

Ac Works nr:



MTO 2017 915is Periodic Service Worksheet

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 MTO 2017 915iS 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.

	Task Description	25h	100h/ 1 Yr	Other	AMM Chapter/Job Card/SB/SIL Reference	Entry Nr in Work Report	Initials
Aircraft Preparation							
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), power plant (ROTAX) and approved items such as radio and transponder	X	X				
4	Examine historical / Maintenance Records and Log Book. Identify: -Life Limited Items (LLI) -Due dates for replacements, overhauls and special activities -Reported problems	X	X				
5	Note / check all - Serial numbers against logbooks and records - Manufacturer and Service Life Limits (MLL/SLL) - Inspection/Overhaul Time Limits (TBO) according to manufacturers requirements, respectively summarise results on the Inspection Protocol Cover Sheet (AG-F-PCS)	X	X				
6	Remove all service covers/maintenance access covers as required for the task specified	X	X		52-40-00 2-1		
7	Remove and inspect body side fairings	X	X		52-40-00 4-1		
8	Measure dimension D1. Record in Inspection protocol record and logbook as required. Compare with previous readings if available	X	X	A change indicates a possible bent airframe.	08-20-00 2-1	1	
Rotor System							
9	Check teeter angle	X	X	14° +/- 1°			
10	Remove rotor	X	X		62-11-00 4-1		
11	Inspect rotor	X	X		62-11-00 6-1 SIL-2019-03-B		
12	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		
13	Re-assemble the rotor system (if disassembled in serial 12)				62-11-00 4-3		
14	Check torque the blade to hub bar bolts/nuts	X	X	20Nm +/- 5Nm	62-11-00 4-3		
15	Inspect the 8 rotor hub bolts			200hrs/ 2yr	62-11-00 6-3		
Nose Gear							
16	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				

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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				
Cockpit							
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 instruments/switches etc. in their cockpit mountings. Check presence/security of battery backup switch safety cover	X	X				
23	Carry out a functional check of strobes if fitted	X	X				
24	Carry out a functional check of nav lights if fitted	X	X				
25	Carry out a functional check of landing lights if fitted	X	X				
26	Carry out a functional check of Air Speed Indicator		X				
27	Ensure altimeter is calibrated to QNH/ambient pressure		X				
28	Ensure compass is correctly calibrated (Refer to manufacturer's instructions)		X				
29	Ensure correct function of digital altimeter and air speed indicators if fitted. Ensure the instrument backup battery operates for a minimum of 30 mins. Recharge the internal battery.	X	X				
30	Ensure all glass cockpit instrument ranges compare with those in the TADS, if fitted		X		SIL-2021-04		
Nose gear/rudder control run							
31	Inspect the setup of rudder and pedals.		X	27° +/-2° (L) 32° +/-2° (R)	27-20-00 5-1		
32	Inspect pedals for freedom of movement.	X	X				
33	Inspect pedal position adjustment slider for free movement. Lubricate with AG-LUB-01 (Ballistol) or equivalent as required. Ensure the pedal adjuster cable is secure in the knob.	X	X				
34	Inspect push-pull cables (PPCs) for secure installation, no play, no chafing.	X	X				
35	Inspect all cable pulleys for free rotation, security and wear	X	X				
36	Inspect security of all rudder control run securing bolts and locknuts	X	X				
37	Inspect upper rudder attachment point bush for freedom of movement in the attachment plate	X	X	0.2mm			
38	Inspect tail plane security to airframe bolt torque	X	X				

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39	Inspect tail and rudder for signs of composite damage, particularly at joints and welds	X	X				
40	Inspect security of rudder trim tab	X	X				
Flight Control							
41	Inspect play in the rotor head control system	X	X	5mm	67-00-00 6-1		
42	Inspect forward (and rear if installed) flight control stick(s) general condition, freedom and full range of movement, secure installation, cable routing, no damage or chafing	X	X				
43	Inspect radial bearings in control stick base fork for wear or damage	X	X				
44	Inspect main control rod and ball joints general condition, freedom of movement, secure installation, damage or deformation	X	X		67-00-00 6-1		
45	Inspect bolts of flight control base link. Replace if required			200hr			
46	Inspect for freedom of movement of base link	X	X		67-00-00 6-2		
47	Inspect radial bearings in base link for wear or damage		X		67-00-00 6-2		
48	Inspect condition of push rods and eye ends for damage distortion, corrosion, freedom of movement, cracks, wear		X				
Airframe/Fuselage							
49	Inspect forward seat general condition, secure installation, no damage and freedom of movement of the hinges	X	X				
50	Inspect forward seat adjustment mechanism general condition, secure, damage and correct locking in every position	X	X				
51	Inspect all forward seatbelt mounting points for tightness and security	X	X				
52	Inspect forward seatbelt for damage or frays and security of buckles		X				
53	Inspect rear seat general condition, secure installation, damage and freedom of movement of the hinges	X	X				
54	Inspect rear seat adjustment mechanism general condition, secure, no damage and correct locking in every position	X	X				
55	Inspect all rear seatbelt mounting points for tightness and security	X	X				
56	Inspect rear seatbelt for damage or frays and security of buckles		X				
57	Inspect Instructor Lane switches (if installed) for security & presence of safe-guards	X	X				
58	Inspect front windshield general condition, cleanliness, no cracks. Confirm presence of slip indicator	X	X				
59	Inspect rear windshield general condition, cleanliness, no cracks	X	X				
60	Inspect airframe for damage, malalignment or deformation		X		53-00-00 6-1		
61	Using a suitable magnifying glass and strong light source, inspect the airframe for cracks (especially at welded joints at the mast root). Use dye-penetrant crack detection techniques as required if cracks are suspected but not clearly visible.		X		SIL-2019-02		

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62	Inspect all frame to fuselage assembly points for security	X	X				
63	Inspect all fuselage panels general condition, no cracks, deformation or missing components	X	X		52-00-00 4-1		
64	Inspect nose storage access cover correct operation, no cracks, damage or deformation	X	X				
65	Inspect keel tube general condition, secure installation, weld seams, no cracks		X		SIL-2019-02		
66	Inspect keel tube protection pad general condition, secure installation		X				
67	Inspect the engine mounting brackets general condition, no cracks or distortion		X		SIL-2019-02		
68	Inspect the engine mounting bushes for secure installation and condition of rubber		X		SIL-2018-02-C		
Pitot-Static System							
69	Inspect pitot/ram air tube general condition, secure installation	X	X				
Main Gear and Brakes							
70	Inspect main undercarriage spar and attachments to airframe for damage or fatigue, no cracks or deformation	X	X				
71	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				
72	Inspect wheel spats for secure installation and general condition, no cracking (if fitted)	X	X				
73	Inspect brake lines for secure installation, no leaks, no chafing	X	X				
74	Inspect wheel callipers for secure installation and freedom of operation, no leaks	X	X				
75	Inspect brake pads for wear (wear mark/groove must be visible) and condition		X		32-40-00 8-2		
76	Inspect brake disc condition and security of 4 x attachment screws. Check torque		X				
77	Inspect the throttle/brake unit for correct operation, secure installation, condition of ratchet teeth, brake fluid level, no leaks. Replenish fluid (DOT4) as required		X		76-10-00 8-1		
Pre-rotator							
78	Inspect the pneumatic clutch correct operation, secure installation, pneumatic connections, no wear or chafing		X	63-11-10 6-1 'Procedures' item 2: 0.5-1.0mm	63-11-10 6-1 SIL-2021-02		
79	Inspect front dog gear (clutch side) and rear dog gear (engine side) general condition, no cracks		X		63-11-10 6-1		
80	Connect a manometer to the clutch pressure line using a T-connector and note time to pressurize (0 to 8 bar within 5-10 sec.).		X				
81	Inspect the pre-rotator drive shaft with sliding shaft coupling general condition, secure installation, smooth operation, no cracks (especially at the flanges), distortion or play in bearing. Lubricate the sliding shaft joint*.	X	X	*Liquid Moly LM 47 MoS2 (45506)			

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	Protect steel parts (shafts and cardan joints) with AG-CPS-01 chain wax, cavity spray or equivalent						
82	Inspect angle gearbox and mounting brackets general condition, secure installation, no cracks, smooth running, no leaks		X				
83	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) or equivalent		X		63-11-30 6-1		
Rotor Head							
84	Inspect brake/trim cylinder secure installation, no damage		X				
85	Inspect roll trim cylinder secure installation, correct function, no damage		X				
86	Inspect all pneumatic hoses at the rotor head for absence of leaks, correct attachment, security, no chafing, hardening, kinks or sharp bends		X				
87	Renew teeter tower/bearing assembly			1500hr	62-20-00 8-1 SIL-2018-02-C		
88	Inspect rotor head bridge for damage, cracking or deformation. Inspect side plates & roll attachment bracket for deformation, damage and cracks. Carry out a torque check of the main bolt. Refit split pin		X	Minimum 120Nm Maximum 160Nm	62-31-00 6-1		
89	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) to the bolt shanks during re-assembly		X	28Nm Every 2 years or 200 hrs, whichever is first			
90	Inspect rotor head gimbal for correct operation and secure installation of all attached parts. Record controlled angles on Additional Work Report. Lube AG-GRS-01 (WHS2002) or equivalent		X	Fwd: -5° Rear: 20° (Aus 17°) Right: 7° Left: 9°	62-32-00 6-1		
91	Measure roll and pitch breakout force at forward control stick grip. Adjust as required.	X	X	200hr 15N max. No stick-slip permitted	62-32-00 5-1		
92	Inspect teeter bolt & bushes for damage, wear, corrosion. Service/lube	X	X				
93	Inspect three split pins (pitch, roll and main bearing) present and secure	X	X				
94	Inspect forward and rear rotor brake pads for function & wear		X				
95	Protect steel parts with AG-CPS-01 chain wax, cavity spray or equivalent		X				
Fuel System							
96	Inspect fuel tanks for security and correct installation.		X				
97	Inspect fuel tanks general condition, no leaks, chafing, cracks or distortion. Inspect presence/condition of tank level markings. Inspect correct operation and display of fuel gauge to tank contents (if fitted)		X				

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98	Inspect tank interior for foreign debris. Remove if found	X	X				
99	Inspect functionality of low-level warning light if fitted		X				
100	Inspect fuel venting lines condition and routing	X	X				
101	Inspect fuel water contamination drains absence of leaks		X				
102	Inspect fuel tank cap for seal deterioration & security of fit		X				
103	Inspect all pipes & hoses of the fuel system for secure installation, presence of fire protective sleeve (if fitted), no cracks, chafing, kinks or sharp direction changes, deterioration or hardening.		X		SIL-2021-03		
104	Replace F5273 fuel filter if contaminated.			Recommended 100hr	28-20-00 8-1 SIL-2018-02-C SIL-2021-01		
105	Remove, inspect and clean gascolater (fuel-water filter) internal filter. Re-assemble.	X	X				
Oil System							
106	Inspect oil cooler general condition, secure installation, cleanliness, no leaks, chafing, damage or deformed fins		X				
107	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		
108	Inspect thermostat assembly for secure attachment, no cracks, leaks or porous hoses		X				
Coolant System							
109	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		
110	Inspect radiator general condition, secure installation, mounting bracket cracks, cleanliness, no leaks, chafing, damage or deformed fins		X				
111	Inspect presence/condition of heat protection on: All coolant return hoses from cylinders Left and right lower ring mount arms Wiring harness from ECU Left radiator hose Left sump hose	X	X				
112	Inspect for secure attachment of water expansion tank, no leaks, damage or chafing		X				
113	Inspect coolant level in overflow bottle – 1/3 to 2/3 full and return/supply hose also completely full. Ensure 2mm breather hole in bottle lid is free	X	X				
Propeller							
114	HTC: Inspect propeller blades for cracks, delamination or impact damage	X	X				
115	HTC: Remove and inspect spinner (if fitted), inspect spinner mounting plate general condition, secure installation, no cracks.	X	X		61-10-00 4-1		
116	HTC: Perform a visual inspection of the hub. Ensure safety paint on head of bolt to hub (or thread to flange) is not broken (if applied).	X	X	15Nm			

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	Check torque flange bolts and re-apply safety paint if required						
117	HTC: Inspect leading edge protective tape (if fitted) for air bubbles, lifted edges or deterioration	X	X				
118	HTC: Ensure all blades have the same pitch		X	AG propeller pitch gauge (30492)	61-10-00 5-1		
119	Woodcomp: Check torque flange nuts	X	X	22Nm	TN-31_0 EN		
120	Woodcomp: Carry out a 100hr inspection in accordance with manufactures maintenance manual		X	At 100 propeller hrs	TN-31_0 EN		
121	Inspect propeller to frame clearance	X	X	5cm minimum			
122	Refit spinner (if applicable) using AG-BAS-02 Loctite 243 on the spinner fasteners	X	X				

Engine and Accessories

NOTE: All engine checks to be carried out in accordance with manufacturer's instructions.

Include supplementary procedures below.

123	Inspect starter battery for security, deformation, cracks, chafing leaks, oxidization, pole cover, Charge state/condition.		X				
124	Inspect turbo intercooler general condition, secure installation, cleanliness, no leaks, chafing, damage or deformed fins		X				
125	Inspect the engine mounting ring for secure installation, no chafing, distortion, cracks or missing paint. Check torque 4 ring mount to engine securing bolts		X	40Nm			
126	Inspect exhaust system general condition, secure installation, no leaks, cracks (tap test).		X				
127	Ensure wire locking is present on: Oil tank drain plug Oil pump Magnetic plug (after first 100hr service)	X	X				
128	Ensure throttle lever moves freely from stop to stop. Lube lever joint AG-LUB-01 (Ballistol)	X	X				
129	Supplementary procedure: Oil change: On draining all oil, ensure it is run through a 190 micron filter paper, attach photo of findings to this protocol		X				
130	Supplementary procedure: Inspection of magnetic plug: Attach a photo of the magnetic plug before cleaning to this protocol		X				
131	Supplementary procedure: Inspection of oil filter: Attach a photo of the paper mesh from the cut open filter to this protocol		X				
132	Supplementary procedure: Refilling of oil: Record type of oil used to refill on the Supplementary Work Report		X				

Finalization Work

133	Assemble the rotor system on the aircraft and lube teeter assembly through grease nipple	X	X		62-11-00 4-4		
134	Carry out a tool and loose article check	X	X				
135	Ensure all service covers are re-installed	X	X				
136	Securely tie down the aircraft and carry out a ground run	X	X		AG-F-PGR- Generic		
137	Carry out a test flight if required	X	X				

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138	Ensure all logbook entries are completed appropriately, and service record updated	X	X				
139	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:
<i>The technical content of this document should be approved with the national Airworthiness Authority as required.</i>	
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. Signature: Initials: Date: Inspector or licence number (if required): Dated:	Comments: