

FACT SHEET

CAB VERSION

FM-CREW FM Crew cab



FM crew cab is developed for public service utility vehicles such as fire trucks. It features seat configurations up to nine fire fighters, according to EN1846. The crew cab shares many components with the other FM cabs.

The cab is tailored for demanding public service utilities and features preparations that dramatically will reduce the lead-time at the body builder. The cab offers a very high level of comfort with an ideal driving position, anatomically designed seats, low noise level, high-capacity climate control system and a world-class safety level. The interior height is 160 cm in the front part (112 cm on the engine compartment cover), and 163 cm in the rear part.

The windscreen is bonded to the body, which means less risk of wind noise and better crash protection. The sky window, or roof hatch, is not only intended for ventilation, it is also an escape route.

The crew cab has been designed with focus on ergonomics and working conditions. The cab has a modern interior with materials that are durable and easy to maintain, and offers space for driver plus up to eight passengers. Much effort has been spent on choosing materials that minimize gas emissions from the interior fittings and reduce the risk of contact

allergies.

The cab is crash-tested according to ECE R29-03 and has an injury-preventive design using energy-absorbing materials. The cab sections are made of galvanised sheet metal that provides good basic protection against corrosion.

FEATURES AND BENEFITS

- Optimized chassis packing to keep the body builder lead-time to a minimum.
- Interior cab functions prepared for body builder.
- Interior space to allow for up to nine fire fighters.
- Ergonomics with fire fighters in focus.
- Cab impact tested according to ECE R29-03.
- Compliant with EN1846.
- Volvo bench and Volvo seats, and safety belts installations are certified.
- Bostrom as well as Rosenbauer seats and safety belts have undergone certification tests.

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Low and convenient entry

Safety and ergonomics have been in focus when designing the FM crew cab, and it has been designed from the fire fighter's perspective.

Entry into the Volvo cab is low, with anti-slip dark coloured steps made of robust plastic featuring a wear resistant solution. There are different numbers of steps, and their type depends on the axle configuration and chassis height.

All entries (front and rear) have lights in the steps, and ergonomically designed grab handles on both sides of the door opening, making the entry even more convenient and safe.

The rear door grab handles are very easy to spot thanks to the orange colour. The inside roof grab handles are also orange, and have integrated uprights as well as night light controlled by the driver.

Seat configurations

FM-CREW is prepared for a wide variety of seat configurations. The crew cab comes without seats in the rear as standard, but has several optional seat configurations available from factory or prepared for mounting at the body builder.

The rear part of the cab comes without seats or safety belts as standard, but can be equipped with Volvo bench or Volvo comfort seats, including safety belts, as option.

The cab can also be prepared for installation of Bostrom or Rosenbauer seats, but the seat installation must be done by the body builder.

Adjustable steering wheel for an ideal driving position

The angle and height of the steering wheel column, as well as the tilt of the steering wheel, can be adjusted with a foot pedal to the left of the steering column. The height adjustment range is 90 mm and the column's tilt angle range is 28°. The steering wheel tilt angle is 20°. The steering wheel is available with or without an airbag. Integrated controls in the steering wheel provide safe and comfortable operation of cruise control, phone and radio functions, and the menus in the instrument display and side display.



Clear instrumentation

The instrument panel offers a good overview and is designed to ensure that the driver obtains the right information in every situation. The cab's instruments have a logical design with convenient and easy-to-use controls. Driver information is provided via two clear displays on the instrument panel – an instrument display in front of the driver and a side display on the central part of the instrument panel (option). Dynafleet, navigation and the audio system are fully integrated in the instrumentation (option).

Perfect visibility

The driver has very good all-round vision through the large windscreen, large rear-view mirrors and close-view mirrors for the front and on the passenger side. The mirror housings are ultra-slim, providing a very wide area of vision with minimum blind spots. The front corner blind spot can be viewed in the side display via a passenger corner camera (BLVS-CP, option) placed in the mirror bracket at the passenger side. The instrument panel slopes downward to the windscreen and thus improves close-quarter visibility.

The effective main headlamps provide a concentrated, long-range beam of light. LED headlamps are offered as an option.

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Functional interior with good storage facilities

The sun visor is integrated in the space above the windscreen and can be either manually or electrically controlled. A cup holder and smaller storages are also integrated in the instrument panel. Storage compartments on the engine tunnel are available as options.

The rear part of the cab has different storage possibilities, which depend on the chosen seat type. There are net pockets for helmets below the fixed bench (when the Volvo bench is ordered).



Pleasant working environment with low sound level

Cab insulation reduces temperature losses in both cold and warm climates and helps to maintain a comfortable temperature for the driver. It also reduces the noise level in the cab during working and resting times.

The climate system is fully integrated in the truck's ventilation system. This means that hot or cold air is evenly distributed in the cab. There is a choice of two alternative climate

systems in the front:

- Air conditioning with manual temperature control.
- Air conditioning with automatic temperature control.

There are also optional climate systems in the rear part of the cab:

- Roof-mounted air conditioning unit.
- Separate parking heater.



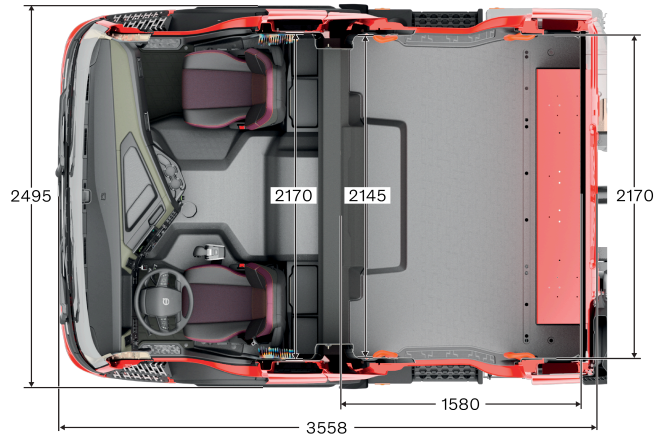
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FM-CREW FM Crew cab

Chassis

The chassis has been designed with the body builder in focus. All chassis-mounted components in the wheelbase area have been repositioned so that no components are located behind the rear cab wall, meaning that the chassis preparation at the body builder has been reduced to a minimum.



Electrical

Fire trucks are very complex when it comes to controls and functions, which means that the body builder interface must be very well-defined and easy to connect to. The crew cab is prepared with wires for all integrated functions as well as prepared with wires for the body builder to use.

Well-defined connection points, and empty corrugated hoses for body builder wires, will reduce the need to dismount interior panels for body builder wiring.

SPECIFICATION

Designation.....	FM-CREW
Truck model.....	FM
Axle configuration.....	4x2/6x2/6x4/8x4
Cab type.....	Crew cab
Door opening angle, front.....	82°
Door opening angle, rear.....	78°
Fuel tank in aluminium with FUELTS71.....	LFUEL210
Fuel tank in aluminium with FUELTS56.....	LFUEL160
AdBlue tank volume.....	17 litres

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Option sales variants

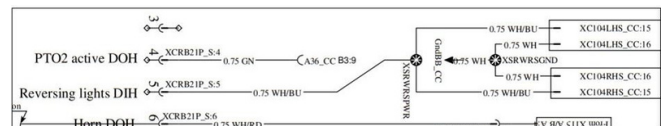
- 21PIN** Additional body builder interface.
- AC2KW** 2 kW air conditioning in rear part of cab.
- FOLDSTEP** Foldable footsteps in rear part of cab.
- MIDPREP** Preparation for additional rearward facing middle seat, incl. bipacked seat belt.
- PH-CABR** Separate PH-CAB2 in rear part of cab.
- SWS** Steering wheel switches.
- 3BENCH** Volvo bench in rear for three passengers.
- 4BENCH** Volvo bench in rear for four passengers.
- 3SEAT-VT** Three Volvo seats in rear with SUPH-VT.
- 3SEAT-L1** Three Volvo seats in rear with SUPH-L1.
- 3BOSTROM** Prepared for three Bostrom seats in rear.
- 4BOSTROM** Prepared for four Bostrom seats.
- 3NONSCBA** Prepared for three Rosenbauer Non-SCBA seats.
- 4NONSCBA** Prepared for four Rosenbauer Non-SCBA seats.
- 3SCBA** Prepared for three Rosenbauer SCBA seats.
- 4SCBA** Prepared for four Rosenbauer SCBA seats.
- RBI2BELT** Prepared for two Non-SCBA + two SCBA seats.
- PTO-HT16** High Torque PTO, max output 1600 Nm with output ratio 1:1.54
- PTO-HT20** High Torque PTO, max output 2000 Nm with output ratio 1:1.21

21PIN

Body builder interface with hard wired cables routed to a 21pin connector, located under the dashboard.

Pin	Signal	Signal type	
1	Engine running D+	24V DC	DOH
2			
3			
4	PTO2 (engine mounted) active	24V DC	DOH
5	Reverse lights to mirrors 10A (max)	24V DC	DIH
6	Horn (bridged for production, 6-7)	24V DC	DOH
7	Horn (bridged for production, 7-6)	24V DC	DIH
8			
9			
10			
11	Ignition	24V DC	DOH
12	Ground (GND)	GND	DOL
13	Central locking - lock	Pulse	DOL/DOH
14	Central locking - unlock	Pulse	DOL/DOH
15	Starter motor inhibit	24V DC	DIL
16	Starter motor inhibit	GND	DOL
17	Parking light	24V DC	DOH
18			
19			
20	BBM CAN High	CAN	
21	BBM CAN Low	CAN	

DI H — Digital input high level +24 V. (B3:16 should be used as voltage source for these inputs)
DI L — Digital input low level (ground).
DO H — Digital output high level +24 V.
DO L — Digital output low level, (ground when active).
FI — Frequency input
AI — analogue source
AO — analogue output
PWM — Pulse width modulated signal



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AC2KW

2 kW air conditioning in rear part of cab, which is controlled by rear part passengers.



FOLDSTEP

Makes the entry/exit to the rear part of the cab very ergonomic. The lower footstep folds out automatically when the rear door opens, and retracts automatically when the rear door closes.

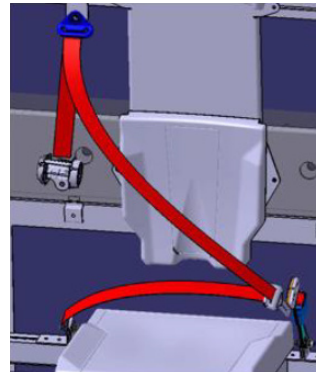
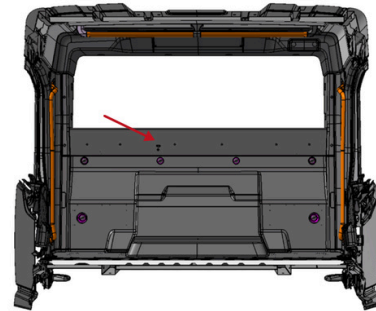


Convenient entry.

MIDPREP

Front part of the rear cab middle wall cover is prepared for one additional seat belt. Preparation certified according to:

- ECE R14 - Safety belt anchorages.
- ECE R16 - Safety belts.



NOTE! Seat belt and belt lock bipped, and has to be mounted by body builder.

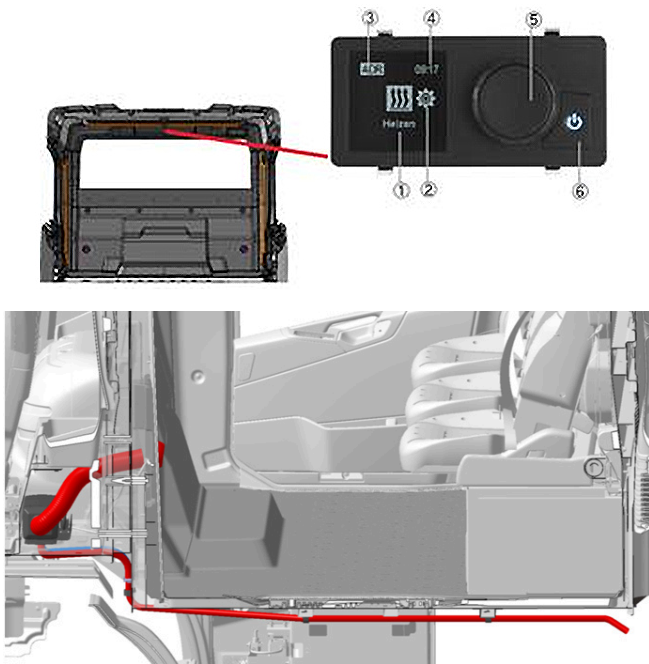
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PH-CABR

Separate PH-CAB2 to also get comfortable climate in rear cab part. Controlled via separate control panel located in upper middle wall.



Air outlet kit bippedack, with body builder instructions how to mount.

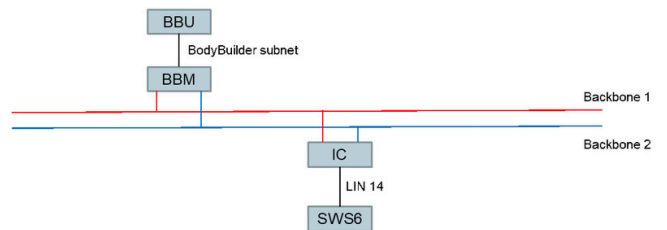
SWS

Switches on steering wheel can be used for body builder functions, switch status on body builder subnet.

Functions to be decided by body builder, e.g.:

- Siren.
- Blue beacon light.
- Flashing front light.
- Radio communication.
- Etc.

Decals on SWS to be done by body builder, depending on switch function.



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3BENCH

Three passengers bench, incl. safety belts. Safety belts without pretensioner. Bench and back rests in robust vinyl upholstery for easy cleaning. Net pockets for helmets, water bottles, or other equipment under the bench.

Pockets size:

- Width 356 mm.
- Height 270 mm.
- Depth 203 mm (but outer two pockets are 520 mm deep in the 150 mm outer part of the boxes).

Bench installation certified according to:

- ECE R14 - Safety belt anchorages.
- ECE R16 - Safety belts.
- ECE R17 - Strength of seats.



3BENCH

4BENCH

Four passengers bench, incl. safety belts. Safety belts without pretensioner. Bench and back rests in robust vinyl upholstery for easy cleaning. Net pockets for helmets, water bottles, or other equipment under the bench.

Pockets size:

- Width 356 mm.
- Height 270 mm.
- Depth 203 mm (but outer two pockets are 520 mm deep in the 150 mm outer part of the boxes).

Bench installation certified according to:

- ECE R14 - Safety belt anchorages.
- ECE R16 - Safety belts.
- ECE R17 - Strength of seats.



4BENCH

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3SEAT-VT

Three Volvo seats with safety belts. Safety belts without pretensioner. Same upholstery as front seats, SUPH-VT.

Seats installation certified according to:

- ECE R14 - Safety belt anchorages.
- ECE R16 - Safety belts.
- ECE R17 - Strength of seats.



3SEAT-L1

Three Volvo seats with safety belts. Safety belts without pretensioner. Same upholstery as front seats, SUPH-L1.

Seats installation certified according to:

- ECE R14 - Safety belt anchorages.
- ECE R16 - Safety belts.
- ECE R17 - Strength of seats.

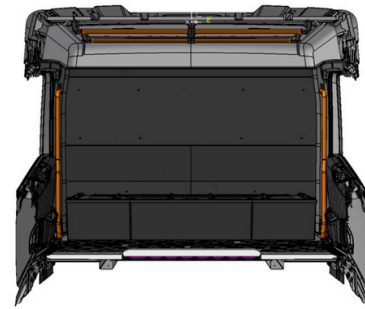
3BOSTROM

Prepared for three Bostrom seats.

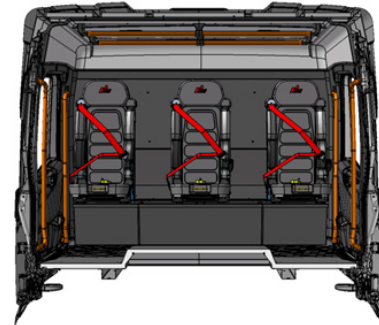
Preparation certified according to:

- ECE R14 - Safety belt anchorages.

Picture shows preparation from factory.



NOTE! Bostrom seats must be mounted by body builder and NOT by Volvo, according to picture below.



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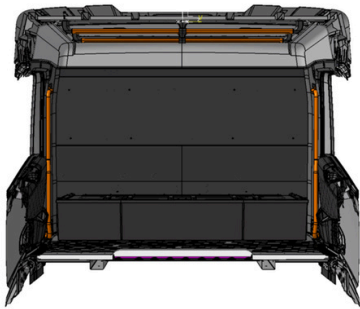
4BOSTROM

Prepared for four Bostrom seats.

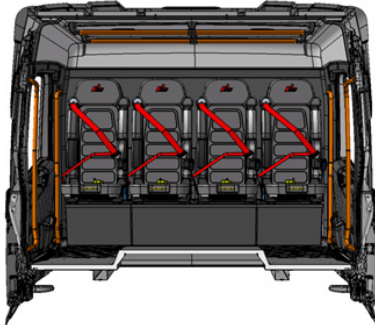
Preparation certified according to:

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Picture shows preparation from factory.



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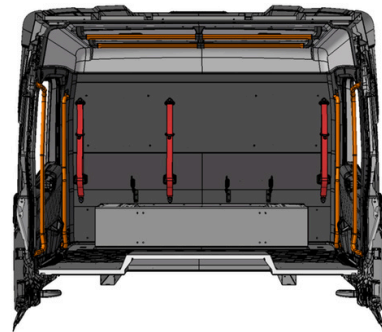
3NONSCBA

Prepared for three Rosenbauer Non-SCBA seats in rear row.

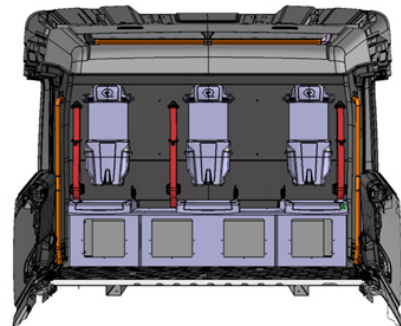
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- ECE R16 - Safety belts.

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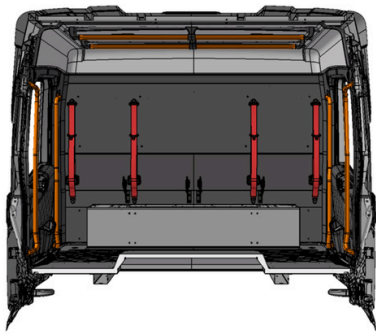
4NONSCBA

Prepared for four Rosenbauer Non-SCBA seats in rear row.

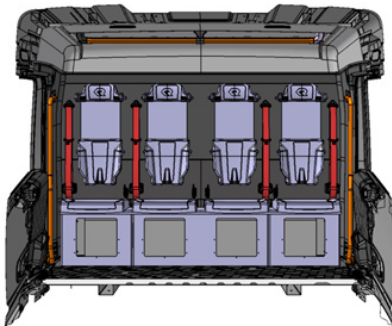
Preparation certified according to:

- ECE R14 - Safety belt anchorages.
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Picture shows preparation from factory.



NOTE! Rosenbauer seats must be mounted by body builder and NOT by Volvo, according to picture below.



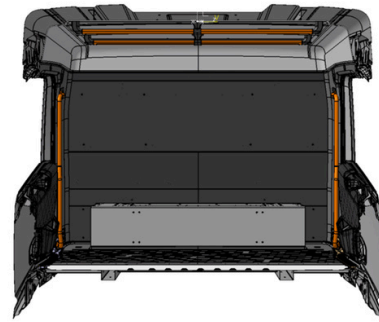
3SCBA

Prepared for three Rosenbauer SCBA seats in rear row.

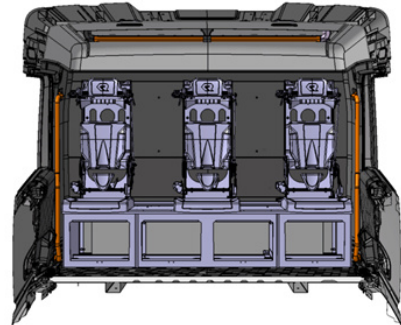
Preparation certified according to:

- ECE R14 - Safety belt anchorages.

Picture shows preparation from factory.



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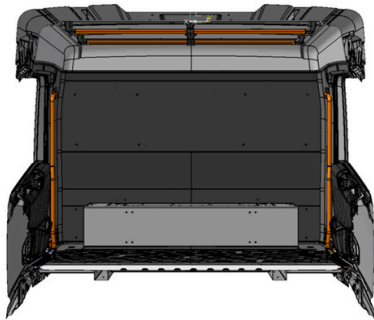
4SCBA

Prepared for four Rosenbauer SCBA seats in rear row.

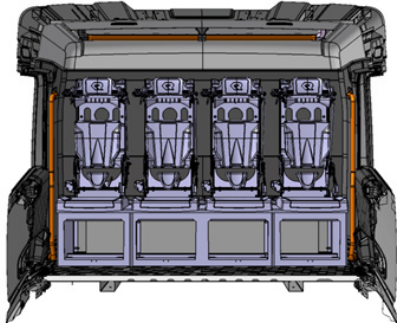
Preparation certified according to:

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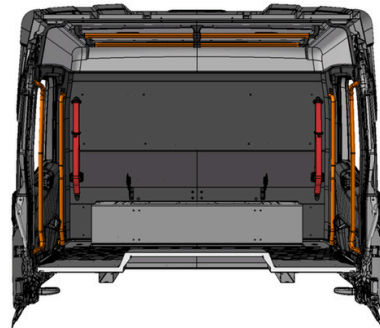
RBI2BELT

Prepared for two Rosenbauer SCBA middle seats and two Rosenbauer Non-SCBA outer seats in the rear row.

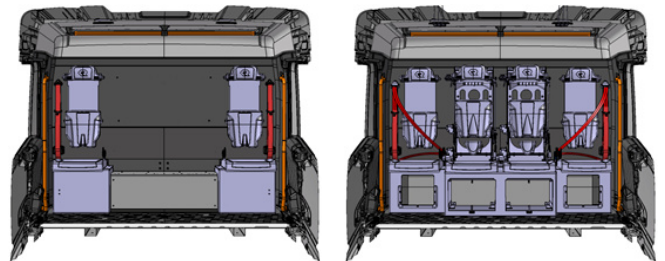
Preparation certified according to:

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- ECE R16 - Safety belts.

Picture shows preparation from factory.



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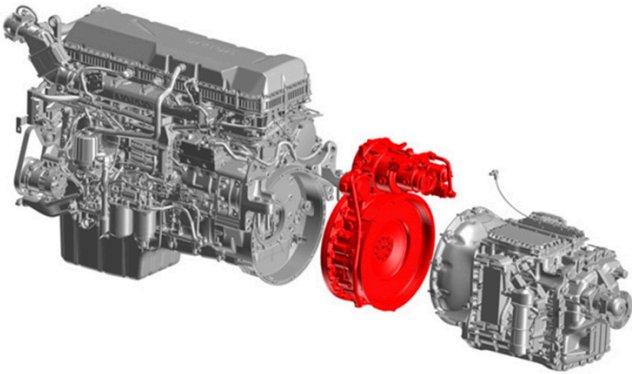
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PTO-HT16

High Torque PTO, max output 1600 Nm with output ratio 1:1.54.



PTO-HT20

High Torque PTO, max output 2000 Nm with output ratio 1:1.21.

