

Ac Works nr:		<b>Cavalon Periodic Service Worksheet</b>	Ac Registration:
Service interval:	Worksheet no. (if required/used):		Date:

**This worksheet lists the tasks to be completed/applied after the first 25/100 and subsequently every 100 hrs, or annually, whichever is appropriate.**

**All work is to be carried out in line with the latest Maintenance Manual Cavalon available on the AutoGyro website.**

**Most of the checks and serviceability are 'on condition', meaning that the Engineer has the responsibility to decide if it is acceptable for service.**

**All torque figures are standard torques for the screw/bolt size if not stated in the instruction.**

Ser	Task Description	25h	100h/ 1 Yr	Other	AMM Chapter/Job Card/SB/SIL Reference	Entry Nr in Work Report	Initials
<b>Aircraft Preparation</b>							
1	If necessary, carry out an acceptance check flight of the aircraft						
2	Clean aircraft. Remove dirt, dust, leaked fluids and loose items	X	X				
3	Identify all relevant - Airworthiness Directives (AD) - Service Bulletins (SB) for airframe (AutoGyro) and power plant (ROTAX) and approved items such as radio and transponder	X	X				
	Examine historical / Maintenance Records and Logbook. Identify: -Life Limited Items (LLI) -Due dates for replacements, overhauls and special activities -Reported problems	X	X				
5	Note / check all - Serial Numbers - Manufacturer Life Limits (MLL/SLL) - Inspection/Overhaul Time Limits (TBO) according to Life Limited Parts and Maintenance Log (AG-F-ECL-CV), respectively Inspection Protocol Cover Sheet (AG-F-PCS).	X	X				
6	Remove and inspect all service covers/maintenance access covers/mast & engine cowlings and keel tube cover	X	X		52-00-00 4-1		
7	Remove centre console and heater lever (if fitted) retaining screws and slide out the centre console	X	X		67-10-00 4-1		
<b>Rotor System</b>							
8	Inspect teeter angle	X	X	14° +/-1°			
9	Remove rotor	X	X		62-11-00 4-1		
10	Inspect rotor	X	X		62-11-00 6-1 AG-SIL-2019-03-B-EN		
11	Rotor system II (8.4m & 8.8m) or (8.4m & 8.6m TOPP). Disassemble rotor and inspect			500hrs/ 2yr. After 1500hrs in service, the inspection interval is reduced to 100hrs or 2 years. Recommended 1yr in corrosive environments	62-11-00 4-2 62-11-00 6-2 SB-2021-05-A		
12	Re-assemble rotor	X	X		62-11-00 4-3		
13	Check-torque the blade to hub bar bolts/nuts	X	X	20Nm +/-5Nm	62-11-00 4-3		
14	Inspect the rotor hub bolts			200hrs/ 2yr	62-11-00 6-3		

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<b>Nose Gear</b>							
15	Inspect nose wheel general condition, correct pressure, condition of tread, correct seating of valve/ cap, secure installation and no play in wheel bearing. Inspect wheel bearing for smooth operation	X	X	1.5 – 1.8 Bar Recommended 0.5mm min tread			
16	Inspect nose wheel spat (if fitted) general condition, security, clearance to tyre and no damage	X	X				
17	Inspect nose wheel fork general condition, secure installation, freedom of movement, no excessive play, distortion or damage	X	X		SIL-2020-02		
18	Inspect nose wheel rubber damper general condition and correct operation	X	X		32-20-00 8-1		
<b>Cockpit</b>							
19	Inspect wiring and pitot/static lines general condition, correct attachment, absence of chafing, tears cracks, hardening, kinks or sharp changes of direction	X	X				
20	Replace or dry compressor humidity filter as appropriate for environmental conditions		X		36-21-00 8-1		
21	Carry out a full functional check of the pneumatic system. Ensure pneumatic system holds pressure in accordance with the limits laid down in the maintenance manual with the selector in both brake and flight positions		X	0.5 bar/hr maximal loss			
22	Check security of instrument panels & instruments/switches etc. in their cockpit mountings	X	X				
23	Check heating control (if installed) for correct operation and freedom of movement	X	X				
24	Carry out a functional check of main and backup fuel pump(s) if fitted	X	X				
25	Carry out a functional check of strobes if fitted	X	X				
26	Carry out a functional check of nav lights if fitted	X	X				
27	Carry out a functional check of landing lights if fitted	X	X				
28	Carry out a functional check of Air Speed Indicator		X				
29	Ensure altimeter is calibrated to QNH/ambient pressure		X				
30	Ensure compass is correctly calibrated (Refer to manufacturer's instructions)		X				
31	Ensure correct function of digital altimeter and air speed indicators if fitted, iaw Operating Manual. Ensure the instrument backup battery operates for a minimum of 30 mins Recharge the internal battery	X	X				
32	Ensure all glass cockpit instrument ranges compare with those in the TADS, if fitted		X				
<b>Rudder Control Run</b>							
33	Inspect the setup of rudder and pedals. NOTE: Dimensions stated are nominal dimensions, dependant on tail plane settings these may vary by up to 50mm as stated.		X	Left 900mm +/- 25mm Right 840mm +/- 25mm	27-20-00 5-1		

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34	Inspect pedals for freedom of movement. Lubricate pedal bearing and sliding block with AG-LUB-01 (Ballistol) Ensure the pedal adjuster cable is secure in the knob.	X	X				
35	Inspect all nose wheel/rudder forward control fittings general condition, security, freedom of movement, no damage, fraying or chafing along cable runs.	X	X				
36	Check tension of nose wheel control cable (between central control link and nose wheel yoke). Inspect security of turnbuckles. Inspect condition of cable plastic fairleads	X	X				
37	Inspect all cable fork attachments (clevis) at central control link for security, freedom of movement, no chafing. Inspect central control link for freedom of movement, security of pivot bolt nut (visible from under rubber grommet, lower fuselage)	X	X				
38	Inspect upper rudder attachment point bush for freedom of movement in the attachment plate. Inspect all rudder attachments for security freedom of movement, no excessive play	X	X	0.2mm			
39	Inspect rudder control cable connections general condition, correct operation, secure installation. Lubricate with AG-LUB-01 (Ballistol)	X	X				
40	Inspect stabilizer mounting lugs on keel tube, no deformation or cracks at welds	X	X				
41	Inspect stabilizer security to airframe bolt torque	X	X	20Nm +/-5Nm			
42	Inspect stabilizer and rudder for signs of composite damage, particularly at joints and welds. Ensure drain holes are free	X	X				
43	Inspect presence & security of rudder trim tab	X	X				
<b>Flight Control</b>							
44	Inspect push pull cables for correct and secure installation, no play, no chafing, no cracks or splits visible at the end-fittings. Inspect security of PPC clamps	X	X	Max play 5mm	67-00-00 6-1 67-00-00 8-1		
45	Inspect left and right flight control stick general condition, freedom and full range of movement, secure installation, cable routing, no damage or chafing.	X	X				
46	Check adjustment of roll control travel limiters	X	X	2mm	27-10-00 5-1		
47	Inspect flight control yoke general condition, freedom of movement, secure installation, damage or deformation, no chafing. Lubricate bearings and ball joints with AG-LUB-01 (Ballistol)	X	X				
<b>Airframe/Fuselage</b>							
48	Inspect left and right seats and hinges general condition, secure installation, no damage	X	X				
49	Inspect all left and right seatbelt mounting points for tightness and security	X	X				

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50	Inspect left and right seatbelts for damage or frays and security of buckles		X				
51	Inspect left and right backrest adjustment function, retaining mechanism and secure installation	X	X				
52	Inspect intercom panel for security, damage	X	X				
53	Inspect headset holders for security, damage	X	X				
54	Inspect left and right doors general condition, function, condition of seal, no damage or cracks	X	X				
55	Inspect left and right door hinges general condition, secure installation, freedom of movement, no cracks	X	X				
56	Inspect left and right door latches for correct operation, secure installation, wear marks or spurs.	X	X				
57	Inspect front windscreen and left and right door windows general condition, correct operation, no cracks or missing parts. Lubricate sliding window channels with AG-LUB-04 (silicone spray)	X	X				
58	Ensure slip indicator is present and intact	X	X				
59	Inspect fuselage general condition, no cracks, damage or deformation	X	X				
60	Inspect cabin ventilation sliding cover assembly for security, correct operation. Ensure port under body is free from obstruction	X	X				
61	Inspect all antenna and antenna mountings for security, no damage	X	X				
62	Inspect keel tube and keel tube to fuselage connection general condition, secure installation, no cracks or deformation/twisting	X	X				
63	Inspect keel tube protection pads condition and attachment.	X	X		55-00-00 8-1		
64	Inspect mast rubber bushes for failure or free play, wear or damage. Inspect rubber mounting bush movement. <b>Record movement on Work Report</b>		X		62-51-00 6-1		
65	Remove mast assembly, visually inspect mast mounting bushes, re-assemble mast assembly			200hr	62-51-00 4-1		
66	Inspect mast assembly for security, no deformation, no cracks (especially at welds).		X				
67	Check torque mast securing bolts. If movement is present, remove, re-apply Loctite and re-torque		X	20Nm			
68	Inspect all placards/stickers readable and in line with operating limitations		X	Pilots Handbook or TADS			
<b>Pitot-Static/Pneumatic System</b>							
69	Inspect pitot/ram air tube general condition, secure installation, no obstructions	X	X				
70	Inspect static ports general condition, secure installation, no obstructions, no leaks. Clean and dry static lines as required	X	X		34-10-00 5-1 34-10-00 7-1		
71	Inspect all pneumatic lines and connectors in the fuselage and engine compartment, no chafing, sharp bends or kinks	X	X				
72	Inspect pneumatic box and compressor for security, no chafing or damage	X	X				

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<b>Main Gear and Brakes</b>							
73	Inspect suspension bow and attachments to airframe and axles for damage or fatigue (cracks & deformation).	X	X				
74	Inspect main wheels general condition, correct pressure, condition of tread, correct seating of valve and cap, secure installation and no play in wheel bearing. Inspect wheel bearing for smooth operation. Ensure slip mark is present and aligned	X	X	2.0 – 2.2 Bar Recommended 0.5mm min tread			
75	Inspect wheel spats for clearance to tyre, secure installation and general condition, no cracking	X	X				
76	Inspect brake lines for secure installation, no leaks, no chafing	X	X				
77	Inspect wheel callipers for secure installation and freedom of operation, no leaks	X	X				
78	Inspect brake pads for wear (wear mark/groove must be visible) and condition		X		32-40-00 8-2		
79	Inspect brake disc condition. Check-torque 4 x attachment screws		X				
80	Inspect the centre console throttle/brake unit for correct operation, secure installation, condition of ratchet teeth, brake fluid level, no leaks. Replenish fluid (DOT4) as required		X				
<b>Pre-rotator</b>							
81	Check the pneumatic clutch for correct operation, secure installation, pneumatic connections, no wear or chafing.		X	63-11-10 6-1 'Procedures' item 2: 0.5- 1.0mm for pn clutch III & IV	(63-11-10 5-1 Rotor head II only) 63-11-10 6-1 SIL-2021-02		
82	Check front dog gear (clutch side) and rear dog gear (engine side) general condition, no cracks		X		63-11-10 6-1		
83	Connect a manometer to the clutch pneumatic pressure regulator using a T-connector and check time to pressurise. In the event of discrepancies contact AutoGyro Technical Support	X	X	RHII 0-5 bar in 5 - 10 sec RHIII 0-8 bar in 5- 10 sec			
84	Inspect pre-rotator drive shafts with sliding shaft coupling for general condition, secure installation, no cracks (especially at the welded flanges) and free to slide. Lubricate sliding shaft coupling*	X	X	*Liquid Moly LM 47 MoS2 (45506)			
85	Inspect angle gearbox general condition, secure installation, no cracks, smooth running, no leaks	X	X				
86	Inspect pre-rotator upper engagement. Inspect backlash. Lubricate Bendix shaft helix with AG-LUB-01 (Ballistol) or equivalent. Grease crown gear teeth lightly with AG-GRS-01 (WHS 2002)		X		63-11-30 6-1		
87	Protect steel parts with AG-CPS-01 (chain wax, cavity spray or equivalent)		X				
<b>Rotor Head</b>							
88	Inspect brake/trim cylinder for correct attachment, security, no damage		X				
89	Inspect roll trim cylinder for correct attachment, security, no damage		X				

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90	Inspect all pneumatic hoses at the rotor head general condition, security, no chafing, brittleness, sharp bends or kinks	X	X				
91	Renew teeter tower/bearing assembly			1500hr	62-20-00 8-1 SIL-2018-02-C		
92	Inspect rotor head bridge II for damage, deformation, and cracks, especially at welds Inspect side plates & roll attachment bracket of rotor head III for deformation, damage and cracks. Inspect aluminium bridge (RH III) for damage, cracking or deformation Carry out a torque check of the main bolt. Refit split pin		X	<b>Minimum</b> 120Nm <b>Maximum</b> 160Nm	62-31-00 6-1		
93	Rotor head III - Individually remove the two rotor head bridge to gimbal side plate assembly bolts and inspect for corrosion. Replace if required. Apply grease AG-GRS-01 (WHS2002) on assembly			28Nm Every 2 years or 200 hrs, whichever is first			
94	Inspect rotor head gimbal for correct operation and secure installation of all attached parts. <b>Record controlled angles on Work Report.</b> Lube AG-GRS-01 (WHS2002)		X	<b>Fwd: -4°</b> <b>Rear: 20.5°</b> <b>Right: 7.5°</b> <b>Left: 8.75°</b>	62-32-00 6-1		
95	<b>Only Gimbal II (rotor head II with conical washers) &amp; Gimbal III (rotor head III):</b> Measure breakout force at forward control stick grip. Adjust as required.			200hr <b>15N max. No stick-slip permitted</b>	62-32-00 5-1		
96	Inspect three split pins present and secure	X	X				
97	Inspect rotor brake pad(s) for function & wear (also forward pad for rotor head III)		X				
98	Protect steel parts with AG-CPS-01 chain wax, cavity spray or equivalent		X				
<b>Fuel System</b>							
99	Inspect fuel tanks (from under drain cover) for security, no leaks or traces of leaks, swelling (hoses) or smell of fuel.		X				
100	Inspect fuel level indication and compare with fuel gauge		X				
101	Inspect tank interior for foreign debris. Remove if found	X	X				
102	Inspect functionality of low-level warning light if fitted		X				
103	Inspect fuel venting lines condition and routing	X	X				
104	Inspect fuel water contamination drain, no leaks		X				
105	Inspect fuel tank cap for seal deterioration, function & security of fit		X				
106	Inspect all pipes & hoses of the fuel system for secure installation, no cracks, chafing, kinks or sharp direction changes, deterioration or hardening.		X		SIL-2021-03		
107	Replace nylon (where fitted) & KL45 fuel filter if contaminated. Replace as pair			Recommended 500hr/3Yr or on condition	28-20-00 6-1 28-20-00 8-1 SIL-2018-02-C		
108	Inspect and clean electric fuel pump internal filter(s) if fitted		X		28-20-00 6-1		
109	Inspect the fuel shut-off valve correct operation, secure installation, presence and condition of safe-guard		X				

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<b>Oil System</b>							
110	Inspect oil cooler general condition, secure installation, cleanliness, no leaks, chafing, damage or deformed fins		X				
111	Inspect all hoses and pipes of the oil system for secure installation, no leaks, chafing, tears/cracks, hardening, kinks or sharp direction changes. Inspect firm seating of hoses on the fittings.		X		SIL-2021-03		
112	Inspect thermostat assembly for secure attachment, no cracks, leaks or porous hoses		X				
<b>Coolant System</b>							
113	Inspect all hoses and pipes of the coolant system for secure installation, no leaks, chafing, tears/cracks, hardening, kinks or sharp direction changes. Inspect firm seating of hoses on the fittings.		X		SIL-2021-03		
114	Inspect radiator general condition, secure installation, cleanliness, no leaks, chafing, damage or deformed fins		X				
115	Inspect the radiator fan for correct operation, no damage of fan cage and blades	X	X				
116	Inspect presence/condition of heat protection on coolant hose from cylinder 2		X				
117	Inspect coolant overflow tank for correct coolant level (double rings on the Fuel and Engine Coolant Dipstick), secure installation, no chafing	X	X				
118	Inspect for secure attachment of thermostat, presence of earth cable, no leaks, damage or chafing		X				
<b>Propeller</b>							
119	Inspect propeller blades for cracks, delamination or impact damage	X	X				
120	Remove and inspect spinner (if fitted), inspect spinner mounting plate general condition, secure installation, no cracks.	X	X		61-10-00 4-1		
121	Inspect propeller to frame clearance	X	X	10cm minimum			
122	<b>HTC:</b> Perform a visual inspection of the hub. Ensure safety paint on head of bolt to hub is not broken (if applied). Check torque flange bolts and re-apply paint if required	X	X	15Nm			
123	<b>HTC:</b> Inspect leading edge protective tape (if fitted) for air bubbles, lifted edges or deterioration	X	X				
124	<b>HTC:</b> Ensure all blades have the same pitch		X	AG propeller pitch gauge (30492)	61-10-00 5-1		
125	<b>IVO:</b> Inspect blades for loose pitch lever (tap test), condition of contact plate brushes and tension strips between blades if fitted. Check torque flange bolts	X	X	40Nm	RSUK0325 RotorSport IVO-prop manual. SIL-2018-04-B		
126	<b>IVO:</b> Inspect leading edge protection for lifted edges or deterioration	X	X				
127	<b>IVO:</b> Inspect cable routing, ensure secure		X				
128	Refit spinner (if applicable) using AG-BAS-02 Loctite 243	X	X				

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<b>Engine and Accessories</b>							
<b>NOTE: All engine checks to be carried out in accordance with manufacturer's instructions. Include supplementary procedures below.</b>							
129	Inspect starter battery for security, deformation, cracks, chafing leaks, oxidization, pole cover, Charge state/condition.		X				
130	Inspect the engine mounting frame general condition, no cracks or distortion		X				
131	Inspect the engine mounting bushes for secure installation and condition of rubber		X		SIL-2018-02-C		
132	Inspect the engine mounting ring frame for secure installation, no chafing, distortion, cracks or missing paint. Check torque 4 ring mount to engine securing bolts		X	40Nm			
133	Inspect rectifier-regulator general condition, secure installation, no chafing of wiring, , ground (L-) connectors not corroded or molten, connector tightness		X				
134	Inspect exhaust system general condition, secure installation, no leaks, cracks (tap test) or loose rivets. Inspect presence and condition of retaining springs and safety cable. Ensure the sliding joint is free to move at exhaust manifold from cylinder 1. Lube with AG-LUB-02 anti-seize		X		SIL-2018-05-C		
135	Inspect the silencer for secure installation of clamps, rivets and lock wire. Ensure lock wire passes through clamp screw housing and slot in screw head		X				
136	Ensure wire locking is present on: Oil tank drain plug Oil sump drain plug Oil pump Magnetic plug (after the first 100hr service)	X	X				
137	Ensure choke and throttle lever moves freely from stop to stop, and that turbo detent can be positively felt. Ensure cables are mechanically synchronised. Lube lever joints AG-LUB-01 (Ballistol)	X	X				
138	Inspect clearance between airbox (if fitted) and engine mounting frame	X	X		71-20-00 6-1		
139	<b>Supplementary procedure: Oil change:</b> On draining all oil, ensure it is run through a 190 micron filter paper, attach photo of findings to this protocol		X				
140	<b>Supplementary procedure: Inspection of magnetic plug:</b> Attach a photo of the magnetic plug before cleaning to this protocol		X				
141	<b>Supplementary procedure: Inspection of oil filter:</b> Attach a photo of the paper mesh from the cut open filter to this protocol		X				
142	<b>Supplementary procedure: Refilling of oil:</b> Record type of oil used to refill in the Work Report		X				
<b>Finalization Work</b>							
143	Assemble the rotor system on the aircraft. Lube teeter assembly through grease nipple with AG-GRS-01 (WHS 2002)	X	X		62-11-00 4-4		

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144	Carry out a tool and loose article check	X	X				
145	Ensure all service covers, cowlings and keel tube cover are re-installed	X	X		52-00-00 4-1 52-40-00 0-1		
146	Securely tie down the aircraft and carry out a ground run	X	X		AG-F-PGR- Generic		
147	Re-install centre console	X	X		67-10-00 4-1		
148	Carry out a test flight if required	X	X				
149	Ensure all logbook entries are completed appropriately, and service record updated	X	X				
150	Carry out any other documentation requirements by the countries Airworthiness Administration	X	X				

Tasks completed by (Name):  Signature: _____ Initials: _____  Date: _____	Engine hours logged:  Airframe hours logged:
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*The technical content of this document should be approved with the national Airworthiness Authority as required.*

<b>Maintenance Release: The work recorded above (all pages) has been completed to my satisfaction and in that respect the aircraft is considered fit for flight.</b>  Signature: _____ Initials: _____  Date: _____  Inspector or licence number (if required): _____ Dated: _____	Comments:
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