

V O L V O

Volvo FMX 500 8x4 Off-road Dump Truck

Push the limits of
productivity



Volvo Trucks. Driving Progress

VOLVO FMX 500 8X4

Safety always remains the prime value pillar

Volvo is synonymous with safety. The slimmer A-pillar, larger windscreen and lower door lines have improved direct visibility by 10%. The truck is now provided with reverse camera with the view available on the digital instrument panel. Additional camera under the passenger side mirror arm eliminates all the blind spots. There is provision to install 4 additional cameras.

Tinted windshield helps reduce glare and improved rear view mirrors gives you the best views. With improved visibility driver is more confident and chances of accidents are minimized. Power windows and central door locking secures the truck. Volvo cabs have been subjected to the toughest tests including the Swedish crash test.

A body builder module ECU prevents the truck from exceeding 5 kmph speed when the dump body is in raised position, thus preventing accidents at the dump yard.

Electronic braking system and Electronic stability control give you all the more confidence to tame the roughest of the roads. Downhill cruise control maintains a set speed when the loaded truck is going down the slopes using auxiliary brakes VEB+ (Volvo Engine Brake). This also reduce brake wear and improve service life.

Volvo Dynamic Steering (VDS) ensures that the truck is stable even while carrying heavy payloads. Stability Assist is a driver support function on low friction surfaces. It helps the driver to keep control of the vehicle by a guiding steering torque when the truck starts to skid.

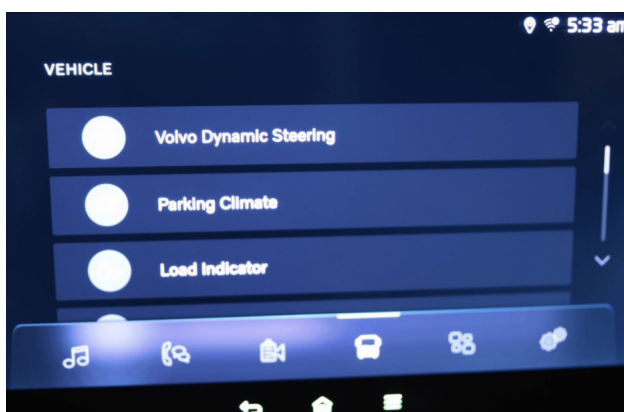
PSS-Dual emergency steering helps to steer the vehicle to safety in case of primary hydraulic circuit failure. A warning is flashed in the driver display.



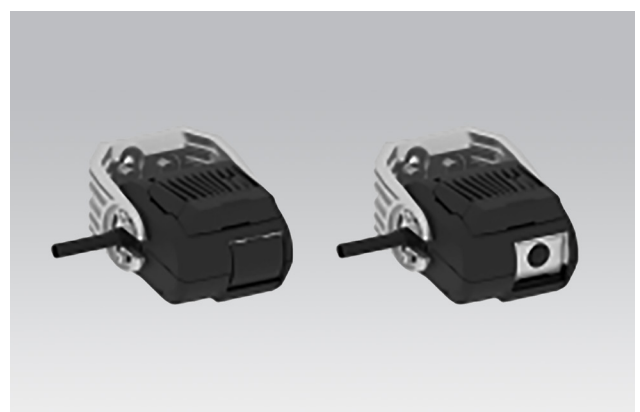
Camera view



Passenger Corner camera



Secondary information display



Rear view camera



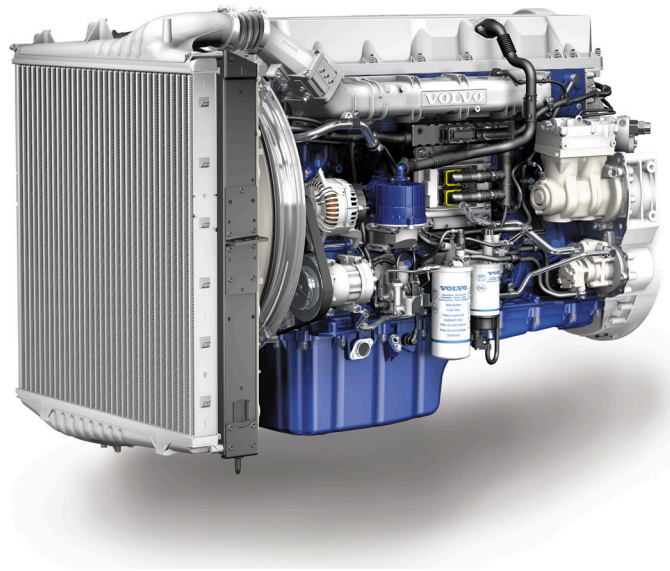
Most comfortable cab

Drivers are the most important part of the trucking industry and their comfort is directly proportional to the productivity. The new FMX 500 cab has been designed keeping this in mind. With 800 ltr more cabin space, climate control with enhanced thermal insulation, 2dB quieter cab, and excellent internal and external storage space, soft closure of doors, pneumatic suspended seat and better vibration arresting... drivers are sure to guarantee few extra trips per shift.



More efficient

The cabin aerodynamics are improved to give better fuel economy. 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... help save some more liters of fuel in the long run. The trucks are designed to run round the clock and the 405 liter fuel tank ensures that the trucks don't get thirsty often.



Convenience redefined

The new Volvo FMX 500 has the state of the art I-Shift 12 speed automated manual transmission which chooses the best gear in the interest of power and fuel economy. The ergonomically designed new gear control lever fits snugly in palm. Switch between drive modes like economy, standard, performance and off-road with a push of a button. With I-Shift your driver has one less activity to focus on.

Add to this cruise control to maintain speed and downhill cruise control to regulate speed while going down the slopes using auxiliary brakes VEB+ (Volvo Engine Brake), so as to reduce brake wear.

Volvo Dynamic Steering has multiple benefits:

- Driver effort / strain reduced upto 85%. Driver wear and tear injuries reduced through lower shunting forces (light steering at low vehicle speeds)
- Reduced steering kicks caused by potholes and other road damages.
- Reduction of directional deviations caused by gusts of wind or banked roads.
- The steering wheel will return to neutral when the truck is moving, thus making both reversing and forward driving at low speed easier.
- Stability Assist helps the driver to keep control of the vehicle by a guiding steering torque when the trucks start to skid.

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 etc... become part of the display. What's more – connect your phone to the truck and drive safe with hands-free comfort.

If one digital screen is not enough, there is an additional 9" touch screen Secondary information Display. This is a multipurpose unit which can display trip meters, driver coaching, camera views, infotainment etc... You can also add third party apps to suit your specific needs. The truck is always connected to your monitoring console and our Uptime center, continuously transmitting vital data. We can remotely upgrade or install new software on the truck.

This gives you a better overview, making it easier to handle demanding situations like loose soil, slush etc... The more you turn the knob, the more traction you get. You also get visual feedback of the traction status in the instrument display.

The new Traction Control unit gathers everything to do with Traction Control in one place.



Driver Coaching



Traction control knob & display



Driver information display

Enhanced productivity

The 500 hp engine with 2500 Nm torque, overdrive gearbox, reinforced chassis and parabolic suspension, 10T each on front axles and all new 38T bogie axle have added 15% higher payload capacity with a 25.2 cu.m SAE heap rock body.



Technical specifications

ENGINE

Six-cylinder, in-line direct-injection diesel engine

Overhead camshaft with four valves per cylinder

Electronically regulated 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

Displacement 12.8 litre

Bore x stroke 131 mm x 158 mm

Compression ratio 17.8 :1

Max. power 500 hp @ 1400-1900 rpm

Max. torque 2500 Nm @ 1050-1400 rpm

Economy speed range 1000-1500 rpm

Emissions BS-IV / Euro 4

Max. engine brake power 503 hp (VEB+) @ 2300 rpm

CLUTCH

Power assisted push-type single plate friction disc

Plate diameter 430 mm

GEARBOX

I-Shift overdrive gearbox (Automated range / splitter gearbox)

Heavy duty transmission oil cooler with additional radiator

Enhanced software for mining and off-road conditions

Economy, Standard, Performance, Off-road drive modes

No. of gears 12 Forward + 4 Reverse

POWER TAKE-OFF

Clutch dependent gearbox mounted power take-off

FRONT AXLES

Twin heavy duty reinforced steerable front axle with high ground clearance

Capacity (twin axles) 20000 kg

REAR AXLES

Volvo Construction Equipment make

Differential locks – inter-wheels and inter-axes
Differential Lock Control (DLC)

Traction Control System (TCS)

Ratio 7.22:1

Capacity (Tandem axles) 38000 kg

SUSPENSION

Front

Parabolic leaf suspension

Double-action shock absorbers and stabilizers

No. of leaves 4

Rear

Heavy duty bogie suspension with parabolic leaf spring

Rubber-journalled V-stays, reaction rods, stabilizer and two shock absorbers

No. of leaves 4

WHEELS AND TYRES

Tyre size 12" x 24" Cross Ply (20 Ply rating)

Tyre type Special reinforced tyres

Wheel rim size 8.5" x 24"

Total no. of wheels fitted 12

1 no. spare wheel rim and tyre

CHASSIS FRAME

'C' channel section side members made of high strength steel and reinforced cross members

Cross Section 300 mm x 90mm x 8 mm

Full length inner reinforcement

Inner reinforcement thickness 5 mm

STEERING

Volvo Dynamic Steering (VDS) with stability assist

Active and more direct steering with extra pump and torque overlay

Dual power Emergency steering system

Hydraulic power steering with variable displacement pump

Tilt and telescopic adjustable steering wheel

Steering wheel diameter 450 mm

FUEL AND ADBLUE TANKS

Steel fuel tank mounted on right hand side between 2nd and 3rd axle

Fuel tank capacity 405 liters

AdBlue tank capacity 32 liters

EXHAUST SYSTEM

Horizontal muffler, vertical exhaust outlet on right hand side

BRAKES

Electronic Brake System (EBS)

Electronic Stability Program (ESP)

Hill start aid

Dual line air brake system with ABS

Z-cam drum brakes with automatic adjustment

Electronic parking brake activation

Spring type parking brake chambers on 2nd front axle, 1st rear axle and 2nd rear axle

PNEUMATICS

Gear driven, dual cylinder reciprocating air compressor

Max. compressor capacity 900 l/min

Electronically controlled Air Production Modulator (APM)

Total air tank capacity 123 litres

ELECTRICALS

System voltage 24V

Volvo enhanced flooded batteries (2 nos.) with battery re-conditioner

Battery voltage 12V

Battery capacity 170 Ah

Alternator capacity 110A

CAB

New FMX 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 tinted 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

9" touch screen Secondary information display

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

Red safety belt

Exteriors

Aerodynamically designed with smooth surfaces and rounded corners at the front

Heavy duty bumper with extremely robust design and high approach angle

Robust front towing device rated for 32 tonnes

Rear view camera with color display in dashboard for enhanced visibility

Passenger side camera in the lower mirror housing

Distinct V-shape daytime running light (DRL)

New heavy duty headlamp unit with higher illumination main beam

Electrically operated steel roof hatch as emergency exit

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.

TOOLS AND ACCESSORIES

Standard tool kit, first aid kit, two warning triangles, bulb and fuse kit

20 ton hydraulic jack

TIPPER BODY & HYDRAULICS

All steel welded construction low C G Rock body

SAE Heap volume 25.2 Cu.m

Floor, sideboard and headboard made of high tensile wear resistant steel

6 nos angular solid rock breakers on the floor

Full length canopy

Tipping angle with knock-off valve 49 deg

Heavy duty front mounted telescopic cylinder

Direct mounted hydraulic pump on PTO

Oil tank with breather filter, oil level indicator and return line filter

Oil tank capacity 135 liters

VEHICLE DIMENSIONS mm

Wheel base 5285

Overall length 9276

Overall width 2800

Overall height 3772

Turning circle diameter 23300

Minimum ground clearance 368

VEHICLE WEIGHTS kg

Unladen weight 20450

Front axles (twin) 20000

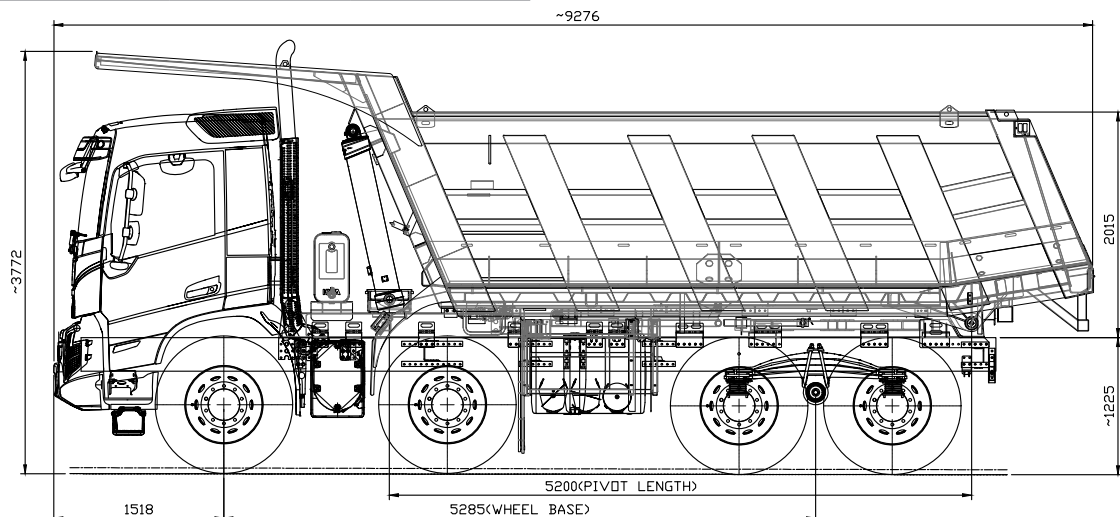
Rear axles (Bogie) 38000

Gross Vehicle Weight 58000

PERFORMANCE DATA

Economy speed range on top gear 39-59 kmph

Max. speed (with electronic speed limiter) 45 kmph



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.

V O L V O

For more information contact:

Volvo Trucks

Yalachahally, Tavarekere Post, Hosakote Taluk, Bangalore 562 122, India.

Phone: +91 80 6788 7000 | vtimarketing@volvo.in | www.volvotrucks.in

Follow us on: [in](#) [ig](#) [fb](#) [yt](#) [tw](#) /Volvo Trucks India

Volvo Trucks. Driving Progress