THE CLUTCH COMPONENTS

THE CLUTH CONSISTS
OF THE FOLLOWING COMPONENTS:

1 Driven Plate

Transmits the drive when clamped between the pressure plate and the engine flywheel.
The clutch plate is a dry plate with linings on both sides. It consists of a disc, shock absorbing springs, a hub and linings. The linings are made of asbestos-free material riveted to the disc.
The disc is connected to the hub via shock absorbing springs.
These components are intended to dampen the pulsating torque delivered by the engine. The hub is splined for attachment to the transmission input shaft.
To equalise the pressure on the linings, the disc consists of a number of steel segments. These steel segments help with smoother clutch engagement and reduce the risk of overheating.
When the driven plate rotates it turns the gearbox input shaft thus transmitting power to the gearbox.

2 Pressure Plate

Consists of a diaphragm spring which is the clamping force and steel ring which mate with the driven side of the drive plate and holds the clutch plate to the flywheel.

3 Release Bearing

Works on the release face of the diaphragm spring to disengage drive, engine to transmission.

PRACTICAL ADVICE

MAXIMISE THE SALE

Don't just sell the Clutch Kit – look for further opportunities to maximise the sale:

- Prop shaft bolts.
- Clutch cylinder.
- Cross shaft bearings.
- Flywheel bearing.

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.

ALL ABOUT THE CLUTCH

RENAULT TRUCKS DELIVER

PRODUCT COMMERCIAL KNOWLEDGE

renault-trucks.com

RENAULT TRUCKS

RENAULT TRUCKS GENUINE APPROVED PARTS

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FACT

Truck engines are becoming more powerful whilst at the same time developing greater levels of torque.
As we transmit more and more power and torque through the power-train, the clutch must not only transmit this torque but also act as a vibration damper, to smooth out the torque fluctuations produced by the engine along with the elimination of noise at idling. The consequences of a faulty clutch function can be very expensive and the inevitable unplanned stoppage.
A GENUINE Renault Trucks clutch provides protection for the rest of the powertrain and ensures the gearbox and driveline are protected from intermittent loads which may destroy the gearbox bearings and universal joints from unnecessary vibration. For the driver, a smooth gear change will result in less driver fatigue.
Renault Trucks clutch kits are a sound investment. They ensure a longer service life, resulting in less downtime due to premature clutch wear or consequential damage which could ultimately lead to extremely costly repairs from powertrain failure.

THE DIAMOND DISTINCTION

1 | Renault Trucks friction surface lining
The clutch lining must have the correct friction characteristics when engaged allowing the vehicle to move off smoothly without judder. The lining in Renault Trucks clutches is specifically selected by Renault Trucks engineers to resist wear and fade. Before a GENUINE Renault Trucks clutch is released for production, it has been through severe tests to verify its function.

2 | Renault Trucks "Longlife"
Renault extensively tests the clutch lining materials for the best chemical composition to ensure longevity. Certain clutches in the range are specifically called 'long-life' due to the organic material included in the composition which is up to 33% more durable than a standard lining.

3 | Continuous Improvement
The specification is being improved all the time to keep up with higher torque ratings. To use an inferior specification means a shorter service life, reduced protection for the power-train and premature clutch failure.

4 | Right first time repair kits
Renault Trucks clutch kits are complete with everything you need and the perfect fit to ensure a faster installation. Time is money and the possible requirement to source and purchase additional components, often the case with non-genuine, leads to an unnecessary extended repair time.

5 | Renault Trucks EXCHANGE specification
Renault Trucks EXCHANGE clutches are always re-manufactured to meet the most recent technical specification so that any part not fully complying with the quality standards for a new product is replaced with a brand new GENUINE Renault Trucks part.
During re-assembly, the same standards are applied as if it was a new product.

FEATURES	BENEFITS
Complete clutch kit ready to fit.	Minimum downtime for installation. Best protection minimises the risk of unnecessary stops.
Balanced and tested to handle torque transmission to the gearbox and provide the best protection.	Minimum risk of damage to other parts of the power-train.
12 month warranty with unlimited mileage – doubled to 24 months when fitted by a Renault Trucks dealer.	No unexpected costs – increased sense of security.
Upgrade to latest specification	Better reliability and life span.
Zink plated bolts.	Resistant against rust.
Stator windings have been coated.	Improved service. Highest comfort guaranteed when driving.

TWO PARTS MAY LOOK ALIKE BUT...

The quality of these non-genuine makes naturally varies as much as their prices but a Renault Trucks part is designed and produced to meet our requirements.
However, even if a well-known non-genuine Renault Trucks make is chosen – it is by no means certain that the clutch is tailored and to the specification of a Renault Trucks vehicle in the same way as a GENUINE Renault Trucks part.

DRIVEN PLATE
Gear Splines to Specification
- Aids gearbox installation.
- Eliminates clutch chatter.
- Eliminates input shaft damage/wear to splines and bearings.
- Allows for longitudinal movement to prevent clutch stick.

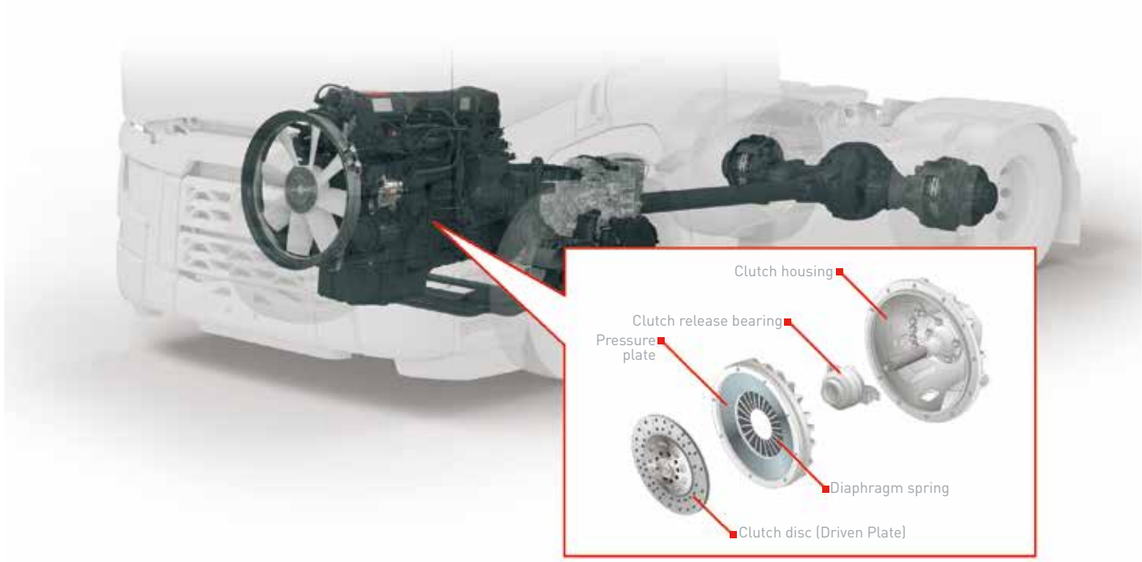
Tortional (Shock Absorbing) Springs
- Tuned to individual engine specification – matched to torque.
- Eliminates mechanical rattle at idling speed.

PRESSURE PLATE
Diaphragm Spring
- Provides correct engagement and clamping force.
- Matched to driven plate friction material.
- Greater capability match to the engines torque – providing safety factor.
- Balanced as an assembly to ensure vibration free and smooth clutch operation.

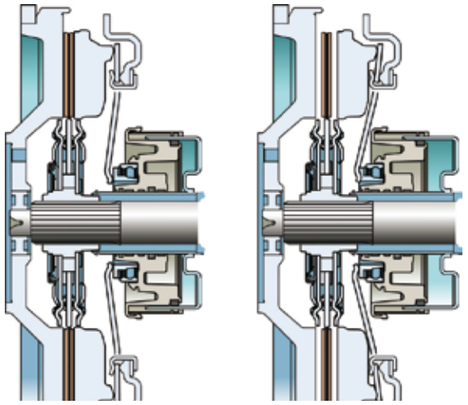
Tortional (Shock Absorbing) Springs
- Maintenance free design.
- Guide spring for ease of installation.

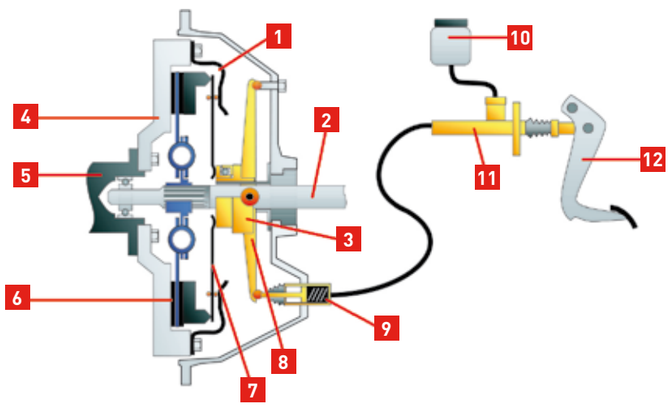
THE CLUTCH – HOW IT WORKS

The clutch has the task of delivering the torque and power from the engine to the transmission – it will also disconnect the engine from the gearbox and the rest of the transmission system when needed. The clutch also evens out variations in torque from the engine and gives the engine smooth, gentle starts and snatch-free gear changes.



The mechanical clutch consists of a pressure plate that presses the driven plate against the flywheel. The clutch may consist of a single disc or a dual disc. When the clutch consists of two discs, a so called twin-disc clutch, there is an intermediate ring fitted between the discs.
When the vehicle is running, the disc is pressed tightly against the flywheel by the pressure plate. The pressure plate, which is a steel ring, gets its pressure from a diaphragm spring.
When the clutch pedal is pushed down, the release bearing works on the diaphragm spring and frees the driven plate from the pressure plate and flywheel, consequently the connection between engine and transmission is freed.





1 Pressure plate
2 Gearbox input shaft
3 Release bearing
4 Flywheel
5 Engine crankshaft
6 Driven plate
7 Diaphragm spring
8 Release fork
9 Slave cylinder
10 Fluid reservoir
11 Master cylinder
12 Clutch pedal