Carburetor Heat: CHECK FOR RPM DROP
11. Engine Instruments: CHECK
12. Ammeter/Voltmeter: CHECK
13. Idle Check: CHECK
14. Throttle: 1,000 RPM
15. Throttle Friction Lock: ADJUST

Before Takeoff Checklist

1. Type of Takeoff: BRIEF
2. Takeoff Briefing:
    a. _____ PIC
    b. _____ RUNWAY NUMBER
    c. _____ RUNWAY DISTANCE
    d. _____ TAKEOFF DISTANCE
    e. _____ DEPARTURE BRIEF
3. Engine Failure
    a. Takeoff Roll
        i. Power: IDLE
        ii. Flaps: RETRACT
        iii. Directional Control: MAINTAIN
        iv. Brake: AS REQUIRED
    b. Below 1,000 ft AGL
        i. Airspeed: 68 kts
        ii. Mixture: IDLE CUTOFF
        iii. Fuel Selector: OFF
        iv. Ignition Switch: OFF
        v. Flaps: AS REQUIRED
        vi. Master Switch: OFF
        vii. Doors: UNLATCH
        viii. Land: WITHIN 30 DEGREES OF NOSE
    c. Above 1,000 ft AGL
        i. Airspeed: 68 kts
        ii. Mixture: IDLE CUTOFF
        iii. Fuel Selector: OFF
        iv. Ignition Switch: OFF
        v. Flaps: AS REQUIRED
        vi. Master Switch: OFF
        vii. Land: BACK ON AIRPORT/ BEST PLACE

Line Up Checklist

1. Doors/Windows: CLOSED/LOCKED
2. Lights: AS REQUIRED
3. Transponders: CHECK
4. Mixture: RICH

Climb Checklist

1. Flaps: UP
2. Airspeed: 70-85 kts
3. Throttle: FULL
4. Mixture: RICH BELOW 3,000 ft

Cruise Checklist

1. Power: 2,200-2,700 RPM
2. Trim: ADJUST
3. Mixture: LEAN AS REQUIRED
4. Fuel Pump: OFF
5. Engine Instruments: CHECK
6. Nav Instruments: CHECK

Pre-Maneuver Checklist (IP3Cs)

1. Instruments: CHECK
2. Position: EMERGENCY LANDING LOCATION
3. Clearing Turns: EXECUTE
4. Call: COMPLETE
5. Configure
    a. Fuel Selector: BOTH
    b. Mixture: AS REQUIRED
    c. Lights: AS REQUIRED

In Range Checklist

1. ATIS/AWOS: CHECK
2. Altimeter: SET
3. Clearance: OBTAIN AS REQUIRED
4. Approach Brief: COMPLETE
5. Radios/Nav/GPS/CDI: SET
6. Lights: AS REQUIRED

Descent Checklist

1. Fuel Selector: BOTH
2. Mixture: AS REQUIRED
3. Power: AS DESIRED
4. Carburetor Heat: AS REQUIRED

Before Landing Checklist

1. Seats/Seatbelts: SECURED/FASTENED
2. Fuel Selector: BOTH
3. Mixture: RICH
4. Fuel pump: ON
5. Carburetor Heat: ON (FULL HEAT BEFORE REDUCING POWER)
6. Lights: ON AS REQUIRED

Go Around

1. Throttle: FULL
2. Carburetor Heat: OFF
3. Flaps: RETRACT to 20° (immediately)
4. Airspeed: 62 kts
5. Flaps: RETRACT to 10° (until obstacles are cleared)
6. Airspeed: 73 kts
7. Flaps: RETRACT to 0° (at safe altitude)

After Landing Checklist

1. Wing Flaps: UP
2. Carburetor Heat: OFF
3. Throttle: 1,000 RPM
4. Mixture: LEAN AS REQUIRED
5. Fuel Pump: OFF
6. Trim: SET FOR TAKEOFF
7. Transponder: 1200
8. Lights: AS REQUIRED
9. Taxi Route: BRIEF

Shutdown/Securing Checklist

1. Avionics Power Switch/Electrical Equipment/Autopilot: OFF
2. Lights: ON AS REQUIRED
3. Throttle: IDLE
4. Mixture: IDLE CUTOFF
5. Ignition Switch: OFF
6. Master Switch: OFF
7. Hobbs/Tach: RECORD
8. Locks/Covers/Tie downs/ Chalks: SECURE

Emergency Procedures

Engine Fire (During Start)

- Ignition: CONTINUE CRANKING

If Engine Starts

- Power: 1,700 RPM FOR 2 MINUTES
- Engine: SHUTDOWN

If Engine Does Not Start

- Throttle: FULL OPEN
- Mixture: IDLE CUTOFF
- Ignition: CONTINUE CRANKING
- Fire Extinguisher: OBTAIN
- Mater Switch: OFF
- Ignition Switch: OFF
- Fuel Selector Valve: OFF
- Fire: USE FIRE EXTINGUISHER

Engine Fire In Flight

1. Mixture: IDLE CUTOFF
2. Fuel Selector Valve: OFF
3. Master Switch: OFF
4. Cabin Heat/Air: OFF (except overhead vents)
5. Airspeed: 100 kts OR MORE TO EXTINGUISH FIRE

Go To Emergency Landing Without Engine Power Checklist

Cabin Fire in Flight

1. Master Switch: OFF
2. Vents/Cabin Air/Cabin Heat: CLOSED
3. Fire Extinguisher: USE (After Using, Ventilate The Cabin)
4. Declare Emergency: 121.5/ SQUAWK 7700

Land As Soon As Possible

Wing Fire in Flight

1. Nav Lights: OFF
2. Pitot Heat: OFF
3. Strobe Lights: OFF

- Perform Sideslip to Keep Flames Away From Fuel Tanks and Cabin.
- Land As Soon As Possible Using Flaps Only Required For Final Approach and Touchdown

Electrical Fire in Flight

1. Master Switch: OFF
2. Avionics Power Switch: OFF
3. All Other Switches (Except Ignition Switch): OFF
4. Vents/Cabin Air/Cabin Heat: CLOSED
5. Fire Extinguisher: USE (After Use, Ventilate The Cabin)

If Fire Appears Extinguished and Electrical Power is Necessary For The Continuance Of The Flight.

6. Master Switch: ON
7. Circuit Breakers: CHECK FOR FAULTY CIRCUIT, DON'T RESET
8. Radio Switches: OFF
9. Avionics Power Switch: ON
10. Radio/Electrical Switches: ON 1 AT A TIME (with delay after each until short circuit is localized)

Engine Failure During Takeoff Roll

1. Throttle: IDLE
2. Brakes: APPLY
3. Brakes: AS REQUIRED
4. Wing Flaps: RETRACT
5. Mixture: IDLE CUTOFF
6. Ignition Switch: OFF
7. Master Switch: OFF

Engine Failure Immediately After Takeoff

1. Airspeed: 68 kts
2. Mixture: IDLE CUTOFF
3. Fuel Selector: OFF
4. Ignition Switch: OFF
5. Wing Flaps: AS REQUIRED
6. Master Switch: OFF
7. Doors: UNLATCH PRIOR TO TOUCHDOWN

Land Straight Ahead

Engine Failure During Flight

Don't Attempt Below 1,000 ft AGL

1. Airspeed: 68 kts
2. Best Place to Land: IDENTIFY
3. Carburetor Heat: ON
4. Fuel Selector Valve: BOTH
5. Mixture: RICH
6. Ignition Switch: BOTH (START IF PROPELLOR IS STOPPED)
7. Primer: IN AND LOCKED
8. Declare Emergency: 121.5/SQUAWK 7700

Emergency Landing Without Engine Power Checklist

Emergency Landing Without Engine Power

1. Airspeed: 68 kts
2. Mixture: IDLE CUTOFF
3. Fuel Selector: OFF
4. Ignition Switch: OFF
5. Wing Flaps: AS REQUIRED
6. Master Switch: OFF
7. Doors: UNLATCH PRIOR TO TOUCHDOWN
8. Touchdown: SLIGHTLY TAIL LOW
9. Brakes: APPLY HEAVILY

Ammeter Shows Excessive Rate of Charge

1. Alternator: OFF
2. Alternator Circuit Breaker: Pull
3. Nonessential Electrical Equipment: OFF
4. Flight: TERMINATE AS SOON AS PRACTICAL

Low-Voltage Light Illuminates During Flight

(Ammeter Indicates Discharge)

1. Avionics Power Switch: OFF
2. Alternator Circuit Breaker: CHECK IN
3. Master Switch: OFF (BOTH SIDES)
4. Master Switch: ON
5. Low-Voltage Light: CHECK OFF
6. Avionics Power Switch: ON

If Low-Voltage Light Illuminates Again:

7. Alternator: OFF
8. Nonessential Radio and Electrical Equipment: OFF
9. Flight: TERMINATE AS SOON AS PRACTICAL

High Carbon Monoxide Level

1. Cabin Heat: OFF
2. Cabin Air: ON
3. Cabin Vents: OPEN
4. Windows: OPEN

Land as Soon as Practical