

SOLBERG AVIATION CESSNA 172S

PROCEDURES and CHECKLIST

PREFLIGHT INSPECTION

Cabin

1. AROW
2. Aircraft Inspections- CHECKED
3. Control Wheel Lock- REMOVE
4. Ignition Switch- OFF
5. Avionics Master Switch- OFF
6. Master Switch- ON (listen for electric gyro)
7. Fuel Quantity Indicators- CHECK operation
8. Flaps- 30° (10° when below 32°F/0°C)
9. Avionics Master Switch- ON, CHECK cooling fan operation then OFF
10. Static Pressure Alternate Source Valve- OFF
11. Annunciator Panel Switch- PLACE AND HOLD IN TST POSITION and ensure all annunciators illuminate
12. Annunciator Panel Test Switch- RELEASE, check that appropriate annunciators remain on
13. Fuel Selector valve- CHECK operation then BOTH
14. Fuel Shutoff Valve- ON (push full in)
15. Aircraft Lights- CHECK operation
16. Pitot Heat- ON, carefully check that pitot tube is warm to touch within 30 sec and then OFF
11. Master Switch- OFF
12. Elevator Trim- SET for takeoff

Empennage

1. General Condition - CHECK
2. Horizontal Stabilizer- CHECK for security
3. Elevator- CHECK for free movement + attachment points
4. Tail Tie-Down- DISCONNECT
5. Vertical Stabilizer- CHECK for security
6. Rudder- CHECK for free movement + attachment points
7. Trim Tab- CHECK for neutral alignment + attachment

Right Wing

1. Flaps- CHECK tracks + push rod
2. Aileron- CHECK for free movement, push rod and hinges
3. NAV/Strobe Lights- CHECK
4. Wing Tie Down- DISCONNECT
5. Main Wheel Tire- CHECK for inflation (38 psi) + wear
6. Brakes- CHECK pad wear + leaking fluid
7. Fuel- SUMP five draining ports and visually CHECK tanks cap

Nose

1. Windshield- CHECK and clean if required
2. Oil Level- CHECK (minimum 5QTS, maximum 8QTS)
3. Fuel Strainer- PULL check for water + contaminants
4. Belly Drain- DRAIN three draining ports first flight of the day
5. Nose Wheel Assembly- CHECK for pressure (45psi) + attachment pts
6. Propeller + Spinner- CHECK for nicks and security
7. Air Filter- CHECK for dirt, obstructions
8. Landing light- CHECK condition + cleanliness
9. Nose Wheel Strut- CHECK for proper inflation approx. 4 fingers inflated
10. Static Source Opening- CHECK for stoppage

Left Wing

1. Main Wheel Tire- CHECK for inflation (38 psi) + wear
2. Brakes- CHECK for pad wear + leaking fluid
3. Fuel- SUMP five draining ports and visually CHECK tanks cap
4. Pitot Tube Cover- REMOVE
5. Stall Warning Opening- CHECK for stoppage
6. Fuel Tank Vent Opening- CHECK for stoppage
7. Wing Tie Down- DISCONNECT
8. NAV/Strobe Lights- CHECK
9. Aileron- CHECK for free movement, push rod and hinges
10. Flaps- CHECK tracks + push rod

CALCULATE AND SUPPLY FUEL FOR PLANNED FLIGHT
ASSURE ALL TIE DOWNS, CHOCKS, COVERS, AND PLUGS ARE REMOVED!

EMERGENCY PROCEDURES

ENGINE FAILURES

RESTART PROCEDURE

1. Airspeed- 68 KIAS (Best Glide)
2. Fuel Shutoff Valve- ON (push full in)
3. Fuel Selector Valve- BOTH
4. Auxiliary Fuel Pump Switch- ON
5. Mixture- RICH
6. Ignition Switch- BOTH or START if prop is stopped
7. Auxiliary Fuel Pump Switch- OFF, if fuel flow indicator immediately drops to zero, return to ON
8. EMERGENCY- DECLARE

FORCED LANDING/SECURE

1. Seats, Seat Belt, Shoulder Harnesses- SECURE
2. Airspeed- 70KIAS (Flaps UP)
65KIAS (Flaps DOWN)
3. Mixture- IDLE CUT-OFF
4. Fuel Shutoff Valve- OFF (pull full out)
5. Ignition Switch- OFF
6. Wing Flaps- AS REQUIRED
7. Master Switch- OFF
8. Doors- UNLATCH PRIOR TO TOUCHDOWN
9. Touchdown- SLIGHTLY TAIL LOW
10. Brakes- APPLY HEAVILY

ENGINE FIRE IN FLIGHT

1. Mixture- IDLE CUT- OFF
2. Fuel Shutoff Valve- OFF (pull full out)
3. Auxiliary Fuel Pump Switch- OFF
4. Master Switch- OFF
5. Cabin Heat and Air- OFF
6. Airspeed- 100KIAS (adjust glide speed to provide incombustible mixture for fire)
7. FORCED LANDING- EXECUTE

ENGINE FIRE DURING START ON GROUND

1. Cranking- CONTINUE
2. If Started- 1800 RPM
3. If Start Fails:
4. Throttle- FULL OPEN
5. Mixture- IDLE CUT-OFF
6. Cranking- CONTINUE
7. Fuel Shutoff Valve- OFF (pull full out)
8. Auxiliary Fuel Pump Switch- OFF
9. Fire Extinguisher- ACTIVATE
10. ENGINE- SECURE (Master Switch- OFF, Ignition Switch- OFF)
11. Airplane- EVACUATE
12. Fire Extinguisher – OBTAIN AND EXTINGUISH FIRE
13. Fire Damage – INSPECT AND REPAIR BEFORE FLIGHT

BEFORE STARTING ENGINE

1. Preflight Inspection- COMPLETE
2. Passenger Briefing- COMPLETE
3. Seats, Seat Belts, Shoulder Harness- ADJUST and LOCK
4. Brakes- TEST and SET
5. Circuit Breakers- CHECK IN
6. Electrical Equipment- OFF
7. Avionics Power Master Switch- OFF
8. Fuel Selector Valve – BOTH
9. Fuel Shutoff Valve- ON (push full in)

Before Starting Engine Checklist Complete

STARTING ENGINE

1. Throttle- CHECK TRAVEL then OPEN 1/4 inch
2. Mixture- IDLE CUTOFF
3. Propeller Area- CLEAR (Audibly)
4. Master Switch- ON
5. Flashing Beacon and NAV Light (ADS-B OUT)- ON
6. Auxiliary Fuel Pump Switch- ON (omit if engine is warm)
7. Mixture- SET to FULL RICH for 3-5sec after positive indication of fuel flow (omit if engine is warm) then IDLE CUTOFF
8. Auxiliary Fuel Pump Switch- OFF
9. Ignition Switch- START (release when engine starts)
10. Mixture- ADVANCE smoothly to RICH when engine starts
11. Throttle- ADJUST for 1,000 RPM
12. Oil Pressure- CHECK (<30 seconds)
13. Avionics Master Switch - ON
14. Flaps- UP and VERIFY
15. Mixture – LEAN for Ground Ops
16. Exterior Lights – AS REQUIRED

Starting Engine Checklist Complete

BEFORE TAXI

1. Weather – OBTAIN
2. Radios- SET AND CHECK
3. Brakes – Roll Forward & CHECK

Before Taxi Checklist Complete

BEFORE TAKEOFF “Run up”

1. Nose wheel - STRAIGHT
2. Brakes- SET
3. Seats, Seat Belts, Shoulder Harnesses- CHECK SECURE
4. Cabin Doors / Windows- CLOSED and LOCKED
5. Flight Controls- FREE and CORRECT
6. Flight Instruments- CHECK and SET
7. Fuel Quantity- CHECK
8. Mixture- RICH (below 3,000’)
9. Fuel Selector Valve - BOTH
10. Throttle- 1800 RPM
 - a. Magnetos- CHECK (RPM drop not to exceed 150RPM or 50 RPM between)
 - b. Vacuum Gage- CHECK
 - c. Engine Instruments and Ammeter- CHECK
11. Annunciator Panel- Ensure no annunciators illuminated

12. Throttle- IDLE, CHECK smooth operation then 1000RPM
13. Throttle Friction Lock- ADJUST
14. Mixture- LEAN for ground ops
15. Radios, Avionics, Autopilot- SET and CHECK
16. Autopilot- OFF
17. Manual Electric Trim- CHECK

****Lineup Items (prior to taxing onto runway)****

18. Takeoff Brief- VSPEEDS/EMER. procedures
19. Elevator trim- SET for takeoff
20. Flaps- SET for type of takeoff
21. Mixture- RICH prior to takeoff
22. Landing & Strobe light- AS REQUIRED
23. Transponder- code 1200 (VFR) and ALT
24. Flight Instruments- RECHECK
25. Final Leg- CHECK for traffic
26. Radio- CALL

Before Takeoff Checklist Complete

TAKEOFF

** Refer to NORMAL PROCEDURES in POH**

CRUISE

1. Power- SET (as per POH)
2. Elevator Trim- ADJUST
3. Mixture- LEAN (above 3000 feet)
4. Landing Light- OFF (if used)

Cruise Checklist Complete

BEFORE LANDING

1. Seats, Seatbelts, Shoulder Harnesses- SECURE
2. Fuel Selector Valve- BOTH
3. Mixture- RICH
4. Landing Light- ON
5. Autopilot- OFF

GUMPS

Before Landing Checklist Complete

LANDING

**** Refer to NORMAL PROCEDURES in POH

AFTER LANDING

1. Wing Flaps- UP
2. Trim- NEUTRAL
3. Landing & Strobe Light- OFF (if used)
4. Mixture- LEAN for ground ops

After Landing Checklist Complete

SECURING AIRPLANE

1. Brakes- SET
2. Electrical Equipment, Autopilot- OFF except beacon and NAV Light
3. Avionics Master Switch- OFF
4. Mixture- IDLE CUT- OFF
5. Ignition Switch- OFF & remove key
6. Master Switch- OFF
7. Control Wheel Lock- INSTALL
8. Wheel Chocks, Tie Downs, Covers, Plugs- SECURE