



We recommend Renault Trucks Oils

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RENAULT
TRUCKS
DELIVER

ALL ABOUT AIR COMPRESSORS

RENAULT
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PRODUCT
TECHNICAL AND COMMERCIAL KNOWLEDGE

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Renault Trucks SAS with a capital of 50 000 000 € - 954 506 077 RCS Lyon - Crédit photos : © Renault Trucks - 04/2017 - C&Bproject



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FACT

The compressor is the very heart of the vehicles air system. Already at design stage the air compressor is designed to meet all air requirements of the vehicle and sized to have an optimized performance for the entire air system.

The compressor is run by the timing gears of the engine. When the engine is running, the rotation of the timing gear is transferred to a crankshaft in the compressor, which moves the piston(s) up and down.

When the piston moves downward, a vacuum is formed in the cylinder and the inlet valve opens. The compressor inducts air into the cylinder through the air inlet via the engine air filter.

The upward movement of the piston compresses the air in the cylinder and the inlet valve closes. When the air in the cylinder has reached a certain pressure, the release valve at the top of the cylinder opens. The compressed air is forced out through the compressor's outlet via the air dryer to the wet tank. The compressor is cooled and lubricated by the engine's cooling and lubrication systems.

FEATURES	BENEFITS
Developed and manufactured to meet Renault Trucks' specifications for air supply to the air suspension system.	<ul style="list-style-type: none">Ensures quick lifting time and suspension filling.Safe and comfortable ride as well as proper function of the height levelling system.
Power Reduction/Energy saving system for standard compressor.	<ul style="list-style-type: none">Supporting good fuel economy.
The clutchable compressor totally abates the crankshaft rotation during offload mode.	<ul style="list-style-type: none">Supporting good fuel economy and less piston wear compared to standard compressor.
Developed and manufactured to meet Renault Trucks' specifications on durability and reliability.	<ul style="list-style-type: none">Keeping maintenance to a minimum.
Complete maintenance and replacement solutions, ready to install.	<ul style="list-style-type: none">Minimum downtime at maintenance or replacement.



ENSURE ENGINE LIFETIME AND KEEP MAINTAINANCE TO A MINIMUM

THE PROMISE OF A GENUINE RENAULT TRUCKS PART

1 | THE RENAULT TRUCKS PERFORMANCE

- Long lifetime when maintained and operated according to Renault Trucks' instructions.
- Reliability avoiding un-planned stops.
- Correct volume of air supply in liters/minute.
- Correct air pressure level.
- Supporting good fuel economy.

2 | CLEANLINESS REQUIREMENTS

Renault Trucks compressors are designed to fulfill cleanliness specifications that ensures lifetime of the complete engine.

3 | EXTENSIVE TEST PROCEDURES

Prior to being launched to the market, the compressors are tested extensively at Renault Trucks with respect to different driving cycles and vehicle environments.

During the development stage the compressor is subjected to harsh and demanding tests to ensure sufficient durability and quality. The testing includes endurance tests, performance tests, thermo shock tests, overload tests, quality tests and last but not the least a large number of field tests.

The reason for the diverse test activity at Renault Trucks is to ensure that the compressor can endure the effects of any vehicle application from Sahara desert to Siberia snow.

AIR COMPRESSORS - HOW IT WORKS

- The air from the compressor is cleaned, filtered and dried by the air drier prior to entering the air tanks. The compressor is designed to produce up to 12.5 bars of air pressure.
- The compressor works in two phases: onload and offload. During the onload phase, the compressor builds air pressure in the system.
- When the system has been filled with air/reaches cut out pressure, the compressor enters the offload phase. Power saving can be achieved with the Renault Trucks compressors offered.

Renault Trucks offers two variants of offload systems:

1 | The power reduction/energy saving system

The power reduction/energy saving system has pneumatically actuated mechanical valves that switch the compressor to offload mode when the system pressure has reached the limit in the tanks. In the offload mode the compressor shuffles air between pistons or expands and compresses air into a closed room depending on number of pistons.

As a result of this power consumption is reduced drastically.

2 | The clutchable compressor

The clutchable compressor totally abates the crankshaft rotation during offload mode and provides further reduction in fuel consumption by using negligible power (0-0.3 kW rpm dependent) during offload mode. It provides further reduction in fuel consumption by using negligible power (0-0.3 kW rpm dependent) during offload mode.

EXCHANGE PARTS



Renault Trucks eXchange compressors is remanufactured and fully equivalent to a brand new compressor in terms of warranty, durability and quality.

Renault Trucks eXchange compressor is first stripped down to the smallest components, nuts and bolts. Then all seals, screws and worn parts are scrapped and replaced with new, Genuine Renault Trucks parts. The remaining parts are cleaned, checked against Renault Trucks' original drawings and requirement. It is then inspected to make sure that it fulfills Renault Trucks' quality specification. The genuine components that are to be reused are machined to exactly the same tolerances as a new component in a quality controlled industrial process.

RECOMMENDED ADDITIONAL PARTS

To guarantee the highest quality of the repair, and the longest lifetime of the component, it is recommended to also replace the following related parts when replacing the compressor.

- O-ring.
- Sealing ring.
- Rubber moulding.

Please refer to our parts and service information to determine the parts numbers for these related parts.

PRACTICAL ADVICE

MAXIMISE THE SALE

We also offer a suitable range of repair solutions for air compressors, like air compressor cylinder head kits and air compressor clutch kit (where applicable).

SERVICE

To guarantee the highest quality of the repair, and the longest lifetime of the component, it is recommended to have the following skills, competence, tools and equipment:

- Access and ability to use Renault Trucks recommended special tools to ensure the quality of the repair and shortest repair time.
- Ability to use Renault Trucks service information in order to be able to apply the correct and safe repair procedures.
- Use of Renault Trucks service information on all required parts needed for the repair to plan and perform the repair without waiting for needed parts.
- Follow oil drain interval according to Renault Trucks Service Information, in order to secure the quality of the air compressor, air system and the air drier.

Only by having Genuine Renault Trucks Parts fitted in a Renault Trucks workshop by a certified and fully trained Renault Trucks technician, the best possible levels of service, uptime and efficiency can be secured.

RENAULT FITTED-PART

- One year warranty.
- Fitted by Renault Trucks trained technicians.

RENAULT TRUCKS 24/7

- Professional roadside assistance 24 hrs a day, 7 days a week, 365 days a year.
- Dedicated to getting customers' trucks back on the road with minimum delay.