VOLVO 164

It really isn't right to compare it with a Cadillac. The '68 Cadillac was built for 230,003 people. We intend to be a lot more exclusive.

In 1969 we'll produce the new Volvo 164 for six thousand Americans.

Which, as production goes, is not mass.

But the market for the 164 isn't mass, either.

We designed it for that small minority of car fanciers who believe that somehow it's possible to build high performance and exceptional comfort into a car that will stand up for years and still cost less than a year's salary.

Idealists they may be.

But for them we've tried to build the ideal car.











5 years from now it won't look 5 years behind the times. That's the beauty of it.

There's nothing about the appearance of the Volvo 164 to date it. No fancy fins that are in one year and out the next. No fastback, swayback, or humpback styling that shows how advanced our designers were. Once upon a time.

The lines are Swedish modern. Clean and simple. And we intend to keep them like that so that 5 years from now, the only way somebody can tell your 164 from the new model is to look at your registration. And you don't have to show it to him. Unless he's wearing a blue uniform and a badge.



0 to 60 in 11 seconds is not uncommon. 60 to 0 in 3.5 seconds is.

Even with its new 3-litre, 6-cylinder engine, the Volvo 164 can't accelerate as fast as a Ferrari. On the other hand, pick-up is faster than in a Mercedes 250, giving you all the speed you require to move into expressway traffic courageously. Not timidly.

But when discretion is the better part of valor and you want to stop fast, the 164 is unique.

The 4-wheel power disc brakes can bring the 164 to a straight stop from 60 mph in only 3.5 seconds. We don't know of any other car that can say as little.



Why are the fan blades off-center?

The radiator fan is asymmetrical so as to reduce vibration and noise. (Soldiers break step marching across a bridge for the same reason.) When it reaches 3000 rpm and can no longer help cool the engine, the fan stops accelerating. This reduces high-speed engine noise while increasing engine output by two hp.



4-speed stickshift A manual stickshift gives you the feeling that you're driving the car. Not vice versa. Shifting the 164 is unusually smooth and quiet because we've found a new way to grind the gear teeth before we install the gears. That way, you won't grind them after you buy the car.



Suspension

The all-coil spring suspension is firm, a middle ground between the stiff ride of a sports car and the rowboat-on-the-waves feeling of a ride in a domestic car. In Sweden, where a lot of our country roads are unpaved, we've found this system works best. In America, where most of the country is paved, it should work even better.



Disc brakes

The advantage of disc brakes is this: after repeated use, they continue to stop the car in a straight, true line. Drum brakes, on the other hand, lose some of their stopping power as they get hot after frequent application. They "fade" and fail to stop the car straight and true. The 164 is equipped with disc brakes on all four wheels. And they're power assisted so that only a slight pressure on the brake pedal puts them to work.

It parks in spaces just this much longer

1 2 3 than a Volvo.

The 164 is about 3 inches longer than the compact Volvo 144.

But it's also about 3 feet shorter than the shortest Cadillac now on the market.

Which means you can park the 164 almost any place any Volvo can park. And lots of places a Cadillac can't.

You get in and out of city traffic with little effort because power steering is standard equipment.

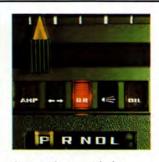
If you live in the city and you've put off buying a car because of garage bills or car thieves, consider this. The Volvo 164 doesn't require a roof over its head because it's got a Volvo paint job all over its body. (See page 15 for our paint story.) The 164 also has an ingenious device on the ignition that locks the wheels in place once you've turned off the engine. So even if a thief crossed the wires and started your engine, all he could do is start the engine. He'd still need a key to unlock the wheels.



Exhaust emission control Before every 164 leaves the factory, its exhaust fumes are tested to insure that the carbon monoxide and hydro-carbon levels are safely within government limits. Another thing: the anti-smog device increases—not reduces—fuel economy. So you can breathe easier. Twice.



Small turning circle The Volvo 164's turning circle is about 10 feet smaller than the smallest Cadillac's. Which means you can run circles inside them.



Automatic transmission Our optional automatic transmissions are as automatic as anyone else's. (Park, Reverse, Neutral, Drive, Low.) But we don't okay them automatically. Before they've passed final inspection, every automatic 164 has to go out on the test track. Where we put them through their P, R, N, D and L's. Only after that do they get our O.K.



For what the 164 costs, you shouldn't have to pay extra to get a complete car.

The 164 is not cheap. But neither are we.

We've included in the basic price everything you need to drive the car out of the showroom.

Items like power steering, 4-wheel power disc brakes, our top-of-the-line 3-litre engine and a 4-speed synchronized gear box.

Plus some equipment you'd expect to pay extra for on other cars: all-leather bucket seats, trip meter, mud flaps all around, simulated wood-grained dashboard, 2 outside rearview mirrors, white wall tires and an electric defroster for the rear window.

About the only equipment you may want that isn't standard on the 164 is a radio or stereo tape player. And we didn't include one because we can't tell if you listen to AM or AM/FM or tape. But you can tell your Volvo dealer. And he'll listen to you.



The Volvo bucket seat

The seat that Volvo made famous is standard equipment on the 164. (The leather upholstery is standard, too.) This is what Industrial Design magazine had to say about it: "For the first time in any massproduced chair —automotive or otherwise—not only is there good lumbar support, but adjustments in the support can be made easily... An orthopedic delight..." This is how it works. A rubber webbing runs through the seat back. The tension of the webbing is controlled by a knob. And you can adjust it from "SOFT" to "FIRM" depending on what kind of support you want to give your back. Many other adjustments are possible. You can raise or

lower the seat to three different heights. You can set the backrest to an infinite number of positions. Including horizontal. You can move the seat forward and backward almost eight inches. And, finally, you can take the seat out of the car and put it in your living room. Some people have actually done it.

Stopping to stretch your legs is no longer a valid excuse for stopping.

Neither is stopping to stretch your hips, your thighs, your elbows or your head.

The Volvo 164 was built with all the leg-, thigh-, elbow-, and head-room you'll require to keep going as long as the gas holds out. (Which in a Volvo 164 is a good long stretch.)

Take the front seats. There are only two. Those

comfortable Volvo bucket seats you just read about. So three in the front seat is not a crowd: it's an impossibility. (Unless somebody's holding the baby.) If you want to test how roomy our front seats are, just try putting your arm around your wife's shoulder.

But front seats are expected to be roomy.



What about the back seat? Where you're used to putting the kids because they're small. Or your mother-in-law because she's your mother-in-law. The back seat in the Volvo 164 is no Siberia.

It seats three comfortably (each with his own safety belt). Or two luxuriously. The width of the back seat at shoulder- and hip-height is the same as the front seat. We didn't shave off a few inches figuring that you—the driver—would never know the difference. As for leg room, let's just say that many embassies have ordered the 164 for their diplomats. Who are used to riding around in back seats. In style.

Which we're not about to cramp.



Built for Swedish snow storms. And Arabian sand storms.

The men who built the Volvo 164 are pessimists. They think bad weather will follow wherever it goes. So they designed it accordingly.

For sub-freezing temperatures, they installed an air preheater on the engine to make it run smoother after a cold start. The heater for passengers works fast. It has to: in Lapland where 30°-below-zero temperatures are common, a man could freeze waiting for the heat to come on.

For hot, humid climates they developed a 1200 B.T.U. air-conditioner for the 164. It's an option.

To protect the body from rust and corrosion, our paint specialists demanded a finish six coats thick. (Not the four coats you find on most cars.)

To insure that the paint job stays looking good, they test the paint before they ever put it on a 164. They've had painted pieces of steel sitting for five years in the salt air off the Swedish coast. And getting stung for two years in the sands of the Arabian desert. And baking for five years in the Florida sun.

The 164's paint job had to come through these tests looking like new to the untrained eye or else our engineers would have rejected it.

They didn't reject it.



Air intake pre-heater

The Volvo 164 starts in the coldest weather because of its overlarge electrical system. But once you have a spark and ignition, you want to keep the engine running smoothly. Not stalling out at every stop sign. That's where the pre-heater comes in. The fresh-air intake is automatically closed and the air that's fed to the carburetors is first passed over a hot spot on the exhaust manifold.

With the pre-heater on your 164, you can pull out the choke for less than one minute. And forget about stalling. Without it, you'd have to leave the choke out for five minutes.

As long as the outside air temperature is below 85 (regardless of how cold it gets), the pre-heater will maintain the air being fed to the carburetors at a constant 85°. When the outside air is above 85°, a thermostat automatically opens up the fresh-air intake and cuts out the pre-heater.



Rust-proofing

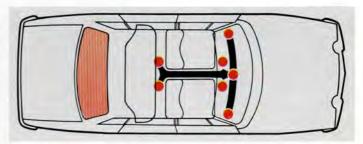
Protecting your 164 against the elements is complete with the application of two undercoats: one to protect against road salt, the other to protect against everything else. But the protection begins back when we're building the car. Not when we begin to paint it.

We use hot-dipped galvanized steel for those parts (like rocker panels) located in areas particularly sensitive to rust. And the raw sheet steel that can't be reached by dunking the body in rust-proofing is rust-proofed while the body is still on the assembly line. Then we start the painting process. First we bathe the 164 in zinc phosphate to clean and etch the surface and prepare it for the paint. Then we dip it in a giant vat of rust-proofing.

Then comes a primer coat. A sealer coat. And three enamel color coats. (Many other car makers stop at one color coat.)

The result is a finish that remains impervious to weather for years. A finish, our engineers assure us, that can stand up to a hammer blow without chipping.

But we don't advise you try it.



Heating

The Volvo 164 is equipped with three separate heating systems. There's a 3-outlet defroster for the windshield. A 2-stage electric defroster for the rear window. And four floor outlets (two front, two rear) for all-round passenger comfort. (Front seat passengers don't have to bake in order to keep back seat passengers warm.)

The temperature is controlled by a dial-operated thermostat in the dash. And a 2-speed fan distributes heat evenly front and back.

All three systems can be operated at the same time. So if your furnace ever breaks down in mid-winter, you know where to go.

With every other driver out to kill you, at least your car should be on your side. In a country where you can lose your license and go to jail for having one drink on your breath while driving (as in Sweden), you'd expect us to have rather strong opinions about auto safety. And we do.

This is how we build the Volvo 164 strong: We form the body by joining the thick sheet steel together with almost 10,000 spot welds.

To add further strength, we form every pillar and every brace in a box shape.

The result is that the roof is strong enough to hold up almost seven times the weight of the car.

What isn't hard and strong in the Volvo 164 is soft.

The roof is padded, the dashboard is padded, the steering wheel is padded.

On impact, the horn and steering wheel bend back slowly to take up shock. The glove compartment and the entire area below the dash are designed to give when hit hard. The high-impact glass in the windshield is double laminated to give a little before it breaks away.

Door handles are recessed. Front seat backrests are designed to give backwards if you should be run into from behind. (This minimizes the danger of neck injury due to "whiplash".)

We're doing everything we can to protect you from the other guy. Now all you have to do is watch out for him.



Safety steering column A joint on the steering column in the engine well breaks off on impact. Not even a severe deformation of the front end can be transmitted to the steering wheel.



Braking system The 164's 4-wheel power disc braking system is really two separate systems. So if one system should ever fail the other is there to stop the car. Instead of having one system on the front wheels and another working on the rear wheels as on most cars, each Volvo braking system operates on three wheels-two front and one rear. The difference in braking efficiency is this. With the conventional front-and-rear split systems, the front wheels supply 70% of a car's braking and the rear wheels 30%. So if the front-wheel system should fail, you only have 30% of the braking power left to stop the car. But on the 164 where two fronts and one rear wheel always work together (in each system), braking efficiency is never less than 80%.

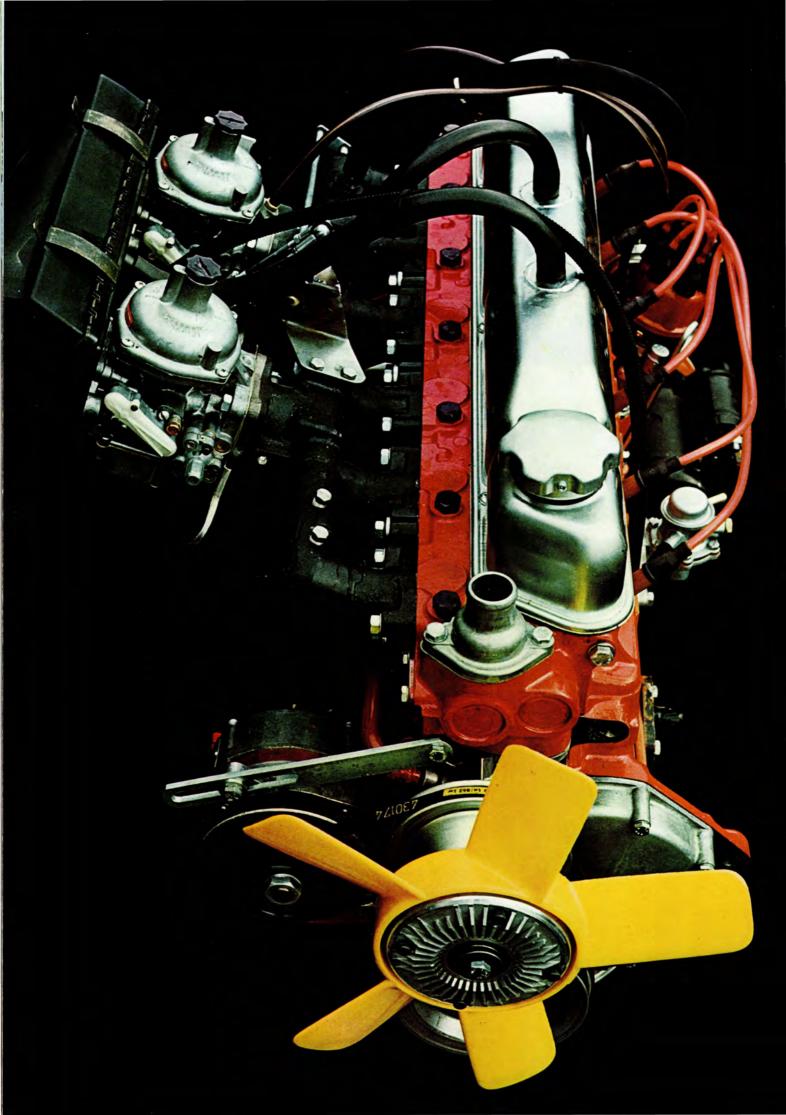


Safety belts Volvo was the world's first mass-producer of automobiles to make three-point safety belts standard equipment. That was back in 1959. They're standard today for the front seats of the 164. As are three lap belts for the back seat. You can even buy a Volvo child's seat that carries your baby in a rearward position. The safest position of all.



Safety body

The Volvo 164 is designed with energy-absorbing front and rear ends. We don't only claim this: we tested it before we began producing the 164. We drove a prototype into a wall at 30 mph. The front end was crumpled but the passenger compartment remained completely intact.



We're telling you top speed is 112 mph for only one reason: so you won't try to find out for yourself.

Under the hood of the Volvo 164 is the most powerful passengercar engine we've built: the 3-litre, 6-cylinder engine we call B30.

We began to design, develop and test it in 1962. We didn't introduce it earlier because we wanted to be sure it would live up to our reputation for building reliable, rugged and unbreakable car engines.

Now we're sure.

The B30 is a 145 horsepower engine, which is not large by American standards.

But by any standard, its torque curve is a thing of beauty. The greatest torque (or pulling power at the drive wheels) is concentrated at the low end (between 25 and 50 mph), right where you want it for fast acceleration. It makes the 164 peppy and responsive in any gear.

Not only did we spend years developing the B30 but we spent years keeping it quiet.

The engine fan cut-out (see page 7) reduces noise. The air cleaner for the dual carburetors is made of a plastic material designed to cut down air-intake noise.

Together with the padding and insulation in the passenger compartment, it may be hard to hear the engine at times. And you may wonder if it's working. For people who find engine noise distasteful, that can be a very comforting thought.

SPECIFICATIONS

Engine

Lingine	
Type B30. Six cylinders, overhead valves, seven-bearing crankshaft, twin horizontal carburetors with "Main dual	
induction" exhaust emission control system. Thermostat-	
controlled preheating of induction air. Full flow oil filter.	
Bore	
Stroke	
Displacement	
or 2.978 litres	
Maximum output 145 bhp SAE at 5500 rpm	
Maximum torque 163 ft. lb. SAE at 3000 rpm	
Compression ratio	

Cooling system

Sealed, frost-proofed, water cooling with pump and thermostat. Capacity 12.3 quarts. Fan with viscous slip-type coupling.

Electrical system

Voltage	
Battery capacity	. 60 amp.hr.
Alternator rating	35 A
Starter motor output	

Transmission

Four-sp	eed, f	u	lly	y s	sy	n	cl	hı	°C	n	iż	ze	ed	1	W	it	h	ſ	1	oc)1	-1	n	0	u	n	te	ec	l g	ear shift
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Ratios:	1st																													3.14:1
	2nd																													1.97:1
	3rd																													1.34:1
	4th																													1.00:1
	Reve																													3.54:1

Optional: Automatic three-speed with column-mounted shift lever, standard P-R-N-D-L gear quadrant.

Clutch

Single dry plate clutch of diaphragm spring type. Mechanical control system.

Rear axle

Final drive of hypoid type.	
Ratio: Manual	 3.73:1
Automatic	 3.31:1



Steering system

Recirculating ball and nut type. Safety steering column. Power-steering. 3.7 turns of steering wheel from lock to lock. Turning circle: 31 ft. 6 in.

Front suspension

Independent suspension with coil springs and rubbermounted control arms. Ball joints. Double-acting hydraulic telescopic shock absorbers. Stabilizer.

Rear suspension

Rigid rear axle carried in longitudinal rubber-mounted support arms and torque rods. The rear axle is located laterally by means of a rubber-mounted track rod. Coil springs and double-acting hydraulic telescopic shock absorbers.

Brake system

Footbrake. Dual-circuit brake system. Each system includes both front wheels and one rear wheel. Self-adjusting disc brakes on all wheels. Power-assisted system of tandem type. A relief valve in each of the brake circuits prevents the rear wheels from locking before the front wheels in case of emergency braking.

Parking brake. Acts mechanically on special drums fitted to rear wheels. Handbrake lever located conveniently between driver's seat and front door. A warning light on dashboard indicates when the handbrake is on and also any possible fault in one of the brake circuits.

Wheels and tires

 $4\frac{1}{2}$ J-15" pressed steel wheels. 6.85×15 white sidewall tires.

Body

Integral, all-welded steel body. Reinforced box-section profiles round all body openings. Comprehensive rust-proofing and underbody sealing.

Fuel tank

Located at rear. Capacity 151/2 gals.

Lighting equipment

Steering-column mounted turn indicator with high and low headlight beam control. Courtesy light operated by opening either front door. Rheostat-controlled instrument lighting. Back-up lights. Glove compartment light. Lights in trunk and engine compartment. Spaces for two extra driving lights.

Heating and ventilation system

Thermostat controlled. Quiet-running two-speed fan. Warm air outlets for front and rear seats. Three defroster nozzles for windshield. Electrically heated rear window with 75 W and 150 W positions on switch. Extra fresh air intakes in sides of body under dashboard.

Instrumentation

Padded dashboard with ribbon type speedometer, six-figure odometer, trip meter, fuel gauge and water temperature gauge. Speedometer is fitted with a movable arrow as a speed limit reminder. Warning lights for battery charging, oil pressure, high-beam headlights, parking brake and brake circuits. Visible and audible direction indicator signals.

Miscellaneous equipment

Three-point factory-installed safety belts on front seat. Three factory-installed lap belts on rear seat. Leather-covered seats. High-impact, laminated glass in windshield. Two padded sun visors. Rearview mirror with manually operated anti-dazzle device. Two-speed electric windshield wipers with 16-in. blades. Electric windshield washers. Combined steering wheel lock and ignition switch. Grab handle and courtesy handles. Cigarette lighter. Ash trays in dashboard and by rear seat. Mudflaps all around. Tool kit. Jack. Towing fixtures front and rear. Spare wheel. Pockets on rear of front seat backrests. Fitted carpeting.

Dimensions and weights

Difference and re-Bitto	
Overall length	185.6 in.
Overall width	68.3 in.
Overall height	56.5 in.
Ground clearance (unladen)	7.1 in.
Wheelbase	106.3 in.
Track, front	53.0 in.
Track, rear	53.0 in.
Roof height, front	37.4 in.
(roof to seat cushion 6 in. from seat backrest.)	
Roof height, rear (roof to seat cushion 6 in. from seat backrest.)	35.0 in.
Rear seat front edge to front seat backrest	
max,	14.2 in. 6.7 in.
Front seat width	
Shoulder height	56.3 in.
Hip height	
Rear seat width	
Shoulder height	56.3 in.
Hip height	
Curb weight approx	2840 lb.

The factory retains the right to modify design and equipment without previous notice.