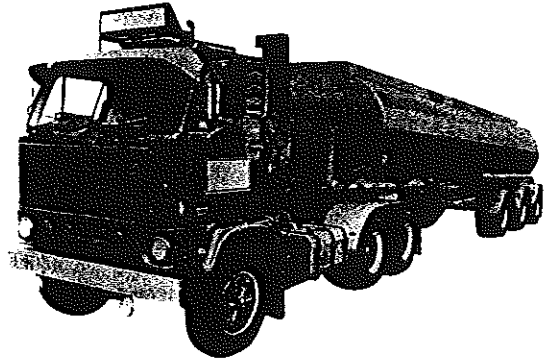


VOLVO

G 89 6x4



MAXIMUM GROSS VEHICLE WEIGHT

25,000 kg (25 tons)

MAXIMUM GROSS COMBINATION WEIGHT

65,000 kg (65 tons)

with hub reduction

100,000 kg (100 tons)

STANDARD EQUIPMENT

AXLE, FRONT

6,500 kg (14,330 lb.) capacity drop forged special steel

AXLE, REAR G 89A 30R:

17,250 kg (38,000 lb.) capacity Rockwell SQHD axles, 4.6, 5.3, 5.8, 6.1:1 ratios.

Power divider and lockout equipped.

G 89 35V and 49V:

20,000 kg (44,100 lb.) capacity Volvo axles 4.9, 5.4:1 ratios.

Power divider with diff. lock. Diff. locks on each axle.

BRAKES, PARKING

Air operated spring brakes operating directly on driving wheels.

BRAKES, SERVICE

Air operated with 3 separate circuits for the driving wheels, front wheels and trailer wheels. Separate hand control for trailer wheels.

Air compressor: 280 litres/min. @ 7 kg/cm²
(10 cu. ft./min. @ 100 lb./sq. in.)

Tank capacity: 110 litres (3.7 cu. ft.)

Working pressure: 7-8 kg/cm² (100-114 lb./sq. in.)

Brake lining area G 89A 30R: 7,460 cm² (1192 sq. in.)

G 89 35V and G 89 49V: 8,515 cm² (1320 sq. in.)

Foot switch operated exhaust brake.

CAB

All steel tilt cab, insulated, with sleeper bunk. Two-piece laminated wind screen. Two Bostrom, sprung, adjustable seats. Thermostat-controlled heater/demister, opening quarter vents and roof vent.

Instruments: Speedometer, odometer, tachometer, fuel, oil pressure, temperature, air gauges. Warning lamps for, beam, charge rate, indicators, oil pressure, temperature, air pressure, diff. lock, park brake and P.T.O.

engagement. Choice of four colours or primer. Impact tested with non-burst doors. Rear cab suspension is by rubber springs and hydraulic shock absorbers. Variable speed wipers and washers.

CLUTCH

380 mm (15") twin dry plate with torsion damping springs. Hydraulic control system with servo assistance. Lining area: 2,650 cm² (412 sq. in.)

ELECTRICAL SYSTEM

12/24 Volt with alternator, 980 W. Four 107 amp./hr 6V batteries, total 214 AH. 4.5kW (6hp) starter motor.

ENGINE

TD 120 A 6 cyl. turbo charged diesel 130 x 150 mm (5.125" x 5.91") bore x stroke 12 litre (732 cu. in.) capacity, 4 stroke.

Power: 243 kW (330 bhp) (DIN) @ 2,200 rpm

Torque: 1255 Nm (919 lb. ft.) (DIN) @ 1,300 rpm

15:1 compression ratio. RAC rating: 62 hp.

Six individual, interchangeable heads.

Donaldson Cyclopac air cleaner and stackpipe.

FRAME

Pressed steel channel, 864 mm (34") wide, 241 mm x 86 mm (9.5" x 3.4") section, 9.5 mm (0.37") material thickness, reinforcement over bogie on tractor units.

FUEL SYSTEM

Two 320 litre (70 gall.) aluminium tanks.

Mechanical fuel pump.

STEERING

Recirculating ball and nut type, with built-in servo unit.

Approx. 3.7 turns lock to lock.

Steering wheel diameter: 500 mm (20").

SUSPENSION, FRONT

Semi-elliptical leaf springs 1400 mm x 102 mm (55" x 4").

Double-acting hydraulic shock absorbers and Aeon rubber springs.

SUSPENSION, REAR

G 89 A 30R Hendrickson RTA 340

G 89 35V, G 89 49V Volvo single point inverted semi-elliptical spring type with centre trunnion pivot.

TRANSMISSION

Volvo SR 61 fully synchromesh gearbox. Basic 8 speed range change unit with splitter section giving 16 forward speeds. High-low range change by toggle switch on gear lever. Splitter section controlled by toggle switch on console. Gear ratios:

1st	11.22/9.46:1
2nd	7.84/6.61:1
3rd	5.50/4.64:1
4th	3.93/3.31:1
5th	2.86/2.41:1
6th	2.00/1.68:1
7th	1.40/1.18:1
8th	1.00/0.84:1
Reverse	10.29/8.67:1

WHEELS AND TYRES

(11) American spoke, cast wheels: 7.5" x 20"

(11) Tyres: 10.00" x 20" 12 ply.

OPTIONAL EQUIPMENT

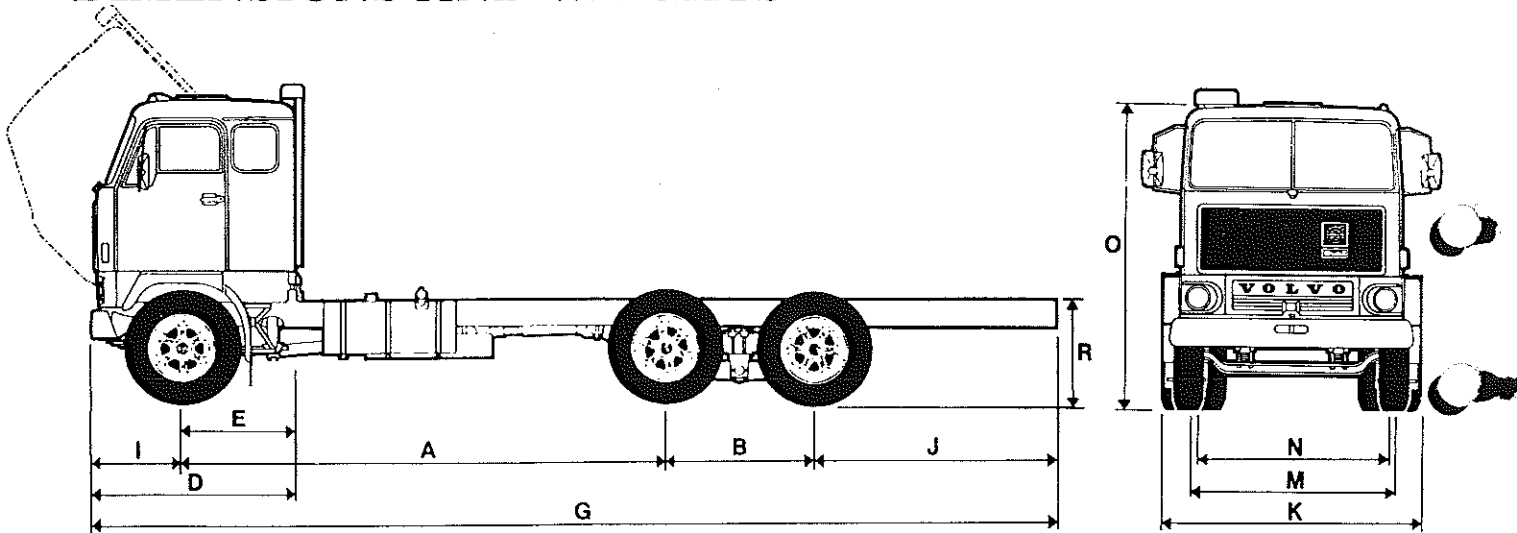
Hydraulic cab tilt.
Hub reduction with
6.14:1 diff. ratio

Power take-off, rear
Speed, SR 61 — 0.56/0.66 x engine speed
Torque — 590 Nm (60 kgf m = 434 lbft.)
(Max. 15 min. 980 Nm (100 kgf m = 720 lbft.)
Direction of rotation — Opposite
The power take-off units are compressed-air
operated from the cab.
Covers for power take-off on right-hand side
and rear end.

Power take-off, rear (high speed)
Speed, SR 61 — 0.88/1.05 x engine speed
Torque — 250 Nm (25 kgf m = 180 lbft.)
(Max. 15 min. 350 Nm (35 kgf m = 260 lbft.)
Direction of rotation — Same as that of the
engine.

Power take-off, side
Speed, SR 61 — 0.73/0.87 x engine speed
Torque — 350 Nm (35 kgf m = 250 lbft.)
Direction of rotation — Same as that of the
engine

DIMENSIONS AND WEIGHTS



Length measurements, mm (in.)

	G 89-30	G 89-35	G 89-49
A Wheelbase	3,000 (118)	3,500 (138)	4,900 (193)
Mean wheelbase	3,656 (143)	4,185 (165)	5,568 (219)
B Bogie wheelbase	1,270 (50)	1,370 (54)	1,370 (54)
D Front bumper — rear edge of cab, rest cab	1,915 (75.5)	1,915 (75.5)	1,915 (75.5)
E Centre of front axle — rear edge of cab, rest cab	1,060 (41.5)	1,060 (41.5)	1,060 (41.5)
G Overall chassis length	6,155 (242)	7,100 (280)	9,600 (378)
I Front overhang	855 (33.5)	855 (33.5)	855 (33.5)
J Rear overhang, rest cab	1,030 (40)	1,375 (54)	2,475 (97.5)
Platform, length rest cab, min. approx.	—	4,670 (184)	7,210 (284)
max. approx.	—	4,920 (194)	7,530 (296)
Turning circle diameter	15,000 (49 ft)	15,400 (50.5 ft)	20,000 (65.5 ft)

The platform length concerns a fixed platform on a standard chassis at the stated chassis weight. Calculated with 150 mm (6") between the cab and the inner edge of the headboard. Other equipment can result in different values.

Width measurements, mm (in.)	Wheels Tyres	7.5x20" 10.00-20"	Height measurements, mm (in.)	Tyres	10.00-20"
Overall width front		2,480 (97.5)	O Cab roof — ground (unladen)		2,915 (115)
K Overall width rear		2,476 (97.5)	R Frame — ground (loaded)		965 (38)
M Track front		2,021 (79.5)	(The R-measurement applies above the driving axle)		
N Track rear		1,840 (72.5)			

Weights, kg (lb.)

	*G 89-30	G 89-35	G 89-49
Chassis weight, front axle	3,850 (8,488)	3,765 (8,300)	4,130 (9,105)
Chassis weight, bogie	3,150 (6,950)	4,115 (9,060)	4,420 (9,744)
Chassis weight, total	7,000 (15,435)	7,880 (17,360)	8,550 (18,850)
Max. front axle pressure	6,500 (14,350)	6,500 (14,350)	6,500 (14,330)
Max. bogie pressure	15,422 (34,000)	20,000 (44,100)	20,000 (44,092)
Max. GVW	21,000 (46,300)	25,000 (55,125)	25,000 (55,125)
Payload including superstructure approx.	14,000 (30,870)	17,100 (37,700)	16,450 (36,270)

Chassis weights include: TD 120 A engine, ten spoke wheels 7.50x20" with 10.00-20" tyres, 320 dm³/litres (70 imp. galls.) fuel tanks as well as water, oil, fuel, but not spare wheel or spare wheel holder.

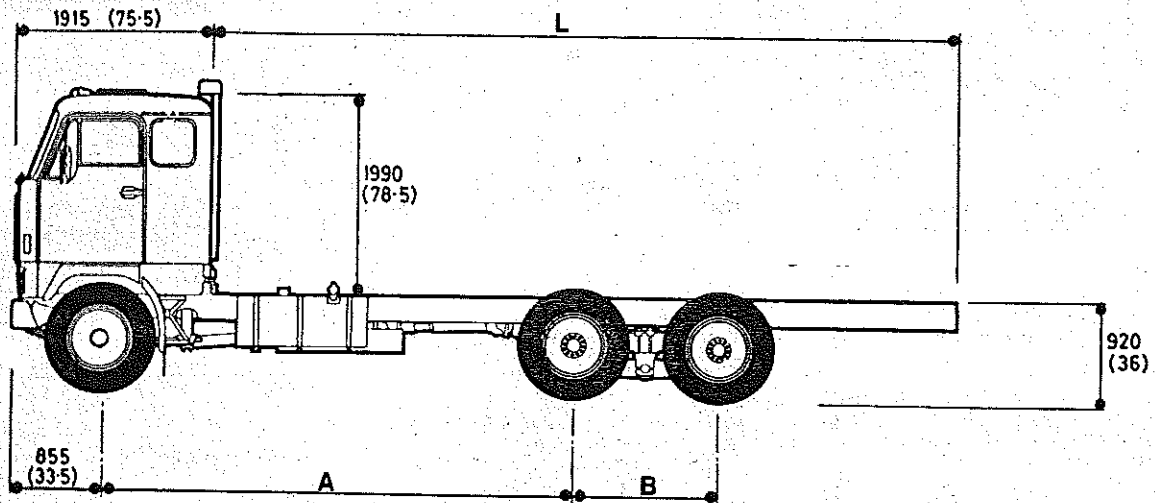
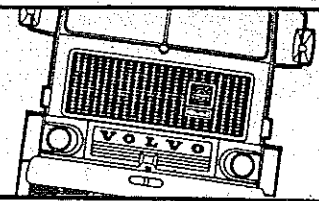
*GVW G 89 30R : 21,000 kg (21 tons)
*GCW G 89 30R : 38,500 kg (38.5 tons)

Weight modifications, kg (lb.)

	Front	Bogie	Total
Spare wheel holder	—	—	+ 15 (33)
Spare wheel with tyre 10.00-20"	—	—	+ 120 (264)
Rear pto.	+ 10 (22)	—	+ 10 (22)
Side pto.	+ 10 (22)	+ 5 (11)	+ 15 (33)
Hub reduction	—	+ 220 (485)	+ 220 (485)



Volvo G.89 A

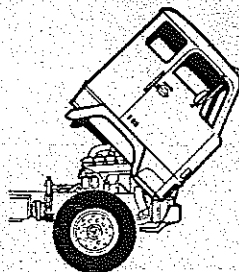


	G 89-4X2 HIGH PERFORMANCE TRACTOR		G 89-6X4V GENERAL PURPOSE TANDEM		G 89A-6X4R HIGHWAY 6X4 TRACTOR	
A	3500 (138)		3500 (138)	4900 (193)	3100 (122)	
	3538 (140)		5200 (205)	7750 (303)	4800 (189)	
TURN CIRCLE	13.2M (43')		15.4M (50.5')	20M (60.5')	15.0M (49')	
B			1370 (54)		1280 (50)	
FENDER WIDTH	2483 (98)		2483 (98)		2483 (98)	
REAR TRACK	1840 (72.5)		1840 (72.5)		1810 (71)	
G.V.W.	19500 (43000)		26000 (57300)		20000 (48350)	
G.C.W.	52000 (114400)		54432 (120000)		38600 (85000)	
FRONT TARE	3980 (8850)		3890 (8560)	3900 (8580)	3910 (8600)	
REAR TARE	2220 (4900)		3850 (8460)	4100 (9020)	3090 (6800)	
TARE	6200 (13750)		7740 (17020)	8000 (17600)	7000 (15400)	
FRT.PRESSURE	6500 (14350)		6500 (14350)		6500 (14350)	
RR.PRESSURE	13000 (28700)		20000 (44100)		15450 (34000)	
PRICE						



ALL WEIGHTS AND DIMENSIONS ARE SHOWN MM OR KG (INCHES OR POUNDS). WEIGHTS ARE ESTIMATES ONLY AND EXCLUDE FUEL. DEPENDING ON OPTIONAL EQUIPMENT USED GCW'S MAY BE INCREASED IN SOME CASES.

Sleeper cab is standard equipment:



All steel, insulated, tilting, sleeper cab
 Equipment includes: 2-piece laminated windscreen. Variable speed air operated wipers and electric washers. Dual sprung seats. (Bostrom fully adjustable) thermostat controlled heater, demister opening quarter vents and roof vent.

Instruments include: speedo, odometer, rev counter fuel, oil pressure, temperature, air gauges.

Warning lamps for charge rate, beam, direction, oil pressure, temp., air pressure diff lock; park brake and P.T.O. engagement. Choice of four optional cab colours

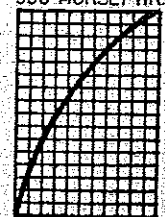


R.A.C. Rating: 62 HP
 Lubrication System: 6:1 GAL. FORCE FED system and magnetic plug
 Block: Alloy cast iron
 Heads: Six individual steel/interchangeable
 Air Cleaner: Donaldson Cyclopac & Stackpipe
 Turbocharger: Holset

Output at 37 r/s (2200 r.p.m.)
 DIN kW 243 (b.h.p. 330)
 SAE kW 243 (b.h.p. 330)
 Torque at 22 r/s (1300 r.p.m.)
 DIN Nm 1255 (kgm 128/lb.ft. 927)
 SAE Nm 1245 (kgm 127/lb.ft. 919)
 Bore mm 130.175 (5.125")
 Stroke mm 150 (5.91")
 Capacity (litres) 12 (732 cu.in.)
 Compression ratio 15:1
 Six-cylinder, four-stroke Diesel engine with overhead valves and direct injection.
 Oil capacity (litres) 27 (47.5 Imp. pints. = 57 US pints.)
 Oil cooler
 Cooling system capacity (litres) 47 (10.3 Imp. galls. = 12.4 US galls.)

New TD120 Turbo ~ 6 develops 330 hp

330 HORSEPOWER



1100 1300 engine RPM 2200
 927 (lb.ft. TORQUE)

Volvo G89 range:

Quick reference guide to variable model specifications:

	66 GAL. FUEL TANK	140 GAL. FUEL TANK	28700 LB. R. AXLE	38000 LB. R. AXLE	44100 LB. R. AXLE	SINGLE REDUCT'N	DOUBLE REDUCT'N	HUB REDUCTION	2 STAGE/HELP SUSP	4 POINT WALK BEAM	HENDRICKSON 340	TRUNNION MOUNTED	7.5 TRILEX WHEELS	SPIDER WHEELS	15X7 REAR BRAKES	15X8 REAR BRAKES
4X2	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
6X4V	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
6X4R	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	• STANDARD ○ OPTIONAL															

Clutch

Twin dry plate with torsion damping springs mm 381 (inches 15)
Total facing area cm² 2650 (412 sq. in.)
Hydraulic control system with servoassistance.

SR 61 gearbox

Fully-synchronized 8-speed basic unit with splitter section which gives 16 forward speeds. Control is by means of a toggle switch on the side of the radio console.

1st gear	11.22/9.46:1
2nd gear	7.84/6.61:1
3rd gear	5.50/4.64:1
4th gear	3.93/3.31:1
5th gear	2.86/2.41:1
6th gear	2.00/1.68:1
7th gear	1.40/1.18:1
8th gear	1.00/0.84:1
Reverse	10.29/8.67:1

Covers for power take-off on right-hand side and rear end.

Oil capacity, SR 61 (litres) 11.5
(20.2 Imp. pints. = 24.2 US pints.)

Power take-off, rear

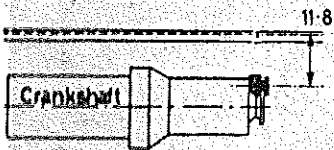
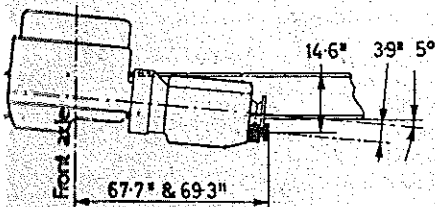
Speed SR 61 0.55/0.66 x engine speed
Torque 590 Nm (60 kgm/434 lb.ft.)
[980 Nm (100 kgm/723 lb.ft.) for max 15 min.]
Direction of rotation opposite to that of engine

Power take-off, rear (high speed)

Speed SR 61 0.88/1.05 x engine speed
Torque 250 Nm (25 kgm/180 lb.ft.)
[350 Nm (35 kgm/253 lb.ft.) for max 15 min.]
Direction of rotation same as that of engine

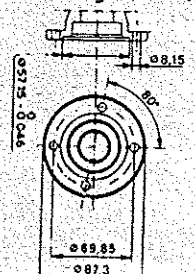
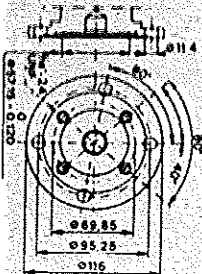
PTO locations.

The power take-offs are compressed air controlled from the driving seat.



Rear flange (100-1400 srs)

Hi-speed rear and side flange (100srs)



Electrical equipment

Voltage V 24
Battery capacity Ah 150
Alternator W 980
Starter motor kW 5 (h.p. 6.5)

Frame

Frame width mm 864 (34")
Side-members of pressed U-section.
Web height (constant) mm 241 (9.5")
Flange width mm 86 (3.4")
Material thickness mm 9.5 (0.37")
Double frame above bogie unit.
Material thickness mm 9.5 (0.37")
Section moduli 15.9 / 27.8 ins³

Fuel tank

Dual 70 imp. gallon (83 U.S. gall. or 320 litre)
Aluminium one each side of frame.

Front axle

Drop-forged special steel. Heat-treated.
14,350 lb capacity I beam

Steering gear

Servo steering, of recirculating balls and nut type, with built-in servo unit.
Approx. 3.7 turns of steering wheel from lock to lock (46° on the inner wheel).
Steering wheel diameter mm 500 (20")

Rear axle All single speed hypoid

Differential lock

Electro-pneumatically controlled from dashboard.

4 x 2:

28,700 lb capacity double redn. (ratios 4.9, 5.4)

Oil capacity (litres) 13
(22.9 Imp. pints. = 27.5 US pints.)

6 x 4 STD

44,100 capacity, single reduction 4.9, 5.4 ratios—Hub reduction optional

Oil capacity dm³ (litres) 28
(49.2 Imp. pints. = 59 US pints.)

6 x 4 HIGHWAY

38,000 lb Rockwell SQHD (ratios 5.3, 4.6, 5.8, 6.1)

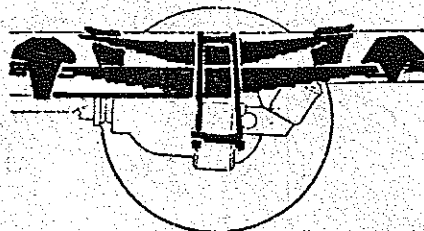
Springs

Semi-elliptical leaf springs.

Dimensions, mm (in.) Length Width
Front springs 1600-1400 102
(63-55") (4")
Rear springs 4 x 2: 1650 89
(65") (3.5")

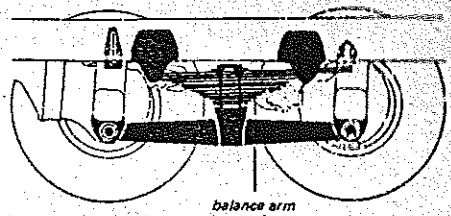
2 stage leaf with hollow rubber helpers

The rear springs have threaded spring bolts and are of interlocking design.



6 x 4 STD 4-point mounted with rocker beam

6 x 4 HIGHWAY Hendrickson RT 340



WE ARE ALWAYS PREPARED TO EXAMINE REQUIREMENTS FOR ANY SPECIAL VEHICLES. AN EXAMPLE OF WHAT CAN BE ARRANGED IS A 6X2 DERIVATIVE OF THE G894X2.

Shock absorbers

Double-acting hydraulic telescopic shock absorbers front.

Brakes

Footbrake: Compressed air brakes with separate circuits for the driving wheels, front wheels, trailing wheels and trailer brakes. Trailer brakes with separate hand control.

Tank capacity 30+30+1 (30+20) = 110 litres. (1.0+1.0+1 (1.0+0.7) = 3.7 cu.ft.)
Compressor: Capacity 280 dm³ (litres)/min at 7.0 kg/cm² working pressure. (10 cu.ft./min. at 100 lb./sq.in.). Brake system working pressure 7.0-8.0 kg/cm² (100-114 lb./sq.in.).

Parking brake: Air operated spring brake operating direct on rear driving wheels.

Take-up is variably adjustable by control on instrument panel.

Exhaust brake: Electro-pneumatically controlled by foot switch.

		FRONT	REAR	TOTAL
4 X 2	Size	16X6X.75	15X8X.75	
	Area in.2	374	473	847
	Area cm2	2415	3050	5465
6X4V	Size	16X6X.75	15X8X.75	
	Area in.2	374	946	1320
	Area cm2	2415	6100	8515
6X4R	Size	16X6X.75	15X7X.75	
	Area in.2	374	830	1204
	Area cm2	2415	5350	7765

Wheels

Dual rear wheels. Spare wheel & tyre.

Spoke wheels 20 X 7.5

Tyres 1000-20-12P

Volvo reserves the right to change specifications without notice.

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