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DIMENSIONS AND WEIGHTS	X3-45
Overall length (including bumpers)	45' (13,7 m)
Overall width	102" (2,59 m)
Overall height	134 3/8" (3,413 m)
Wheelbase (center of front axle to center of drive axle)	340" (8,64 m)
Floor height from ground	48 1/2" (1,23 m)
Ground clearance	11" (280 mm)
Step height from ground	15" (380 mm)
Step height (other steps)	7" (178 mm)
Headroom	80" (2,03 m)
Entrance door opening width	30" (762 mm)
Front overhang	70 3/4" (1,80 m)
Rear overhang	107 1/2" (2,73 m)
Front track	85.9" (2,18 m)
Drive track	76.7" (1,95 m)
Rear track (Tag axle)	83.6" (2,12 m)
Turning circle radius (I-Beam Axle)	47'-3" (14.4 m)
Curb weight	36,000 lb (16 327 kg)
Gross Vehicle Weight Rating (G.V.W.R.)	49,600 lb (22 498 kg)
Front axle Gross Axle Weight Rating (G.A.W.R.)	16,500 lb (7 500 kg)
Drive axle (G.A.W.R.)	20,500 lb (9 299 kg)
Tag axle (G.A.W.R.)	12,600 lb (5 727 kg)

The Gross Vehicle Weight Rating (G.V.W.R.) and the Gross Axle Weight Rating (G.A.W.R.) for front, drive and tag axles are listed on a certification plate located on the L.H. control panel in driver's section.

CAPACITIES	X3-45
Volvo D13 Engine oil (Total with filters)	41 U.S. qrts (39 l)
Fuel tank (legal capacity equal to 95% of volume)	208 U.S. gal. (787 l)
Cooling system	18.7 U.S. gal. (71 l)

CAPACITIES	X3-45
Allison Automatic Transmission (does not include external circuit)	6 U.S. gallons (23 l) 6.9 U.S. gallons (26 l) with retarder
Differential oil	20 U.S. qts (18,7 l)
Power steering reservoir	4.0 U.S. qts (3,8 l)
A/C compressor oil	4.5 U.S. qts (4,3 l)
Windshield washer reservoir	5.3 U.S. gal. (20 l)
Refrigerant	24.1 lb (11 kg)

### FUEL TYPE

Diesel engines for 2007 and later model year vehicles are designed to operate only with **Ultra Low Sulfur Diesel** (ULSD) fuel, which can contain no more than 15 ppm sulfur.

	<b>CAUTION</b>
<p>ULSD fuel is necessary to avoid fouling the engine's Exhaust Aftertreatment System. Use of fuel other than ULSD will reduce the efficiency and durability of the engine.</p>	

### BIODIESEL FUELS

ULSD-B5 biodiesel may be used. B5 tells you the percentage of biodiesel mixed in with ULSD. B5 is 5% biodiesel and 95% ULSD.

Fuel used must meet engine manufacturer's specification for biodiesel fuel. Concerning the use of biodiesel with Volvo D13 engines, refer to Volvo's specifications.

Biodiesel fuels are alkyl esters of long chain fatty acids derived from renewable resources. Biodiesel fuels made from soybean or rapeseed oil through the proper transesterification reaction process are recommended. Other feedstock source of biodiesel fuels such as animal fat and used cooking oils are not recommended. Biodiesel fuels meeting ASTM D6751 specification and from BQ-9000 accredited producer, prior to blending can be mixed up to 5% maximum by volume in petroleum diesel fuel. The resulting mixture must meet the fuel properties of ASTM D975 specification. Failures attributed to the use of biodiesel fuel will not be covered by Volvo or Prevost product warranty. Also, any engine performance problem related to the use of biodiesel fuel would not be recognized nor considered as Volvo or Prevost's responsibility.

## WHEELS AND TIRES

Accuride steel wheels .....9" X 22½"  
 Except inner drive axle (steel).....8¼" X 22½"  
 Tires ..... 315/80 R22.5 load range "L"

### RECOMMENDED TIRE INFLATION PRESSURE AT MAXIMUM COLD LOAD

The recommended tire inflation pressures are given in the applicable documents supplied with the vehicle. In addition, minimum cold tire inflation pressures are listed on the Department of Transport (DOT) certification plate, affixed on the left wall near the driver's seat.

	<b>CAUTION</b>
<p>These tire pressures are established in accordance with the maximum allowable load on each axle. A lower pressure is recommended if the axle load is less than the above specifications. Weigh vehicle fully loaded and pressurize according to tire manufacturer's recommendations. For non standard tire and wheel specifications, see Prevost tire pressure tabulation in "Coach Final Record".</p>	

	<b>WARNING</b>
<p>Special tire selection may lower maximum allowable speed limit, even below posted speed limit. For maximum safety, check with tire manufacturer.</p>	

## BELTS

Use	Model	Qty
Cooling fan drive belt	Multi V-14 Rib 14PK2526	1
A/C system 05G compressor	V Belt BX-100 9212-0404	2
Alternator (twin Bosch)	Multi-V-8 Rib 8PK1935	1
Alternator (emergency)	Multi-V-8 Rib 8PK1865	1

<b>NOTE</b>
<i>Belts specifications may vary. For proper belt selection, always consult your vehicle Coach Final Record.</i>

## VOLVO D13 ENGINE

Volvo D13 engine displacing 12.8 liters. The engine is an inline six cylinder, four stroke, turbocharged, air to air charge cooled, diesel engine with SOHC with 4 valves per cylinder.

Power .....435 HP  
 Torque.....1,700 lbf•ft (2304 Nm)  
 Operating range ..... 1400-1800rpm  
 Full dress, dry weight.....2519 lb

## ALLISON TRANSMISSION

Allison B500 (B500R with the optional output retarder) electronically controlled six speed automatic transmission.

### Gear Ratios

1<sup>st</sup> .....3.510  
 2<sup>nd</sup> .....1.906  
 3<sup>rd</sup> .....1.429  
 4<sup>th</sup> .....1.000  
 5<sup>th</sup> .....0.737  
 6<sup>th</sup> .....0.639  
 Reverse.....4.801  
 Converter .....1.9  
 Differential ratio.....3.91

## PROPELLER SHAFT

Hayes-Dana SPL250 type tubular shafts. It is provided with heavy-duty universal joints.

## BRAKES

The features of the braking system include a dual system where the front and rear circuits are completely independent from each other. The brakes are air operated disc type brakes with automatic slack adjusters on front, drive and tag axles. The emergency/parking brakes are located on the drive and tag axles only.

### BRAKE CHAMBER EFFECTIVE AREA

Front axle .....24 in<sup>2</sup>  
 Drive axle .....24/24 in<sup>2</sup> (service / emergency)  
 Tag axle .....14/16 in<sup>2</sup> (service / emergency)

## AIR SYSTEM

Compressed air is provided by a twin cylinder, 31.8 cfm Wabco, gear-driven, water-cooled and engine oil lubricated air compressor.

### ANTILOCK BRAKING SYSTEM (ABS)

The antilock braking system has one Electronic Control Unit (ECU) controlling a four channel system. A wheel slip sensor is mounted at each front axle and drive axle wheel. The Tag axle wheels are slave to the drive axle wheels.

The Electronic Control Unit (ECU) is maintenance free. Its operating voltage is 24 ± 6 volts DC. The thermal operating range for the ECM is from -40 to 167°F (-40 to 75°C).

The solenoid control valves are maintenance free. Their operating voltage is 24 (+4.8, -2.4) volts DC. The rated current draw is 1.65 amps. The thermal operating range of the solenoid control valves is from -40 to 176°F (-40 to 80°C).

### TROUBLESHOOTING AND TESTING

For troubleshooting and testing of the vehicle's anti-lock braking system, refer to Meritor WABCO Maintenance Manual: "Anti-Lock Brake Systems For Trucks, Tractors and Buses" or use dashboard Driver Information Display (DID).

### STEERING

- ZF 8098 integral hydraulic assisted steering gear;
- Volvo hydraulic pump gear driven from engine drive.
- Hydraulic reservoir and dipstick accessible from engine compartment.
- System pressure: 2175 psi (150 bars).
- Steering wheel diameter 20". Tilt steering wheel and telescopic steering column; pneumatically locked with foot operated switch for adjustment.
- Number of turns: 5¾.
- Outside turning radius: See Dimensions and Weight.

### ELECTRICAL SYSTEM

- 24-volt, negative ground;
- 12-volt exterior lighting;
- Two 28 volts, 120 amp, self-regulated, belt-driven, air-cooled HD 10 Bosch alternators;
- Two 12 volt, 8D format maintenance-free batteries connected in series/parallel. Cold cranking capacity is 1400 amps @ 0°F (-18°C) with a reserve capacity of 430 minutes;

- 100 amp battery equalizer.

### SUSPENSION

Goodyear rolling lobe type air springs (bellows) are used throughout.

#### I-BEAM AXLE FRONT SUSPENSION

- 2 Bellows (12"); for a G.A.W.R. of 16,500 lb;
- 2 Shock absorbers;
- 4 Radius rods;
- 1 Transverse radius rod;
- 1 Height control valve.
- 1 sway bar (1¾" diameter).

#### DRIVE AXLE

- 4 Bellows (11");
- 4 Shock absorbers;
- 3 Radius rods;
- 1 Panhard rod;
- 2 Height control valves.

#### TAG AXLE

- 2 Bellows (11");
- 2 Shock absorbers;
- 3 Radius rods;
- 1 Panhard rod.

### ALIGNMENT SPECIFICATIONS

Use wheel alignment systems which work with angle measurements only, such as Josam or Hunter systems. Alignment specifications are listed in the following tables:

I-BEAM AXLE FRONT SUSPENSION			
	Minimum value	Nominal value	Maximum value
Right camber (degrees)	-0.250	0.125	0.375
Left camber (degrees)	-0.250	0.125	0.375
Right caster (degrees)	2.0	2.75	3.5
Left caster (degrees)	2.0	2.75	3.5
Total toe-in (degrees)	0.08	0.13	0.17

DRIVE AXLE			
	Minimum value	Nominal value	Maximum value
Thrust angle (degrees)	-0.04	0	0.04

TAG AXLE			
	Minimum value	Nominal value	Maximum value
Parallelism (degrees)	-0.02	0	0.02
(*) Use the drive axle as reference			

### COOLING SYSTEM

- Extra capacity, copper fin radiator and aluminum charge air cooler arranged one behind the other.
- 3 speed fan clutch engine ECM controlled.
- Rubber insulated from the body.
- Expansion tank above radiator and remote mounted.
- System pressure 14 psi.
- 185° F thermostat.
- System capacity 24 us gal.
- Coolant filter.
- Radiator fan: 38 inches fan belt and drive shaft driven.

### FUEL SYSTEM

Polyethylene 208 US gallons/787 liters fuel tank centrally located.

Equipped with:

- Emco Wheaton fuel filling system.
- Provided with filling access on the right side of the coach with safety filler cap.
- Pressure relief valve.
- Electric fuel gauge.
- Low level signal at 26 US gallons/98.4 liters.
- Primary filter 25 microns (standard).
- Primary fuel filter with electrical water indicator (Volvo D13).
- Secondary filter 3 to 5 microns.
- Shut-off valve on fuel supply line.

### EXHAUST SYSTEM

One all stainless steel exhaust aftertreatment system including:

- Catalytic converter to reduce NOx.
- FleetGuard assembly made of a DOC (Diesel Oxidation Catalyst and a DPF (Diesel Particulate Filter). Noise, vibration and heat insulated. This assembly is mounted to the bus structure and is accessible through an exterior access door.
- Tail pipe diffuser and rain deviation device.
- Exhaust pipe with Insulation and a flexible section.
- Exhaust to rear left hand top of rear cap.
- Diesel exhaust fluid (DEF) tank (60 liters) and injection system.

### HEATING AND AIR CONDITIONING

The large capacity A/C provides adequate capacity of conditioned and filtered air for all climatic conditions. Fresh air is drawn into the system from the left (driver's) side of the vehicle. Return air is taken from the middle of the vehicle. The driver's heater and defogger are controlled separately from the central unit. An air mixture selector enables air to be drawn into the system from outside the vehicle or recirculated.

CENTRAL A/C	
Air conditioning capacity	9 tons
Refrigerant type	134A
Heating capacity	152 000 Btu/h
Air flow	2 600 cfm (73,6 m <sup>3</sup> /min)

COMPRESSOR (for central A/C)	
Number of cylinders	6
Operating speed	400 to 2 200 rpm (2,600 rpm, intermittent)
Minimum speed for lubrication	400 rpm
Oil capacity	6.3 U.S. pints (3,0 l)
Approved oil	Castrol SW-68 (POE)

**NOTE**

The above oils are suitable for use with reciprocating compressors using refrigerant R-134a and with evaporator temperatures above -40°F (-40°C).

**OIL SPECIFICATIONS**

**ENGINE**

Use Total Rubia TIR 10W-30 FE for best fuel economy. SAE 5W-30 & 15W-40 oils, meeting VDS-4 and CJ4, are also approved. CJ-4 is required in 2010 and later diesel engines.

The Volvo D13 engine oil specification is designated EO-O Premium Plus (or VDS-4). EO-O Premium Plus oils exceed the new API service category CJ-4.



**CAUTION**

CJ-4 contains less than 1% ash which is key to achieving maximum diesel particulate filter cleaning intervals. Use of high ash engine oils will reduce the cleaning interval on the Diesel Particulate Filter (DPF). DPF regenerates the combustible soot, but the ash (a product of the oil lubricant package) slowly accumulates in the channels of the DPF.

**ALLISON TRANSMISSION**

Allison Transmission recommends the following fluids:

- Castrol TranSynd™ or TES-295 specification equivalent fluid;
- Dexron-III®, Dexron VI automatic transmission fluid or TES-389 specification equivalent fluid.

**DIFFERENTIAL**

Multigrade gear oil meeting MIL-PRF-2105E: 85W/140 is recommended for use in drive axle. This lubricant performs well over a broad temperature range, providing good gear and bearing protection in a variety of climates. If temperature drops below 10°F (-12°C), 80W90 should be used, and below -15°F (-26°C), 75W90 should be used. In extreme conditions or for better performance, full synthetic gear oil should be used.

**FAN RIGHT ANGLE GEARBOX**

Use Shell synthetic transmission oil MA 75W90 or equivalent.

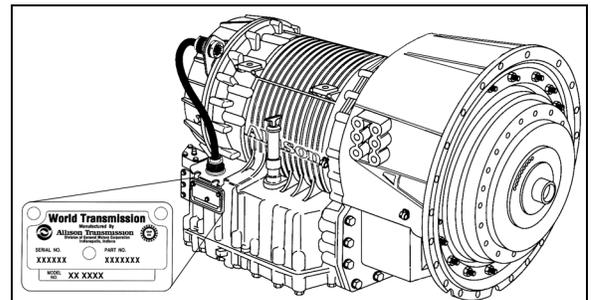
**POWER STEERING RESERVOIR**

Use Automatic Transmission Fluid (ATF) Dexron-III or Dexron-VI for this system.

**PLATES AND CERTIFICATION**

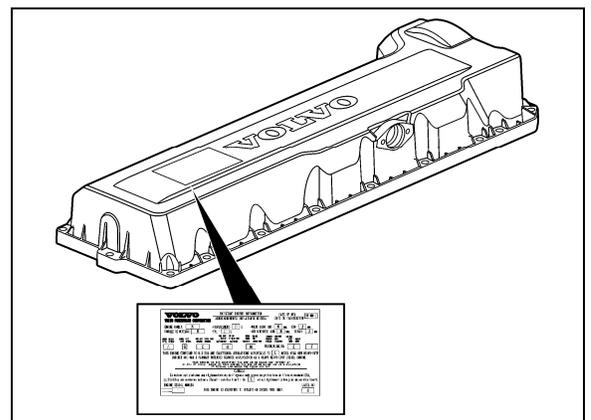
The main components of the vehicle such as engine, transmission, axles and chassis are identified by different serial numbers. It may be necessary to locate these numbers for warranty purposes.

The engine data plate is located on the rocker cover. The engine serial and model number and a list of the optional engine equipment are written on this plate. Refer to this information when ordering replacement parts. Also the engine data plate certifies that the engine conforms to federal and any state exhaust emissions regulations.



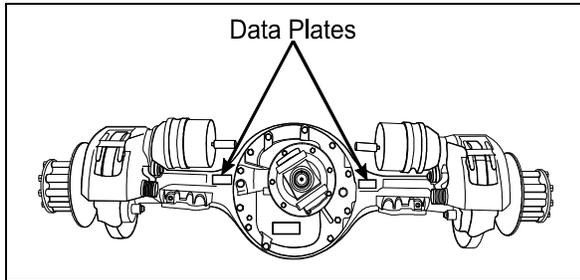
ALLISON TRANSMISSION

07076

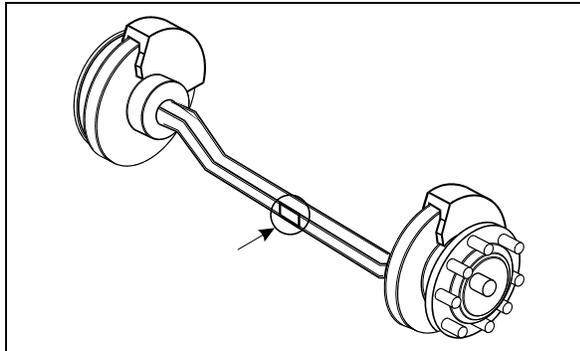


VOLVO D13 ENGINE DATA PLATE

00052



DRIVE AXLE 00007



I-BEAM FRONT AXLE 00008

**SAFETY CERTIFICATION**

- Vehicle components meet specifications and standards as follows:
- Material and parts conform to ASTM and/or SAE standards in effect at the time of manufacture.
- All factory-installed interior materials meet FMVSS 302 for fire resistance.
- Certified according to Provincial, State and Federal Safety standards (Canadian and US) BMCSS, FMVSS and CMVSS.
- Other applicable certification labels are affixed to the component.

**DOT CERTIFICATION PLATE**

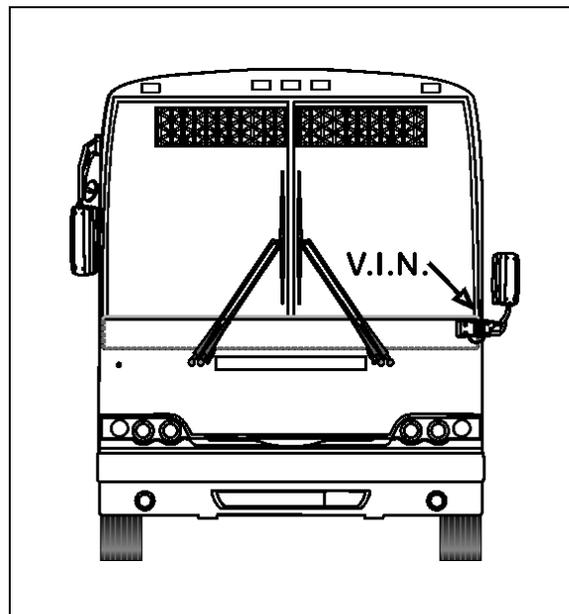
This certifies that vehicles manufactured by PrevoSt Car Inc. comply with all Federal Motor Vehicle Safety Standards at the time of manufacture. Information such as date of manufacture, model year, gross vehicle weight rating, tire types and inflation pressure is also etched on this plate. The DOT Certification plate is affixed to L.H. control panel.

<b>PREVOST</b>					
MANUFACTURED BY : PREVOST FABRIQUE PAR : STE-CLAIRE, QUE. DATE OF MFG. : <input type="text"/> DATE DE FAB. : <input type="text"/>					
G.V.W.R. : 24040 KG. (53000 LBS). P.N.B.V. :					
AXLES/ ESSELUX	G.A.W.R./ P.N.B.E.	TIRES/ PNEUS	RIMS/ JANTES	COLD INFLATION PRESS. / FROID KPA (PSI)	SINGLE OR DUAL SIMPLE OU DOUBLE
FRONT:	7484 (16500)	315/80R22.5 (J)	22.5X9	827 (120)	S
INT. DIFF.:	10206 (22500)	315/80R22.5 (J)	22.5X9	621 (90)	D
REAR:	6350 (14000)	315/80R22.5 (J)	22.5X9	689 (100)	S
THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S. FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.					
VEHICLE IDENTIFICATION NO. <input type="text"/> NO. IDENTIFICATION VEHICULE <input type="text"/>					
TYPE: BUS B/A					
#405405					

DOT CERTIFICATION PLATE 00016

**VEHICLE IDENTIFICATION NUMBER (VIN)**

The Vehicle Identification Number is stamped on a plate located on the windshield frame pillar (driver's side). The VIN is visible from the outside of the vehicle. Make sure the correct vehicle identification number is given when ordering replacement parts. Using the VIN when ordering parts will facilitate processing.



VEHICLE IDENTIFICATION NUMBER 00044

**NOTE**

*Record the VIN in the vehicle documentation and keep with company records. The VIN will normally be used for vehicle registration, service reference needs and for obtaining vehicle insurance coverage.*

**COACH FINAL RECORD**

The Coach Final Record is a record of all data pertaining to the assembly of the vehicle. This record is shipped to the new customer via a courier company. Retain this record in the company records office for reference and safe-keeping.