



Trucks
Buses

VW Constellation 31.280 6x4 Rigid

Technical Specifications



VW Constellation 31.280 6x4 Rigid

Engine

Manufacturer / Model	MAN D08 36 280
Number of Cylinders / Displacement (cm ³)	6 cyl / 6871
Net Power Max - cv (kw) @ rpm (*)	275 (205) @ 2300
Torque Liq. Mx. - Nm @ rpm (*)	1050 @ 1100 - 1750 rpm
Injection system	Common rail
Air compressor	Wabco 238
Emission standard	Euro 5
Emission technology	EGR
PTO	Repto (optional)

(*) Values according to NBR ISO 1585

Transmission

Manufacturer / Model	ZF / 16S 1455
Type / Drive	Manual / cable
No. of Gears	16 forward / 2 aft
Traction system	6 x 4

Clutch

Manufacturer / Model	Sachs / mono disc dry, organic coating
Drive	Push type, air assisted hydraulic
Disc diameter (mm)	395

Front Axle

Manufacturer / Model	DANA / 13K
Type	Forged steel "I" beam

Rear Axle

Manufacturer / Model	Meritor / MT 50168
Type	Rigid stamped steel shaft
Reduction ratio	5.38:1 and 4.89:1 (optional)
Differential lock	Normal series

Suspension

Front	Double stage semi-elliptical spring, Hydraulic shock absorbers double acting telescopic, Stabilizer bar
Rear	Driving rigid axle, tandem - Random (Bogie type) Inverted semi-elliptical spring with progressive action

Chassis

Type	Ladder type, double stringers, "C" reinforcement, flat surface, constant "U" profile, riveted and screwed
Material	LNE 28
Sectional module (cm ³)	418

Wheels and Tires

Type	Aço (8.25" x 22.5")
Tires	295 / 80R22.5" / 12R22.5

Brake

Service brake	Air, drum on front and rear wheels
Type / Circuit	S-Cam / double circuit, independent, air reservoirs, air dryer with coalescent filter
Parking brake	Accumulator spring chamber
Performance	Rear wheels
Drive	Modulating valve on the panel
Engine brake / Type	Head brake and butterfly valve / MAN Exhaust Valve Brake
Drive	Electro-pneumatic, key on the panel and control on the accelerator

Electrical system

Rated Voltage	24V
Auxiliary socket for 12 volts	Series
Cab battery est. / bed	2 x (12V - 100Ah) / 2 x (12V - 135Ah)
Alternator	80A - 28V

Supply Volume

Fuel / Material	275 L / Plastic
Filter housing / without filter	27.5 / 26
Gearbox	14.0
Rear axle	19.0 (front) / 19.0 (rear)
Cooling system	29.0

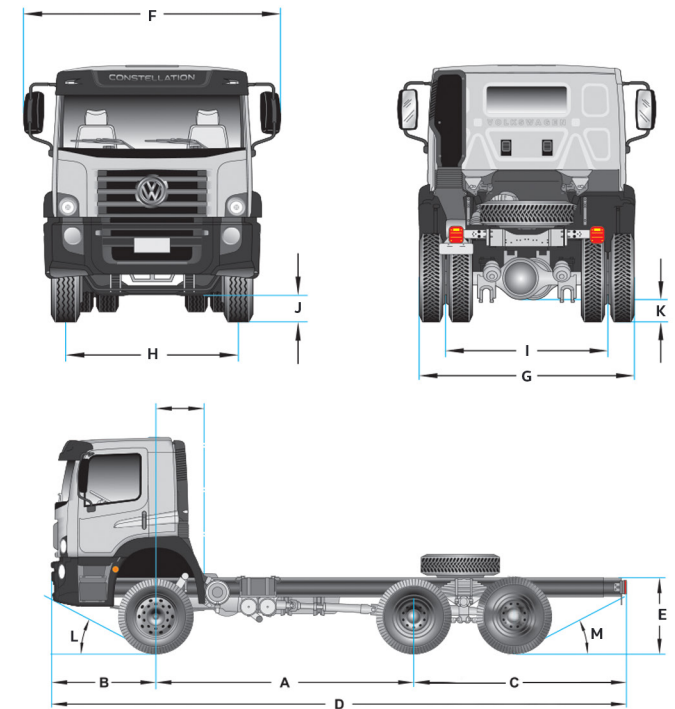
Dimensions (mm)

Wheelbase	A	4580
Front overhang	B	1511
Rear overhang	C	2415
Total length	D	9866
Load platform height	E	1075
Maximum front width (bumper extremities)	F	2505
Chassis rail width (external)	G	882
Front gauge width	H	2074
Rear gauge width	I	1879
Front Ground clearance	J	329
Rear Ground clearance	K	233
Approached angle	L	22°
Exit angle	M	15°

Performance (theoretical calculations)

Rear axle ratio	4.89:1
Maximum Speed (km/h)	96
Gradeability @ GVW (%)	39
Startability @ GVW (%)	32

Note: Data projected under simulated performance



Weights (kg)

Curb weight (Total) - day cab / sleeper cab	7880
Front axle - day cab / sleeper cab	4170
Rear axle - day cab / sleeper cab	3710
Technical axle capacity (Total)	30500
Front axle	6500
Rear axle	24000
Total (GVW)	23000
Combined total gross weight	42000
Maximum Traction Capacity (CMT)	42000
Maximum Payload Capacity + body	15270

Accessories

Sunvisor	Radio
Adjustable steering column	Jack
Air conditioning	Wheel choke
Floor mattings	Hose for cab cleaning
ABS + EBD brakes	Tool kit
Fire extinguisher	