NEWS BULLETIN



VOLVO 1975 240 SERIES



The Volvo 240 Series new reliable products for today's society

he 197 5 Volvo 240 Series - Two and four door sedans. And a station wagon. They represent Volvo's greatest investment in new features and modifications to enhance safety, strength, durability and economy. And quality. The innovation in their design is represented by their new product designation: Volvo 240 Series.

We haven't changed the designation completely, however, because this new generation still contains the best of Volvo's well known features such as: the steel safety cage surrounding the passenger area, the energy absorbing front and rear ends, the triangle-split dual braking system, the thorough rust-proofing (even better this year), the safer fuel tank location, the reliable B20 engine.

But the rest, and the most is new:

- an entirely new design from the windshield forward
- a new front suspension of spring strut type
- an extensively improved rear suspension system
- a new type of steering gear rack and pinion
- Power assisted steering in some models
- 4" wheels and steel belted radial ply tires
- Fuel injection standard for all models
- a more functional and elegant designed dashboard with complete instrumentation including tachometer
- Newly designed front seats which are even safer and more comfortable

The experience gained from the VESC project has been extensively used in the engineering features of these new cars.

The Volvo 240 Series is made up of three models - Volvo 242 DL, 244 DL, 245 DL. You will note that the term "De Luxe" is no longer used but rather they letters "DL". This new Volvo programme is aimed at the modern car buyer who places safety and real comfort at the head of his list, - these are customers who make sure that the car they buy is economical to run, reliable to use and a pleasure to own. Volvo's new 240 Series has been created to meet the requirements of the sensible car buyer - down to the smallest detail.



Exterior

he simplest way to describe the exterior of the 240 Series is to say - it is a completely new Volvo from the windshield forwards. And you must agree with us when we say that this exterior radiates power, smartness, safety.

It is obviously related to the previous models, but primarily to the Volvo Experimental Safety Car, VESC, (this can be seen from the grille and the bumper section), and, in this way, it can be seen right away from the exterior of the Volvo 240 Series that the design of this car is backed up by qualified safety thinking.

Naturally the styling has not been based on the fact that Volvo has wanted to build a smarter car but rather on a technical basis. An advanced front suspension has resulted in natural body changes. The exterior of the 240 Series will arouse a great deal of justified curiosity and a desire to know more among car-buyers. You must utilize this in your sales work.





The front section on this year's model extends out to the very powerful energy absorbing bumpers which now merge well with the overall design of the car. A Volvo body consists of a small number of large sections which makes it light, strong and torsionally resistant.

Forward of the windshield, the body is new and naturally of safety type with energy absorbing sections front and rear. The engine hood, front fenders, wheel housings, side members and bulkhead are the body sections which have been altered. The floor has also been altered by the inclusion of much stronger seat lifters which help to strengthen the floorpan.



The energy absorbing ability of the new front section of the body has been made much more efficient by the inclusion of crumple zones.



A study in elegance and safety. The grille is manufactured of a very durable plastic material and has chromium brightwork and a decorative emblem, the headlights are recessed into the body. The turn indicators and parking lights also merge with the attractive lines of the car. The bumper, which carries a facing of rubber, is manufactured of aluminium and is attached to the body by means of shock absorbers. The frontal design of the car clearly shows its family ties with the VESC (Volvo Experimental Safety Car).



The energy-absorbing bumpers now extend "round-the-corner" but, of course, are still capable of absorbing impact at speeds up to S miles per hour. The front turn indicators are large and easily seen. They are recessed into the body but also extend "roundthe-corner" to enable immediate observance from the sides as well.



The Volvo 240 DL has 14" wheels and steel cord radial ply tires. These wide tires give an excellent ride and good grip. Another advantage is less wear due to the wide tread and the special characteristics of the steel cord radial ply tires.





To make changing easier, it is now done from the front of the car. The headlight insert is quickly removed and replaced without any trouble and the adjustment is not altered.

This is the decorative emblem which shows model, type and engine.



Prepared for anything. Yes, even a crash from the rear. The rear bumper has the same energy-absorbing capability as the front bumper and, here again, it extends "round-the-corner". These bumpers are not only efficient, they give the car a tough, yet elegant appearance. Volvo rust-proofing has been one of the best available for many years. It is made even better this year by increasing the number of body sections manufactured of hot-dip galvanized metal including wheel housings, spring strut anchorages, outer and inner tie plates for wheel housing and cowl sections. Also a number of stiffeners in the engine compartment and the complete jack anchorage points.



The Volvo 240 DL is a car of character, a car which considers everything, which is prepared for everything.



Interior

Volvo comfort starts from the very beginning, the wide door opening angles of more than 80° facilitate entry and exit. Try the newly designed driving seat, easily adjustable fore and aft, as well as up and down. Feel the quality of the upholstery and try the many adjustments of these wonderful seats. In front of you is the newly designed and very attractive dashboard with its ideally located instruments and controls. The handbrake, you will notice, is now between the front seats.

Many items which are standard in a Volvo 240 DL are only offered as extras - at extra cost - by other manufacturers, for example : the head restraints, now built into the seat and of the "see-through" type so as not to spoil the view for the back seat passengers. Safety belts of the inertia reel type for the passengers are another example. The Volvo 240 Series has a safety interior which is practical and built for comfort. The Volvo 240 DL is a car to enjoy yourself in, a car to feel safe in.





The Volvo seats are built up around a very strong frame of pressed profiles and tubular members. They are very securely anchored to the floor and can withstand a load which is far higher than current requirements.

The ultimate of modern design, anatomically correct and ensuring safety and comfort. This is a good description of the new front seats featured in all Volvo models. The sitting face of the seats is the same length as last year's but they are narrower and have a firmer padding. Their narrower design facilitates entry and the firmer padding used guarantees comfortable driving even on the longest of trips. Last, but not least, the attractive upholstery is available in a number of colours and is fire resistant.

The new Volvo seats not only ensure that you sit safety and comfortably. They also make sure that you sit correctly since medical experts have participated in their design. Naturally, Volvo seats have head restraints as standard. The driver's seat is electrically heated. A thermostatic control switches on when the seat temperature is below 57° and off when the temperature reaches 79° .



The Volvo seats combine safety with comfort. On the driver's side, the seat can be adjusted 1.4 inches in height by means of two levers, one at the front, one at the rear. There are three height positions which combine with the front and rear adjustment possibilities to give nine different combinations. On the passenger side, the seat height is adjusted with tools. Fore and aft movement of the front seats is no less than 8.4 inches split up into 18 different positions. The seats are moved by operating a lever which runs below the leading edge of the seats. For long legged people, both front seats can be moved back on their glide rails an additional 8 inches.



On the 1975 models, the head restraints are integral with the seat backrest,. This has enabled a more graceful design which, without detracting from safety in any way, gives the rear seat passengers a much better view.



Both front seats have a better lumbar support this year with an extra strong spring. The lumbar support is adjusted by means of a knob. Seat backrest angles are adjustable from 90° approximately 170°. This is done by means of a wheel.

On the two-door model, the front seat backrests are folded forward by means of a one-hand control lever which is placed high up on the side of the backrest where it is easily used.





The dashboard has also been redesigned. The air outlets are now rectangular in shape and a special soft moulding runs along the lower edge. The entire dashboard is of safety de-

sign. The instruments are easily read and all controls are well located. This is an excellent example of active and passive safety combined with true comfort. The windshield wiper switch is springloaded so flicking the windshield wipers a couple of strokes is an easy matter.

Steering wheel diameter is 15.7 inches and its angle is now 23°, that is 6° more than last year's models. For the driver, this means easier entry and exit, since it increases the distance between the steering wheel and the seat. The large centre section is also a safety feature, since should a collision occur, it spreads the impact over a wider area. The Volvo steering wheel is a pleasure to use and safe as well.







The clock is also rectangular in shape. It is located in the centre of the dashboard where it is easily visible from both sides. This year it has a quartz type mechanism which ensures reliability and precision.

The lights are controlled by a ``Twist Switch" located to one side of the dashboard.

The heating and ventilation system is one of the most exclusive features of the 240 Series. And this year it is even more effective through the addition of two extra outlets.



The centre console below the dashboard carries the switches controlling the four-way hazard warning lights and the electrically heated rear window. There is also a rheostat which controls instrument lighting. The "fasten seat belts" reminder now both looks and sounds a little different. This panel also carries the controls for the heating and ventilation system as well as a cigarette lighter and an ashtray. The fan switch and cigarette lighter now have a more functional design. There is also room in the centre console for the fitting of a radio. This room can be used for storage if a radio is not fitted.





The new outlet nozzles are variably adjustable from wide open to closed. The two new nozzles are located at the outer extremities of the dashboard and are aimed at the side windows. They have a smaller aperture than the other nozzles so as to give a more intensive flow of air. This keeps the side windows free from misting. The flow of air through these nozzles is controlled by means of the "DEF" control on the centre console.



It's cool in the summer and warm in the winter in a Volvo 242/244 DL thanks to the new headlining which consists of form-pressed glassfibre wool which has an attractive white facing. Not only does the new headlining mean greater safety and better insulation, it's also easier to clean and attractive.



The handbrake is now located in a console between the front seats where it is easily reached. The same console carries the safety belt locks which are lighted. The safety belt locking tongues are easily pushed into place and just as easily released by pushing on a button. At the rear of the same console, facing the rear seat passengers, is an ashtray with built-in illumination.

The Volvo 240 Series has inertia reel front safety belts as standard. They are very easily used and not only adjust automatically but allow the wearer to move. Volvo knows the value of wearing safety belts, which is why a ·'fasten seat belt" reminder tells the driver and front seat passenger to do so if they forget. The safety belt locks are illuminated. These exclusive features are clear indications of the consideration Volvo takes to the car owner and his passenger.



The rear seat passengers can easily reach the ashtray in its new location between the front seats. The built-in illumination is also a welcome addition.

The Volvo 240 DL - from the inside - just as safe as it is comfortable. Travelling in a Volvo is a pleasure due to the very generous and well-planned space, the abundance of comfort, and its elegance and functional safety.



Engines & Transmissions

he awareness of the present day car consumer means that he or she expects a great deal of a car engine - requirements which may seem almost impossible to meet on all points. An engine must be reliable and quiet. It should provide high performance, good economy and durability. To this can be added the requirements from the authorities - today an engine must have efficient exhaust emission control.

Volvo's 240 Series is powered by an engine which can meet all of these requirements. It is called the B20 F. With fuel injection and transistorized ignition the B20 F engine is ideally equipped to help you attract more and more customers from the competition.





The B20 F is an in-line engine of 2 litres displacement. It develops a maximum output of 98 hp SAE net at 6000 rpm, maximum torque is 110 ft. lbs. at 3500 rpm. With a compression ratio of 8.7:1, it's designed to run on regular grade gasoline.

The B20 F has a transistorized (solid state) ignition system without breaker points. This means constant combustion, longer life and less adjustment.

The B20 F engine is fitted with a fuel injection system of C.I. (Continuous Injection) type. The amount of fuel injected is regulated by the amount of air passing into the engine. This ensures the correct fuel/air mixture under all operating conditions.

Transparent tanks allow the checking of coolant, hydraulic fluid and windshield washer fluid levels at a glance.

The Volvo B20 F engine is water cooled and has a sealed system. This means that the coolant fluid and other additives can be used all year round without any special changes being necessary. This type of system operates under pressure which means that the coolant can reach a tempera-ture of 212°F without boiling.



Principles of the CI-system

- Fuel tank
 Electric fuel pump
 Pressure accumulator
- Flessing and A.
 Filter
 Differential pressure valve
 Control valve
 Air flow meter
- 8. Induction pipe 9. Throttle value

- Thauction pipe
 Throttle valve
 System pressure valve
 Control pressure valve
 Cold starting valve
 Supplementary air valve
 Injector



The attractively designed and convenient to use gear lever completes the picture of Volvo's manual gearboxes.



The B20 F engine is matched to the M 40 or M 41 manual gearboxes, or the BW 35 automatic. The manual gearboxes have an improved gear lever mechanism this year with a two-part gearbox cover with rubber insulation to cut noise.

Engine specifications

Engine	B20 F
Displacement	1986
Number of Cylinders	4
Bore	3.50
Stroke	3.15
Compression Ratio	8.7:1
Output HP/RPM SAE (NET)	98/6000
Torque Ft. Lbs/RPM SAE (NET)	110/3500



The overdrive control switch has been moved from the steering column to the gear lever knob so as to avoid it being mistaken for the windshield wiper switch.



As an optional extra, the B20 F is available with the BW 35 automatic transmission. This automatic transmission is matched to the output of the engine to give the ultimate performance. The convenient gear selector is a pleasure to use.

Chassis

Safe and comfortable - whether you're driving or just along for the ride. These are words which amply describe the road manners of the Volvo 240 Series. We do not intend to list the new features of the 1975 Volvos on their order of importance - that would be too big a task, but one thing is certain. The new running gear components are among the most sensational improvements. For example, these cars have a brand new front wheel suspension, an improved rear wheel suspension, an entirely new steering mechanism and an improved brake system.





The 1975 Volvo 240 Series has a spring strut front suspension. The upper anchorages of these spring struts are carried in rubber-mounted bearings. The lower ends of the spring struts are carried in ball joints and control arms. These are journalled in the front and side members. Plainly speaking, the spring strut consists of a tube which carries the coil spring and includes the shock absorber. This type of front suspension gives excellent road handling.

The only forces acting on the ball joints come from the stabilizer. The control arm bushings are carried in special rubber mounting points designed to enable a certain degree of longitudinal wheel movement which gives compliance to the radial ply tires.



At the rear, the 240 Series has been improved by moving the support arms further outboard towards the wheels. This gives a better location of the rear axle. Improved stability and lower noise are the result of the new mounting points for the torque rods and the better type of rubber used in all bearings. On the sedan models, the rear suspension also has a stabilizer. This is not necessary on the station wagon models which have a stiffer suspension.





The spring strut front suspension and the much improved rear suspension give these new Volvo cars excellent ride and road holding. The front suspension efficiently absorbs road shock caused by joints in the road and body roll, when cornering hard, is considerably reduced. The extensive modification of the rear axle harmonizes its response to the new front suspension and not only improves road holding, but also gives a much more comfortable ride. This highly contributes to increase the accident prevention safety (active safety).



The Volvo 240 Series has a new steering system of rack and pinion type. The steering column is of safety type and includes a number of joints which are designed to collapse under heavy load. The front track is now 55.8 inches, an increase which has considerably improved road holding. The steering angles are still positive. To improve entry and exit, the angle of the steering wheel has been increased to 23. The Volvo cars still slightly understeer.

The steering column includes a number of joints which "give" under load. Due to the new angle of the steering column, the two-part joint has been replaced by a universal joint. In the event of a collision, the following takes place : the lower section of the steering column is pushed to the side, the steering wheel aligns to the driver's body by means of the built-in crumple zone and the steering column collapses due to its telescopic section and sliptype mounting points. You are well cared for when driving a Volvo.



The steering gear is of rack and pinion type and the steering gear is attached to the front member by means of rubber mounts. It has been possible to reduce the number of steering joints from 10 to 6. By means of this simple construction, and lesser number of joints, servicing and maintenance are simplified. Less road shock is transplanted to the steering wheel due to the use of rubber mounts in the steering column, the steering gear and the attachment of the gearbox housing. All of these features combine to give more exact steering with better response and greater directional stability.



Although the cars of the Volvo 240 Series are 4.7 inches longer this year, overall length being 192.6 inches, the turning circle is still very tight - only 32'2" feet between curbs.



Volvo cars have disc brakes all round. This year, the 240 Series has 14" wheels which means that brake disc diameter is slightly smaller. This is compensated for by increasing the capacity of the brake servo system, a 8 x2 booster being used. The brake pads are also of an entirely new type which gives longer life. The Volvo disc brakes combine safety, quality and economy in a way only Volvo can achieve.





This is a unique Volvo feature - the dual circuit, triangle-split brake system which guarantees about 80% of braking power even if one circuit is entirely out of operation. What is probably the best brake system available has been made even better by means of the new master cylinder which is now of the stepped-bore type. It gives braking effect much quicker and the load needed on the pedal is approximately the same as when both circuits are functioning.

Volvo is first in introducing the stepped-bore master cylinder.





The new handbrake has not only 'a better location, it has also been improved with regard to quality and reliability. The smaller wheels have required the brake drum diameter to be altered from 7.1 inches to 6.3 inches. This reduction has been compensated for by increasing the operating ratio of the system and by increasing the coefficient of friction of the brake shoes. The handbrake cables running to the rear wheels are entirely covered in and therefore fully protected.

1975 model programme



Volvo 242 DL



Volvo 244 DL



Volvo 245 DL

Volvo 242/244/245 DL

The Volvo 240 DL series of cars is Volvo's volume model. Most important improvements for the 1975 model year are

Body

- entirely new front section
- new floorpan
- better noise insulation
- re-designed energy-absorbing bumpers
- increased overall length
- headlight now changed from the "front"
- new front lighting arrangements with built-in turn indicators and parking lights
- new emblems
- new grille
- improved rust-proofing, more galvanized body sections
- new exterior colour, light green
- new spring anchorage points

Interior

- new front seats with better range of adjustment
- new head restraints
- new upholstery combinations
- new dashboard design
- tachometer (all models)

Interior cont'd.

- new roof lining (242/244 models)
- console between front seats for safety belt locks, handbrake lever and rear seat passenger ashtray
- built-in light for safety belt locks and ashtray
- improved heating and ventilation system
- new controls for lights and cigarette lighter
- new controls for windshield wipers and turn indicators/headlight flasher

Engine

- B20 F Fuel Injection, Transistorized ignition
- higher starter motor output

Transmission

- improved manual gearboxes
- new gear lever knob
- overdrive transmission 242/244 models
- overdrive control switch built into gear lever knob

Suspension

- front suspension of spring strut type
- wider front track
- new 14" wheels
- wider radial ply steel cord tires
- better centering of wheels
- improved rear axle suspension
- stabilizer also on rear suspension (not station wagon)

Steering

- new steering gear of rack and pinion type
- new steering wheel angle
- new design of lower steering column
- power-assisted steering (242/244 automatic 245)

Brakes

- new brake booster
- new master brake cylinder of stepped-bore type
- new brake linings for longer life
 - improved handbrake
 - new location of handbrake lever

This is why the 1975 Volvos are winners

Volvo's 240 Series is not only elegant, modernly designed, comfortable and safe. It's much more - the Volvo 240 is a car of today designed for the demands of tomorrow. Much of this is due to the improvements made to active (accident prevention) and passive safety (injury prevention) which are more extensive than ever before on a Volvo car.

The Volvo 240 Series is a winner because of the many important comfort improvements and quality improvements which have been made.

In all, these features mean that the Volvo 240 Series is even more representative of the term "total economy".

Naturally, the items introduced on the 1975's offer a host of benefits.

Here are a few

New feature

Body

New from windshield forward Overall length increased to 192.6 inches New floorpan with wider seat lifters New spring housings contribute to better spread of impact in a collision New grille "Round-the-corner" bumpers

Greater number of galvanized body sections

Interior Newly designed front seats

Stronger seat frame with better anchorages Built-in "see-through" head restraints

Benefit

Tough yet elegant frontal design Better energy-absorbing ability Stiffer floorpan, less resonance, safer Improved crashworthiness

Elegant and stylish. An entirely new frontal appearance.

"Softer" energy absorption

Even better rust-proofing which makes Volvo quality better than ever.

Easier entry and exit, an elegant and more comfortable seat

Increased safety in case of accidents

Better visibility for rear seat passengers while still ensuring the safety of the front seat occupants.

New feature

Firmer seat padding with "horse-hair" in seat cushion

More possibilities of adjustment, range improved on front seats. Lever-controlled height adjustment on driving seat.

Better insulation on floorpan and in engine compartment additional insulating material

New roof lining (242/244 models)

Newly designed dashboard

Clock with rectangular shape, well visible from sides. Powered by quartz mechanism

Spring-loaded windshield wiper control

Lights controlled by twist switch

Steering wheel angle increased to 23°

Fixed outer ventilation nozzles on dashboard

Console between front seats housing handbrake lever, safety belt locks and rear seat ashtray

Built-in lighting for front seat safety belt locks

Paintwork and upholstery

new exterior colour is light green. New upholstery colour is beige

Engine

B20 F fuel injection. Transistorized (solid state) ignition system without breaker points

Increased starter motor output

Transmission

Two-part gearbox cover with rubber insulation for manual gearboxes.

Overdrive switch now built into gear lever knob

New gear drive for speedometer

New gear lever knob for manual gearboxes

<u>Benefit</u>

Better long-distance comfort, better ventilation

Nine combinations for height adjustment and 18 for fore-aft adjustment, infinitely variable backrest adjustment from 90° to approx. 170° gives practically unlimited possibilities of seat adjustment

Better insulation against cold and heat. Noise level reduced by approximately 4 dB

Better insulation against heat and cold

Modern and stylish and safe into the bargain

Elegantly adapted to the overall styling. Better reliability and increased precision

Offers easy "flick" wiping of windshield

More convenient and safer

Easier entry and exit, better driving position

Fixed adjustment of outer ventilation nozzles on dashboard, with smaller aperture, gives a stronger flow of air to keep the side windows clear. Better visibility and increased safety.

A very convenient feature for important safety components

Facilitates use of the seat belts after dark

A modern and fresh colour and upholstery programme

Simple, reliable system. Uses regular grade gasoline. Ignition system is reliable, requires no adjustment and gives constant combustion

Easier starting in winter

Less risk of noise

Eliminates risk of mistaking overdrive for windshield wiper switch

More exact speed indication and mileage

Better grip

New feature

Chassis

Front suspension of spring strut type

Front track increased to 55.8 inches, better centering of wheels

Extensively modified rear axle, new location of support arms and modifications to track rod Stabilizer on rear axle (not station wagon)

14" wheels with wider cross-section

Wheels now centred on hub by means of a collar Steel cord radial ply tires Suspension

Steering

Steering wheel angle increased to 23°

New steering gear of rack and pinion type, fewer steering joints

Power assisted steering in 242/244 Automatic 245

Brakes

Master cylinder of stepped-bore type

New brake friction materials Fully enclosed cable for handbrake Handbrake now located between front seats

Electrical system

Headlights now replaced from the front by loosening the insert

Higher idling speed for alternator

<u>Benefit</u>

Better ride and less wear on front suspension

Better directional stability. Considerable improvement in noise level

Better road holding. Less roll. Softer, more comfortable springing

Internationalized tire dimensions also giving better grip on dry roads. Longer life due to larger tread

Better balance

Longer life

Considerably improved road holding due to the new front suspension, the modified rear axle, the wider track and the new steering gear

More convenient driving position and easier entry and exit

Easier servicing, more economical. Better precision, more exact

Easier maneuverability

Quicker brake response should one brake circuit fail

Longer life

Better quality

Convenient and safer

Much easier to replace headlights, light settings not altered

Better charging of battery at idling speeds