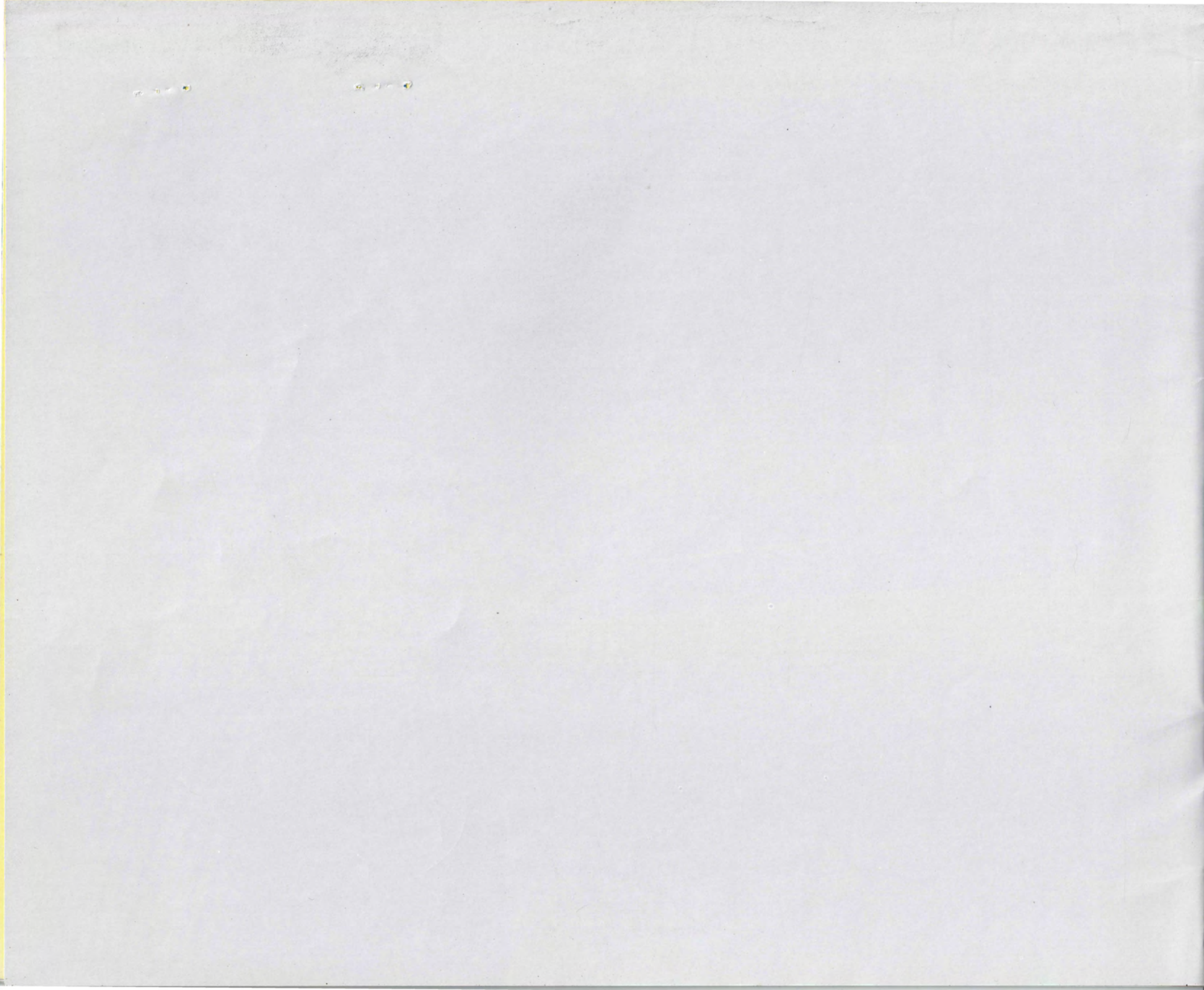


**VOLVO**









## *In the beginning...*

*... or, more accurately, six years later, in 1933, it is recorded that a discussion took place regarding the basic design of the Volvo body. Since the company's inception in 1927, Volvos had changed little in their "functional" appearance. There were those who felt the cars should be made more up-to-date—that*

*each year's model should appeal to the modern mania for newness and flash. And there were those at Volvo who believed it wasn't fair to force customers to exchange superb machines every season just for*

*the sake of being trendy.*

*A glance at the Volvo 240 Series should tell you instantly which viewpoint prevailed.*

*Apart from some streamlining, the basic design of the*

*240 has been with us for quite some time. In terms of its performance, durability, safety, comfort, and reliability, however, it's been steadily improving. That's why, when you look at a*

*Volvo, you recognize it, not for its appearance, but because it remains the unquestioned standard for quality and excellence. That hasn't changed, either—and never will.*

*Beauty may be only skin deep, but quality cuts to the core. At Volvo, we've known that longer than any other car manufacturer in the world.*



# 240



At Volvo, it's always been our belief that, when you buy a car, you're buying the company that built it, too. And, since our goal is total customer satisfaction, our job isn't over when you drive out of the showroom. You're our customer for as long as you own your car. It is our intention to insure that you will be as pleased with your Volvo on your last day of ownership as you will be on your first.

Toward this end, Volvo has created a pair of powerful tools. Each complements the other: both are designed to render your driving experience virtually worry-free: our three-year, unlimited mileage, limited warranty;\* and one of the most comprehensive road

service programs in the automotive industry—Volvo On Call.<sup>SM†</sup>

As generations of car owners have sadly discovered, warranties are too often shrouded in mystery. Their terms seem shadowy and vague; and the problems they do address invariably appear after coverage has elapsed.

Our three-year, unlimited mileage, limited warranty is designed to eliminate these difficulties. Coverage is both wide-ranging and specific. And it extends beyond the initial, working-out-the-bugs period into the real life of your Volvo.

We've tried to include all the troublesome difficulties that develop within the lifetime of even the finest cars:

- Minor repairs and adjustments to factory fittings and parts should they be necessary. Most can be dealt

with in the course of the traditional 600-1200 mile (1000-2000 km) inspection period. But fine machines can be unpredictable. So we've extended the inspection period to a full six months, and 10,000 miles (16,000 km).

- Few car makers offer the kind of corrosion coverage that Volvo does. We warrant that, for three years, the painted body panels of your Volvo will remain free of surface corrosion. Further, it will be devoid of body section perforation for no fewer than five years. And, this year, we've extended our protection against rust-related structural damage to eight years. Of course, all three forms of corrosion coverage are for unlimited mileage.

- We'll repair or replace any seat belt system suffering from workmanship or material-related defects—regardless of mileage—for up to five years. Nothing demonstrates our commitment to safety more plainly than that.

- Our emission control systems and genuine Volvo replacement parts also have strong warranties.

Volvo's comprehensive warranty reflects our ongoing devotion to the improvement and development of our product. Every year, in large ways and small, we build them a little bit better. And our dedication to service means that, for as long as you keep your Volvo, we'll be there for you—every step of the way.

A road assistance program isn't something you'd normally associate with a car company. A three-year promise to bail you out of trouble,

wherever and whenever you break down? Now that's something special.

And that's exactly what Volvo On Call is designed to do. We've created a plan providing active protection, 24 hours a day. By anticipating worst-case scenarios, and planning for them in advance, Volvo On Call will give you a sense of security whenever you travel by car. There will not be any out-of-pocket expenses for towing, or warrantable breakdowns.

We think you'll appreciate the features it provides:

- When you dial Volvo On Call's toll-free emergency road service number, no matter



where you are, a representative will immediately assist you. If you can still drive your car, your call will be connected to the nearest Volvo dealer (so that you can discuss the problem with a factory-trained technician). If not, a tow truck will be dispatched, and you'll be taken to the closest dealer (or affiliated garage) at no cost (or anywhere else, though you'll be billed for towing costs beyond a 10-mile limit). And, if you're suffering from a minor difficulty, such as a flat tire or a blown fuse, it'll be fixed on the spot.

• In the event of a warrantable breakdown or an

accident more than 150 miles from home, Volvo On Call will reimburse you and your passenger for such costs as food, lodging and car rentals, as well as commercial transportation, for up to 72 hours after the incident occurs. (The service is limited to \$250 for each of two people.)\*\*

• If you lock your keys in your car, you'll be reimbursed for a locksmith's services, for up to \$100. If you lose your keys and someone drops them in a mailbox, we'll post them back to you.

• If your wallet is stolen or lost more than 100 miles from home, you'll be able to get an emergency cash advance of \$100 through Western Union.

• Volvo On Call also provides a \$5000 reward for

information leading to the arrest and conviction of the perpetrators, should your Volvo be stolen. You'll receive a window decal attesting to that fact—itsself an excellent deterrent.

• Volvo On Call also offers ways of improving the quality of your trip when you voyage by road... our trip routing service will provide maps, clearly marked with either rapid or scenic routes, for the continental U.S., Canada, and Mexico. Along with travel planning suggestions, you'll receive a check list of things to do before starting out, and a personalized travel journal and ledger—ideal for recording expenses.

• Completing the package: a 24-hour, toll-free travel service number, for booking air reservations, both domestic and international, reserving rooms and renting cars; personalized luggage tags and key chains; and even offers of world-wide vacation tour packages, featuring substantial savings on numerous travel plans.

We think you'll agree that, even for an automobile company like Volvo, this is a remarkable program. Yet it represents no more than pride in a well-made product, and a philosophy that considers total customer satisfaction to be our first and foremost goal.

The highest expression of the Volvo philosophy isn't, of course, our warranty or our road service program but, rather the excellence of our

automobiles. We believe that the 1987 Volvos are the finest automobiles we've ever produced.

Of course, we say that every year. And every year it's true.

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\*On Call is a service mark of Volvo North America Corporation; the program is administered by Amoco Motor Club. Please see our On Call booklet for details and limitations on benefits.

\*Please consult our Warranty Information booklet for details.

\*\*Residents of the State of New York are not covered by the trip interruption section of the Volvo On Call program because of New York State Law. New York resident owners are eligible for all other Volvo On Call benefits. If a Volvo has trouble in New York and the owners live outside the State, the trip interruption provision of On Call is available to them because they would be filing for reimbursement outside the State of New York.



Over the years, we've come to stand for some very specific automotive values. No matter the model, regardless of the number and variety of accessories, if it's a Volvo, you know that it has been designed with quality, safety, durability, handling, comfort, and value for the money—as primary considerations. More than anything else, these are the building blocks on which our reputation is based. And they're particularly evident in the 240 DL sedan and wagon.

Though the 240 DL might be considered our "base" model, it has everything you'd expect to find in an automobile of high quality. This year, in fact, we've added standard equipment, includ-



ing an M47 5-speed manual transmission (to coax the most from the responsive B230F engine) and, in the wagon, a removable fold-down rear seat cushion, for an important extra measure of load length.

For many drivers, the 240 DL sedan isn't just their first Volvo—it's their first car. That makes a lot of sense, too. In a world of fads and passing fancies, the Volvo 240 DL sedan represents an ongoing tradition of excellence; and, when you're first pushing off into the uncertain waters of car ownership, you

want a product upon which you know you can depend.

The 240 DL's dependability draws its strength from the basics. The three-point inertia reel belts and rear center lap belt are but the most visible examples of a car engineered and built with safety in mind. Extensive use of galvanized steel and Zincrometal<sup>®\*</sup> and thick anticorrosion treatments, suggest our commitment to your car's longevity. The electrically-heated front seats are individually adjustable through a wide range of positions, allowing both front passengers a maximum level of comfort. And all the other engineering features are designed to work together to





VOLVO

240 DL

VOLVO



help insure that the car will respond precisely and predictably—no matter the driving situation.

Some of the standard equipment—the automatic headlamp turn-off, the timer on the rear-window defogger, and the engine compartment light, for example—may surprise you. You don't expect that kind of forethought and detailing in so affordable a car. But at Volvo, quality has never been—and never will be—a matter of money.

Besides, a first experience can influence all those to follow. And if the Volvo 240 DL is indeed your first, we want it to be special.

The 240 DL wagon is a no-nonsense utility vehicle



that blends the sedan's high performance and maneuverability with a generous cargo compartment. Nor need you worry about your passengers—large or small—when you're carrying a full load: the 240 DL wagon's design reflects Volvo's traditional concern for safety.

The 240 DL wagon's length and width are identical to those of the sedan, as are the engineering and ergonomic advantages. Yet the multi-use cargo compartment proves a model of flexible function. The 76 cubic

feet (2.2m<sup>3</sup>) of storage space—with load length extended, this year, to fully 77½ inches (197cm) when the rear seat cushion is removed—features half a dozen tie-down rings, a locking storage compartment beneath the floor, and even a second dome light. This generous space is easily accessed via a tailgate almost as wide and high as the interior itself.

We don't think you should have to trade comfort for convenience. So all the amenities found in the sedan appear in the wagon, too.

The series 240 DL sedan and wagon. Who says you can't have it all on a budget?

\*Zincrometal is a registered trademark of the Diamond Shamrock Corporation.





**VOLVO**

**VOLVO**

**240 DL**



## Standard Equipment: 240 DL Sedan and Wagon

### Engineering Features

2.3 litre, four-cylinder gasoline engine  
LH-Jetronic fuel injection  
Electronic ignition system with spark advance and knock sensor  
5-speed manual transmission  
Power-assisted four-wheel disc brakes  
Power-assisted rack and pinion steering  
Low-rolling resistance, 14-inch steel-belted radial tires

Front spoiler

5 MPH bumpers (8 km/h)  
Halogen high and low beam headlights with semi-sealed beams

### Product Features

Cloth upholstery on sedans; vinyl on wagons  
Tinted windows, with dark tint band along the top of the windshield  
Dual, anti-glare outside mirrors  
Air conditioning  
Centrally controlled door locking system including tailgate or trunk

Electric rear window defroster with timer

Integral front side window defoggers

Intermittent cycle on the front windshield wipers

Rear fog lights\*

Four three-point, inertia reel seat belts; one lap belt for rear-center passenger

Adjustable front bucket seats

Adjustable lumbar support on front seats

Heated front seats with on/off switches

Armrest pass-through to trunk on sedans

Warning buzzer for headlights, key, seat belts

Illuminated, lockable glove box with vanity mirror

Door panel storage pockets

Instruments: 120 mph (220 km/h) speedometer, odometer, trip odometer, quartz crystal clock, fuel gauge, temperature gauge

Luggage/cargo compartment light

Engine compartment light

Headlights switch off automatically when the ignition is turned off

Interior light delay to assist you in finding ignition, etc.

High-mounted rear brake light

Spare wheel cover

Wagons have in addition:

Rear window wiper/washer with intermittent cycle for mist

Cargo tie-down rings

Lockable storage compartment beneath the cargo area floor

Removable rear seat cushion



## Accessories

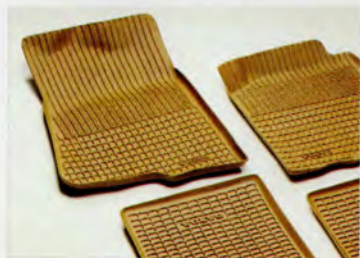
A complete line of accessories is available to help you personalize your Volvo 240 DL. The items shown and listed on this page are only a few of our most popular items. Please consult your Volvo dealer for detailed information concerning additional accessories.

Available accessories include:  
**Roof Racks**



Roof Rack: Available in stainless steel or chip-resistant black finish. Adds increased flexibility to your wagon's load carrying ability. Load limit—110 lbs. (50 kg).

Audio Equipment  
Power Antenna  
Cruise Control  
Limited Slip Differential  
Floor Mats and Trays



Thermo-Plastic Mats: Contoured for exact fit, with a raised border and waffle pattern to trap dirt, water and snow. Set includes front and rear in colors to match your Volvo's interior.

Power Windows  
Power Mirrors  
Anti-theft Alarm  
Load Leveling Systems

Gas Shock Absorber Kits  
Front Fog Lights  
Load Carrying Systems  
Ski Racks  
Alloy Wheels  
Lockable Wheel Nuts  
Lockable Gas Cap  
Headrest Covers  
Sheepskin Seat Covers



Sheepskin Seat Covers: Available in three colors to complement your Volvo's interior. Produced from the highest quality skins. Cool in summer, warm in winter. Natural, Blue/Grey, or Black.

Rear Head Restraints  
Leather Steering Wheel  
Leather Manual Shift Boot  
Auxiliary Seats

Cargo Area Security Cover  
Child Safety Cushion/  
Backrest



Child Cushion with Backrest: Both sections are available separately. Elevates child to proper height for use of standard seat belts. Consult your Volvo dealer for proper fittings.

Cargo Guard  
Cargo Mats  
Car Care Items  
Touch Up Paints  
Coin Console  
Adjustable Map Lights  
Transmission Oil Cooler

Ambient Temperature Gauge  
Fuel Economy Gauge  
Oil Pressure Gauge  
Tachometers  
Voltmeter  
Battery Warmer  
Block Heaters  
Side Window Wind  
Deflectors  
Trailer Hitch



Trailer Hitch: Attaches permanently to car frame for maximum strength. Ball and draw bar are removable for storage when not in use. Maximum capacity is 3300 lbs. (1500 kg). Please consult your owner's manual before towing with a Volvo.

Ski Tunnel Protective Cover  
Travel Kit

\*Subject to state and local laws.



**The 240 GL Sedan: Just because a car looks as though it would go well with a pin-striped suit, it needn't be obvious or stuffy.**



*The Volvo 240 GL sedan and wagon represent a distinct step up in terms of luxury and comfort. Building upon all the fundamental engineering qualities found in the 240 DLs, the 240 GLs evince those inimitable touches of elegance and style you'd expect of so distinguished an automobile. Whether your preference is for the handsome sedan, or the no less luxurious wagon, the 240 GL envelops you in an unforgettable cocoon of comfort and convenience.*

*Externally, the 240 GL sedan reveals a degree of ele-*

*gance that also enhances its aerodynamic properties. The rounded shape of the hood and rear decklid, the trimly tapering mirrors, combine with its detailing to give the 240 GL its unique style.*

*But it's inside that the 240 GL truly reveals its qualities. Being a Volvo, of course, these qualities have more to do with our engineering ability than our inclination for interior decoration. Consider our front seats. The resilient polyurethane foam*

*provides unparalleled orthopedic support while enabling the seats to retain their physical properties year after year; the front edge is deliberately softer than the back, to promote circulation in your legs; and the adjustable lumbar support contributes to your long-distance driving comfort.*

*Of course, the total package is rather upscale. There's the plush velour upholstery (leather on the wagon), as inviting as it is sublime; and such seductive appointments as a sunroof with a pop-up wind deflector, to preserve the*







**The 240 GL Wagon: If a fundamental aspect of luxury is convenience, the 240 GL wagon is luxury's definition.**

*quiet of the interior; and air conditioning, rear window demister, power windows, central locking, distinctive 25-spoke alloy wheels and metallic paint—to name just a few.*

*As we've pointed out, you'll find all of this in the 240 GL wagon as well.\* It's so luxurious, in fact, that we like to think of it as a luxury car that just happens to be a wagon.*

*Considering the deep, low trunk of the 240 GL sedan, the comparison isn't that far-fetched. In the wagon, however, the "trunk" offers an*



*extraordinary 76 cubic feet (2.2m<sup>3</sup>) of space—remarkable for a utility vehicle of its size. Present are all the 240 DL's features, including a floor set low (for easier loading), and a durable, color-coordinated carpet, to protect more delicate loads. You'll find, too, a special child safety lock, which prevents internal opening of the tailgate, and a rear wiper/washer, featuring an intermittent cycle for fine mist. Small considerations,*

*perhaps—until you find that you need them.*

*Here, too, you'll find the critical components of dynamic and crash safety, the protection against rust and corrosion, and the smooth engine and responsive transmission, that distinguish all Volvos—and are perhaps appreciated just a bit more in a wagon.*

*The Volvo 240 GLs represent a remarkable and seamless marriage of luxurious comfort and carefully thought-out engineering. Both set a standard of excellence for luxury sedans and wagons.*

\*Except the sunroof.







## Standard Equipment: 240 GL Sedan and Wagon

### Engineering Features

2.3 litre, four-cylinder gasoline engine  
LH-Jetronic fuel injection  
Electronic ignition system with spark advance and knock sensor  
4-speed automatic transmission with overdrive  
Power-assisted four-wheel disc brakes  
Power-assisted rack and pinion steering  
Low-rolling resistance, 14-inch steel-belted radial tires  
Front spoiler

5 MPH bumpers (8 km/h)  
Halogen high and low beam headlights, semi-sealed beams

### Product Features

Plush velour upholstery on sedans; leather on wagons  
Sliding steel sunroof with pop-up wind deflector  
Power front and rear windows  
Tinted windows, with dark tint band along the top of the windshield  
Air conditioning  
Centrally controlled door locking system including tailgate or trunk  
Dual, anti-glare outside mirrors

Electric rear window defroster with timer  
Integral front side window defoggers  
Intermittent cycle on the front windshield wipers  
Rear fog lights\*  
Four three-point, inertia reel seat belts; one lap belt for rear-center passenger  
Adjustable front bucket seats  
Adjustable lumbar support on front seats  
Heated front seats with on/off switches

Armrest pass-through to trunk on sedans  
Warning buzzer for headlights, key, seat belts  
Illuminated, lockable glove box with vanity mirror  
Front door panel storage pockets  
Instruments: 120 mph (220 km/h) speedometer, odometer, trip odometer, quartz crystal clock, fuel gauge, temperature gauge, tachometer  
Luggage/cargo compartment light  
Engine compartment light  
Headlights switch off automatically when the ignition is turned off

Interior light delay to assist you in finding ignition, etc.  
High-mounted rear brake light  
Spare wheel cover  
Wagons have in addition:  
Rear window wiper/washer with intermittent cycle for mist  
Cargo tie-down rings  
Lockable storage compartment beneath the cargo area floor  
Removable rear seat cushion



## Accessories

A complete line of accessories is available to help you personalize your Volvo 240 GL. The items shown and listed on this page are only a few of our most popular items. Please consult your Volvo dealer for detailed information concerning additional accessories.

Available accessories include:  
Audio Equipment



CR 4123—AM/FM Stereo Cassette Receiver: Digital quartz frequency synthesized tuning, with precise operation of the auto-reverse cassette deck. Features include: 10 radio presets, dynamic noise reduction and more.

Power Antenna  
Limited Slip Differential

Power Mirrors  
Anti-theft Alarm  
Load Leveling Systems  
Front Fog Lights



Fog Lamps: Clear lens, halogen lamps cut through bad weather without reflective glare.

Gas Shock Absorber Kits  
Roof Racks  
Load Carrying Systems  
Ski Racks  
Special Five-Spoke Alloy  
Wheels  
Lockable Wheel Nuts



Sunroof Wind Deflector: Helps cut glare and reduce wind noise. Constructed of a tough, scratch-resistant plexiglass; available in smoke, blue, green, and copper.

Lockable Gas Cap  
Sheepskin Seat Covers  
Headrest Covers  
Rear Head Restraints  
Leather Steering Wheel  
Auxiliary Seats



Auxiliary Seat: Available in beige or black. Allows two additional passengers (88 lbs./40 kg) to sit in comfort. Folds down when not in use.

Leather Manual Shift Boot  
Child Safety Cushion/  
Backrest

Cargo Area Security Cover  
Cargo Guard  
Floor Mats and Trays



Plush Floor Mats: 100% nylon mats are custom designed. Complete set of front and rear mats are available in complementary colors to match your Volvo's interior.

Trailer Hitch  
Cargo Mats  
Car Care Items  
Touch Up Paints  
Coin Console  
Adjustable Map Lights

Transmission Oil Cooler  
Ambient Temperature Gauge  
Fuel Economy Gauge  
Oil Pressure Gauge  
Voltmeter  
Battery Warmer  
Block Heaters  
Cruise Control



Cruise Control: All controls are built into the turn indicator wand for finger-tip operation. System is fully integrated.

Side Window Wind  
Deflectors  
Ski Tunnel Protective Cover  
Travel Kit

\*Subject to state and local laws.



*If there is a single overriding principle at work behind all of Volvo's engineering efforts, it's reliability. Every effort is made to insure that each of our vehicles will remain dependably at the peak of its capabilities—that, during the life of your car, you'll visit the repair shop only for periodic maintenance.*

*With this in mind, we've evolved a sophisticated system of quality control, based on a pre-determined level of reliability. Once Volvo's designers and engineers have finalized their overall requirements for a given model, standards for each of its separate systems and parts are set. Thus, a high degree of quality is actually designed into every Volvo before construction begins.*

*Of course, reality dictates that a sophisticated machine requires maintenance. But we've planned for that. The imperatives of rational maintenance strongly influence the design of all Volvos—which means, quite simply, that they're relatively easy to service. That's an important aspect of quality, too.*

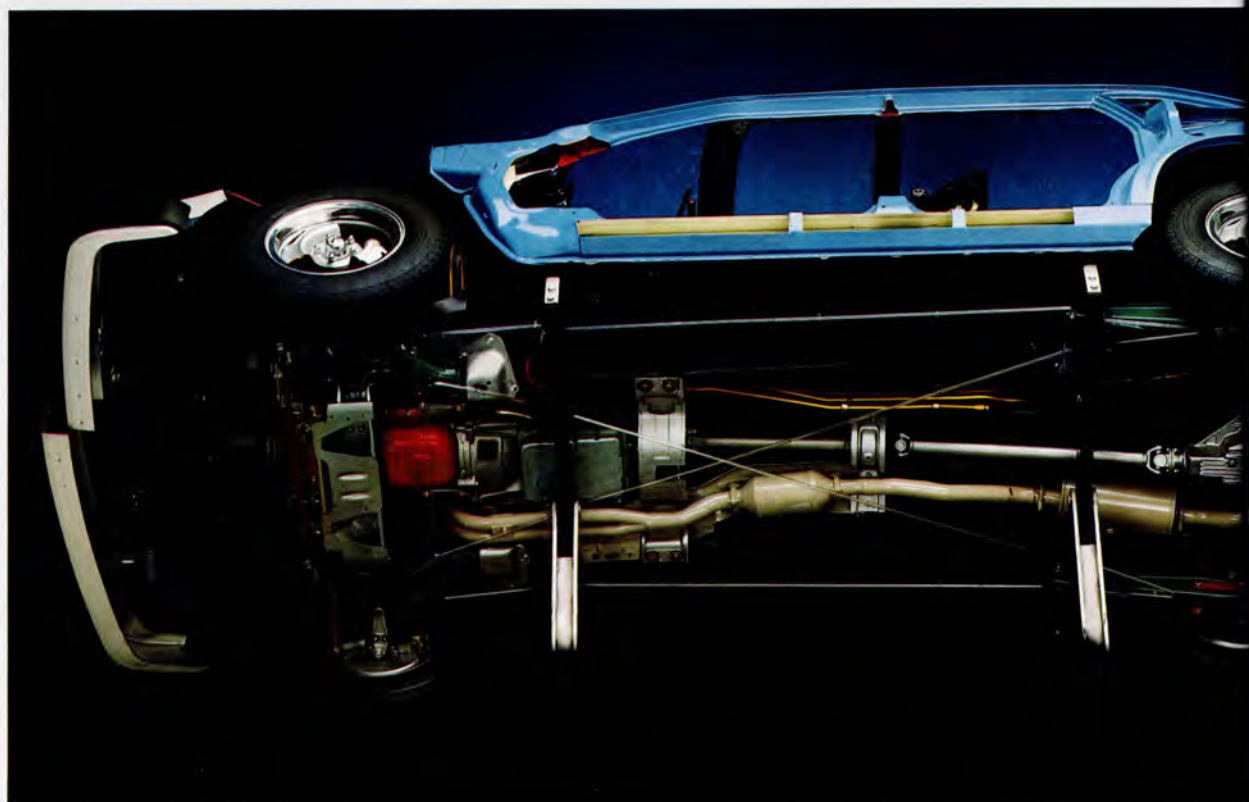
*You're about to discover a great deal about what makes Volvos the acclaimed marvels of engineering that they are. What can't be shown is this critical system of quality design. Yet it underlies each and every aspect of what our engineers and designers do. You'll sense it immediately when you get behind the wheel.*

#### **Dynamic Safety**

*One of the most critical—and difficult—aspects of automotive engineering is dynamic safety. Simply put, dynamic safety means insuring that your Volvo is designed to behave predictably in every sort of driving situation. If you've ever experienced the loss of a car's normal handling capabilities on a slick street or a sharp turn, you'll doubtless appreciate the importance of this function.*



**Power-assisted four-wheel disc brakes allow high resistance to brake fade during panic stops and help maintain braking effectiveness in the rain.**





Volvo's efforts in the development of dynamic safety systems have resulted in three NHTSA (National Highway Traffic Safety Administration) Safety Awards for Engineering Excellence—efforts that have made “an active contribution to a higher level of road safety.”

How does dynamic safety work? Volvo has a number of different systems in place, each

meant to deal with separate driving conditions:

On slippery roads, when friction is poor, it's essential that you be able to steer and brake effectively. Volvo's rear wheel suspension system is designed to maintain a consistent distance between the wheels, and their angle relative to the road—a circumstance critical to solid road

holding. Our power-assisted, rack and pinion steering—extremely well-balanced and precise—allows you to sense the car's reactions. Both 240 sedans and wagons have a remarkably tight, 32-foot, 2-inch (9.8m) turning circle. A design feature which provides outstanding maneuverability.

If you have to take quick evasive action, such as a sudden, rapid lane change, your Volvo is designed to let you do so without excessive roll, skid, or loss of road contact. Since a slight delay before a car reacts to steering commands is inevitable, we've tried to make that delay as consistent as possible. And the wheel suspension, shocks, sta-

bilizers, tires, even the torsionally stiff body, can accommodate sudden dramatic shifts without affecting your control.

We've all taken corners a little too fast—only to discover that the turn is sharper than we'd anticipated. When this happens in a Volvo, all the chassis systems, including the brakes, suspension, and steering work together to keep you in control.

Consistent braking—on a long, downhill slope, say—especially when carrying or



Volvo's dual triangular-split brake circuits serve both front wheels and one rear wheel. With one circuit out approximately 80% of full braking force is maintained.



The collapsible steering column is designed to offer several stages of protection to help minimize injury.



*pulling a heavy load, generates a great deal of heat. Volvo's asbestos-free pads are designed to withstand high temperatures while maintaining friction. Moreover, our high quality brake fluid resists vaporization, even when water gets into the braking system.*

*A sudden, hard stop often results in the locking of the*

*rear wheels and a loss of road grip, rendering the car impossible to steer. To prevent this dangerous occurrence, the 240s feature a special relief valve, which helps insure that the braking effect is divided more equally between the front and rear wheels when you hit the pedal hard.*

*To avoid complete brake failure, two braking circuits are mandated by law. Usually, a loss of one braking*

*circuit results in radically different, often dangerous behavior while braking. In a Volvo, however, the required pedal pressure is almost the same as it would be under normal conditions (thanks to Volvo's unique stepped-bore master cylinder). And in Volvo's remarkable dual triangular split-brake system, each circuit consists of three wheels—both front and one*

*rear—so that if one circuit is out, approximately 80 percent of total braking power remains intact.*

#### **Crash Safety**

*Building a better car means never becoming complacent. Once you assume that you've learned all you need to know, you lose your ability to grow. At Volvo, we never stop learning; and the assimilation of new information forms the cornerstone of our crash safety research. The result is*

*an ongoing process, in which fresh data influence the re-evaluation and consequent upgrading of safety features. Ultimately, car design is affected, and Volvos—already acclaimed in the area of crash safety—become safer still.*

*Volvo's crash safety philosophy is based on a deceptively simple, threefold approach. The entire process, needless to say, may only last a matter of*



*Front and rear body sections are designed to help absorb impact forces by crumpling in a predetermined manner.*

*When a car is struck on the side, passengers are just inches away from the point of impact. Tubular steel bars add protection where it's needed most—in all the doors.*





seconds; but its planning and creation have involved years of painstaking effort.

In the initial stage, the front and rear crumple zones help absorb the force of the collision. Stage two involves the passenger compartment—a “safety cage” designed to help protect the occupants. The final stage involves the passive

restraint system and seat design, and the interior which is itself padded and carefully designed.

Since it is the front and rear that most often receive full crash impact, they've been specially designed to act as so-called “crumple zones,” and collapse in a predetermined, absorbtive fashion. In extreme circumstances, the engine

mountings are designed in such a way that the engine is forced downwards rather than into the passenger compartment.

The next line of defense—the safety cage—requires extraordinary durability; each of the body's spot welds are strong enough to support the entire weight of the car. The door panels are specially shaped, the front and rear

glass screens firmly bonded.

The steering column, potentially a lethal weapon in a bad accident, has also been designed to absorb impact in three ways. The wheel's padded surface—aided by the seat belts—helps shield you from injury during a slight bump. The column is designed to give way and align with the body in more serious circumstances, for uniform collision force distribution. In a more severe impact, the entire unit

is designed to collapse, disengage, and telescope into a sleeve.

When it comes to seat belts, Volvo, to borrow a phrase, virtually wrote the book. Our first experiments with passive restraint systems date back some thirty years; in 1959, certain models featured the three-point belt as



*In unitized construction the frame and body shell are designed as an integral unit. The whole body is designed to act as a safety cage to help protect the driver and passengers in the event of a collision.*



*The fuel tank is placed close to the rear axle. The fuel pipe incorporates two bellows-type joints that provide a degree of "give" to help reduce the risk of fuel leakage during an accident.*



standard equipment—a concept that took the rest of the automotive world several decades to embrace. (Being first has its rewards: Volvo still holds the patent on the three-point belt.) Our safety belt work since then includes the debut of the inertia reel in 1968, tulip model clasps in 1972 and, two years later, the push-button lock. Working in tandem with the safety belts, Volvo's seats are firmly anchored, and unlikely to come loose in even the worst crash.

Another aspect of crash safety involves guarding against fires. Too often, otherwise minor collisions have blazed into tragedy as a

result of ignited fuel. In a Volvo 240, the fuel tank is positioned near the rear axle. The filler pipe's designed-in flexibility helps it maintain its structural integrity during a crash. And the tank, pipe, and filler cap are designed to form an individual unit—even if the body gives way around it.

Fortunately, most accidents are fairly minor. To guard against "fender benders," we've devised special hydraulic front and rear bumpers, built to absorb impacts of up to 5 MPH

(8 km/h). The hydraulic impact absorbers, mounted on the body frame, contain gas as well as fluid. When there's a bump, the two combine to hydraulically absorb the collision. The entire assembly resumes its usual position when the pressure is released; and, because the greater the impact, the firmer the resistance, there's less of a jolt to you. The amount of thought and effort in all this may seem disproportionate to the job;

but, considering what even a little bodywork costs these days, we thought you'd appreciate it.

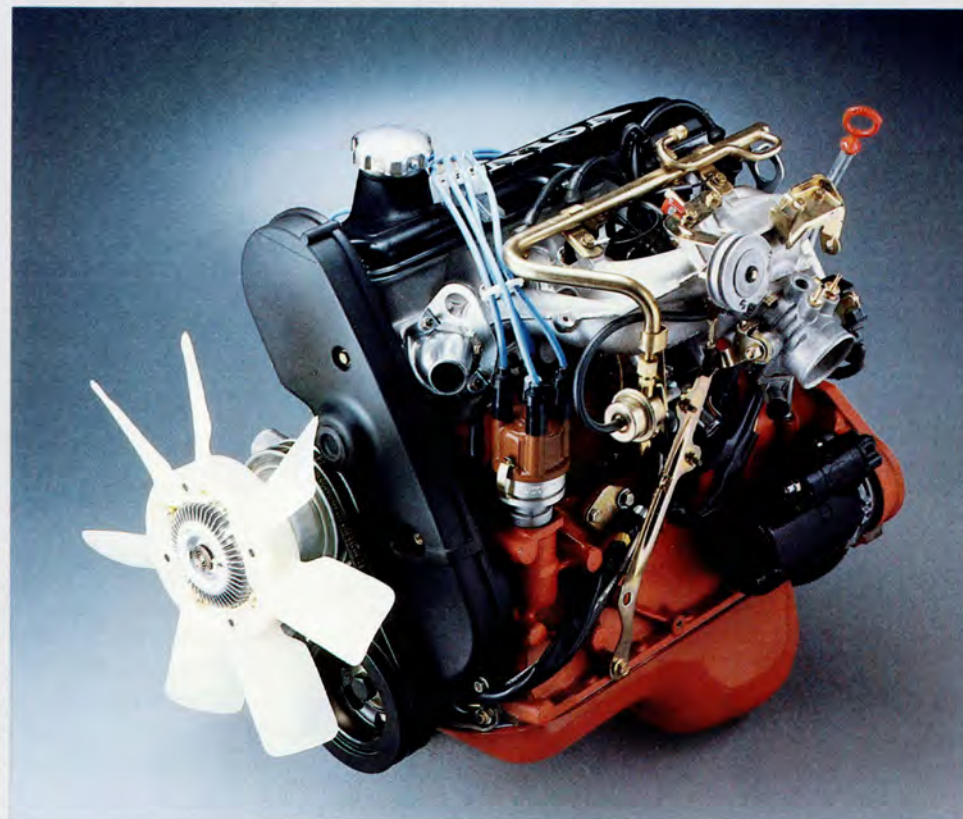
In keeping with Volvo's traditional concern for safety, we ask that you and all your passengers use seat belts—every time you drive. Seat belts and proper child restraints can help save lives—but only if you buckle up. Please remember that all states and most Canadian

provinces now have mandatory child restraint laws which hold the driver responsible for compliance. In addition, many states and provinces now have mandatory adult seat belt usage laws.

#### **Engine**

The design of our engines reflects the Volvo philosophy no less than any other aspect of our cars.

*The four-cylinder engine's low inertia masses and precisely balanced crankshaft help make it efficient and quiet. LH-Jetronic fuel injection and a microprocessor ignition system with spark advance and knock sensor are standard.*





The 240 Series Volvos feature an in-line, four cylinder B230F gasoline engine, with cross-flow design, single overhead camshaft, electronic ignition with spark advance and a knock sensor, LH-Jetronic electronic fuel injection and Lambda Sond® emission control. It's a low-friction power plant, with a highly efficient lubrication system, lightweight pistons and a crankshaft that's been precisely balanced—all resulting in smooth operation and

a respectable level of fuel economy.

The B230F engine's LH-Jetronic fuel injection system and the microprocessor-controlled ignition system work together to control engine speed and load. When the engine is cold, a richer fuel mixture is automatically supplied. Conversely, when the engine is used to brake—or in the event that the engine overrevs—the fuel supply is cut off. The engine's knock sensor allows automatic correction for the problem cylinder, thereby rendering the engine less sensitive to variations in fuel quality.

The emission control system features a catalytic converter which reduces the content of noxious gases. Volvo has further improved the process with the addition of the award-winning Lambda Sond® system. This device senses the level of oxygen in the exhaust gases and controls the fuel/air mix in the injection system. This serves to heighten the catalytic cleaning process, enabling the converter to better do its job.

We offer both automatic and manual transmission systems on our 240 DL models; 240 GL models are only available with an automatic.

#### **Comfort**

Much has been made, in the last decade or so, of the art and science of ergonomics—better known, to the layman, as comfort (though of a highly therapeutic, physically “correct” sort). This is as it should be. We spend a lot of our lives in our automobiles. And driving properly can be highly demanding especially on long trips.

No car manufacturer, we modestly suggest, has devoted more time and effort to ergonomics than Volvo. And none has been as successful.

It begins at the beginning—when you open the large, wide doors to an accommodating angle of 80 degrees. That much space may not always be desirable, of course—as when there's a car parked next to yours—so we've included an intermediate stop, to hold the door at a sharper

Volvos are designed for people: ease of entry and exit; trunk/cargo capacity; high towing capacity; approximately 90° all-around visibility; and ergonomic, functional everyday use.





angle. The door locking system is also designed to maximize your ease—it's centrally controlled.

Inside, Volvo's near-legendary front seats await—seats that provide the maximum in comfort and support, even on the longest of journeys. They're adjustable through a variety of different ranges, including the fore-aft position, height, seat cushion

angle, backrest, and an adjustable lumbar support. Volvo's front seat cushions are even electrically heated!

Within the driver's area of the car, you'll find numerous instruments and controls that will enable you to pilot your Volvo in comfort, and with optimum effectiveness. The instrument cluster is lit clearly from above and remains easy to read: devoid of dazzle by day, well-defined at night. The console is ergonomically

positioned so that you can reach it quickly and easily.

Good visibility is most important, of course, when you're surveying the big picture, and Volvos offer perhaps the nearest to all-around vision that you'll find. Slim-line pillars have been used for minimal visual obstruction; the rear view mirrors can be easily adjusted from within.

Our combined heater/AC unit features a main temperature control and an "air mix" (for a better balance between interior and exterior environments). Front windshield and front side window vents are helpful for defrosting and drying up mist. There are a total of twelve outlets—including separate channels to the backseat passengers. The result is a fresh and moderate environment, rather than one merely

hot or cold. Of course, air conditioning is standard.

We've tried to make things easier for you when loading up, too. You'll find fully 13.9 cubic feet (0.4m<sup>3</sup>) of trunk space; what's more, it's deep, with a low rear lip and a flat floor, so you won't have to struggle with unwieldy loads.

The cargo compartments in Volvo's wagons consume an incomparable 76 cubic feet

*Our orthopedically-designed front seats are world famous—justifiably so.*



*Volvo's front and rear suspension systems are engineered to optimize ride comfort and precise predictable handling.*

*The instrument cluster is lit clearly; the controls carefully placed for easy access.*





(2.2m<sup>3</sup>)—over 40 cubic feet (1.2m<sup>3</sup>) even with the rear seat raised. As with the trunk in the sedans, the floor is set low for ease of loading, the high, wide tailgate can be opened with one hand, and a lockable storage area has been tucked beneath the floor.

One of the most pleasant aspects of riding in a Volvo is the low noise level; and we've

worked hard to provide this extra measure of comfort. All the ducts bridging the passenger compartment and the engine bay have been carefully sealed. The doors are firmly fitted, and there's insulation between the wheel suspension and the body. Wind noise has been minimized. And the low engine speed generated by overdrive does its part as well.

#### **Body**

Most cars are finally finished off, not by accidents, but by a more insidious killer; rust.

Rust and its accomplice, corrosion, also substantially lower the resale value of many vehicles.

At Volvo, we've gone to great lengths to ameliorate the problem. For many years, Zincrometal<sup>®\*</sup>—sheet steel treated with a zinc-rich primer, then baked—has been used for those body parts most prone to rust attack. For 1987, protection has been increased, so that Zincrometal<sup>®</sup>,

galvanized steel, and thick anticorrosion treatments cover almost the entire automobile.

From within, Volvos are protected by a thin and penetrating anticorrosive gel, sprayed into closed body sections on the assembly line.

The underside, especially vulnerable to corrosion, is treated with a variety of protective coatings. An abrasion-resistant paint coats the floor between the front and rear wheel housings, and a

thick asphalt compound is then added on top. A special "armed" bitumen coating protects the wear surface of the rear wheel housings. And an extra protective measure is provided by a rustproofing oil, sprayed on the underside of the engine components.\*\*

**Volvo 240 wagons' length, width, and tight 32 foot 2 inch (9.8 m) turning circle are identical to the sedans; yet have 76 cubic feet (2.2 m<sup>3</sup>) of usable cargo area.**





All Volvo bodies have been constructed without unnecessary enclosures or folds, eliminating the problem of hidden dirt and moisture. Slip-stream ventilation in the doors helps draw off moisture. A plastic splash guard beneath the engine compartment wards off road dirt and salt spray. The effects of dirt, gravel, and road salt are minimized by plastic fender liners inside the front wheel housings. And the use of stainless steel, durable plastic, aluminization, and copper alloy in

trim, detailing, exhaust, and brakes further extend Volvo's commitment to eliminating rust.

Both the paint and the paint process contribute to the body's longevity as well. Prior to assembly, zinc welding primer is applied to critical joints, which receive further protection during assembly with a caulking compound. A thorough cleansing then completes the job, and a zinc phosphate

spray, for better paint adherence, follows. Next comes an all-encompassing electro-dip primer bath, then oven-baking, sanding, and inspection. Then abrasion-resistant paint is sprayed wet-on-wet to the bottom rails, the bottom of the floor, and the area behind the rear wheel arch. The sheet-metal below the beltline, the lower half of the doors, door sills, and rocker panels are especially vulnerable to paint chipping—that's why

Volvo next applies special stone-chip resistant paint to these areas. A final layer of surfacer is sprayed on the entire body which is then wet sanded for greater smoothness. Next the sealer is applied wet-on-wet—with four coats above the beltline and five below. Finally, a thick top coat is applied (and a clear coat on metallics). The Volvo paint process

takes many hours and considerable care—but we think the quality of the result is worth the effort.

\*Zincrometal is a registered trademark of the Diamond Shamrock Corporation.

\*\*Volvo cars are thoroughly undercoated at the factory. Additional undercoating at the time of delivery is not only unnecessary, it could cause problems if non-Volvo products were chemically incompatible with Volvo's factory-applied undercoating. At the time of your first corrosion inspection, your Volvo dealer will determine if additional Volvo undercoating is required.



Volvo's unique seven step paint process includes an electro-dip primer bath; abrasion-resistant paint on the bottom rails, floor, and the area behind the rear wheel arch; surfacer; stone-chip resistant paint below the beltline; four coats of sealer applied above the beltline and five below; wet-on-wet top coat; and a clear coat on metallics.



*Some of the information in this catalog may be incorrect due to product changes which may have occurred after we went to print. Some of the equipment described or shown may now be available only at extra cost. Before ordering, ask your Volvo dealer to bring you up-to-date.*

*The manufacturer reserves the right to make changes at any time, without notice, to prices, colors, materials, equipment, specifications, and models.*

**VOLVO**

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