

# N13243 CHECK LIST

1974 CESSNA 172M



## IMPORTANT

This checklist is not an authoritative document. Full reference must be made to the individual aircraft FLIGHT MANUAL / PILOT OPERATING HANDBOOK as amended.

Current FAA, DFS and local procedures may also be relevant.

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## CABIN

- |                                             |                                      |
|---------------------------------------------|--------------------------------------|
| 1. Aircraft Documents & Flight Planning     | ON BOARD                             |
| 2. Weather Report                           | ON BOARD                             |
| 3. Runway Lengths                           | DETERMINED                           |
| 4. Emergency Equipment                      | ON BOARD                             |
| 5. Documents in blue book (ARROW)           | ON BOARD                             |
| 6. Hobbs and Tach readings in green book    | NOTE                                 |
| 7. Control Lock                             | REMOVE                               |
| 8. Ignition                                 | OFF, KEY OUT & ON INSTRUMENT COWLING |
| 9. Mixture, Throttle                        | CLOSED                               |
| 10. All Electric Switches                   | OFF                                  |
| 11. Avionics Power Switch                   | OFF                                  |
| 12. Alternate Static Source                 | CHECK                                |
| 13. Instruments, Glass, Compass             | CHECK                                |
| 14. Master Switch                           | ON                                   |
| 15. Fuel Gauges                             | CHECK QUANTITY                       |
| 16. Amber Electronic Ignition Warning Light | CHECK ON                             |
| 17. Flaps                                   | DOWN                                 |
| 18. Beacon, strobes, landing & Nav Lights   | CHECK                                |
| 19. Pitot Heat                              | CHECK                                |
| 20. All Electrics                           | OFF                                  |
| 21. Master Switch                           | OFF                                  |
| 22. Fuel Selector Valve                     | BOTH                                 |

## EXTERIOR

### Left (Port) Side

- |                 |                |
|-----------------|----------------|
| 1. Empennage    | VISUALLY CHECK |
| 2. Baggage Door | SECURED        |

### Tail Section

- |                                       |            |
|---------------------------------------|------------|
| 1. Tail Tie-down                      | DISCONNECT |
| 2. Control Surfaces – movement, bolts | CHECK      |

### Right (Starboard) Side

- |              |                |
|--------------|----------------|
| 1. Empennage | VISUALLY CHECK |
|--------------|----------------|

## Right Wing

- |                                                          |        |
|----------------------------------------------------------|--------|
| 1. Chocks, Wing Tie-down                                 | REMOVE |
| 2. Flap – bolts, fixing, movement, actuator rod          | CHECK  |
| 3. Aileron – bolts, balance weights, movement            | CHECK  |
| 4. Wing Tip – lights, strobes                            | CHECK  |
| 5. Wing Leading edge                                     | CHECK  |
| 6. Wing Fuel Sump Strainer – check for contamination     | DRAIN  |
| 7. Fuel Quantity (dip stick available in pouch) VISUALLY | CHECK  |
| 8. Fuel Filler Cap Secured                               | CHECK  |
| 9. Wing Upper surface & Antennaes                        | CHECK  |
| 10. Tyre, Brakes – 29 PSI                                | CHECK  |

## Nose Section

- |                                                                                                  |                |
|--------------------------------------------------------------------------------------------------|----------------|
| 1. Oil Quantity $\geq 6$ qts (6 - 8 qts)                                                         | CHECK          |
| 2. Fuel Strainer – check for contamination<br>(with selector turned to left and right positions) | DRAIN          |
| 3. Engine Compartment                                                                            | VISUALLY CHECK |
| 4. Propellor & Spinner – nicks and security                                                      | CHECK          |
| 5. Landing Lights                                                                                | CHECK          |
| 6. Cowl Plugs, Chocks & Tow Bar                                                                  | REMOVE         |
| 7. Alternator Belt & Engine Compartment from front                                               | CHECK          |
| 8. Carburetor Air Filter – obstructions, cleanliness                                             | CHECK          |
| 9. Nosewheel strut – function and steering rods                                                  | CHECK          |
| 10. Tyre – Inflation 31 PSI                                                                      | CHECK          |
| 11. Static Port                                                                                  | CLEAR          |
| 12. External Power Socket cover                                                                  | SECURE         |

## Left Wing

- |                                                          |         |
|----------------------------------------------------------|---------|
| 1. Fuel Quantity (dip stick available in pouch) VISUALLY | CHECK   |
| 2. Fuel Filler Cap Secured                               | CHECK   |
| 3. Wing Upper surface & Antennaes                        | CHECK   |
| 4. Pitot Tube, Fuel Vent, Stall Slot                     | CLEAR   |
| 5. Wing Leading edge                                     | CHECK   |
| 6. Wing Tip – lights, strobes                            | CHECK   |
| 7. Aileron – bolts, balance weights, movement            | CHECK   |
| 8. Flap – bolts, fixing, movement, actuator rod          | CHECK   |
| 9. Chocks, Wing Tie-down                                 | REMOVE  |
| 10. Wing Fuel Sump Strainer – check for contamination    | DRAIN   |
| 11. Tyre, Brakes – 29 PSI                                | CHECK   |
| 12. Baggage Door                                         | SECURED |

## BEFORE STARTING ENGINE

- |                                                                                                                  |                                  |
|------------------------------------------------------------------------------------------------------------------|----------------------------------|
| 1. Exterior Preflight Inspection                                                                                 | COMPLETE                         |
| 2. All Seats, Belts, Shoulder Harness                                                                            | SET & SECURED                    |
| 3. Passengers                                                                                                    | BRIEFED                          |
| 4. Brakes                                                                                                        | SET                              |
| 5. Circuit Breakers                                                                                              | CHECK IN                         |
| 6. Autopilot                                                                                                     | OFF                              |
| 7. Alternate Static Source                                                                                       | OFF                              |
| 8. Fuel Selector                                                                                                 | BOTH                             |
| 9. <i>IFR Flights from Egelsbach</i>                                                                             | <i>REQUEST STARTUP CLEARANCE</i> |
| 10. Radio, Avionic Master Switch                                                                                 | OFF                              |
| 11. Mixture                                                                                                      | RICH                             |
| 12. Carburetor Heat                                                                                              | COLD/OFF                         |
| 13. Throttle                                                                                                     | OPEN 1/8 INCH                    |
| 14. Prime (1 or 2 shots)                                                                                         | AS REQUIRED                      |
| 15. Primer                                                                                                       | CLOSED AND LOCKED                |
| 16. Beacon                                                                                                       | ON                               |
| 17. Master Switch                                                                                                | ON                               |
| 18. Ammeter                                                                                                      | TEST                             |
| 19. Propeller Area                                                                                               | CLEAR                            |
| 20. Starter                                                                                                      | ENGAGE UNTIL ENGINE START        |
| 21. Starter                                                                                                      | CHECK DISENGAGED                 |
| 22. Oil Pressure                                                                                                 | CHECK                            |
| 23. Electronic Ignition Light                                                                                    | CHECK OFF                        |
| 24. Avionic Master Switch                                                                                        | ON                               |
| 25. Radios, Avionics, Audio Panel and Intercomm                                                                  | ON AND SET                       |
| 26. Transponder (0021 Germany for VFR)                                                                           | SBY                              |
| 27. Engine Gauges                                                                                                | CHECK                            |
| 28. Flaps                                                                                                        | RETRACTED                        |
| 29. <i>Nav. Lights (night opr. only)</i>                                                                         | <i>ON</i>                        |
| 30. Heading Indicator                                                                                            | SET TO COMPASS                   |
| 31. Parking Brake                                                                                                | CHECK OFF                        |
| 32. Lean for Taxi                                                                                                | CHECK DENSITY ALTITUDE, MIXTURE  |
| 33. Request taxi Using Radio #1 to check it works correctly<br>( <i>C172, People, Location, IFR/VFR, Dest.</i> ) | <i>COPY</i>                      |

## BEFORE TAXI

The following items shall be checked during Taxi. For obvious safety reasons, memorise them and work from memory only.

1. Brakes CHECK
2. Set Flight Controls FOR WIND
3. Magnetic Compass CHECK (FLUID FULL, SWINGS FREELY  $\pm 10^\circ$ )
4. Airspeed Indicator CHECK (ZERO)
5. Attitude Indicator CHECK (SET, MAX.  $5^\circ$  IN TURNS)
6. Turn Coordinator CHECK (SHOWS TURNS, RACE FULL; BALL)
7. Heading Indicator CHECK (SHOWS TURNS)
8. VSI CHECK (ZERO)
9. Altimeter CHECK (+/- 75')

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## BEFORE TAKEOFF

1. Taxi Checks COMPLETE
2. Point Prop. Blast away from other Planes & Property CHECK
3. Nosewheel Straight, Brakes SET
4. Mixture RICH
5. Throttle 1000 RPM
6. Fuel Selector BOTH
7. Fuel Quantity CHECK
8. Primer CLOSED AND LOCKED
9. Throttle 1700 RPM
10. Oil Pressure CHECK
11. Suction CHECK
12. Ammeter CHECK
13. Magnetos, first Left then Right CHECK FOR DROP
14. Carb. Heat ON / OFF CHECK FOR DROP
15. Throttle 1000 RPM
16. Electronic Ignition Light CHECK OFF
17. Throttle Friction Lock ADJUST
18. Mixture LEAN FOR T/O
19. Flight Controls CHECK FREE AND CORRECT
20. Trim Wheel FOR TAKEOFF
21. Flaps – 10 deg for soft field AS REQUIRED
22. Flight Instruments (Heading Ind., Altimeter) SET
23. Radio and Avionics FREQUENCIES SET
24. Doors and Windows CLOSED AND LOCKED
25. Seat Belt and Shoulder Harnesses SECURED
26. Brakes release; Taxi to Holding; Switch to Tower  
Using Radio #2 to check it works correctly CHECK
27. IFR Clearance REQUEST AND COPY
28. Transponder (Double-Check SQUAWK Code) ALT
29. Strobes ON
30. Landing Light ON
31. T/O-Brief (MPH:  $V_{rot}=60$ ,  $V_x=68$ ,  $V_y=91$ , Power loss) BRIEF
32. Time NOTE
33. Report Ready for Dep. (*Exit Point, Copy T/O Clearance*) COPY

## TAKE-OFF

### Normal

1. Flaps – 0 degrees SET
2. Carburettor Heat COLD
3. Power FULL THROTTLE
4. Engine Gauges + RPM CHECK
5. Lift Nose Wheel 60 MPH
6. Climb Speed 75 – 85 MPH

### Maximum Performance

1. Flaps – 0 degrees SET
2. Carburettor Heat COLD
3. Brakes APPLY
4. Power FULL THROTTLE
5. Brakes RELEASE
6. Airplane Attitude SLIGHTLY TAIL LOW
7. Climb Speed until obstacles cleared 68 MPH

## ENROUTE CLIMB

1. Airspeed 80 – 90 MPH
2. Throttle FULL OPEN
3. Mixture (may be leaned above 3000 ft.) FULL RICH

## CRUISE

1. Power SET (2200 - 2600 RPM)
2. Elevator Trim ADJUST
3. Mixture LEAN AS REQUIRED FOR MAX RPM
4. Engine & Electr. Gauges CHECK
5. Landing Light OFF
6. Circuit Breakers CHECK IN
7. Autopilot – track / wing leveller AS REQUIRED

## DESCENT; BEFORE REACHING IAF

1. Approach Chart READY
2. Approach Sequence and Missed Approach BRIEF
3. ATIS (if applicable) COPIED
4. VORs, ILS, NDB, DME TURNED IN AND IDENTIFIED
5. Tower Frequency IN SECOND RADIO (STDBY)
6. Marker Beacon Receiver CHECK AND ON

## BEFORE LANDING CHECKLIST, REACHING FAF

1. Fuel Selector BOTH
2. Mixture RICH
3. Carb. Heat ON
4. Seat Belts and Shoulder Harnesses SECURED
5. Autopilot OFF
6. Landing Lights and Strobes ON
7. Airspeed - initial 90 MPH
8. Flaps SET

## GO AROUND, MISSED APPROACH

1. Power FULL
2. Carb. Heat COLD / OFF
3. Positive Rate of Climb ESTABLISH
4. Flaps RETRACT TO 20 °
5. Flaps UP SLOWLY AFTER REACHING SAFE ALT: AND 65 MPH
6. Radio REPORT
6. Landing Light OFF

# EMERGENCY

## ENGINE FAILURE

- |                                     |           |
|-------------------------------------|-----------|
| 1. Best Glide Speed 80 Mph          | ESTABLISH |
| 2. Carburettor Heat                 | ON        |
| 3. Look for Emergency Landing Field | DECIDE    |

### If time permits

- |                  |               |
|------------------|---------------|
| 4. Fuel Selector | BOTH          |
| 5. Primer        | IN AND LOCKED |
| 6. Master Switch | CHECK ON      |
| 7. Mixture       | RICH          |
| 8. Throttle      | OPEN          |
| 9. Ignition      | RESTART       |

## Restart unsuccessful, Emergency Landing

- |                                                                            |              |
|----------------------------------------------------------------------------|--------------|
| 10. Radio last Freq. 121,5 Emergency freq.<br><i>Who, Where, Situation</i> | MAYDAY       |
| 11. Transponder 7700                                                       | SET          |
| 12. Fuel Selector                                                          | OFF          |
| 13. Primer                                                                 | LOCKED       |
| 14. Ignition                                                               | OFF          |
| 15. Throttle                                                               | CLOSE        |
| 16. Mixture                                                                | IDLE CUT OFF |
| 17. Seat/Shoulder Belts                                                    | FASTENED     |

### After final flap setting

- |                   |                  |
|-------------------|------------------|
| 18. Master Switch | OFF              |
| 19. Doors         | OPEN NEAR GROUND |

**Emergencies by their nature are not standard, and this Check list can only provide a guide to the appropriate actions - In an Emergency:**

**PILOT JUDGEMENT SHOULD DICTATE PILOT ACTIONS**

## AFTER LANDING

- |                        |               |
|------------------------|---------------|
| 1. Active Runway       | CLEAR         |
| 2. Flaps               | RETRACTED     |
| 3. Carburettor Heat    | OFF           |
| 4. Strokes, Pitot Heat | OFF           |
| 5. Transponder         | SBY           |
| 6. Trim                | RESET NEUTRAL |
| 7. Radio Calls         | AS REQUIRED   |

## SHUTDOWN

- |                           |                           |
|---------------------------|---------------------------|
| 1. Parking Brake          | AS REQUIRED               |
| 2. Throttle               | 1000 RPM                  |
| 3. Radio                  | 121.5 CHECK ELT           |
| 4. Radios and Avionics    | OFF                       |
| 5. Avionics Master Switch | OFF                       |
| 6. Mixture                | IDLE CUT OFF              |
| 7. Magnetos               | OFF                       |
| 8. Key                    | OUT AND PLACED ON COWLING |
| 9. Master Switch          | OFF                       |
| 10. All Electric Switches | OFF                       |

## SECURING

- |                                          |             |
|------------------------------------------|-------------|
| 1. Hobbs and Tach                        | NOTE        |
| 2. Control Lock                          | INSTALL     |
| 3. Pitot Cover                           | INSTALL     |
| 4. Front Window Heat Shield              | INSTALL     |
| 5. Cabin Air Vents (all 3)               | CLOSE       |
| 6. Belongings and Keys                   | REMOVED     |
| 7. Master Switch                         | VERIFY OFF  |
| 8. Windows and Doors (Luggage Door)      | CLOSED      |
| 9. Doors                                 | LOCKED      |
| 10. Chocks, Tie Down, Towing handle      | AS REQUIRED |
| 11. <b>Close Flight Plan if required</b> |             |

# PERFORMANCE CHART

Registration	N13243
Type	C172
Chart Date	22.3.02

Max. Weight	2300 lbs
Max. Weight	1045 kg
Fuel Gal L/R	19/19
Fuel Lits L/R	72/72
Cruise Gal/h	8,5
Climb Gal/h	13
Serv.Ceiling	13100'
Voltage	12 V

Speeds in	mph
Vne	182
Vno	145
Va	112
Vs flaps up	57(50ind)
Vso	49(40ind)
Vfe	100
Vx	68
Vy	91
Best Glide	80
Vr short field	55

