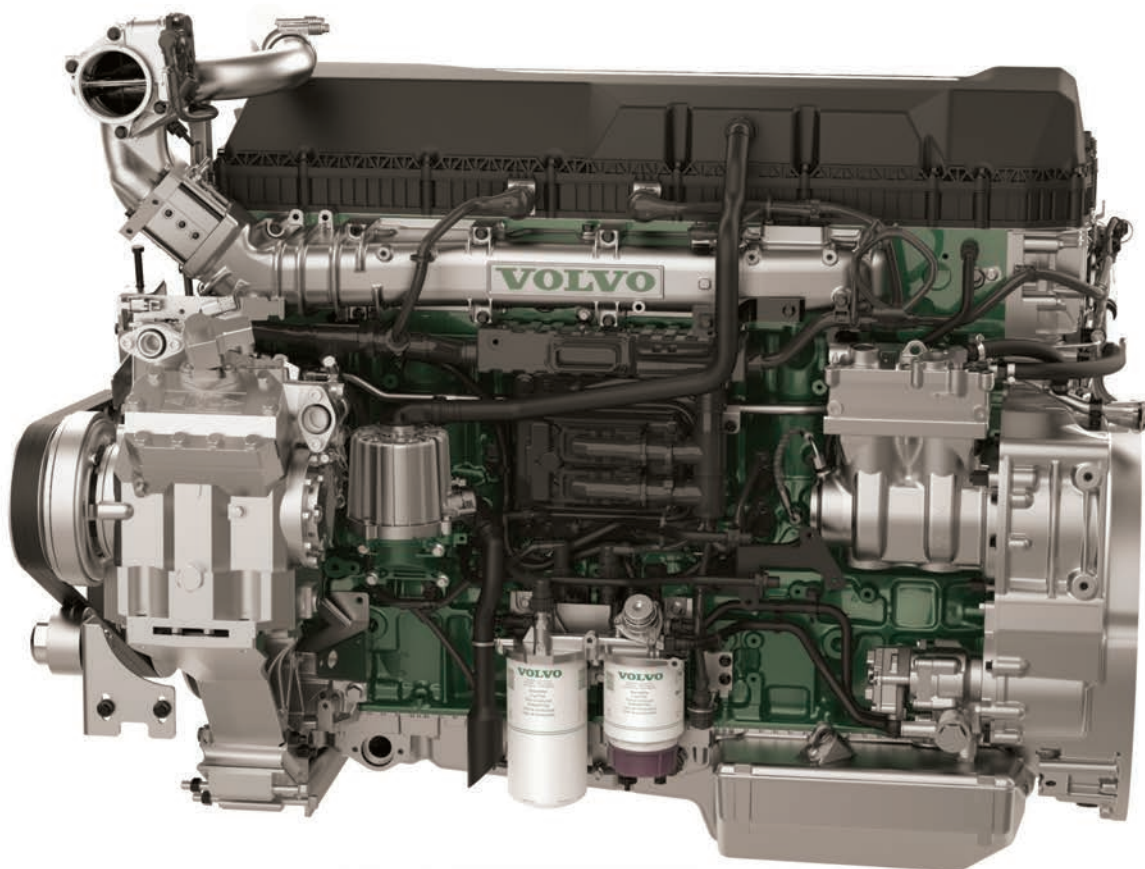




Volvo Buses. Driving Progress

# VOLVO D13 ENGINE



# All the power your coach needs.

SPECIFICATIONS	
<b>Ratings</b>	
Base Engine Configuration	4 cycle / Inline Six
Emissions	SCR Selective Catalytic Reduction
Aspiration	Sliding Nozzle Variable Geometry Turbocharger
Cam / Valve Configuration	SOHC / 4 Valves per Cylinder
Cylinder Head	One Piece Rigid Deck Cylinder Head
Injection System	Common Rail
Maximum Fuel Injection Pressure, psi (bar)	35,000 (2,400)
Rating Uprateability	Software Only, Throughout Range
Displacement, cu. in. (L)	780 (12.8)
Compression	Ratio 17:1
Bore & Stroke, in. (mm)	5.16 x 6.22 (131 x 158)
Cylinder Spacing, in. (mm)	6.61 (168)
Full Dress Dry Weight, lb. (kg)	2605 (1182)
<b>Fuel and Lubrication:</b>	
Fuel Specification	Ultra Low Sulfur Diesel, 15 ppm
Fuel Filters	Primary plus Secondary
Total Lube Oil Capacity, qts. (L)	38 (36)
Oil Filtration	Two Full Flow, One Bypass
Oil Drain Interval, Normal Service, miles (km)	55,000 (88,514)*
Oil Specification	Volvo VDS-4.5, SAE 10W-30
FLOCS Oil Drain Kit	Optional
<b>Engine Equipment:</b>	
Air Compressor, CFM	Two Cylinder, 31.8
Retarder	Volvo Engine Brake (VEB)
Engine Brake Rating at 2200 rpm	500 hp @ 2200 rpm
Engine Brake Rating at 1500 rpm	350 hp @ 1500 rpm
Engine Brake Weight, lbs. (kg)	25 (12)
PTO Port for Live Rear PTO Pump or Shaft	Standard on VHD
Preheater, Electrical	Optional

\* Application at 6 mpg or greater.

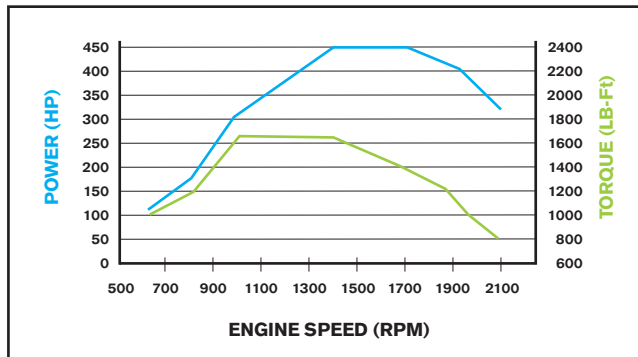
The D13 is designed to produce the power your coach needs, the fuel economy crucial to your bottom line, and the reliability your customers demand. Volvo achieves these goals by starting with a foundation of proven, mature engine architecture, and then leveraging innovative hardware and technology to optimize performance, productivity and efficiency. Thoughtful features are expertly integrated to deliver the solution for your needs.

#### High-efficiency aftertreatment system

Volvo's "one-box" exhaust aftertreatment system offers smaller system packaging and reduces weight by 17 pounds from previous systems. The one-box configuration provides better thermal encasing of exhaust energy, and improves muffler efficiency. The use of Cu-Z catalyst coatings improves both low-temperature NOx conversion, and long-term system robustness.

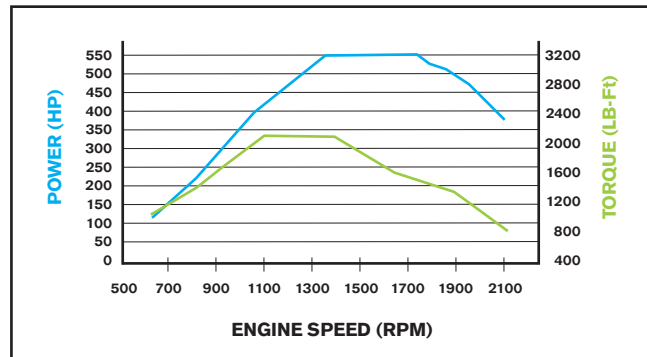
# Specifications

## Volvo D13 435/1650 (Motorcoach)



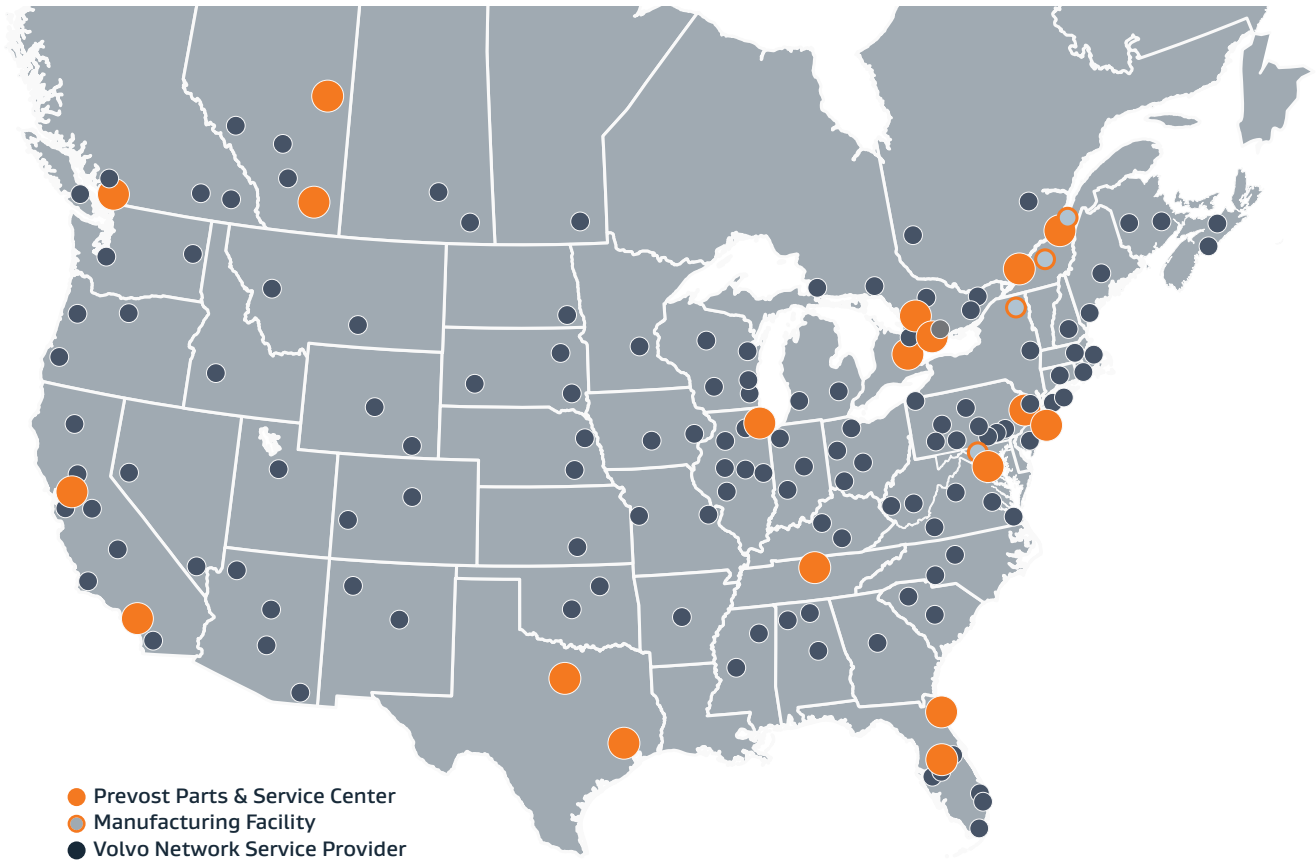
Advertised Power, HP	435
Peak Torque, lb-ft@RPM	1650@1050
Governed RPM	2100
Recommended Cruise Speed range, RPM	1250-1500
Start Engagement Torque, lb-ft@RPM	869@800

## Volvo D13 500/1850 (Conversion)



Advertised Power, HP	500
Peak Torque, lb-ft@RPM	1850@1050
Governed RPM	2100
Recommended Cruise Speed range, RPM	1250-1500
Start Engagement Torque, lb-ft@RPM	869@800

FEATURE	BENEFIT
Variable Geometry Turbocharger (VGT)	Supercharges the intelligent Volvo Engine Brake (VEB) system for high retarding horsepower at low rpm, where engine braking is needed most.
Common-rail fuel injection	Precise control allows quicker, more accurate injection for improved fuel economy; clean installation improves reliability and reduces engine noise.
Ultra-high 35,000 psi fuel injection pressure	Finer fuel atomization for cleaner burn, reduced emissions and better fuel economy.
Wave piston design	Wave design optimizes cylinder efficiency, reducing soot production while enhancing fuel efficiency and performance.
Precision-Flow Cooled Exhaust Gas Recirculation	Tuned to give just the EGR flow needed, no more, no less, for optimum fuel consumption.
Oil-Cooled dual-port EGR valve	Consistent temperature; balanced pressure design with reduced opening force for high reliability and stick resistance.
Volvo engine family shares common architecture	Thorough component development assures more refined design.
Rigid deck cylinder head	Six headbolts per cylinder arrangement delivers uniform clamping force for long life.
Camshaft damper	Reduces injection system torsional vibration and high frequency buzz, for longer component life.
Smart fan clutch	Increases fuel efficiency by only running the fan when extra cooling is necessary, varying fan speed based on cooling needs.
Intelligently modulated VEB	Maintains steady vehicle speed during descent for greater driving comfort, improved safety.
Available VEB	Exceptional retarding, optimized for the rpm you drive, increasing service brake life.
Performance Bonus Guide driver coaching software	Increased fuel savings and driver retention by altering driver behavior through incentives.



- PrevoSt Parts & Service Center
- Manufacturing Facility
- Volvo Network Service Provider

www.prevoStcar.com

## SUPPORTED BY THE PREVOST PARTS & SERVICE NETWORK

### CANADA

#### Alberta – Calgary

2932 Kingsview Blvd SE  
Airdrie, Alberta T4A 0C9  
Tel: 1-403-519-3477

#### Alberta – Ft McMurray

292 MacDonald Crescent  
Ft McMurray, Alberta T9H4B6  
Tel: 1-780-713-0274  
Fax: 1-780-743-0983

#### British Columbia

11911 No. 5 Road  
Richmond, BC V7A 4E9  
Tel: 1-604-940-3306  
Fax: 1-604-940-3384

#### Ontario – Mississauga

7655 Tranmere Drive  
Mississauga, Ontario L5S 1L4  
Tel: 1-905-738-0881  
Fax: 1-905-738-0891

#### Ontario – Ottawa

2105 Bantree St  
Ottawa, ON K1B 4X3

#### Ontario – Scarborough

25 Grand Marshall Dr  
Scarborough, ON M1B 5N6

#### Quebec – Lévis

850, Chemin Olivier  
Lévis, Quebec G7A 2N1  
Tel: 1-866-870-2046  
Fax: 1-418-831-7432

#### Quebec – Montreal

1275, Boulevard Hymus  
Dorval, QC H9P 1J5  
Tel: 1-514-687-6741

### USA

#### California – Bay Area

28702 Hall Rd  
Hayward, CA 94545  
Tel: 1-510-745-7515

#### California – Southern

3384 De Forest Circle  
Mira Loma, CA 91752  
Tel: 1-800-421-9958  
Fax: 1-951-360-2560

#### Florida – Jacksonville

6931 Business Park Blvd.  
North Jacksonville, FL 32256  
Tel: 1-800-874-7740  
Fax: 1-904-886-0092

#### Florida – Orlando

1300 Green Forest Court  
Winter Garden, FL 34787  
Tel: 1-407-554-0196

#### Illinois

3715 N. Carnation St.  
Franklin Park, IL 60131  
Tel: 1-847-778-7475

#### New Jersey – South Plainfield

201 South Avenue  
South Plainfield, NJ 07080  
Tel: 1-908-222-7211

Fax: 1-908-222-7304

**New Jersey – Secaucus**  
57 County Avenue  
Secaucus, NJ 07094  
Tel: 1-201-867-2175  
Fax: 1-201-974-9367

#### Tennessee

800 South Cartwright St  
Goodlettsville, TN 37072  
Tel: 1-877-299-8881  
Fax: 1-615-299-8816

#### Texas – Fort Worth

15200 Frye Road  
Fort Worth, Texas 76155  
Tel: 1-866-773-8678  
Fax: 1-817-685-0460

#### Texas – Houston

11851 Cuten Road  
Houston, Texas 77066  
Tel: 1-877-602-0273  
Fax: 1-281-315-1571

#### Washington, D.C.

1700 Rochell Ave.  
Capitol Heights, MD 20743

