

ENGINE COOLING SYSTEM

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Checking the cooling fluid level

Cooling fluid absorbs the heat from the thermic group (piston, cylinder, head) and conveys it to the exterior atmosphere through radiator. For a correct operation of the cooling system it is of utmost importance the periodical check of fluid level.



The lack of the heat exchange means (water) between thermic mass and radiant mass could cause overheating of the cylinder-piston assembly with consequent seizure and, the worst, damages to the crankshaft assembly.

However if engine overheating is noticed, check that radiator is completely filled up.

Check of radiator level must be performed with cold engine (see page D.32). If for any reason you have to operate on a hot engine, take care to slowly discharge pressure.

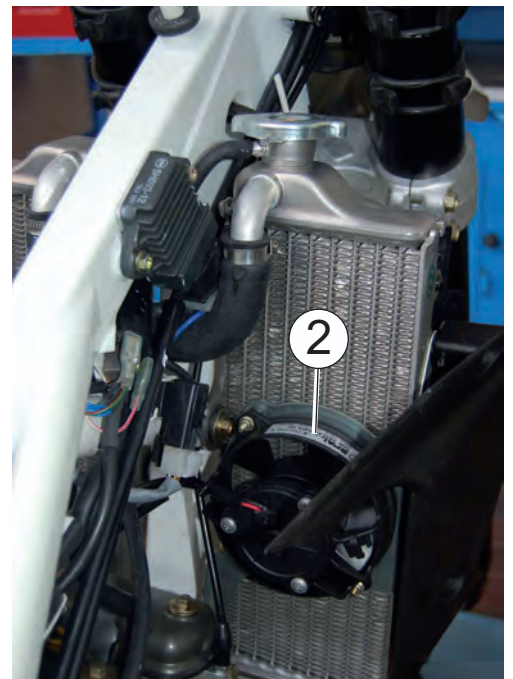
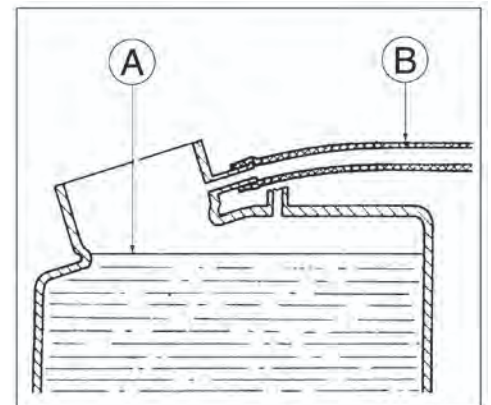
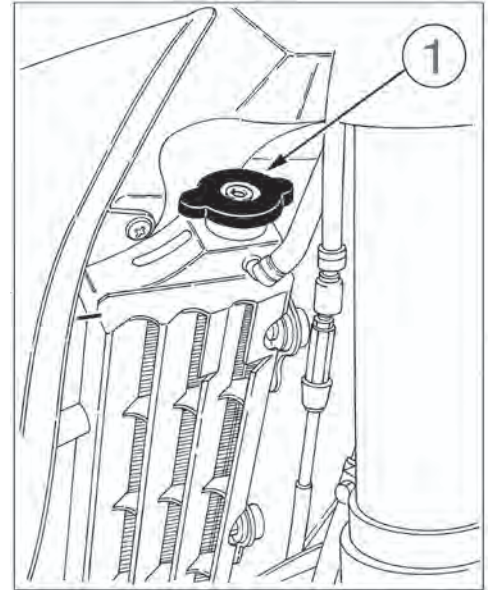
The radiator cap (1) is provided of two unlocking positions, the first being for the previous pressure discharge.

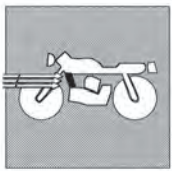


Opening the circuit without taking care of above directions could cause scalds to the operator and other people around.

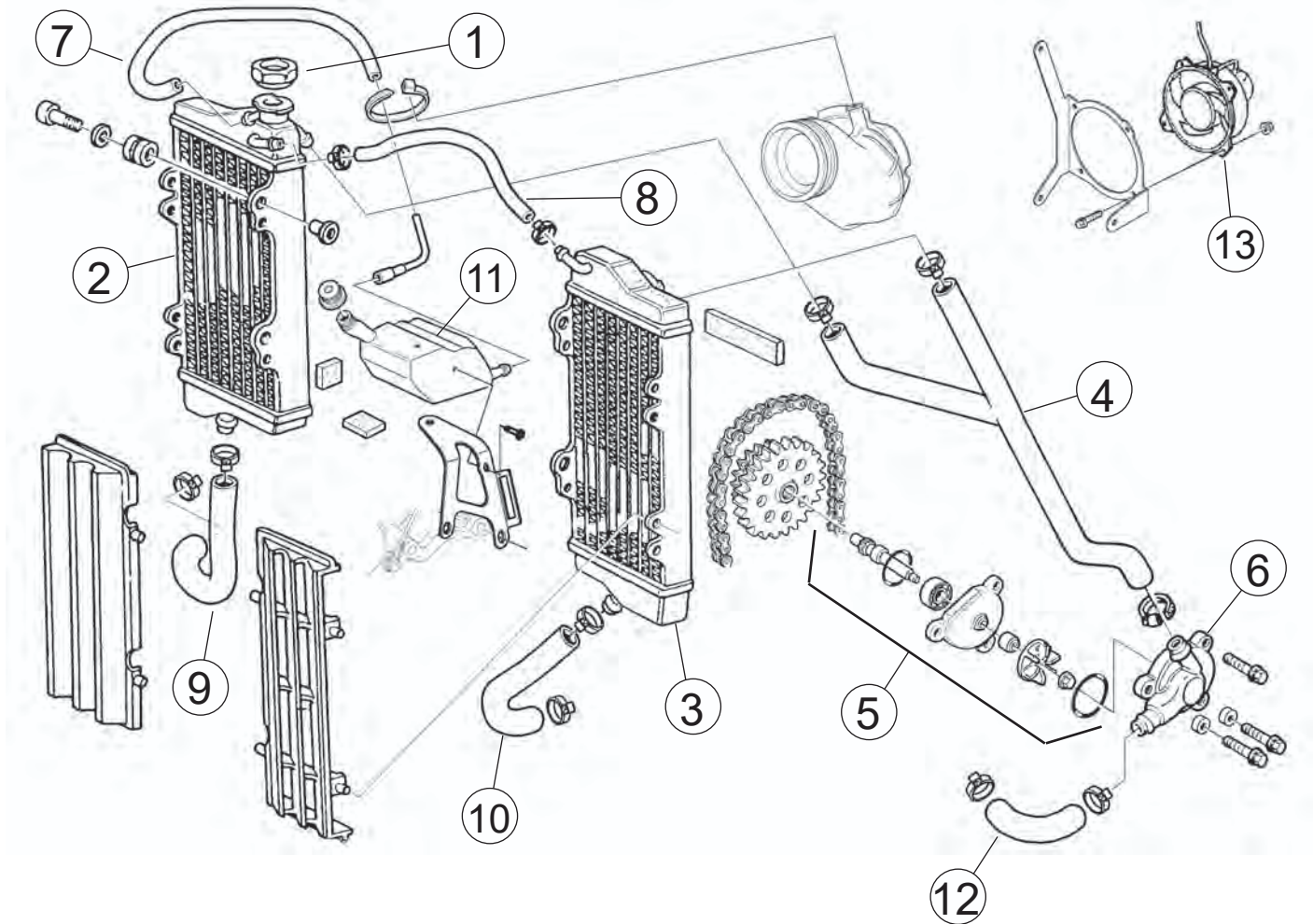
TE-SMR: Because the cooling fan (2) can be activated even when the start switch is in OFF position, always keep at a safe distance from the fan vanes.

- A. Cooling fluid level
- B. Breather hose





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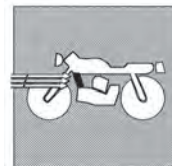


Cooling system

The cooling system is of the forced circulation type, with centrifugal pump located on the L.H. side of the cylinder head, and two coolers with vertical flow.

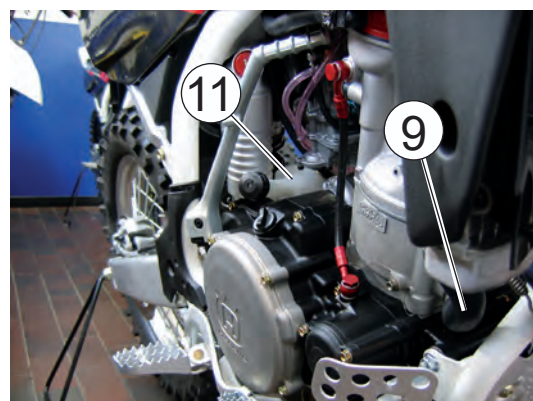
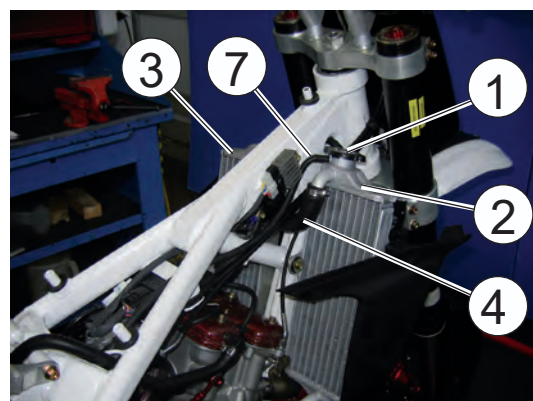
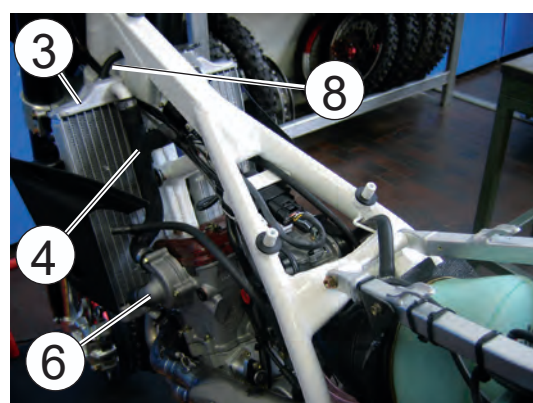
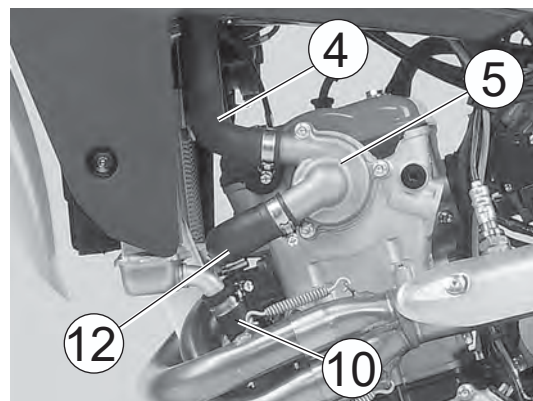
- 1- Radiator cap
- 2- R. H. Radiator
- 3- L. H. Radiator
- 4- Water pump hose - Radiator
- 5- Water pump
- 6- Water pump cover
- 7- Breather hose
- 8- Radiators hose
- 9- R.H. lower hose
- 10- L.H. lower hose
- 11- Expansion tank (TE- SMR)
- 12- Water pump hose - Cylinder head
- 13- Electric fan (TE- SMR)

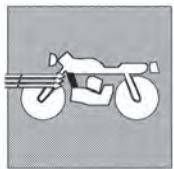




Engine cooling system overhauling

Verifying too high temperatures of cooling fluid, check the radiant mass. Whether on fins are noticed obstructions to the air flux as leaves, bugs, mud etc., carry out removal of these obstructions taking care not to damage radiator. If distortions are noticed, it is advisable to straighten them so restoring the air passage. The radiant mass has not to be clogged or damaged for more than 20% of its surface. If the damaged surface is over this limit, it shall be advisable to replace radiator. Periodically check the connecting hoses (see "Periodical maintenance card" page B.8): this will avoid coolant leakages and consequent engine seizure. If hoses show cracks, swelling or hardenings due to sheats desiccation, their replacement shall be advisable. Check the correct tightening of the clamps.





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