VOLVO 242 244 245

OWNER'S MANUAL 1975 USA/CANADA

Notice to Owner: Your Volvo has been built to comply to all North American safety and anti-pollution regulations and evidence of this can be seen from the certification label attached to the door opening sheet metal and in the engine compartment. For further information regarding these regulations, please talk to your selling dealer.

Personal Information

Name .....

Address .....

Tel. No. .....

Car Information

Vehicle Identification Number (VIN) .....

Ignition Key No. .....

Door Key No. .....

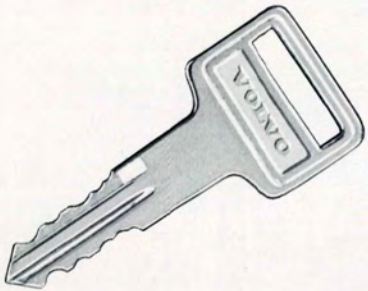
General Information

Model versions of the basic Volvo Models 242/244/245.

Volvo 242 de Luxe (2 doors)
244 de Luxe (4 doors)
245 de Luxe (Wagon)
242 Grand Luxe (2 doors)
244 Grand Luxe (4 doors)
(Note that all Model versions may not be available.)

The Owner's Manual is based on model Volvo 242/244/245 de Luxe. Only major differences for model versions are described.

Volvo reserves the right to change specifications or design, at any time without notice and without incurring obligation. Designs as shown in this Manual may be altered.



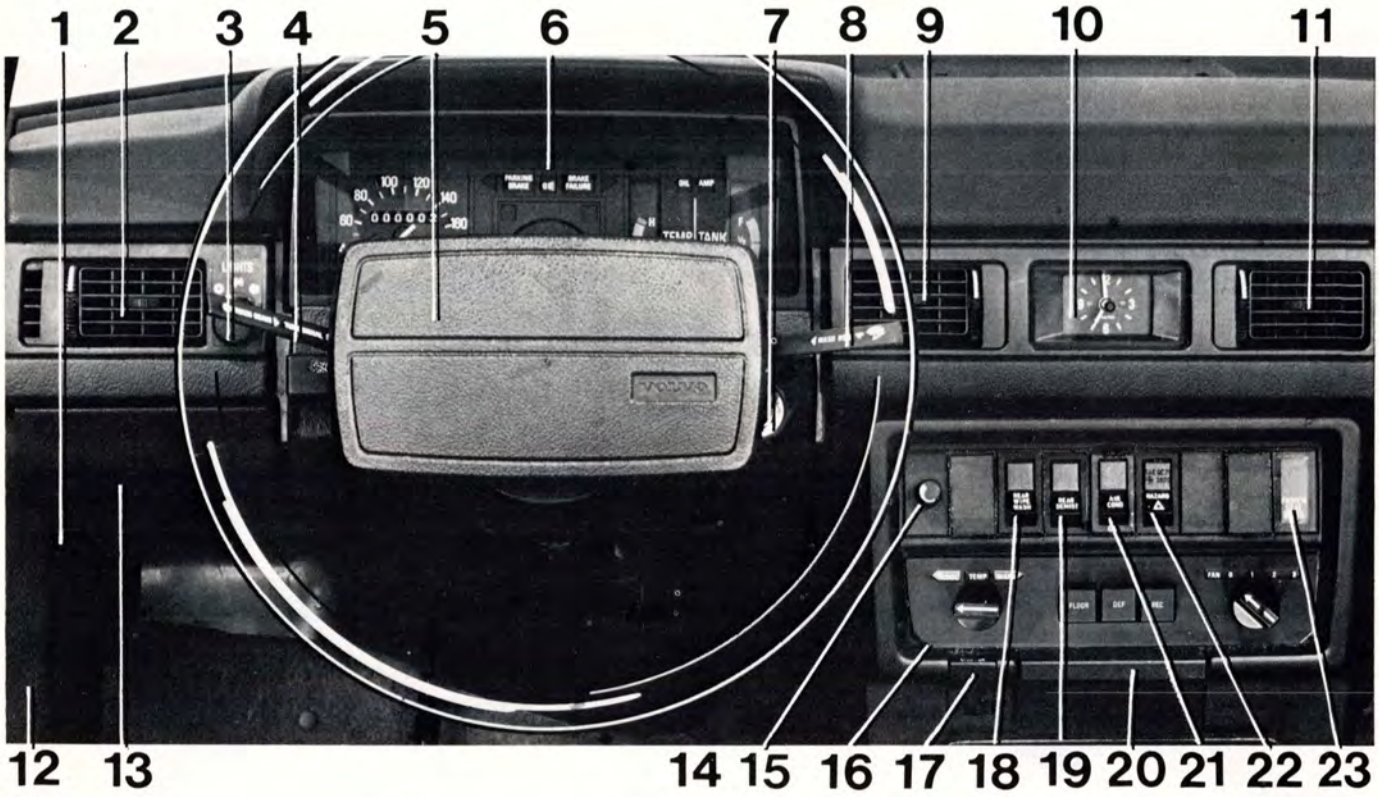
Front doors
Trunk
Glove box

No. .....

Ignition/Steering wheel lock

No. .....

Record the number code of the keys. In the event the original keys are lost, duplicates can be ordered through your Volvo dealer.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Pages 6-16 will give you a detailed description of the vehicle's instruments and controls. Note that vehicles may be differently equipped, depending on special legal requirements, etc.

Instruments

A Odometer
Mile reading

B Speedometer

C Left turn signal indicator (green)

D Parking brake reminder light (red)

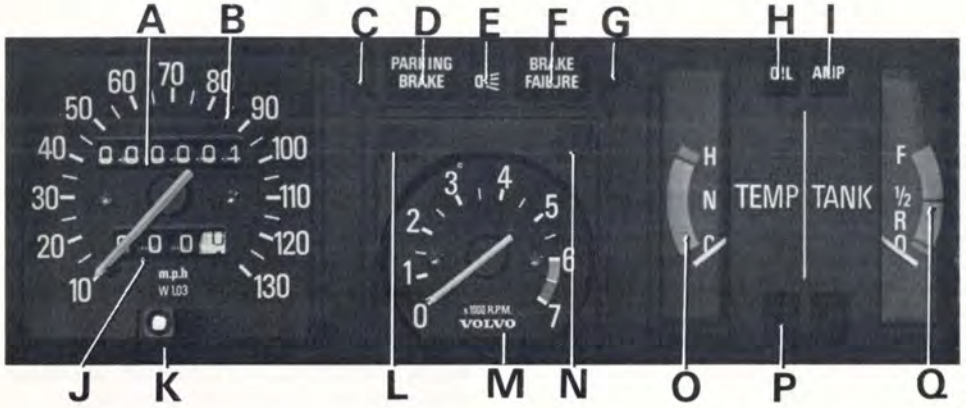
E High beam indicator (blue)

F Brake failure warning light (red)

G Right turn signal indicator (green)

H Oil pressure warning light (red)

I Alternator warning light (red)



J Trip odometer
(last figure represents 1/10 mile)

K Trip odometer reset knob
Push in to reset

L Reminder light, EGR Service

M Tachometer (certain models)
Reads thousands of engine rpm.
Orange range for momentary use, during acceleration
Red prohibited range.

N Bulb failure warning light (yellow)

O Temperature gauge

P Overdrive indicator (green)
Lights when overdrive is engaged.

Q Fuel gauge

O Temperature gauge

The gauge pointer should normally remain inside the green range.
If the pointer enters the red range repeatedly, check coolant level and fan belt tension, see page 47.

Q Fuel gauge

The fuel tank capacity is approx 60 liters = 15.8 US gals./13.2 Imp. gals.
F Full
1/2
R Reserve
0 Empty

The red range from R to 0 represents approx. 8 liters = 2.5 US gals./2 Imp. gals.

The warning lights on this page should never light when driving.

These lights will light up when the ignition is turned on, before the engine is started. This is also to prove that the lights function. The light should go out after the engine has started. (However, the parking brake reminder light will not go out until the parking brake is released.)

D Parking brake reminder light

This light will be on when the parking brake (hand brake) is set. The parking brake lever is situated between the front seats.

F Brake failure warning light (red)

If the light comes on while driving and the brake pedal can be depressed further than normal, it is an indication that one of the brake circuits is out of function. Proceed cautiously to a Volvo dealer for a check.

H Oil pressure warning light (red)

If the light comes on during driving, the oil pressure is too low. Stop the engine immediately and check the engine oil level, see page 46. After hard driving, the light will come on occasionally when the engine is idling. This is normal, provided it goes out when the engine speed is increased.

I Alternator warning light (red)

If the light comes on when engine is running, check the alternator drive belt tension as soon as possible. See page 47.

L Reminder light EGR service

If the vehicle is equipped with an EGR (Exhaust Gas Recirculation) 15 000 mile service reminder light, as required by the U.S. Environmental Protection Agency, the light will come on at 15 000 mile intervals. This is a reminder to take your Volvo to your Volvo dealer to get the EGR valve serviced. The light will stay on until it is reset by your Volvo dealer.

N Bulb failure warning light

The light comes on if any of the following lights is defective:
one of the lower beams
one of the tail lights
one of the license plate lights
one of the brake lights (when the brake pedal is depressed).
Replacing bulbs, see pages 56–59.

Ignition switch/steering wheel lock, lighting

Ignition switch/steering wheel lock

0 Locked position
Removing the key automatically locks the steering wheel.

I "Accessory" position
Permits operation of some electrical accessories.

II Driving position

III Starting position
As soon as the engine starts, release the key which automatically returns to the driving position.

If difficulty is experienced in turning the ignition key, turn the steering wheel slightly which will allow the steering lock to release. (Ignition interlock system see page 21.)

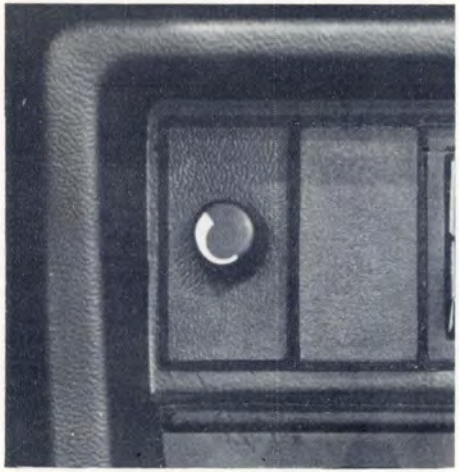
Headlights and position lights

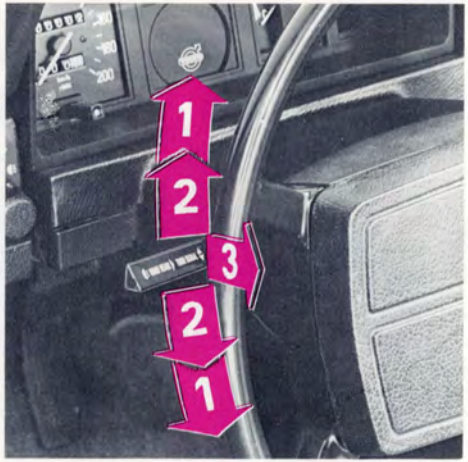
○ All lights out

Position lights on

Headlights and position lights on

Switch from upper to lower beams, and vice versa, by moving the turn signal switch lever on the left side of the steering column towards the steering wheel. The lights can be used without switching on the ignition key.





Instrument lights

Turning the knob clockwise — brighter
Turning the knob counter-clockwise — weaker

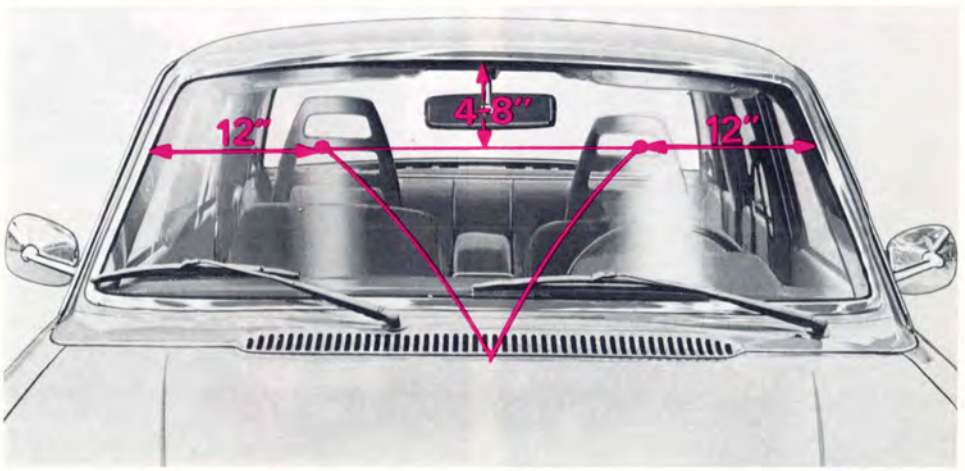
Turn signals

1 Normal turning position.
2 Lane change position. In maneuvers such as lane changing and overtaking, the driver can flash the turn signals by moving the turn signal lever to the first stop and holding it there. The lever returns to neutral position when released.

3 High and low beam switching (headlights on)
Move the lever towards the steering wheel and release it.

3 Headlight flasher (headlights out)
Move the lever towards the steering wheel. The light is on until the lever is released.

Wipers



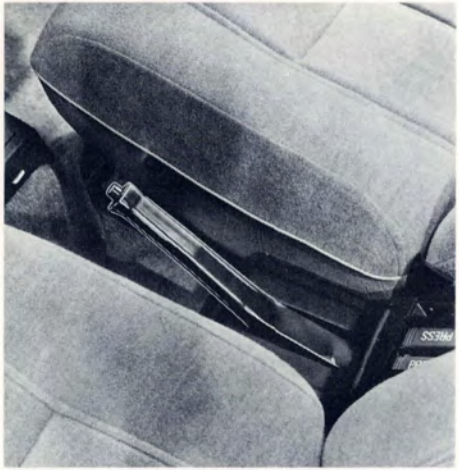
Wiper/washer

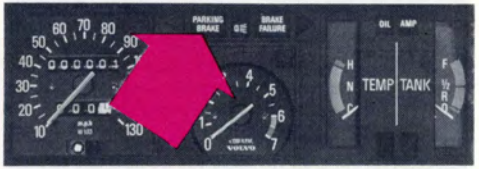
1 "Single stoke" position.
Switch returns automatically when released.
2 Wipers, low speed
3 Wipers, high speed
4 Washer

The washer fluid reservoir is located in the engine compartment and holds approx. 5 liters = 1.3 US gals./1.1 Imp gals.

Adjusting washer nozzles

The nozzles may be adjusted by a needle and rotating the metal insert in the nozzles as required.



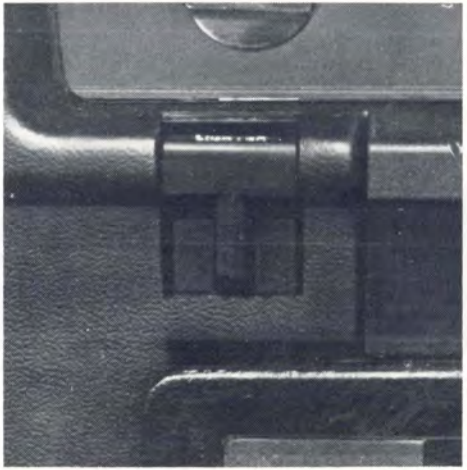


Parking brake (hand brake)

The lever is situated between the front seats. The brake is set on the rear wheels.
The reminder light PARKING BRAKE on the instrument panel comes on whenever the parking brake control is not fully released and the ignition is on.
Apply the parking brake a few times every week in order to prevent the brake system from seizing.

Parking brake reminder light.

Clock, cigarette lighter, ash tray



Clock

To reset the hands, push in the reset knob and turn.

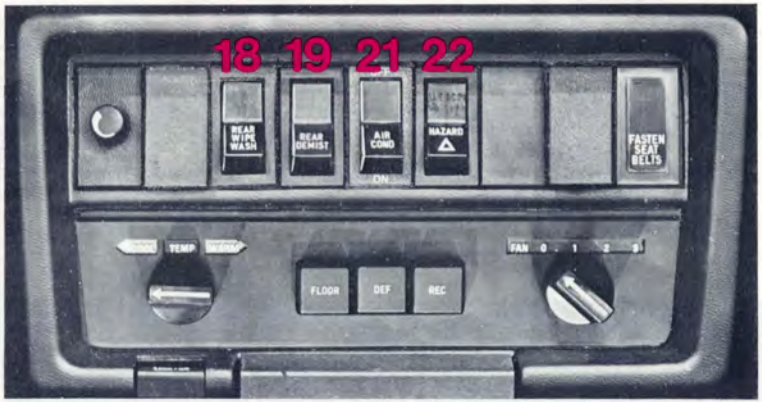
Cigarette lighter

To operate, push it in. When it becomes heated, it automatically pops out ready for use.

Ash tray

To empty the ash tray, pull it straight out, press down the tongue and remove the tray.

Tailgate window wiper, El. heated rear window, hazard warning flasher



Tail gate window wiper/washer (model 245) (18)

0 Off
1 Wiper and washer operating. Move the lever to the first stop and hold it there.
2 Tail gate wiper only.

The fluid reservoir is located in the cavity under the floor to the rear in the cargo department. It holds approx. 1.5 qts.

Electrically heated rear window (19)

0 Off
1 On

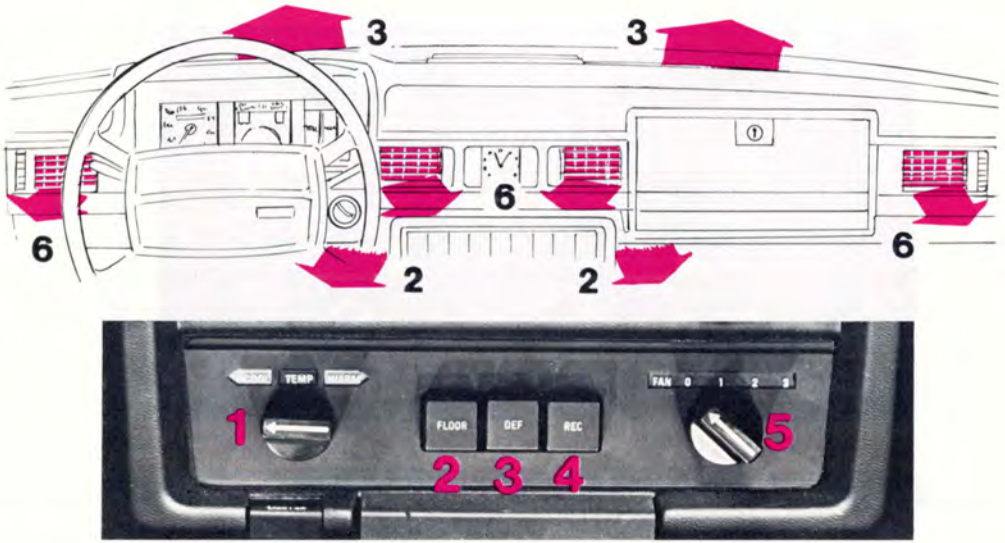
Switch off the heating when the rear window is clear of mist and ice. Otherwise the battery will be unduly strained.
Do not place things that may damage the heater wires on the inside of the window. Observe care when cleaning the window inside, as rings etc. damage the wires.

Hazard warning flasher (22)

0 Off
1 On

Use the warning flasher only to warn other drivers when your vehicle becomes a traffic hazard, day or night.
Remember: the rules for using the warning flasher may vary from state to state.

Heating and ventilation



Heating system

1 TEMP
Left = cool
Right = warm

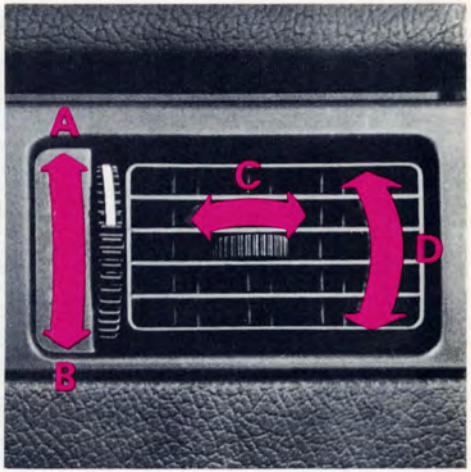
2 FLOOR
Out = no air to floor
Depressed = full flow of air to floor

3 DEF (defrost)
Out = low speed air flow to defroster
Depressed = full flow

4 REC (Recirculation)
To be used only in cars with air conditioning. Do not use for heating.

5 FAN
0 = off
3 = full blower

6 Ventilation outlets
The air flow through the ventilation outlets is **not** influenced by the position of 2 FLOOR and 3 DEF.



How to ...

... obtain max. heat

1 TEMP ⟶ WARM
2 FLOOR ⟶ depressed
5 FAN ⟶ 2 (or 3)
6 All outlets halfway open

... remove fog

1 TEMP ⟶ WARM
3 DEF ⟶ depressed
5 FAN ⟶ 2 (or 3)

Always keep front inlet grille (in front of the windshield) clear of obstructions (snow, ice etc.)

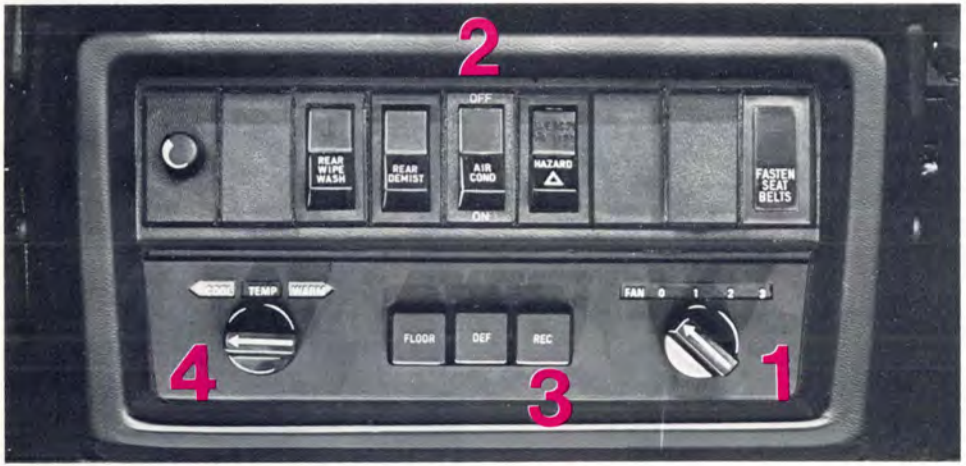
Fresh air control

Left side only. Forward position = open.

Fresh air outlets

A Closed
B Open
C Directing air flow sideways
D Directing air flow vertically

Air conditioning



Air conditioning (optional)

How to use the air conditioner:

1 FAN
Position 3 for rapid cooling.
The AC does not operate unless FAN is on.

2 AIR COND
Push in the button to start the compressor.

3 REC (Recirculation)
Push in for rapid cooling.

4 TEMP
In position COOL for rapid cooling, then set desired temperature.

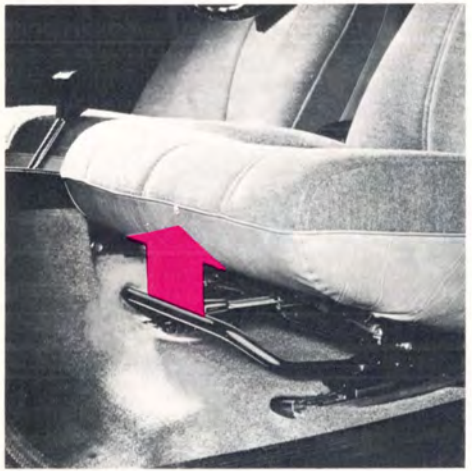
To obtain rapid cooling, all windows must be closed and buttons FLOOR and DEF out.

All the air will then be discharged through the four dash outlets which should be fully open.

Note: For rapid removal of fog, the air conditioner can be switched on at temperatures when it is not normally used. The air conditioner will then dehumidify the air blown in.

Have a Volvo dealer check the system every year.

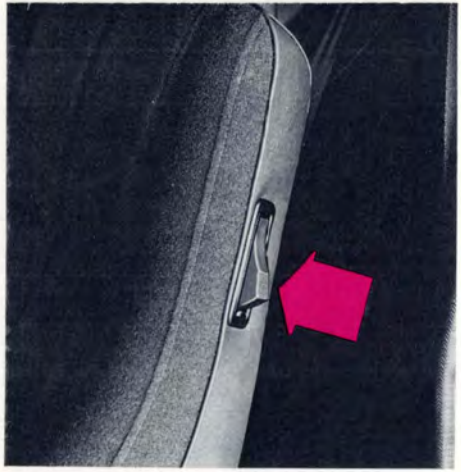
Front seats



Slidel Recline

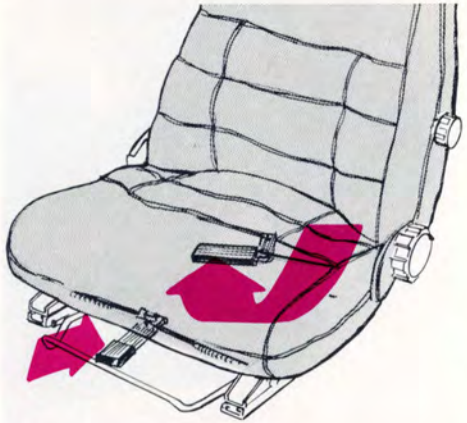
Seat back inclination

Lumbar support



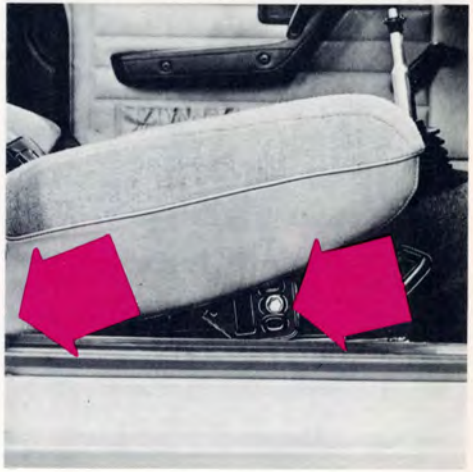
Seat back release, 2-door models

Press the button and fold forward.



Driver seat height

There are two levers, each with three positions, for positioning the seat front or seat back vertically.
This means that also the cushion angle can be changed.
When adjusting the seat up-down, check that it is securely latched.



Passenger seat height

The front passenger seat is retained by four brackets each with three positions. The positions are the same as for the driver's seat, but tools must be used to change the positions.

Seat belts

Front seats

Rear seats

Seat belts, retractable

Always use the seat belts for all types of driving.
A light and buzzer on the instrument panel are reminders to buckle both front seat belts.
Note that small children (up to the age of 8–10 years) should not use Adult type seat belt.

The front seats and the rear outboard seats are provided with retracting inertia belts.

To buckle:
Pull out the belt, not too fast, far enough to insert the latch plate into the buckle, until a snap is heard. The belt should not be twisted or turned. To unfasten, depress red push button in buckle. Let the belts rewind into their retractors.

The seat belts are normally "unlocked".
The seat belt locks and cannot be pulled out:
- if it is pulled out rapidly
- during braking or acceleration
- if the vehicle is leaning excessively
- when driving in turns

Ignition interlock system

If this vehicle is equipped with an Ignition Interlock System as required by U.S. Safety Standards, the engine cannot be started unless the driver and front seat passenger have fastened their seat belts.

The belts must be fastened after the occupant(s) are seated and before turning the key to the starting position. The seat belt reminder light and buzzer are actuated and the starter will not engage if this sequence is not followed.

Should the light and buzzer actuate while the engine is running, even though the seat belts are fastened, it is an indication that the belt interlock control is out of sequence, and the starter will not engage should the engine stop. In this case, release and refasten the front seat belts at each occupied position which should turn off the reminder light and buzzer.

NOTE: If the vehicle is started on a steep incline the seat belts cannot be pulled out and, if the vehicle is equipped with an Ignition Interlock System, the engine cannot be started as long as either front seat is occupied. If this occurs, or if the Interlock System malfunctions, open the fuse box cover and remove fuse No. 9. This will allow the engine to be started in an emergency. While fuse No. 9 is removed, the seat belt reminder light will remain lit, even if the seat belts are fastened. When the car is on level ground reinstall the fuse and fasten seat belts or see a Volvo Dealer to have the interlock system checked if malfunctioning.

Seat belts, manually adjustable

The center rear seat belt is a manually adjustable belt. It should always be adjusted to correct length.

To lengthen: turn the buckle and pull it out, as shown in the picture.

To shorten: pull the upper part of the double webbing.

Maintenance

Hang up the seat belt on its place when it is not in use.
Check now and then that the bolts are secure and the belt in good condition. Use water and a detergent for cleaning.
As the seat belts lose much of their strength when exposed to violent streching, they should be replaced after collision, even though they may appear to be undamaged. Never modify or repair the belt on your own, but have this done by a Volvo workshop.

Doors and locks

Unlocking front doors

Both front doors can be unlocked by using the key. Turning the key 1/4 turn counter-clockwise lifts the lock buttons on the window ledge and the door can be opened by pulling the handle.

Locking doors

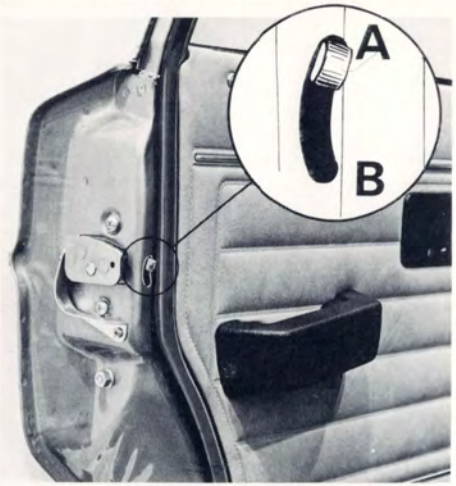
All doors can be locked by depressing the lock buttons. To lock the front doors, press down the lock button and keep the door handle pulled out while shutting the door.

To lock the rear doors, press down the lock button and shut the door. It is not necessary to keep the door handle pulled out.

To open a rear door from inside, the lock button must first be pulled up.

The lock buttons should not be in the down position during driving. In case of an accident, it prevents aid from entering the vehicle.

Wintertime the door locks should be "lubricated" with a suitable agent to prevent freezing. If the lock is frozen, be careful not to break the key in the lock. Thaw the ice by heating the lock or the key.



Child safety locks, 244 and 245

The buttons are located on the rear door jams.
A Normal lock function
B The door cannot be opened from the **inside.**

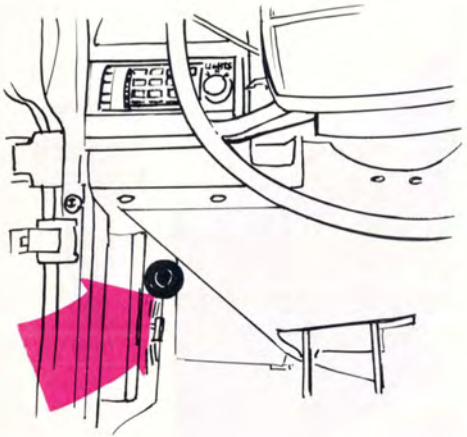
Trunk lid, 242 and 244

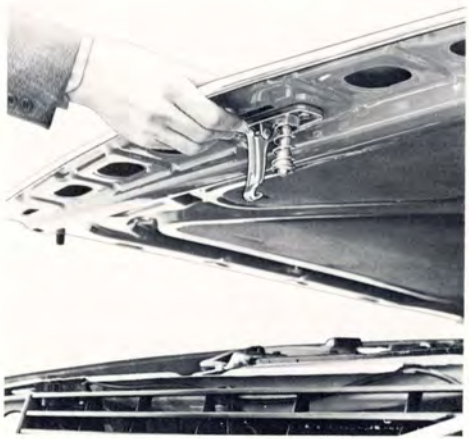
To open the lid, turn the knob clockwise.

NOTE: the key must be removed from the lock in order to permit turning of the knob.

Spare wheel, jack and tool kit are stowed to the left in the trunk.

Hood





To open the hood

Pull the release handle (to the left under the dash).

Lift the hood slightly, insert the fingers under the hood front edge and depress the catch handle. Open the hood.
Check that the hood locks properly when closed.

Rear vent windows, 2-door models

A Closed
B Open

Inside mirror

A Normal position
B Night position, reduces glare from following headlights

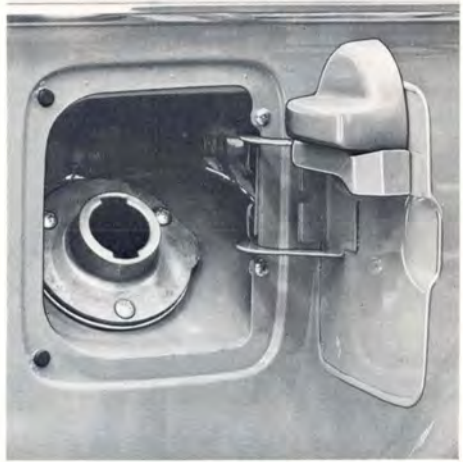
The mirror should always be adjusted before driving.

Outside mirrors

A Adjustment sideways
B Adjustment up-down

The mirrors should always be adjusted before driving.

Interior lights, sun roof, fuel tank cap



Interior light

1 Light always on
2 Light always out
3 Light is on when any one of the front doors is open.

Model 245 may be provided with a light that differs from that in the 242–244.

Sun roof (certain models)

The sun roof is operated by the handle between the sun visors.
Unfold the handle and turn it counter-clockwise to open, clockwise to close.
For safety reasons, the handle should always be folded when driving.

Filling fuel

The gas cap is located inside the door on the rear right fender.
When filling, position the cap in the special bracket on the door.

Note: Unleaded fuel is required for certain models. A label on the instrument panel and rear fender, near the filler inlet will remind owners and filling station attendant of this requirement.
Important! It is unlawful to disperce leaded fuel into any vehicle labeled "unleaded Gasoline only".

Folding rear seat

Depress **one** of the levers at the seat cushion front (right or left side). Tilt the seat towards the front seat.

Move up one of the parallel-connected handles on the rear side of the seat back and fold the seat back forward — downwards so that it lies flat. The rear seat back and seat are fixed automatically in their respective positions. When folding up the seat back again, make sure that the latches grip properly in their fittings. Make sure that the seat belts are on the top side of the seat cushion before it is put back in its original position.

Concealed storage space

There are two concealed stowing places under the cargo compartment floor. The tail gate window washer fluid reservoir is located in the right one.

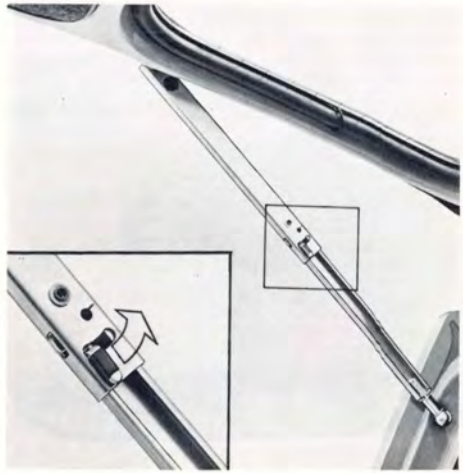
Model 245, tail gate

To open from the outside

Use the front door key. Depress the lock plate.

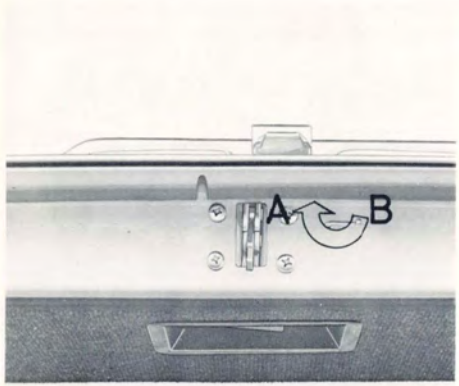
To open from the inside

Pull out the handle at the gate bottom.



To close

Push the red catch upwards and at the same time lift the gate 1/4 inch. Close the gate.



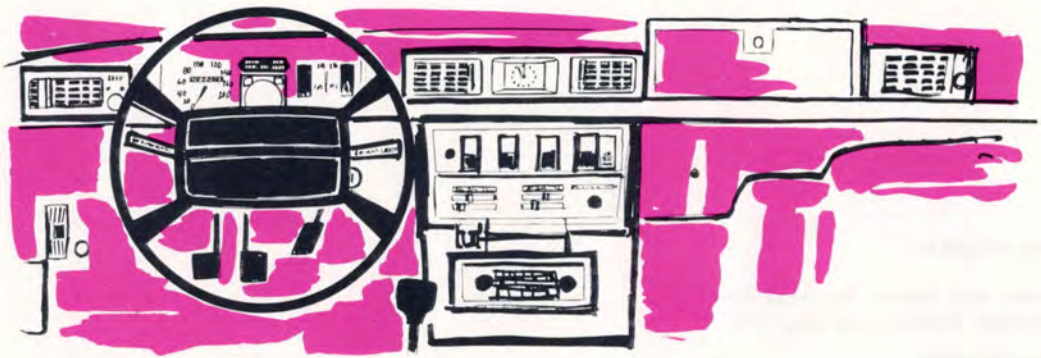
Safety catch

A The lid cannot be pushed from the inside
B The lock functions normally

Spare wheel

Remove the two screws and lift off the cover. Spare wheel and jack are now accessible.

Starting and driving



A new car should be broken in!

During the break-in period do not exceed following speeds:

First 600 miles (1 000 km)			600–1 200 miles (1 000–2 000 km)		
1st gear	20 mph	(30 km/h)	1st gear	30 mph	(50 km/h)
2nd gear	35 mph	(55 km/h)	2nd gear	45 mph	(75 km/h)
3rd gear	50 mph	(80 km/h)	3rd gear	60 mph	(100 km/h)
4th gear	70 mph	(110 km/h)	4th gear	80 mph	(130 km/h)

Avoid driving at low speed in high gear. Do not use "kick-down" when driving a car equipped with an automatic transmission during the first 1 200 miles.

Service inspection

In order to ensure proper operation the car should be brought to a Volvo dealer after the first 1 500 miles for a service inspection. Oil in engine, transmission and rear axle will then be changed, which is very important since the oil rapidly collects impurities during breaking-in.

Every Volvo engine is test driven prior to delivery. Volvo is therefore assured that all clearances are satisfactory and thus accepts no responsibility for damage caused by careless breaking-in.

Starting the engine

To start the engine:

1 **Enter the car and fasten the seat belt (Ignition interlock system, see page 21).**

2 **Pull the parking brake**

3 **Put the gear selector in neutral (position N or P, autom. transmission).**

4 **Depress the clutch pedal**

5 **Do not touch the throttle pedal**

6 **Turn the ignition key to starting position. Release the key as soon as the engine starts.**

If the engine does not start at once, depress the throttle pedal half way and keep it there until the engine starts.
Avoid repeated short attempts to start (fuel is injected every time the starter is engaged). Allow the starter to operate for a longer time (but not more than 15–20 seconds).

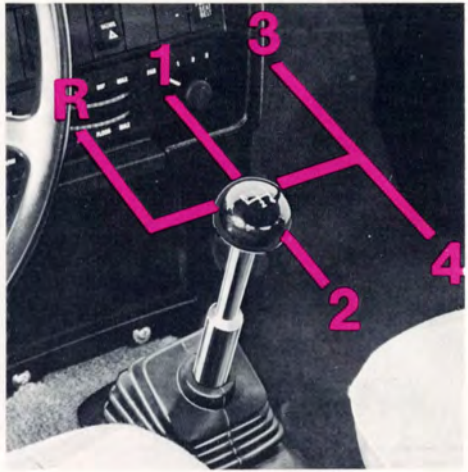
Do not race the engine immediately after starting from cold.

Warning

Always open the garage doors fully before starting in a garage. The exhaust gases contain carbon monoxide, which is invisible and odorless but very poisonous.

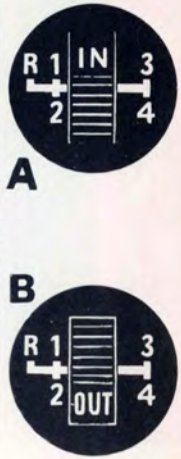
Warm the engine by driving

Experience shows that engines in vehicles driven short distances are subject to abnormally rapid wear because the engine never reaches normal operating temperature.
It is therefore beneficial to reach normal operating temperature as fast as possible.
This is achieved by driving with a light load as soon as possible.



4-speed transmission

Depress the clutch fully when changing gears.



Overdrive (some models only)

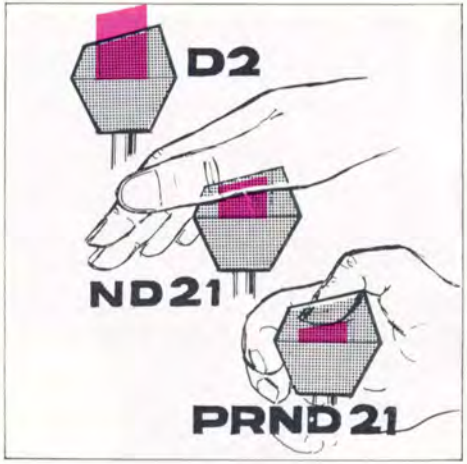
The overdrive can be engaged in 4th gear only.
A engaged
B disengaged

No extra operation of clutch or throttle pedal is normally necessary. **Engagement** is facilitated if the accelerator pedal position is maintained steady.

When **disengaging,** depressing the clutch pedal slightly makes a smooth transfer.

Do **not** use the overdrive at speeds below 40 mph (60 km/h).

Automatic transmission



Shift positions

P park
R reverse
N neutral
D drive
2 } low gear
1 }

The gear selector can be moved freely between D and 2. The other positions are provided with a gate which is "opened" by depressing the selector knob.

Shift gate

Depressing the selector knob slightly frees the entrance to positions **N** and **1.**

Depressing the selector knob fully frees the entrance to positions **R** and **P.** This is also necessary when initially bringing the selector out of position **P.**

Depressing the selector knob fully thus permits shifting freely between all positions.

P Parking

Use this position when parked with engine running or stopped.

Never use P while car is in motion.
The transmission is mechanically locked in position P. Also use the parking brake when parking on grades.

R Reverse

Never use R while car is in motion.

N Neutral

Neutral position = no gear is engaged.

Driving gears

D Drive

D is the normal driving position. Up- and downshift between the three forward gears occurs automatically and is governed by throttle opening and speed.

2, intermediate position

Up- and downshift automatically between positions 1 and 2. (low and intermediate)
No shift to 3rd gear. (top gear)
Position 2 can be used to obtain immediate downshifting to 2nd gear (increased "engine braking effect").

Position 2 can be used ...
... for relatively slow highway driving
... for city driving
... when driving on mountain roads where precise speed control is desirable
... for passing
... to increase the "engine braking effect".

Top speed when selecting 2: 70 mph (110 km/h).

1, low position

If position 1 is selected when driving at high speeds, 2 is engaged first and 1 when the speed has dropped to approx. 6 mph (10 km/h). 1 is also engaged by kick-down at speeds below 30 mph (50 km/h).

NOTE: No upshift once 1 is engaged.
Use position 1 when you want a low gear and no upshift, for instance, when entering and descending steep grades.

Top speed when selecting 1: 70 mph (110 km/h).

Kick-down

By depressing the throttle pedal briskly (passing the normal full throttle position) an automatic shift to lower gear is achieved.
When approaching the top speed for the gear or by releasing the throttle pedal slightly, up-shift is achieved.
Kick-down can be used for maximum acceleration, for instance, passing at highway speeds.

Starting and stopping a car equipped with automatic transmission

1 Enter the car and fasten the seat belts (Ignition interlock system, see page 21.
2 Select position **P** or **N.** (Engine cannot be started in any other position.)
3 Start the engine by turning the ignition key.
4 Pull the parking brake or depress the brake pedal to hold the car (or the car will start moving when the gear selector is moved).
5 Shift to desired gear.
6 Release the brake and accelerate.

To stop the car, release the throttle pedal and apply the brakes.
It is not necessary to move the gear selector.

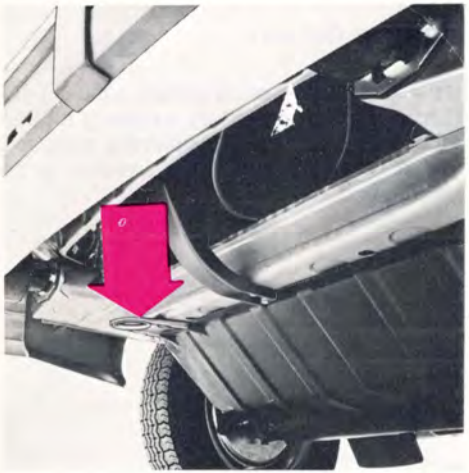
Rocking the car

If the car becomes stuck in snow, sand or mud, it can often be moved by a rocking motion. Move the gear selector rhythmically between **D** and **R** while applying slight pressure to the throttle pedal.

NOTE:

- **Never use P or R while the car is in motion.**
- **The engine should idle when standing still and D, 2, 1 or R is selected.**
- **70 mph (110 km/h) is maximum speed when driving and selecting 2 or 1.**

Emergency towing (pulling)



Front eyelet

To the right under the car.

Rear eyelet

To the right, under the car.

To observe when towing (See also page 64)

Steering must be unlocked.
Observe legal speeds.
Remember that power brake and power steering assists will not be available when engine is inoperative. Pedal pressure is 3–4 times normal and steering effort increased.

Towing cars equipped with automatic transmissions: Gear selector in position N, gear positions normal, oil level correct (see page 52).
Maximum speed: 20 mph (30 km/h).
Maximum distance: 20 miles (30 km).
The engine cannot be started by pushing or pulling the car.

When jump starting observe that the booster battery + must be connected to the car battery +. The booster battery – must be connected to the car battery –. Any other connection will damage alternator and electronic components.

When preparing for trailer hauling, observe following:

- Use an approved trailer hitch (available through Volvo dealers).
- Maximum trailer weight recommended by Volvo is 2 000 lbs (908 kgs).
  Observe legal requirements.

Trailer hauling does not normally present any particular problems, but take into consideration:

- the hitch tongue load should not exceed 160–200 lbs (75–90 kgs).
- engine and transmission are subject to increased loads
- avoid overload and other abusive operation
- hauling a trailer affects handling, durability and economy
- it is necessary to balance trailer brakes with the towing vehicle brakes to provide a safe stop
- more frequent vehicle maintenance is required.

Note that additional equipment cannot be connected everywhere in the car's electrical system. The reason is that the bulb integrity sensor is wired in a certain way. (See your Volvo dealer.)

Note

Handling, roadholding

At normal operating load your Volvo has a tendency to understeer. This means that in a certain curve the steering wheel has to be moved further to obtain the same response when driving faster. This makes the car stable and decreases the chances of rear wheel skid. Different loads vary this properly. Also the tire pressure is very important for the handling. Volvo advises not to experiment too much with tire pressures and instead follow Volvo's recommendations.
Volvo also warns against mixing tires of different kinds, as for instance Bias ply tires and radial tires, as this may considerably alter the car's handling properties.

Moisture on brake discs and brake pads affects braking.

Rain and splash as well as a normal car wash will moisten the brake components. This may alter the friction of the brake pads so that a delay in braking effect can be noticed.

When driving in slush or rain, depress the brake pedal now and then in order to heat the brake linings and remove the moisture. This should also be done immediately after washing and after start in very damp weather.

If the brake power assist does not function

The power assist to the brakes is working only when the engine is running. When rolling freely, or towing, the brake pedal pressure must be increased 3–4 times.
The brake pedal feels stiff and hard.

If one of the brake circuits should malfunction the red warning light comes on, F page 6.

The pedal stroke increases slightly and the pedal feels softer but the pedal pressure required does not increase noticeably.
Drive carefully to a shop and have the brake system checked.

Driving with trunk lid open

Exhaust gases can be sucked into the car. This is especially true for model 245 (Wagon). Normally this involves no hazard to the passengers, but follow this advice anyway:
1 Close all windows.
2 Set the heating system's FLOOR and DEF controls to MAX and the blower to full speed (3).

Maintenance Services

Your car has passed two major inspections before it was delivered to you. One was made at the Volvo factory and one was performed by the dealer, according to Volvo specifications.
When driven 1 500 miles your car should be brought to the Volvo dealer who will perform a service inspection; engine, transmission and rear axle oils, for instance, will be changed.

Following this inspection, maintenance inspections as outlined in this book should be performed every 7 500 miles.
The extended maintenance inspection intervals make it even more advisable to follow this program.
Inspection and service should also be performed any time a malfunction is observed or suspected.
Retain receipts for all vehicle emission services to protect your emission warranty.
See your "Warranty and Maintenance Record book".

Maintenance inspection, 7 500 miles intervals

Volvo advises you to follow the inspection program with 7 500 miles intervals which is outlined in the "Warranty and Maintenance Record book". This maintenance program contains inspections and services necessary to maintain a proper function of your car next 7 500 miles.
The maintenance inspections contain several checks which require special instruments and tools and therefore must be performed by a qualified technician.

THE FEDERAL CLEAN AIR ACT (USA)

The Clean Air Act requires vehicle manufacturers to furnish written instructions to the ultimate purchaser to assure the proper functioning of those components that control emissions.
The maintenance instructions listed on pages 42, 43 represent the minimum maintenance required. These services are not covered by the warranty. You will be required to pay for labor and material used. Refer to your Warranty and Maintenance Record book for further details.

Gas station checks

Fuel RON 91

Octan rating 91
For vehicles with catalytic converter **unleaded fuel must be used.**
Vehicles not equipped with catalytic converter can use leaded or unleaded fuel (see also page 26).

Coolant

Level between MAX and MIN marks on expansion tank.

Mixture, 50 % anti-freeze and 50 % water.

Brake fluid

Check, without removing the cap, that the level is above the MIN mark.

Brake fluid DOT 3 or DOT 4 (SAE J 1703).

Engine oil

Level between the dipstick marks; the distance between the marks represents 1 quart (1 liter).
Engine oil "For API Service SE" SAE 10W–40 20W–40, 20W–50.
See also page 46.

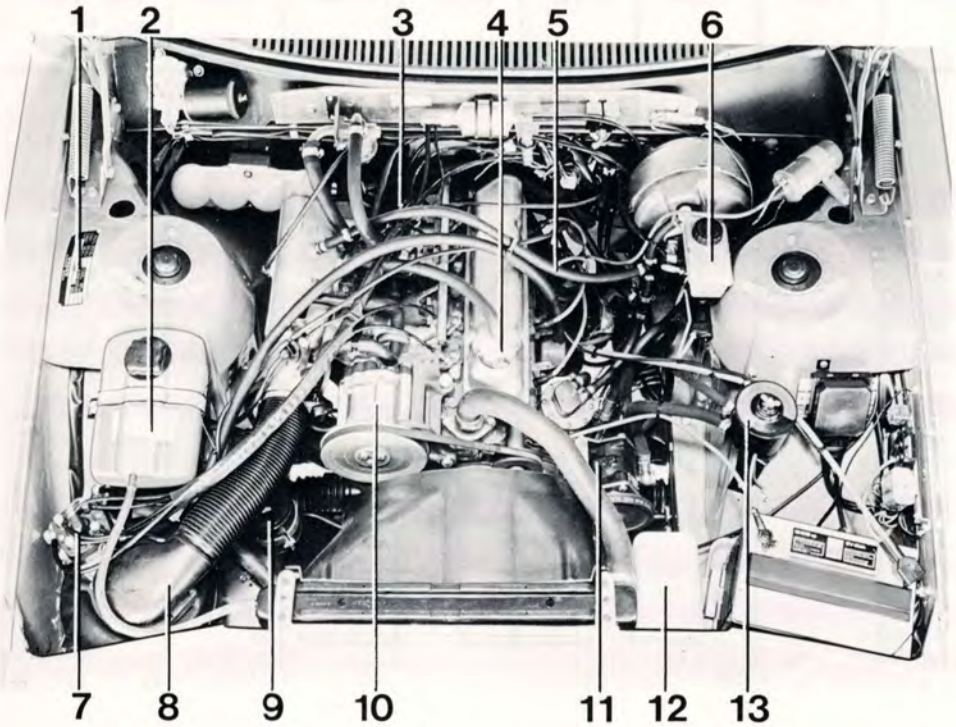
Washer fluid

Washer fluid reservoir.
Water and solvent (wintertime: windshield washer anti-freeze).

Battery

Acid level 1/4"–3/8" above plates.

Distilled water only, **never** acid.
Warning: battery gases are explosive.



1 Data plate
2 Expansion tank
3 Oil dipstick, automatic transmission
4 Oil filler cap, engine
5 Oil dipstick, engine
6 Brake fluid container
7 Air-fuel control unit
8 Air cleaner
9 Carbon canister, evaporative control system
10 Air Injection Reactor Pump
11 Power pump, power steering
12 Washer fluid container
13 Oil container, power steering

Servicing

A = Adjust I = Inspect (Correct or Replace if necessary)
R = Replace L = Lubricate

Maintenance Operation Miles	1,500	7,500	15,000	22,500	30,000	37,500	45,000	Description on page
EMISSION CONTROL SYSTEM								
I ENGINE MECHANICAL COMPONENTS								
Engine Oil and Filter*	R	R	R	R	R	R	R	46
Engine Coolant					R			47
Cooling System Hoses and Connections	I		I		I		I	47
Engine Drive Belts	A	I	I	I	I	I	I	47
Torque Cylinder Head Bolts	A							48
Torque Manifold Bolts	A		A		A		A	48
Valve Clearance	A		A		A		A	48
Compression Test			I		I		I	48
Vacuum Fittings, Hoses and Connections	I		I		I		I	48
II ENGINE FUEL SYSTEM								
Fuel (Line) Filter					R			49
Fuel (Tank) Filter			I		I		I	49
Air Cleaner Filter					R			49
Idle RPM	A		I		I		I	49
Mixture Ratio			A		A		A	49
Fuel System Cap, Tank, Lines andConnections	I				I			49
Fuel Injection Electrical Connections			I		I		I	49

Oil and oil filter cartridge are first time replaced at the 1 500 mile inspection. Subsequent oil changes should be made at 7 500 mile intervals or **at least twice a year.**
However, under adverse conditions, like hot ambient temperatures, trailer pulling, hill climbing, driving long distances at high speeds, extended periods of idling or low speed operation, short trip operation at freezing temperatures require oil changes more frequently (every three months).

Maintenance Operation Miles	1,500	7,500	15,000	22,500	30,000	37,500	45,000	Description on page
III ENGINE IGNITION COMPONENTS								
Spark Plugs (see also page 50)			R		R		R	50
Distributor Advance Mechanism					I			50
Ignition Timing			A		A		A	50
Distributor Cap and Rotor			I		I		I	50
Ignition Wiring			I		I		I	50
IV ENGINE CRANKCASE VENTILATION SYSTEM								
PCV Nipple (Orifice)			I		I		I	50
Ventilation Hoses			I		I		I	50
Oil Filter Breather Cap and Flame Arrester			I		I		I	50
V ENGINE EXTERNAL EMISSIONS								
Exhaust Gas Recirculation Components**			**I		**R		**I	51
Throttle Valve Switch			I		I		I	51
Air Injection Reactor System			I		I		I	51
Torque Catalytic Conveter Mounting Bolts			A		A		A	51
VI ENGINE EVAPORATIVE EMISSIONS								
Evaporative Control Filter							R	51

** EGR valve is cleaned at 15,000 & 45,000-mile intervals and is replaced at 30,000 miles.

MAINTENANCE SCHEDULE

A = Adjust
R = Replace
I = Inspect (Correct or Replace if necessary)
L = Lubricate

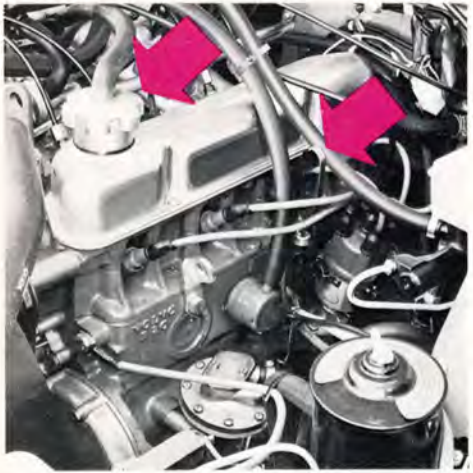
Maintenance operation Miles	1 500	7 500	15 000	22 500	30 000	37 500	45 000	Description on page
DRIVETRAIN								
Manual Transmission Oil	R	I	I	I	R	I	I	52
Automatic Transmission Oil	I	I	I	I	I[1]	I	I	52
Rear Axle Oil	R	I	I	I	I	I	I	53
BRAKES								
Overhaul the brakes and change brake fluid							R	53
STEERING								
Tire Wear (Align Front End if needed)	I	I	I	I	I	I	I	61
Check power steering fluid level	I	I	I	I	I	I	I	53
BODY								
Trunk Door and Hood Hinges and Latches	L	L	L	L	L	L	L	54

1) For cars used for hard driving, or in hilly terrain, etc. preventive service including oil change should be carried out by a shop every 30 000 miles.

The following items should be checked weekly by driver	Description on page
Engine oil level	46
Brake fluid	53
Radiator coolant level	55
Battery water level	40
Tire pressure, all five tires	61
Operation of all lights	
Horns	
Windshield wipers	
Level of windshield washer fluid	

The following should also be carried out regularly	Description on page
Washing	65
Polishing	65
Cleaning	66
Rust protection	66

Engine oil



Checking oil level

Check the oil level each time you stop for gasoline. The level should be between the dipstick marks. It must not drop below the lower mark. On the other hand, it should not exceed the upper mark since excessive oil consumption will result. The distance between the dipstick marks represents 1 quart of oil.

To add or change oil

Add oil of the same kind as already filled. Use Multigrade oils, Service SE classification.

All year round	**SAE 10W–40** SAE 10W–30 SAE 10W–50
Above +14° F (–10° C)	SAE 20W–50

At very low temperatures (below 0° F) multigrade oil SAE 5W–20 is recommended. However, this oil should not be used when the temperature is continuously above 32° F.

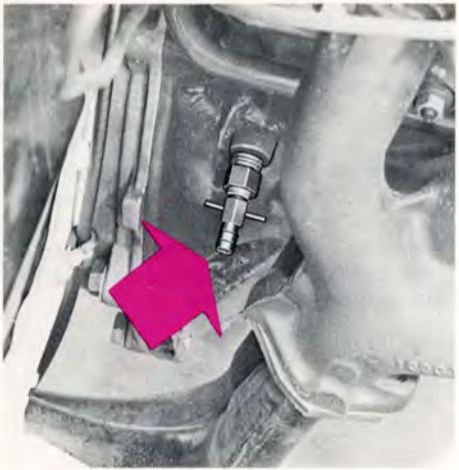
Oil and oil filter cartridge are replaced the first time at the 1 500 mile inspection. Subsequent oil changes are made with 7 500 mile intervals or **at least twice a year.** However, under adverse conditions, such as hot ambient temperatures, trailer pulling, hill climbing, driving long distances at high speeds, extended periods of idling or low speed operation, short trip operation at freezing temperatures require oil changes more frequently (every three months).

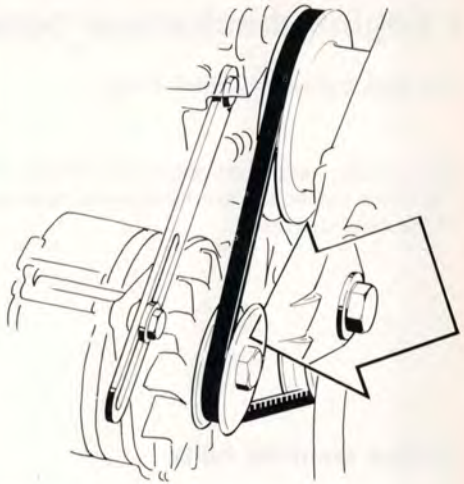
Drain the oil after driving when it is still hot.

Capacity excl. filter: 3.4 US qts/2.9 Imp. qts.
incl. filter: 4.0 US qts/3.3 Imp. qts.

Changing oil filter

Replace the oil filter at each oil change. If the oil filter for any reason is changed separately, 1/2 qt. of oil should be added.





Changing coolant

Every two years or 30 000 miles the cooling system should be drained, flushed and re-filled.
Remove the expansion tank cap.
Loosen the hose at the radiator bottom and open the drain cock on the right side of the engine block.

Fill coolant through the expansion tank. The heater controls should be fully open.
Add coolant until the level is up to the MAX mark or slightly above.

Start engine and run until hot. Check the cooling system for tightness. Also re-check the coolant level.
Capacity: 10 US qts./9 Imp. qts.

Cooling system, hoses and connections

Check all cooling system hoses and connections for defects or deterioration of hoses and loose clamps or fittings.

Drive belts

The belt tension can be checked by pressing in the fan belt at a point midway between alternator and fan. It should be possible to press down the belt about 3/8" (10 mm) with normal pressure (15–20.5 lbs=7–10 kp).
This also applies to the compressor drive belt (air conditioning).
The check can suitably be made in a Volvo workshop.
Also check the tension on the drive belt for the power pump. It should be possible to depress the belt about 3/8 " (10 mm).

I Engine mechanical components

Torque cylinder head bolts

The cylinder head bolts should be torqued at 1 500 mile inspection to ensure proper sealing of the head gasket.

Valves

The valve clearance should be checked every 15 000 miles.
The check should be made in a shop.

Vacuum fittings, hoses and connections

Unstable idle, misfiring or poor emission control is often caused by leaking vacuum hoses or connections. Check hoses and connections on distributor vacuum unit, EGR valve and port, heater control servo systems and hydraulic brake servo.

Torque manifold bolts

The manifold bolts should be torqued at 1 500 mile inspection and then every 15 000 miles. Loose manifold could alter air/fuel ratio and cause an increase in emission and/or poor driveability.

Compression test

To get some idea of the condition of the engine, a compression test should be made every 15 000 miles. This test should preferably be made in a shop.

II Engine fuel system

The engine is provided with a fuel injection system, called the CI-system. CI stands for Continuous Injection.
The system has no mechanical guidance. It has two systems: the air system and the fuel system. The idea is to measure the inducted air quantity and then let it determine the fuel quantity to be injected.

Fuel

91 octane RON (Research Octan Number) unleaded fuel permitted for all models and **required** for certain models (with catalytic converter).
A label on the instrument panel and on the rear fender, near the filler inlet will remind of this requirement.
It is unlawful to disperce leaded fuel into a vehicle labeled "unleaded gasoline only."

Special instructions for work on the fuel injection system

Extreme cleanliness is essential when working on the injection system. Great care must be observed.
Injection system service should be handled by authorized Volvo dealers, using equipment intended for this service.

Fuel (line) filter

The fuel filter is located on the firewall. This filter is to be changed after every 30 000 miles. The filter is replaced as one complete unit. Filter replacement should be made in a shop.

Fuel (tank) filter

A filter is installed in the suction line in the fuel tank. Its function is to prevent any dirt in the tank from being sucked up to the fuel pump. The filter should be cleaned every 15 000 miles.

Fuel system cap, tank and lines, and connections

The effectiveness of the fuel system to contain hydrocarbons is largely dependent upon a leak-free system. Check for proper sealing of gasoline filler cap which contains "O" ring type seals. Check all evaporative hoses in vehicle for tightness leaks. Check fuel lines under vehicle and repair if necessary.

Air cleaner

Replace the air cleaner cartridge with a new one every 30 000 miles. The cartridge should be replaced more often when driving under dirty and dusty conditions. No cleaning of any kind is to be made between the above mentioned intervals.

Inspection of fuel injection electrical connections

The electrical connections and fuel lines in the injection system should be checked for chafing and corrosion every 15 000 miles by a shop.

Checking and adjusting idling speed and mixture ratio

These checks should be made every 15 000 miles by an authorized shop.
The idling speed should also be adjusted at the 1 500 miles inspection.

III Engine Ignition Components

Change spark plugs

The spark plugs should be changed every 15 000 miles.
However, citydriving or fast highway cruising require changing after 7 500 miles of driving.
Tightening should be done with a torque wrench. When fitting new plugs, be sure to fit the right type (Bosch W 200 T 35 or corresponding).
When changing the plugs, check that the suppressor connectors are in good condition. Cracked or damaged connectors should be replaced.
When changing spark plugs, clean the cables and cable terminals, also the rubber seals. If the car is driven on roads where salt has been placed to counteract skidding, spray the cables with silicone spray.

Ignition timing
Distributor advance mechanism

The ignition timing should be adjusted every 15 000 miles. All adjusting work should be done by a shop with the proper equipment. The distributor is one of the most sensitive units in the engine and careless handling can lead to decreased engine output and high fuel consumption or even serious damage to the engine.
The distributor advance mechanism should be checked every 30 000 miles.

Ignition wiring

Ignition wiring system is composed of primary and secondary systems. The secondary systems are the high tension leads connecting the distributor cap with the spark plugs and the coil.
These wires should be inspected at each engine tune-up, and should be replaced if cracked, frayed or damaged from abrasion. It is important to clean all parts of this secondary system thoroughly because dirt greatly reduces the available voltage to the spark plugs.

Distributor cap and rotor

Check the distributor cap and rotor for cracks, carbon formation, dirt and erosion.

IV Engine Crankcase Ventilation System

Crankcase ventilation

The engine is provided with positive crankcase ventilation which prevents the gases in the crankcase from being released into the atmosphere. Instead they are sucked into the intake manifold and take part in the combustion process whereupon they are blown out through the exhaust pipe together with the other combustion gases. Every 15 000 miles remove and clean the nipple and the hoses. Rubber hoses and the flame protector should also be replaced if they are in poor condition.

V Engine External Exhaust Emissions

Exhaust gas recirculation system (E G R)

All Volvo B20 F engines are equipped with an exhaust gas recirculation system. This makes for cleaner exhaust gases when driving on half throttle. The system consists of an EGR channel and an EGR valve operated under a vacuum.

Exhaust Gas Recirculation components

Clean EGR valve and pipe, manifold nipple and cold start injector every 15 000 miles. Replace hose on pipe. Replace EGR valve every 30 000 miles.
An EGR service reminder light (see page 7) comes on at 15 000 miles intervals. This is a reminder to take your Volvo to your Volvo dealer to get the EGR valve serviced. The light will stay on until it is reset by your Volvo dealer.

Throttle valve switch (certain models)

Every 15 000 miles the throttle valve switch if so equipped should be inspected.

Air injection reactor system

Every 15 000 miles the air injection reactor system should be inspected.

Torque catalytic converter mounting bolts (certain models)

The catalytic muffler mounting bolts should be torqued every 15 000 miles.

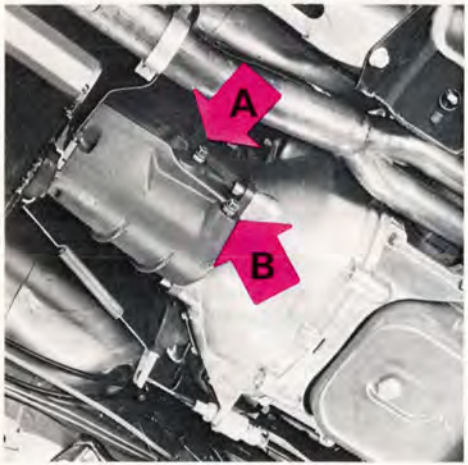
VI Engine eporative emissions

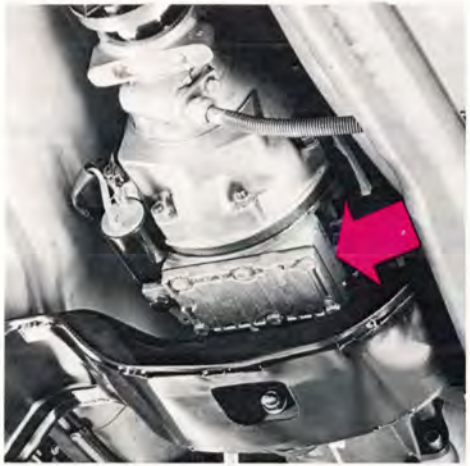
Vehicles intended for the U.S.A. market are equipped with a gas evaporative control system, which prevents gas fumes from being released into the atmosphere. The system consists of an expansion container and a venting filter, which is filled with active carbon. When the engine starts, air is drawn through the venting filter and into the engine via the inlet duct. Gas fumes stored in the active carbon are drawn by the air flow into the engine where they take part in the combustion.

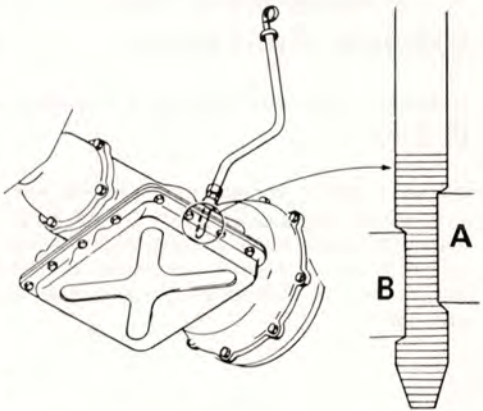
Evaporative control filter

The carbon filter unit should be replaced every 45 000 miles.

Transmission oil







Manual transmission (M40)

A = level and filler plug
B = drain plug

The oil level should be up to the filler plug.
Top up with transmission oil SAE 80W/90 or SAE 80/90.
Drain the oil immediately after driving while it is still hot.
Capacity: 0.8 qt (0.75 liter)

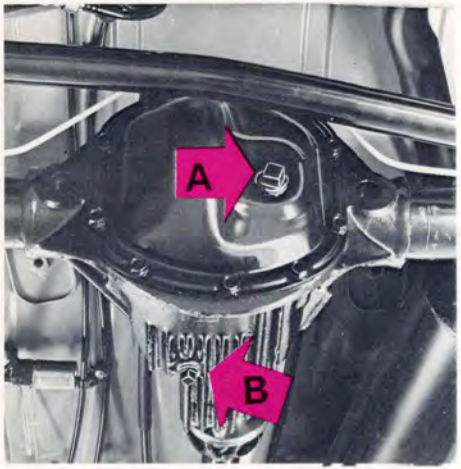
Transmission with overdrive (M41)

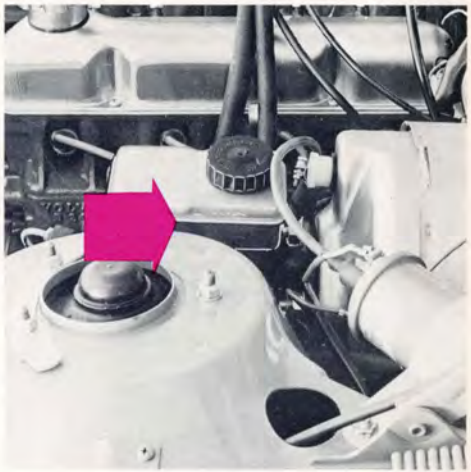
A = level and filler plug } see picture
B = drain plug } upper left

The oil level should be up to the level plug.
Transmission as well as overdrive is lubricated by the same oil.
When draining, remove the drain plug. Also remove the cover for the overdrive oil strainer and clean the strainer.
When filling oil, do not start driving until the oil has had time to pass over to the overdrive.
Use engine oil SAE 30 or SAE 20W–40.
Capacity: 1.7 qts (1.6 liters)

Automatic transmission (BW 35)

When checking oil level, the vehicle should be parked on level ground, engine idling and gear selector in position P.
NOTE: the dipstick has graduations for hot (A) and cold (B) transmission oil.
Wipe the dipstick with a nylon rag, paper or a chamois cloth. Do not use rags that can leave floss on the dipstick.
When necessary, top up with Automatic Transmission Fluid, type F (FLM). Fill through the dipstick tube.
The oil is not changed under normal driving conditions (see page 44, note 1).





Rear axle

A = level and filler plug
B = drain plug

The oil level should be up to the level plug. When necessary top up with rear axle oil, MIL-L-2105B, SAE 90 (SAE 80 when the temperature is steadily below 15° F = –10° C). Cars equipped with limited slip differentials should use oils with proper additives.
The oil is changed at the 1 500 mile service inspection only.

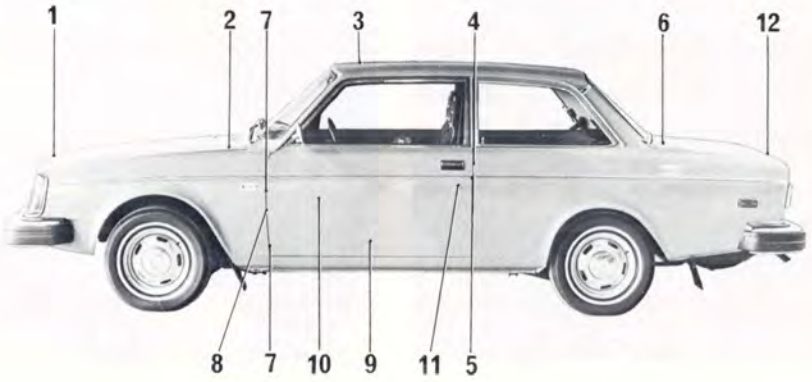
Power steering

Wipe clean the oil container.
Check the oil level while the engine is idling. The level should be at the level mark on the inside of the container.
The oil level rises when the engine is stopped.
No oil changes necessary.

Brake fluid

Every time gasoline is filled check that the brake fluid level exceeds the MIN mark. When necessary, top up with brake fluid according to specifications DOT 3 or DOT 4 (SAE J 1703). The brake fluid should normally be changed every third year. Use a shop provided with adequate knowledge.
(Change the brake fluid every year when driving under extremely hard conditions: mountain driving or humid climates etc).

Lubrication



Chassis maintenance

To simplify maintenance of your Volvo, the vehicle has been equipped with ball joints, steering rods and propeller shafts that do not require regular lubrication.
Points that normally require lubricating have been packed with very durable grease at the factory and then carefully sealed, eliminating the need for subsequent lubrication.

Lubricate body

To avoid rattle and unnecessary wear, the body should be lubricated once a year. The hinges on the hood, doors and trunk lid as well as door stops should be lubricated every 7 500 miles. During the wintertime, the locks in the door handles and trunk lid should also be given reliable anti-freeze to prevent them from freezing up.

No.	Lubricating point	Lubricant
1	Hood lock	Paraffin wax
2	Hood hinges	Oil
3	Sun-roof wind deflector	Oil
4	Door lock outer sliding surfaces	Paraffin wax
5	Striker plate	Paraffin wax
6	Trunk lid hinges	Oil
7	Door hinges	Grease
8	Door stop	Paraffin wax
9	Front seat slide rails and latch devices	Paraffin wax, oil
10	Window regulator Locking device (accessible after door upholstery panels removed)	Oil, grease Silicon grease
11	Key holes	Lock oil
12	Trunk lid lock	Lock oil

Check coolant level

The cooling system must be well filled with coolant and not leak if it is to operate at maximum efficiency. Check the coolant level when filling up with fuel. The level should be between the "Max" and "Min" marks on the expansion tank. The check should be made with particular thoroughness when the engine is new or the cooling system has been drained.

Do not remove the filler cap other than for topping-up with coolant. Frequent removal may prevent coolant circulation between the engine and the expansion tank during engine warming up and cooling.

Top up with coolant

Top up with coolant by filling the expansion tank when its level has gone down to the "Min" mark. Use a mixture of 50 % reliable anti-freeze and 50 % water all the year round. Top up to the "Max" mark.

NOTE: Do not top up with water only. Water by itself reduces both the rust-protective and anti-freeze qualities of the coolant. It can also cause damage to the cooling system if ice should form in the expansion tank.

NOTE: In very warm parts of the country where there is little risk of frost, water can be used without anti-freeze.
We recommend, however, to add a rust inhibitor.

Note

This car is equipped with an alternator

When changing the battery or when carrying out work involving the electrical system, the following should be observed.

1 A battery connection to the wrong terminal will damage the rectifiers. Before connections are made, check the polarity of the battery with a voltmeter.

2 If assist batteries are used for starting, they must be properly connected to prevent the rectifiers from being damaged.
The ground lead from the assist battery for starting must be connected to the ground terminal stud of the car battery and the positive lead from the assist battery for starting to the positive terminal stud.

3 If a fast charger is used for charging the battery, the car battery leads should be disconnected.

4 Never disconnect the battery circuit (for example, to change the battery) while the engine is running, as this will immediately ruin the alternator.
Always make sure that all the battery connections are properly tightened.

5 If any electrical welding work is made on the vehicle, the ground lead and all the connecting cables of the alternator must be disconnected and the welder wires placed as near the welding point as possible.

Replace bulbs

The replacement of bulbs in the various lighting units is shown on the following pages. Make sure when installing bulbs that the guide pin on the socket fits into its corresponding recess.
When installing bulbs, do not touch the glass with your fingers. The reason for this is that grease, oil or any other impurities can be carbonized onto the bulb and damage the reflector.

Replace bulbs for instrument lighting and heater control lighting

Due to the location of the bulbs, their replacement should be carried out by a Volvo shop.

Replace bulbs for side marker lights

Remove the two Phillips screws which hold the lens. The bulb can now be removed by pressing it inwards and turning it slightly counter-clockwise.

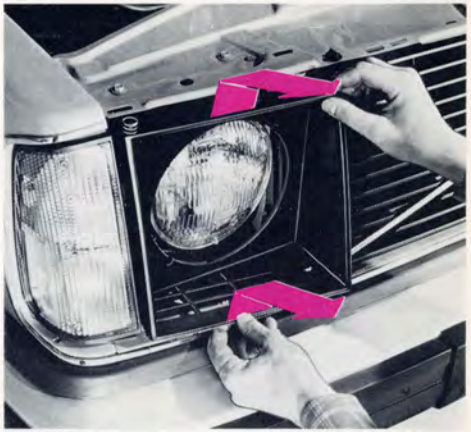
Replacing sealed beam headlamp units

1 Turn the plastic screws 1/4 turn and remove them.
2 Lift up the rim slightly and remove it forwards.
3 Turn the chromed ring slightly counter-clockwise. Remove the chromed ring and lift out the headlamp unit.
4 Disconnect the socket contact.

Installation is done in the opposite way. Check that the chromed ring is retained by all four clips.

Check headlight alignment.

1



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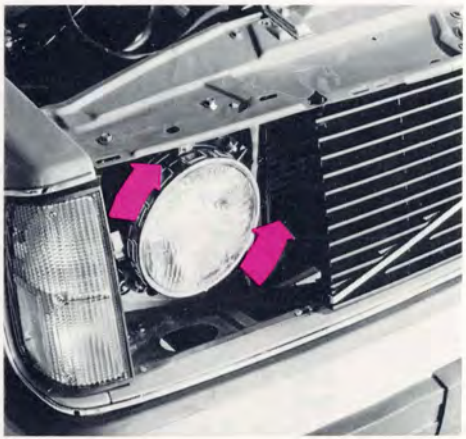


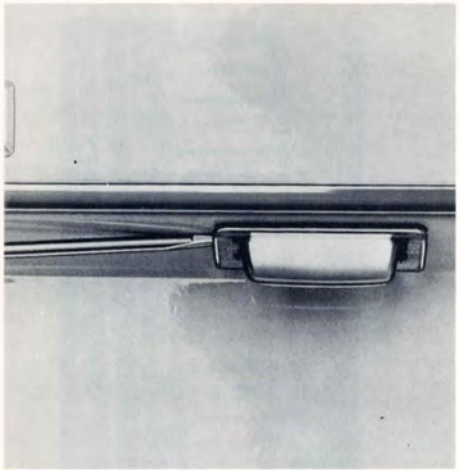
3

4

Replacing bulbs

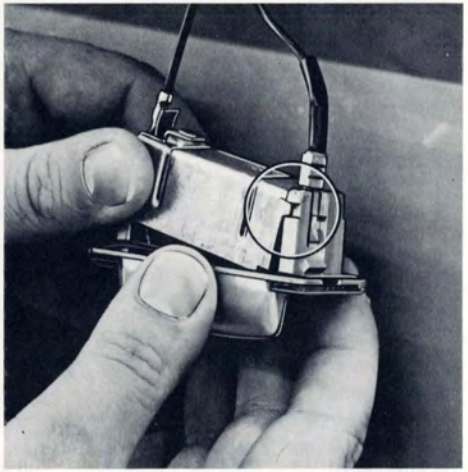
			Power W/cp	Socket	US bulb No
1	Front position, side marker light	242, 244, 245	5/4	Ba 15 s	67
2	Front turn signal	242, 244, 245	21/32	Ba 15 s	1073
3	Rear turn signal	242, 244	21/32	Ba 15 s	1073
4	Back-up light	242, 244	21/32	Ba 15 s	1073
5	Tail light	242, 244	5/4	Ba 15 s	67
6	Stop light	242, 244	21/32	Ba 15 s	1073
7	Rear turn signal	245	21/32	Ba 15 s	1073
8	Back-up light	245	21/32	Ba 15 s	1073
9	Stop light	245	21/32	Ba 15 s	1073
10	Tail light	245	5/4	Ba 15 s	67

Remove the Phillips screws retaining the lenses. Replace bulb by slightly depressing and turning counter-clockwise.



License plate light

Insert a screwdriver through the opening in the housing and depress the catch tab.
Pull out the housing assembly.
Pull out the cover end which is not provided with a lock pin.
Replace bulb.



When re-installing, first locate the lock pins (see picture) and then press on the cover.
Check that the rubber gasket is positioned and press the housing assembly into place.

Interior light

Insert a screwdriver through the opening in the right side of the housing and depress the catch tab. Pull out the housing assembly and replace the bulb.

Fuses

Replacing fuses

The fuse box is positioned in front of the front left door pillar.
When replacing fuses, check that right "size" (amperage) is used.
Never use fuses of higher amperage. If one fuse often melts, leave the car to a shop for fault-tracing.

Reading downwards the fuses protect the following:

1 Rear window wiper/washer
245 only — 8 A
Cigarette lighter

2 Wiper/washer — 16 A
Horn
Blower

3 El. heated rear window — 16 A
Overdrive

4 Heater element, driver's seat — 8 A
Back-up light
Seat belt pilot light

5 Turn signals — 5 A
Instruments
Warning lights
Glove box light

6 Hazard warning — 8 A
Starter cut-out relay
Engine compartment light

7 Fuel pump — 8 A
Interior light, rear
Clock

8 Stop light — 5 A
Interior light

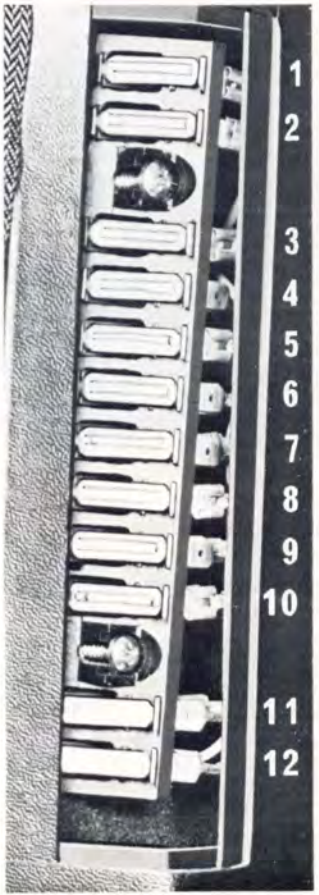
9 Ignition interlock — 5 A
Buzzer, seat belt

10 Instrument lighting — 5 A

11 Tail light, left — 5 A
Side marker light, rear and front (left)
License plate light, left
(245, both lights)

12 Tail light, right — 5 A
Side marker light, front (right)
License plate light, right

Note: Fuse No. 9 controls the Seat Belt/Ignition Interlock System if the vehicle is so equipped. See page 21 for instructions on removing fuse No. 9 to facilitate emergency starting.



General

The car is equipped with pressed steel wheels.

If possible, the wheels should always be used on the same side throughout their lifetime. This is particularly important for studded winter tires, otherwise it can happen that the studs loosen.

Snow tires

Studded snow tires should also have a running-in period of between 300–600 miles (500–1 000 km). During this period try to avoid driving hard round bends and at high speeds, also hefty braking and acceleration. Recommended for use in winter are radial type tires with or vithout studs.

Tire **chains** can be used on the rear wheels only providing that the chains are **finelinked** and do not project so much from the tire that they can chafe against the brake caliper or other components.

Strap-on emergency chains must not be used since the space between the brake calipers and wheel rims does not permit this.

Check tire wear pattern

Check the tires at regular intervals for damage and abnormal wear, also for particles which can fasten in the tread. Have them balanced if necessary. Poorly balanced wheels will rapidly increase the wear on tires as well as make for poor traveling comfort.

Tire wear indicator

The tires have a so-called "wear indicator" in the form of a number of narrow strips running across or parallel to the tread. When about 1/16" (1.5 mm) is left on the tread, these strips show up and warn the car owner in good time that the tire is showing signs of wear.

Check tire pressure

Make a habit of checking the pressure in the tires regularly. The simplest way to do this is to check the pressure at a service station while filling up with fuel. See page 81 for the correct tire pressure. Do not forget the spare wheel when checking the pressure.

During driving, the temperature of the tires rises and also the tire pressure in relation to the speed of the vehicle and its load. **Normally the pressure should only be checked when the tires are cold.** When the tires are warm, a change in pressure should take place only when air must be pumped into the tires.

Excessively low tire pressure is one of the most common reasons for tire wear. Tires which are insufficiently inflated also result in difficult steering and high fuel consumption. Too high air pressure tends to make traveling less comfortable.

Wheel changing

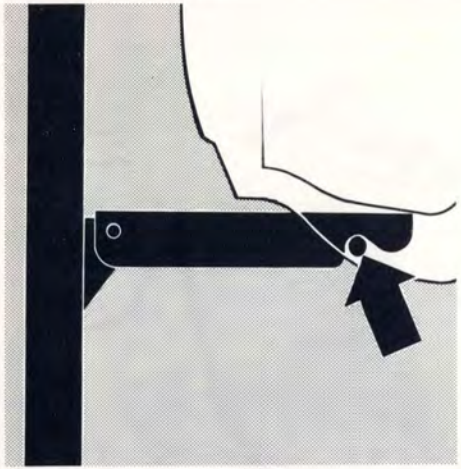
Changing a wheel

The spare wheel, jack and tool kit are stowed in the trunk compartment. When the car is to be jacked up, the jack should be on level, firm ground.
Avoid creeping under the car when it is jacked up since there is risk that the car might topple off the jack, especially if the ground is soft.
Before the vehicle is jacked up, the parking brake should be applied and one of the gears engaged.
Also block one of the wheels standing on the ground.

Remove wheel cap with the screwdriver in the tool kit.

Loosen the wheel nuts 1/2–1 turn with the help of the box spanner. All the nuts have right-hand threads which are loosened by turning them counter-clockwise.

Insert the lifting arm of the jack in the appropriate jack attachment of the wheel to be changed.



Make sure that the arm goes in all the way. Jack upp the side of the car far enough to lift the wheel off the ground.

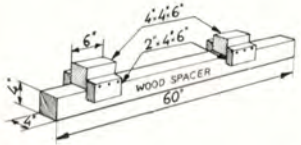
Unscrew the wheel nuts completely and lift off the wheel. Be careful when lifting off the wheel that the threads of the studs are not damaged.

Installation

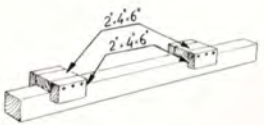
- Clean the contact surface between wheel and hub.
- Lift on the wheel.
- Tighten the nuts until the wheel makes good contact with the flange.
- Lower the vehicle and tighten the nuts alternately. (Tightening torque: 72–110 lbft)
- Fit the wheel cap.

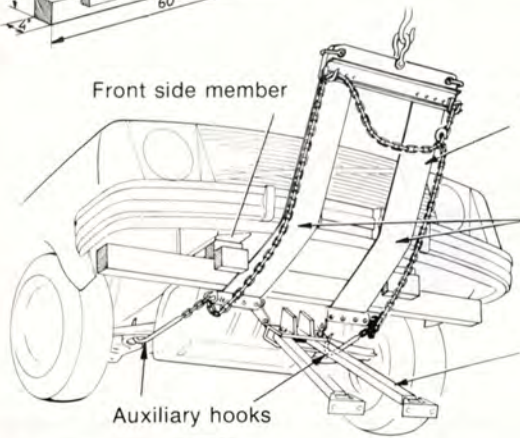
Do not rotate the raised wheel if the car is fitted with a limited slip differential as this will also move the other rear wheel on the ground, so that the car may topple off the jack.

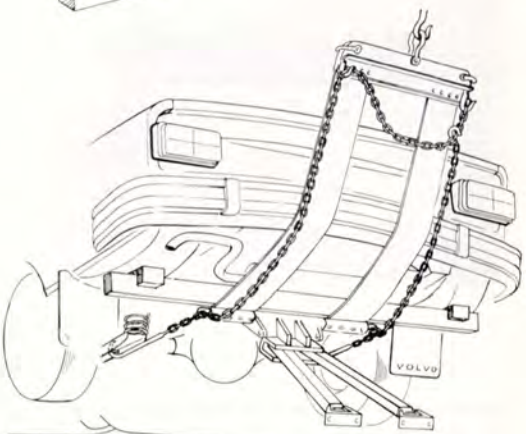
Towing information

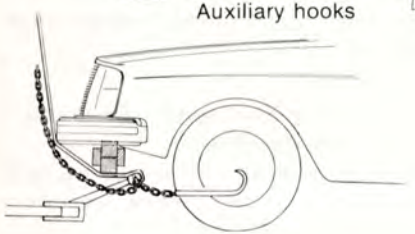


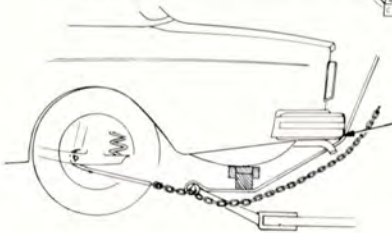
Wood spacer blocks adjustable to conditions











Grease between bumper and towing sling

Washing

The car should be washed often since such things as dirt, dust, insects, tar spots etc adhere firmly to the body and may damage the paintwork. During the winter, special care should be observed to wash off all road salt residue as soon as possible in order to prevent corrosion.

When washing the car, do not expose it to direct sunlight. Soften up the dirt on the underside with a water jet and then rinse the whole body with a light jet until the dirt has loosened. After this, wash off the dirt with a sponge, using plenty of water. Use preferably lukewarm but not hot water.

A detergent can be used to facilitate washing. Special detergents are now available on the market — even household detergent can be used.

A suitable mixture is about 11/2–31/2 fl. ozs. 5–10 cl) of fluid dish washer to 2.6 US gals. = 2.2 Imp. galls (10 liters) of water. Asphalt spots and tar pittings can easily be removed with kerosene or Tar Removers but this should be done after the washing. When a detergent is used, the car should be well rinsed down with clean water afterwards.
Then dry carefully with a soft clean chamois leather. Use different leathers for the windows and the remainder of the car otherwise using the same leather can cause greasy smears on the windows. When washing the car, remember to clean the draining holes in the doors and bottom rails.

Chromed parts

Chromium-plated and anodized parts should be washed with clean water as soon as they become dirty. This is particularly important if you drive on gravel roads which are treated with chemicals to keep the dust down or in the winter when salt is used to melt the snow. After the car has been washed, apply wax or anti-rust preparation.

Polishing (waxing)

The vehicle does not need polishing until the surface finish begins to lose its lustre and normal washing is no longer sufficient to make it shine again and remove the layer of dirt on the surface. Under normal conditions it is sufficient to polish the vehicle a couple of times a year on condition that it is carefully looked after and thoroughly washed as soon as it has become dirty or dusty.

Before the vehicle is polished, it should be carefully washed and dried to avoid scratches on the paintwork.

Before applying wax, make sure that the surface is absolutely clean.
It may often be necessary to use kerosene for cleaning.

Waxing should neither be considered as a substitute for polishing nor as a necessary protection for the paintwork against unfavorable weather. For the most part waxing is not necessary until one year after delivery of the car.

Cleaning

Cleaning the upholstery

The upholstery in your Volvo is a combination of fabric and plastic or leather and plastic.
Generally the **fabric** in the upholstery can be cleaned with soapy water or a detergent. For more difficult spots caused by oil, icecream, shoe polish, grease etc. **trichloroethane** can be used.
The **plastic** in the upholstery can be washed with a mild detergent or in more difficult cases with some household detergent.
Leather upholstery can be cleaned with a damp cloth, eventually with a mild soap solution.
For more difficult spots, consult an expert for choice of cleaning agent.
On no account must gasoline, naphtha or similar cleaning agents be used on the plastic or the leather in the upholstery since these can damage the plastic and leather.

Cleaning floor mats

The floor mats should be vacuumed or brushed clean regularly, especially during the winter when they should be taken out for drying. Take the opportunity of cleaning thoroughly at the same time where the mats have lain.

Spots on textile mats can be removed with a mild detergent.

Rubber mats can be washed with methylated spirit which must be subsequently washed off with water.

Anti-rust treatment

Your Volvo is anti-rust treated at the factory. Inspection and any touching-up of the anti-rust protection should be done at regular intervals and at least once a year. The enclosed body sections should also be anti-rust treated by means of spray application at least once a year.

If any touching-up of the anti-rust protection is necessary, this should be done immediately to prevent moisture from seeping in and consequently damaging it.

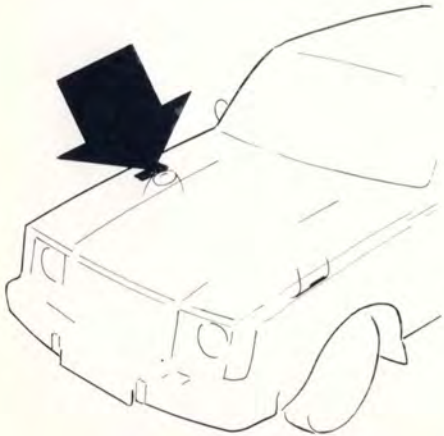
Paint touch-up

Paint damage requires immediate attention to avoid rusting. Make it a habit to check the finish regularly and touch-up if necessary, for instance when washing the car.

Paint repairs require special equipment and skill and you should contact your Volvo dealer for any extensive damages.

Minor scratches can be repaired by using Volvo touch-up paint.

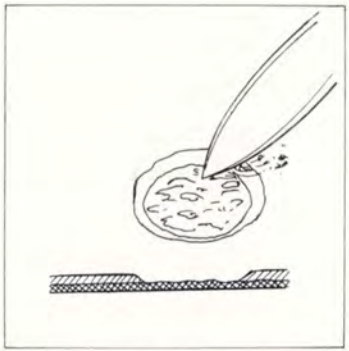
NOTE: Use the paint code which you will find on the Vehicle Designation Plate on the wheel housing when ordering touch-up paint from your Volvo dealer.



Scars on the surface where the paint has not been completely penetrated, can be made directly after light scraping to remove dirt.

Deep scars, down to the bare metal:

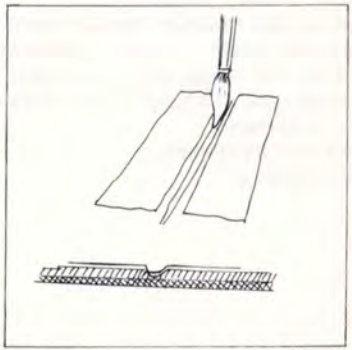
NOTE: The vehicle should be well cleaned, dry and have a temperature exceeding 60°F.



1 Scrape or sand the damaged surface lightly and break the edges of the scar.

2 Thoroughly mix the primer and apply it with a small brush or a match.

3 When the primed surface is dry, the paint can be applied by a brush.
Mix the paint thoroughly, apply several thin paint coats and let flush after each application.



4 If there is a longer scratch, you may want to mask to protect surrounding paint.

Long distance trip

Before a long distance trip

If you are thinking of traveling abroad with your car or taking a long journey, you should have the car checked at a Volvo shop. You will enjoy your journey better if you know that your car is in perfect trim. Irritating incidents can be avoided as well as expensive and time-absorbing stoppages. Wherever you go there should be a Volvo shop within easy call to attend to your car if required.

Remember when filling up with fuel to observe the existing fuel recommendations. If you prefer to look over your vehicle yourself, the following tips are worthwhile noting:

1 Check brakes, front wheel alignment and steering gear.
2 Check engine and drive units with regard to fuel, oil, coolant leakage.
3 Examine tires carefully. Replace worn tires.
4 Check that engine is running satisfactorily and that fuel consumption is normal.
5 Examine state of charge of the battery and clean terminals.
6 Check tool equipment.
7 Check lighting.

When cold weather is on the way, it is time to think of the winter servicing of your car. The first night of frost can come as an unpleasant surprise unless preventive precautions have been taken.

Engine cooling system

A good quality anti-freeze/summer coolant should be used all the year round. Thus, the cooling system should always contain water plus anti-freeze and rust inhibitor, even during the summer. Experience has also shown that extremely weak anti-freeze solutions (10–25%) are very unfavorable from the point of view of rust protection. For this reason, the quantity of anti-freeze/summer coolant should amount to about 50% of the coolant, that is, 4.5 US qts = 3.8 Imp. qts = 4.3 liters, this lowering the freezing point to –31° F (–35° C).
Alcohol is not recommended as an anti-freeze agent since it evaporates at normal engine temperature.

Engine fuel system

During the wintertime with large variation in temperature, condensate forms in the fuel tank and this can impair the running of the engine. This can be eliminated by adding gas-line anti-freeze to the fuel. Also, there is less risk of condensation water forming if the tank is kept well-filled.

Engine lubricating system

During the winter multigrade oil 10 W 40 should be used for the engine lubricating system. At very low temperatures (below 0° F) multigrade oil SAE 5 W- 20 is recommended. These oils reach the lubricating points in the engine more easily at low temperature and also facilitate cold starting. See page 46.

Electrical system

The electrical system in the vehicle is subject to greater stresses during the winter than during the warm summer months. The lighting and starter motor are used more and since the capacity of the battery is also considerably lower at low air temperature, the state of charge must be checked more often and, if necessary, the battery charged. If the battery voltage is excessively low, there is risk of the battery being damaged by frost.

Brake system

During very cold weather the brakes are subject to splash and condensate which can result in the parking brake freezing up if left on. When you park the car, do not apply the parking brake but engage first gear or reverse and if possible place blocks behind the wheels. See also page 38.

Windshield washers

Just as anti-freeze is added to the cooling system during the winter to prevent frost damage, anti-freeze should also be added to the water container for the windshield washer. This is particularly important because the windshield during the winter frequently becomes dirty and is often splashed with water which rapidly freezes and thus necessitates the frequent use of the windshield washer and wipers. Your Volvo dealer can supply you with suitable anti-freeze for this purpose.

Anti-freeze for door locks

A frozen door lock is one of the most irritating things that can happen to a car owner. Many valuable minutes early in the morning can be wasted warming up keys and melting ice in locks. Rembember this in good time and lubricate the locks in advance with some suitable anti-freeze agent. Such agents are now available in small handy tubes which can easily find room in a handbag or coat pocket.

The information given below is only intended to serve as a guide in localizing and temporarily correcting minor faults. After having carried out any such measures, have them checked and adjusted by an experienced mechanic.

Note: An asterisk "*" following the item under the Corrective action in the chart indicates the point to be serviced by an authorized Volvo dealer.

Condition: Starter fails to operate (or operates very slowly)

Possible cause	Correction
Seat belt not fastened.	If the vehicle is equipped with an Ignition Interlock System, check to see if the front seat belts have been fastened after the occupants have been seated and before the ignition key is turned to the starting position. See page 21 for instruction on emergency starting.
Weak bettery or dead cell in battery.	With the ignition switch in the "Driving" or "On" position, check to see if the warning lights on the dashboard come on and if they go out when the starter is engaged. If the lights do not come on or if they go out when the starter is engaged, the battery is discharged, or see below.
Loose or corroded battery cable terminals.	Check battery terminals and clamps, clean or replace if necessary. Check that the starter cable is tightened. A ground strap, which connects the body to the rear end of the engine, should also be checked for corrosion and looseness.
Open circuit between ignition/starter switch and ignition terminal on starter.	The circuit is closed if a clicking sound is heard from the starter when it is engaged. If no clicking sound is heard, check that the blue wire at the starter is tightened. If still no clicking sound is heard, the ignition lock or the wire is defective.
Starter motor defective.	If the above checks have been performed, and no fault is evident, the starter may be defective. (**Note:** At this cause, the headlights do not dim when starter is engaged.)

Service diagnosis

Condition: Starter motor operates but engine does not start

Possible cause	Correction
Intake system leaking.	Check that the rubber bellow, connecting air cleaner and intake manifold, are tight and not defective.
No fuel reaching engine.	Check for fuel in the tank. Check fuse No 7.
No spark.	Remove the high tension leads at one of the spark plugs and screw out the radio interference suppressor. Hold the lead approx. 3/8" from the valve cover and run the starter. If there is no spark, check: that the high tension lead from the coil to the distributor cap is connected and that the wires to distributor and coil are connected.
Spark plugs, high tension leads or distributor cap worn (defective).	Clean the parts with a dry cloth or spray a moisture remover.
Cold start injector out of order.	Test the cold start injector function at cold and hot engine.*
Rest pressure incorrect.	Test rest pressure and the fuel system for leaks. If no fault is found, according to above, see a Volvo Dealer.

Condition: Erratic idle (Misfiring)

Possible cause	Correction
Intake system leaking.	Check that the rubber bellow, connecting air cleaner and intake manifold, is tight and not defective.
Exhaust Gas Recirculation Valve leaking.	Test the valve function.*
Spark plugs, high tension leads or distributor cap worn (defective).	Clean cap and leads, check the cap for cracks.
Defective spark plugs.	Remove, clean or replace spark plugs.
Cold start injector leaking.	Test the injector function.* (This is a possible cause of each cylinder.)
Uneven compression.	

Condition: Engine stalls at irregular intervals

Possible cause	Correction
Defective wires.	Check wire terminals at: fuel pump, fuse No. 7, coil, distributor, ignition switch, relays and air flow sensor.
Intake system leaking.	Check that the rubber bellow, connecting air cleaner and intake manifold, are tight.
Too low idle.	Adjust.*
Fuel filter clogged.	Clean tank fuel filter and replace line fuel filter.
Exhaust Gas Recirculation Valve seizing.	Replace valve.* (Engine will die on idle.)

Service diagnosis

Condition: Low top speed, loss of power

Possible cause	Correction
Aif filter clogged.	Check air filter.*
Throttle misadjusted.	Check that the throttle touches the high speed stop when the accelerator is fully depressed.*
Fuel filter clogged.	Clean fuel tank filter and replace fuel line filter.*
Incorrect timing or dwell angle.	Check and adjust.*

Condition: Excessive fuel consumption

Possible cause	Correction
Fuel lines leaking.	Check tightness.
Spark plugs worn.	Replace plugs.
Incorrect timing.	Check/adjust.*
Air filter clogged.	Check/replace.*
Control pressure incorrect.	Check/replace control pressure regulator.*
Cold start injector leaking.	Replace injector.* (A leaking cold start injector also causes uneven idle and difficult starting.)

Condition: Dieseling

Possible cause	Correction
Injector leaking.	Check air sensor plate and rest pressure.*

Condition: Misfiring at highway driving

Possible cuase	Correction
Spark plugs fouled.	Continue driving and wait for spark plugs to clean up themselves. Possibly clean or replace spark plugs on a later occasion.

Condition: Deceleration backfiring

Possible cause	Correction
Diverter valve faulty	Check diverter valve.*

Specifications

Type designations

In all correspondence concerning your vehicle with the dealer and when ordering parts, the V.I.N. number should always be quoted.

1 V.I.N. (Vehicle Identification Number)

V.I.N. plate located at the foot of the left door port. The V.I.N. is also stamped on right door pillar.

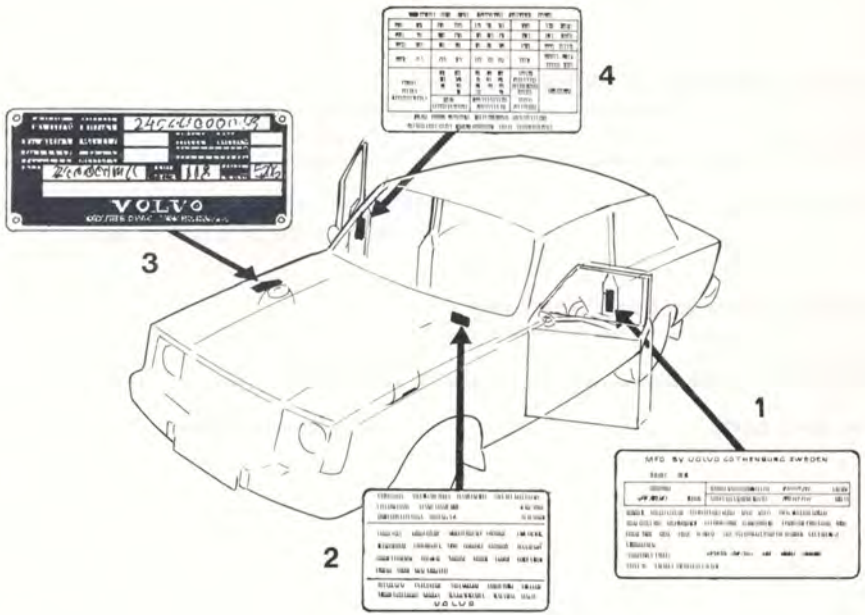
2 Safety Certification Label

Your Volvo has been built to comply with all North American safety and anti-pollution regulations and evidence of this can be seen from the certification labels on the firewall in the engine compartment and on the drivers side doorpost. For further information regarding these regulations, please talk to your selling dealer.

3 Model Plate

Vehicle type designation, code number for color and upholstery: on wheel housing.

4 Tire Information Plate



Dimensions and weights	242	244	245
Length	192.6" (489 cm)	192.6" (489 cm)	192.6" (489 cm)
Width	67.3" (171 cm)	67.3" (171 cm)	67.3" (171 cm)
Height, curb weight	56.5" (144 cm)	56.5" (144 cm)	57.5" (146 cm)
Wheelbase	104.0" (264 cm)	104.0" (264 cm)	104.0" (264 cm)
Ground clearance (full load)	4.9" (12.5 cm)	4.9" (12.5 cm)	4.9" (12.5 cm)
Track, front	55.9" (142 cm)	55.9" (142 cm)	55.9" (142 cm)
rear	53.1" (135 cm)	53.1" (135 cm)	53.1" (135 cm)
Turning circle (between curbs)	32.5' (9.8 m)	32.5' (9.8 m)	32.5' (9.8 m)
Curb weight (depending on type)	2855-3064 lbs (1296-1391 kg	2910-3120 lbs (1321-1416 kg)	3056-3216 lbs (1387-1460 kg)
Gross vehicle weight (GVW)	4031 lbs (1830 kg)	4031 lbs (1830 kg)	4252 lbs (1930 kg)
Capacity weight	920 lbs	920 lbs	1 095 lbs
Permissible axle weight, front	1873 lbs (850 kg)	1873 lbs (850 kg)	1873 lbs (850 kg)
rear	2180 lbs (990 kg)	2180 lbs (990 kg)	2600 lbs (1180 kg)
Max. trailer weight	2000 lbs (908 kg)	2000 lbs (908 kg)	2000 lbs (908 kg)
Max. hitch load	160-200 lbs (75–90 kg)	160-200 lbs (75-90 kg)	160-200 lbs (75-90 kg)

Cargo space	245
Length with rear seat up	44,5" (113 cm)
Length with rear seat down	74,0" (188 cm)
Maximum width	52,4" (133 cm)
Height	33,0" (84 cm)
Volume with rear seat up	53,0 cu.ft. (1,5 m^3)
Volume with rear seat down	67,0 cu.ft. (1,9 m^3)
Cargo opening, mamimum width	45,7" (116 cm)
Cargo opening, maximum height	30,7" (78 cm)

Capacities

Fuel tank	15.8 US galls./13.2 Imp. galls. 60 liters
Cooling system	10 US qts./9 Imp. qts. 9.4 liters (of which expansion tank 1 US qt./ 0.5 Imp. qt. (0.6 liter))
Oil capacity,	
enginge, at oil change	3.4 US qts./2.9 Imp. qts. (3.25 liters)
incl. oil filter	4.0 US qts./3.3 Imp. qts. (3.75 liters)
transmission (M 40)	1.6 US pints/1.3 Imp. pints (0.75 liter)
(M 41)	3.4 US pints/2.8 Imp. pints (1.6 liters)
(BW 35)	13.5 US pints/11.3 Imp. pints (6.4 liters)
rear axle	2.7 US pints/2.3 Imp. pints (1.3 liters)
steering gear, power	2.3 US pints/2.0 Imp. pints (1.1 liters)

Specifications

ENGINE

Water-cooled gasoline engine with fuel injection.
In line four cylinders machined directly in the special alloy cast iron block.
Cylinder head with individual intake and exhaust ports. Engine oiling is provided by a gear pump driven by the crankshaft.
Full-flow type oil filter. Exhaust emission control accomplished by electronic fuel injection, Air Injection Reactor and Exhaust Gas Recirculation (some models also equipped with catalytic converter).
Closed crankcase ventilation system and evaporative emission control system.

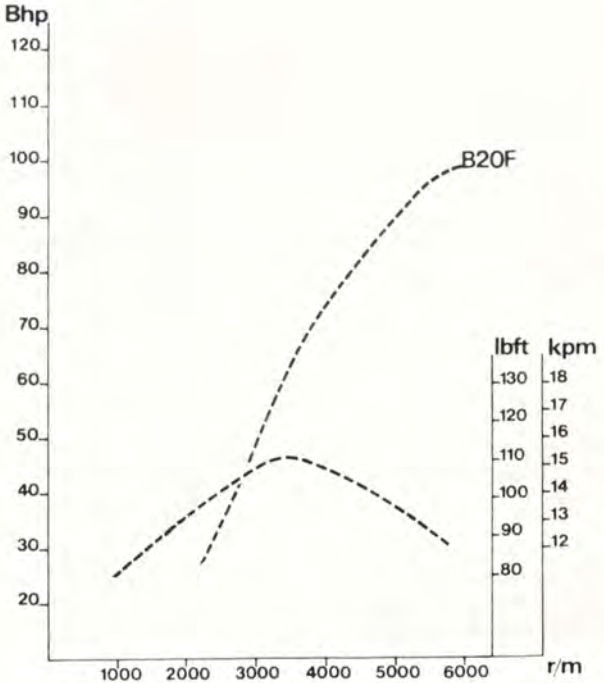
Type designation	Volvo B20 F
Output (SAE J 245) at rpm	98[1] hp/6 000
Max. torque (SAE J 245) at rpm	110[2] lbft (16 kpm)/3 500
Number of cylinders	4
Bore	3.5" (88.9 mm)
Stroke	3.15" (80 mm)
Displacement	1.99 litres
Compression ratio	8.7:1
Valves	Overhead
Valve clearance, warm and cold, inlet and exhaust	0.016–0.018" (0.40–0.45 mm)
Idling speed (warm engine)	900 rpm (800 rpm = BW 35 autom. transmission)

Cooling system

Type	Positive pressure 10 psi = (0.7 kp/cm²) closed system
Thermostat, begins to open at	180° F (82° C)
fully open at	195° F (90° C)
Fan belt, designation	HC–38x888

1) with catalytic converter : 94 hp
2) with catalytic converter : 105 lbft

Output and torque diagram



Fuel system

The engine is equipped with fuel injection system.

Ignition system

Firing order	1–3–4–2
Ignition setting	
stroboscope setting with vacuum regulator disconnected	5° B.T.D.C. (at 700 rpm)
Spark plugs	Bosch W 200 T 35*
Spark plug gap	0.028–0.032" (0.7–0.8 mm)
Tightening torque	25–29 lbft (3.5–4.0 kpm)
Distributor, direction of rotation	Counter-clockwise

ELECTRICAL SYSTEM

12 V, negative ground.
Voltage- controled alternator. Single-wire system with chassis and engine used as conductors.

Voltage	12 V
Battery, type	Tudor 6 EX 45 o.p.*
Capacity	60 Ah
Electrolyte, specific gravity	1.28
Recharge at	1.21
Alternator, rated ouptut	770 W
max. current	55 A

* or corresponding

Lights, 12 V	US bulb No.	Power	Socket	No. of bulbs
Headlights	7" Type 2	Sealed Beam		2
Position Lights, front	67	5 W/4 cp	Ba 15 s	2
Turn Signals, front	1 073	21 W/32 cp	Ba 15 s	2
Turn Signals, rear	1 073	21 W/32 cp	Ba 15 s	2
Tail Lights	67	5 W/4 cp	Ba 15 s	2
Stop Lights	1 073	21 W/32 cp	Ba 15 s	2
Back-up Lights	1 073	21 W/32 cp	Ba 15 s	2
Side Marker Lights	57	3 W/2 cp	S 8,5	2

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

Rear Ash Tray Light	1,2 W	W 1.8 d	1
License Plate Light	5 W	S 8.5	2
Interior Light	10 W	S 8.5	1 (245:2)
Glove Locker Light	2 W	Ba 9 s	1
Instrument Panel Light	2 W	W 2.2 d	3
Control Panel Light	1.2 W	W 1.8 d	3
Shift Positions, Autom. Transmission	1.2 W	W 1.8 d	1
Engine Compartment Light	15 W	S 8.5	1
Warning Lamps			
Charging	1.2 W	W 1.8 d	1
Turn Signals	1.2 W	W 1.8 d	2
Brake Failure	1.2 W	W 1.8 d	1
Parking Brake	1.2 W	W 1.8 d	1
Headlights	1.2 W	W 1.8 d	1
Oil Pressure	1.2 W	W 1.8 d	1
Overdrive	1.2 W	W 1.8 d	1
Warning Flashers	1.2 W	W 1.8 d	1
El. Heated Window	1.2 W	W 1.8 d	1
EGR Reminder	1.2 W	W 1.8 d	1
Seat Belts	1.2 W	W 1.8 d	1
Bulbs	1.2 W	W 1.8 d	1

Specifications

FRONT END

Suspension is of the Mc Pherson type with the shock absorber mounted in a strut in the coil spring.
Rack and pinion type steering gear.
Some models come equipped with power steering.
Safety-type steering column.

Front wheel alignment

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

Toe-in	0.17–0.3" (4.5–7.5 mm)
Camber	+1° to +1 1/2°

POWER TRANSMISSION

Wire-operated clutch of the single, dry-plate type.
Floor-shift operated manual transmission has four syncromesh forward gears and one reverse.
Overdrive available on some models.
Optional automatic transmission. Hypoid type final drive.
Limited slip differential is optional.

Clutch

Clutch release arm play approx. 1/8" (3 mm)

Transmission

Type designation	M 40	M 41	BW 35	
Reduction ratios 1st gear	3.41:1	3.41:1	2.89:1	X converter ratio
2nd gear	1.99:1	1.99:1	1.45:1	
3rd gear	1.36:1	1.31:1	1:1	
4th gear	1:1	1:1	—	
overdrive	—	0.80:1	—	
reverse	3.25:1	3.25:1	2.09:1	

Rear axle

Reduction ratio	242, 244	4.1:1
	245	4.3:1

Speeds in mph (kmph) at 1 000 engine rpm

Gearbox	M 40	M40	M41
Rear axle ratio	4.1:1	4.3:1	4.1:1
1st gear	5.2 (8.4)	6.0 (8.0)	5.2 (8.4)
2nd gear	8.9 (14.3)	8.5 (13.7)	8.9 14.3)
3rd gear	13.1 (21.0)	12.4 (21.0)	13.1 (21.0)
4th gear	17.8 (28.6)	16.9 (27.2)	17.8 (28.6)
Overdrive	—	—	22.2 (35.8)
Reverse	5.5 (8.8)	5.2 (8.4)	5.5 (8.8)

Recommended max. and min. speeds, mph (kmph)

Car model	1st gear	2nd gear	3rd gear	4th gear
242, 244 de Luxe 242, 244 Grand Luxe	0–30 (0–50)	10–50 (20–80)	20–75 (30–120)	25– (40–)
245	0–35 (0–55)	10–55 (20–85)	20–80 (30–125)	25*– (40*–)

* 40 mph (60 kmph) with overdrive engaged.

Tires

Car model	Tire	Recommended tire infl. pressure cold tires, psi (kp/cm²)				Max. permitted inflation pressure psi (kp/cm²)	Capacity weight, lbs
		1–3 persons		Full load			
		Front	Rear	Front	Rear		
USA							
242/244	CR 78–14 DR 78–14 175 R 14 185 R 14	26 (1.8)	28 (1.9)	26 (1.8)	32 (2.2)	32 (2.2)	920
245	DR 78–14 185 R 14	26 (1.8)	28 (1.9)	26 (1.8)*	32 (2.2)*	32 (2.2)	1 095
Canada							
242/244	DR 78–14	26 (1.8)	30 (2.1)	26 (1.8)	32 (2.2)	32 (2.2)	920
245	DR 78–14	26 (1.8)	30 (2.1)	26 (1.8)*	32 (2.2)*	32 (2.2)	1 095

* For driving with full load, speed must be limited to 75 mph.

Tool kit

Wheel nut and spark plug wrench
2 screwdrivers (1 Phillips, 1 standard)
Tommy bar
2 open end wrenches

Consumer information

Acceleration and passing ability
Vehicle stopping distance
Tire reserve load

The information about the 1975 Volvo 242, 244 and 245 shown in the following pages is presented in accordance with Federal requirements for comparison with other makes and models. The exacting test procedures established by the National Highway Traffic Safety Administration were followed to obtain the figures.

Notice: The information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions and the information may not be correct under other conditions.

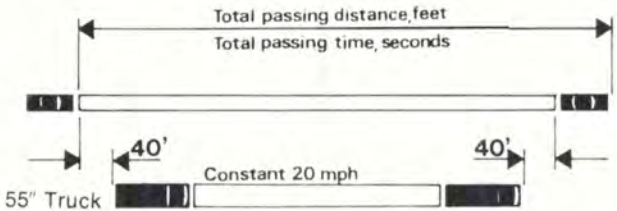
Acceleration and Passing Ability

This chart indicates passing times and distances that can be met or exceeded by 1975 Volvo 242, 244 and 245 in the situations diagrammed below.

Low speed

Initial speed: **20 mph**

Limiting speed: **35 mph**



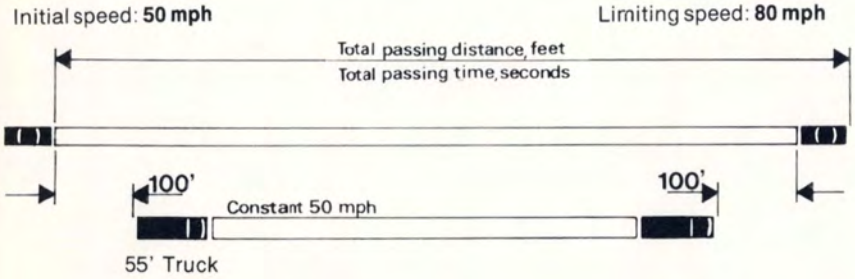
The low-speed pass assumes an initial speed of 20 mph and a limiting speed of 35 mph.

Model (vehicle without catalytic converter)	Low speed	
	Feet	Seconds
242/244, Std Transmission	397	8.4
242/244, Std Trans., Overdrive	397	8.4
242/244, Automatic	410	8.9
245, Std Transmission	400	8.5
245, Automatic	413	9.0

Model (vehicle with catalytic converter)	Low speed	
	Feet	Seconds
242/244, Std Transmission	413	8.9
242/244, Std Trans., Overdrive	413	8.9
242/244, Automatic	423	9.3
245, Std Transmission	417	9.0
245, Automatic	430	9.5

High speed

The high-speed pass assumes an initial speed of 50 mph and a limiting speed of 80 mph.



Model (vehicle without catalytic converter)	High speed	
	Feet	Seconds
242/244, Std Transmission	1 339	14.5
242/244, Std Trans., Overdrive	1 339	14.5
242/244, Automatic	1 408	15.5
245, Std Transmission	1 371	15.0
245, Automatic	1 467	16.3

Model (vehicle with catalytic converter)	High speed	
	Feet	Seconds
242/244, Std Transmission	1 460	16.2
242/244, Std Trans., Overdrive	1 460	16.2
242/244, Automatic	1 536	17.2
245, Std Transmission	1 509	16.9
245, Automatic	1 598	18.1

Vehicle Stopping Distance

This chart indicates braking performance that can be met or exceeded by 1975 Volvo 242 and 244 without locking the wheels, under different conditions of loading and with partial failures of the braking system. The information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions, and the information may not be correct under other conditions.

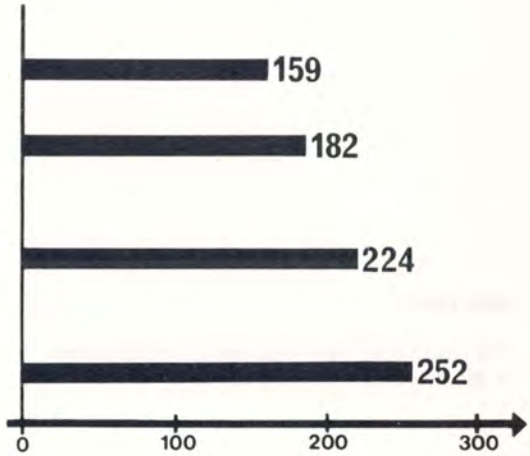
242, 244

Fully operational service brake

Load { Light / Maximum

Emergency service brakes (with partial service brake system failure)

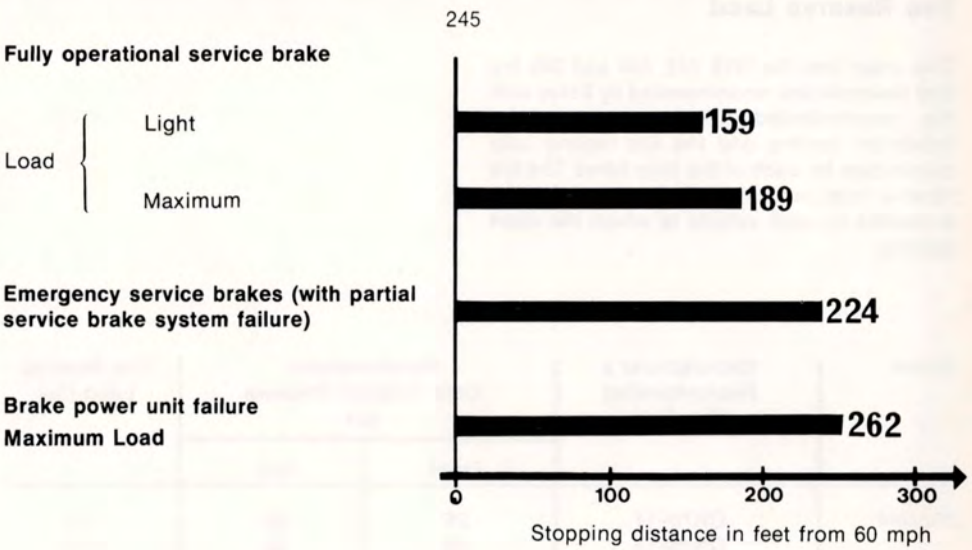
Brake power unit failure
Maximum Load



Stopping distance in feet from 60 mph

Vehicle Stopping Distance

This chart indicates braking performance that can be met or exceeded by 1975 Volvo 245 without locking the wheels, under different conditions of loading and with partial failures of the braking system. The information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions, and the information may not be correct under other conditions.



Tire Reserve Load

This chart lists the 1975 242, 244 and 245 tire size designations recommended by Volvo with the recommended inflation pressure for maximum loading and the tire reserve load percentage for each of the tires listed. The tire reserve load percentage indicated is met or exceeded by each vehicle to which the chart applies.

Model	Manufacturer's Recommended Tire Size	Recommended Cold Inflation Pressure psi		Tire Reserve Load (%)
		Front	Rear	
242/244	CR78–14	26	32	11.3
	DR78–14	26	32	17.4
	175 R 14	26	32	9.0
	185 R 14	26	32	17.8
245	DR78–14	26	32	1.4
	185 R 14	26	32	4.3

The difference, expressed as a percentage of tire load rating, between (a) the load rating of a tire at the vehicle manufacturer's recommended inflation pressure at the maximum loaded vehicle weight and (b) the load imposed upon the tire by the vehicle at that condition.

WARNING. Failure to maintain the recommended tire inflation pressure or to increase tire pressure as recommended when operating at maximum loaded vehicle, or loading the vehicle beyond the capacities specified on the tire placard affixed to the vehicle, may result in unsafe operating conditions due to premature tire failure, unfavorable handling characteristics, and excessive tire wear. The tire reserve load percentage is a measure of tire capacity not of vehicle capacity. Loading beyond the specified vehicle capacity may result in failure of other vehicle components.

Index

Index

Tire pressures

Car model	Tire	Recommended tire infl. pressure cold tires, psi (kp/cm²)				Max. permitted inflation pressure psi (kp/cm²)	Capacity weight, lbs
		1–3 persons		Full load			
		Front	Rear	Front	Rear		
USA							
242/244	CR 78–14 DR 78–14 175 R 14 185 R 14	26 (1.8)	28 (1.9)	26 (1.8)	32 (2.2)	32 (2.2)	920
245	DR 78–14 185 R 14	26 (1.8)	28 (1.9)	26 (1.8)*	32 (2.2)*	32 (2.2)	1 095
Canada							
242/244	DR 78–14	26 (1.8)	30 (2.1)	26 (1.8)	32 (2.2)	32 (2.2)	920
245	DR 78–14	26 (1.8)	30 (2.1)	26 (1.8)*	32 (2.2)*	32 (2.2)	1 095

* For driving with full load, speed must be limited to 75 mph.

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