

BRP-Rotax
MAINTENANCE MANUAL LINE

CHECK LIST/MAINTENANCE SCHEDULE

Identification	
AIRCRAFT	
Registration number	
Aircraft make	
Aircraft model and S/N	
Time since new	
Propeller	
Propeller brand	
Propeller model and S/N	
Governor brand	
Governor model and S/N	
ENGINE	
Engine type	
Engine S/N	
TSN (time since new)	
TSO (time since overhaul)	
Used operating fluids:	
Coolant	
• mixture ratio	
Fuel	
Oil	
• type	
• viscosity	

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Identification							
AIRCRAFT OPERATOR							
Name							
Contact							
Address							
Telephone/Fax							
E-mail							
MAINTENANCE FACILITY							
Maintenance workshop							
Address							
Telephone/Fax							
E-mail							
Certificate							
This check is applicable (circle one)	25 hr.	50 hr. ⁽¹⁾	100 hr.	200 hr.	400 hr.	600 hr.	1000 hr.
(1) leaded fuel more than 30% of operation.							
Next check due at:							hr.
(TSN _____) (engine hr.)							

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Perform the following maintenance tasks at the intervals shown in the maintenance check list.
 See Chapter 05-20-00 section 25 hr. check.

Legend: X = do the task
 blank = no task required

NOTE

*If the tasks 1-3 are correct continue with the maintenance schedule.
 If one of the tasks 1-3 is not fulfilled, the engine must be checked and repaired in accordance with the BRP Rotax instructions for continued airworthiness.*

Points of Inspection	Interval Operating hours							Chapter Reference	Signature
	25*	50	100	200	400	600	1000		
* no periodic maintenance (re-requirement after the first 25 hours of operation)									
1) General note									
All (Alert) Service Bulletins are complied with. If necessary, perform these and document their execution.	X	X	X	X	X	X	X		
All SI-PAC (Service Instruction Part and Accessories) for additional GENUINE-ROTAX® – parts and accessories used on the relevant aircraft are complied with. If necessary, perform these and document their execution.	X	X	X	X	X	X	X		
2) Differential pressure check									
Check the compression by the differential pressure method. Test pressure _____ hPa (psi)	X ⁽¹⁾		X ⁽¹⁾	X				12-20-00 Checking the compression	
Pressure drop (% or fraction)									
Cyl. #	1	2	3	4					
bar/psi									
⁽¹⁾ use of leaded fuel more than 30% of operation									

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Points of Inspection	Interval Operating hours							Chapter Reference	Signature
	25*	50	100	200	400	600	1000		
* no periodic maintenance (requirement after the first 25 hours of operation)									
3) Spark plug									
Check that resistance spark plug connectors fit tightly on the spark plugs. Minimum pull-off force is 30 N (7 lb).				X				12-20-00 Inspection of spark plugs	
Remove all spark plugs and check for spark plug defects (deposits, excessive wear melting....) Replace if defective. Check if GENUINE ROTAX® spark plugs are used.	X		X					12-20-00 Remove the spark plugs	
Replacing spark plugs. (³ use of leaded fuel more than 30% of operation)				X ⁽³⁾	X			12-20-00 Installation of spark plug	
4) Inspecting the magnetic plug									
Check the magnetic plug.	X		X					12-20-00 Inspecting the magnetic plug	
5) Inspecting the oil filter									
Remove old oil filter from engine. Cut old filter without producing any metal chips and inspect following components for wear and /or missing material. Perform filter mat inspection: Findings. _____	X	X ⁽⁴⁾	X					12-20-00 Inspection of the oil filter components	
(⁴ use of leaded fuel more than 30% of operation)									
6) Visual inspection of the engine									
General visual inspection of the engine for damage or abnormalities. Check cooling air duct and cooling fins of the cylinders for obstruction, cracks, wear and good condition. Take note of changes caused by temperature influence.	X		X					12-20-00 Visual inspection	

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	25*	50	100	200	400	600	1000		
* no periodic maintenance (requirement after the first 25 hours of operation)									
Inspect temperature sensors and oil pressure sensor for secure fit and signs of wear.	X		X						
Inspect all coolant hoses of the engine for damage, including leakage, hardening from heat, porosity, loose connections and secure attachment. Verify routing is free of kinks and restrictions.	X		X					12-20-00 Leakage check	
Carry out visual inspection of leakage bore at the base of the water pump for signs of leakage.	X		X					12-20-00 Leakage check	
Inspect the overflow bottle for damage and abnormalities. Verify coolant level, replenish as necessary. Inspect line from expansion tank to overflow bottle for damage, leakage and clear passage. Inspect venting bore in cap of overflow bottle for clear passage.	X		X					12-20-00 Overflow bottle	
Inspect all oil lines for damage, leakage, hardening from heat, porosity, security of connections and attachments. Verify routing is free of kinks and restrictions.	X		X					12-20-00 Leakage check	
Inspect all fuel lines for damage, leakage, hardening from heat, porosity, security connections and attachments. Verify routing is free of kinks and restrictions. Check steel fuel lines for any cracks and/or scuffing marks.	X		X					12-20-00 Checking the fuel lines	
Inspect the wiring and its connections for secure fit, damage and signs of wear.	X		X					12-20-00 Check of wiring	
Inspect engine suspension and fasteners (GENUINE-ROTAX®-) for secure fit, including damage from heat, deformation, cracks.	X		X					12-20-00 Checking the engine suspension	

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	25*	50	100	200	400	600	1000		
* no periodic maintenance (requirement after the first 25 hours of operation)									
Check the airbox (GENUINE-RO-TAX®-) incl. air flap actuation. Inspect sensors for tight fit, damage from heat, damage and signs of wear.	X		X						
Inspection of the GENUINE RO-TAX® exhaust system included in the standard delivery. Inspect the exhaust system for crack formation and uncharacteristic exhaust stains (leaks). NOTE <i>If there is no GENUINE ROTAX® exhaust system in use, the specifications of the manufacturer must be observed.</i>	X		X						
7) Oil change									
Drain oil from oil tank.	X	X ⁽⁵⁾	X					12-20-00 Oil change	
Check the oil tank and clean the oil tank if contaminated.	X	X ⁽⁵⁾	X					12-20-00 Clean oil tank	
Refill oil tank with approx. 3 liters of oil. For oil quality, see Operators Manual latest edition.	X	X ⁽⁵⁾	X					12-20-00 Oil change	
Install new oil filter	X	X ⁽⁵⁾	X					12-20-00 Oil filter change	
⁽⁵⁾ In case of operation with leaded fuel e.g.: AVGAS 100 LL									

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8) Auxiliary alternator									
On configurations with auxiliary alternator, check the attachment and the V-belt tension.	X		X					12-20-00 Checking the V-belt tension	
9) Checking the carburetors									
Checking the idle speed	X		X						
Checking the ventilation of the float chambers. Any trouble with the float chamber ventilation impairs engine and carburetor function and must therefore be avoided. Check that the passage of the ventilation lines is free and that no kinks can arise.				X					
Check for free movement of the carburetor actuation (throttle lever and starting carburetor). Check that the Bowden cable allows the full travel of the throttle lever from stop to stop.	X		X					12-20-00 Checking the carburetor actuation	
Removal/assembly of the two carburetors for carburetor inspection.				X				See Heavy MM Chap. 73-00-00	
Check carburetor synchronization. Mechanical and pneumatic synchronization.	X		X					12-20-00 Carburetor synchronization	
Check weight of floats.				X				12-20-00 Check the weight of floats	

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	25*	50	100	200	400	600	1000		
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10) Inspecting carburetor sockets and drip tray									
Inspect the carburetor sockets for damage and abnormalities, checking for cracks, wear and good condition. Take note of changes caused by temperature influence. See SB-912-030 — latest edition.				X				See Heavy MM Chap. 73-00-00	
11) Checking the propeller gearbox									
Checking the friction torque in free rotation on gearboxes with overload clutch. Actual friction torque _____ Nm (in. lbs)	X		X					12-20-00 Checking the friction torque in free rotation	
Check gear set (pittings).							X	See Heavy MM Chap. 72-00-00	
Check wear on tooth of overload clutches.							X	See Heavy MM Chap. 72-00-00	
Gearboxes with overload clutch Inspect overload clutch.						X ⁽⁵⁾	X	05-50-00 Checking the overload clutch; 12-20-00 Checking the propeller gearbox	
<p>⁽⁵⁾ if overload clutch part no. 996886, without lead drain holes, is installed and use of leaded fuel more than 30% of operation. Engine type - S/N equipped with overload clutch without drain holes: 912 A up to S/N 4410612 incl. / 912 F up to S/N 4412860 incl. / 912 S up to S/N 4922983 incl. / 912 UL up to S/N 4405961 incl. / 912 ULS up to S/N 9574657 incl.. Please check your Maintenance Logs to verify if the overload clutch ever got changed during Maintenance/ Service or Overhaul.</p>									
Checking the propeller gearbox without overload clutch.							X ⁽⁷⁾	05-50-00	

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* no periodic maintenance (requirement after the first 25 hours of operation)									
(7 only for engine type 912 UL/ULS /ULSFR)								Checking the overload clutch; 12-20-00 Checking the propeller gearbox	
12) Checking the cooling system									
Inspect the expansion tank for damage and abnormalities. Check coolant level, replenish as necessary. Inspect radiator cap. Inspect protection rubber on expansion tank base for correct fit.	X		X					12-20-00 Expansion tank, radiator cap	
Flush the cooling system if large deposits on the expansion tank or radiator cap and/or if the coolant manufacturer required a change interval.	when replacing the coolant							12-20-00 Flushing the cooling system	
13) Engine cleaning									
Engine cleaning.	X		X					12-20-20 Engine cleaning	
14) Checking the air intake system									
Checking the air filter	X		X					12-20-20 Checking air intake system	
15) Liquid level check									
Verify liquid level, replenish as necessary.	X		X					12-10-00 Fluid capacities	
16) Checking the idle speed									
Checking the idle speed.	X		X						

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	25*	50	100	200	400	600	1000		
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17) Engine test run									
Observe the safety instructions!									
Start the engine and run to operating temperature. Limits see Operators Manual 912 Series. Ignition check at _____ rpm engine speed. Speed drop without ignition circuit: A (Off) _____ rpm B (Off) _____ rpm A/B (difference) _____ rpm Inspect carb heat system. Activate the preheating and make a note of speed drop. Speed drop _____ rpm. Preheating "OFF", engine idle running and make a note of idle speed running _____ rpm. After engine test run, re-tighten the oil filter by hand (only at cold engine). Checks for leaks.	X		X					12-20-00 Test run of engine	
Returning engine to service On the engine identified as per Checklist , a <u>25 hr; 50 hr; 100 hr; 200 hr; 400 hr; 600 hr; 1000 hr</u> (please strike out not applicable intervals) maintenance interval was performed. Check at _____ hr. (TSN____, TSO____) was carried out according to recommendations of the engine manufacturer and was recorded in the Engine Log book. Location, Date _____ Inspector _____ Aircraft mechanic _____ Certificate No. _____									