

Ac Works nr:		MT Series 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 Sport 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		12-10-00		
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				
Measure dimension D1. Record in Work Report and ECL (AG-F-ECL). Compare with previous readings if available	X	X		08-20-00 2-1	1	
Remove and inspect all service covers/maintenance access covers/cowlings	X	X		52-40-00 2-1		
Rotor System						
Check teeter angle	X	X	14° +/-1°	62-11-00 6-4		
Remove rotor	X	X		62-11-00 4-1		
Inspect rotor	X	X		62-11-00 6-1		
Rotor system I (8.4m) or (8.0m). Disassemble rotor and inspect		X		62-11-00 4-2 62-11-00 6-2		
Rotor system II (8.4m & 8.8m) or (8.4m & 8.6m 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				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 springs for security & signs of fretting/potential breakage. MT03 only	X	X				

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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				
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 front (and rear if fitted) 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				
Inspect security of landing light shield (if fitted)		X				
Nose gear/rudder control run						
Inspect the setup of rudder and pedals		X	MTO Sport 860mm +/- 10mm MT03 920mm +/- 10mm	27-20-00 5-1		
Inspect pedals for freedom of movement.	X	X				
Ensure turnbuckle wire-locking or heat-shrink tubing is present and undamaged. Apply if not fitted	X	X				
Inspect rudder cables for fraying, corrosion, wear or chafing along complete length	X	X				
Inspect all cable pulleys for free rotation, security and wear	X	X				
Inspect rudder control cable tension		X	35lbs +/-5lbs	27-20-00 5-2		
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				
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 control system	X	X		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				

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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		
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, damage	X	X				
Inspect all 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 and hinges general condition, secure installation, damage	X	X				
Inspect all 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 the airframe for damage, malalignment or deformation.		X		53-00-00 6-1		
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-EN		
Inspect security of fuselage to frame at all attachment points	X	X				
Inspect fuselage general condition, no cracks, damage	X	X				
Ensure nose luggage access cover fitted/camlocs secure & operate correctly	X	X				
Inspect keel tube general condition, secure installation, weld seams, no cracks		X		SIL-2019-02-EN		
Inspect the engine mounting brackets general condition, no cracks or distortion		X		SIL-2019-02-EN		
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 installation	X	X				

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Inspect static ports (if fitted) 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 spar to fuselage attachment bolts individually and check for corrosion. Replace if required			Initially at 2yr, then annually (15Nm)			
Inspect landing gear spar and attachments to airframe for damage or fatigue (cracks & 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 clutch pulley alignment and condition		X		63-11-10 6-1		
Inspect security of pneumatic cylinder and mountings		X				
Inspect play of small pulley/bearing		X		63-11-10 4-2		
With belt unloaded, cycle by hand through full range. Check drive shaft joints for free movement and bearings for play	X	X				
With belt unloaded, cycle by hand through full range. Inspect drive shafts for distortion or damage	X	X				
Inspect drive belt for damage or splits	X	X		63-11-10 8-1		
Inspect belt guides and pulley brake for wear		X				
Inspect retraction spring and support for damage or cracks		X				
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 using very low friction splined shaft lubricant*	X	X	*Liquid Moly LM 47 MoS2 (45506)			
Inspect slider gaiter (if fitted) for splits/porosity, replace if required	X	X				
Inspect angle gearbox and mounting brackets general condition, secure installation, no cracks, smooth running, no leaks		X				
Inspect clearance of trim cylinder to pre-rotator drive shaft through full range of rotor head movement	X	X				
Inspect pre-rotator upper engagement. Inspect backlash.		X		63-11-30 6-1		

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Protect steel parts with chain wax, cavity spray or equivalent		X				
Rotor Head						
Inspect mast hang point bolt torques (x3)		X		62-51-00 6-1		
Inspect hang point, no deformation, no cracks (especially at welds)		X				
Inspect all hoses for leaks, correct attachment, secure. Inspect trim cylinder(s) for security, damage		X				
Ensure correct operation of roll trim (if fitted)	X	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 Work report. MTO3: 16° MTO Sport Pre GKS: 18° MTO Sport GKS: 20° Lube AG-GRS-01 (WHS2002)		X	Fwd: -1° Rear: As noted under 'Task Description' Right: 7° Left: 9°	62-32-00 6-1		
Only gimbal head II (spring washers). Measure breakout force at forward control stick grip. Adjust as required. Lube		X		62-32-00 5-1		
Inspect teeter bolt & bushes for damage, wear, corrosion. Service/lube		X				
Inspect three split pins present and secure	X	X				
Inspect rotor brake pad for function & wear		X				
Lubricate rotor brake pivot		X				
Protect steel parts with chain wax, cavity spray or equivalent		X				
Fuel System						
Inspect fuel tanks for security and correct installation. When empty they should have light movement using hand pressure		X				
Inspect fuel tanks general condition, fuel level indication (if fitted), no leaks, chafing, cracks or distortion		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 have no leaks		X				
Inspect fuel tank caps for seal deterioration & security of fit		X				
Inspect breather pipe filter for blockages		X				
Replace breather pipe filter			Recommended 3Yr or on condition			
Inspect all pipes & hoses for secure installation, presence of fire protective sleeve (if fitted), no cracks, chafing, kinks or sharp direction changes, deterioration or hardening. Ensure all rubber hoses comply with the 5 year renewal recommendation		X				
Replace nylon & KL45 fuel filter if contaminated.			Recommended	28-20-00 6-1		

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Replace as pair			500hr/3Yr or on condition	28-20-00 8-1		
Inspect and clean electric fuel pump internal filter(s) if fitted		X		28-20-00 6-1		
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				
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(s) 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				
Non water thermostat version: Ensure expansion tank is mounted 'floating' to prevent fretting/chafing. Ensure rubber protection is present on underside and check condition. Water thermostat version: Inspect 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				
Remove and inspect spinner (if fitted), inspect spinner mounting plate general condition, secure installation, no cracks.	X	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 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 lever (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				
Refit spinner (if applicable) using AG-BAS-02 Loctite 243 on the spinner fasteners	X	X				

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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				
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		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:
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The technical content of this document should be approved with the national Airworthiness Authority as required.

<p>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.</p> <p>Signature: Initials:</p> <p>Date:</p> <p>Inspector or licence number (if required): Dated:</p>	Comments:
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