

# Specifications

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## Dimensions and weights

**740 GL**  
**740 TURBO**  
**740 GLE-16 valve**

|                               |              |          |                                          |           |         |
|-------------------------------|--------------|----------|------------------------------------------|-----------|---------|
| Length                        | 188.4"       | 478.5 cm | Gross Vehicle Weight (GVW):              |           |         |
| Width                         | 68.9"        | 175 cm   | GL/GLE-16 Valve (sedan)                  | 3965 lbs. | 1800 kg |
| Height                        | 56.5"        | 143 cm   | Turbo (sedan)                            | 4050 lbs. | 1840 kg |
| Wheelbase                     | 109"         | 277 cm   | GLE Wagons                               | 4275 lbs. | 1920 kg |
| Track:                        |              |          | Turbo wagon                              | 4295 lbs. | 1950 kg |
| front                         | 57.5"        | 146 cm   | Capacity weight (sedan)                  | 1000 lbs. | 455 kg  |
| rear                          | 57.5"        | 146 cm   | Capacity weight (740 GLE-16 Valve wagon) | 1045 lbs. | 475 kg  |
| Turning circle, between curbs | 32.5 ft      | 9.9 m    | Capacity weight (740 Turbo wagon)        | 1035 lbs. | 470 kg  |
| Trunk capacity (sedans)       | 16.8 cu. ft. | 0.487 m  | Permissible axle weight, front:          |           |         |
| Cargo capacity (wagons)       |              |          | GL, GLE-16 Valve                         | 1940 lbs. | 880 kg  |
| With rear seats up            | 39.3 cu. ft. | 1.1 m    | Turbo                                    | 2050 lbs. | 930 kg  |
| With rear seats down          | 74.9 cu. ft. | 2.1 m    | Permissible axle weight, rear:           |           |         |
|                               |              |          | GL, GLE-16 Valve (sedan)                 | 2030 lbs. | 922 kg  |
|                               |              |          | Turbo (sedan)                            | 2090 lbs. | 950 kg  |
|                               |              |          | Wagon                                    | 2310 lbs. | 1050 kg |
|                               |              |          | Max. roof load                           | 220 lbs.  | 100 kg  |
|                               |              |          | Max. trailer weight                      | 3300 lbs. | 1500 kg |
|                               |              |          | Curb weight (sedan)                      | 3003-     | 1351-   |
|                               |              |          |                                          | 3117 lbs. | 1402 kg |
|                               |              |          | Curb weight (wagon)                      | 3135-     | 1410-   |
|                               |              |          |                                          | 3239 lbs. | 1457 kg |

### WARNING!

When adding accessories, equipment, luggage and other cargo to your vehicle, the total loaded weight capacity of the vehicle must not be exceeded.

The max permissible axle loads must not be exceeded

Consult your Volvo dealer for information.

All specifications are subject to change without notice.

The Vehicle Identification Number (VIN) should always be quoted in all correspondence concerning your vehicle with the dealer and when ordering parts.

**1 Vehicle identification number (VIN)**

VIN plate is located on top left surface of dashboard. The VIN is also stamped on the right hand door pillar.

**2 Vehicle emission control information**

Your Volvo is designed to meet all applicable safety and emissions standards, as evidenced by the certification label on the right side of the firewall. For further information regarding these regulations, please consult your Volvo dealer.

**3 Model plate**

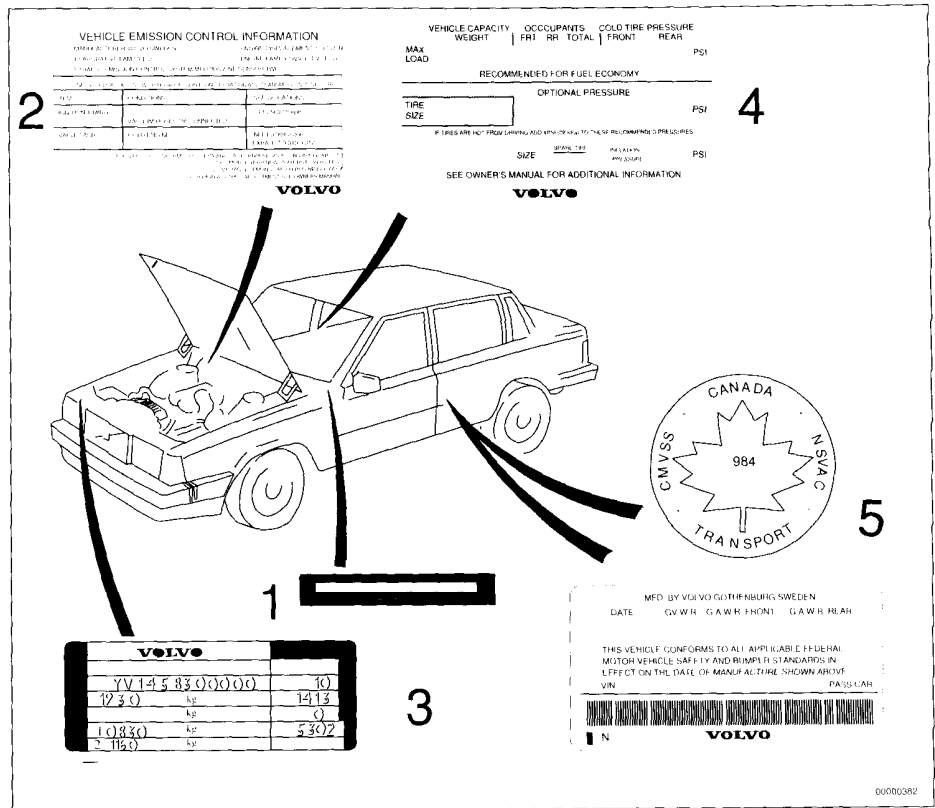
Vehicle Identification Number (VIN). Codes for color and upholstery etc. This plate is located on panel above right headlight.

**4 Loads and tire pressures**

Label on right-front door frame.

**5 Federal motor vehicle safety standards (FMVSS) specifications (USA) and Ministry of Transport (CMVSS) Standards (Canada)**

This label is located on rear-facing side of the driver's door.



All specifications are subject to change without notice.

**Engine oil**

**Oil quality:**

According to API SG or alternatively API SF.

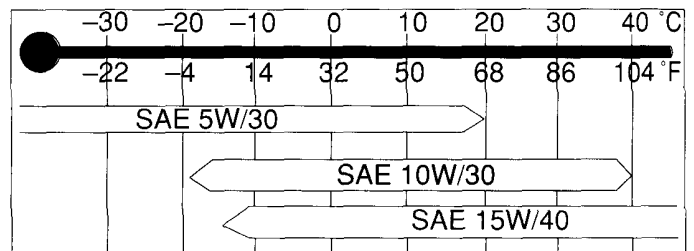
Oils with designation SG/CD and SF/CD also comply with these demands.

Synthetic or semi-synthetic oils may be used if their specifications comply with the above.

Volvo recommends the use of fuel economy improving oils. Look for the API label.

**Volvo does not recommend oil additives as they can adversely affect the engine.**

**Capacity:** (incl. oil filter) 4.0 US qts. (3.85 liters); on Turbo models, add 0.7 US qts. (0.6 liters) if oil cooler is drained.



**NOTE:**

SAE 15 W/40 oil is recommended for use in severe driving conditions which involve high oil temperatures or excessive oil consumption e.g. mountain driving with frequent deceleration, or high-speed driving. SAE 15W-40 must not be used at ambient temperatures below 5° F (-15° C).

**Manual transmission**

**Quality** Volvo synthetic gearbox oil 1161324 or ATF type F or G

**Capacity** (M46) 2.4 US qts. (2.3 liters)  
(M47) 1.6 US qts. (1.5 liters)

**Automatic transmission**

**Quality** ATF Dexron IID

**Capacity** 7.9 US qts. (7.5 liters)

**Rear axle**

**Quality** Volvo rear axle oil 1161329 or API-GL-5 (MIL-L-2105 B or C) SAE 90 or 80W/90

**Capacity** 1.7 US qts. (1.6 liters)

**Power steering**

**Quality** Type F

**Capacity** 0.7 US qts. (0.7 liter)

**Brake fluid**

**Brake fluid type** DOT 4

**Capacity** 0.66 US qts. (0.5 liter)

**740 GL**  
(B230F engine)

| Type designation                                  | Volvo B230F                          |
|---------------------------------------------------|--------------------------------------|
| Output (SAE J 1349)                               | 114 hp at 5400 rpm (85 kW at 90 rps) |
| Max. torque (SAE J 1349)                          | 136 ft. lbs. (185 Nm) at 2750 rpm*   |
| Number of cylinders                               | 4                                    |
| Bore                                              | 3.78" (96 mm)                        |
| Stroke                                            | 3.15" (80 mm)                        |
| Displacement                                      | 2.32 Liters                          |
| Compression ratio                                 | 9.8:1                                |
| Valve clearance, cold engine<br>inlet and exhaust | 0.014–0.016"<br>(0.35–0.40 mm)       |
| Valve clearance, warm engine<br>inlet and exhaust | 0.016–0.018"<br>(0.40–0.45 mm)       |
| *California                                       | 134 ft. lbs. (182 Nm) at 2500 rpm    |

**740 Turbo**  
(B230F–Turbo engine)

| Type designation                                  | Volvo B230F–Turbo                     |
|---------------------------------------------------|---------------------------------------|
| Output (SAE J 1349)                               | 162 hp at 4800 rpm (120 kW at 80 rps) |
| Max. torque (SAE J 1349)                          | 195 ft. lbs. (264 Nm) at 3450 rpm     |
| Number of cylinders                               | 4                                     |
| Bore                                              | 3.78" (96 mm)                         |
| Stroke                                            | 3.15" (80 mm)                         |
| Displacement                                      | 2.32 Liters                           |
| Compression ratio                                 | 8.7:1                                 |
| Valve clearance, cold engine<br>inlet and exhaust | 0.014–0.016"<br>(0.35–0.40 mm)        |
| Valve clearance, warm engine<br>inlet and exhaust | 0.016–0.018"<br>(0.40–0.45 mm)        |

**740 GLE–16 valve**  
(B 234 F engine)

| Type designation    | Volvo B 234 F                         |
|---------------------|---------------------------------------|
| Output              | 153 hp at 5700 rpm (114 kW at 95 rps) |
| Max. torque         | 150 ft. lbs. (203 Nm) at 4450 rpm     |
| Number of cylinders | 4                                     |
| Bore                | 3.78" (96 mm)                         |
| Stroke              | 3.15" (80 mm)                         |
| Displacement        | 2.32 liters                           |
| Compression ratio   | 10.0:1                                |
| Valve clearance     | Self-adjusting                        |

All specifications are subject to change without notice.

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**Cooling system**

|                                            |                                   |
|--------------------------------------------|-----------------------------------|
| Type                                       | Positive pressure, Closed system. |
| Thermostat: begins to open at:             |                                   |
| (GL, GLE–16 Valve)                         | 189 °F (87 °C)                    |
| (Turbo)                                    | 198° F (92°C)                     |
| Fan belts, designation: (GL, GLE–16 Valve) | HC47cog x 1013                    |
| (Turbo)                                    | HC47cog x 1000                    |
| Coolant:                                   | Volvo coolant type C (blue–green) |
| Capacity:                                  | 10 US qts (9.5 liters)            |

**Ignition system**

|                                       |                           |
|---------------------------------------|---------------------------|
| Firing order                          | 1–3–4–2                   |
| Ignition setting:                     |                           |
| (GL)                                  | 12° B.T.D.C. at 750 rpm   |
| (GLE 16 valve)                        | 12° B.T.D.C. at 850 rpm   |
| (Turbo)                               | 12° B.T.D.C. at 750 rpm   |
| Spark plugs: (GL, Turbo GLE–16 valve) | Volvo P/N 270.146-1       |
| Spark plug gap                        | 0.028–0.032" (0.7–0.8 mm) |
| Tightening torque                     | 15–22 ft. lbs. (20–30 Nm) |
| Distributor, direction of rotation    | Clockwise                 |

## Power transmission

Manual or automatic transmission.  
Hypoid type final drive.

### Manual transmission M46 M47

Reduction ratios:

|           |        |        |
|-----------|--------|--------|
| 1st gear  | 4.03:1 | 4.03:1 |
| 2nd gear  | 2.16:1 | 2.16:1 |
| 3rd gear  | 1.37:1 | 1.37:1 |
| 4th gear  | 1:1    | 1:1    |
| 5th gear  | -      | 0.82:1 |
| Overdrive | 0.78:1 | -      |
| Reverse   | 3.68:1 | 3.68:1 |

|                   |        |
|-------------------|--------|
| <b>Rear axle</b>  | 3.73:1 |
| Reduction ratios: | 3.54:1 |
|                   | 3.31:1 |

### Automatic transmission AW70L & AW71

Reduction ratios:

|          |        |
|----------|--------|
| 1st gear | 2.45:1 |
| 2nd gear | 1.45:1 |
| 3rd gear | 1:1    |
| 4th gear | 0.69:1 |
| Reverse  | 2.21:1 |

|                   |        |
|-------------------|--------|
| <b>Rear axle</b>  | 4.10:1 |
| Reduction ratios: | 3.73:1 |

### Automatic transmission AW 72 L (740 GLE-16 Valve)

Reduction ratios:

|          |        |
|----------|--------|
| 1st gear | 2.83:1 |
| 2nd gear | 1.49:1 |
| 3rd gear | 1:1    |
| 4th gear | 0.73:1 |
| Reverse  | 2.70:1 |

|                   |        |
|-------------------|--------|
| <b>Rear axle</b>  | 4.10:1 |
| Reduction ratios: | 4.10:1 |

## Speeds at 1000 engine rpm (manual transmission)

|                    |        |      |        |      |        |      |
|--------------------|--------|------|--------|------|--------|------|
| Rear axle ratio    | 3.73:1 |      | 3.54:1 |      | 3.31:1 |      |
|                    | mph    | km/h | mph    | km/h | mph    | km/h |
| 1st gear           | 5.0    | 8.0  | 5.0    | 8.0  | 5.3    | 9.0  |
| 2nd gear           | 8.8    | 14.0 | 9.2    | 14.8 | 9.8    | 16.0 |
| 3rd gear           | 14.4   | 23.0 | 14.5   | 23.4 | 15.5   | 25.0 |
| 4th gear           | 19.4   | 31.0 | 19.9   | 32.1 | 21.3   | 35.0 |
| Overdrive/5th gear | 25.0   | 40.0 | 25.2   | 40.6 | 26.9   | 42.0 |
| Reverse            | 5.0    | 8.0  | 5.4    | 8.7  | 5.8    | 10.0 |

## Front suspension

McPherson-type spring and strut suspension. Shock absorbers housed in strut casing. Rack-and-pinion steering.

Safety-type steering column.

The alignment specifications apply to an unloaded car but include fuel, coolant, and spare wheel.

Toe-in, measured on the wheel rim: 5/64" +/- 1/64" (2 mm +/- 0.5 mm)  
tire sides: 3/32" +/- 1/32" (2.5 mm +/- 1 mm)

## Electrical system

12 V, negative ground.

Voltage-controlled alternator. Single-wire system with chassis and engine used as conductors.

|                               |                                              |
|-------------------------------|----------------------------------------------|
| Voltage                       | 12 V                                         |
| Battery, type                 | Maintenance free                             |
| Capacity                      | 450A/90 min<br>(GLE 16 valve 500A/90 min)    |
| Electrolyte, specific gravity | 1.28                                         |
| Recharge at                   | 1.23                                         |
| Alternator, rated output      | 1120 W (GL, GLE-16 Valve),<br>1400 W (Turbo) |
| max. current                  | 80 A (GL, GLE-16 Valve),<br>100 A (Turbo)    |

The following bulbs may be obtained from your nearest Volvo dealer:

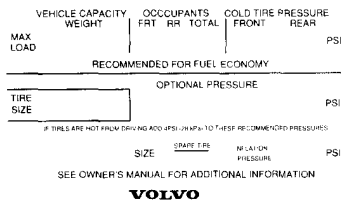
| Lights, 12 V                               | US bulb No. | Power             | Socket           |
|--------------------------------------------|-------------|-------------------|------------------|
| Headlights                                 | HB/9004     | 65/45 W           |                  |
| Parking lights, front, turn signals, front | 1157NA      | 21 W/5W/24/2.2 cp | BAY 15 d         |
| Turn signals, rear                         | 1156        | 21 W/32 cp        | BA 15 s          |
| Tail lights                                | 2x67        | 5 W/4 cp          | BA 15 s          |
| Brake light                                | 1156        | 21 W/32 cp        | BA 15 s          |
| Tail light/brake light*                    | 1157        | 21 W/5W 32/cp     | BA 15 d          |
| High-mounted brake light                   |             | 21 W/32cp         | BA 15 s          |
| Back-up lights                             | 1156        | 21 W/32 cp        | BA 15 s          |
| Rear fog lights                            | 1156        | 21 W/32 cp        | BA 15 s          |
| License plate light                        |             | 4 W               | BA 9 s           |
| Door warning lights                        |             | 3 W               | W 2.1 x 9.5 d    |
| Interior light                             |             | 10 W              | SV 8.5           |
| Reading lights, front                      |             | 5 W               | W 2.1 x 9.5 d    |
| Engine compartment light                   |             | 10 W              | SV 8.5           |
| Trunk light                                |             | 10 W              | SV 8.5           |
| Glove box light                            |             | 2 W               | BA 9 s           |
| Instrument lighting                        |             | 3 W               | W 2.1 x 9.5 d    |
| Lighting control panel                     |             | 1.2 W             | Volvo P/N 966326 |
| A/T selector                               |             | 1.2 W             | Volvo P/N 966326 |
| Ashtray, rear                              |             | 1.2 W             | Volvo P/N 966326 |
| Warning lights/Indicator lights            |             | 1.2 W             | Volvo P/N 966326 |

\*Wagon

## Vehicle Loading

The tires on your Volvo should perform to specifications at all normal loads when inflated as recommended on the tire information label. The label is located on the rear-facing edge of the right front door. This label lists both tire and vehicle design limits. Do not load your car beyond the load limits indicated.

### Tire pressure label

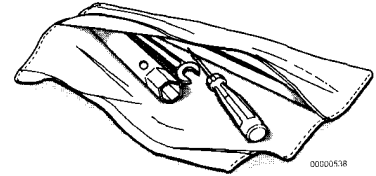


### Warning!

Improperly inflated tires will reduce tire life, adversely affect vehicle handling and can possibly lead to failure resulting in loss of vehicle control without prior warning.

## Tool kit

Wheel nut wrench.  
2 screwdrivers (1 Phillips,  
1 standard)  
Pry bar  
2 open end wrenches.



## Capacities

|                                                               |                                                                       |
|---------------------------------------------------------------|-----------------------------------------------------------------------|
| Fuel tank (approx.)                                           | 15.8 US gal.<br>60 liters                                             |
| Cooling system                                                | 10 US qts.<br>9.5 liters                                              |
| Engine,<br>at oil change                                      | Except B234F 4.0 US qts.* 3.85 liters<br>B234F 4.2 US qts. 4.0 liters |
| Manual transmission<br>(M46)                                  | 2.4 US qts.<br>2.3 liters                                             |
| (M47)                                                         | 1.6 US qts.<br>1.5 liters                                             |
| Automatic transmission                                        | 7.9 US qts.<br>7.5 liters                                             |
| Automatic transmission                                        |                                                                       |
| Rear axle                                                     | 1.7 US qts.<br>1.6 liters                                             |
| Power steering gear                                           | 0.7 US qts.<br>0.7 liters                                             |
| *Turbo: If oil cooler is drained, add 0.7 US qts (0.6 liters) |                                                                       |

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