**C-152 CHECKLIST**

**VH-RNO**

**Cessna 172N**

**VH-DOL**

**CHECKLIST**



**CESSNA 172N VH-DOL AIRCRAFT SPECIFICATIONS**

Take off & Landing Speeds

|  |  |  |  |
| --- | --- | --- | --- |
| **Rotate Speed (Vr)** | 60 – 70kts | **Normal Approach** **(Flaps Up)** | 75kts |
| **Take Off Safety Speed**  | 65kts | **Normal Approach** **(Flaps 40°)** | 70kts |
| **Best Angle (Vx)** | 59kts | **Short Field Approach (Flaps 40°)** | 60kts |
| **Best Rate (Vy)** | 73kts | **Baulked Approach** **(Max Power & Flap 20°)**  | 55kts |

General Speeds

|  |  |  |  |
| --- | --- | --- | --- |
| **Never Exceed (Vne)** | 158kts | **Max Window Open** | 158kts |
| **Max Normal Operating (Vno)** | 127kts | **Level Stall Speed (Vs) – flap up** | 44kts |
| **Max Maneuvering (Va)** | 97kts | **Level Stall Speed (Vso) – flap down** | 33kts |
| **Max Flap Extension**  |  | **Max Crosswind** | 15kts |
| **Flaps 10°** | 110kts | **TAS** | 110kts |
| **Flaps beyond 10°** | 85kts | **Best Glide Speed** | 70kts |

Fuel & Oil

|  |  |  |  |
| --- | --- | --- | --- |
| **Fuel Type** | 100LL or 100/130 Avgas | **Engine Type and Horsepower** | Lycoming O320 160BHP @ 2700RPM |
| **Maximum Fuel** | 204 litres | **Oil Grade** | Aero W100 or W100 Plus |
| **Max Useable Fuel** | 189 litres | **Maximum Oil** | 6 Quarts |
| **Fuel Consumption** | 35 Litres/Hour | **Minimum Oil** | 4 Quarts |

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

Performance

|  |  |  |  |
| --- | --- | --- | --- |
| **Basic Empty Weight** | 711Kg | **Maximum Power**  | 2750 RPM |
| **Max Take off Weight** | 1050kg | **Static Power** | 2280 – 2400 RPM |
| **Max Landing Weight** | 1050kg | **Normal Cruise** | 2450 RPM |
|  |  | **Climb Power** | Full Power |

\*\* Note: With Full tanks VH-DOL can easily be overloaded! \*\*

**PREFLIGHT**

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1. **COCKPIT**

Pilot’s Operating Handbook Available in the aeroplane

Control Locks Remove

Ignition Off, Key Removed

Avionics Switch Off

Master Switch On

Flaps Extend

Lights and Strobes On and Check

Master Switch Off

Alternate Static Source Off

Fuel Check Quantity, Dip and Drain

Flight Record Sheet Record Fuel and VDO

**EXTERIOR**

1. ***Empennage***

***Left Fuselage***

Skin Check surface condition

***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

Tail Tie Down Remove

***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

Wing Tie Down Remove

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

Oil Quantity Check

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

Spinner condition and security

 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 OFF

 Start Up Area CLEAR, NO LOOSE STONES

 Prop Wash Area CLEAR

 General condition of aircraft GOOD

Static Vent Clear

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

Wing Tie Down Remove

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 Both and sufficient

Circuit breakers set

Mixture Rich

Throttle Open 10mm

Friction Nut Set

Carby Heat Cold/off

Switches and Avionics Off

Trims Set

Rotating Beacon On

Battery On

Flaps Up

Oil Temp Check

Prime As Req’d

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 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 In and Locked

**F**uel On and sufficient

**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

 Carby Heat Test

 Magnetos

* Max Drop ……………. 125RPM
* Max Difference ……. 50 RPM
* Smooth Running

 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 (N/A in C152)

**U**ndercarriage Fixed

**F**lap as req’d

**F**uel Sufficient for Go-Around

**AFTER LANDING**

FLAPS Identified and Retracted

Transponder SBY

Carby Heat Off

**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**

**FMCOST**

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

**M**ixture Rich

**C**arby Heat On

**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**

Mixture Idle cut off

Fuel Off

Master Off

Cabin Heat and air Off, except wing roots

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

**EXECUTE FORCED LANDING**

**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

**IF FIRE IS NOT EXTINGUISHED OPERATE FIRE EXTINGUISHER**

**LAND AS SOON AS POSSIBLE**

WARNING: CABIN MUST BE VENTILATED AFTER USING FIRE EXTINGUISHER

**ELECTRICAL POWER LOSS**

Alternator & Master Off

Switches All Off

Alternator On

Essential Equipment On

Land ` As soon as possible