

**Volvo Trucks. Driving Progress** 

# VOLVO VAH SERIES

MAXIMIZES FREIGHT AND EFFICIENCY





# **SEE THE DIFFERENCE EVERY DIFFERENCE MAKES.**



**Driver Productivity:** Space, features, and comfort.

See how the VAH series can help you keep drivers comfortable and productive.



**Fuel Efficiency:** 

operating cost.

Maximize payload and

performance. Minimize

Experience our new

engines and advanced

powertrain technology

fuel savings. Explore

the features of the refined VAH series that

that delivers exceptional

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Safety: It's in our DNA.

For nearly a century Volvo has striven to prevent incidents and reduce injuries.

Uptime: Real people. Real solutions. Real fast.

Our highly trained uptime team manages service and schedule repairs 24/7. While our fleet management solutions provide unprecedented control over your operations.







# WHY VAH?

A smooth comfortable ride and superior noise suppression are just a couple of the premium VAH features designed to enhance driver productivity. The VAH series employs a unique configuration that reduces overall height to provide the ultimate in loading flexibility. Deep-drop front axles, low-height Volvo Air Ride rear suspensions, and reduced-height cab options all contribute to lower overall height, offering the flexibility to position a car, pickup, or minivan over the cab. Two lowered roof heights are available, partial (102.5 inches) and full (97.5 inches), through Fontaine Modification Company. A clean top-of-frame behind the cab expedites body mounting and eases trailer hookup.



# Living well on the long haul.

When long-haul distances and short deadlines require spending several nights on the road, auto haulers need a premium sleeper cab. If the open road is your home, the VAH 640 makes life more comfortable, productive, and safe with a 61-inch sleeper that delivers plenty of space for rest, meals, and paperwork. The spacious sleeper offers room for a 36-inch-wide bed, plenty of storage in cabinets fitted with securely closing doors, as well as space for amenities such as a refrigerator.

# **Regional ready and urban friendly.**

If your auto transport business stretches from multi-stop local delivery routes to full loads hauled region-wide, you need an all-position player. The VAH 400 maintains maneuverability, but adds a 42-inch sleeper for a comfortable rest when you're on the road overnight. This multi-role performer delivers maximum payload, urban agility, and a good night's rest.

Learn more: USA: VAH.volvotrucks.us | CAN: VAH.volvotrucks.ca





# Local agility for volume delivery.

Maximum payload, optimized efficiency, and premium features are all standard fare for this local productivity specialist.

Designed for nimble handling and optimized for maximum payload, the VAH 300 daycab is the answer for auto-hauling routes that are short on miles, but long on volume. The short BBC daycab configuration offers a tighter turning radius, to make your drivers happy. It also keeps your bottom line healthy, by carrying up to 11 vehicles per load.

# Not just a workspace, a space that works.

The dashboard on the VAH has been optimized to reduce distraction by displaying the critical information a driver needs at a quick glance and by grouping frequently used controls within easy reach.

An optional, five-inch driver color display, with improved graphics, works with controls mounted on the steering wheel to provide key operating parameters, as well as access to system settings and configurable diagnostic aids.

A dash-top tray with multiple connections provides a safe, convenient home for a driver's many gadgets, which can also be linked to an optional in-dash infotainment system.

Always in view, the instrument cluster's clean, symmetrical layout and diffused, light-green backlighting make it easy to read, reducing eyestrain and fatigue.

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### Configurable LCD screen.

At the heart of the new and improved instrument cluster is a color LCD display. A full five inches wide, it can be configured to provide trip information, performance data, and a wide range of vehicle diagnostics.

### Optional infotainment system.

The new infotainment system is optional in every VAH. It features a seven-inch color touch screen and an integrated premium audio system. Drivers can also choose to install navigation tools and a wide selection of third-party applications.



# **Performance runs in the family.**

Volvo's family of engines is built on a foundation of proven, developed architecture that leverages innovative hardware to maximize performance and efficiency. Energy that is normally lost is recovered with standard features, including lower friction pistons that optimize cylinder efficiency. A standard common-rail fuel injection system now gets the most power out of every drop of fuel. Our reliable, variable geometry turbocharger compresses and moves the intake air while providing the correct back pressure to drive the Exhaust Gas Recirculation (EGR) process. And reliability isn't sacrificed for greater efficiency. All Volvo D11 and D13 engines carry a B50 life of 1.2 million miles.



### Volvo D11 325-425 hp, 1250-1550 lb-ft.

The Volvo D11 is a fuel-efficient, lightweight engine designed to improve reliability and minimize cost of operation. The D11 delivers performance competitive with larger engines, beginning at 325 hp and up to an impressive 425 hp at 1,550 lb-ft. torque. Ratings for Eco-Torque are also available. It's also a lighter solution for maximizing fuel efficiency for auto-hauling applications.



## Volvo D13 375-500 hp, 1450-1850 lb-ft.

The Volvo D13's efficiency and power improve operating costs, while meeting GHG emissions standards. Twelve power ratings are available, from 375 to 500 hp.

Eco-Torque, and Dual-Torque ratings provide "dual-personality" torque output for customers who desire the fuel economy of lower torque with the strong performance of higher torque.

# An automated manual transmission with digital intelligence.

Volvo has made the industry's most advanced automated manual transmission even better. The latest edition of the Volvo I-Shift transmission includes upgraded hardware and software, greater durability, and a countershaft brake for improved performance and smoother, faster shifting. The electronic control unit can handle any load and any road, shifting perfectly every time. We've also improved clutch durability and torsional dampening in both our D11 and D13 models. So I-Shift not only keeps fuel costs down, it can also help slow driveline wear, reduce noise and vibration, extend transmission life, and lower maintenance costs.

Whether your route includes rolling hills or steep mountain terrain, Volvo's I-See predictive cruise employs self-learning knowledge of road topography to work with I-Shift, helping your drivers optimize the truck's speed and gear shifting.





Makes every driver more fuel-efficient. Our latest I-Shift makes drivers more productive, using intelligent electronics to continuously monitor grade, speed, weight, and engine load, shifting when necessary or holding a gearwhichever saves more fuel. So regardless of experience or training, I-Shift helps every driver become more fuel-efficient.



Brains, brawn, and value. With a D11 or D13 engine, Volvo's torque rating for I-Shift goes up to 1,900 lb-ft., so it's compatible with any Volvo engine you choose for the VAH. I-Shift can also increase your truck's resale value. If your Volvo truck was purchased with a lower engine power rating, a simple software flash can uprate it to the highest power rating for its displacement-without having to replace the transmission.



### Eases your mind and your left foot.

Once you drive an I-Shift, you'll never want to deal with a clutch pedal again. I-Shift lets you concentrate on the task at handdelivering vehicles-not on what gear you're in. It's easy to use and always ready with the right gear, so missed shifts and sore knees are a thing of the past. With I-Shift, just sit back, get comfortable, and concentrate on your driving.



### **Design changes save** fuel and time.

The Volvo I-Shift's transmission cooler optimizes fluid temperature in cold and warm climates, improving fuel efficiency. Connections in the transmission are also upgraded for faster maintenance during service stops.

# DRIVER PRODUCTIVITY



# Designed with the driver in mind.

A comfortable driver is a productive driver. So the VAH series starts with a solid chassis, smooth-riding air suspension, and precise, automotive-like handling. The well-insulated cab provides a quiet sanctuary, offering great visibility and a wraparound dashboard designed to keep all controls within reach.



# **Because every driver** is one of a kind.

No two drivers are exactly alike, so we set out to design a steering solution that lets drivers set the ideal height and angle, no matter who's behind the wheel. The result is Volvo's new Position Perfect<sup>™</sup> steering wheel. With a three-way neck tilt, drivers have an almost endless array of choices for positioning the wheel exactly where they prefer it.



Critical data, clearly displayed. A symmetrical instrument cluster combines wellorganized traditional gauge faces with a high-resolution, five-inch color LCD screen. The programmable LCD screen can be configured to display a wide range of vehicle data alerts and system settings.







Easy in and out. Doors are 3+ feet wide, 4+ feet high, and open a full 70 degrees for ease of access. Ergonomically placed grab handles prove the safest and most secure way in and way out of the cab.

### System control, close at hand.

To keep the driver's hands on the wheel, multiple systems can be controlled through steering wheel-mounted switches. The touch-friendly switch layout enables cruise control, entertainment, and other settings to be changed without diverting attention from the road. The steering wheel and controls are always close at hand, thanks to a new three-motion tilt/telescope Position Perfect<sup>™</sup> wheel.

# **Choose your style.**

The VAH's thoughtfully configured interior lets you choose from three different trim levels, all developed to stand up to the rigors of auto-hauling operations, while bringing premium automotive-style colors and design into the driver's working and living environment. Each of these trim levels is available with a selection of seat options.

Learn more: USA: VAH.volvotrucks.us | CAN: VAH.volvotrucks.ca



### Fleet

The Fleet level trim package features a Heron vinyl headliner with a dot matrix pattern and complementary vinyl walls. The door panels are accented with durable Wren plastic inserts. Express

The Express level package upgrades the headliner and walls with a Heron cloth finish. Door panels are accented with Wren vinyl inserts.







### Premier

The Premier level trim upgrades the walls to a Longspur cloth with metallic accent. The door panels are completed with our finest Longspur vinyl insert.



# To improve your sleep, we improved our sleeper.

Volvo VAH sleepers offer premium touches that give drivers a comfortable place to relax and recharge when regional hauls require an overnight stop. With a 36-inch-wide bed, both the 42-inch flat-roof VAH 400 sleeper and the 61-inch mid-roof VAH 640 sleeper provide ample room to rest.

A thick layer of insulation combined with some of the quietest running engines in the industry keep the cab comfortable and quiet whether you're down for an hour or for the night.



The sleeper control panel can be used to lock the doors, adjust bunk heating

and cooling, or set audio levels. Need

to call attention to your vehicle.

Don't get up.



Snacks and refreshments. The VAH 640's cabinets can be configured to include a refrigerator or a microwave, so a hot meal or a cold drink assistance? Just press the "panic" button can be available any time.

# FUEL EFFICIENCY

# The road to efficiency is paved with innovation.

At Volvo, fuel efficiency is a vital part of our commitment to your business, and ultimately, to the planet we all share. That's why we're constantly challenging ourselves to find new and improved ways to make Volvo trucks the most fuel-efficient trucks on the road. Fuel efficiency is more than a single feature—it's a combination of customized solutions working together in perfect harmony to help you achieve the performance you want, with the fuel savings you need. The result is fuel efficiency custom-built to reduce your operating costs.

# Leading through innovation.

At Volvo, fuel efficiency is the sum of many parts, not simply a specification to be met at the cost of performance or durability. Innovation is pursued at every opportunity. From the design on the drawing board, to the exhaust stack on the finished truck, we find solutions for improving performance, reducing friction losses, and cutting weight—all contributing to increased payload and improved fuel efficiency.













The intelligent Volvo Engine Brake (VEB) is an enhanced engine braking system that gives drivers precise control over engine braking and saves the truck's brakes for when they're needed most. The D11 and D13 engines use a Variable Geometry Turbocharger (VGT), which "supercharges" the VEB system, thanks to intelligent software. The result is phenomenal retarding horsepower at low RPM, where the engine spends most of its time and where braking is needed most.

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### Common-rail fuel injection.

The unique design of Volvo's common-rail fuel system delivers multiple benefits. Finer control allows quicker, more accurate fuel injection for improved fuel efficiency; while a clean installation improves reliability and dramatically reduces engine noise.

### Lower friction, wave piston design.

Improvements in surface finishing of the piston skirt area significantly reduce parasitic losses due to friction between the piston and the cylinder bore, benefitting both power output and fuel efficiency. Our patented wave design on the face of the piston increases cylinder efficiency by optimizing flame propagation toward the center of the cylinder for an ultra-clean burn.

### **One-box aftertreatment.**

Volvo's "one-box" exhaust aftertreatment system offers smaller system packaging and reduces weight by 17 pounds compared to two-piece systems. The one-box configuration provides better thermal encasing of exhaust energy and improves muffler efficiency. The use of Copper Zeolite (Cu-Z) catalyst coatings improves both low-temperature NOx conversion, and long-term system robustness. Diesel Exhaust Fluid (DEF) allows the engine to use less EGR, and maintain higher oxygen levels for better combustion.

### Powerful and precise engine braking.



# Volvo is safety.

Since 1927, safety has been the guiding principle for everything we build. We invented the three-point safety belt and were the first to introduce it as a standard feature. We also introduced the driver-side, forward airbag and are still the only truck manufacturer to include it standard in every vehicle we make.

Volvo's commitment to safety protects your business by putting the well-being of drivers—your most valuable asset—first. Intelligent design that maximizes comfort and visibility combined with advanced safety technology helps drivers avoid or minimize accidents.

# Keeping attention on the road.

The Volvo I-Shift automated manual transmission takes away the physical and mental demands of changing gears, which can reduce driver fatigue. Without the need to shift, the driver can also have more time to scan surrounding traffic for potential dangers.



Industry-leading. Just in case. Volvo is the only Class 8 manufacturer to make a driver's side airbag standard equipment in every truck. To further protect occupants, the engine and transmission drop down and away from the driver.



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before the engine starts. Self-cleaning steps ensure secure footing during cab ingress and egress, while ergonomic grab-handles provide a solid grip, even when wearing gloves.



Three-point safety belt. Volvo pioneered the three-point safety belt and in 1984 was the first heavy-duty truck manufacturer to install them.



# **Ready for whatever lies ahead.**

You know better than anyone that every second of uptime equates to increased revenue, productivity, and opportunity. That's why you need a transport solutions partner that offers innovative ideas to keep trucks on the road and money in your pocket.

Volvo Trucks Uptime Services is a unique suite of products and services designed to give you unprecedented control over fleet operations. Maximize uptime, increase maintenance efficiency, and protect your trucks with protection plans customized to your needs. Nothing can slow your business down when you know the road ahead.

# **Remote Diagnostics.**



Remote Diagnostics can help avoid unexpected downtime by monitoring your Volvo engine, I-Shift, and aftertreatment 24/7. Standard in every Volvo-powered truck, Remote Diagnostics offers a range of unique benefits including enhanced proactive diagnostics, detailed analysis of critical fault codes for repair planning, immediate communication if actions are required, and streamlined service procedures. It's a powerful service that reduces average diagnostic times by 70% and average repair times by 22%.

With a dedicated team of professionals available around the clock at Volvo's world-class Uptime Center in Greensboro, NC, Volvo goes beyond diagnostic technology to deliver actionable solutions.



### Updates on the fly.

Volvo's new Remote Programming feature means you'll no longer have to take your vehicle out of service to perform software and parameter updates. In the new VAH, drivers simply pull over, connect to the Volvo Uptime Center, and the upgrade is done over the air in a matter of minutes.

### The Volvo Uptime Center.

Real people. Real solutions. Real fast. The Volvo Uptime Center offers around-the-clock assistance anywhere in the United States and Canada. Within minutes, your driver is connected to a member of Volvo Action Service, a team of highly-trained uptime experts who can quickly manage service, schedule repairs, and tackle any other issue that happens on the road.



# your truck's location.



### **Volvo Protection Plans.**

The road can be unpredictable. Always know you're covered. Take the worry and stress out of unforeseen repairs and effectively manage costs over the life of your truck with an extended warranty through a Volvo Protection Plan. We offer a variety of plans covering the engine or chassis that can be customized to your needs-you choose the length and extent of coverage that best suits your specific application.

### ASIST service management platform.

Everything you need, all in one place. ASIST is a simple web-based tool that lets you monitor vehicle status, receive electronic estimates, approve repairs, issue purchase orders, and communicate directly with your dealer-regardless of

### **Premium Maintenance Plan.**

For best results, plan ahead. Preventative maintenance plans improve vehicle uptime, increase productivity, and provide peace of mind by making sure all required maintenance is done efficiently and done right. Choose from a full menu of services and get access to Genuine Volvo Parts, warranty adjustments, service programs, and performance updates at pre-planned maintenance intervals.

# No matter where, we're there to support your business.

Our world-class dealer network means your trucks are never far from the quality care and maintenance you expect when you buy a Volvo truck. With more than 400 dealers and thousands of service locations across North America, Volvo Trucks Uptime Services help you through every step of a service event, and make sure your trucks stay where they belong—on the road.

Repairs are done fast and accurately by highly trained Volvo specialists. Our parts-expediting team locates the parts you need quickly—making sure they are there when you need them.

Your time means money, that's why Volvo Trucks Uptime Services saves you both.



### **Volvo Certified Uptime Centers.**

Our Certified Uptime Center dealerships can expedite critical repairs. With the truck's remote diagnostic data already in hand, a technician can immediately diagnose the truck. If the repairs require less than four hours of service time, the truck is fast-tracked, with the goal of having it back on the road in 24 hours.



# Choose your Volvo VAH.

Every business needs a truck tailored to its specific needs. That's why the Volvo VAH provides endless possibilities. With a wide range of cab sizes, powertrain choices, and interior trim levels, you'll find all the options you need. Your dealer will happily guide you in finding the perfect truck for your operation.

# STEP 1:

## Choose your cab.

Specifications and measurements for the daycab, 42" and 61" flat-roof sleepers.

# STEP 2:

## Choose your powertrain.

Two different engine and transmission choices with a wide variety of power ratings and gear ratios.

# **STEP 3:**

## Choose your interior.

A trio of trim-level options that make sure drivers are at home in the cab.



STEP 1:	🗆 VAH 300	🗆 VAH 400	🗆 VAH 640
Description	Daycab designed to provide outstanding performance for urban deliveries.	Flat-roof sleeper designed for regional hauls requiring overnight rest to maintain hours of service compliance.	Spacious flat-roof sleeper designed for longer hauls requiring multiple overnight stays.
Applications	Short Haul/ Regional Haul	Short Haul/ Regional Haul	Regional Haul/ Long Haul
Cab Type	Daycab	42" Sleeper	61" Sleeper
Interior Height	61", 57" or 52" *	61", 57" or 52" *	61", 57" or 52" *
Interior Width	83.5" door to door	83.5" door to door with 79"x36" mattress	83.5" door to door with 79"x36" mattress
Wheelbase per axle configuration	6x4 6x2 Tag	6x4	6x4

\*Available with full-roof or partial-roof modification through Fontaine.





## SPECIFICATIONS POWERTRAIN





STEP 2:	🗆 VOLVO DII	🗆 VOLVO D13
Ratings:	325-425 hp / 1250-1550 lb-ft.	375-500 hp / 1450-1850 lb-ft.
Base Engine Configuration	4 cycle / Inline Six	4 cycle / Inline Six
Emissions	SCR Selective Catalytic Reduction	SCR Selective Catalytic Reduction
Aspiration	Sliding Nozzle Variable Geometry Turbocharger	Sliding Nozzle Variable Geometry Turbocharge
Cam / Valve Configuration	SOHC / 4 Valves per Cylinder	SOHC / 4 Valves per Cylinder
Cylinder Head	One Piece Rigid Deck Cylinder Head	One Piece Rigid Deck Cylinder Head
Injection System	Common Rail	Common Rail
Maximum Fuel Injection Pressure, psi (bar)	35,000 (2,400)	35,000 (2,400)
Rating Uprateability	Software Only, Throughout Range	Software Only, Throughout Range
Displacement, cu. in. (L)	661 (10.8)	780 (12.8)
Compression Ratio	17:1	17:1
Bore & Stroke, in. (mm)	4.84 x 5.98 (123 x 152)	5.16 x 6.22 (131 x 158)
Cylinder Spacing, in. (mm)	6.06 (154)	6.61 (168)
Full Dress Dry Weight, Ib. (kg)	2259 (1025)	2605 (1182)
Fuel and Lubrication:	-	1
Fuel Specification	Ultra Low Sulfur Diesel, 15 ppm	Ultra Low Sulfur Diesel, 15 ppm
Fuel Filters	Primary plus Secondary	Primary plus Secondary
Total Lube Oil Capacity, qts. (L)	38 (36)	38 (36)
Oil Filtration	Two Full Flow, One Bypass	Two Full Flow, One Bypass
Oil Drain Interval, Normal Service, miles (km)	60,000 (96,561)*	60,000 (96,561)*
Oil Specification	Volvo VDS-4.5, SAE 10W-30	Volvo VDS-4.5, SAE 10W-30
FLOCS Oil Drain Kit	Optional	Optional
Engine Equipment:	-	·
Air Compressor, CFM	Two Cylinder, 31.8	Two Cylinder, 31.8
Retarder	Volvo Engine Brake (VEB)	Volvo Engine Brake (VEB)
Engine Brake Rating at 2200 rpm	420 hp @ 2200 rpm	500 hp @ 2200 rpm
Engine Brake Rating at 1500 rpm	266 hp @ 1500 rpm	350 hp @ 1500 rpm
Engine Brake Weight, Ibs. (kg)	25 (12)	25 (12)
PTO Port for Live Rear PTO Pump or Shaft	Optional	Optional
Preheater, Electrical	Optional	Optional
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\* Volvo-branded VDS4.5 only, with > 6 mpg fuel mileage.



	□ VOLVO I-SHIFT I-SHIFT FOR SEVERE DUTY	🗆 EATON FULLER 10, 13, 18
Description	Automated Manual Transmission	Manual
Dry Weight w/clutch and oil cooler (lbs.) 720 or 805 541 to 716		541 to 716*
Max Torque Capacity (ft-lb) / NM()	1900 (2600)	1850 (2508)
Transmission Housing Body	Aluminum	Aluminum or Steel
Max Highway Weight (Ibs)	220,000**	140,000**
Software based upgrades available	Yes	No
Gear Ratios	14.94 to 41.08	14.80 to 19.72
Forward Gears	12	10, 13 or 18
Reverse Gears	2 to 6	2 to 4

\* Without clutch housing and end yoke \*\* Application approval required





	Heron vinyl	Heron cloth	Longspur cloth with metallic accent
STEP 3:	🗆 FLEET TRIM LEVEL	🗆 EXPRESS TRIM LEVEL	PREMIER TRIM LEVEL
Description	Our Fleet Trim Level is designed for maximum durability to withstand the wear associated with high-use applications. The Fleet Trim level is available in all VAH models.	Express Trim Level features a Heron cloth finish throughout the cab, with touches of Wren vinyl for a more refined interior. The Express Trim Level is available exclusively in VAH 300 and 400 models.	The Premier Trim Level offers luxurious options in every corner, including Wood Grain trim for the dash and cabinetry. The Premier Trim Level is available exclusively in VAH 300 and 640 models.
Headliner	Heron vinyl with dot matrix	Heron cloth	Heron cloth
Back Wall	Heron vinyl	Heron cloth	Longspur cloth with metallic accent
Door Insert	Wren molded plastic	Wren vinyl	Longspur vinyl
Instrument Panel Decorative Trim	Hex Grain	Hex Grain	Wood Grain
Cabinet Trim	Hex Grain	Hex Grain	Wood Grain
Floor Insert Options	Two	Тwo	Two





# Volvo Trucks

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