

Volvo Trucks. Driving Progress



PRODUCT GUIDE







## What makes a good truck a great one?

Most people would say it's all about efficiency. A big word, but what does it really mean in practice?

Well, to us it means a truck that's rolling when it's supposed to. A truck that does so using every drop of fuel to maximum effect. A truck that makes the job of the bodybuilder easy – and fast – regardless of superstructure. And, not least, a truck that allows drivers to do their job better and with less effort.

This is exactly what we designed the new Volvo FM to be. A truck where you'll find many innovative features that we believe will change your day. Welcome to your future transport specialist.

#### **OVERVIEW**

## A closer look at the new Volvo FM.

#### CAB INTERIOR

20

An ergonomic driving position, a roomy bed and plenty of new electronic features make sure you stay relaxed. **Learn more** on page 20.

#### (14`

#### INSTRUMENT CLUSTER

The modern instrument cluster is designed with the driver in focus, with all information in the right place. **Learn more on page 14.** 

#### (**38**)

#### DRIVER SUPPORT SYSTEMS

Being at the forefront of safety is Volvo's home ground. Our advanced driver support systems efficiently help the driver avoid accidents. Learn more on page 38.

#### 16)

#### VOLVO DYNAMIC STEERING The biggest invention since power steering lets you enjoy effortless manoeuvring with extreme precision. Learn more on page 16.



LOW SLEEPER CAB With only 261 centimetres from road to roof, this is the perfect choice for volume operators. Learn more on page 30.

#### HEADLIGHTS

Dynamic headlights, static cornering lights, improved main beam and more. Learn more on page 24. 24

#### **VOLVO DIESEL ENGINES**

Fuel-efficient and torque-strong 11- and 13-litre engines, from 330 to 500 hp. All fulfilling Euro-6 with uncompromised driveability. Learn more on page 10.



12

**BODYBUILDING INTERFACE** Save time and money at the body-builder's thanks to numerous clever chassis features. Learn more on page 12.

#### I-SEE

Save up to 5% fuel on even more routes. The revolutionary I-Shift software has been improved and is now available for the Volvo FM. Learn more on page 8.

#### 28 UPTIME

The new telematics gateway puts the Volvo FM in touch with the workshop from anywhere. Sign up for the new Gold contract to get a 100% uptime promise. Learn more on page 28.

#### 36 THE FUEL DEAL

Two packages of real fuel savers for long haul, with product features as well as services. Saving up to 11 % for the benefit of both your bottom line and the environment. **Learn more on page 36**.

#### LOAD HANDLING

32

ECS4 is the latest version of Volvo's electronical suspension system. The biggest news? A wireless remote control. Learn more on page 32.

#### HANDLING

6

We've redesigned the chassis to provide the new Volvo FM with driving characteristics that are second-to-none. Learn more on page 6.

#### CHASSIS LAYOUT

Whether you want more room for fuel or a complex superstructure, the new Volvo FM provides more ways than ever of tailoring the chassis layout. Learn more on page 34.



#### (18

MY TRUCK Check on your truck and make sure it's ready for work when you arrive. With this new app you keep your Volvo FM close – wherever you are. Learn more on page 18.

> VIEW THE COMPLETE SPECS, FROM CHASSIS TO EXTRA EQUIPMENT, ON PAGES 40-57

#### I-SHIFT

The world's most intelligent gearbox. Now even better. Easy to drive, and packed with fuel-saving software. Learn more on page 26.

26

#### HANDLING

### If you recognise the driving feel, it's probably from your car.

If you spend your day behind the wheel, you know the importance of good handling. Because when it comes to trucks, driving comfort is never just a matter of comfort. When the truck responds perfectly to your commands, you do a better job, run a lower risk of strain injuries and are less likely to end up in an accident.

That's why the new Volvo FM comes with driving characteristics above the ordinary. Let's take a closer look.



#### Steady as a train.

We've completely redesigned the geometry of the front leaf suspension. The result is greatly improved steering stability, since roll forces are efficienctly dampened. You'll feel in total control. And don't be surprised if the roads suddenly don't seem so scarily narrow anymore, for example when meeting another truck at high speed.





#### Get rid of those constant corrections.

A poor front suspension makes a truck behave like a boat, forcing the driver to constantly correct the course. The new Volvo FM is different. The truck simply follows your control both in a straight line and around tight bends.

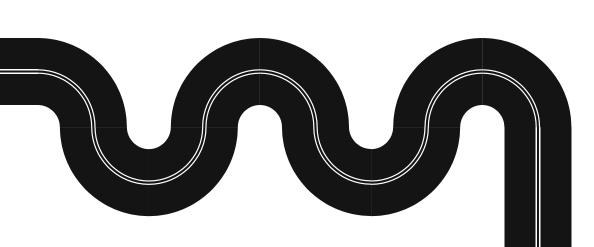


#### Volvo Dynamic Steering. Better than car-like.

It will completely revolutionise the way you drive. Perfect stability at high speeds. Total control at low speeds. And drastically reduced strain on your muscles. You really must book a test drive and experience it for yourself. But if you want to learn more first, see **page 16.** 



**Keeping unwanted forces away.** The rear air suspension has undergone a complete makeover, now featuring a new Volvo-patented design with stabilisers in front of the axle. It efficiently prevents unwanted road forces from transferring to the frame. It also stops the trailer from causing the truck to oversteer when entering a bend.



7

### Save fuel – even on roads you haven't travelled on before.



Lower fuel consumption by 5%. Just activate the cruise control. Combine I-Shift and the GPS with an intelligent cruise control, and you get I-See. It's a unique system that learns the topography of the road and stores it in a central database. When you're driving, it automatically uses its knowledge to save fuel – up to 5% during a driving cycle (when I-Cruise is engaged the whole time).



#### Wherever you are, you can get help from the cloud.

I-See doesn't rely on maps. Since reality tends to be more accurate, it memorises the actual slopes instead. So now you don't even have to have travelled the route before to save fuel. The new version of I-See stores all hills in a database free for all other Volvo trucks to use. As long as someone has travelled the route before, I-See can download the data and start saving fuel immediately.

#### BEFORE THE UPHILLS: TAKING OFF.

When I-See approaches a hill it lets the speed increase, to gain momentum. To ensure the truck stays longer in the highest possible gear.

#### ON THE UPHILLS: KEEPING FROM DOWNSHIFTING.

When climbing, I-See uses its stored knowledge to avoid unnecessary downshifts towards the top. You approach the crest smoothly without wasting fuel in a lower gear.

#### ON THE CRESTS: STAYING CALM.

When approaching the brow, I-See keeps the truck from accelerating unnecessarily.

#### BEFORE THE DOWNHILL: ROLLING ON.

Just before the downhill slope, the driveline temporarily disengages, allowing the truck to I-Roll. This uses the vehicle momentum thus saving energy.

#### ON THE DOWNHILLS: BRAKING IN TIME.

I-See knows when the gradient ends. Thus, when gaining speed downhill, it can apply the engine brake gently in time - to prepare for the upcoming topography.

#### READY FOR THE NEXT HILL

When a downhill is followed by an immediate uphill, I-See really comes into its own. It lets the truck roll, gaining speed and momentum to climb uphill with less effort.

GLOBELROTTER

#### I-CRUISE

One part of I-See is called I-Cruise. It's the intelligent cruise control that adjusts the speed for minimum fuel consumption. You can order it separately and save up to 2% fuel.

#### **VOLVO DIESEL ENGINES**

## This is where fuel efficiency starts.



#### The Volvo torque curve. You'll feel it in the pedal.

Excellent torque at low revs. An extremely wide max torque range. Peak torque meets peak power. Volvo's leadership in diesel-engine technology is clearly visible once you start comparing engine curves. You'll experience fast acceleration, excellent pulling power, comfortable low-speed handling and, not least, a fuel-efficient and pleasurable ride at cruising speed.



#### When it comes to Euro-6, no news is good news.

Lowering NO<sub>x</sub> emissions by 77% and reducing particulates by half is a tough challenge. Especially if you don't want to compromise on engine performance. But we have succeeded. Our range of Euro-6 engines still offer the same driveability and reliability as our widely appreciated Euro-5 engines did. And the fuel economy is on a par. Learn more about the technology on **page 47.** 



#### Fuel-efficiency built-in.

The optimised combustion chamber geometry. The fast and precise EMS-controlled injection. The high gas-fill ratio. We could go on listing what makes Volvo engines hard to beat at fuel economy. Your bottom line will reap the benefits. So will the environment.



#### Volvo Engine Brake. Minimise wear on the brake pedal.

If you want to maintain a high average speed without compromising safety or fuel economy, you need a good engine brake. That's why the Volvo Engine Brake (VEB), available on the D11, is so widely appreciated. Plus, on the D13, you have access to our patented VEB<sup>+</sup>, absorbing up to a massive 375 kW (510 hp), thanks to the unique camshaft design with four rocker arms.



INLINE SIX 6 cylinders. 7 bearings to distribute the forces. Reliability never goes out of style.

#### EMS-CONTROLLED INJECTION

Common rail on the D11 and unit injectors on the D13. Both with perfect timing thanks to the Engine Management System (EMS).

#### FROM 330 TO 500 HP

Volvo FM is available with a choice of four 11-litre and three 13-litre engines, with power ratings up to 500 hp. Details on page 46.

#### **CLOSED CRANKCASE** VENTILATION

Recycles the crankcase gases, for improved air quality around the vehicle.

#### REAR TIMING MECHANISM

A compact and weight-saving design, powering the air compressor along with the power steering, oil, and fuel feed pumps.

### **NEW PTOS WITH CLUTCHES**

The range of engine-mounted power take-offs has been expanded to include three new declutchable ones. Learn more on page 50.

**BODYBUILDING INTERFACE** 

## There is no such thing as a complicated superstructure.

Whatever you want to put behind your cab, the Volvo FM is prepared for it. We've gone to great lengths to make things easy for the bodybuilder, because this not only saves time, but also improves quality by avoiding unnecessary and costly reconstruction work.

Here's some of the features that bodybuilders like most about Volvo.



**Volvo Bodybuilder Instructions.** Prior to even ordering your new Volvo FM, exact drawings of your own truck are available in the intuitive VBI online portal. The bodybuilder can then start work on the truck and help define the specification before any order is placed, which will dramatically shorten lead time and improve the overall quality of the complete truck.



**Power take-offs for every need.** Our vast array of PTOs has been expanded even further, with a new range of energy saving clutchable engine driven PTOs. See **page 50.** 



**Parallel Frames.** Unlike most trucks, a Volvo features a frame that is completely straight and parallel behind the cab. This makes the bodybuilder's job a whole lot easier.

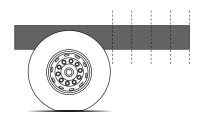


Staying out of the bodybuilder's way.

We never allow our engineers to place anything above the top of the frame. This area belongs entirely to the bodybuilder – adding a lot of flexibility.



A dedicated row of holes. The frame comes with an upper row of holes that is designated for the superstructure. Since we don't use any rivets here, the bodybuilder can easily attach the equipment.

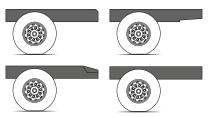


**Choose your exact rear overhang.** The rear frame can now be factory cut exactly as you need it – in 50 mm increments – to perfectly match your super-structure. Regardless of whether you need an extremely short rear overhang or a longer one.



#### Tailored exactly to your needs.

The more possible combinations, the easier a truck is to tailor. That's why the new Volvo FM has more options than ever before when it comes to axle configurations, chassis heights and wheel bases. See **pages 41-43**.



**4 different rear end cuts.** We can now deliver your FM from the factory with four different rear frame end cuts: upper (for tippers, hook-lifts and refuse trucks), lower (for centre-axle trailers), tapered (for tractors) or straight (for rigids).



Rear underrun position.

To widen the rear end options even further, the rear underrun protection can be placed in several different positions.



**Two different frame heights.** Choose between a 266 mm and a 300 mm frame depending on the demands of the superstructure and overall height of the complete vehicle.



Body Builder Module. Makes it easy for the bodybuilder to tap into the truck's electrical system to tailor functions. You can access them conveniently on the flexible dashboard switches and in the Work Remote.



#### Perfect for swap bodies.

Not all truck bodies are permanent. The 295 mm stroke of the new rear air suspension – in combination with the extra low chassis – is the perfect solution for maximum operational efficiency.



Attachment brackets.

Volvo FM can be factory prepared with body attachment brackets, mounted on the frame. Now available, not only in the wheelbase area, but also in the rear overhang.



Prepared for a crane.

A low chassis and high axle loads. That's what's on every crane builders wish-list. Volvo FM comes with both. What's more, we can create a free frame space behind the cab, and even deliver your truck with factory-mounted crane plates.



More reinforcements than ever before.

Some heavy applications put a lot of pressure on the frame. But don't worry. The new Volvo FM has more choices of inner-liners than ever, providing all the reinforcement you may need. **INSTRUMENT CLUSTER** 

## All you need to see to focus on the road.

0 80 <b>0</b>	
	MENU Tachograph Gauges Trip computer Load indicator

#### $\bigcirc$ Information is central.

A quick glance at the centre of the speedometer is enough to get key information about gear, I-Shift mode, (adaptive) cruise control, auxiliary brakes and tachometer.

#### Secondary Information Display.

To the left of the instrument cluster, you'll find the home of 'infotainment' – an integrated display called the SID (Secondary Information Display) and which contains plenty of nice features. Some of them require the SID-High variant (shown), which is a high-end 7" colour display.



#### DRIVER TIMES FEEDBACK Helps you handle your driving and resting times, so you'll know when it's time to take a break.

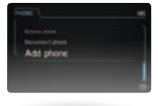


#### AUDIO SYSTEM

Lets you enjoy full information on each track, and navigate easily between them.



EXTERIOR VISION CAMERAS SID-High can show the input of up to four cameras in full resolution.



#### PHONE

Connects via Bluetooth so you can browse your phone book, talk using the built-in microphone and listen through the speakers.



#### DYNAFLEET

No separate display needed. All information from Volvo's transport management system is now integrated in the SID-High. The SID high is required if office to vehicle messaging is specified, along with a remote keyboard supplied in the cab. ■

#### ○ Driver Information Display.

Convenient 4" display showing a lot of additional information. Choose what you want to see, using the steering wheel buttons.



GAUGES YOUR WAY Plenty of status indicators and trip information. The customised view lets you select up to three favourites.



LOAD INDICATOR The enhanced load indicator allows you to precisely monitor axle load.



UNDERSTANDABLE ERROR MESSAGES No perplexing fault codes. The error messages quickly and accurately tells you what's wrong – in plain text.

## Responding to your slightest command. And nothing else.

What has been called the biggest thing since power steering, is now available in a series-production truck. Volvo Dynamic Steering is based on a patented concept and will completely change the way you drive. Try it, and you'll never want to go back to a regular truck.



#### How it works.

Volvo Dynamic Steering consists of an electrical motor, connected to the steering gear. By receiving input from several sensors, the ECU (Electrical Control Unit) can determine where the truck is going as well as what the driver's intentions are.

The motor is controlled 2,000 times every second, using a principle called 'torque overlay', to correct unintentional steering movements and to provide extra torque when needed. Altogether creating a perfect and consistent steering feel – regardless of load and tyres.

**EFFORTLESS** Volvo Dynamic Steering increases the steering force by up to 85%.



AIRBAG



#### At high speeds: Let nothing set you off course.

Driving straight isn't as easy as one would think. In fact, you often have to compensate for kicks from road ruts, pot holes and road markings. Perhaps you have to correct your course after braking on a mixed-friction surface. Yes, sometimes even side winds can disturb your ride.

Volvo Dynamic Steering changes this completely. Just loosen your grip on the wheel, concentrate on the traffic and be sure the truck won't change direction until you want it to.



#### At low speeds: Steer with one finger and save your back.

This is where Volvo Dynamic Steering really will change your day. And your future. You no longer need to strain your muscles to manoeuvre the truck at low speeds. Volvo Dynamic Steering provides you with all the steering force you need. You can literally steer the truck with one finger. This not only gives you complete control of the vehicle, but also practically eliminates the strain on your neck and shoulders.



#### When reversing: Perfect control without strain.

Reversing with a fully-laden truck is one of the most challenging and trying aspects of the job. Especially where you need to focus every bit of your attention on the surroundings. Not so with Volvo Dynamic Steering. You now reverse with perfect precision – almost without effort. And as soon as you let go of the wheel, it automatically self centres, reducing the strain even further.

Furthermore, if you need to reverse over long distances, here's something new. The course stability is so great that you now can reverse a truck and trailer more than a hundred metres without drifting off course!

# Keep your truck where it belongs.

In your pocket, for example.

m



With the all-new My Truck app installed, your new Volvo FM is just a tap away. Now you can monitor the status of the truck before you get in it, to make sure it's ready to drive when you are.



#### Always return to a comfortable climate.

No need to be in the cab to activate the parking heater. My Truck allows you to start it instantly from anywhere. You can also set it to start on a timer or schedule weekly settings, so you'll always arrive to a perfect workplace temperature.

Alem Estas
wat Anna is arrest
Alarm History
Destruck Blatus
of Spinsterline State

#### Keep it safe.

Make sure you locked the doors and that the optional alarm is properly activated. Should the alarm go off, you're immediately alerted.



#### Check the dash before you enter.

Do your pre-trip inspection before you get in. My Truck lets you check your fuel, AdBlue, engine oil, washer and coolant levels, as well as the status of the battery and lights.



#### One app to rule them all...

Connect your entire fleet to one app. All you have to do is to tap the button and follow the instructions. Provide each of the trucks with a unique name and a picture, and it'll be easy to find them in the list.



#### ... or one truck with multiple apps.

Sharing the truck with other drivers? Does your boss also want the app or do you want to use it on both phone and tablet? No problem. The app is free to download, and you can connect an unlimited number of devices to one truck.



#### How to get started.

First of all, you need a new Volvo FM with the optional My Truck software enabled. Then just head away to the App Store and download the app. Now all you need to do is to connect your truck from the app. It couldn't be any simpler.

#### **CAB INTERIOR**





#### **CAB INTERIOR**

## Step inside **YOUR comfort ZONE.**



A cab with a view. Good visibility is crucial when you navigate through dense traffic or crowded streets. From inside the Volvo FM it's great, because a cab sits low on the chassis and there is a deep windscreen.



Electric drying cupboard. A quick way to dry your clothes, towels and shoes. Fits on the upper bunk or cab wall. Energy-efficient, quiet and easy to store away folded.



#### New, modern and ergonomic dashboard.

The new, gently curved dash not only looks appealing. It's designed for an ergonomic and comfortable driving position with all switches, instruments and storages within easy reach.



Audio with possibilities. Whatever you want to listen to, the audio system won't stop you. MP3, WMA or iTunes m4a? From CDs, USB stick, iPod or via the aux input? Anything goes. Find the complete range of options and specifications on page 55.



A great position to be in. Every driver knows the value of a good seat. The one in the new Volvo FM can be adjusted 20 cm fore-aft and 10 cm vertically. And it features a new cushion that's more comfortable than ever.



#### Pleasing to the eye.

The Volvo FM interior has been redesigned. Colours and materials have been carefully selected to create a calm and attractive driver's environment. Choose from three different trim levels: practical vinyl, textile or leather.



#### Loads of storage options.

The roomy storage facilities at the front and under the bunk are accompanied by several handy compartments for smaller articles. There are also two new bedside storage pockets for magazines and other items.



#### All at your thumb tips.

Buttons for cruise control, audio, phone and information displays, allow you to keep a tight grip on the wheel. With leather as an option, it's a comfortable one.



#### Advanced interior lighting.

The energy-efficient and powerful light sources make for fantastic in-cab lighting. All are easily controlled in three pre-set steps or with the dimmer. When driving in the dark – switch to red lighting to preserve your night vision.



#### ECC - Electronic Climate Control.

The optional electronic climate control makes sure you always have a comfortable climate in the cab. Just set your preferred temperature and with the new My Truck app, you can control the parking heater remotely to always return to a comfy cab. Learn more on **page 18.** 



Have a good night.

Don't compromise on sleep quality just because you spend your night in the cab. The lower bed is 70 cm wide, features 16 cm pocket springs and a choice of three different firmness levels.



#### Keeping the outside noise out.

Volvo cabs are famous for being well insulated. The new Volvo FM is no exception. And thanks to new engine mountings, less vibrations reach the cab. Altogether reducing the stress on your ears.



#### Leading steering wheel adjustment.

The steering wheel can be adjusted 90 mm vertically and tilted 28 degrees, allowing you to find your perfect driving position. Conveniently controlled by a foot pedal, it folds away easily when you enter or exit the cab.



#### Electric parking brake.

The electrically-controlled parking brake controlled by an easy-access dashboard lever. Automatically engages at key-off, and – with a little help from EBS – automatically releases when pulling away when the I-Shift gearbox is specified.



#### Electronic remote key.

It's more than a key. Lock or unlock from a distance. Turn on the lights to approach the cab safely. And, if you're feeling threatened, just push the panic button to blast the horn.



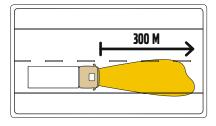
**Keeping your eyes on the road.** With the new, intuitive instrument cluster comes plenty of new high-end features. All making it easier to focus on what's important. Learn more on **page 14.** 



#### Room for alcolock.

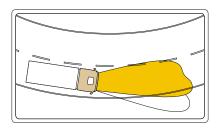
Alcohol doesn't belong in traffic, which is why the alcolock does. Factory fit it to your Volvo FM and send a clear message to your customers how seriously you take road safety.

# The future ahead looks bright. So do the curves and corners.

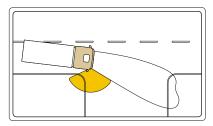


Leading main beam.

The headlights produce a powerful beam, providing you with an early view of what is happening down the road. And, just as importantly, other road users will see you stand out in the dark.

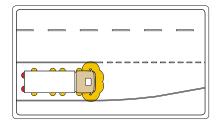


**Dynamic headlights.** First introduced on the new Volvo FH – now available for the Volvo FM. It allows the dipped beam to follow the road. Whenever you turn so do the lights, this leads to a massively increased field of vision.



#### Static cornering lights.

When you slow down to turn a corner in the dark, the enhanced static cornering lights come to your aid. As soon as you activate the indicator, the immediate area on the side lights up, helping you spot unprotected road users.



Approach light.

When approaching the truck at night, just push the button on the remote key fob. The interior and exterior light up, letting you easily find and safely enter your truck.



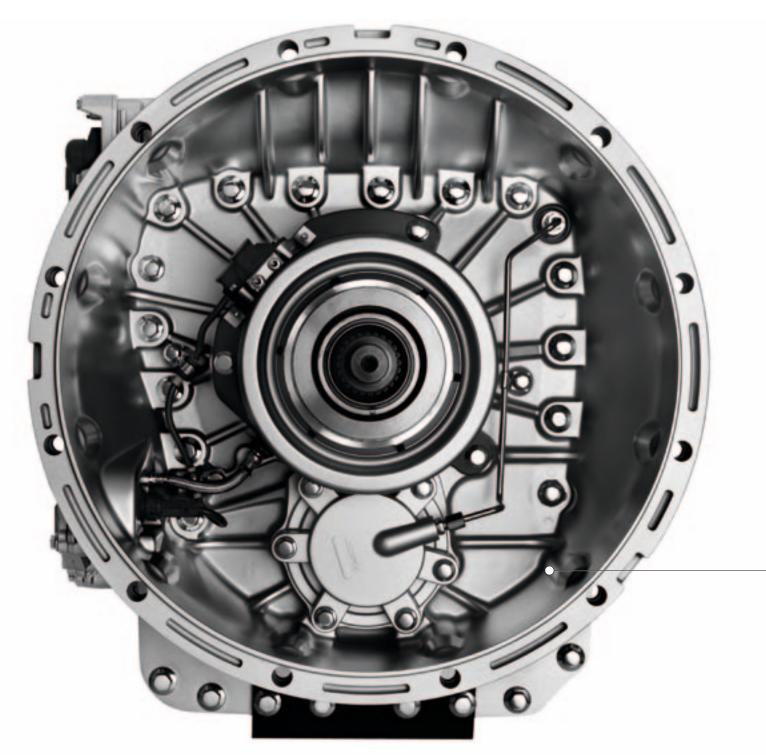
Bi-Xenon.

Equip the headlamps with Bi-Xenon to experience a new level of brightness. They also offer longer service life compared with regular halogen lamps.



**I-SHIFT** 

## Forget the gearbox. Just drive.





#### Eases your mind. And lets your left foot rest.

Driving with I-Shift is a real pleasure. Without the clutch pedal, you can safely sit back and concentrate on the road. I-Shift uses its built-in intelligence to quickly and automatically choose the right gear at all times. And the software provides shifting skills that are almost impossible for even the best of drivers to match. Still, if you want to get more involved, you can. The lever on the shift selector or the new dash mounted switch control allow you to step in and hold a gear manually.



#### An unexpected option. I-Shift without gearstick.

If you're used to driving with I-Shift, you've probably noticed that you don't actually use the shift selector that much. That's why the new Volvo FM offers you the option of getting rid of it altogether and have it replaced with four switches on the dashboard (still within easy reach, of course). Freeing that precious space also makes it a little bit easier to move around the cab.



#### Let I-Shift save you fuel. The money will roll right in.

I-Shift is designed to save fuel. First of all, the internal energy losses are low – actually lower than on manual gearboxes. But it's the electronics that really make the difference. When driving in Economy mode, every gear change is timed precisely, to let the engine work at its most efficient rpm range.

And then there's I-Roll – a feature used when driving downhill, which automatically disengages the engine to make use of the truck's momentum instead of fuel. The result? Up to 2% lower fuel consumption. Not enough for you? Add I-See. Learn more on **page 8.** 

#### How would you like your I-Shift?

The software makes it possible to tailor I-Shift to your driving conditions. Choose from four available packages: 'Long Haul & Fuel Economy' (with or without I-See) for efficient highway driving, 'Distribution & Construction' with smart functions for close-quarter manoeuvring or 'Heavy Duty Transport' optimising I-Shift for gross combination weights above 85 tonnes. For a complete overview, see **page 48.** 



#### How it works.

It may seem strange. Beneath the surface of I-Shift, the hallmark of modern transmissions, hides an old-school unsynchronised manual gearbox. (Hence the compact design and low internal losses.) But of course there's much more to I-Shift than that. The secret lies in the intelligent electronic control unit. It's responsible for controlling the pneumatic system that handles the clutch and gear changes. By constantly receiving information about vehicle speed, acceleration, weight, road incline, torque demand and more, it can carry out every gear change with extreme precision. It also communicates closely with the engine, which in turn adjusts revs and engine brake effect for fast and comfortable changes.



# Stay on the road by staying online.



#### Our promise: 100% uptime.

No truck is more costly than one that's standing still. With the new Gold contract, we promise an uptime of no less than 100%. This means your truck will always be available when you need it.



#### New Service Planning. One step ahead.

Thanks to the telematics gateway, the workshop can access information such as engine data, mileage, fuel consumption, diagnostic fault codes, driving conditions and status of crucial components (brake pads, clutch, battery, air dryer etc.). That means we can alert you in time, before you risk an unplanned stop. But more importantly, we're always perfectly prepared when you do visit the workshop. So you'll be back on the road before you know it.



#### Features Online. Your wireless technician.

Some things shouldn't require a workshop visit. And now they don't. With Features Online, a service technician can access your vehicle remotely to calibrate displayed fuel consumption, fuel tank size (if you've fitted extra tanks) and your preferred road speed limit. It's even possible to enable the load indicator function remotely. All you have to do is stop at the roadside for a short while. Service has never been quicker.

#### New Volvo Gold Contract. The all-inclusive uptime package.

To keep your truck on the road making money, there's the new Volvo Gold Contract – the ultimate service package that includes both service and repairs and preventive maintenance. And it includes New Service Planning and Features Online, two truly ground-breaking service features made possible by the new TGW (Telematics Gateway). The bottom line? An uptime promise of 100%.



#### Need help? Just push the button.

An unplanned stop out in the middle of nowhere? Volvo Action Service is now just a button push away. VAS On Call automatically connects you to an operator who speaks your language (the truck checks the nationality of the card in the digital tachograph). Once connected, service is both fast and accurate, because they already know your chassis ID, position and possible diagnostic fault codes.



## Spacious where it matters. Above the roof.



#### 1.39 metres at your disposal.

If you transport cars, you know how to appreciate a low truck. Because whether there's room for one more or not is often a matter of centimetres. That's why you'll be pleased to know that the low sleeper cab on the new Volvo FM is lower than ever – only 2.61 metres (given the right specification). This leaves as much as 139 centimetres for your precious cargo, if you need to stay within the European 4-metre limit.



#### A clean cab roof.

If you want to take advantage of the low cab height, you don't want anything sticking up from the roof. Fortunately, the aerials on the Volvo FM can all be moved out of the way. The WLAN aerials can be moved to the front shelf, the phone aerials to the dashboard and the toll collect, FM, CB radio and Dynafleet aerials can be fitted to the side of the cab.



#### Driving comfort. A matter of height.

Great handling has always been a key feature of the Volvo FM. Now it's better than ever, and it doesn't get any better than with the X-Low chassis. Plus, the new air suspension system ECS4 lets you choose from three customisable driving heights, improving ride comfort even further. Learn more about ECS4 on **page 32**.



#### Easy entry and exit.

One of the most appreciated features of the Volvo FM cabs is the entry step. And it doesn't get any lower than with the X-Low chassis – only 26 cm above the ground (depending on tyre dimension). Add to that a door that opens a full 90 degrees and conveniently positioned grab handles, and you have a cab you comfortably enter and exit many times a day without strain.



#### LOAD HANDLING

## Keep a closer watch on the load. From afar.

The electronically-controlled suspension (ECS) improves driving comfort and helps making sure the cargo travels safely. ECS4 is the latest version and has brought even more possibilities, with the Work Remote as the most prominent example. You now have perfect control, regardless of whether you're sitting behind the wheel or walking around the truck.



#### 5 levels for loading. 3 for driving. All at your command.

ECS includes four bellows per axle (two for pusher axles), providing a virtually parallel lift of the chassis. You can easily set the height you prefer. The system lets you store five different docking heights, something that comes in handy when you arrive at a familiar loading bay. You can also choose from three customisable driving levels, to optimise ground clearance or aerodynamics.



#### Keeping the chassis steady. And the load in place.

ECS steadily keeps the chassis level, regardless of how the cargo is distributed. It prevents sideway rolling, making sure the truck is always in balance. The Work Remote also allows you to manually compensate for side kneeling.



#### Load indicator. Accurate and easy to overview.

Intuitive menus and displays let you see exactly how the load is distributed along the vehicle. Gross vehicle weight, axle loads and bogie loads are all shown separately, so you can easily make sure they are within the limits, on the truck as well as on the trailer. Calibration is easy too. You can fine-tune both truck and trailer, for accurate measurements at all times.



Balance it all with your fingertips. Cut the wire. With the Work Remote in your hand, you can control the air suspension manually while walking around freely.



**Control your equipment.** Start and stop the engine and up to four PTOs. You can also adjust engine speed, and store the rpm setting for quick access.



#### **Turn the lights on.** Do you have work lights, beacons or specific lights from the bodybuilder? Use the Work Remote to switch them on or off.



#### Add functions from the bodybuilder.

Depending on superstructure, you can control several other functions. All are easily accessible through the menus and can even have the same icons as the relevant dash mounted switch.



**Use it as a door key.** Yes, it is a bit bigger than the regular key fob, but still... It's very convenient to be able to lock and unlock the cab doors without putting down the remote.

#### Integrated tail lift controls.

No need to carry around two remote controls. The upgraded Work Remote allows you to program and then conveniently raise and lower the tail lift too.

WORK REMOTE

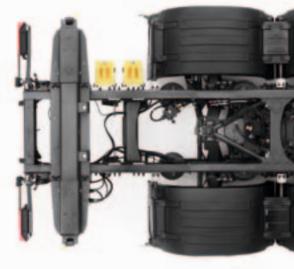


#### **CHASSIS LAYOUT**

# Whatever you need space for, here's plenty.



On tractors, the air compressor control unit has now been moved to the area between the chassis rails, providing more room for chassis-mounted equipment or fuel tanks.



#### THE BATTERY BOX

We've moved the battery box 300 mm to make room for some 100–120 extra litres of fuel. But that's not all. It can also be installed at the rear on airsuspended tractors. This corresponds to an additional 300 litres of fuel space now available on the side of the vehicle.

#### THE AIR TANKS O

Depending on your truck's specification, the air tanks can be installed in a multitude of different positions. This allows for even greater flexibility.

#### $\bigcirc$ THE ADBLUE TANK

On tractors, a new 50 litre AdBlue tank can be installed behind the cab (on top of the frame), freeing up space on the side of the chassis.

#### THE FUEL TANKS

If you're like most people, refuelling is something you want to do as cheaply and as seldom as possible. That's why the Volvo FM can be equipped with a vast range of fuel tanks in different shapes, positions, heights, volumes and materials. Sizes range from 150 to 900 litres and can be combined in numerous ways to maximise your fuel capacity.

#### THE FUEL DEAL

## Every drop counts. So how about 11%?

Cutting fuel costs and emissions should be easy. That's why we've packaged our most efficient fuel-saving options into two packages. One of them adds features to the truck itself and the other is a collection of several useful services. If you sign up for both, you can count on reducing your fuel consumption by up to a full 11 %. You can of course also get the two separately, or just pick the features you like.

#### FUEL ADVICE

Gives you access to our fuel management coaches – true experts in reducing fuel consumption. Every month, they send you enhanced fuel reports with personalised advice on how to improve. You can get more advice via the dedicated help desk, or log on to the site to find hands-on tips and inspiration.

#### DYNAFLEET FUEL & ENVIRONMENT

Volvo's transport management system lets you monitor fuel consumption in real time from anywhere through an intuitive web interface. Analyse trends and find out where there's room for improvement, guided by built-in reports on fuel, driver behaviour and environmental impact.



**Dynafleet always at hand.** Want to see how fuel-efficient you were on your last shift? All you need is Dynafleet and a smartphone or a tablet. Just download the app and you've got

yourself a great way to improve your skills. Or maybe challenge your colleagues... DRIVER TRAINING

EFFICIENT DRIVING Skilled drivers have an enormous impact on fuel-efficiency. Efficient Driving is the course where we focus on how to drive smartly and save fuel.

#### 24V 150A ALTERNATOR. MORE POWER FOR LESS FUEL.

A very energy-efficient alternator, needing less fuel to charge the batteries. Especially valuable if you consume a lot of power, for example when you're spending nights in the cab.

#### I-SEE. THE FARSIGHTED CO-PILOT.

I-See uses pre-recorded data about the topography of the road to lower fuel consumption. It controls gear changes and speed to make maximum use of the truck's momentum, leading to substantial fuel-savings. Read more about I-See on **page 8.** 



#### ENGINE IDLE SHUTDOWN. SAVE FUEL WHILE STANDING STILL. A smart feature that lets you so

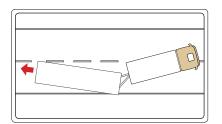
A smart feature that lets you save fuel by automatically turning the engine off after two and a half minutes of idling.

#### CLUTCHABLE AIR COMPRESSOR. NO UNNECESSARY PRESSURE.

The air compressor is automatically declutched when not needed, leading to lower fuel consumption.

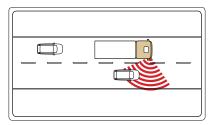
### **DRIVER SUPPORT SYSTEMS**

# Keeping an extra eye on the road.



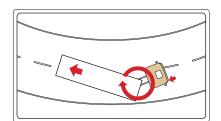
#### Stretch Brake.

In certain situations, such as turning or driving downhill on a slippery road, the trailer risks catching up with the truck, creating a hazardous jack-knife situation. The Stretch Brake is a new Volvo feature, designed to stop this from happening. By pulse braking the trailer, the vehicle combination is stretched and the danger reduced. The system can be automatically activated in risky situations, at speeds up to 30 mph.



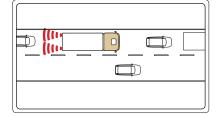
#### Lane Changing Support.

The blind-spot area on the passenger side can easily hide other road users. Lane Changing Support is equipped with a radar that checks this area when you activate the indicator. If the area's not clear, you are notified by a sound and a flashing icon by the mirror.



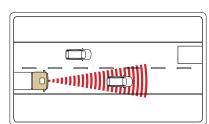
#### Electronic Stability Program.

Volvo's Electronic Stability Program (ESP) efficiently reduces the risk of skidding or rollovers. In risky situations it instantly steps in, reducing engine power and braking the truck and trailer. Each wheel of the truck is braked individually. ESP is now available for most truck specifications, both tractors and rigids.



#### Emergency brake light.

If you slam on the brakes, the brake lights flash rapidly to alert the vehicles behind you. An easy way of avoiding rear-end collisions.



Adaptive Cruise Control with Forward Collision Warning.

Follow the traffic rhythm without effort. The radar-based Adaptive Cruise Control (ACC) keeps a safe distance from the vehicle in front by controlling the accelerator and all available brakes. If there's a risk of collision, warning lights are projected onto the windscreen.



# Tailoring your Volvo FM.

No single truck fits all. That's why the Volvo FM provides endless possibilities. The flexible chassis layout and VBI (Volvo Bodybuilder Instructions) make it easy to prepare the truck for a superstructure. And the driveline, cabs and equipment packages provide you with even more options. So welcome to a world of choices. A world where your dealer will happily guide you in finding the perfect truck for your needs and wants.



Tractor 4×2																									
RAD-GR	High				35	36	37	38																	
	Med				35	36	37	38																	
	Low				35	36	37	38																	
	X-Low				35	36	37	38																	
Tractor 6×2																									
RADT-GR	High	30	32																						
	Med	30	32																						
RAPD-GR	High								39		41														
	Med								39		41														
Tractor 6×4																									
RADD-BR	High/X-High	30	32																						
RADD-TR1	High/X-High	30	32																						
RADD-TR2	High/X-High	30		34		36																			
RADD-GR	High/X-High	30	32																						
Tractor 8×4																									
RAPDD-GR	High					36			39																
DRIVE / CH/	ASSIS HEIGHT /	WHE	ELB/	SE	(dime	nsior	is in i	dm)																	
Rigid 4×2																									
RAD-L90	High				35		37			40		43	46	6		49		52		56	60				
RAD-GR	High			34			37			40		43	46	6		49		52		56	60		63	65	
	Med						37			40		43	46	6		49		52		56	60		63	65	6
	Low																	52		56					
	X-low																	52		56					
Rigid 6×2																									
RADT-GR	High						37		39			43	46			49		52		56	60				
	Med						37		39			43	46	5 4	18	49		52		56	60				
	Low						37		39			43	46	6 Z	18	49		52		56	60				
	X-low								39			43	46	6 Z	18	49		52							
RAPD-GR	High																	52		56	60				
Rigid 6×4																									
RADD-BR	High/X-High						37		39			43	46			49		52		56					
RADD-TR1	High						37		39			43	46	6		49		52		56					
RADD-TR2	High						37		39			43	46			49				56					
RADD-GR	High/X-High						37		39			43	46			49		52		56					
	Med						37		39			43	46			49		52		56					
	Low						37		39			43	46	6		49		52		56					
Rigid 8×2																									_
RADT-GR	High																51				60				
RAPDT-GR	High																51			56	60				
	Med																51				60				
Rigid 8×4																									
RADD-BR	High/X-High																51			56				64	
RADD-TR1	High																51			56					
RADD-TR2	High																51				60	62			
RADD-GR	High/X-High																51			56	60			64	
RADDT-GR	High/X-High						37		39		41		46			49		52							
	Med						37		39		41		46			49		52							
RAPDD-GR	High											43	46	6		49				56					
	Med											43	46	6		49	51		53	56					

# **1 CHASSIS**

#### CHASSIS HEIGHTS

□ X-Low (tractor)	approx 810 mm
Low	approx 850 mm
□Med	approx 900 mm
🗆 High	approx 1000 mm
□ X-High	approx 1200 mm

#### TOWBARS

Centrally mounted, semi-undermounted and undermounted towbars for centre-axle trailers. Towbars can be fitted at intervals of 25 mm.

#### FUEL TANKS

Aluminium or steel tanks in volumes from 150 to 900 litres. Maximum fuel volume is 1,480 litres for a 4×2 tractor.

#### ADBLUE TANKS

Plastic. Volumes from 32 to 90 litres. The AdBlue pump is integrated in the AdBlue tank module.

#### FIFTH WHEELS

Certified installation permits up to 36 tonnes load. An ISO fifth wheel with L-shaped profiles at different heights is included in the range, offering considerable freedom of choice. The flange-mounted fifth wheel is a low-weight variant since it does not require any attachment plate. Integrated lubrication and trailer connection indicator is available for specific variants.

#### **VOLVO DYNAMIC STEERING**

Active steering system with torque overlay. Delivers more steering force at low speeds, reduces steering kicks and keeps the steering wheel straight when braking on split friction. The steering wheel automatically centres both when driving forward and when reversing.

Available for tractors and rigids 4×2, 6×2, 6×4, 8×2 or 8×4 with single front axle.

#### TAG AXLES

Available in several configurations – fixed with single or dual wheels, self steered or actively steered. Axle load: 7.5, 9.5 or 10 tonnes.

#### **PUSHER AXLES**

Available in fixed and hydraulically steered variants for both tractors and rigids. Axle load: 7.5 or 9 tonnes.

MAX FRONT AXLE LOAD (tonnes)					
	Air	Leaf			
X-Low	8	-			
Low	8	-			
Med	9	10			
High	9	10/18*			
* With dual front	axles (FAA20/FA	A21).			

REAR SUSPENS	ION				
Туре	Axle combination	Suspension type	Axle/bogie load (tonnes)	Reduction	Other axles
Solo					
🗆 RAD-L90	4×2	Parabolic/Multi-leaf	13	Single/hub	
RAD-GR	4×2	Air	11.5/13	Single/hub	
Bogie					
🗆 RADT-GR	6×2/8×2	Air	19/20.5/22.5/23	Single/hub	Fixed/steered/self-steered tag axle
RAPD-GR	6×2	Air	19/22	Single/hub	Fixed/steered pusher axle
RADD-BR	6×4/8×4	Parabolic	21	Single/hub	
RADD-TR1	6×4/8×4	Parabolic/conventional leaf	23/26	Single/hub	
RADD-TR2	6×4/8×4	Conventional leaf	26/32	Hub	
RADD-GR	6×4/8×4	Air	21/23/26	Single/hub	
RADDT-GR	8×4	Air	27/33/36	Single/hub	3 axles/steered tag axle
RAPDD-GR	8×4	Air	27/30.5/32/35	Single/hub	3 axles/steered pusher axle
RAPDT-GR	8x2	Air	27/30/30.5/31.5/32	Single/hub	3 axles/steered pusher axle and steered or fixed tag axle

#### FIFTH WHEEL COUPLING HEIGHTS

Drive	Chassis height	Suspension	Frame height	5W height*	Tyre	Min. coupling height**	Nominal drive height**
4×2	X-Low	RAD-GR	266	140	295/55	867	912
	X-Low	RAD-GR	266	140	295/60	887	932
	Low	RAD-GR	266	140	315/60	955	1015
	Med	RAD-GR	266	140	315/70	1014	1075
	Med	RAD-GR	300	140	315/70	1031	1092
	High	RAD-GR	266	140	315/80	1056	1147
	High	RAD-GR	300	140	315/80	1090	1164
6×2	Low	RADT-GR	266	160	315/60	975	1035
	Med	RADT-GR	266	160	315/70	1034	1095
	Med	RADT-GR	300	160	315/70	1051	1112
	High	RADT-GR	300	150*	315/80	1160	1234
	Med	RAPD-GR	266	160	315/70	1034	1095
	Med	RADT-GR	300	160	315/70	1051	1112
	High	RAPD-GR	266	160	315/80	1076	1167
	High	RAPD-GR	300	160	315/80	1110	1184
6×4	High	RADD-GR	300	150*	315/80	1173	1234
8×4	High	RAPDD-GR	300	160	315/80	1137	1207

\* +60 mm mounting height. \*\* Approximate heights.

#### BRAKES

Volvo EBS (Electronically controlled Brake System) disc brakes are available with EBS Medium program packages for tractors and rigids. ESP is available for tractors and rigids with 4×2, 6×2 and 6×4 drive. In this way Volvo can offer ESP on virtually all ADR applications and EMS combinations. The brake range also includes Volvo Z-cam drum brakes with ABS (Anti-lock Braking System).

#### BBS MEDIUM

In addition to the EBS Standard package, EBS Medium adds the following features.

#### EBS STATUS CONTROL

EBS status monitoring via the TEA2+ vehicle electronic system and Volvo Tech Tool.

#### HILL START AID

The brakes are only released once there is sufficient engine torque to drive the vehicle forward.

#### LINING WEAR ANALYSIS

Brake lining warning – calculates the remaining mileage available with the current brake linings.

#### AUTOMATIC PARKING BRAKE RELEASE

The parking brake is released when the driver pushes the accelerator pedal and a gear is selected (only I-Shift gearbox).

#### PARKING BRAKE ACTIVATOR ON TRAILER

When the ignition is on the parking brake is automatically activated even on the trailer.

#### **ADDITIONAL OPTIONS**

In addition to the program packages there are the following options:

#### STRETCH BRAKE

Enables the driver to request pulse braking of the trailer. The brake is then automatically activated and the risk of jack-knifing is minimised. Only for rigids.

#### ESP (ELECTRONIC STABILITY PROGRAM)

The brake stability system applies the brakes individually on each wheel, thereby providing stability for the entire vehicle combination and counteracting jack-knifing, rollover and trailer swing. ESP fulfils the legislation of Electronic Vehicle Stability Control.

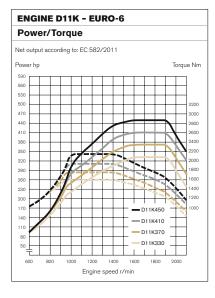
#### **EMERGENCY BRAKE LIGHT**

When panic braking from speeds above 50 km/h, the brake lights flash with four flashes per second.

#### HYDRAULIC RETARDER

Gearbox-mounted compact retarder with a max effect of 440 kW.

DRIVELINE COMBINATIONS							
Manual gearbox	D11K330	D11K370	D11K410	D11K450	D13K420	D13K460	D13K500
VT2009B	•	•	•				
VT2214B	•	•	•	•	•	•	
VT02214B	•	•	•	•	•	•	
VT2514B				•	•	•	•
VT02514B				•	•	•	•
I-Shift							
AT2412E	•	•	•	•	•	•	
AT2612E	•	•	•	•	•	•	•
AT02612E	•	•	•	•	•	•	•
Single reduction axles							
RSS1344C/D	•	•	•	•	•	•	•
RSS1356	•	•	•	•	•	•	•
RSS1360	•	•	•	•	•	•	•
RTS2370B	•	•	•	•	•	•	•
Hub reduction axles							
RSH1370F	•	•	•	•	•	•	•
RTH2610F	•	•	•	•	•	•	•
RTH3210F	•	•	•	•	•	•	•
RTH3312	•	•	•	•	•	•	•



#### ENGINE D13K - EURO-6 Power/Torque Net output according to: EC 582/2011 Torque Nm Power hp 590 560 530 500 470 000 440 410 sor 380 350 320 290 260 230 200 200 170 D13K500 140 D13K460 110 D13K420 80 50 1200 1600 Engine speed r/min

#### **D11K330** (243 kW)

Max power at 1600–1900 r/min	330 hp
Max torque at 950-1400 r/min	1600 Nm
<b>D11K370</b> (272 kW)	
Max power at 1600-1900 r/min	370 hp
Max torque at 950-1400 r/min	1750 Nm
<b>D11K410 (</b> 302 kW)	
Max power at 1600-1900 r/min	410 hp
Max torque at 1000-1400 r/min	1950 Nm
<b>D11K450</b> (332 kW)	
Max power at 1600-1900 r/min	450 hp
Max torque at 1000-1400 r/min	2150 Nm

#### D11K 6 No. of cylinders Displacement 10.8 dm<sup>3</sup> Stroke 152 mm Bore 123 mm Compression ratio 17.0:1 Economy revs 950-1400 r/min Exhaust braking effect (2400 r/min) 160 kW VEB effect (2400 r/min) 290 kW VEB option Oil filters 2 full-flow, 1 bypass Oil change volume, incl. filter 36 I 36 | Cooling system, total volume Oil change interval: Up to 100,000 km, or once a year with VDS4.

#### FUEL PREREQUISITES

Sulphur free fuel only (EN590, max 10 ppm sulphur).

#### ENGINE-MOUNTED POWER TAKE-OFFS

Two torque output versions available.					
For complete specifications, se	e page 50.				
EPTT650, ratio 1.08:1	650 Nm*				
EPTT1000, ratio 1.08:1	1000 Nm*				
* Torque output both when driving and standing still.					

<b>D13K420</b> (309 kW)	
Max power at 1400–1800 r/min	420 hp
Max torque at 860-1400 r/min	2100 Nm
<b>D13K460</b> (338 kW)	
Max power at 1400–1800 r/min	460 hp
Max torque at 900-1400 r/min	2300 Nm
<b>D13K500</b> (368 kW)	
Max power at 1400–1800 r/min	500 hp
Max torque at 1000-1400 r/min	2500 Nm

#### D13K

-	
No. of cylinders	6
Displacement	12.8 dm <sup>3</sup>
Stroke	158 mm
Bore	131 mm
Compression ratio	17.0:1
Economy revs	900–1400 r/min
Exhaust braking effect (2	300 r/min) 200 kW
VEB <sup>+</sup> effect (2300 r/min)	) 375 kW
VEB+	option
Oil filters	2 full-flow, 1 bypass
Oil change volume, incl. fi	Iter 33 I
Cooling system, total volu	ime 38 l
Oil change interval: Up to	100,000 km, or
once a year with VDS4.	

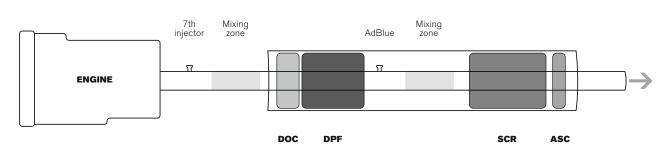
#### FUEL PREREQUISITES

Sulphur free fuel only (EN590, max 10 ppm sulphur).

#### ENGINE-MOUNTED POWER TAKE-OFF

Two torque output versions ava	ilable.				
For complete specifications, se	e page 50.				
EPTT650, ratio 1.26:1	650 Nm*				
EPTT1000, ratio 1.26:1	1000 Nm*				
* Torque output both when driving and standing still.					

**OUR SOLUTION FOR EURO 6** 



#### ENGINE

A closed loop butterfly exhaust brake, a waste-gate turbo, a so-called uncooled EGR and more. The new engine components serve two main purposes: to improve gas-flow and make sure the exhaust reaches the after-treatment system at optimum temperature.

#### **7TH INJECTOR**

A special diesel injector is used for heat management of the DOC and ensures the efficiency of the DPF and good SCR functionality.

#### DIESEL OXIDATION CATALYST (DOC)

The DOC produces the NO<sub>2</sub> necessary for the DPF to efficiently combust the particulates. In cold conditions, it also provides the heat needed for regeneration.

#### DIESEL PARTICULATE FILTER (DPF)

The filter collects particulate matter (PM) and stores it until it's burned off during regeneration. The regeneration is done automatically and the driver doesn't need to take any action.

#### SELECTIVE CATALYTIC REDUCTION (SCR)

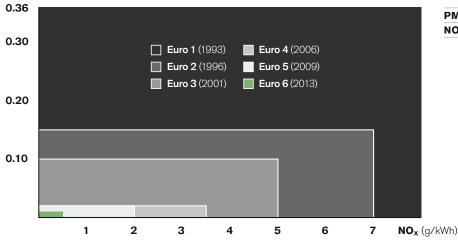
In the mixing zone, the exhausts are sprayed with AdBlue. When they reach the catalyst, the oxides of nitrogen  $(NO_x)$  are efficiently transformed into harmless nitrogen gas and water.

#### AMMONIA SLIP CATALYST (ASC)

The last step before the tailpipe where the remaining ammonia ( $NH_3$ ), if any, is removed.

#### EUROPEAN EMISSION STANDARDS 1993-2013

#### PM (g/kWh)



**PM** = Particulate Matter **NO<sub>x</sub>** = Oxides of Nitrogen

#### I-SHIFT

12-speed splitter and range gearbox with automated gearchanging system. I-Shift can be fitted with a compact retarder, power take-off and oil cooler.

#### I-SHIFT

Top gear	Engine torque (Nm)	GCW approval (tonnes)
Direct	2400	44
Direct	2600	60
Overdrive	2600	60
	Direct Direct	Direct 2400 Direct 2600

I-SHIFT SOFTWARE PACKAGES

#### BASIC

Supplied as standard with I-Shift and gives the gearbox its basic functions.

#### **DISTRIBUTION & CONSTRUCTION**

Tailors the gearbox's work for distribution and construction operations. Features include functions that aid the driver when starting and in close-quarter manoeuvring. ■

#### LONG HAUL & FUEL ECONOMY

Contains intelligent functions that minimise fuel consumption. This makes the program package particularly suitable for long-haul operations.

#### LONG HAUL & FUEL ECONOMY WITH I-SEE

Adds I-See, including I-Cruise, to the Long Haul & Fuel Economy package, for even larger fuel savings. ■

#### HEAVY DUTY TRANSPORT

Optimises I-Shift for heavy gross combination weights (>85 tonnes). ∎

#### **I-SHIFT SOFTWARE PACKAGES**

Functions	Basic	Distribution & Construction	Long Haul & Fuel Economy	Long Haul & Fuel Economy with I-See	Heavy Duty Transport*
Basic Shift Strategy	•	•	•	•	•
Performance Shift	•	•	•	•	•
Basic Gear Selection Adjustment	•	•	•	•	•
Gearbox Oil Temperature Monitor	•	•	•	•	•
Enhanced Shift Strategy		•	•	•	•
Launch Control		•	•	•	•
I-Roll			•	•	•
Smart Cruise Control			•	•	•
I-See, including I-Cruise				•	•
Heavy Duty GCW Control					•
Additional options					
Enhanced PTO Functions	•	•	•	•	•
Enhanced Gear Selection Adjustment, including k	ick-down	•	•	•	•
Enhanced performance - Bad roads		•	•	•	•
* Only available for AT2612E.					

## **DRIVELINE 2**

**I-SHIFT FUNCTIONS EXPLAINED** 

#### **BASIC SHIFT STRATEGY**

Automatic selection of the right starting ratio (1st – 6th gear). The choice of starting gear is influenced by gross weight and road gradient.

#### PERFORMANCE SHIFT

Gives faster and gentler changes through intelligent utilisation of the engine brake, the vehicle's clutch and a special transmission brake.

#### **BASIC GEAR SELECTION ADJUSTMENT**

Makes it possible to adjust gear selection via the gear lever's buttons during engine braking in automatic mode.

#### GEARBOX OIL TEMPERATURE MONITOR

Shows the gearbox oil's temperature in the information display.

#### **ENHANCED SHIFT STRATEGY**

By interacting with EBS and ECS, starting and close-quarter manoeuvring are made easier. Maximises the VEB/VEB<sup>+</sup> braking effect by automatically selecting the right gear so that the engine operates at high revs. When changing gear during engine braking, the wheel brakes are activated to compensate for loss of braking torque.

#### LAUNCH CONTROL

Optimises gear selection and EBS functions for manoeuvring at low speeds. Among other things, ensures that the Hill Start Aid function is only activated on uphill gradients.

#### I-ROLL

Automatic engagement and disengagement of a freewheel function for the purpose of reducing fuel consumption. I-Roll is used when neither engine power nor engine braking is needed, for instance on flat roads.

#### SMART CRUISE CONTROL

Interacts with the vehicle's Brake Cruise and ensures that the auxiliary brakes are not activated unnecessarily. The free-wheel function can thus be utilised to an even greater extent.

#### I-SEE

A smart I-Shift software that can store topography data and use this information to save fuel and improve driving comfort. The data is saved in a database available for other I-See users. When ordering I-See, the cruise control I-Cruise is also included. I-Cruise can also be ordered separately.

#### HEAVY DUTY GCW CONTROL

Optimises gear selection for high gross combination weights, 85–180 tonnes.

#### **ADDITIONAL OPTIONS**

#### □ ENHANCED PTO FUNCTIONS

Several functions that make power take-off use easier.

# ENHANCED GEAR SELECTION ADJUSTMENT INCLUDING KICK-DOWN

Makes it possible to adjust gear selection via the gear lever's buttons during start and when driving in automatic mode. The kick-down function selects the right gear for maximum acceleration.

#### ENHANCED PERFORMANCE - BAD ROADS

Several functions that adjust gearchanging and assist starting and driving in poor road conditions and hilly terrain.

#### MANUAL GEARBOXES

14-speed splitter and range manual gearbox. Cable operation – with separate cables for longitudinal and lateral movements – results in short and distinct gear settings. Patented synchromesh with servo function means low gearchanging forces. The gearboxes can be fitted with a compact retarder, power take-off and oil cooler.

#### MANUAL GEARBOXES

Туре	Top gear	Engine torque (Nm)	GCW approval (tonnes)
□ VT2009B	Direct	2000	60
□ VT2214B	Direct	2200	100
□ VT02214B	Overdrive	2200	100
□ VT2514B	Direct	2500	100
□ VTO2514B	Overdrive	2500	100

# **2 DRIVELINE**

#### POWER TAKE-OFFS

There is a wide range of clutch-independent and clutch-dependent power take-offs to drive all sorts of body equipment.

ENGINE-MOUNTED

#### **PTER-DIN**

Rear-mounted engine power take-off for direct drive of a hydraulic pump.

#### **PTER1400**

Rear-mounted engine power take-off with flange connection for hydraulic pump.

#### **PTER100**

Rear-mounted engine power take-off with flange connection for hydraulic pump.

#### PTERCDI

Rear-mounted, clutchable engine power takeoff for direct drive of a hydraulic pump.

#### PTERC14

Rear-mounted, clutchable engine power takeoff with flange connection for hydraulic pump.

#### 

Rear-mounted, clutchable engine power takeoff with flange connection for hydraulic pump.

**GEARBOX-MOUNTED** 

#### PTR-F

Connecting flange attachment and low-rev or high-rev.

#### PTR-FL/FH

Connecting flange attachment and low-rev or high-rev.

#### PTR-D/PTR-DM/PTR-DH

Low/medium/high-rev with DIN-connection for direct attachment of a hydraulic pump.

#### PTRD-F

High-rev with connecting flange attachment for direct-fitted propshaft.

#### PTRD-D

High-rev with dual drive. DIN connection front and rear for direct attachment of hydraulic pumps.

#### PTRD-D1

High-rev with dual drive. Connecting flange attachment at the rear and DIN attachment at the front.

#### PTRD-D2

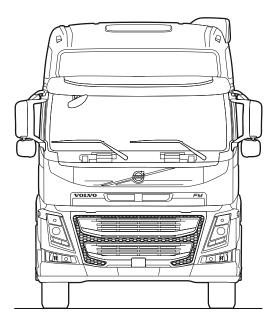
High-rev with dual drive rear and single drive front. Two connecting flange attachments rear and one DIN attachment at the front.

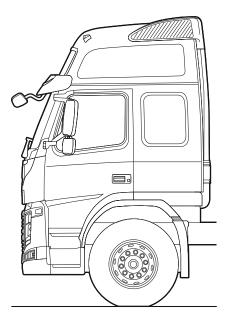
#### REAR AXLES

				Max axle/bogie load	
Туре	Axle	Gear	Max torque (Nm)	(tonnes)	GCW approval (tonnes)
Single reduction					
RSS1344C/D	Solo	Hypoid	2600	13	44
🗆 RSS1356	Solo	Hypoid	2400/2800	13	56/44
CRSS1360	Solo	Hypoid	3550	13	60
CRTS2370A	Tandem	Hypoid	3550	23	70
Hub reduction					
RSH1370F	Solo	Conical spiral cut	3550	13	70
□ RTH2610F	Tandem	Conical spiral cut	3550	26	100
□ RTH3210F	Tandem	Conical spiral cut	3550	32	100
CRTH3312	Tandem	Conical spiral cut	3550	33	120

#### **REAR AXLE RATIOS**

RSS1344C/D	RSS1356	RSS1360	RTS2370A	RSH1370F	RTH2610F	RTH3210F	RTH3312
2.31:1*	2.50:1	2.47:1	2.43:1	3.46:1	3.33:1	3.33:1	3.61:1
2.47:1*	2.64:1	2.64:1	2.57:1	3.61:1	3.46:1	3.46:1	3.76:1
2.64:1	2.79:1	2.85:1	2.83:1	3.76:1	3.61:1	3.61:1	4.12:1
2.85:1	3.10:1	3.08:1	3.09:1	4.12:1	3.76:1	3.76:1	4.55:1
3.08:1	3.44:1	3.40:1	3.40:1	4.55:1	3.97:1	3.97:1	5.41:1
3.36:1	3.67:1	3.67:1	3.78:1	5.41:1	4.12:1	4.12:1	7.21:1
3.70:1		4.11:1	4.13:1		4.55:1	4.55:1	
4.11:1			4.50:1		5.41:1	5.41:1	
4.63:1			5.14:1			7.21:1	
5.29:1			5.67:1				
			6.17:1				
* For RSS1344D.							





#### FOUR-POINT CAB SUSPENSION

Coil springs with dampers all-round or air suspension with automatic level control all-round.

#### **AIR INTAKES**

Air intake positioned on the left side and available in high or low version.

#### COLOURS

Available in about 850 variants.

#### UPHOLSTERY

🗆 Robust	Textile, Textile/Vinyl
🗆 Dynamic	Textile, Textile/Vinyl
Progressive	Leather/Textile

#### DRIVER'S SEAT

Three different levels of comfort: Standard, Comfort and Deluxe. All levels can be ordered with optional upholstery. The seat's total adjustment scope is 200 mm fore-aft, and 100 mm vertically. The driver's seat is fitted as standard with a head restraint, adjustable and fold-down backrest, vertical and fore-aft adjustment, adjustable lumbar support and adjustable seat angle.

#### PASSENGER SEAT

Two different levels of comfort: Standard and Comfort. Both can be ordered with optional upholstery. The passenger seats are equipped as standard with head restraints.

#### BEDS

Lower bed measuring 70×200 cm. 16 cm mattress with pocket springs and excellent comfort. Three options of firmness: Soft, Semi-firm and Firm.

Two options of overlay mattress protector that improves sleeping comfort and facilitates bed-making.

Comfort upper bed dimensions:  $70 \times 190$  cm or  $60 \times 190$  cm.

#### INTERIOR STORAGE

The space above the windscreen consists of two storage compartments with roller doors on Globetrotter and LXL cabs as well as four ISO slots, one of which is reserved for the tachograph. Under the bed in the sleeper cab and the Globetrotter cab there are two large storage compartments that are accessible from the outside, and in the sleeper section there are two storages for magazines and small items. In the dashboard there are four open storages, a small storage box, a DIN slot storage, bird bath and an optional bottle holder.

#### EXTERIOR STORAGE

Storage space accessible from the outside can be found behind the passenger and driver seats.

#### **ROOF HATCH**

The cab is equipped with a roof hatch that can be opened 50 mm. On the inside there is a perforated sunblind, which also acts as an insect net when the hatch is open. The roof hatch can be manually or electrically operated - electric option is only available on the LXL cab.

#### STEERING WHEEL

Steering wheel in two different sizes – 450 mm or 500 mm in diameter depending on the truck specification. The steering wheel's height can be adjusted by up to 90 mm and the angle can be adjusted by 28 degrees. The steering wheel is available with or without an airbag. Integrated controls in the steering wheel provide safe and comfortable operation of cruise control, horn, phone and the functions in the driver information display and optional secondary information display.

#### **CLIMATE SYSTEM**

There is a choice of two alternative climate systems to cover all needs: Air conditioning with manual control (MCC). Air conditioning with automatic temperature control (ECC/ECC2).

#### DAY CAB

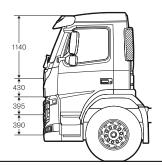
Day cab (FM-DAY) with comfortable and ergonomic driver area. Interior height 157 cm, 114 cm on the engine compartment cover.

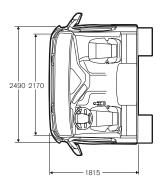
#### 

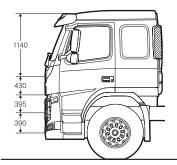
Sleeper cab (FM-SLP) with comfortable overnight accommodation for one or two people.Interior height 157 cm, 114 cm on the engine compartment cover.

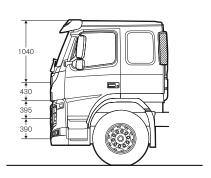
#### LOW SLEEPER CAB

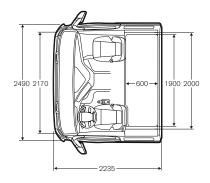
Low sleeper cab (FM-LSLP) with lowered roof provides added load space above the cab. Interior height 147 cm, 104 cm over the engine compartment.

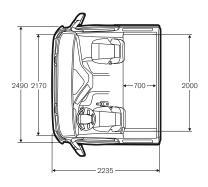










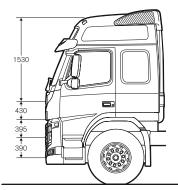


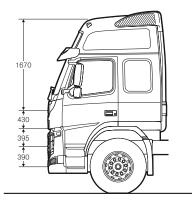
#### GLOBETROTTER CAB

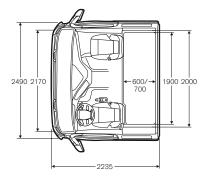
Globetrotter cab (FM-HSLP) with comfortable overnight accommodation for up to two people. The cab offers extra storage space higher up. Interior height 196 cm, 153 cm on the engine compartment cover.

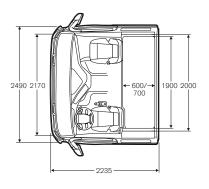
#### GLOBETROTTER LXL CAB

Globetrotter LXL cab (FM-XHSL) with comfortable overnight accommodation for up to two people. The cab offers extra storage space higher up. Interior height 210 cm, 167 cm on the engine compartment cover.









# **4 EQUIPMENT PACKAGES**

DRIVING PACKAGES		
	Driving	Driving+
Roof hatch, manual (electrical on Globetrotter LXL)	•	•
Exterior sun visor	•	•
Interior sun visor with mirror	•	•
Mirrors, electrically controlled and heated	•	•
Armrests on driver seat		•
Locking of passenger door from driver side	•	
Central locking with remote key		•
Electronic Climate Control (ECC)		•

#### RESTING PACKAGES

	Sleeper cab	Globetrotter and	Globetrotter LXL cab	
	1 bed	1 bed	2 bed	
Sleeper control panel	•	•	•	
Interior lighting with night light and dimmer	•	•	•	
Cab parking heater	•	•	•	
Engine and cab parking heater				
Rear storage, 154 litres		•		
Top bunk, fixed and foldable			•	

# **EQUIPMENT PACKAGES** 4

	Basic	High
Audio Functions		
Audio CD	•	•
CD-R/CD-RW	•	•
wav/wma/mp3/iTunes m4a		•
Speed-dependant volume control		•
Extended mute functions		•
Radio		
FM/AM antenna	•	•
FM stations	12	18
AM stations	6	6
RDS	•	•
Connections and interfaces		
Low-level input, 4 channels		•
3.5 mm stereo line input		•
USB connection		•
iPod interface		•
Bluetooth		•
Speakers		
Number of speakers	4	6*
Output	4×20 W	4×35 W
* 4 speakers on day cab.		

AIRFLOW PACKAGE	
Roof airflow panel	•
Side airflow panel, long	•
Chassis side skirts*	•
Side underrun protection	•
Additional chassis fairings*	•
* 4x2 Tractors only.	

# **4 EQUIPMENT PACKAGES**

PERSONAL PROTECTION PACKAGE	
Burglar alarm	•
Alarm with external sensor	0
Safe below bed	•
Main switch, remote controlled circuit shutdown	•
Main switch as for ADR trucks	0
<b>O</b> = option	

#### VISIBILITY PACKAGES

	Visibility	Visibility+*
Headlamp cleaning	•	•
Static cornering lights	•	•
Rain sensor	•	•
Bi-Xenon headlamps		•
Dynamic headlights (Bi-Xenon)		0
<b>o</b> = option. * Visibility+ is only possible with rear air suspension (RSS-AIR).		

LONG HAUL FUEL PACKAGES	
Vehicle package	
I-See, including I-Cruise	•
Engine idle shutdown	•
24V, 150A alternator	•
Clutchable 2 cyl. 900 litres/min air compressor	•
Services package	
Fuel Advice	•
Dynafleet Fuel and Environment	•
Driver training: Efficient driving	•

TRANSPORT EFFICIENCY PACKAGE	
Dynafleet Driver times	0
Dynafleet Messaging	0
Dynafleet Positioning	0
GPS navigator	0
Driver times feedback	0
Driver training: Transport Business and Legislation	0

NEW VOLVO GOLD CONTRACT	
In addition to the existing maintenance and repair programme, the new gold contract also contains:	
New Service Planning	•
Features Online	•
Uptime Promise	•

Some of the equipment shown or mentioned may only be available as options or accessories and may vary from one country to another in accordance with local legislation. Your Volvo dealer will be happy to provide you with more detailed information. Colours may vary somewhat owing to the limitations of the printing process. We reserve the right to alter product specifications without prior notification.

#### **VOLVO TRUCK ACCESSORIES**

You have chosen one of the most well equipped trucks in the world. But to make it really suitable for your particular transport assignments and for your personal needs, there's also a wide range of accessories to choose from. Developed and tested by Volvo Trucks for Volvo trucks. Here's a small selection. Ask your Volvo dealer or visit **www.volvotrucks.com** to learn more.





Volvo Truck Corporation