

V O L V O

Volvo FMX 460 8X4 Coal Tipper

**Push the limits of
productivity**



Volvo Trucks. Driving Progress

VOLVO FMX 460 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%. 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. Electrically operated steel roof hatch provided as emergency exit. Electronic braking system give you all the more confidence while driving in rough terrain. 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 reduces brake wear and improves service life.

The truck is now provided with reverse camera with the view available on the digital instrument panel.

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.

An inclinometer is provided which stops the truck's tipping system while on uneven surface. This prevents toppling while unloading.





Rear view camera



Inclinometer

Most comfortable cab

Drivers are the most important part of the trucking industry and their comfort is directly proportional to the productivity. The new FMX460 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 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. 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 help save some more liters of fuel in the long run. There are upgrades in the Exhaust After Treatment System (EATS) as well - New urea pump with greater precision and higher urea injection capacity, Improved aging resistance of Diesel Oxidation Catalyst with more Platina and Palladium, Insulated DPF to maintain correct temperature.

Convenience redefined

The new Volvo FMX 460 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. With the next generation of gearbox, Gearbox Control Unit is upgraded with new microcontroller with improved processor capacity, which helps in faster and smoother actuation improving gear shifting speeds by 30%. This ensures no torque loss while shifting gears and also improves the fuel efficiency.

Add to this cruise control and downhill cruise control starting from 4 kmph to maintain speed and improve the life of brake liners

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. You can avoid the physical inspection of the truck at the beginning of every shift, thus improving the utilization.

Change Direction enables to select reverse gear at lower vehicle speed and start reversing without letting foot off the accelerator pedal and vice versa.

Auto Hold function which is an extension of electric parking brake and Hill Start Aid offers more convenience and extra safety.



I-Shift Automated Manual Transmission



Pre-trip check diagnostics



Auto hold



Driver information display

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.

The new Traction Control unit makes it easier to handle demanding situations on-road or 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.

Active Grip Control is a patented technology which significantly improves driving stability, acceleration and braking on slippery surfaces. Thanks to the quick response of the truck, the power generated between the wheels and

the road can be controlled at lightning speed to proactively prevent wheel spin. This function significantly improves acceleration on slippery surfaces.



Traction control knob and display



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Technical specifications

ENGINE (D13K460)	
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 mm x 158 mm
Compression ratio	18.0 :1
Max. Power	460 hp @ 1404-1700 rpm
Max. Torque	2346 Nm @ 945-1400 rpm
Economy speed range	900-1400 rpm
Emissions*	BS-VI / Euro 6
Max. Engine brake power	456 hp (VEB+) @ 2300 rpm
* Emission requirements conform to ECE/EEC regulations and AIS 137as notified by MoRTH vide GSR 889(E) dtd.16.09.2016 w.e.f 01 April, 2023.	
CLUTCH	
Power assisted push-type single plate friction disc	
Plate Diameter	430 mm
GEARBOX (AT2612G)	
I-Shift (Automated range / splitter gearbox)	
Heavy duty transmission oil cooler with additional radiator	
Enhanced software for mining and off-road conditions	
Change direction	
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 steerable front axle with high ground clearance	
Capacity (twin axles)	18000 kg
REAR AXLES	
Drive tandem hub reduction axle with four planetary gears	
Differential locks – inter-wheels and inter-axes, Differential Lock Control (DLC)	
Traction Control System (TCS)	
Ratio	5.41:1
Capacity (Tandem axles)	33000 kg
SUSPENSION	
Front	
Parabolic suspension with S-shaped leaf geometry	
Double action shock absorbers and stabilisers	
No. of leaves	3
Rear	
Heavy duty bogie suspension with conventional multi-leaf spring	
Rubber journaled V-stays, reaction rods, stabiliser and two shock absorbers	
No. of leaves	11

WHEELS & TYRES	
Tyre Size	12" x 20" Cross Ply
Wheel rim size	8.5" x 20"
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	
Cross Section	300 x 90 x 8 mm
Full length inner reinforcement	
Inner reinforcement thickness	5 mm
STEERING	
Hydraulic power steering with variable displacement pump	
Tilt and telescopic adjustable steering wheel	
Steering Wheel Diameter	500 mm
FUEL & ADBLUE TANKS	
Fuel tank mounted on the left hand side between 1 st and 2 nd front axle	
Fuel tank capacity	290 litres
AdBlue tank capacity	57 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	
Electronic parking brake activation	
Spring type parking brake chambers on 2 nd front axle, 1 st rear axle and 2nd rear axle	
PNEUMATICS	
Gear driven, double-cylinder reciprocating air compressor	
Max. compressor capacity	870 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 reconditioner	
Battery voltage	12V
Battery capacity	225 Ah
Alternator capacity	110A
CAB	
New FMX day 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
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 4 kmph
Red safety belt
Infotainment system and Bluetooth connectivity
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 colour display in dashboard for enhanced visibility
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 & ACCESSORIES
Standard tool kit, first-aid kit, two warning triangles, bulb and fuse kit
20 ton hydraulic jack

TIPPER BODY & HYDRAULICS

Steel U type body for raw and washed coal transportation	
Hydraulic tail gate mechanism with pneumatic operated lock	
Struck volume	33 Cu.m
Full length canopy	
Tipping angle with knock-off valve	41 deg
Scow angle	9 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 litres
Inclinometer for enhanced safety while unloading	

VEHICLE DIMENSIONS mm (as per CMVR)

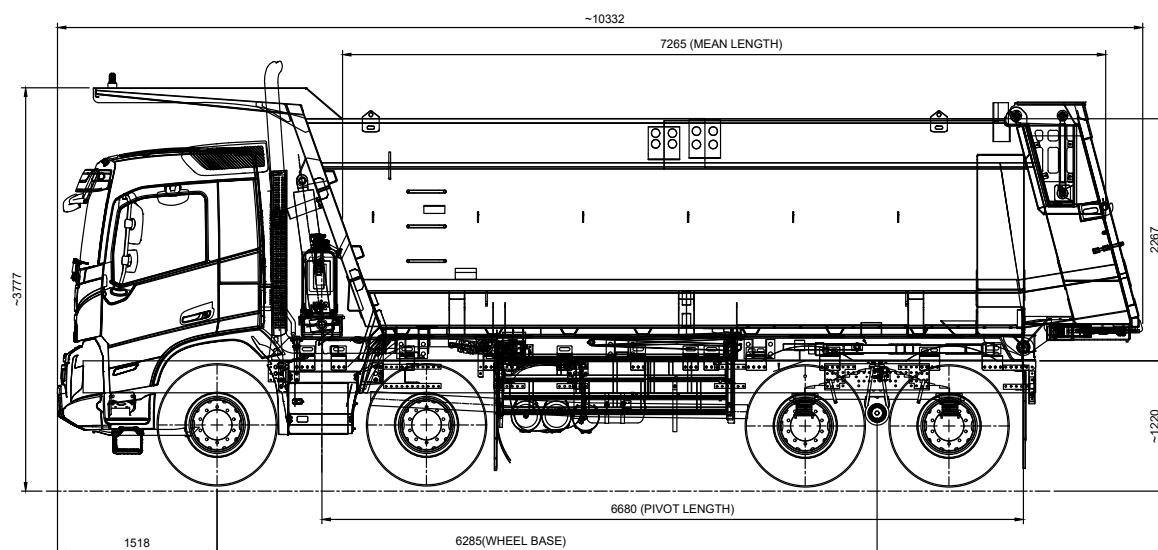
Wheel base	6285
Overall length	10332
Overall width	2598
Overall height	3777
Turning circle diameter	23200
Minimum ground clearance	340

VEHICLE WEIGHTS

Laden weight, kg (as per CMVR limits)	
Front axles (Twin)	14000
Rear axles (Bogie)	21000
Gross vehicle weight	35000

PERFORMANCE DATA

Economy speed range on top gear	37-54 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.

VOLVO

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