

## 12) Cooling system

### 12.1) Description of the system

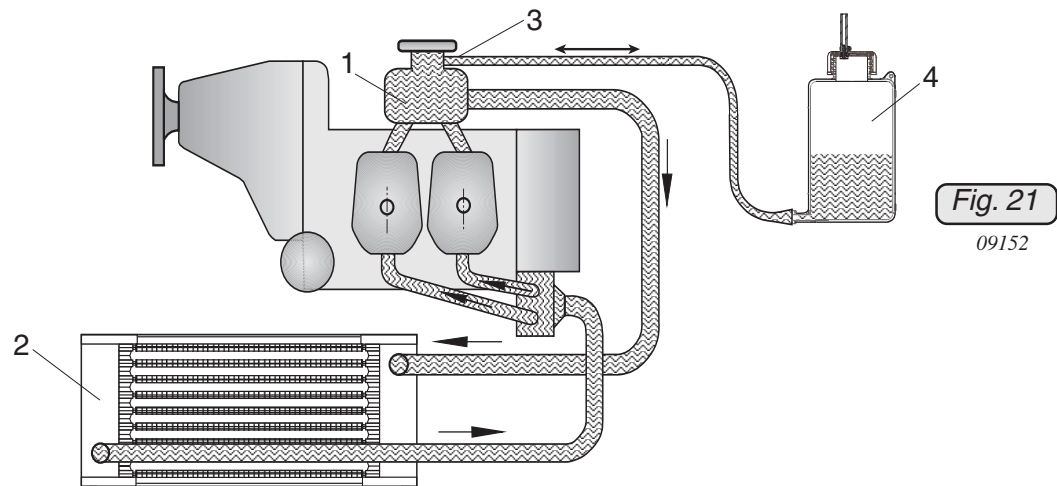
See Fig. 21.

The cooling system of the ROTAX 912 is designed for liquid cooling of the cylinder heads and ram-air cooling of the cylinders.

The cooling system of the cylinder heads is a **closed** circuit with an expansion tank and overflow bottle.

The coolant flow is forced by a water pump, driven from the camshaft, from the radiator to the cylinder heads. From the top of the cylinder heads the coolant passes on to the expansion tank (1). Since the standard location of the radiator (2) is below engine level, the expansion tank located on top of the engine allows for coolant expansion.

The expansion tank is closed by a pressure cap (3) (with pressure relief valve and return valve). At temperature rise and expansion of the coolant the pressure relief valve opens and the coolant will flow via a hose at atmospheric pressure to the transparent overflow bottle (4). When cooling down, the coolant will be sucked back into the cooling circuit.



The shape, size and location of one or more radiators depend mainly on the space available.

On good installation in the airplane the radiator by BRP-Powertrain (optional) has enough cooling capacity to keep within the normal specified operating limits. Also the flow of coolant liquid through the radiator is not restricted and the tube size is sufficient.