



The perfection of a well-proven concept...

The Volvo C202 is a further-development of a thoroughly proven cross-country vehicle designed for demanding military use of which more than 12,000 are now in service in more than 40 countries. The new version, the C202, is an extremely efficient all-round, all-terrain vehicle of outstanding versatility.

... offers you all this

- all-terrain capabilities
- good road cruising speeds
- excellent ride
- low operational costs
- comprehensive range of optionals

Technical data:

- Volvo B20 engine – four-cylinder, overhead valves. Displacement two litres
- Four-speed, fully synchronized Volvo gearbox
- Two-speed, fully synchronized Volvo transfer gearbox
- Final drives of hypoid type
- Four-wheel drive (or rear wheel drive only)
- Triangle-split, dual circuit power assisted braking system with load sensing valves.
- Hydraulic, double-acting steering damper
- Cross-country tyres, 280/85×16" (previously designated 8.90×16)
- Semi-elliptic leaf spring suspension with hollow-rubber springs and double-acting, telescopic shock absorbers
- Power take-offs for many uses

There are three basic versions:



- Hardtop for driver and seven passengers.



- Pick-up for crew of two and a payload of close to one ton.

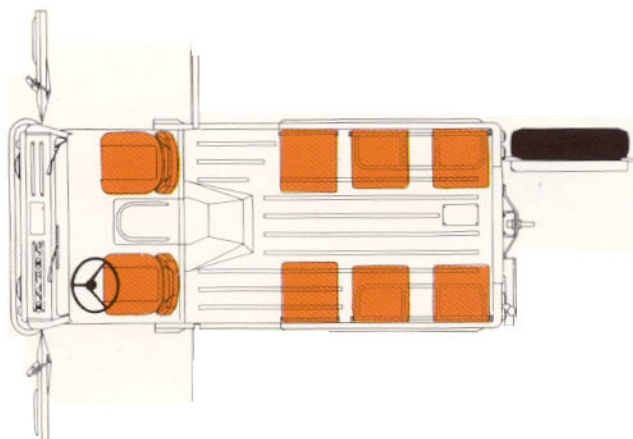


- Canvas soft-top for driver and seven passengers.

All versions have a Sand Yellow finish as standard.

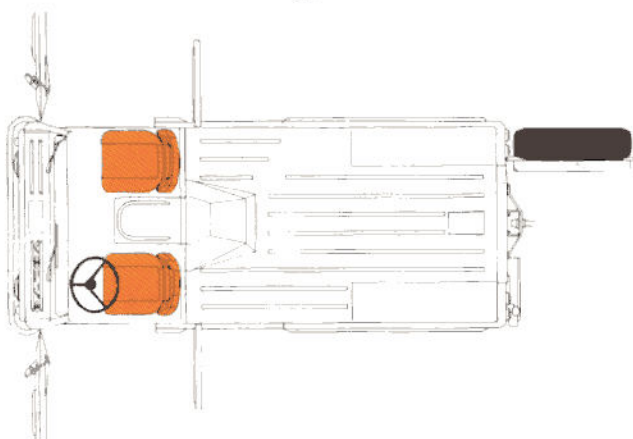
Capacity is impressive . . .

Hardtop and Canvas versions



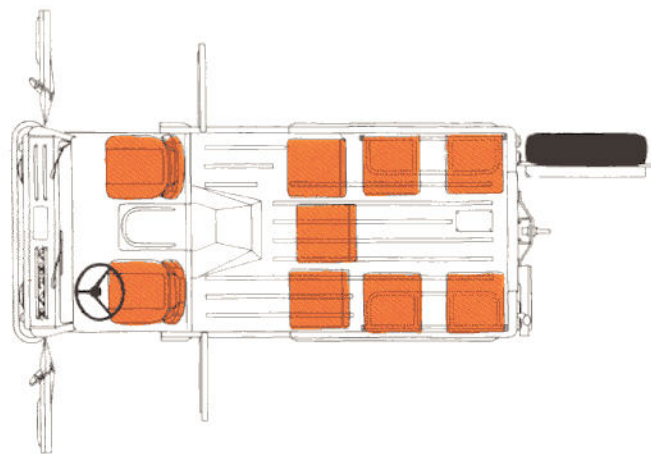
An off-road transporter seating eight including driver. The rear seats fold up providing a cargo space of 3.5 m³.

Pick-up version

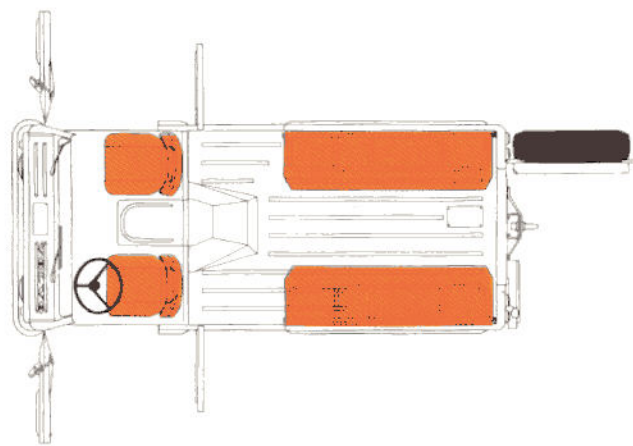


Forward-control platform body. Cargo area 1.53×2.27 m including wheel-housings. Payload 925 kg.

Optional rear seating arrangements for hardtop and canvas versions:



Seven seats and all of them foldable.



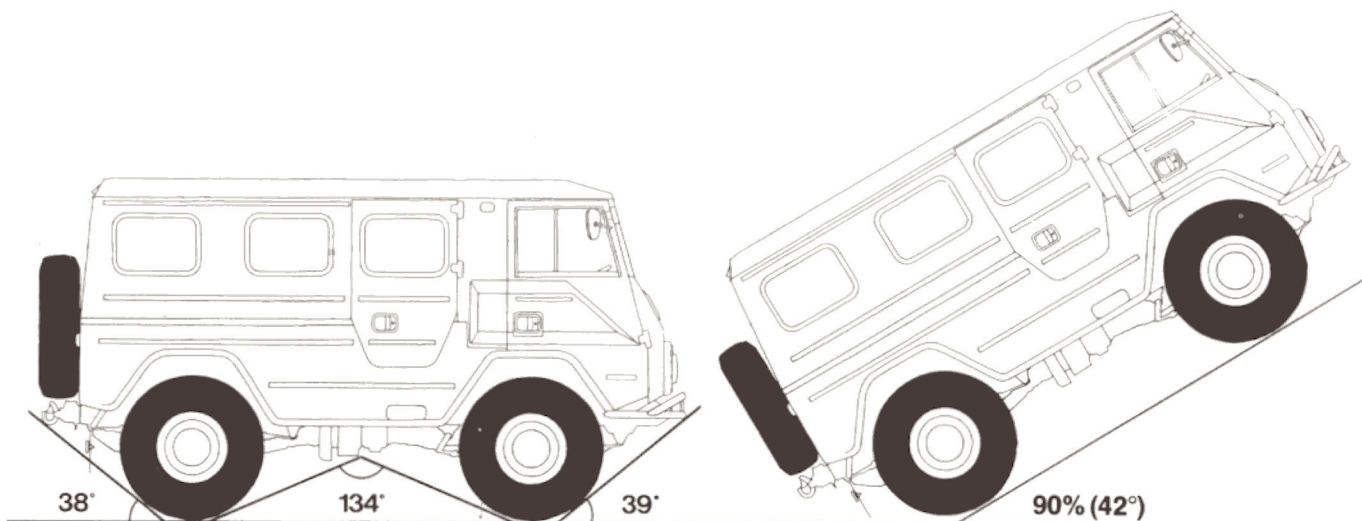
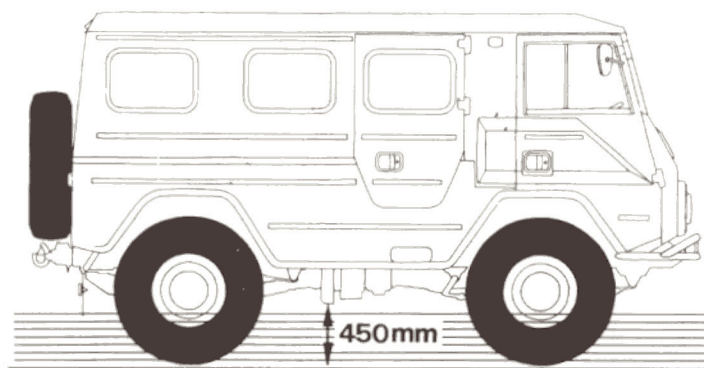
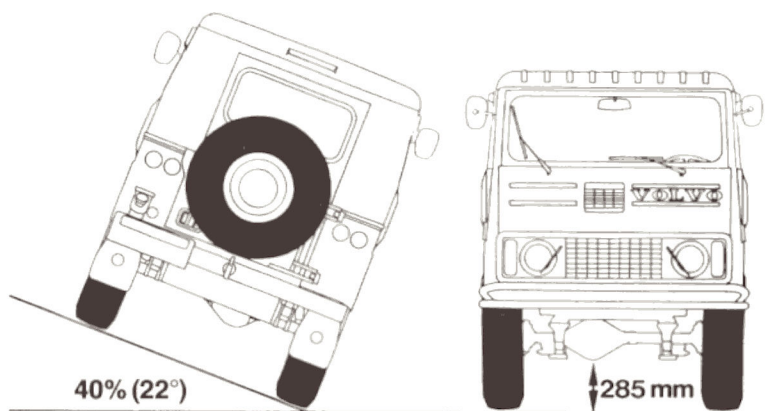
Two foldable benches, for four persons each.

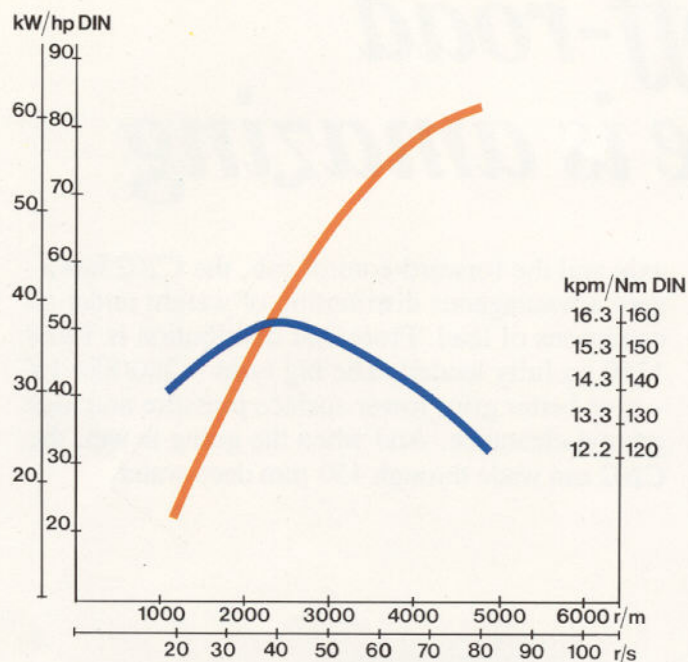
...and off-road performance is amazing

The ground clearance, tyre size and approach and departure angles of the C202 give it the ability to climb and cross the kind of country that will bring other terrain-going vehicles to a standstill. The Volvo C202 takes deep ditches, rocky hillsides and slippery inclines in its stride.

Thanks to an engine mounted *rearward* of the front

axle and the forward-control cab, the C202 has a very advantageous distribution of weight under all conditions of load. Front/rear distribution is 1200/1350 kg fully loaded. The big tyres – 280/85×16" – give better grip, lower surface pressure and high ground clearance. And when the going is wet, the C202 can wade through 450 mm deep water.



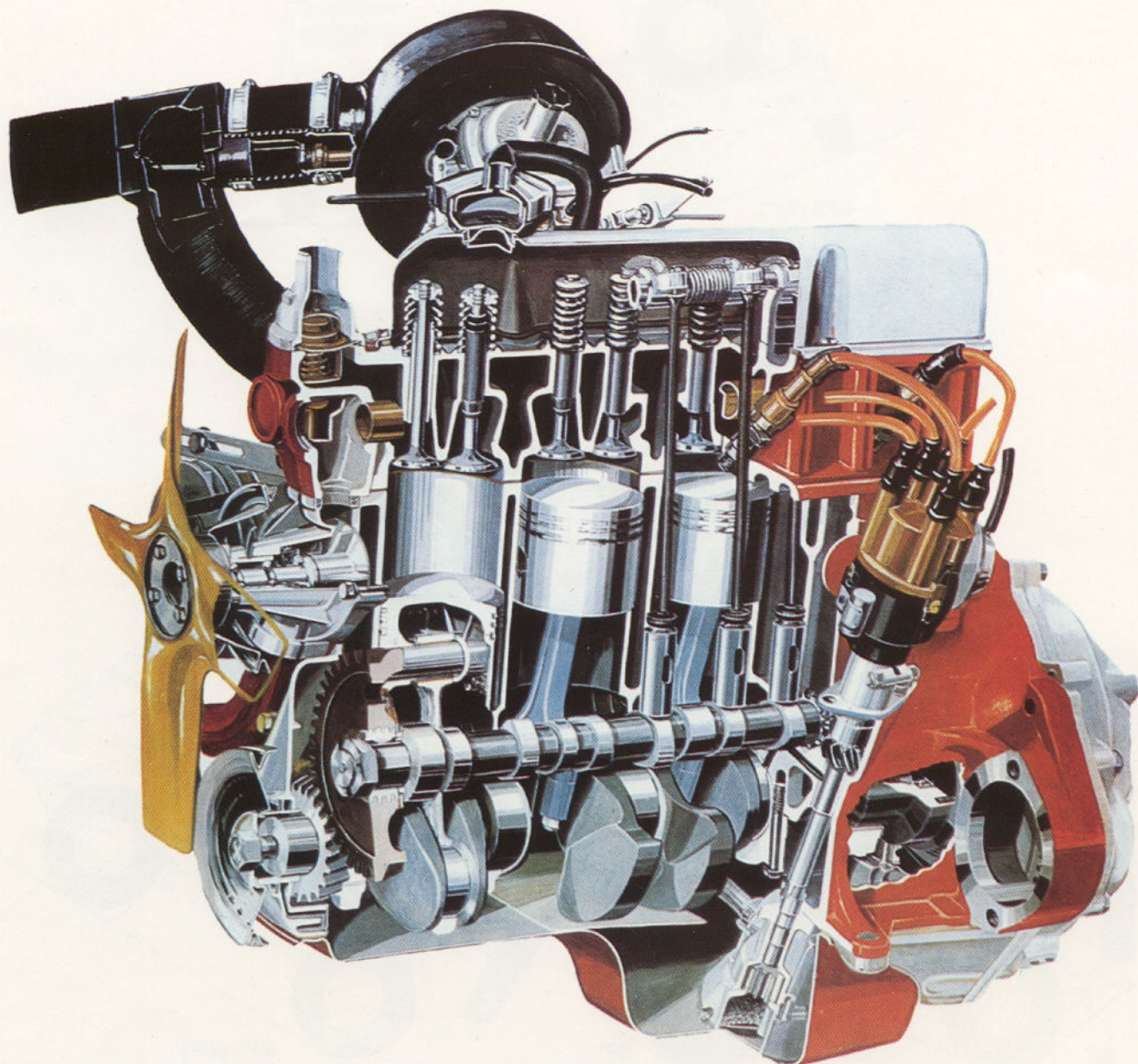


Reliable power...

The Volvo C202 is powered by the B20A, a two-litre, four-cylinder petrol engine. Output is 60 kW (82 hp) DIN which adds up to 23.7 kW per ton at a GVW of 2,525 kg. Maximum torque is 157 Nm (16 kpm). The flat torque curve indicates the low speed pulling capabilities of the B20A and means that gear shifting is reduced to a minimum.

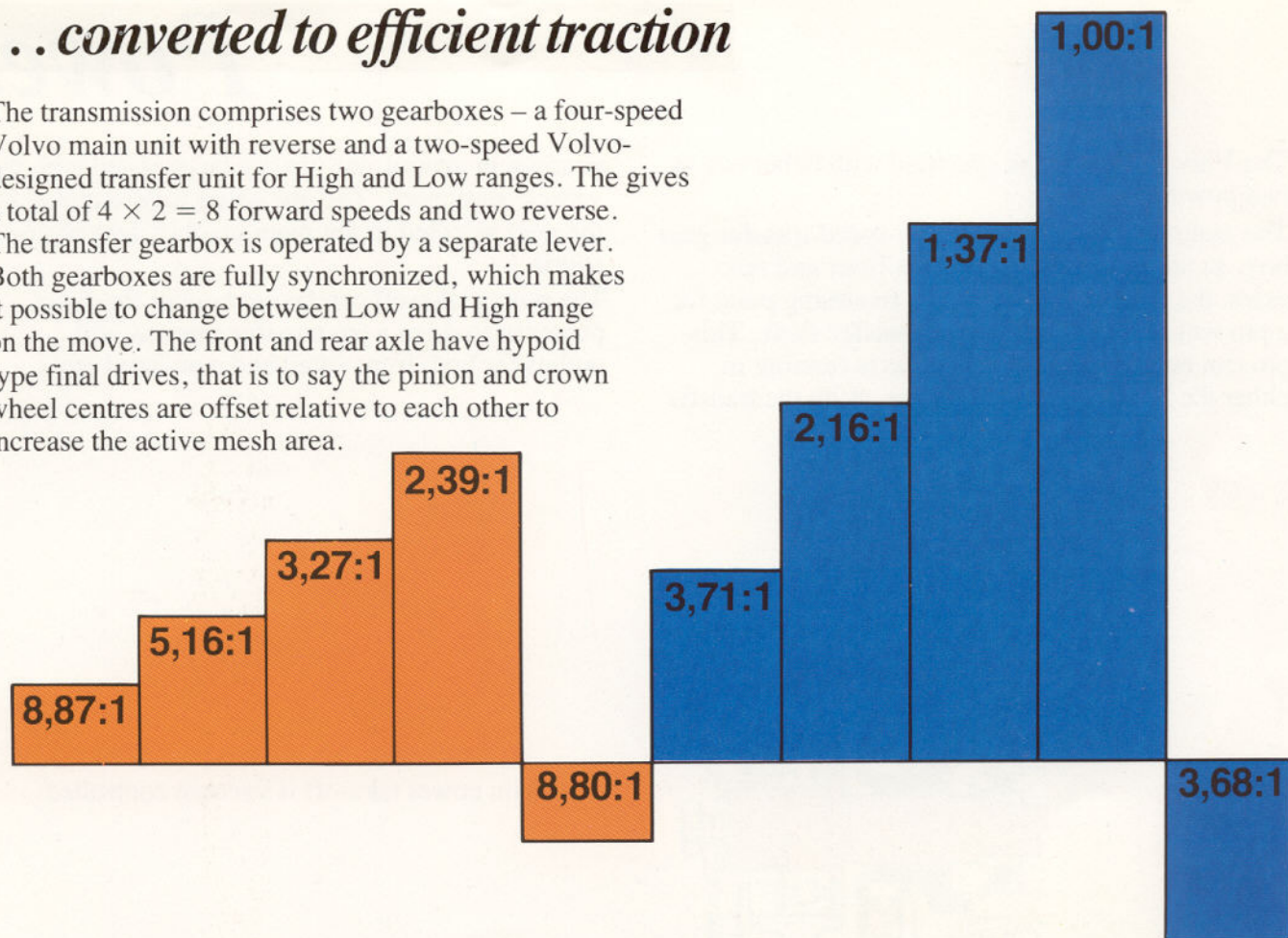
Versatile speed range

Maximum road speed is 115 km/h, this being the equivalent of an engine speed of 78.3 r/s (4700 r/m). At a cruising speed of 80 km/h, the engine is doing 53.9 r/s (3235 r/m). The crawling speed is 2.8 km/h – 16.6 r/s (1000 r/m).



...converted to efficient traction

The transmission comprises two gearboxes – a four-speed Volvo main unit with reverse and a two-speed Volvo-designed transfer unit for High and Low ranges. This gives a total of $4 \times 2 = 8$ forward speeds and two reverse. The transfer gearbox is operated by a separate lever. Both gearboxes are fully synchronized, which makes it possible to change between Low and High range on the move. The front and rear axle have hypoid type final drives, that is to say the pinion and crown wheel centres are offset relative to each other to increase the active mesh area.



Manual and automatic selection of four-wheel drive

Four-wheel drive is engaged automatically when running in the low speed range and also during emergency braking to prevent the front wheels from locking up. Four-wheel drive can be engaged automatically when running in the high speed range,

irrespective of road speed. Engagement is controlled by means of a button on the dashboard. Constant velocity joints of Rzeppa type carry the drive to the front wheels.



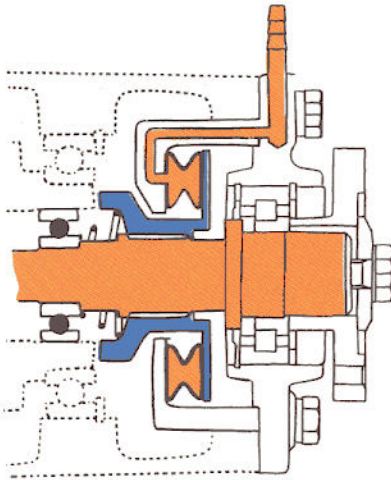
Power

The Volvo C202 can be specified with either one or two power take-offs.

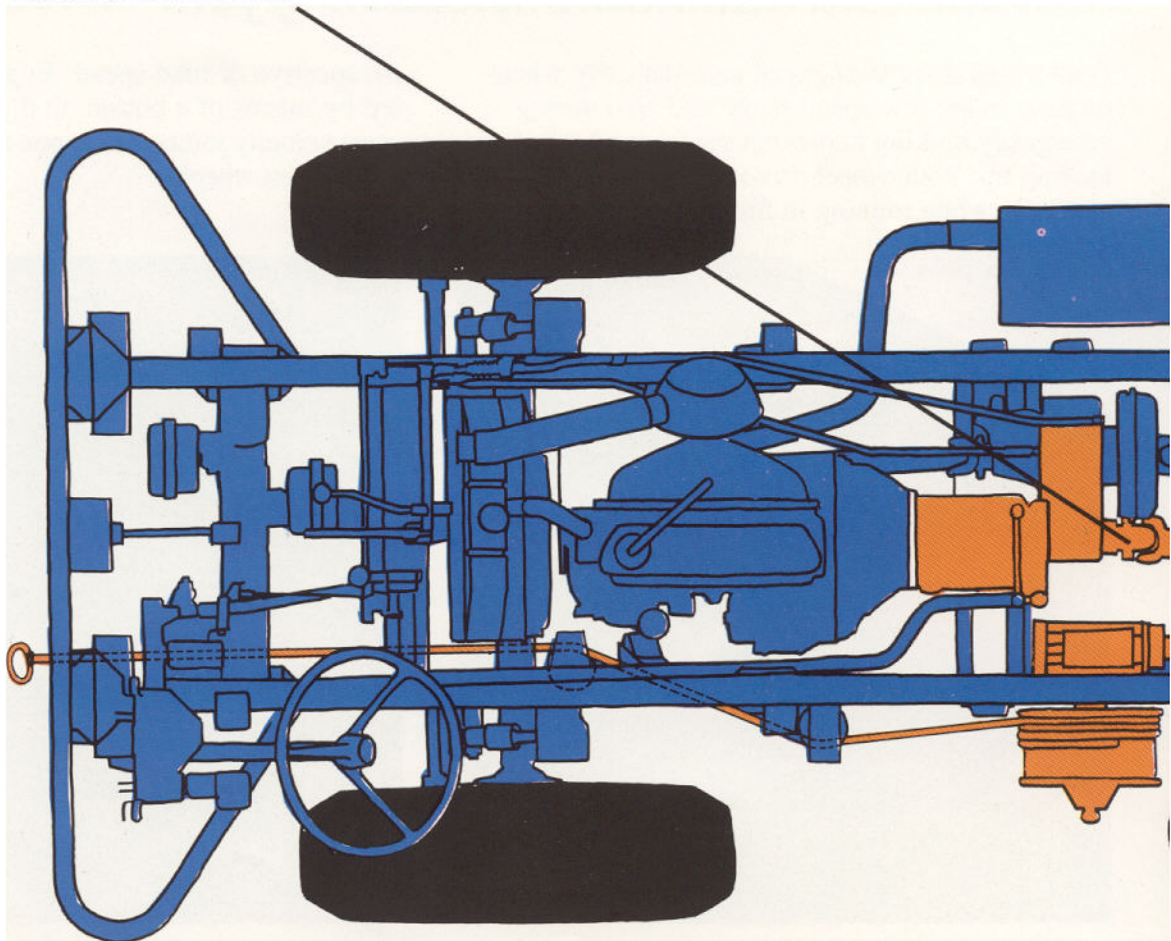
The main gearbox powers a two-speed transfer gearbox. In addition to powering the front and rear axles, the transfer gearbox has a mounting point for a pto which runs off the main transfer shaft. This pto can be used while the vehicle is running in either the low or high speed range. With the transfer

gearbox in neutral, the pto can be operated with the vehicle stationary. The pto speed is determined by the gear selected in the main gearbox and engine speed.

The power take-off can be used either for direct power or to drive a pto transfer gearbox with outlets for both front-fitted and rear-fitted pto's.



The main power take-off is vacuum controlled.

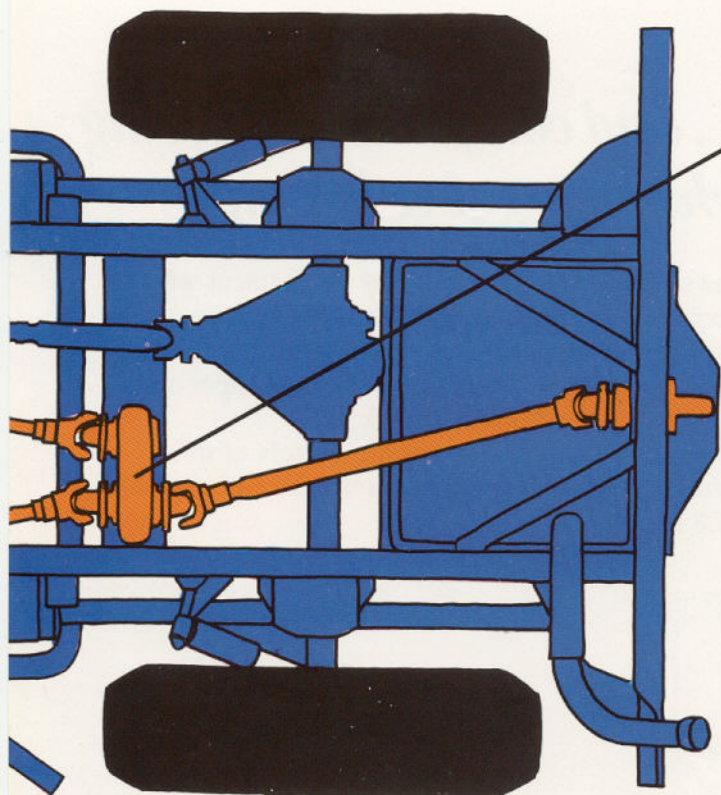
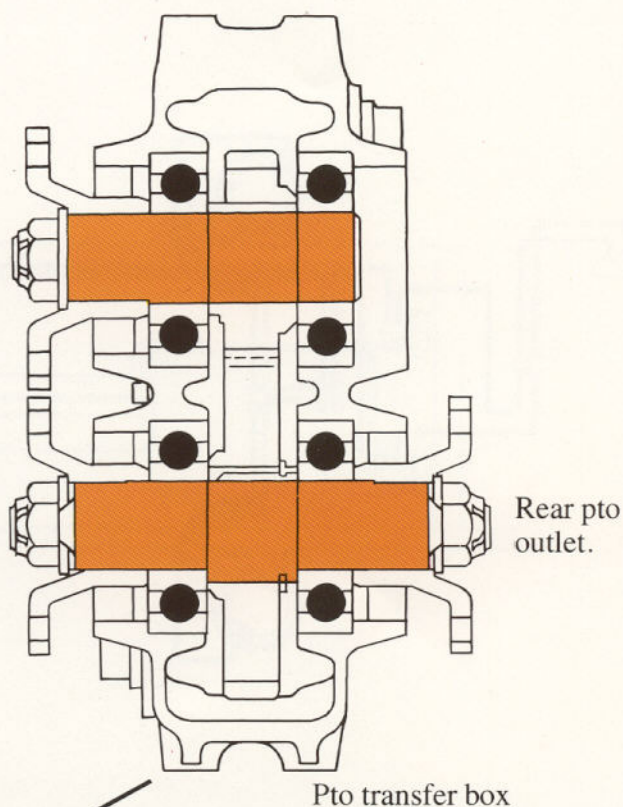


ake-offs

Depending on which way the pto transfer box is assembled, the side mounting gives a speed reduction of 1.67:1 or a speed increase of 1:1.67 respectively. The down-shift is ideal when the pto is used to power a hydraulic pump or a winch. The high speed mounting is used to power, for example, a

fire pump or other ancillaries requiring a high speed input.

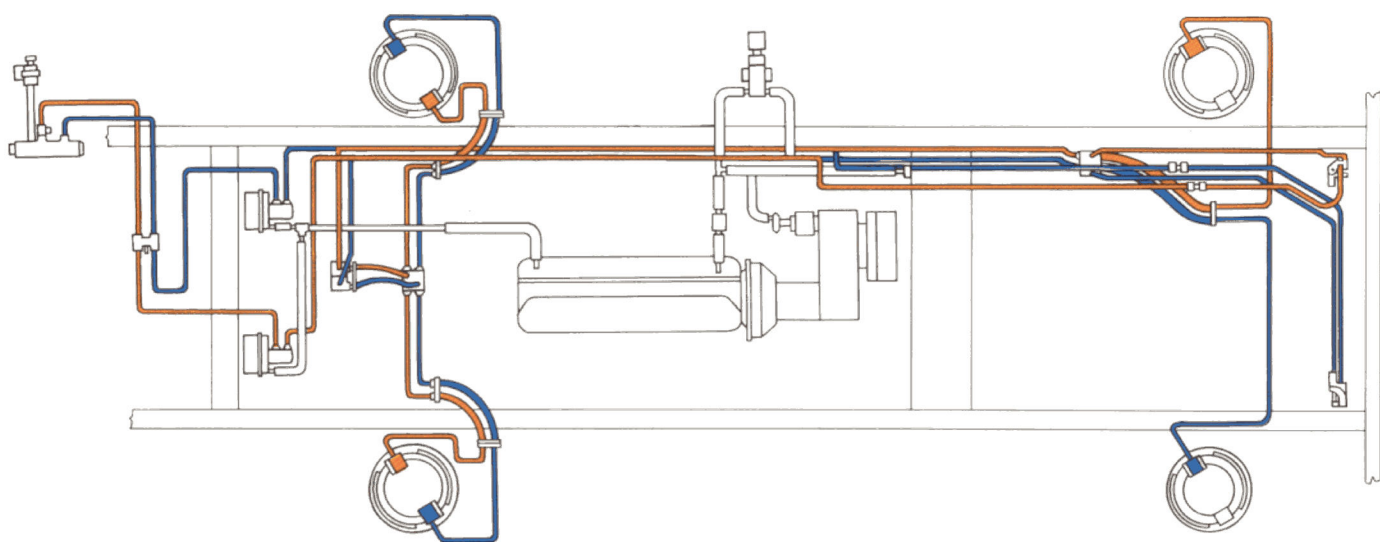
The rear pto has a ratio of 1.67:1 or vice-versa and can be used, for example, to power a trailer or a hydraulic pump. Winches, pumps and other ancillaries are available as optional extras.



Safety brakes...

The braking system is of hydraulic type and power assisted. It consists of two entirely separate circuits, each with its own vacuum servo unit. Volvo's well-tested triangle-split layout is used which means that both circuits operate on both front wheels as well as on one each of the rear wheels simultaneously. Should a brake circuit fail, a warning lamp mounted on the dashboard will alert the driver. Another safety feature of the braking system

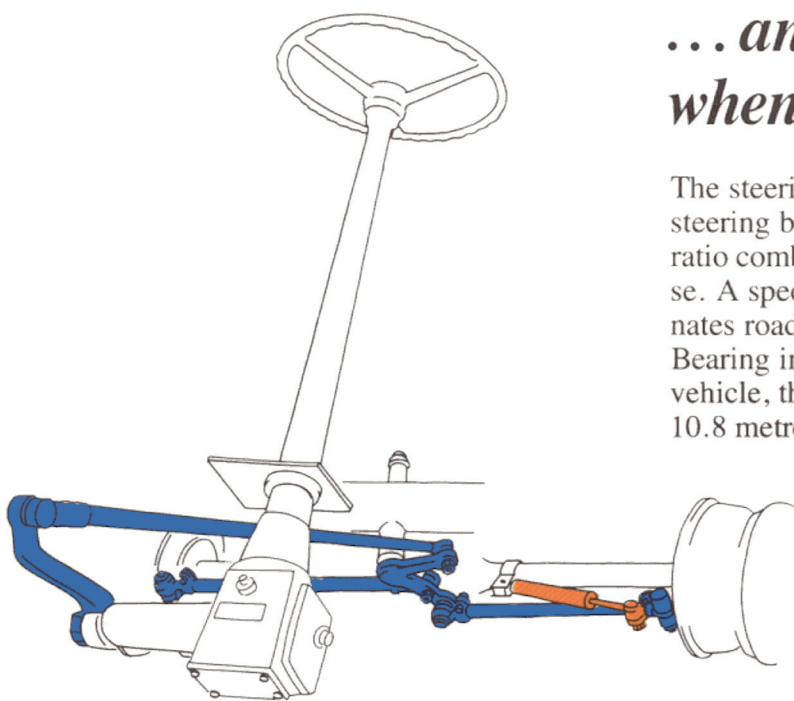
is that four-wheel drive is engaged automatically during emergency braking, this to counteract locking-up. The braking system is furthermore equipped with two load-sensing valves, one for each circuit, in order to limit the brake effort when the vehicle is unloaded. Drum brakes are fitted all round. A separate brakedrum for the handbrake is mounted on the rear propeller shaft.



... and comfortable steering when the going is rough

The steering system is entirely mechanical with a steering box of cam and roller type. The steering ratio combines ease of operation with direct response. A special double-acting steering damper eliminates road vibration and shock.

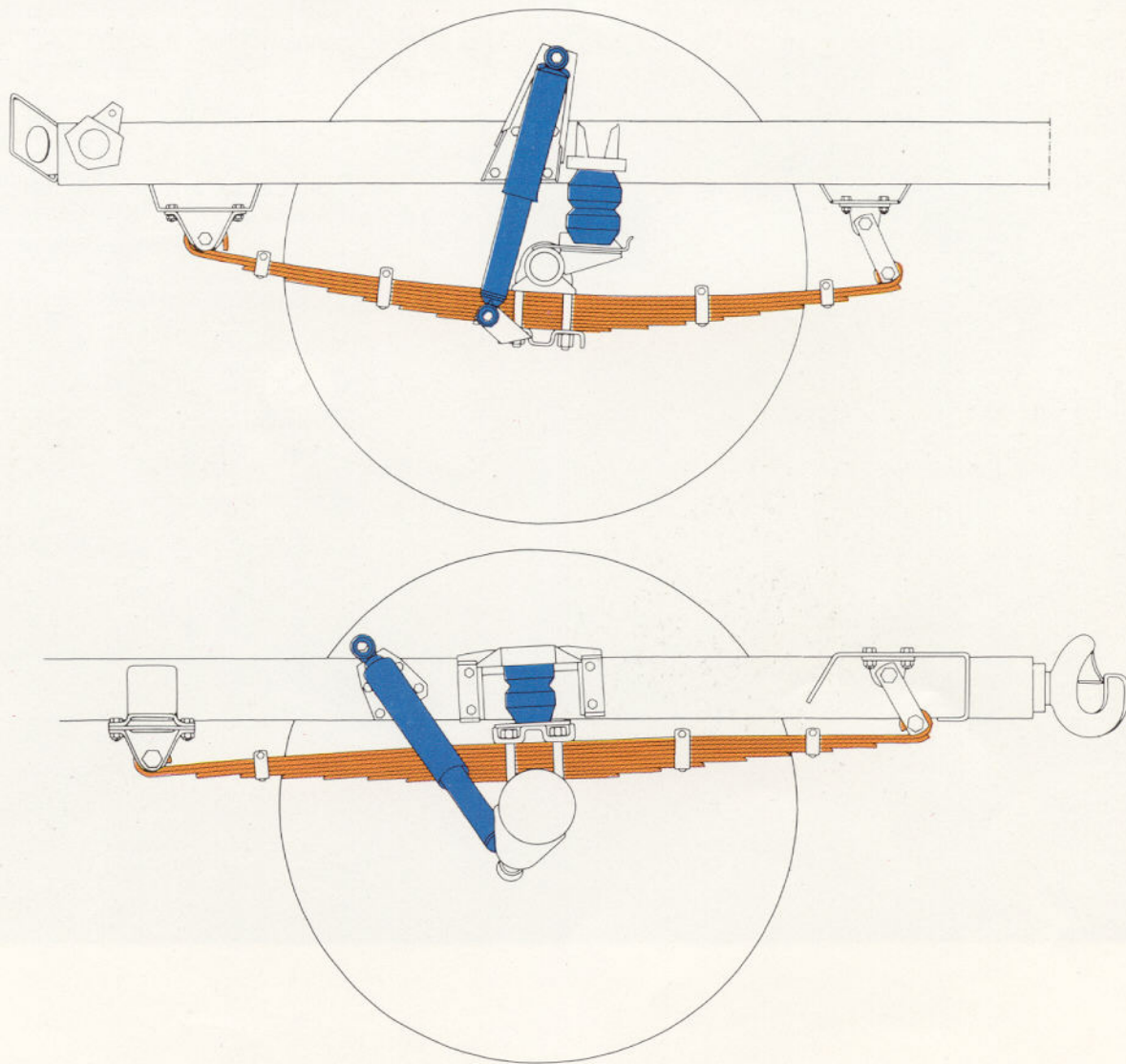
Bearing in mind the size of the wheels of this vehicle, the turning circle is unusually tight at only 10.8 metres.



Soft springs for hard work . . .

For a rough and tumble all-terrain vehicle, the C202 has an exceptionally comfortable suspension. Long semi-elliptic leaf springs mounted in rubber bushings are used. At the rear, the axle is slung beneath the springs while at the front it is mounted above

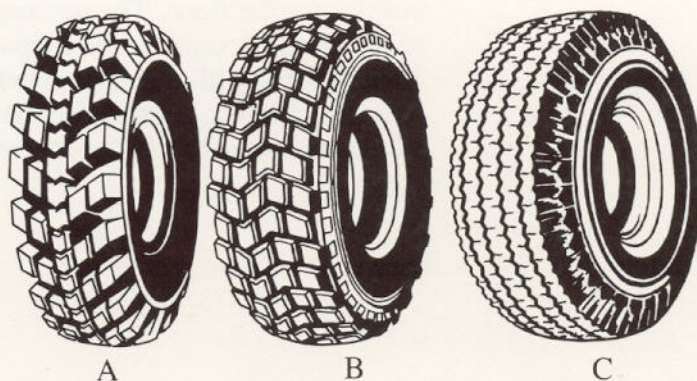
them. Both the front and rear axles have double-acting shock absorbers. Hollow-rubber springs are used to soften bottoming due to extreme spring deflection.

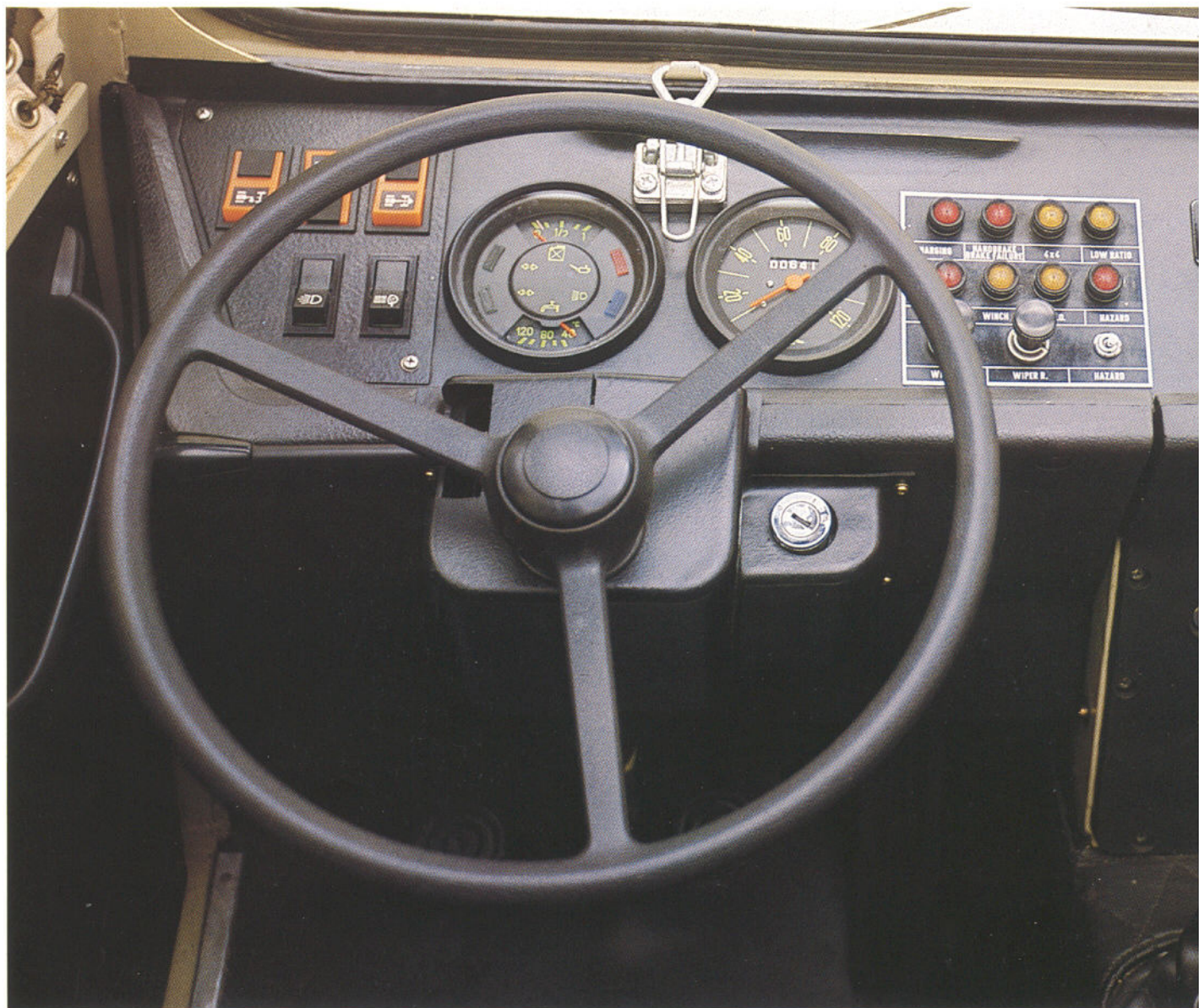


. . . and big wheels for sure grip

Because tubeless tyres may deform to such an extent in rough country that deflation takes place between the rim and tyre, the eight-stud steel rims of the Volvo C202 are shod with innertube tyres. Tyre dimension: 280/85×16" Special (previously designated 8.90×16). Various types of tread pattern are available:

- A. Special cross-country tyres for extra good grip are standard.
- B. Sand tyres. Extra large print area for low ground pressure (optional).
- C. Hi-Miler road tyres. Quieter running but give less traction (optional).





Efficient heating and ventilation

The heating and ventilation system of the Volvo C202 has a two-speed 40 W blower. Defrosters keep the windows clear and there are separate nozzles for the floor. The passenger compartment of the Hardtop version has a separate two-speed, 30 W blower with one nozzle feeding the floor area. The blower units incorporate heat exchangers which are connected to the coolant system of the engine.



Summing-up :

- A thoroughly proven design – more than 12,000 vehicles of the same type have already been built
- Extraordinary all-terrain performance
- Very good on-road comfort
- Low surface pressure
- High ground clearance
- Durable, reliable engine and power transmission
- Comprehensive power take-off programme
- Power assisted, triangle-split dual circuit braking system

Superstructure alternatives

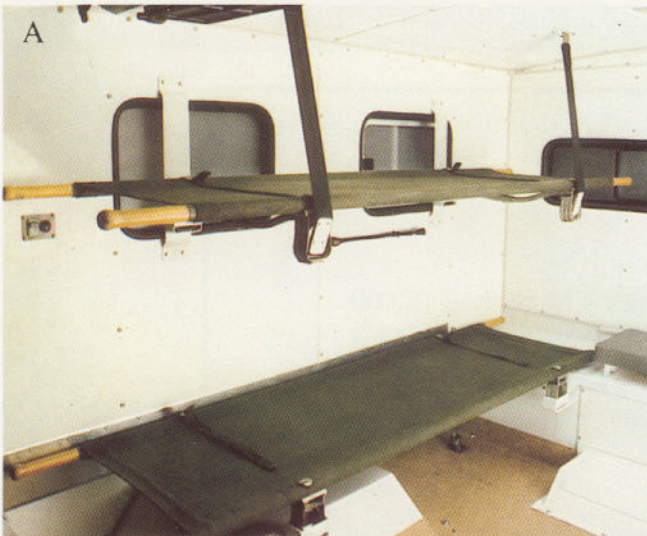
In addition to the Pick-up and Hardtop versions, the Volvo C202 is available in a number of special versions completely equipped ex-works.



Ambulance

The C202 fitted out as an ambulance meets demands on good off-road performance, a high level of comfort for both patients and driver and also a low noise level. The ambulance body is made up of rectangular steel tubing with external sheet aluminium

cladding and enamelled fibrewood panel on the inside. Two double rear doors the full width of the body with an opening angle of 270° make loading and unloading extremely simple. Provided as standard with sirens and red or blue rotating light.



The ambulance can be fitted with two stretchers and two upper emergency stretchers of Nato type. The lower stretcher can either be of Nato type (as shown on picture A) or of spritype (picture B). Alternative medical equipment: Oxygen equipment (mobile or permanently attached to wall), tracheal



suction equipment and medicine cupboard. Alternative miscellaneous equipment: Fresh air fan, air conditioning, pivot lamps, fire extinguisher, spotlight on cab and working lights on rear end of ambulance body.



Mobile workshop/service vehicle

A mobile workshop/service vehicle in combination with trailer makes the Volvo C202 a very versatile unit for service and repair people out in the field. The vehicle combination is fitted with a hydraulically powered welding generator and a hydraulically powered compressor together with gas welding apparatus. Furthermore, there is a hydraulic outlet on



A



B

the outside for the connecting up of hydraulic tools, for example winch, chain saw, submersible pumps, etc. The trailer hitch is available with attachment for either hook (standard, see fig. A) or ball with diameter of 50 or 60 mm (optional, see fig. B).



Advanced mobile workshop

Specifications of vehicle: Hydraulic and revolution control equipment, welding generator, electric outlet 220 V, D.C., compressor, 7 bar and 1000 litres/min., hydraulic outlet, crane with capacity 500 kg, vice cupboards and shelves.

Specifications of trailer: Gas welding equipment, tools, spare wheel for trailer, roof rack and protective cover over load accommodation.



Mobile service workshop

Specifications: Gas welding equipment, petrol (gasoline) powered portable electric welding set, with an outlet for 220 V, D.C. vice, tools and also cupboard and shelves.



Fire tender

The fire tender is also based on the C202 Pickup. Its specification includes a water tank, pumps and hoses. The tank has a capacity of 500 litres. Pump capacity is 500 l/min. Hose equipment consists of

2×50 m 1" hoses and 2×50 m 2" hoses. It is also equipped with a 3" feeder hose for pumping supplies from natural water sources. Other items of equipment are: nozzles, breathing apparatus, axe, crowbar, spade, siren, blue rotating lights.



All-round service vehicle

The service vehicle model is equipped with a hydraulic crane and an air compressor. One of the many applications for which this model is suited is tyre repair services for heavy contracting machines and other large off-road vehicles. The compressor

can also be used for air-powered tools. This version is ideal for carrying heavy and volume-intensive payloads.

Compressor capacity is 480 dm³/min. Maximum operating pressure: 8.0 MPa. Crane maximum capacity: approx 5,000 Nm with a 0.96 m reach.



Municipal services vehicle

The Volvo C202 is a highly economical and very efficient alternative for all the special vehicle applications which municipal services require. The twin-cab model can carry a crew of four plus large

quantities of equipment. It can be fitted with various ancillaries including:

- Rear-mounted sweeper, hydraulically controlled
- Front-mounted snow plough, two metres wide, hydraulically controlled



Exhaust nozzle sprayer

C202 with standard equipment for fighting locust pest.



Police version

The vehicle can be specified with rotating lights, siren and loudspeakers.

The interior fittings and trim are easily arranged to suit the requirements in question. Rear and side-mounted power take-offs for hydraulic equipment or a winch are optional. The standard specification includes a transfer gearbox for four-wheel drive.



VOLVO

Volvo Truck Corporation
Göteborg, Sweden