

CALIDUS PRE FLIGHT CHECKLIST

This list is a guideline of items to be checked prior to the flight. No checklist is "All Inclusive", nor is it to be construed as a substitute for proper training or pilot experience.		
Task	Aircraft area	Task & task type
A1	General	Note; wherever possible checks should be carried out with a qualified person in the pilot seat in case of accidental starting, and to operate controls correctly. Op/C - Both ignition (magneto) switches in sound condition and switched OFF Remove frost, snow or ice, if present Check - that the gyroplane documents are available and in order. Ensure all loose equipment is correctly stowed and the gyroplane is free of extraneous items. If single seat operation, ensure rear belt fastened securely, and split front seat shoulder harness secured. Check – weight & balance, and carry suitable secure ballast if required If the gyroplane has not been regularly used, ensure before resumption of flying that: (a) Either (i) the engine has been turned weekly or run fortnightly or (ii) the manufacturer's recommendations have been complied with (b) Previously reported defects have been addressed
A2	Canopy	Inspect - for damage and cleanliness (clean as required with recommended cleaner –see sect 7.5 – a clean screen helps rain pass to one side)
A3	Composite enclosure	Remove pitot & static port covers if fitted, and inspect orifices for cleanliness Inspect - radio aerials for damage and security (where fitted) Inspect - condition and security of fiberglass enclosure
A4	Landing Gear	Inspect - that extension appears normal Inspect - tyres for proper inflation (Main-wheels 1,5 to 2,2bar, Nose-wheel 1,5 to 1,8bar), damage and creep Inspect - brake installation for external evidence of leaks and correct fluid level, and for damage and security Inspect – brake disc securing screws (4 each) are secure Inspect – that nose wheel pivots easily and control rods are fastened correctly Inspect – suspension bow for cracks and security of fastenings
A5	Flying Controls	Op/C - Rudder controls move rudder and nosewheel from lock to lock and operates in the correct sense. Inspect - Rudder pedals for security of hardware, for proper operation, and for absence of binding. Inspect - Rudder cables for security of hardware and nico clamps, cables for fraying and kinking, and for cable tension. Op/C – Both control sticks moves freely to roll and pitch stops simultaneously with the rotor head and in the correct sense, and that rear stick does not foul on the back of the front seat. If rear stick fitted, then <i>the limit stops of the pilot's seat adjustment straps</i> must be fitted. Inspect both stick fastening bolts/nuts for security. Inspect – Pneumatic control set to 'BRAKE' not 'FLIGHT'. Inspect – linkages between stick and rotor head for loose bearings, loose items, bent or damaged tubes or excess backlash (lift stick base gaitors for access). Op/C – vertical pre rotator sliders move freely without any jamming. Note: it will be beneficial to service life if the splined sliders are lightly greased every 5 hours.
A6	Powerplant/ Engine	Service/lube - Oil reservoir level correct & cap secure, & coolant system full with correct fluid. Ensure all three fasteners retaining the inspection cover are locked closed after inspection and refitment! Inspect – coolant (water and oil) hoses free from splits Inspect - All springs secure and wired where appropriate, esp exhaust Inspect - Exhaust system securely mounted, and free from splits or cracks, leaks etc. Inspect - Engine mountings in place and secure. Op/C - engine controls for full and free movement in the correct sense

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A6 cont	Powerplant/ Engine	Inspect – coolant and oil radiator for condition, security and leakage Inspect – all 'loose' cables around engine for correct attachment and connection Inspect all engine cowlings secure. If the engine cover is removed, ensure all fasteners are locked closed after refitment!
A7	Propeller HTC	Inspect - Propeller blades & hub clean and free of cracks, splits & damage Inspect – Prop tape secure and undamaged (if fitted) Inspect - Propeller blades securely mounted to hub, and hub to engine (all bolts/nuts present and secure) Op/C - Propeller and engine turns over smoothly (in normal direction of travel only) with no undue noises etc (with ignition OFF and throttles closed!!) <i>Remember, it may start!! If possible chock the aircraft and/or apply brakes!</i>

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A7	Propeller IVO	<p>Visual: Check each of the propeller blades for damage, small nicks or delamination of the stainless-steel 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.</p> <p>Functional:</p> <ul style="list-style-type: none"> 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.
A8	Fuel System	<p>Inspect - Both tanks (where fitted) for security and condition, ensure absence of leakage, check cap for seal and security, check fuel shut off valve for proper operation and positioned 'ON'. Inspect – for fuel leakages (pressurize fuel system by turning keyswitch and electrical fuel pump ON for the test, and then back off again). Op/C - Check fuel gauge reading same as actual tank level, & qty sufficient. Inspect – fuel for water content via drain point under keel</p>
A9	Rotor	<p>Inspect - Rotor teeter bolt, nut and locking pin in place and rotates freely Inspect - Blade to hub bolts, washers and nuts in place Inspect - No sign of blade cracking or other failure (visual check) Op/C - Rotor teeters freely to stops (both directions) and rotates freely (check with/without control stick). Inspect - Blades clean and free from chips, dents or damage Inspect – that teeter bolt has been correctly lubricated. Note: it will be beneficial to service life if the teeter-bolt is greased (thru the nipple) every 5 hours. Check – bolts (6) connecting prerotator gear to rotor hub are secure</p>
A10	Spin up mechanism	Op/C – pre rotator brake works with panel switch switched to 'BRAKE'
A11	Tail assembly	<p>Op/C - condition and security, check surface for delamination, check cables for fraying and secure connection to rudder, check nico clamp for security, check horizontal stabiliser and fins for security and any sign of damage from heavy tail down landings. Op/C – check rudder bearings for security and operation Inspect – tail rubbing strake for wear. If worn out, replace!</p>
A12	Cabin area & Instruments	<p>Op/C - Safety harness mountings secure, webbing free of tears/frays, and connects/disconnects freely on demand . Inspect that seats are securely attached to airframe (and front seat to body fixings are secure) Inspect – Front seat back fastenings are secure, and seat back position suits the pilot. If rear seat stick in place, that limit screws are fitted to the front seat back adjustment straps. Inspect - Radio secure, battery charged (if applicable) Inspect - Electrical wiring sound and secure - no sign of overheating or damage Inspect - instrument readings are consistent with ambient conditions Inspect - Test operation of electrical circuits Inspect - that markings and placards are legible NOTE! If the open sided canopy is fitted, ensure all interior articles (including seat cushions) are safely secured to prevent them coming out in flight!</p>
A13	Airframe	<p>Inspect, where accessible – Welded joints for any sign of distress or accident damage (all areas, but especially the keel to mast area). Inspect – all hardware for tightness/security Inspect – by standing at the front or rear of the aircraft, pull and push the rotor system to check for deterioration of the mast rubber elements. There should be no noticeable free play.</p>
A14	Pneumatics	Inspect airlines and cylinders for loose fittings
A15	Other	<p>Check - Remove any rotor retaining straps, and close any luggage bags/lockers. Op/C – brake lever operates normally and brakes function. Op/C - Ground run. Check both electric fuel pumps (where fitted) are operational before starting engine. Confirm full power obtainable (if practical), & that engine, propeller & rotor vibration (during spin up) is within normal limits. Confirm all gauges reading normally.</p>