

C 303

Volvo Cross Country



...then your vehicle is the Volvo C 303.

The Volvo C 303 is a vehicle that has been specially designed for advanced military and civilian cross-country transportation purposes. Further to this the Volvo C 303 also gives excellent riding comfort when running on ordinary road surfaces. A good deal of well thoughtout technical features have given the Volvo C 303 these excellent properties.

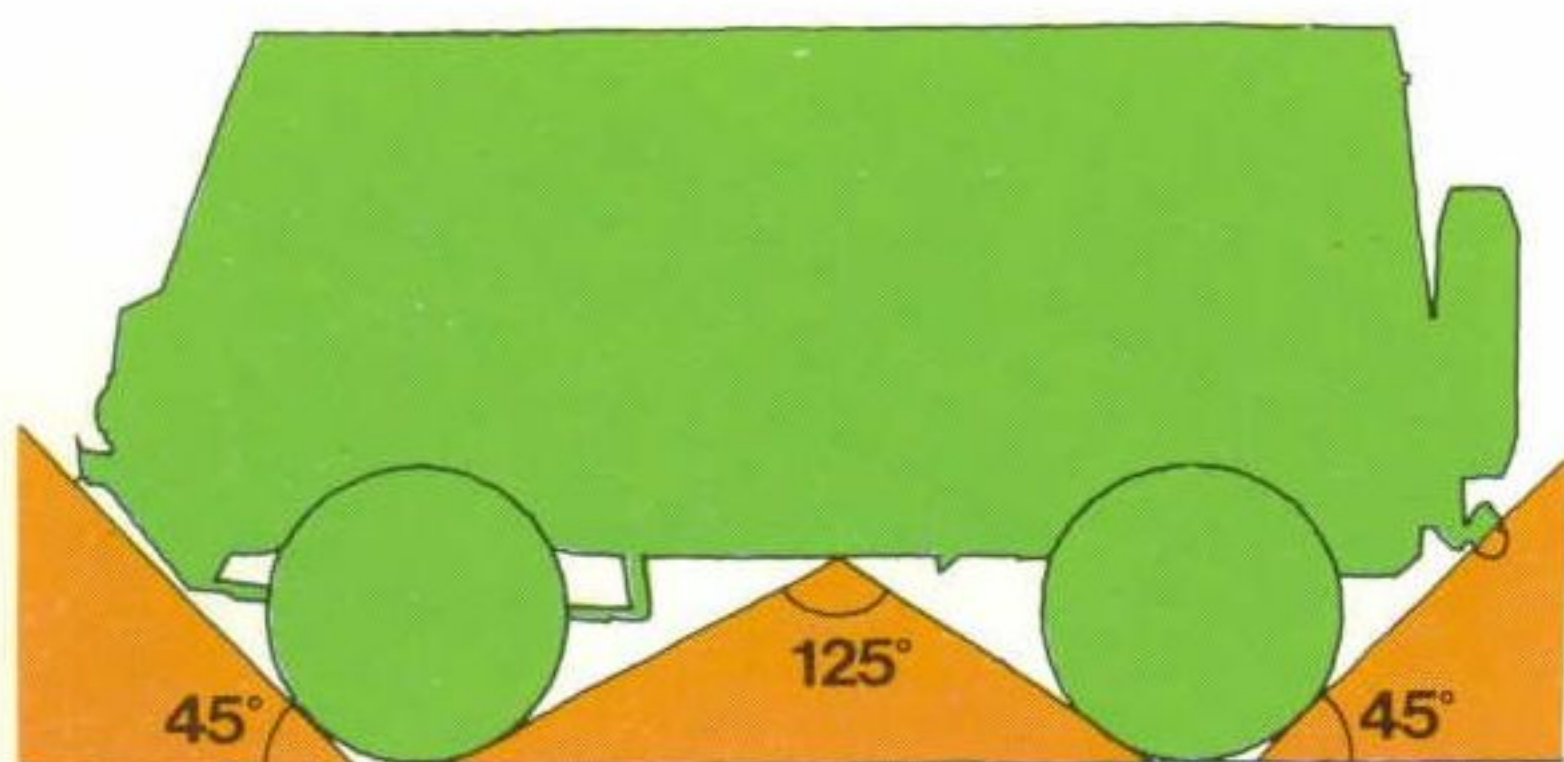
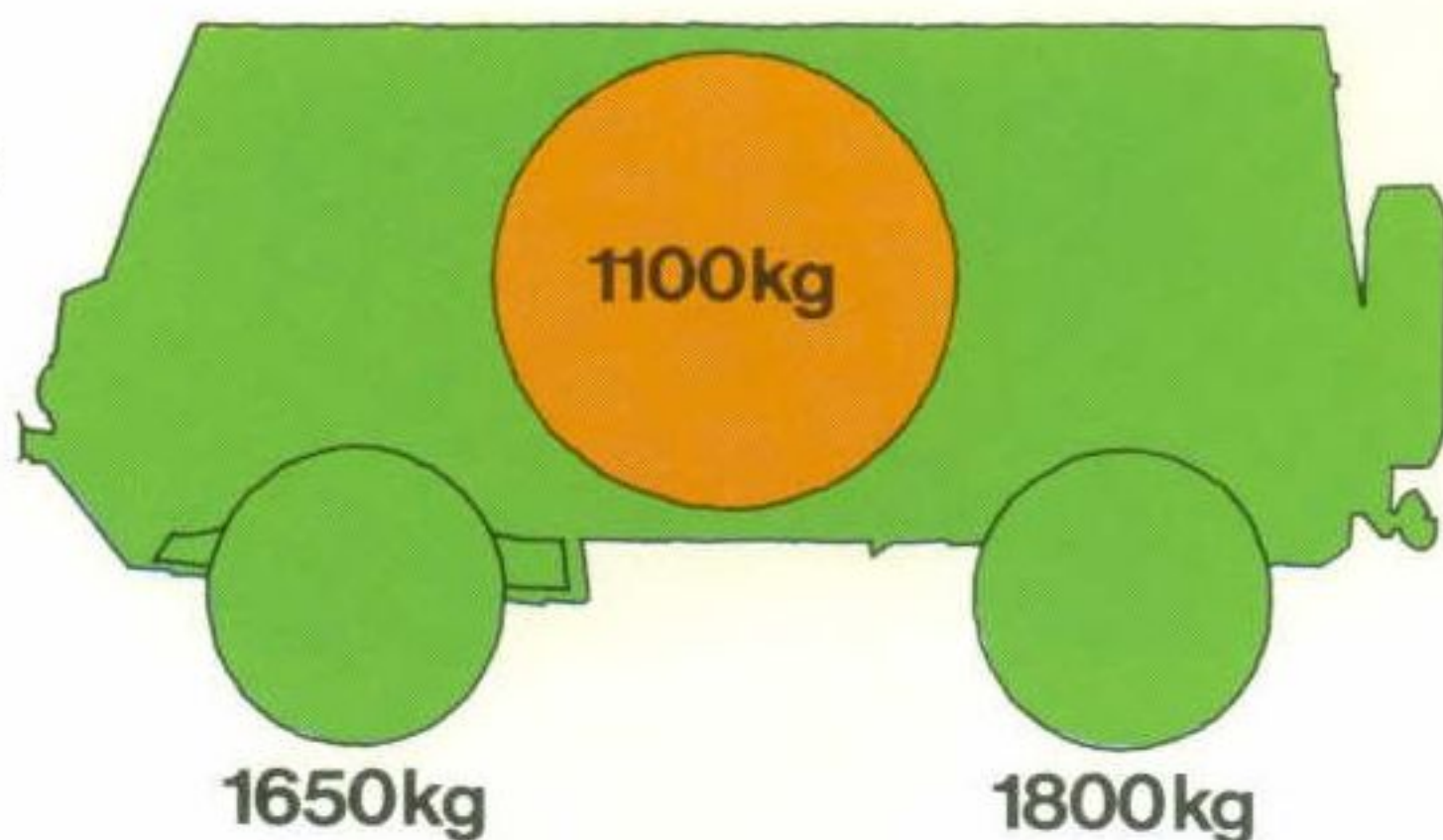




Ideal weight distribution and low specific ground pressure

Thanks to the central engine and the location of passengers and/or cargo directly above and between the axles the Volvo C 303 has an ideal weight distribution, both empty and loaded – 1300/1000 kg and 1650/1800 kg respectively.

The even distribution of weight is of decisive importance with regard to traversability on sand and marshy ground, etc. The 280/85 × 16 low pressure tyres give extremely low ground pressure – only 0.8 kg/cm² with a full load. From the point of view of comparison it can be mentioned that a man weighing 75 kg has a ground pressure of about 0.3-0.4 kg/cm².

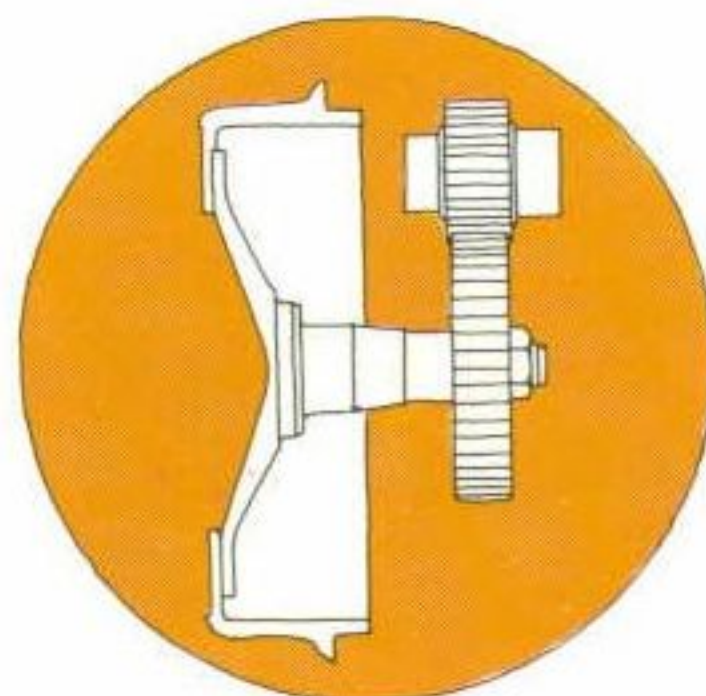
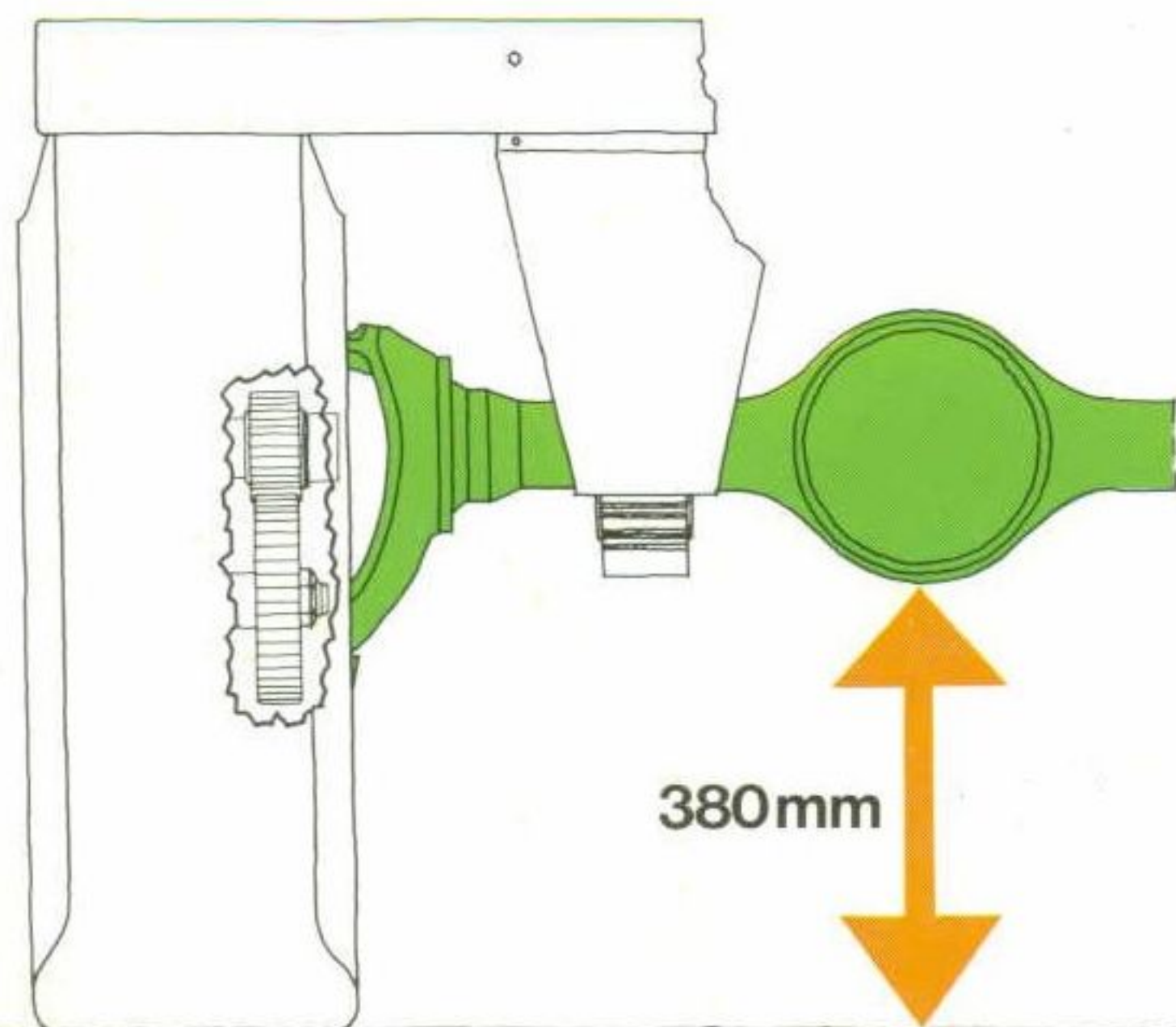


Favourable angles

The angles of approach and departure and the belly angle are extremely great due to the short overhang and the good ground clearance.

High ground clearance

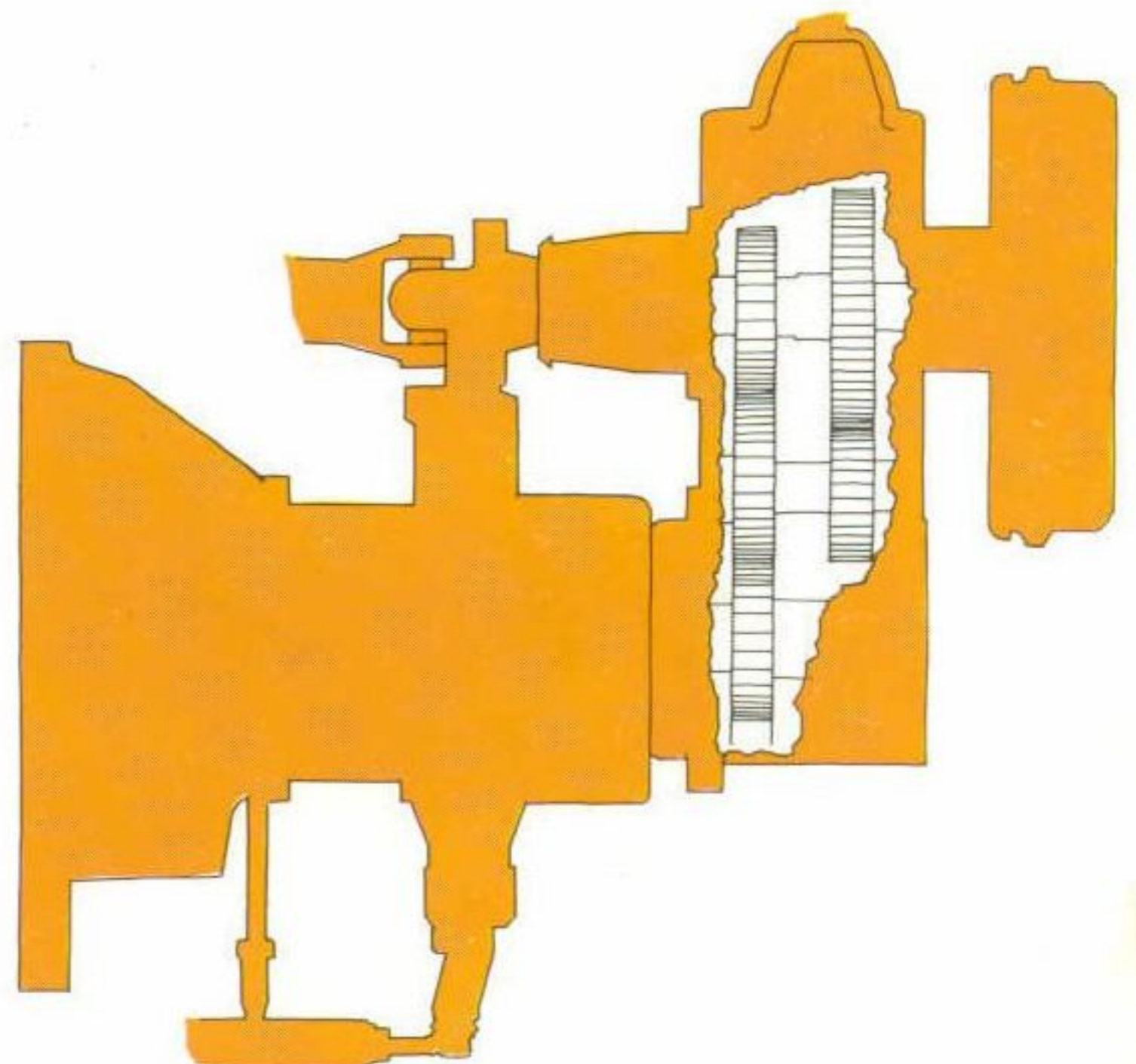
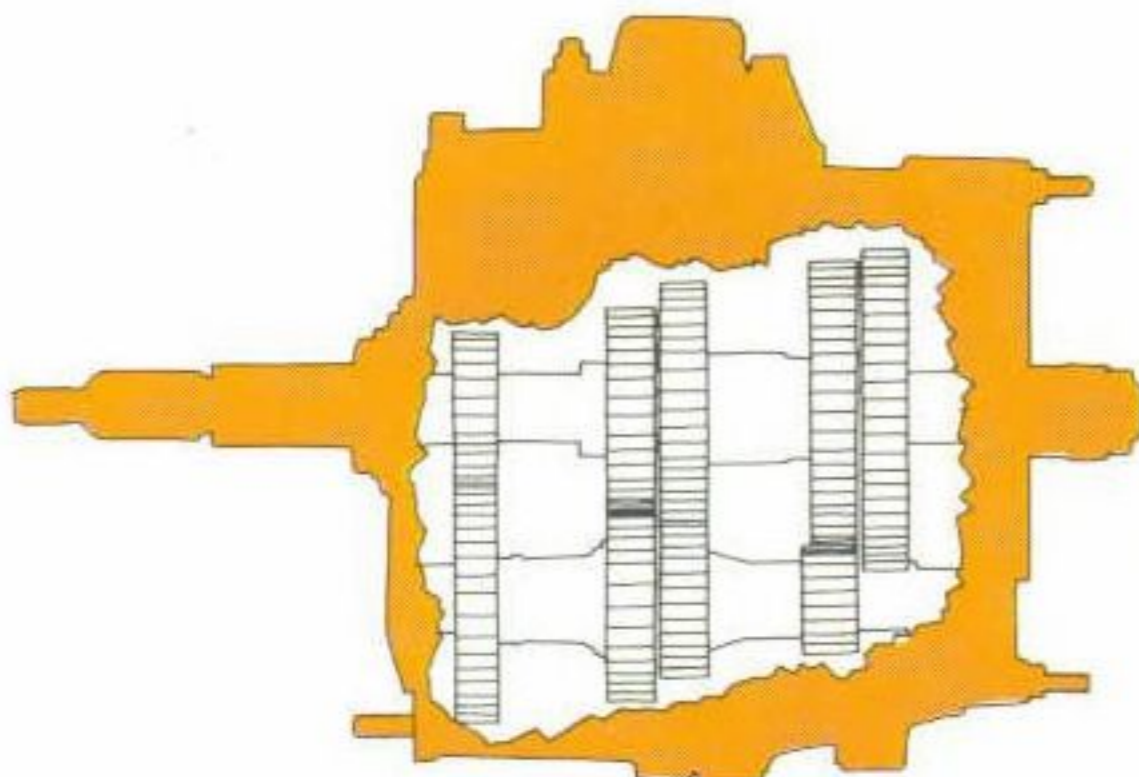
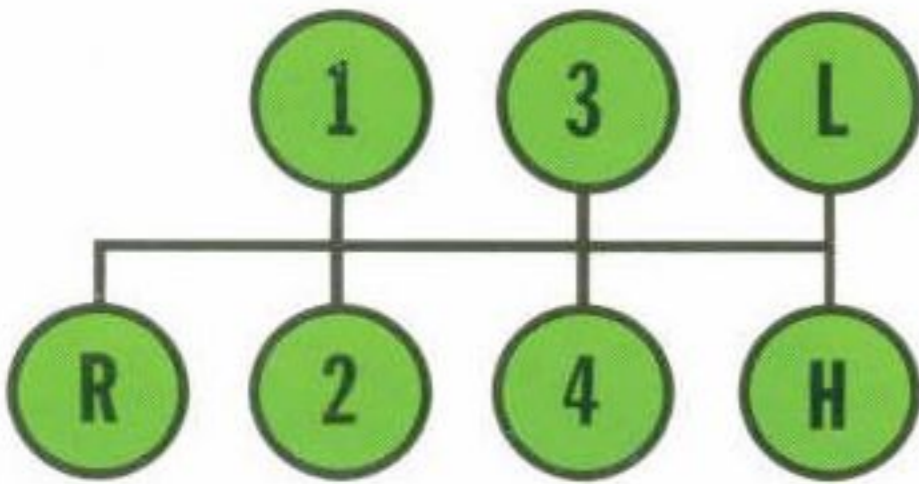
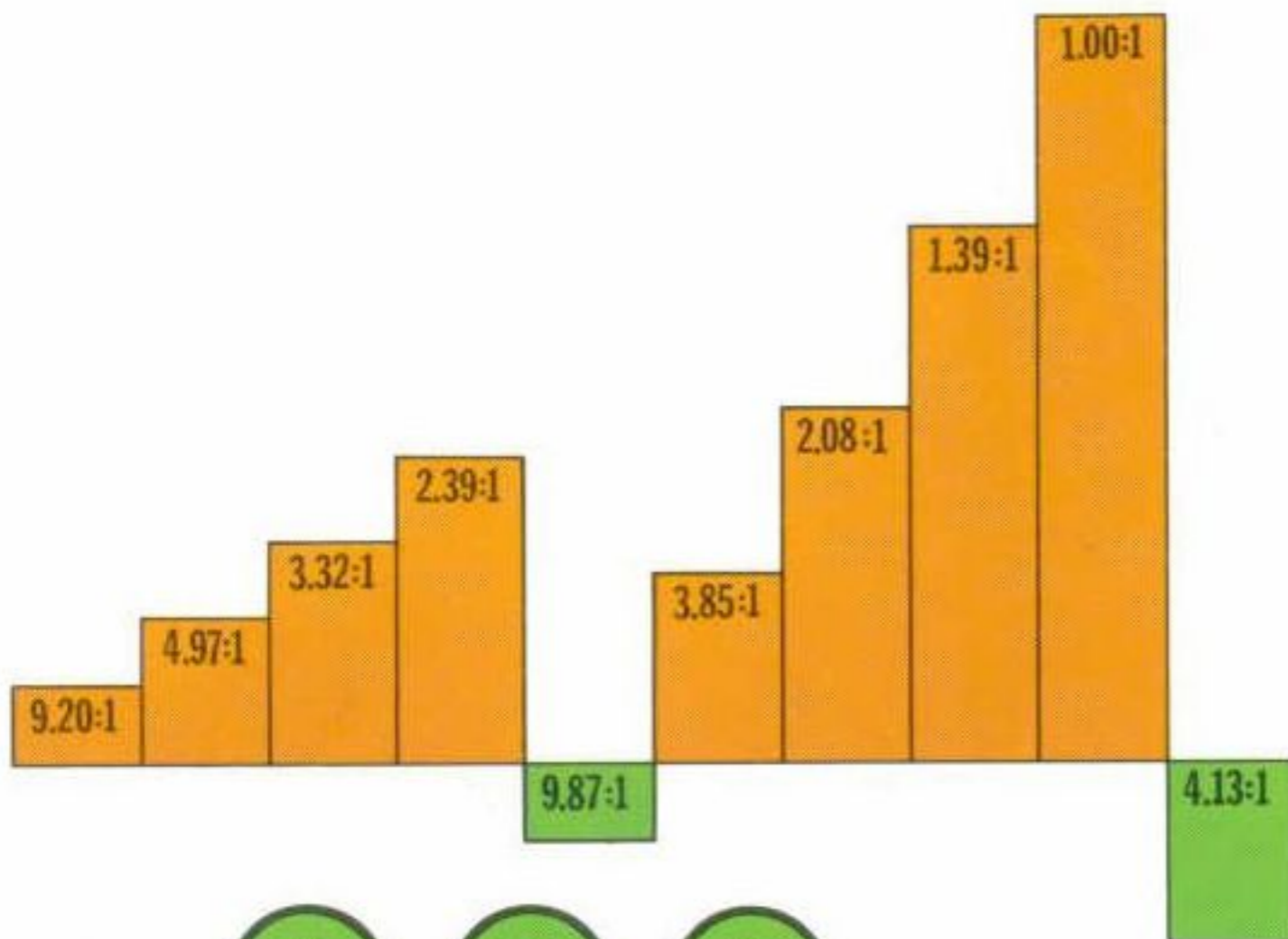
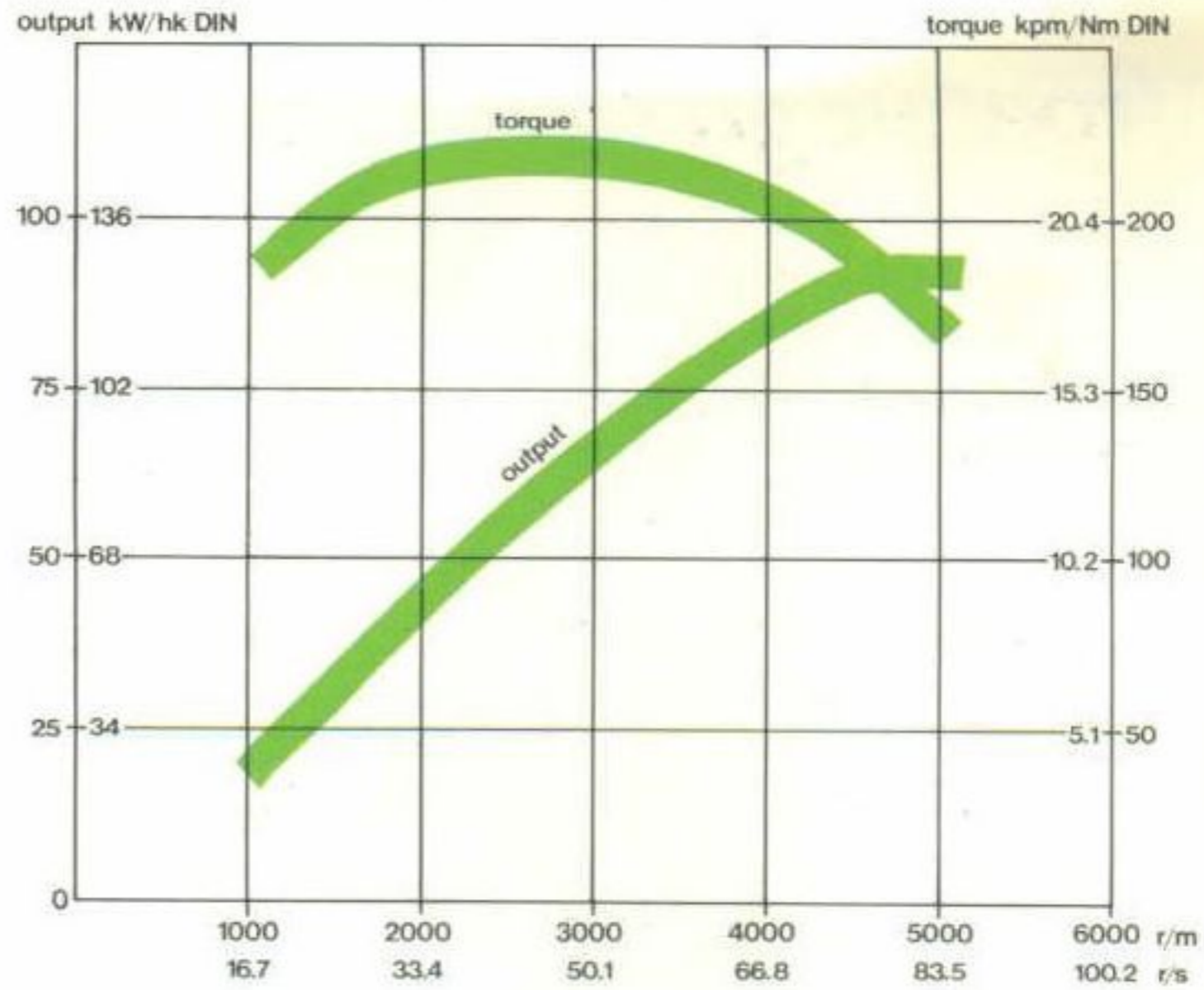
Due to the drop gear axles with a spur gear at each wheel hub the axles are a lot higher than the wheel centre line. Consequently the ground clearance under the axles is extremely good. Thanks to the drop gears the revolutions are cut by half, whilst the torque is increased to an equivalent extent. The fact that this increase of the torque takes place out by the wheels means that the loading on the joints and axles is only half of what it would have been with direct gearing.



Powerful engine

The Volvo C 303 is powered by a 3 litre six-cylinder in-line carburettor engine.

The torque curve is very flat. It is almost constant from 900 rpm and up to 4500 rpm. This enables a smooth and stable driving off road and reduces the need for gear changing. Output is 92 kW (125 hp) DIN. At 3450 kg gross weight the power weight ratio is as high as 36 hp/ton.



Transmission

The Volvo C 303 has a fully synchronized four-speed gearbox with a two-speed auxiliary gearbox. In other words there are eight forward speeds to choose between. The auxiliary gearbox is controlled by the ordinary gear lever, which has gear positions for high and low ranges to the right of the normal gear register.

There are three output shafts from the auxiliary gearbox – one for the rear axle, one for the front axle and one for the power take-off.

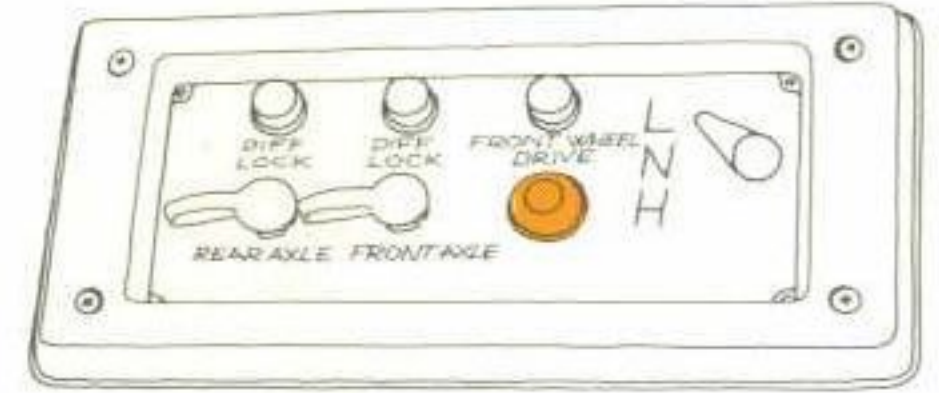
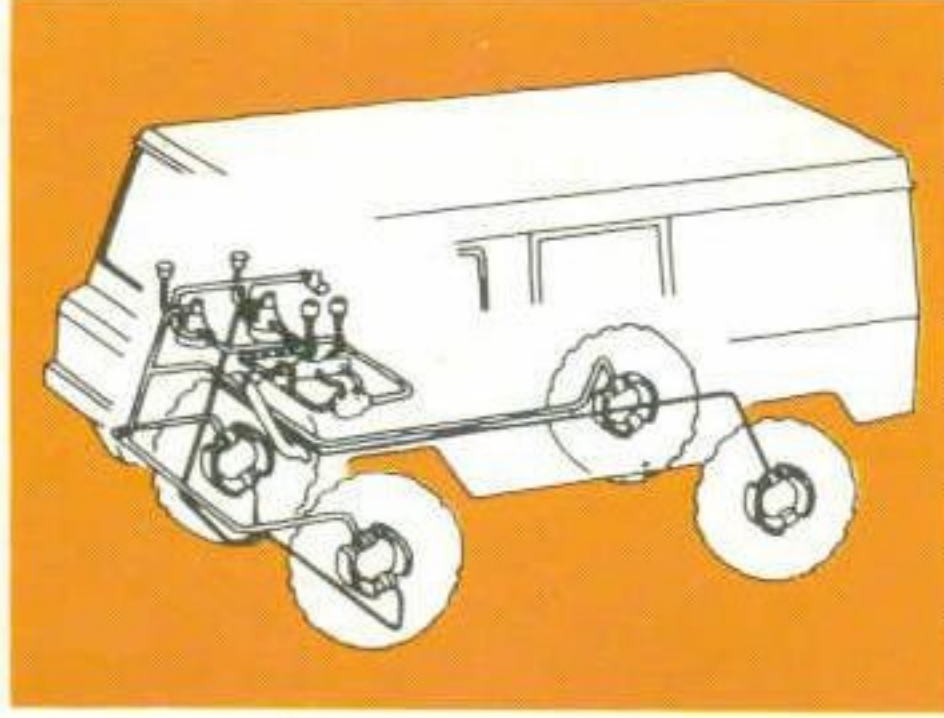
Three ways of engaging the front wheel drive

The front axle drive can be engaged and disengaged. Front-wheel operation is engaged automatically in the following two cases:

1. When the low-range gear in the auxiliary gearbox is engaged, e.g. normal for cross-country operation.

2. When the driver is braking, thus reducing the risk of rear wheel locking.

When running in the high-range the driver can also engage four-wheel operation by depressing a button on the dash.

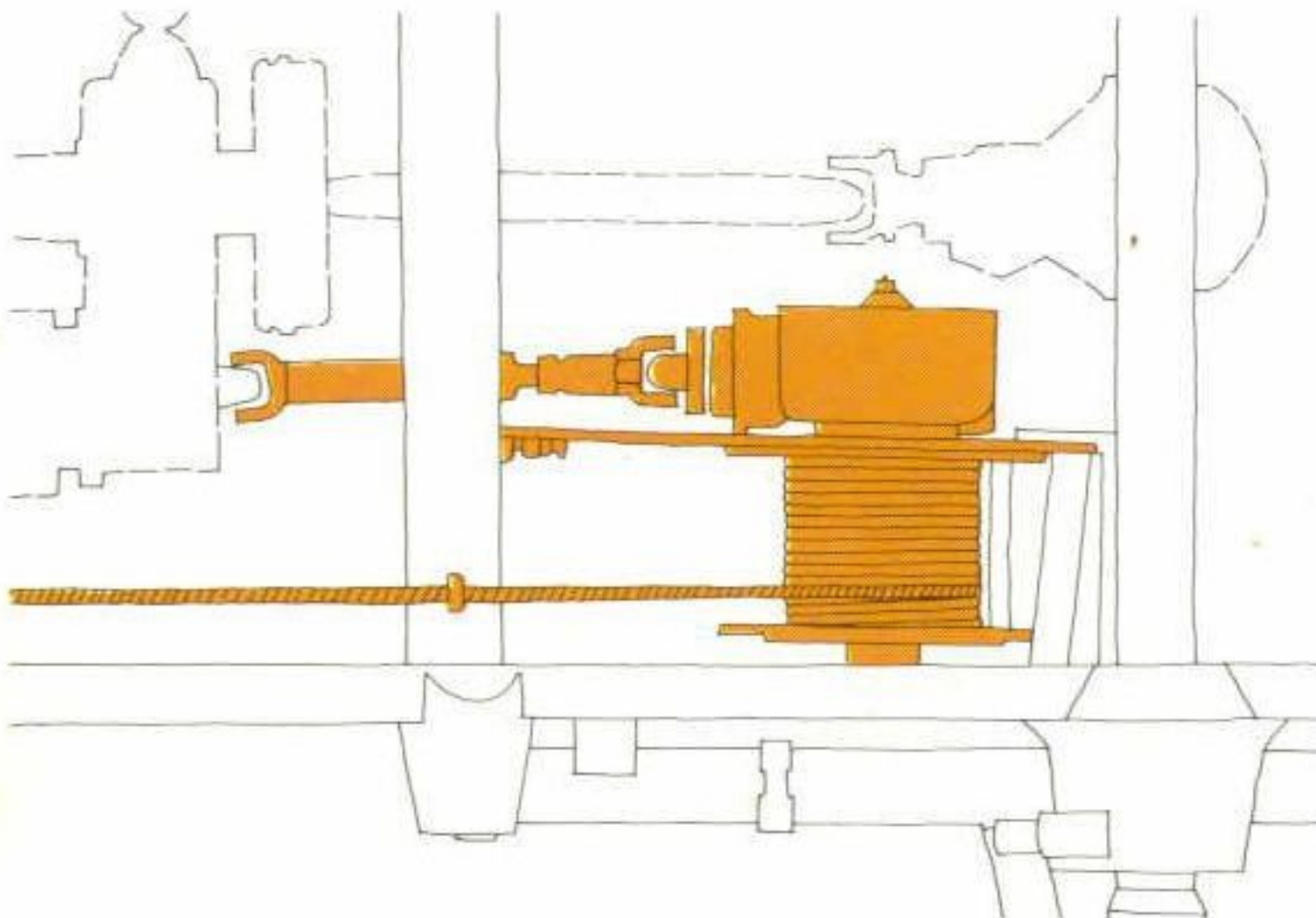
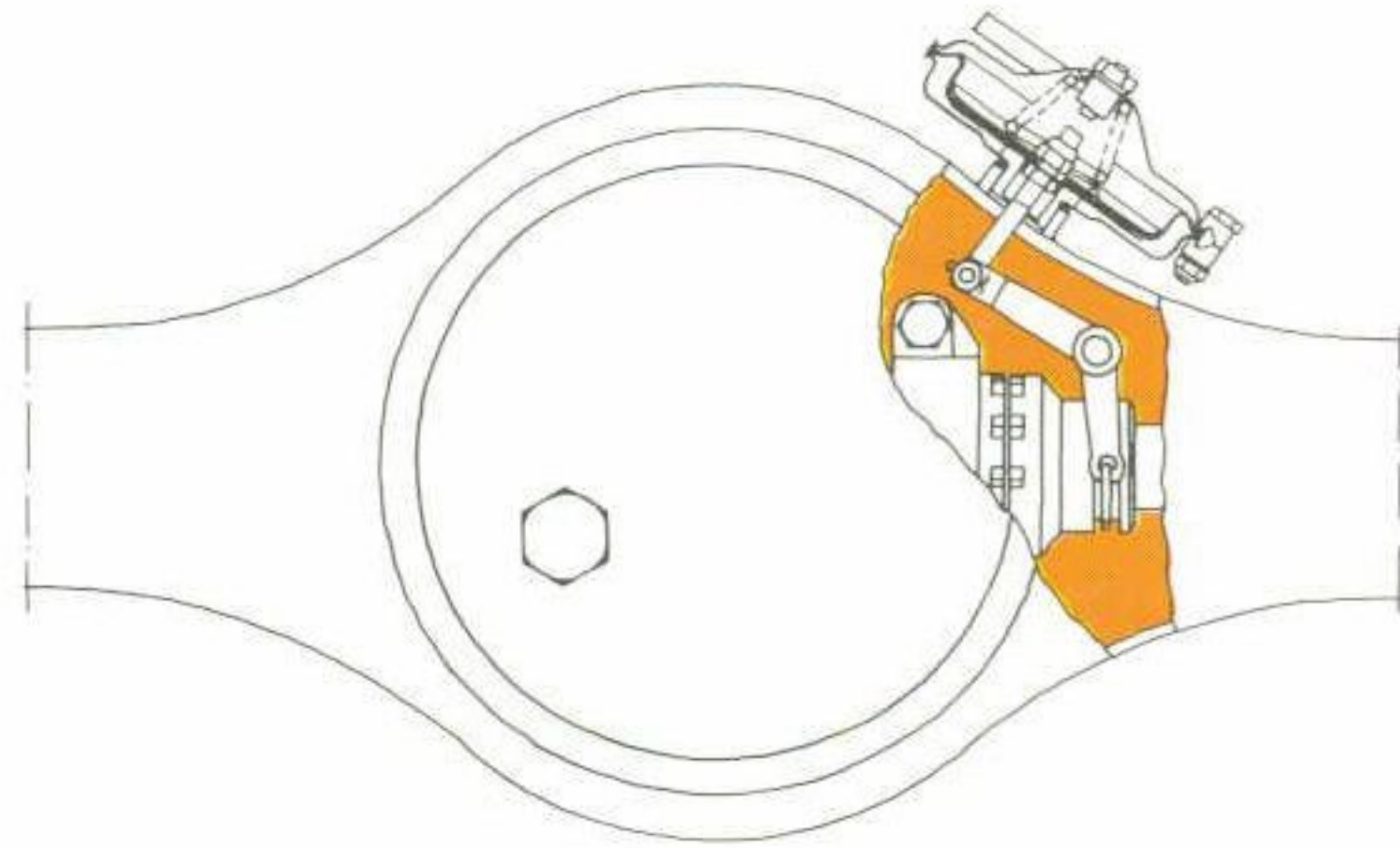


Brakes

The Volvo C 303 has drum brakes all the way round. The running brakes have two independent circuits, each with its own vacuum-servo unit.

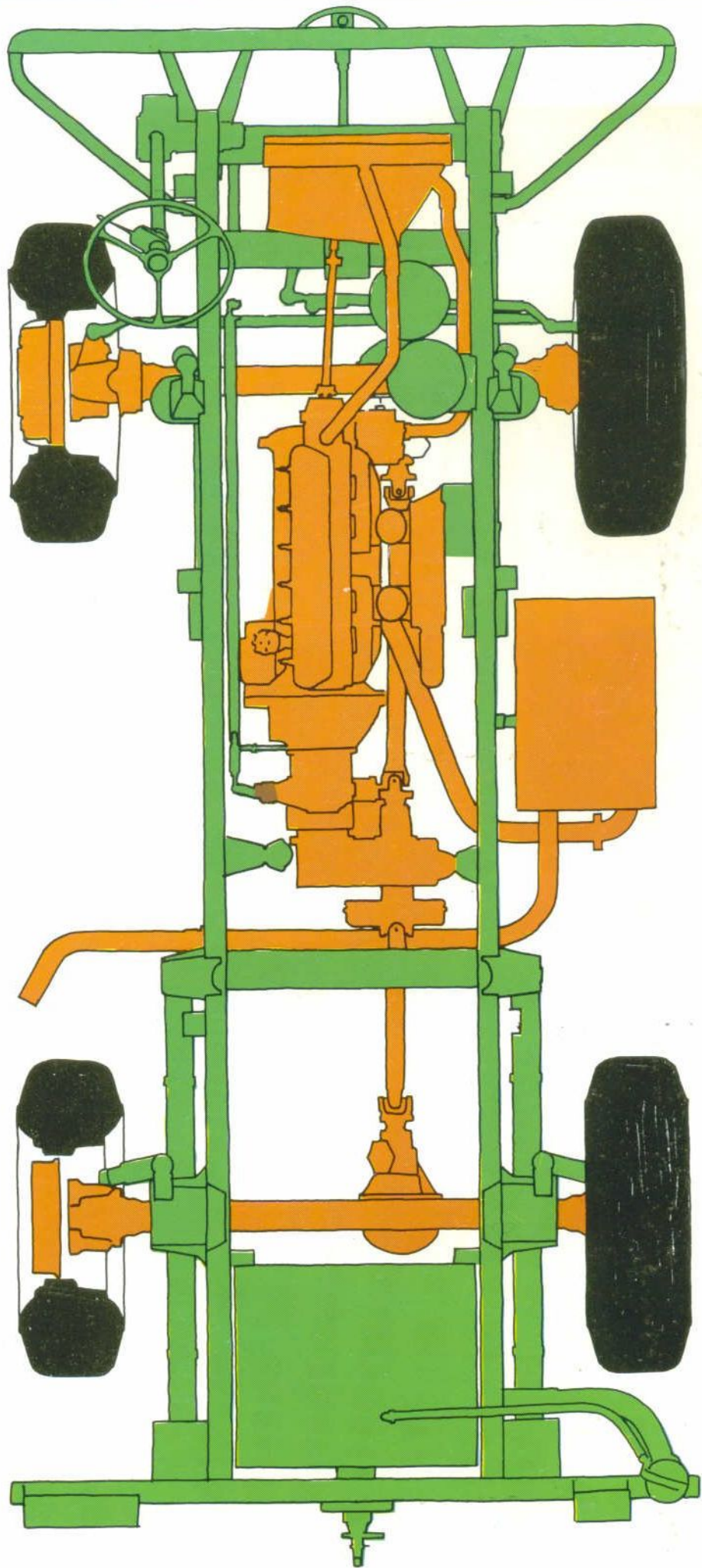
Differential locks

Both front and rear axles have mechanical differential locks.



Power take-off

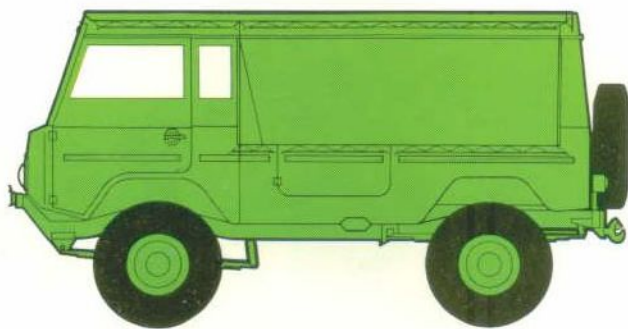
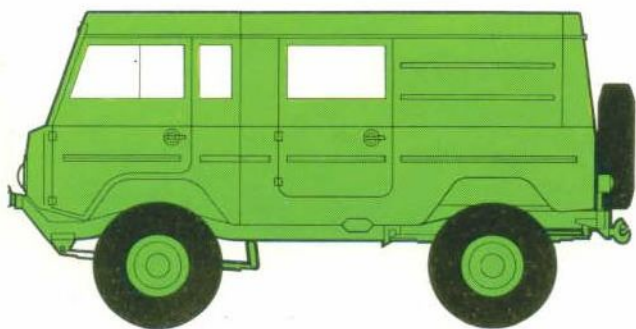
A power take-off can be bolted to the auxiliary gearbox. It can, for example, be used to power a winch mounted centrally inside the left side frame member.

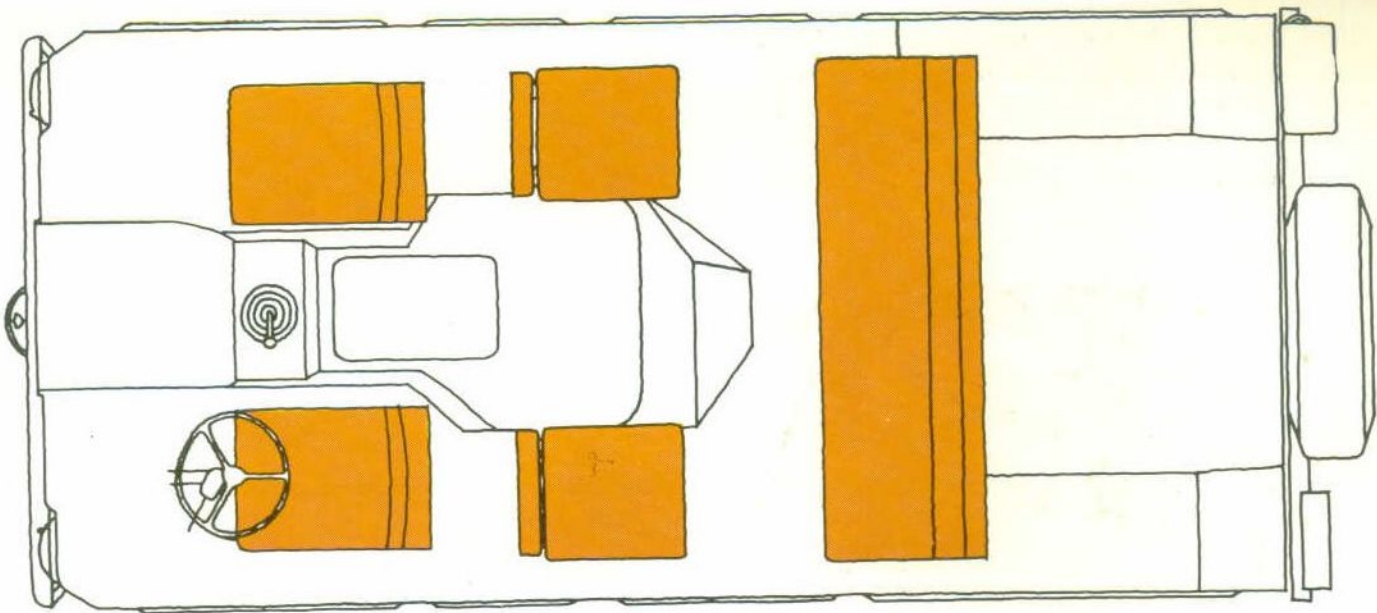


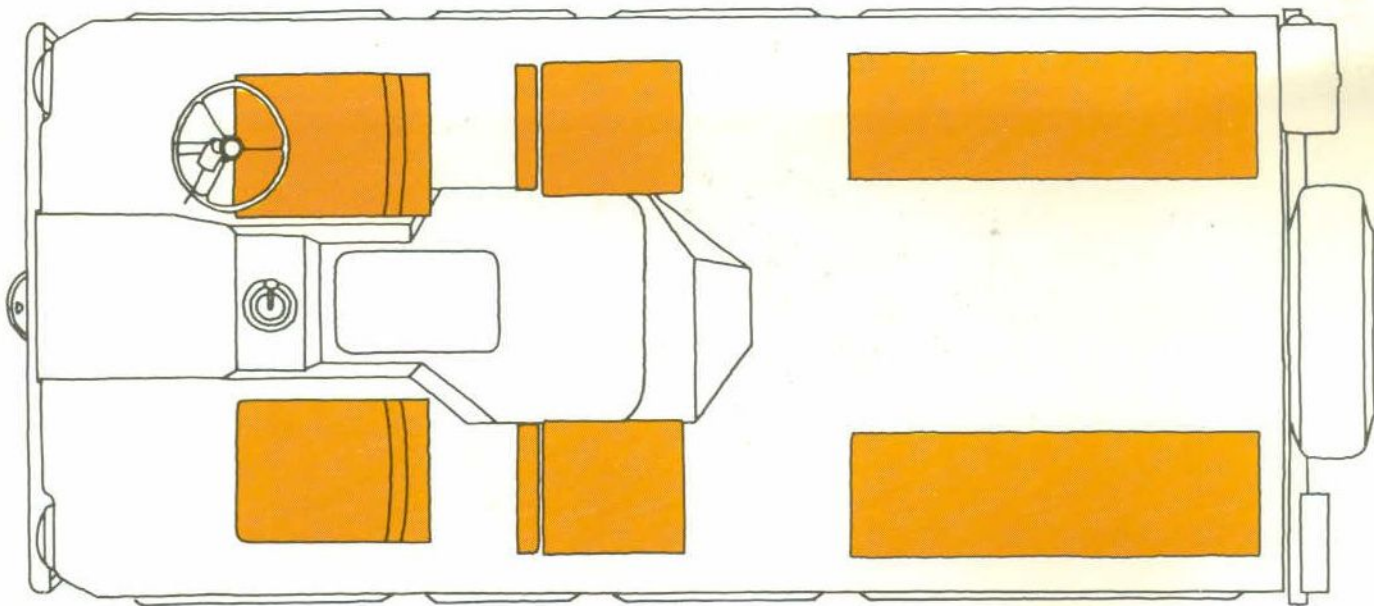
Two basic versions: Hardtop and Canvas

The Volvo C 303 can be built and equipped to suit different types of jobs. However, there are two basic versions – Hardtop and Canvas. Both of them have the same welded all-steel driving cab with efficient layout, adjustable driver's seat,

complete instrumentation and excellent visibility. The windscreen can be folded out in both versions. The rear of the Hardtop can seat five persons. By just folding down the seats and bench the whole of the rear compartment is quickly made ready for cargo.

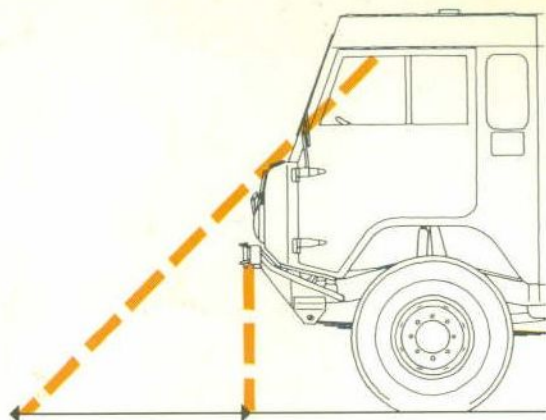
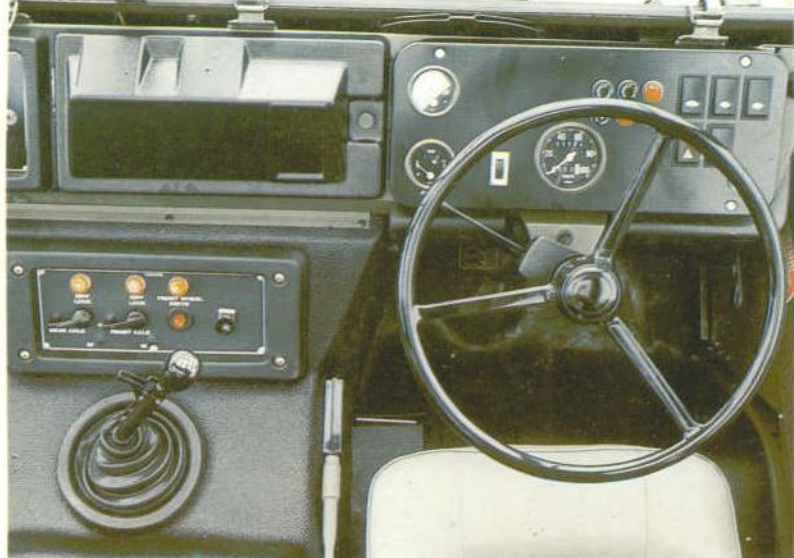






The rear of the Canvas version seats eight persons. The roof when open is strapped into two rolls on the roll bar behind the driver's compartment. As in the Hardtop version all of the seats can be folded leaving maximum space for cargo.





Perfect vision

Due to his position way up front the driver has perfect vision right down to immediately in front of the vehicle.





Safaris



Road rescue operations



Ambulance



Combined crash tender



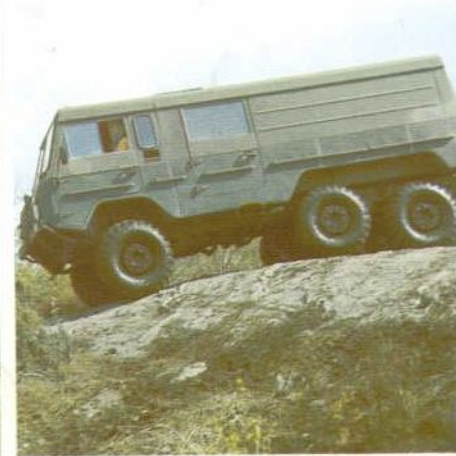
Towing and transport of material



Patrol vehicle



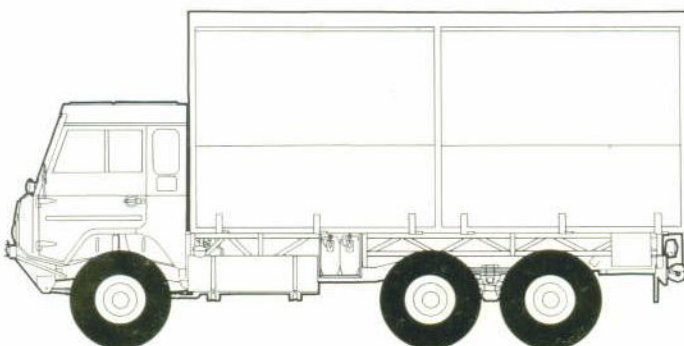
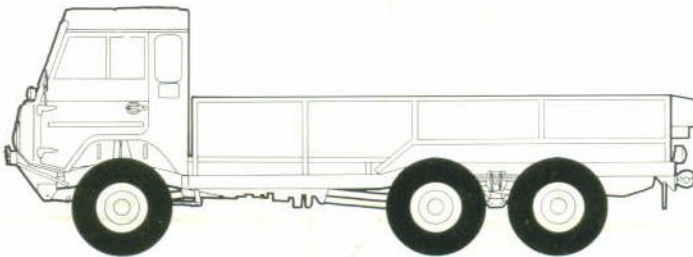
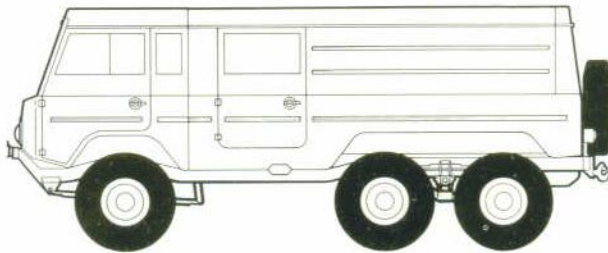
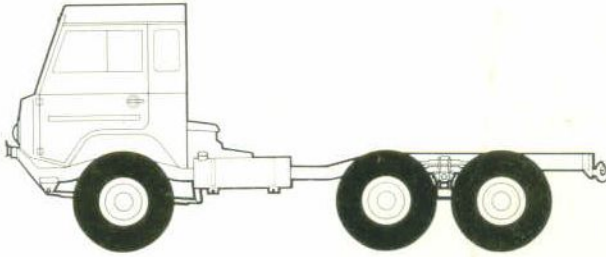
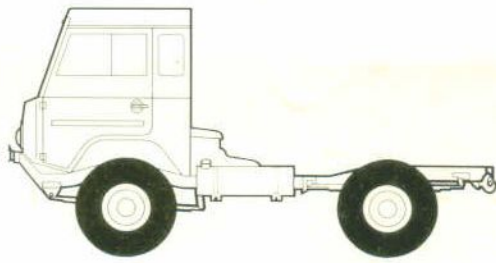
Inspection of power lines



Transport of personnel



Welding service





VOLVO

AB Volvo, Truck Division,
Special Vehicles