

# Volvo Cross Country C 300 Series

**VOLVO**





# Volvo Cross Country C 300 Series

These all-wheel drive vehicles are available as hardtop, pick up and canvas top (C303 4x4) or as chassis with cab (C304 4x4 and C306 6x6).

This series is designed for superior cross-country performance. Low centre of gravity and wide track result in extreme lateral stability. Ground clearance is increased by drop gear hub reduction axles.— it is nowhere less than 380 mm. Volvo's large six cylinder in line petrol

engine B30 provides smooth power and high torque over a very wide engine speed range. A perfect weight distribution has been achieved by locating both the ordinary gear box and the transfer gear centrally.

Power is transmitted to the front wheels through constant velocity joints which drive the wheels at an even speed also when working at an angle.

Comfortable riding on rough





ground is provided by long soft leaf springs in combination with hollow rubber springs. The tyres are extra large low pressure type and exert minimum pressure on the ground. Thanks to his forward position the driver has excellent visibility.

The off-road capacity includes climbing ability of more than 80 %, angle of approach and departure 45°, fording deep water — up to 0.7 m.

The designers have had several applications in mind. Here are a few examples.

Military services  
Fire fighting  
Ambulance for difficult road conditions.  
Patrol vehicle  
Towing and road rescue operations

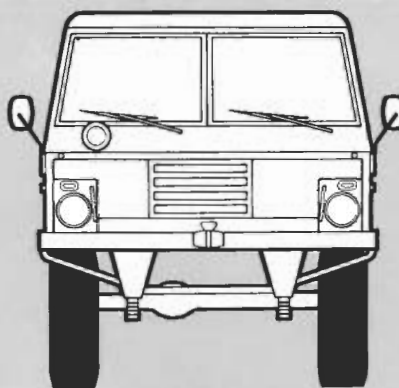
Road cleaning  
Snow ploughing

Liming  
Spraying

Transport of personel and material  
Inspection of power lines  
Pole erecting  
Compressor service  
Welding service  
Safaris

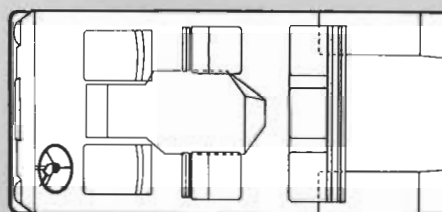
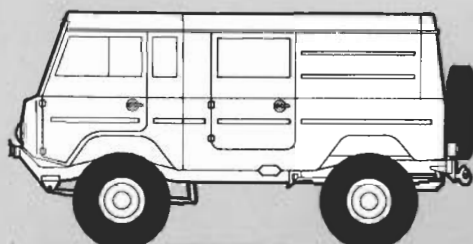


# Different body types



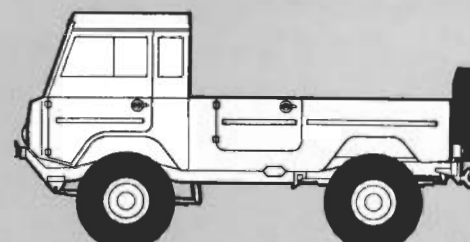
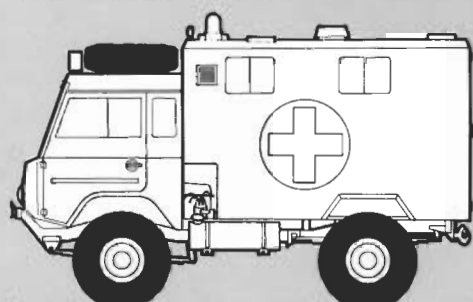
C303 4x4 Hard top

C303 4x4 Interior



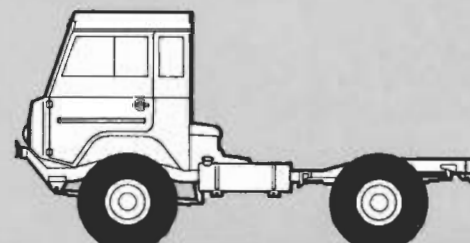
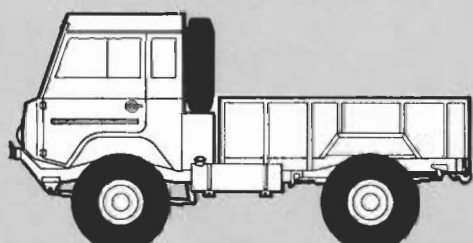
C304 4x4 Ambulance

C303 4x4 Pick up



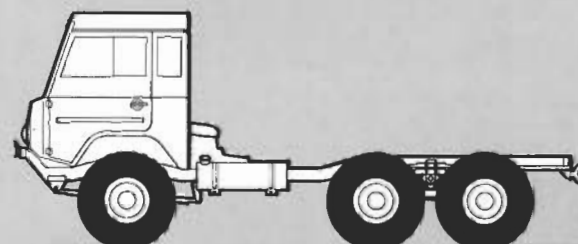
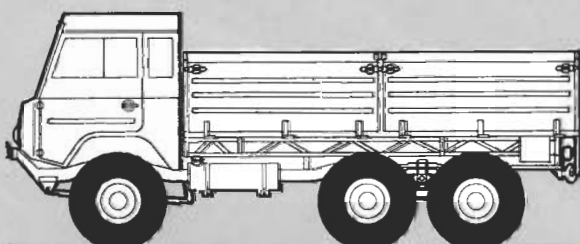
C304 4x4 with platform

C304 4x4 Chassis with cab



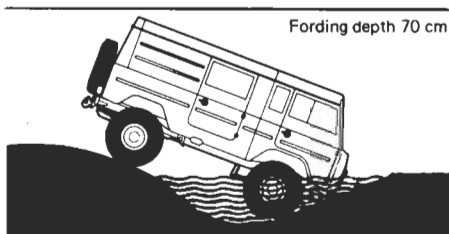
C306 6x6 with platform

C306 6x6 Chassis with cab

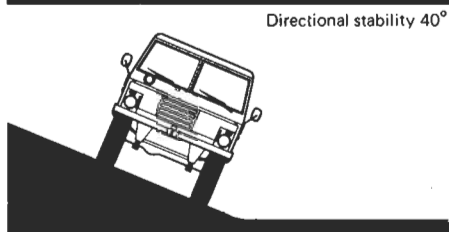




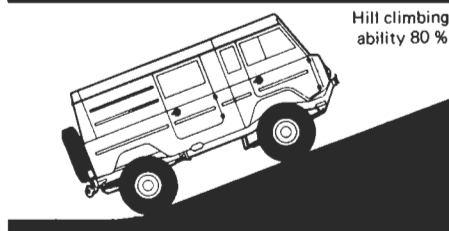
# Specification



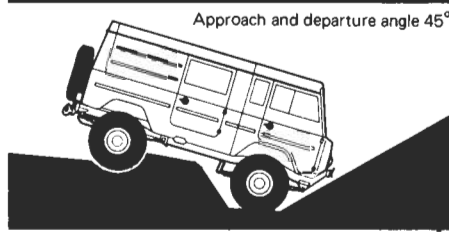
Fording depth 70 cm



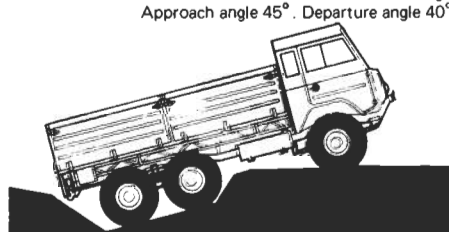
Directional stability 40°



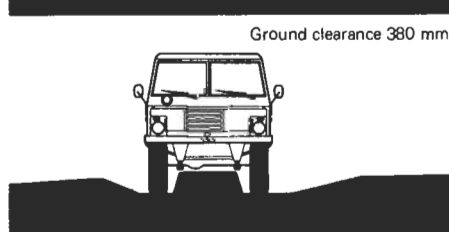
Hill climbing ability 80 %



Approach and departure angle 45°



Approach angle 45°. Departure angle 40°



Ground clearance 380 mm.

## Engine

Type	Volvo B30 four stroke
	6in-line, OHV
Output at	125 hp
	4250 rpm
Torque at	22,4 kpm
	2500 rpm
Cubic capacity	2,98 dm <sup>3</sup> (l)
Bore	88,9 mm
Stroke	88 mm

## Cooling system

Type Liquid cooling

## Clutch

Single dry plate, diameter 10" (245 mm)

## Gearbox

Fourspeed synchromesh ZF S4-18

Ratios	1 st	3,85:1
	2nd	2,08:1
	3rd	1,39:1
	4th	1:1
	R	4,13:1

## Transfer box

Two speed synchromesh

Ratios	High 1:1
	Low 2.39:1

P.t.o. on transfer box.

## Front axle

Rigid with banjo of pressed steel. Spiral bevel gears. Full floating drive shafts. Constant velocity universal joints. Drop gear hub reduction. Vacuumoperated differentiallock.

## Rear axle

Identical with the front axle but without universal joints and steering knuckles. The bogie axles are similar the 4 x 4 rear axle. The first bogie axle has pto for second bogie axle drive.

## Ratio

	C303 4x4	C304 4x4	C306 6x6
Axle gear	2,91:1	3,44:1	3,44:1
Drop gear	2,06:1	2,06:1	2,06:1
Total	6,0:1	7,1:1	7,1:1

## Brakes

Service Brake

Hydraulic drum brakes. Two leading shoes front. Leading trailing shoes rear. One circuit powering the front wheels and one rear wheel (4x4) or first bogie axle (6x6). The other circuit powering front wheels and the other rearwheel (4x4) or the second bogie axle (6x6). Warning light indicating if one of the circuits is out of order.

Each circuit is assisted by a vacuum booster.

Parking brake

Mechanical, working on propellershaft.

## Steering gear

Left hand drive or right hand drive. Mechanical steering gear of cam and roller type.

5.1 turns from lock to lock. Steering wheel diameter 450 mm.

## Wheels

Steel disc wheels. Spare wheel with tyre.

## Suspension

Front

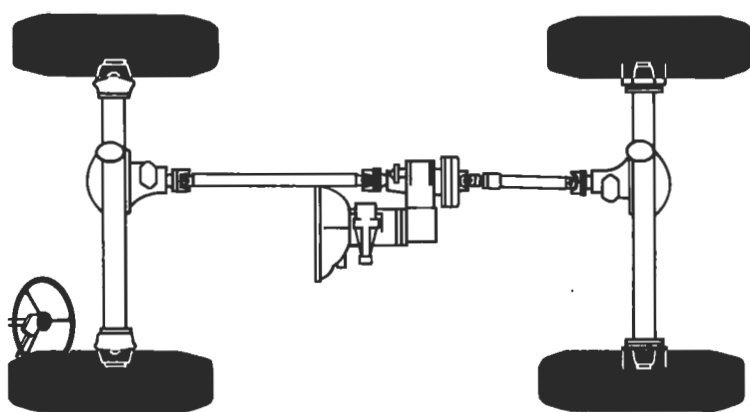
Underslung semi-elliptic leaf springs. Hollow rubber springs.

Rear 4x4

Overslung semi-elliptic leaf springs. Hollow rubber springs.

Rear 6x6

Double cantilever with parabolic spring-leaves. Spring travel checked upwards by hollow rubber springs, downwards by steel wire straps.



#### Shock absorbers

Front and rear axles fitted with double acting telescopic shock absorbers.

#### Fuel tank

C303 4 x 4	84 dm <sup>3</sup> (l) rear mounted
C304 4x4, C306 6x6	150 dm <sup>3</sup> (l) side mounted

#### Frame

Side members of box section. Cross members of tube type welded to side members. The frame has large torsion stiffness to relieve the body from stresses.

#### Cab

Steel cab for driver and one passenger. Laminated glass windshield. Adjustable seats. Foldable, adjustable backrests. Roof hatch as optional.

#### Electrical equipment

Voltage	24V 12 V (exp)
Battery capacity	57 Ah
Alternator	660 W
Starter motor	0.8 kW (1 hp)

Head lights. Combined parking lights and turn indicators front. Combined rear lights, brake lights and turn indicators rear. Trailer socket. Socket for inspection light. Basic suppression for radio interference by engine electrical system. Fusebox, behind cover on dashboard. Two speed windscreen wipers, windscreen washer.

#### Towing devices

Front: Towing pin  
Rear: Towing hook, lockable

#### Winch (optional)

PTO driven winch.

# VOLVO

AB Volvo, Truck Division,  
Special Vehicles

Dimensions m m	C303 4x4	C304 4x4	C306 6x6
Wheel base	2300	2530	2720
Overall length	4280	4470	5935
Overall width	1880	1870	1870
Overall height (loaded)	2170	2150	2150
Track, front and rear	1540	1540	1540
Turning circle	11460	11700	16500
Ground clearance	380	380	380
Approach angle	45°	45°	45°
Departure angle	45°	45°	40°
Bogie wheelbase			1050

#### Weights, kg

Kerb weight	2300		
Chassis weight		2060	3100
Payload	1000	1300	2500
Gross laden weight	3300	3900	5500

Min speed km/h	2,4	2,0	2,0 at 900 rpm
Max speed km/h	100	80	80 at 4000 rpm