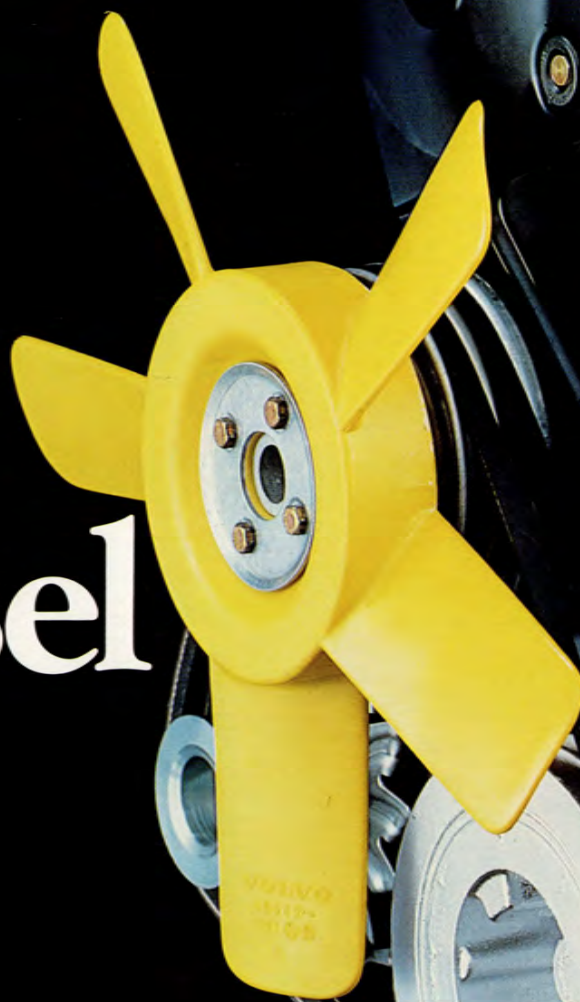


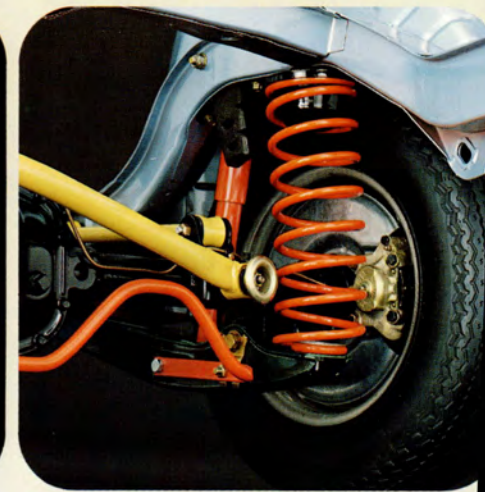
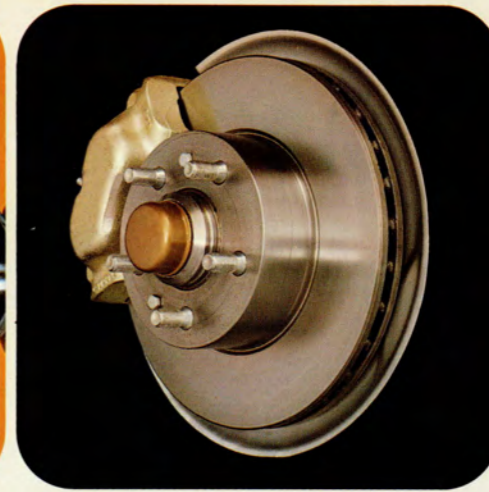
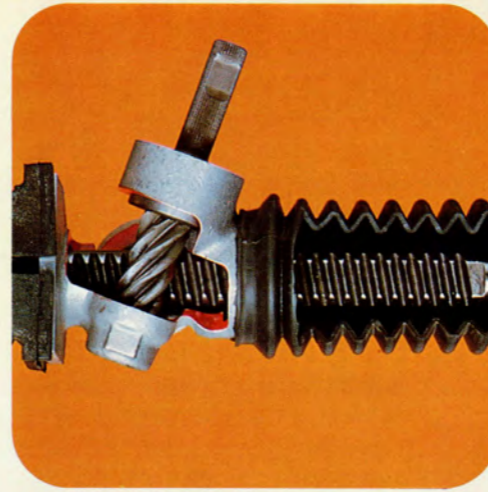
# VOLVO

## Diesel





# The Diesel Sedan







# The Diesel Wagon

“...it's just like driving a car.”

The Volvo diesel wagon is full of surprises. Along with the Volvo diesel sedan, it has the only *six-cylinder* diesel engine to be found in a passenger car. And the Volvo diesel wagon is virtually a diesel sedan, except that its shape creates its cargo capacity.

|                 | Diesel Sedan | Diesel Wagon |
|-----------------|--------------|--------------|
| Overall Length: | 192.5"       | 192.5"       |
| Overall Width:  | 67.3"        | 67.3"        |
| Overall Height: | 56.2"        | 57.5"        |
| Turning Radius: | 32'2"        | 32'2"        |

Surprisingly un-wagon-like. Especially when you're snaking through heavy traffic, or into an "I-think-I-can-make-it" parking space.

As a reminder that you're actually driving a wagon you may have to look behind you from time to time. With the rear seat down, the cargo area measures roughly six feet long, four feet wide, and three feet high, at nearly right angles — seventy-six cubic feet of hauling space. When the rear seat is raised, you still have a cargo space that's nearly four feet long. Forty-one and a tenth cubic feet. Three tie-down rings on each side make it easy to secure movable objects. The tailgate is almost square, and hinged at the top — a most intelligent design — and gas-filled cylinders enable you to open it with just one hand. To get something into the back you have to raise it only twenty-three inches off the ground. You can even pull as much as 2,000 lbs. before

needing to modify the suspension.

Frankly, the reason such attributes are missing from other wagons, let alone *diesel* wagons, remains a mystery to us...

**Volvo.**  
**A car you can believe in.**

Unlike many other diesels, Volvos are quiet out on the road. In fact, the in-line six-cylinder configuration provides the same balance and, accordingly, the same smooth running characteristics of many V-8 gasoline engines.

**No matter how you look at it, the diesel engine is a practical alternative to gas.**

Due to the basic difference between the way combustion occurs in gas and diesel engines, the diesel has to be tougher, more reliable, better built. In a gas engine combustion occurs when air and fuel that have been mixed in the cylinders are ignited by electric spark plugs. In the diesel, which doesn't have spark plugs, the pistons forcefully compress and super-heat the air in the cylinders, and when a spray of diesel fuel hits this super-hot air, *spontaneous* combustion occurs. The powerful stroke of the diesel piston achieves a compression ratio nearly three times greater than in a gas engine. To withstand the constant thermal pressure created by this method of combustion, the diesel engine must be rugged.



## The Volvo Diesel. A diesel that makes others seem underpowered or overpriced.

"Move over Mercedes and General Motors. Diesel Volvos are here, bringing value and performance at a sensible price," (*Diesel Motorist Magazine*, Summer, 1980).

In the past, if you wanted the benefits of a diesel, you had to accept its infamous idiosyncracies: underwhelming power, unforgettable noise, and plenty of shake, rattle and roll.

No longer... To quote *Diesel Motorist Magazine* (Summer, 1980), "Driving the car, one feels the quick response, lack of any sluggishness associated with 'stiffer' engines such as those with push-rod/rocker arm or camfinger/followers... Because of fewer reciprocating parts, there is much less valve noise and hence, Volvo's claim of a new diesel quietness, is true... On the open road, the Volvo Diesel is right at home, with its sporty-firm suspension, excellent high-speed cornering and passing ability."

The six cylinders make all the difference: increasing performance, decreasing noise and smoothing out vibrations.

Now that you've found an extraordinary diesel, the fact that it powers the Volvo sedan will only increase your pleasure of discovery. Just by opening and closing the door you can tell you're in a solidly built car.

And sitting there, you somehow have the feeling that you've *always* been behind the wheel of this car, or that you've always meant to be. It's a first impression common to those who are new to Volvo.

Everything's right. You can get in it with grace. The doors open wide; the seats are chair height. You're immediately comfortable in one of Volvo's adjustable front bucket seats (even the lumbar support is adjustable). Your hands fall naturally on the steering wheel. It's positioned at a 23-degree angle for a good firm grip and maximum knee room. You'll find all the dials, gauges and switches instantly, where you expect to find them. Studies of the driver's behavior, not the whims of a designer, account for their positioning.

You'll also be conscious of an unusual amount of head, shoulder and leg room — a great comfort to adult passengers, especially those sitting in the back. Even the Volvo trunk is roomy; it's capable of holding luggage for five, upright.

We think you'll find that our Volvo diesel sedan is a car that appeals to your head as well as to your heart. You might even be moved to add a bumper strip to the car's exterior motif — one that reads "I love my Volvo."

Durability, performance, handling, safety and luxury are part of the standard equipment:

- D24 six-cylinder diesel engine
  - Four-speed manual transmission with overdrive, OR three-speed automatic transmission
  - Power-assisted four-wheel disc brakes, with ventilated front discs
  - Power-assisted rack and pinion steering
  - Front spoiler • Steel-belted radial tires
  - Halogen high-beam headlights
  - Tinted glass, with dark tint band along the top of the windshield
  - Full interior and trunk carpeting; cloth upholstery
  - Trip odometer; light integrity sensor; quartz crystal clock, warning buzzer for key, headlights, and safety belts
  - Windshield wipers with an intermittent cycle; electric rear window defroster
  - 12-outlet heating and ventilation system
  - Dual remote control side mirrors; day/night rear view mirror
  - Adjustable front bucket seats, with adjustable lumbar support
  - Four three-point, self-adjusting safety belts
  - Centrally controlled power door-locking system
  - Child-proof safety locks for rear doors (and tailgate on wagons)
  - Speakers mounted in front doors
  - Storage compartment in front doors
  - Rear seat armrest, with storage passage through to the trunk (sedans only)
  - Vanity mirror in lighted glove box • Power antenna
- GL Diesel Sedans have in addition:*
- Choice of enamel or metallic paint
  - Velour upholstery • Heated driver's seat
  - Air conditioning and power windows
  - Tachometer and engine compartment light
- Diesel Wagons have in addition:*
- Lockable storage space in the cargo area
  - Cargo compartment light • Rear seat armrest
  - Rear window washer/wiper • Vinyl upholstery

## The diesel engine. It's a comparatively simple machine.

You won't need a conventional tune-up, so the cost of maintenance could be less than you're used to.

| Item            | Diesel Engine | Gasoline Engine       |
|-----------------|---------------|-----------------------|
| Spark Plugs     | None          | 4 to 8                |
| Distributor     | None          | Yes                   |
| Coil            | None          | Yes                   |
| Condenser       | None          | Yes                   |
| Ignition Wiring | None          | Extensive and complex |

How does a diesel start without the kind of complicated ignition system required by a gas engine? Glow plugs protrude into the diesel cylinders, and heat up when you first turn the key. In a few seconds a light on the dash signals you to turn the key the rest of the way and the engine starts, even in the coldest weather.

The growing demand for diesel fuel increases the number of service stations with diesel pumps all the time. When you become a Volvo diesel owner you'll receive a directory listing over 8,400 diesel stations throughout the United States, Canada, and Mexico.

**The longer Volvos are made,**

**the longer they last.**

Volvo has always paid particular attention to protecting its cars against corrosion. The Swedish Motor Vehicle Inspection Bureau surveys indicate that Volvos last an average of 17.9 years... longer than any other car on the road in Sweden today.

**A variety of engineering decisions ensure that your Volvo will respond the same way in a crisis as it does normally.**

Many cars that are easy to drive under normal conditions become erratic and unpredictable in a moment of panic. Volvos are built to do their very best to keep you out of trouble in the first place. For example, the Volvo diesel sedan and wagon have power-assisted four-wheel disc brakes, with Volvo's unique dual triangular split brake circuit system. Each circuit controls two front brakes and one rear brake, so that if one should fail, the remaining circuit maintains about 80 percent of the entire system's normal

braking effectiveness. For additional safety, Volvo's exclusive stepped-bore master brake cylinders maintain near normal pedal pressure even if one brake circuit should malfunction.

**Every Volvo is a study in the science of ergonomics — making machinery more comfortable, more efficient, and safer for people to use.**

Volvos are designed to fit *you*, rather than requiring you to fit them. In fact, new owners keep discovering the fine points of ergonomic design even after they've driven their Volvos for a while — like the driver's left foot rest, which keeps both feet on the same plane (to reduce muscle tension while providing a more stable driving position); the excellent visibility; the trunk light; or the mirrors that filter out glare. All the little things that make Volvos so easy to live with.

**Little wonder that Volvos are cars people swear by. Not at.**

For more details, please read "The Driver's Car," intended to accompany this brochure.

## The 1981 Volvo Diesels at a glance.

### Dimensions and Weights

|                       |                |
|-----------------------|----------------|
| Wheelbase             | 104.3 in.      |
| Overall Length        | 192.5 in.      |
| Overall Width         | 67.3 in.       |
| Overall Height, Sedan | 56.2 in.       |
| Wagon                 | 57.5 in.       |
| Front Legroom         | 39.8 in.       |
| Rear, Legroom, Sedan  | 36.6 in.       |
| Wagon                 | 36.4 in.       |
| Seating Capacity      | 5 persons      |
| Sedan Trunk Capacity  | 13.9 cu. ft.   |
| Wagon Cargo Capacity  |                |
| Rear Seat Up          | 41.1 cu. ft.   |
| Rear Seat Down        | 76.0 cu. ft.   |
| Approx. Curb Weights  |                |
| Sedan                 | 3119-3164 lbs. |
| Wagon                 | 3240-3252 lbs. |

### Body

Unitized. Central passenger safety cage with energy-absorbing front and rear ends. Rustproofing includes use of galvanized steel in

susceptible areas; anticorrosive coating inside doors, rocker panels, etc.; extensive undercoating and special stone-chip resistant paint. Aluminum tailpipe and muffler.

### D24 Engine

In-line, six-cylinder diesel with overhead camshaft, swirl chamber.

|                        |                    |
|------------------------|--------------------|
| Displacement:          | 145 cu. in.        |
| Compression Ratio:     | 23.0:1             |
| Horsepower:            | 76 @ 4800 (S.A.E.) |
| Torque:                | 98 @ 2800 (S.A.E.) |
| Sealed Cooling System: | 9.9 qts.           |
| Fuel Tank:             | 15.8 gallons       |

### Electrical System

12 V, 55 Amp alternator, 90 amp hour battery.

### Drivetrain

Manual: Four-speed fully synchronized transmission. Electrically-operated overdrive which automati-

cally releases when you shift from 4th to 3rd gear. Gear ratios: 1st 4.03:1, 2nd 2.16:1, 3rd 1.37:1, 4th 1.00:1, Overdrive 0.80:1. Final drive ratio: 3.54:1.

Automatic: Three-speed with a floor-mounted shift lever, with an illuminated PRND21 pattern. Final drive: 3.31:1.

### Steering System

Rack-and-pinion gear. Servo-assist is standard on all models. Turning circle 32'2". Turns lock to lock: 3.5.

### Suspension System

Front: McPherson struts incorporating coil springs and telescopic shock absorbers. Stabilizer bar.

Rear: Rigid "live" axle located by longitudinal control arms and torque rods. Lateral location by track rod. Coil springs and telescopic shock absorbers. Stabilizer bar.

Tires: Steel-belted radials, Size: Se-

dans 185/70 SR 14; Wagons 185 SR 14.

### Brake System

Self-adjusting disc brakes on all four wheels. Tandem type power-assist. Ventilated front discs are standard. Each circuit of the dual triangular-split hydraulic brake system connects both front wheels and one rear wheel. Stepped-bore master cylinder maintains near-normal pedal effort should one circuit fail. Hand-brake operates mechanically on separate rear wheel drums.

### Volvo

The factory reserves the right to make changes at any time, without notice, to prices, colors, materials, standard equipment, specifications and models and also to discontinue models. Roof racks are optional equipment.

**VOLVO**