ENGINE, ENGINE MOUNTING AND EQUIPMENT

Radiator

Renault Trucks offer

The radiator is a heat exchanger that transfers the temperature of the coolant to the ambient air. Its purpose is to maintain the engine temperature to a correct level and ensure a maximum engine power, low fuel consumption and prevent wear of engine components.

Renault Trucks radiators are available as new parts complete (Genuine), or remanufactured (Reman), or radiator without frame

⚠ RISKS OF INSTALLING AN ADAPTABLE PART ⚠

- If a radiator does not function properly, its engine cooling capacity is insufficient and leads to the following consequences: Increased fuel consumption due to more frequent triggering of the cooling fan to ensure the required cooling effect. The untimely triggering of the cooling fan results in a decrease in engine power of up to 30 hp for the D13 and 50 hp for the D11 and D13. The decrease in engine power is compensated by an increase in engine output power, which leads to higher fuel consumption.
- Derating: for example, on the D13 engine, derating occurs as follows: - 107° C = 100% engine output power, - 110° C = 90% engine output power, - 111° C = Output power in degraded mode = 40% reduction, and if you drive at less than 3 km/h, the engine stops.

CHARACTERISTICS	ADVANTAGES
The radiator is developed jointly with the Renault Trucks intercooler to ensure optimal engine cooling.	Always ensures the required cooling function.
The Renault Trucks exchange standard radiator produces a cooling effect 28 to 29% higher than non-Renault Trucks radiators at normal engine speed.	Operational profitability and reliability.
The tinned radiator base ensures perfect sealing of the cooling pipes and is not sensitive to vibrations.	Fewer unexpected stops, better operational profitability, increased lifecycle - which translates into lower costs.
Proper cooling of the coolant.	Reduced fuel consumption and long engine service life guarantee performance.
Suitable choice of materials.	Aluminum manufacturing ensures lightness, robustness, and long service life of the component.
Manufactured according to Renault Trucks quality specifications: ▫ the cooling coil fits perfectly, ▫ the mounting points are correct, ▫ high efficiency.	Thanks to Renault Trucks specifications, you avoid: ▫ unexpected stops, ▫ avoidable damage, ▫ unnecessary costs.

Key arguments

Optimized cooling capacity

- Aluminum fins, calibrated for each vehicle.
- Brazing system to prevent heat loss.
- Use of of premium material (aluminum alloy for tubes and fins and glass-fiber reinforced polyamide for tanks) and state-of-the-art manufacturing process (brazing, crimping) to guarantee lightness, strength and maximum service life of the component
- Optimised design of tubes, louvers and fins to provide the highest level of cooling performance, preventing from engine overheating issues and fuel over-consumption due to un-desired fan engagement

A specific design for each vehicle

- Adapted cooling capacity thanks to the design of the radiator body.
- Specific frame to integrate into the engine block.

The radiator body is specifically designed to ***ensure*** optimal cooling of the coolant. The sizing of the fins enhances the performance of the heat exchanger.

The design of the frame and the plastic tanks allow the radiator to integrate perfectly into its surroundings. An adaptable part can be difficult to fit and be damaged by the elements around it, causing leaks or premature wear of the radiator.

The extra service

- 2 years warranty.
- Start & Drive contracts for worry-free maintenance.
- Typical packages to offer turnkey solutions to customers.
- 24/7 service.

A wide range of services is available:

- the Start & Drive Performance and Excellence contracts: efficient and tailor-made maintenance;
- the personalized and scalable maintenance plan: to plan the maintenance of your vehicle with complete

peace of mind;
- maintenance packages: packaged interventions with a price fixed in advance for billing without surprises;
- 24/7: for permanent mobility.

In addition, Renault Trucks, Genuine and eXchange spare parts are guaranteed for 2 years (see general warranty conditions).

Customer benefits

Serenity

- Fewer breakdowns with a radiator sized according to the needs of the engine.
- An activity guaranteed thanks to a radiator that resists over time.

Made of aluminum, the radiator body thus benefits from the lightness, strength and maximum service life of this component.

The design being adapted to the engine environment, the Renault Trucks radiator fits perfectly.
An adaptable part can be difficult to assemble and be damaged by the elements around it, causing leaks or premature wear of the radiator.

Flexibility

- The Genuine Genuine Part for New Vehicles.
- No compromise on quality for older vehicles with eXchange.

Renault Trucks offers 2 radiator options:

- the radiators Genuine: parts used as original equipment on vehicles ;
- the remanufactured radiators Reman: equivalent quality to that of a genuine part and up to 30 % cheaper.
- the unframed radiators: new parts delivered without the side-members, and providing the same cooling performance as a Genuine radiator. This offer provides access to vehicle repair at the best price, thanks to the expertise of Renault Trucks network

Economy

- No increase in fuel consumption thanks to the maintenance of cooling performance.
- No additional costs linked to an engine failure.

With an underperforming radiator (adaptable part or damaged radiator), fuel consumption increases. In fact, to overcome the underperformance of the radiator and provide the required cooling, the fan must activate more frequently. The consequence of this is to reduce the power of the engine which then compensates by an increase in the output power and therefore generates greater fuel consumption.

Ultimately, underperformance of the radiator can lead to damage that can go as far as engine breakage. The costs incurred will then be much greater than a simple radiator replacement.