**C-152 CHECKLIST**

**VH-RNO**

**Cessna 182**

**VH-SHN**

**CHECKLIST**



**CESSNA 182 VH-VDP AIRCRAFT SPECIFICATIONS**

Airspeeds for Normal Operations

Take off & Landing Speeds

|  |  |  |  |
| --- | --- | --- | --- |
| **Rotate Speed (Vr)** | 50kts | **Normal Approach** **(Flaps Up)** | 70kts |
| **Best Glide Speed** | 70kts | **Normal Approach** **(Flaps 30°)** | 70kts |
| **Best Angle (Vx)** | 57kts (Flaps 20) | **Short Field Approach (Flaps 40°)** | 60kts |
| **Best Rate (Vy)** | 78kts | **Baulked Approach** **(Max Power & Flap 20°)**  | 57kts |

General Speeds

|  |  |  |  |
| --- | --- | --- | --- |
| **Never Exceed (Vne)** | 179kts | **Max Flap 10° - 40°** | 95kts |
| **Max Normal Operating (Vno)** | 143kts | **Level Stall Speed (Vs) – flap up** | 48kts |
| **Max Maneuvering (Va)** | 111kts | **Level Stall Speed (Vso) – flap down** | 45kts |
| **Max Flap Extension 10°** | 140kts | **Max Landing Crosswind** | 15kts |

Fuel & Oil

|  |  |  |  |
| --- | --- | --- | --- |
| **Fuel Type** | 100LL or 100/130 Avgas | **Engine Type and Horsepower** | Continental 230BHP @ 2400RPM |
| **Maximum Fuel** | 303 litres | **Oil Grade** | Aero W100 |
| **Max Useable Fuel** | 284 litres | **Maximum Oil** | 12 Quarts |
| **Fuel Consumption** | 60 Litres/Hour | **Minimum Oil** | 9 Quarts |

**\*\*Note: 100LL Avgas is BLUE in colour and 100/130Avgas is GREEN\*\***

Performance

|  |  |  |  |
| --- | --- | --- | --- |
| **Basic Empty Weight** | 819 kg | **Maximum Power**  | 2600 RPM |
| **Max Take off Weight** | 1340 kg | **Climb Power** | 23”MP 2400 RPM |
| **Max Landing Weight** | 1340 kg | **Normal Cruise** | 22’MP 2300 RPM |

\*\* Note: Max Load with Full Fuel: 302kg \*\*

**PRE FLIGHT**

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1. **COCKPIT**

Control Locks Remove

Ignition Off, Key Removed

Master Switch On

Flaps Extend

Lights and Strobes On and Check

Master Switch Off

Fuel Check Quantity

Dip and Drain

Flight Record Sheet Record Fuel and VDO

**EXTERIOR**

1. ***Fuselage & Tail***

***Left Fuselage***

Skin Check surface condition

Static Vent Check clean and clear

***Tail***

Left Stabilizer Check Condition and security

Left Elevator Check Condition

 Full Free movement

 Check linkages

Right Elevator Check Condition

 Full Free movement

 Check linkages

Trim Tab Check condition and linkages

Right Stabilizer Check condition and security

***Right Fuselage***

Skin Check surface condition

1. ***Right Wing***

Flap Check surface condition

 Check linkages and runners

Aileron Check surface condition

 Linkages and hinges secure

 Balance weights secure

 Full free movement

Wing Tip Check condition and Security

Lower Wing Surface Check condition

Wing Leading Edge Check for Dents along entire length

1. ***Landing Gear***

Tyre Check tread and general condition

 Check correct inflation

Hydraulic Line Check for leaks

Disc Brake Check condition

Strut and Fairing Check condition

1. ***Front Fuselage and Engine***

Windscreen Condition and cleanliness

Cowling Condition and security

 Open access panel and check oil

Propeller Look for chips and cracks (esp. leading edge)

 Check Security

Spinner Condition and security

 Check for Oil Leaks

 Intakes clear

 Landing Light unbroken

Nose Strut Check oleo extension

 Check linkage, nuts and split pins secure

 No leakage from shimmy damper or oleo

Nose Wheel Check tread and general condition

 Check correct inflation

Stand Back and Check Fuel Caps: **ON**

 Tie downs, Covers: **OFF**

 Start Up Area: **CLEAR, NO LOOSE STONES**

 Prop Wash Area: **CLEAR**

 General condition of aircraft: **GOOD**

1. ***Landing Gear***

Tyre Check tread and general condition

 Check correct inflation

Hydraulic Line Check for leaks

Disc Brake Check condition

Strut and Fairing Check condition

1. ***Left Wing***

Wing Leading Edge Check for Dents along entire length

 Check Pitot tube Clear

 Check Stall Warning horn

 Check fuel Vent Clear

Wing Tip Check condition and Security

Lower Wing Surface Check condition

Aileron Check surface condition

 Linkages and hinges secure

 Balance weights secure

 Full free movement

Flap Check surface condition

 Check linkages and runners

Wing Strut Check condition and security

**Pre Start**

Pre Flight Inspection: Complete

Position: Clear

Maintenance Release: Check

Flight Manual: On-board

Pax Brief:

* Entry and exit points/emergency exits
* Seat adjustment
* Seatbelt usage
* Stowage of loose items
* Ventilation outlets and controls
* Remain clear of flight controls
* Emergency Equipment and how to use
* No Smoking policy
* Flight details

Security: Check

Seats: Adjusted and Secured

Hatches & Harness: Secure

Fuel: On and sufficient

Circuit breakers: Set

Cowl Flaps: Open

Mixture: Rich

Pitch: Full Fine

Throttle: Open 10mm

Friction Nut: Set

Carby Heat: Off

Switches and Avionics: Off

Trims: Set

Rotating Beacon: On

Battery: On

Flaps: Up

Oil Temp: Check

Nav Lights: As Req’d

Brakes: Test and Set

Clear Prop: Start

**AFTER START**

**ROVER**

**R**evs Set 1000

**O**il Pressure Green within 30 seconds

**V**acuum Check

**E**lectrics Alternator On – Charging

**R**adio Avionic Master On

Radios On & Check Frequency and Squelch

 Transponder SBY …. Code set

 Rotating Beacon…… On

 Taxi/Landing Lights …As Req’d

**TAXI**

**BAG**

**B**rakes Test and check

**A**vionics Check and set

**G**yro’s Check



**PRE TAKEOFF – BRAKES ON**

**T**rim Check and Set

**M**ixture Rich

**P**rimer OFF

**F**uel On and sufficient

 Cowl Flaps Open

**I**nstruments Attitude Indicator ……Set

 Altimeter ………. Elevation/QNH set

 Directional Gyro ………. Set

 Turn Co coordinator …….No Flags

 Temps & Pressure …….. GREEN

**S**witches Test Idle

 Set 1700RPM

 **Magnetos**

* Max Drop ……………. 150RPM
* Max Difference ……. 50 RPM
* Smooth Running

**Propeller**

* Cycle

**Carby Heat**

* Test

**Engine Instruments**

* Vacuum ……………………….. GREEN
* Temps and Pressures …….GREEN
* Ammeter ………………….POSITIVE CHARGE

 Set 1000RPM

 Circuit Breakers …………. In

**C**ontrols Full Free and correct

 Flaps … cycle and set

**H**atches and Harnesses Secure

**E**mergency Brief Complete

**D**eparture brief Complete

**LINING UP**

**LIGHTS, CAMERA, ACTION**

**Land Light & Strobes** ON

**Transponder** ON ‘ALTITUDE’

**DI & Compass** CHECK ALIGNED

**AFTER TAKEOFF/ GO AROUND**

**PUFSIT**

**P**ower Full

**U**ndercarriage Fixed

**F**laps Retract

**S**witches Landing Lights off

**I**nstruments Climb performance, Centreline tracking Check

**T**emps and Pressure Green

**MANOEUVRES**

**HASEL**

**H**eight Sufficient to safely complete all manoeuvres

**A**rea Suitable

**S**ecurity Cabin secure/seats/harnesses

**E**ngine Power and Mixture Checked

 Engine T’s and P’s Green

**L**ookout Area Clear

**ENROUTE**

**CLEAROFFS**

**C**ompass & **C**ourse Align and Tracking

**L**og ETA’s

**E**ngine Lean and Green

**A**ltitude QNH set and correct

**R**adios Frequency set and correct

 Navaids - Tuned

 Identified

 Tested

**O**rientation

**F**uel Log and contents

**F**orced Landing

**S**artime

**PRELANDING/DOWNWIND**

**BUMFISH**

**B**rakes Pressure and off

**U**ndercarriage Fixed

**M**ixture Rich

**F**uel On and sufficient

**I**nstruments Altitude

 T’s and P’s Green

**S**witches Landing Lights on

**H**atches and Harness Secure

**FINAL**

**CPUFF**

**C**arby Ht Off

**P**itch Full Fine

**U**ndercarriage Fixed

**F**lap as req’d

 **Cowl Flaps** … Open

**F**uel Sufficient for Go-Around

**AFTER LANDING**

FLAPS Identified and Retracted

Carby Heat Off

Transponder SBY

**SHUTDOWN**

Throttle Set 1000RPM

Avionics Radios and Navaids Off

Mixture Idle Cut off

Switches Off, except Rotating Beacon

Ignition Off and Keys out

Master Switch Off

***EMERGENCIES***

**POWER LOSS IN FLIGHT**

**CFMOST**

**C**arby Heat On

**F**uel On, Primer In and Locked

**M**ixture Rich

**O**il T’s and P’s Check

**S**witches Mag Check

**T**hrottle Cycle and set

**ENGINE FIRE ON GROUND**

Cranking Continue

**If Engine Starts:** 1700RPM for short time, shutdown and inspect for damage

**If Engine Fails to Start:**

 Throttle Full Open

 Mixture Idle cut off

 Cranking Continue to attempt a start

 Fire Extinguisher Ready

 Fuel Off

 Master Off

 Ignition Off

 Fire Extinguisher Use

***Inspect for Damage***

**ENGINE FIRE IN FLIGHT**

AIRSPEED **100**kts – increase glide speed to extinguish fire

Fuel Off

Mixture Idle cut off

Master Off

Cabin Heat and air Off, except wing roots

***Land as soon as possible***

**ELECTRICAL FIRE**

Alternator and Master Off

Switches All except ignition Off

Vents/Cabin air/Heat Off

If fire appears to be out

Alternator and Master On

Circuit Breakers Check for faulty circuit... do not reset

Radio/Electrical Switches On one at a time with a delay after each until short circuit is localized

Vents/Cabin Air/Heat Open once fire is completely extinguished

**ELECTRICAL POWER LOSS**

Alternator & Master Off

Switches All Off

Alternator On

Essential Equipment On

Land ` As soon as possible

 **LANDING WITH A FLAT MAIN TYRE**

1. Approach: NORMAL
2. Flaps: 30°
3. Touchdown: GOOD MAIN TYRE FIRST, hold airplane off flat tyre as long as

 possible with aileron control.

1. Directional Control: MAINTAIN using brake on good wheel as required.

**LANDING WITH A FLAT NOSE WHEEL**

1. Approach: NORMAL
2. Flaps: AS REQUIRED
3. Touchdown: ON MAINS, hold nose wheel off the ground as long as possible.
4. **When nose wheel touches down, maintain full up elevator as airplane slows to a stop.**