

## Cessna 152

**MAXIMUM RAMP WEIGHT** ..... 1675 LBS  
**MAXIMUM TAKEOFF WEIGHT** ..... 1670 LBS  
**MAXIMUM LANDING WEIGHT** ..... 1670 LBS  
**MAXIMUM BAGGAGE WEIGHT** ..... 120 LBS

### STALL SPEED

V<sub>SO</sub> ..... 35 KIAS  
V<sub>S1</sub> ..... 40 KIAS

### MANEUVERING SPEED

V<sub>A</sub> 1670 lbs ..... 104 KIAS  
V<sub>A</sub> 1350 lbs ..... 93 KIAS

### TAKEOFF & CLIMB

V<sub>Y</sub> ..... 67 KIAS  
V<sub>X</sub> ..... 55 KIAS  
V<sub>R</sub> ..... 55 KIAS  
ENROUTE CLIMB SPEED ..... 70 KIAS

### OPERATING SPEEDS

V<sub>NE</sub> NEVER EXCEED SPEED ..... 149 KIAS  
V<sub>NO</sub> MAXIMUM STRUCTURAL CRUISING SPEED ..... 111 KIAS  
V<sub>FE</sub> FLAP EXTENDED SPEED ..... 85 KIAS  
FLAP OPERATING RANGE ..... 35~85 KIAS  
NORMAL OPERATING RANGE ..... 40~111 KIAS  
CAUTION RANGE ..... 112~149 KIAS  
CRUISE ..... 80 KIAS  
MAX. DEMONSTRATED CROSSWIND ..... 12 KTS

### DESCENT SPEEDS

NORMAL DESCENT SPEED ..... 70~80 KIAS  
PATTERN DESCENT SPEED (FLAPS 10°) ..... 70 KIAS  
FINAL (FLAPS 30°) ..... 60 KIAS  
SHORT FINAL (Short Field Approach) ..... 54 KIAS  
V<sub>GLIDE</sub> (Flaps Up) ..... 60 KIAS

### FUEL CAPACITY

Each Tank ..... 13 gal  
Usable fuel (total) ..... 24.5 gal

## PREFLIGHT INSPECTION

### CABIN

Pilot's Operating Handbook and Documents ..... IN AIRPLANE  
Control Wheel Lock ..... REMOVE  
Ignition Switch ..... OFF  
Master Switch ..... ON  
Fuel Quantity Indicators ..... CHECK  
Flaps ..... FULL DOWN  
Gyro/Avionics Cooling Fan ..... AUDIBLE  
Master Switch ..... OFF  
Fuel Shutoff Valve ..... ON

### EMPENNAGE

Surface ..... UNDAMAGED  
Horizontal Stabilizer ..... SECURE  
Elevator - Movement/Security ..... CHECK  
Vertical Stabilizer ..... SECURE  
Rudder - Movement/Security ..... CHECK  
Tie Down ..... REMOVE  
ELT Antenna ..... CHECK

### RIGHT WING

Flap - Deflection, Tracks, Pushrod ..... CHECK  
Aileron - Hinges/Pushrod ..... CHECK  
Wing Tip ..... CONDITION/SECURITY  
Nav LT/Strobe LT ..... CHECK  
Wing Leading Edge ..... CHECK CONDITION  
Tie Down ..... REMOVE  
Fuel Sump (Return Sample if Not Contaminated) ..... DRAIN  
Fuel Tank - Visually check quantity ..... CHECK  
Fuel Cap ..... SECURE  
Upper Wing Surface ..... INSPECT  
Main Landing Gear - Tire wear, inflation 21 PSI, Brakes ..... CHECK  
Cabin Vents ..... UNOBSTRUCTED

**FORWARD FUSELAGE**

Engine Cowling/Fasteners.....INSPECT  
 Engine Oil (Max. 6 qts., Min. 4 qts). ....CHECK  
 Fuel Strainer..... DRAIN  
 Spinner..... SECURE  
 Propeller -Check for nicks.....INSPECT  
 Carburetor Air Filter..... UNOBSTRUCTED  
 Nose Strut.....FOR EXTENSION  
 Nose Wheel -Treadwear and inflation 30 PSI.....CHECK  
 Exhaust..... SECURE  
 Alternator Belt - Tension/Security.....CHECK  
 External Power Receptacle..... SECURE  
 Static Port..... UNOBSTRUCTED

**LEFT WING**

Cabin Vent Inlets..... UNOBSTRUCTED  
 Stall Warning Inlet..... UNOBSTRUCTED  
 Pitot Tube..... CHECK  
 Fuel Vent..... CHECK  
 Fuel Sump - Return sample if not contaminated..... TAKE SAMPLE  
 Fuel Tank - Visually check quantity..... CHECK  
 Fuel Cap..... SECURE  
 Upper Wing Surface - Com antennae.....INSPECT  
 Main Landing Gear - Tire wear, inflation 21 PSI, Brakes.....CHECK  
 Tie Down.....REMOVE  
 Leading Edge.....CHECK  
 Landing Light.....CHECK  
 Wingtip.....CHECK  
 Nav LT/Strobe LT.....CHECK  
 Aileron - Hinges, Pushrod.....CHECK  
 Flap - Deflection, Tracks, Pushrod.....CHECK  
 ADF Antenna - if installed.....CHECK

**BEFORE STARTING ENGINE**

Preflight Inspection / Briefing..... COMPLETE  
 Seats, Seat Belts, Shoulder Harness..... SECURE  
 Fuel Shutoff Valve..... ON  
 COM/NAV, other Avionics & lights..... OFF  
 Brakes..... TEST/SET  
 Circuit Breakers..... CHECK IN

**STARTING ENGINE**

Mixture..... RICH  
 Carb Heat..... OFF  
 Primer - Up to 3 Strokes, None if engine is warm..... AS REQUIRED  
 Throttle..... 1/2" OPEN  
 Propeller Area..... CLEAR  
 Master Switch..... ON  
 Beacon..... ON  
 Ignition Switch..... START  
 Oil Pressure..... CHECK  
 Lights - Navigation & Taxi (after Sundown)..... ON  
 Radios/Avionics..... ON  
 Transponder..... "SBY"  
 ATIS/Clearance/Taxi..... OBTAIN  
 Flaps..... UP

**COM/NAV/TRANSPONDER CHECK (IFR)**

Audio Panel..... SET  
 Marker..... TEST & SET  
 COM1..... TRANSMIT  
 COM2..... RADIO CHECK  
 NAV1..... SET VOR & ID  
 NAV2..... SET VOR & ID  
 NAV1 & 2..... COMPARE READINGS  
 Sensivity..... CHECK  
 Ambiguity..... CHECK  
 DME..... SET & ID  
 ADF..... SET/ID/TEST  
 Transponder..... TEST & SET 1200

1. Audio panel set to AUTO on PHONES.
2. Test MARKER, set to LOW, place on SPEAKER if so desired.
3. COM1 should have next series of frequencies (CLNC, GND, TOWER...).
4. COM2 should have ATIS and DEPARTURE.
5. NAV1 should have local VOR, ID station, then center CDI.
6. NAV2 should have same VOR, ID station, then center CDI.
7. If using VOT Test, tune in frequency and ID. Set CDI to N and obtain FROM indication.
8. OBS Readings should be within 4°. Record any errors in VOR Check Sheet.
9. Check Sensivity by turning 5° each way. CDI should deflect half scale.
10. Check Ambiguity by setting in reciprocal heading and check accuracy.
11. Setup DME and ID. Set to REMOTE if available.
12. Tune in local NDB and ID. Set selector to ANT and back to ADF.
13. Test transponder and set 1200.

**TAXI CHECK**

Park brake ..... RELEASE  
 Brakes ..... CHECK  
 Steering ..... CHECK  
 DG, Turn & Bank, Attitude Indicator ..... CHECK

**RUNUP CHECK**

Park Brake ..... SET  
 Cabin Doors/Windows ..... CLOSED/LOCKED  
 Flight Controls ..... FREE/CORRECT  
 Flight Instruments ..... SET  
 Fuel Shutoff Valve ..... ON  
 Mixture ..... RICH (Below 3000 MSL)  
 Trim ..... TAKEOFF  
 Throttle ..... 1700 RPM  
     Magnetos - Max 125 RPM Drop, 50 RPM Difference ..... CHECK  
     Carburetor Heat (RPM drop) ..... CHECK  
     Engine Instruments/Ammeter ..... CHECK  
     Suction Gauge ..... CHECK  
 Throttle ..... FULL IDLE, THEN 1000 RPM

**BEFORE TAKEOFF CHECK**

Radios ..... SET  
 Throttle Friction Lock ..... ADJUST  
 Strobe Lights ..... AS REQUIRED  
 Fuel Shutoff Valve ..... ON  
 Flaps (Normal 0° / Short & Soft Field - 10°) ..... SET  
 Trim ..... SET  
 Transponder ..... "ALT"  
 Park brakes ..... RELEASE  
 Primer ..... IN & LOCKED

**NORMAL TAKEOFF**

Carb Heat ..... COLD  
 Mixture ..... RICH  
 Throttle ..... FULL OPEN  
 Rotate ..... 50KTS  
 Climb Airspeed ..... 65-75 Kts.

**SHORT FIELD TAKEOFF**

Flaps ..... 10°  
 Carb Heat ..... COLD  
 Brakes ..... APPLY  
 Mixture (Above 3000 MSL lean for Max RPM) ..... RICH  
 Throttle ..... FULL OPEN  
 Brakes ..... RELEASE  
 Elevator ..... SLIGHTLY TAIL LOW  
 Rotate ..... 50 KTS  
 Climb ..... 54 KTS  
 Flaps (Above 60 KIAS) ..... RETRACT SLOWLY

**SOFT FIELD TAKEOFF**

Flaps ..... 10°  
 Carb Heat ..... COLD  
 Mixture (Above 3000 MSL lean for Max RPM) ..... RICH  
 Elevator ..... FULL AFT  
 Lift Off ..... WHEN ABLE  
 Stay in ground effect until airspeed reaches 65~75 KIAS.

**ENROUTE CLIMB**

Airspeed ..... 70-80 KIAS  
 Throttle ..... FULL OPEN  
 Mixture(Above 3000 MSL lean for Max RPM) ..... RICH

**CRUISE**

Power (No more than 75% recommended) ..... 1900-2550 RPM  
 Mixture - Lean above 3000 MSL ..... AS REQUIRED  
 Trim ..... SET  
 Engine Instruments ..... CHECK

**PRE-MANEUVER CHECK**

Landing Light ..... AS REQUIRED  
 Mixture ..... ENRICH  
 Clearing Turns ..... CLEAR AREA

**DESCENT**

Seat belts ..... SECURED

**DESCENT**

Fuel Quantity ..... CHECK  
 Mixture ..... ADJUST  
 Power ..... AS REQUIRED  
 Carb Heat (ON below 1900 RPM) ..... AS REQUIRED

**APPROACH CHECK**

Landing Light ..... AS REQUIRED  
 Mixture ..... RICH  
 Fuel Shutoff Valve ..... ON  
 Landing Gear and Brakes ..... CHECK  
 Altimeter (ATIS) ..... SET

**BEFORE LANDING CHECK**

Seats, Seat Belts, Shoulder Harness ..... SECURE  
 Fuel Selector Valve ..... ON  
 Mixture ..... RICH  
 Carb Heat ..... ON

**NORMAL LANDING**

Airspeed (Flaps Up) ..... 65 KIAS  
 Flaps (Below 85 KIAS) ..... AS REQUIRED  
 Airspeed (Flaps 30) ..... 60 KIAS  
 Touchdown ..... MAIN WHEELS FIRST  
 Landing Roll ..... LOWER NOSE WHEEL GENTLY  
 Brakes ..... MINIMUM REQUIRED

**SHORT FIELD LANDING**

Airspeed ..... 60~70 KIAS  
 Flaps (Below 85 KIAS) ..... 30°  
 Airspeed ..... MAINTAIN 54 KIAS  
 Power ..... REDUCE AFTER CLEARING OBSTACLE  
 Touchdown ..... MAIN WHEELS FIRST  
 Brakes ..... APPLY HEAVILY  
 Flaps ..... RETRACT

**SOFT FIELD LANDING**

Flaps ..... 30°  
 Carb Heat ..... ON  
 Airspeed ..... 60-70 Kts.  
 Touchdown ..... NOSE UP

**GO-AROUND**

Throttle ..... FULL OPEN  
 Carb Heat ..... COLD  
 Flaps ..... RETRACT TO 20°  
 Climb Speed ..... 55 KIAS  
 Flaps ..... 10° Until Obstacle Cleared  
 After reaching safe altitude ..... RETRACT FLAPS

**AFTER LANDING**

Flaps ..... RETRACT  
 Carb Heat ..... COLD  
 Transponder ..... "SBY"  
 Unnecessary Lights ..... OFF  
 Communicate ..... CLEAR OF RUNWAY/TAXI

**SHUTDOWN AND SECURING AIRCRAFT**

Parking Brake ..... AS REQUIRED  
 Throttle ..... 1000 RPM  
 Radios/Avionics ..... OFF  
 Lights (except beacon) ..... OFF  
 Mixture ..... IDLE CUT-OFF  
 Beacon ..... OFF  
 Ignition Switch ..... OFF  
 Master Switch ..... OFF  
 Control Lock ..... INSTALL  
 Hobbs & Tach ..... RECORD  
 Aircraft ..... TIE DOWN

**CROSS COUNTRY FLIGHT PROCEDURE**

- Park and tie down aircraft when possible
- Order fuel
- Call FSS and cancel flight plan, update weather, file new flight plan
- Return to aircraft and check fuel/oil. Pay for fuel and get receipt.

**DID YOU LOCK THE AIRPLANE?  
 CLOSED FLIGHT PLANS?**

