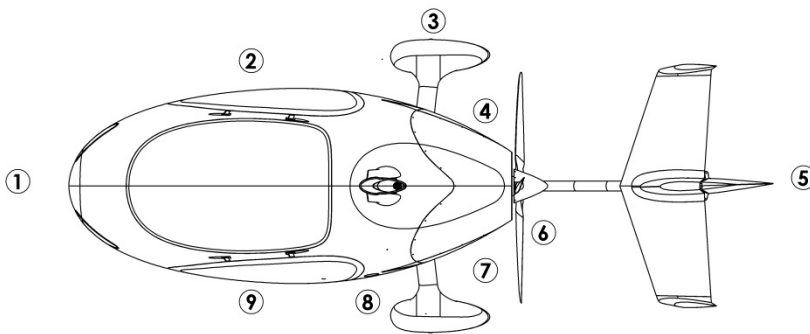


Daily or Pre-flight Checks

All daily or pre-flight check list items consist of visual checks and do not replace professional mechanical inspection and maintenance. The following check list applies for the standard Cavalon gyroplane.

Note that depending on optional equipment installed the necessary checks may include additional items according to the flight manual supplement provided with the optional equipment. It is advisable for the owner/operator to compile his own check list suitable to his particular configuration.

The pre-flight check is structured into 9 stations which are organized as a clock-wise walk-around to provide a logical flow and sequential order, thus minimizing the risk of left-over or overlooked items.



The following checks must be carried out before each flight. However, if the gyroplane is operated by a single pilot or within an organization where the checks are performed by or under the supervision of qualified personnel, check list items marked with a preceding 'O' may be carried out daily, before the first flight of the day.

Before exterior check

- Fuel tank drain(s) Sample
- Snow/ ice (if any) Removed
- Documents Check complete

Exterior check

Station 1 (forward fuselage and windshield)

- General appearance OK
- Pitot cover (if installed) Removed
- Pitot tube Clean and open
- Rotor lash bag (if sufficient brake pressure) Removed
- Windshield condition and cleanliness Check, no cracks
- Nose wheel condition and air pressure Check

Station 2 (cabin, RH side)

- Static port Clean and open
- MAG switches Check OFF
- Rotor brake pressure min. 6 bar
- Throttle lever Check function, full travel
- Brake lever and lock Check function and condition
- Pedals and control cables Check
- RH control stick bolts and nuts Secured
- Monocoque structure condition Check
- Loose objects Removed/secured
- Door hinge/s Quick pin installed (or nylocs/safety clips), no cracks
- Door window Check, no cracks

Station 3 (main gear spring spar, RH)

- Main wheel running surface Check
- Air pressure and slip mark Visual check
- Brake, disc attachment (4 bolts) and wheel attachment Check
- Wheel spat and attachment Check
- Main gear spring spar attachment Check
- Main gear spring spar No cracks
- Cooling air intake No obstructions
- Vibration decoupling element attachment (2x) Check
- Gimbal head bolts (2x) Split pin installed
- Rotor flight control attachments No excessive play and secure
- Main rotor bearing Check condition
- Pre-rotator assembly and brake Check condition
- Teeter bolt (bolt end) Free to turn
- Teeter bolt (nut end) Split pin installed
- Teeter stops Check
- Rotor hub and blade clamping area Check
- Blade attachment bolts All installed and fastened
- Inner blade caps Tight

Station 4 (engine, RH side)

Open upper engine cowling

- Before turning prop: MAG switches Check OFF
- Engine oil level Check
- Dip stick and oil cap Installed and secure
- Coolant level Check
- Oil cooler and hoses Clean, no leaks, fittings tight
- Exhaust system No cracks
- Lower engine cowling Properly installed, all fasteners locked

Station 5 (stabilizer)

- Stabilizer general condition Check
- Stabilizer attachment Check
- Rudder control cable linkage Check
- Upper rudder bearing Secure, no excessive play
- Rotor blades condition and cleanliness Check
- Blade tips Tight

Station 6 (keel tube and propeller)

- Keel tube protection pad No excessive wear
- Propeller condition and cleanliness Check
- Propeller leading edge and tips No damage
- Spinner (if installed) Tight, no cracks
- CSP/VPP propeller (if installed) Check (see separate check below)

Station 7 (engine, LH side)

- Engine frame rear side / welded joints No cracks, no deformation
- Oil cooler and hoses Clean, no leaks, fittings tight
- Exhaust system No cracks
- Lower engine cowling Properly installed, all fasteners locked
- Close upper engine cowling*

Station 8 (main gear spring spar, LH)

- LH Main wheel running surface Check
- Air pressure and slip mark Visual check
- Brake, disc attachment (4 bolts) and wheel attachment Check
- Wheel spat and attachment Check
- Main gear spring spar attachment Check
- Main gear spring spar No cracks
- Vibration decoupling element attachment (2x) Check
- Rotor flight control No excessive play and secure
- Teeter bolt (bolt end) Free to turn
- Teeter bolt (nut end) Split pin installed

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Station 9 (passenger station, LH side)

- LH control stick.....Secure or removed
- Monocoque structure condition..... Check
- Seat belts Fastened and tight
- Door hinge/s.....Quick pin installed (or nylocks/safety clips), no cracks
- Door windowCheck, no cracks
- Static port.....Clean and open
- Rotor lash bag..... As required

Before Boarding

Fuel level and fuel cap..... Check sufficient qty and cap secure

Passenger station:

- Passenger Briefed and secure
- Loose objects Removed
- Items in storage compartment Secure
- Seat belts Fastened and tight
- DoorClosed and locked

Rotor brake pressure..... Check/set BRAKE min. 6 bar

Rotor lash bag..... Removed and stowed

Pilot station:

- Loose objects Removed
- Items in storage compartment Secure

WARNING

There is no vertical restraint provided for baggage stowed behind the occupant seats. Normally this baggage is restrained by the vertical tapering of the stowage area. It is the pilots responsibility to ensure any item stowed behind the seats, or anywhere else in the aircraft, is secure. If the stowed items could come free in the event of an accident, then suitable restraints must be fitted – for instance, anchored to the seat belt harness lap belt mounting lugs via a suitable strap.

9.8. VP prop: PRE-FLIGHT INSPECTION

Visual:

Check each of the propeller blades for damage, small nicks or delamination of the stainlesssteel edge protector, and security of attachment to hub.

Check the aluminium hub parts for cracks or damage and security of attachment to engine

Check the security of the spinner and presence of 9-off attachment screws

Check the fabricated bracket holding the brush carrier for security of attachment and absence of cracks

Check the condition of the two carbon brushes (no pieces broken-off) and security of attachment screws.

Functional:

Turn on the master switch and without starting the engine, use the selector (rocker) switch to cycle the propeller to-full-COARSE then back to full-FINE.

Verify visually that the two indicator LED's function correctly, and audibly and visually that the propeller blades have changed pitch.

Engine start

Before starting the engine turn on the master switch and using the rocker switch select the full-FINE setting. (However, it is likely to be still fine from the previous inspection).

Run-up and power checks

For the engine run-up, the propeller pitch should be kept full-FINE. Make sure the brakes are applied!

Before Starting Engine

- Pedals Adjusted and locked
- Seat belts Fastened
- Flight controls Free
- Altimeter..... Set to airfield elevation
- Doors Check closed and locked

Starting Engine

Fuel shut off valve Open and guarded
Parking brake Set

Cold engine:

Throttle Idle
Choke Fully engaged

Warm engine:

Throttle Idle or slightly cracked
Choke Disengaged
Master switch ON

All engine variants:

Note GEN indicator light ON
Note LOW VOLT flashing briefly

ROTAX 914 engine:

Note BOOST WARN light and BOOST CAUTION light ON for about
2 seconds and buzz of electrical fuel pump.

912ULS Second fuel pump (Pump 2, to prime the fuel system) ON
914UL Second fuel pump (Pump 2) OFF
The 914UL pump is left OFF to prove the pump fuse and function is correct.

All engine variants: Note (increased) fuel pump buzz when Pump 2 is turned on..

ACL / Strobe (if installed) ON
Both MAG switches ON
Propeller and area "Clear"
Starter (with right hand, left hand on throttle/brake) Engage

Hold starter until engine fires, but for a maximum of 10 seconds. Generally the engine fires immediately. In case of an unsuccessful starting attempt check all preconditions. Wait at least 20 seconds to allow cooling of battery and starter motor before repeated activation.

Oil pressure min. 1.5 bar
Second fuel pump (Pump 2) OFF
Avionics/Radio/Intercom ON
Choke slowly disengage

WARNING

Never attempt to start the engine until the area around the propeller is completely clear of any persons or objects.