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1.6.10.2.3 Operation limitations

	912 UL	912 S2
Engine speed:		
Maximum take-off	5800 rpm, max. 5 min	5800 rpm, max. 5 min
Maximum continuous	5500 rpm	5500 rpm
Idling	≈1400 rpm	≈1400 rpm
Cylinder head temperature	minim. 60°C maxim. 150°C	(135°C) (FLYdat CHT reading)
Oil temperature	maxim. 140°C minim. 50° C	(130°C) (FLYdat OIL TEMP reading) (50° C) (FLYdat OIL TEMP reading)
Oil pressure	optimum 90-110° C	(optimum 90-110° C) maxim. 7 bar (for a short period admissible at cold start) minim. 0,8 bar normal 2,0 ÷5,0 bar (above 3500 rpm)
Engine start, operating temperature:		max. 50° C min. -25° C
Fuel pressure:		max. 0,4 bar min. 0,15 bar

1.6.10.2.4 Fuel

912 UL/A/F (80HP)	912 ULS/S2 (100HP)
Unleaded automotive gasoline min. RON 90 - EN 228 Normal (RON 91) - EN 228 SUPER (RON 95) - EN 228 SUPER plus (RON 98)	Unleaded automotive gasoline min. RON 95 _____ - EN 228 SUPER (RON 95) - EN 228 SUPER plus (RON 98)
AVGAS 100 LL	AVGAS 100 LL
E10 (Unleaded gasoline blended with 10 % ethanol)	E10 (Unleaded gasoline blended with 10 % ethanol)

Fuelling

	Left tank (l)	Right tank (l)
The total quantity of fuel in the tank	37,5 / + 25,5	37,5 / + 25,5
Unusable fuel in the tank	1,9 / + 1,0	1,9 / + 1,0
The total usable quantity of fuel in the tank	35,6 / 60,1	35,6 / 60,1

It is recommended to empty oil immediately after engine test run or a flight when is warm and better escape the engine and the oil tank. For further information see the maintenance manual for ROTAX Engine Type 912 Serie.

3.7.2 Coolant

Refer to the Operator's Manual for all versions of ROTAX 912 engine for recommended coolant sorts. Manufacturer recommends 50% antifreeze concentrate with additives against corrosion and 50% pure water, or use of an equivalent premixed coolant. Information concerning used coolant and its characteristic is noted on fire wall. Total coolant quantity is about 1.5 litre. The coolant level in the overflow bottle should be between min. and max. mark. In case of the coolant emptying disconnect hose leading coolant from the radiator into the pump (on the lowest part of the cooling system) to empty coolant into a suitable bottle. The liquid coolant fills into the expansion tank (the highest point of the cooling system) located in the engine compartment. In addition to that an overflow bottle is attached on the firewall to absorb coolant in case engine overheating. Run engine to operating temperature and allow engine to cool down before checking coolant level. Replenish as necessary. Oftentimes make checking coolant level during the first 10 operation hours as far as the last pneumatic blebs are removed.

3.7.3 Brake fluid

Only brake fluid of J 1703c classification should be used for hydraulic brake system (sort for middle hard or hard operation). In general the certify automobile brake fluid meet needed requirements. Brake fluid refilling is necessary when a low brake system efficiency occurs due to fluid leak. The wheel brake system is filled with the brake fluid into the tank which is located on the main brake hydraulic face ram located beyond the rear frame of the baggage compartment.

Brake fluid gets thick during aeroplane operation and absorb air humidity. This is the most important condition, which causes brake system failures. There is not possible to determine time when it occurs. The best way is to precede any troubles and change brake fluid every 2 years with new one.

3.7.4 Fuel

Recommended fuel brands are listed in a table on the page 1-24.

AVGAS 100 LL use places greater stress on the valve seats due to its high lead content and forms increased deposits on the combustion chamber and lead sediments in the oil system. Thus it should only be used in case of problems with vapour lock or when other fuel types are unavailable. When the engine operating primarily (over 30% of engine operating time) on AVGAS fuel, the Rotax engine producer recommends to make a change of engine oil every 25 operation hours. (see List of periodical inspections of ROTAX 912 engine and Operator's Manual for ROTAX 912 engine)

Due to ethanol presence in E10 and its specific features it is recommended in case of expected long period aircraft sitting to drain E10 out from a tanks, refuel them with non-ethanol blended fuel and run the engine long enough to burn off E10 remaining in the fuel supply system. In the case of the long time aircraft sitting with ethanol blended fuel in the tanks, drain them out, fuel with fresh fuel and and run the engine long enough to burn off E10 remaining in the fuel supply system. Inspect the in-line fuel filter. (see Service instruction SI-912-016 R1 and R2 issued by Rotax engine producer)