

V O L V O

Volvo FM 500 6x4 Puller

**Safe and powerful truck
for heavy cargo movement**



Volvo Trucks. Driving Progress

VOLVO FM 500 6X4 PULLER

The first choice for over-dimensional cargo movement

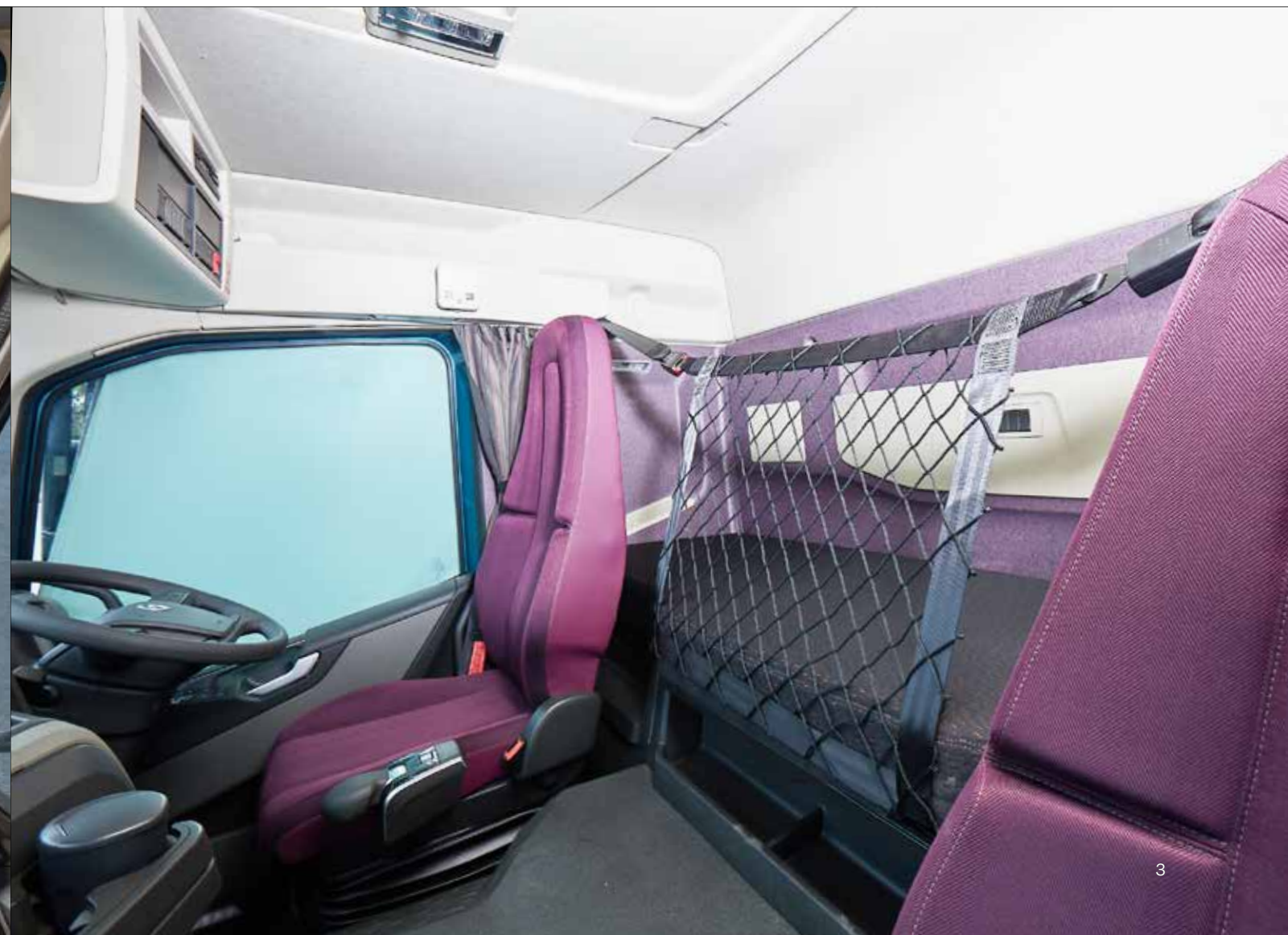
Safety always remains the prime value pillar

Volvo is synonymous with safety and we have always focused on taking safety one step ahead. That is why the new FM 500 Puller gets slimmer A-pillar, larger windscreen and lower door lines have improved direct visibility by 10%. Also, Tinted windshield helps reduce glare. The new and improved electrically controlled rear view mirrors gives the best views and are easy to adjust. With improved visibility driver is more confident and chances of accidents are minimized. Power windows and central door locking secures the truck. A glass roof hatch is provided which improves cabin aesthetics due to more light coming in, while also acting as an emergency exit. Volvo cabs have been subjected to the toughest tests including the Swedish crash test.

Puller application is one which requires precise control and high safety standards. This is why the new FM 500 Puller gets Electronic braking system which gives all the more confidence while driving with heavy loads. Downhill cruise control maintains a set speed when the loaded truck is going down the slopes using auxiliary brakes (Volvo Engine Brake). This also reduce brake wear and improve service life. In a revolutionary move, Stretch brakes have been provided which prevents jack-knifing if the trailer is also provided with electronic braking system, by applying the brakes on the trailer before the tractor.

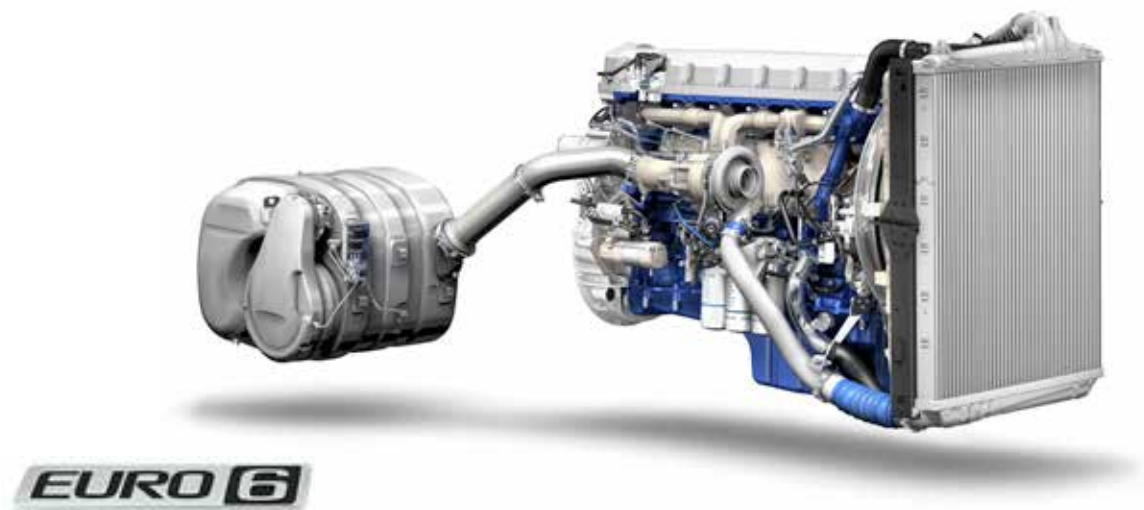
Most Comfortable cab

Drivers are the most important part of the trucking industry and their comfort is directly proportional to the productivity. The new FM500 cab has been designed keeping this in mind. With 1000 ltr more cabin space, climate control with enhanced thermal insulation, 2dB quieter cab, excellent internal and external storage space, comfortable bunk bed, soft closure of doors and better vibration arresting on air suspended cab... drivers need this comfort when they spend months together on the road.



More efficient

The cabin aerodynamics are improved to give better fuel economy. Volvo has been improving their Euro 6 technology since 2013. The latest engine management system, better gear shift programming over and above subtle design improvements in the engine like smoother cylinder liners, oil scraper ring, turbo impeller with inverse design, new low viscous VDS 5 oil with longer change intervals will help save some more liters of fuel in the long run without compromising on performance.



Convenience redefined

The new Volvo FM500 has the state of the art I-Shift 14-speed automated manual transmission which chooses the best gear in the interest of power and fuel economy. 12 forward and 4 reverse gears are provided along with 2 Ultra low crawler gears. The ergonomically designed new gear control lever fits snugly in palm. Switch between drive modes like economy, standard, performance, off-road and heavy duty with a push of a button. With I-Shift your driver has one less activity to focus on.

Add to this cruise control and downhill cruise control to maintain speed.

Pre-trip check diagnoses all the vital parameters of the truck and alerts if something needs your attention with pop up message on the driver information display. If not, just turn the ignition and keep rolling.



I-Shift Automated Manual Transmission



Pre-trip check diagnosis

Ultra-modern displays & controls

The Driver Information Display on the new cabin is a fully digital 12” unit which is dynamic to suit the preferences of the driver. Choose between the classic analogue or digital view using buttons on the steering wheel. All vital statistics of the truck, alerts, driver timers, alerts etc... become part of the display. What's more – connect your phone to the truck and drive safe with hands-free comfort.

The new Traction Control unit gathers everything to do with Traction Control in one place. This gives you a better overview, making it easier to handle demanding situations while carrying heavy cargo both on and off-road. The more you turn the knob, the more traction you get. You also get visual feedback of the traction status in the instrument display.



Driver information display



Traction control knob

Productivity at its best

With the 500 hp engine and I-Shift with ULC (Ultra Low Crawler gear), the truck can easily pull Gross combination weight (GCW) of 155T with 36T Gross vehicle weight (GVW including ballast weight) and Gross combination weight (GCW) of 195T with 46T Gross vehicle weight (GVW including ballast weight).



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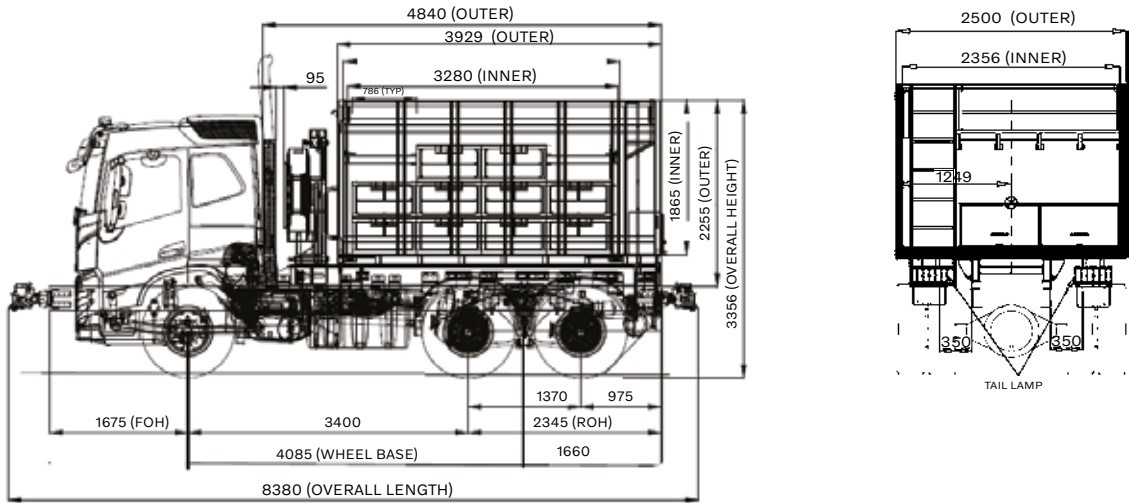
Technical specifications

ENGINE	
Six-cylinder, in-line direct injection diesel engine	
Overhead camshaft with four valves per cylinder	
Electronically regulated common rail fuel injection with unit injectors	
Heavy duty turbocharger and intercooler	
Engine management system with driving information and diagnosis	
Exhaust after treatment by Selective Catalytic Reduction (SCR) technology with additional AdBlue tank	
Exhaust Gas Recirculation (EGR)	
Displacement	12.8 litre
Bore x Stroke	131 x 158 mm
Compression Ratio	18.0 : 1
Max. power	500hp @ 1404-1700 rpm
Max. Torque	2550 Nm @ 980-1400 rpm
Economy Speed Range	900 - 1400 rpm
Emissions*	BS VI/Euro 6
*Emission requirements conform to ECE/EEC regulations and AIS 137 as notified by MoRTH vide GSR 889(E) dated 16.09.2016.w.e.f 01 April, 2023.	
CLUTCH	
Power assisted push-type single plate friction disc	
Plate diameter	430 mm
GEARBOX	
I-Shift with Ultra Low Crawler (ULC) gears (Automated range / splitter gearbox)	
Heavy duty transmission oil cooler with additional radiator	
Enhanced software for Heavy Duty (HD) high gross combination weights	
Economy, Standard, Performance, Off-road, Heavy duty drive modes	
No. of gears	14 forward + 6 reverse
FRONT AXLE	
Heavy duty steerable front axle with high ground clearance	
Capacity	9000 kg
REAR AXLE	
Drive tandem hub reduction axle with four planetary gears	
Differential locks - inter wheels and inter-axles, Differential Lock Control (DLC)	
Traction Control System (TCS)	
Ratio	6.18:1
Capacity (Tandem Axle)	33000 kg
SUSPENSION	
Front	
Parabolic suspension with S-shaped leaf geometry	
Double action shock absorbers and stabilizers	
No. of leaves	3
Rear	
Heavy duty bogie with conventional multi leaf springs	
Rubber journaled V-stays, reaction rods, stabilizer and two shock absorbers	
No. of leaves	11

WHEELS & TYRES	
Tyre size	12.00R20, Radial
Wheel rim size	8.5" x 20"
Total number of wheels fitted	10
1 no. spare wheel rim and tyre mounted on the front side of the ballast body	
CHASSIS FRAME	
‘C’ channel section side members made of high strength steel	
Cross Section	300 x 90x 8 mm
Full length inner reinforcement	
Inner reinforcement thickness	5 mm
STEERING	
Hydraulic power steering with fixed displacement pump	
Tilt and telescopic adjustable steering wheel	
Steering wheel diameter	450 mm
FUEL & ADBLUE TANK	
Aluminum & Steel tank mounted on the left and right side of the chassis respectively	
Right fuel tank capacity	330 liters
Left fuel tank capacity	405 liters
AdBlue Tank Capacity	64 litres
EXHAUST SYSTEM	
Horizontal muffler, vertical exhaust outlet on right-hand side	
BRAKES	
Electronic Brake System (EBS)	
Dual-line air brake system with ABS	
Hill start aid, Active Grip Control, Auto Hold	
Z-cam drum brakes with automatic adjustments	
Automatic low speed trailer brake activation (stretch brake) to avoid jack-knifing	
Electronic parking brake activation	
Spring type parking brake chambers on front and both rear axles	
Additional parking brake chambers	
PNEUMATICS	
Gear driven, double-cylinder reciprocating air compressor	
Max. compressor capacity	1100 l/min
Electronically controlled Air Production Modulator (APM)	
Total air tank capacity	103 litres
ELECTRICAL	
System voltage	24V
Volvo enhanced flooded batteries (2 nos.) with battery reconditioner	
Battery voltage	12 V
Battery capacity	225 Ah
Alternator capacity	110 A
TELEMATICS	
Volvo Connect on-board telematics collects and transmits all the vital statistics and performance parameters of the truck	
Performance and health of the truck can be monitored from the convenience of your home	

CAB	
New FM sleeper cabin fully suspended by four coil springs and shock absorbers	
Crash-tested steel welded structure	
Accommodation	1 driver + 1 co-driver
Cabin tilt angle	70°
Interiors	
12" fully dynamic digital instrument cluster with Home & Focus views	
Slimmer A-pillar, larger windscreen & lower door lines enhances direct visibility	
Ergonomically designed new dashboard with easy-access stalks, switches & controls	
Electrical manually controlled climate unit	
Central door locking and power windows	
Additional road speed limiter (ARSL) switch on dashboard for limiting vehicle speed while pulling loads	
Air suspended driver's seat with adjustment of fore-aft, height, backrest, lumbar support, shoulder, seat cushion extension, seat tilt	
Cushioned foldable co-driver seat	
Cruise control + Downhill cruise control starting from 2 kmph (Slow Cruise)	
Red safety belt	
Exteriors	
Aerodynamically designed with smooth surfaces and rounded corners at the front	
Two LED warning lights on the cab front	
Distinct V-shape daytime running light (DRL)	
Heavy duty headlamp unit with higher illumination main beam	
Electrically operated roof hatch as emergency exit	
TOOLS & ACCESSORIES	
Standard tool kit, first-aid kit, two warning triangles, bulb and fuse kit	
20 ton hydraulic jack	

BALLAST BODY	
All steel welded construction body made of high yield strength	
Sub-frame as per Volvo Body builder Instructions (VBI)	
Concrete blocks provided as ballast weight	
Tie rods to tighten the concrete blocks together	
Winch type mechanism for mounting and demounting the spare wheel tyre	
Platform for standing at the rear of the ballast body	
Ladder on the rear left side, front right side and rear of the ballast body for ease of climbing	
Tool box at the rear	
TOW HOOK	
Front and Rear tow hooks fitted on heavy-duty end cross member	
Usable draw bar eye diameter	50 mm
VEHICLE DIMENSIONS, mm – (as per CMVR)	
Wheel base	4085
Overall length (including front and rear tow hooks)	8380
Overall width	2534
Overall height	3930
Minimum ground clearance	303
VEHICLE WEIGHTS	
Laden weight, kg (as per CMVR limits)	
Front axle	7000
Rear axles (Bogie)	28500
Gross Combination Weight* with ballast of 20000 kg	155000
30000 kg	195000
PERFORMANCE DATA	
Max. speed	80 kmph
with ARSL**	25 kmph
* All GCWs above 55T are subject to special approval from MoRTH	
**Limited by Additional road speed limiter (ARSL) witch is dashboard, while pulling loads	



Caution: Do not drill or weld on the frame. Note: Volvo has a policy of continual product improvement. The specifications / images shown here are indicative and are subject to change without prior notice. Performance parameters are subject to stability of the vehicle.

VOLVO

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