Ac Works nr:		MTO 2017 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 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	Other	MM Chapter/Job Card Reference	Entry Nr in Work Report	Initials
Aircraft Preparation						
If necessary, carry out an acceptance check flight of the aircraft	X	X				
Clean aircraft. Remove dirt, dust, leaked fluids and loose items	X	X		12-30-00		
Identify all relevant - Airworthiness Directives (AD) - Service Bulletins (SB) for airframe (AutoGyro) and power plant (ROTAX)	X	X		http://www.auto-gyro.com		
Examine historical / Maintenance Records and Log Book. Identify: -Time Change Items (TCI) -Due dates for replacements, overhauls and special activities -Reported problems	X	X				
Note / check all - Serial Numbers - Manufacturer Life Limits (MLL/SLL) - Airworthiness Limitations (AWL) - Inspection/Overhaul Time Limits (TBO) according to Event & Configuration Log (AG-F-ECL), respectively Inspection Protocol Cover Sheet (AG-F-PCS).	X	X				
Remove and inspect all service covers/maintenance access covers	X	X		52-40-00 2-1		
Remove and inspect body cowlings and rear seat	X	X		52-40-00 4-1		
Rotor System						
Check teeter angle	X	X	14° +/-1°	62-11-00 3-1		
Remove rotor	X	X		62-11-00 4-1		
Inspect rotor	X	X		62-11-00 6-1		
Rotor system II (8.4m & 8.8m) or (8.4m & 8.8m TOPP). Disassemble rotor and inspect			500hrs/ 3yr Recommended 1yr in corrosive environments	62-11-00 4-2 62-11-00 6-2		
Re-assemble rotor	X	X		62-11-00 4-3		
Check torque the blade to hub bar bolts/nuts	X	X	20Nm +/-5Nm	62-11-00 4-3		
Inspect the 8 rotor hub bolts			200hrs/ 2yr	62-11-00 6-3		
Nose Gear						
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				
Inspect nose wheel fork general condition, secure installation, freedom of movement, no excessive play, distortion or damage	X	X				
Inspect nose wheel rubber damper general condition and correct operation	X	X				
Cockpit						
Inspect wiring and pitot/static lines general condition, correct attachment, absence of chafing, tears cracks, hardening, kinks or sharp changes of direction	X	X				

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Replace or dry compressor humidity filter as appropriate for environmental conditions		X		36-21-00 8-1		
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	36-00-00 5-1		
Check security of instruments/switches etc. in their cockpit mountings	X	X				
Carry out a functional check of backup fuel pump if fitted	X	X				
Carry out a functional check of strobes if fitted	X	X				
Carry out a functional check of nav lights if fitted	X	X				
Carry out a functional check of landing lights if fitted	X	X				
Carry out a functional check of Air Speed Indicator		X		34-10-00 5-2		
Ensure altimeter is calibrated to QNH/ambient pressure		X		31-20-00 5-1		
Ensure compass is correctly calibrated (Refer to manufacturer's instructions)		X				
Ensure correct function of digital altimeter and air speed indicators if fitted	X	X		31-20-00 5-2		
Ensure all glass cockpit instrument ranges compare with those in the TADS, if fitted		X				
Nose gear/rudder control run						
Inspect the setup of rudder and pedals		X	835mm +/- 10mm MT03 940mm +/-10mm ?	27-20-00 5-1		
Inspect pedals for freedom of movement.	X	X				
Inspect push-pull cables (PPCs) for secure installation, no play, no chafing.	X	X				
Inspect all cable pulleys for free rotation, security and wear	X	X				
Inspect security of all rudder control run securing bolts and locknuts	X	X				
Inspect upper rudder attachment point bush for freedom of movement in the attachment plate	X	X	0.2mm			
Inspect tail plane security to airframe bolt torque	X	X				
Inspect tail and rudder for signs of composite damage, particularly at joints and welds	X	X				
Inspect security of rudder trim tab	X	X				
Flight Control						
Inspect play in the rotor head control system	X	X	5mm	67-00-00 6-1		
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				
Inspect radial bearings in control stick base fork for wear or damage	X	X				
Inspect main control rod and ball joints general condition, freedom of movement, secure installation, damage or deformation	X	X		67-00-00 6-1		
Inspect bolts of flight control base link. Replace if required			200hr			
Inspect for freedom of movement of base link	X	X		67-00-00 6-2		
Inspect radial bearings in base link for wear or damage		X		67-00-00 6-2		

Task Description	25h	100h	Other	MM Chapter/Job Card Reference	Entry Nr in Work Report	Initials
Inspect condition of push rods and eye ends for damage distortion, corrosion, freedom of movement, cracks, wear		X				
Airframe/Fuselage						
Inspect forward seat general condition, secure installation, no damage and freedom of movement of the hinges	X	X				
Inspect forward seat adjustment mechanism general condition, secure, damage and correct locking in every position	X	X				
Inspect all forward seatbelt mounting points for tightness and security	X	X				
Inspect forward seatbelt for damage or frays and security of buckles		X	Manufacturers recommend'n 10yr			
Inspect rear seat general condition, secure installation, damage and freedom of movement of the hinges	X	X				
Inspect rear seat adjustment mechanism general condition, secure, no damage and correct locking in every position	X	X				
Inspect all rear seatbelt mounting points for tightness and security	X	X				
Inspect rear seatbelt for damage or frays and security of buckles		X	Manufacturers recommend'n 10yr			
Inspect Instructor mag switches (if installed) for security & presence of safe-guards	X	X				
Inspect front windshield general condition, cleanliness, no cracks. Confirm presence of slip indicator	X	X				
Inspect rear windshield general condition, cleanliness, no cracks	X	X				
Inspect airframe for damage, malalignment, deformation or cracks (especially at welded joints at the mast root		X		53-00-00 6-1		
Inspect upper mast assembly for security, no cracks, distortion		X				
Inspect correct torque of frame to upper mast attachment bolts		X	70Nm			
Inspect mast rubber mounting bushes. **Enter movement values on the Additional Work Report sheet**		X	Initially at 2yrs or 200hr, then every 100hr	62-51-00 6-1		
Inspect all frame to fuselage assembly points for security	X	X				
Inspect all fuselage panels general condition, no cracks, deformation of missing components	X	X		52-00-00 4-1		
Inspect nose storage access cover fitted/camlocs secure & operate correctly, no cracks, damage or deformation	X	X				
Inspect keel tube general condition, secure installation, weld seams, no cracks		X				
Inspect the engine mounting brackets general condition, no cracks or distortion		X				
Inspect the engine mounting bushes for secure installation and condition of rubber		X	5yr			
Pitot-Static System						
Inspect pitot/ram air tube general condition, secure	X	X				

Task Description	25h	100h	Other	MM Chapter/Job Card Reference	Entry Nr in Work Report	Initials
installation						
Inspect static lines general condition, secure installation, no obstructions, no leaks. Clean and dry static lines as required	X	X		34-10-00 7-1 34-10-00 5-1		
Main Gear and Brakes						
Remove the main undercarriage spar to fuselage forward attachment bolts individually and check for corrosion. Replace if required. Re-assemble and tighten			Initially at 2yr, then annually			
Inspect main undercarriage spar and attachments to airframe for damage or fatigue, no cracks or deformation	X	X				
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				
Inspect wheel spats for secure installation and general condition, no cracking (if fitted)	X	X				
Inspect brake lines for secure installation, no leaks, no chafing	X	X				
Inspect wheel callipers for secure installation and freedom of operation, no leaks	X	X		32-40-00 2-1		
Inspect brake pads for wear (wear mark/groove must be visible) and condition		X		32-40-00 8-2		
Inspect brake disc condition and security of 4 x attachment screws. Check torque		X				
Inspect the throttle/brake unit for correct operation, secure installation, condition of ratchet teeth, brake fluid level, no leaks. Replenish fluid as required		X		76-10-00 8-1		
Pre-rotator						
Inspect the pneumatic clutch correct operation, secure installation, pneumatic connections, no wear or chafing		X		63-11-10 5-1 63-11-10 6-1		
Inspect front dog gear (clutch side) and rear dog gear (engine side) general condition, no cracks		X		63-11-10 6-1		
Connect a manometer to the clutch pressure line using a T-connector and note time to pressurize (0 to 5 bar within 10 sec.).		X		63-11-10 4-2		
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*. Protect steel parts (shafts and cardan joints) with chain wax, cavity spray or equivalent	X	X	*Liquid Moly LM 47 MoS2 (45506)			
Inspect angle gearbox and mounting brackets general condition, secure installation, no cracks, smooth running, no leaks		X				
Inspect pre-rotator upper engagement. Inspect backlash. Lubricate with grease AG-GRS-01 (WHS2002)		X		63-11-30 6-1		
Rotor Head						
Inspect brake/trim cylinder secure installation, no damage		X				
Inspect roll trim cylinder secure installation, correct		X				

Task Description	25h	100h	Other	MM Chapter/Job Card Reference	Entry Nr in Work Report	Initials
function, no damage						
Inspect all hoses at the rotor head for absence of leaks, correct attachment, security, no chafing, hardening, kinks or sharp bends		X				
Renew teeter tower/bearing assembly			1500hr			
Inspect rotor head bridge. Carry out a torque check of the main bolt. Refit split pin		X	**Minimum** 120Nm	62-31-00 6-1		
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)		X	**Fwd**: -5.5° **Rear**: 17.5° **Right**: 7° **Left**: 9°	62-32-00 6-1		
Inspect teeter bolt & bushes for damage, wear, corrosion. Service/lube	X	X				
Inspect three split pins present and secure	X	X				
Inspect forward and rear rotor brake pads for function & wear		X				
Protect steel parts with chain wax, cavity spray or equivalent		X				
Fuel System						
Inspect fuel tanks for security and correct installation.		X				
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				
Inspect tank interior for foreign debris. Remove if found	X	X				
Inspect functionality of low level warning light if fitted		X		28-20-00 5-1		
Inspect fuel venting lines condition and routing	X	X				
Inspect fuel water contamination drains absence of leaks		X				
Inspect fuel tank cap for seal deterioration & security of fit		X				
Inspect breather pipe filter for blockages		X				
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				
Replace nylon & F5273 fuel filter if contaminated. Replace as pair			Recommended 500hr/3Yr or on condition	28-20-00 6-1 28-20-00 8-1		
Inspect and clean electric fuel pump internal filter(s) if fitted		X		28-20-00 6-1 28-20-00 8-1		
Oil System						
Inspect oil cooler general condition, secure installation, cleanliness, no leaks, chafing, damage or deformed fins		X				
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. Ensure all rubber hoses comply with the 5 year renewal recommendation		X				
Inspect thermostat assembly for secure attachment, no cracks, leaks or porous hoses		X				

Task Description	25h	100h	Other	MM Chapter/Job Card Reference	Entry Nr in Work Report	Initials
Coolant System						
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				
Inspect radiator general condition, secure installation, cleanliness, no leaks, chafing, damage or deformed fins		X				
Inspect presence/condition of heat protection on coolant hose from cylinder 2		X				
Inspect water thermostat for secure attachment, presence of earth cable, no leaks, damage or chafing		X				
Propeller						
Inspect propeller blades for cracks, delamination or impact damage	X	X				
Inspect spinner (if fitted) with spinner mounting plate general condition, secure installation, no cracks. Remove one spinner attachment screw and confirm secured with Loctite 243. Refit using Loctite 243. If necessary, re-apply Loctite 243 to all screws and re-tighten.		X		61-10-00 4-1		
Inspect propeller to frame clearance	X	X	5cm minimum			
HTC: 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 safety paint if required	X	X	15Nm			
HTC: Inspect leading edge protective tape (if fitted) for air bubbles, lifted edges or deterioration	X	X				
HTC: Ensure all blades have the same pitch		X	AG propeller pitch gauge	61-10-00 5-1		
IVO: Inspect blades for loose pitch torsion rod (tap test), condition of contact plate brushes and tension strips between blades if fitted. Check torque flange bolts	X	X	40Nm			
IVO: Inspect leading edge protection for lifted edges or deterioration	X	X				
IVO: Inspect cable routing at arm, ensure secure		X				
Engine and Accessories						
NOTE: All engine checks to be carried out in accordance with manufacturer's instructions. Include supplementary procedures below.						
Inspect starter battery for security, deformation, cracks, chafing leaks, oxidization, pole cover, Charge state/condition.		X				
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			
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. Replace as required. Ensure the sliding joint is free to move at exhaust manifold from cylinder 1. Lube with anti-seize or copper paste		X				
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				

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Task Description	25h	100h	Other	MM Chapter/Job Card Reference	Entry Nr in Work Report	Initials
Ensure wire locking is present on: Oil tank drain plug Oil sump drain plug Carb air filters Oil pump Magnetic plug	X	X				
Ensure choke and throttle levers move freely from stop to stop, and that turbo detent can be positively felt. Ensure cables are mechanically synchronised. Lube lever joints	X	X				
Inspect clearance between airbox (if fitted) and engine mounting frame	X	X		71-20-00 6-1		
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				
Supplementary procedure: Inspection of magnetic plug: Attach a photo of the magnetic plug before cleaning to this protocol		X				
Supplementary procedure: Inspection of oil filter: Attach a photo of the paper mesh from the cut open filter to this protocol		X				
Supplementary procedure: Refilling of oil: Record type of oil used to refill on the Supplementry Work Report		X				
Finalization Work						
Assemble the rotor system on the aircraft and lube teeter assembly through grease nipple	X	X		62-11-00 4-4		
Carry out a tool and loose article check	X	X				
Ensure all service covers are re-installed	X	X				
Securely tie down the aircraft and carry out a ground run	X	X		MM 05-60-00 AG-F-PGR-CD		
Carry out a test flight if required	X	X				
Ensure all log book entries are completed appropriately, and service record updated	X	X				
Carry out any other documentation requirements by the countries Airworthiness Administration	X	X				

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