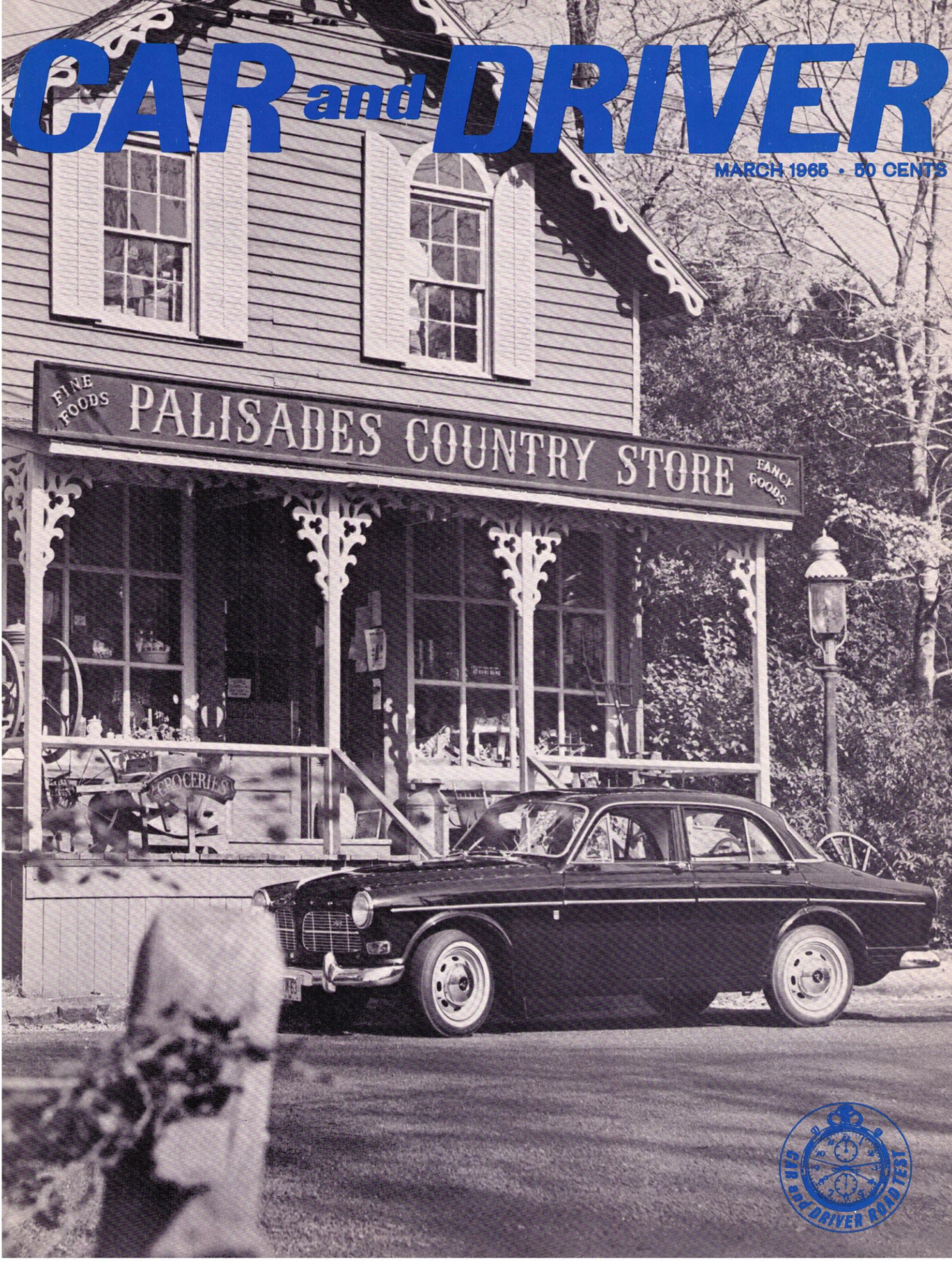
CAR and DRIVER

MARCH 1965 • 50 CENTS



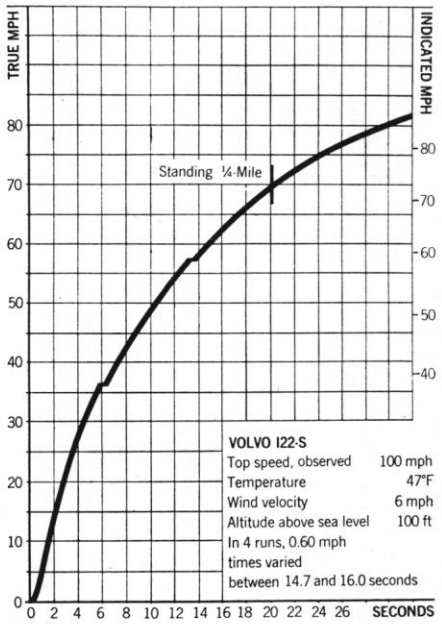
VOLVO 122-S

Importer: Volvo Inc.
Rockleigh,
New Jersey

Price as tested: $2630 POE East Coast

ACCELERATION

Zero to	Seconds
30 mph	4.3
40 mph	7.0
50 mph	10.2
60 mph	14.9
70 mph	20.2
80 mph	28.0
90 mph	45.0
Standing ¼-mile	70 mph in 20.2



ENGINE

Water-cooled four-in-line, cast iron block, 5 main bearings
Bore x stroke...3.31 x 3.15 in, 84.14 x 80 mm
Displacement.....108.6 cu in, 1780 cc
Compression ratio.....8.5 to one
Carburetion.....2 SU type HS-6
Valve gear..Pushrod-operated overhead valves
Power (SAE).....90 bhp @ 5000 rpm
Torque.....105 lbs-ft @ 3500 rpm
Specific power output....0.83 bhp per cu in, 50.5 bhp per liter
Usable range of engine speeds.1000-6000 rpm
Electrical system..12-volt, 60 amp-hr battery, 360 W generator
Fuel recommended.....Premium
Mileage.....24-34 mpg
Range on 12-gallon tank.....290-310 miles

DRIVE TRAIN

Clutch.....8.5-inch single dry plate
Transmission....4-speed all-synchro gearbox

Gear	Ratio	Over-all	mph/1000 rpm	Max mph
Rev	3.25	13.15	—5.9	—35.5
1st	3.13	12.80	6.2	37.2
2nd	1.99	8.16	9.7	58.0
3rd	1.36	5.58	13.9	84
4th	1.00	4.11	19.2	100

Final drive ratio.....4.11 to one

CHASSIS

Unit construction, all-steel body
Wheelbase.....102.5 in
Track.....F 51.5 R 51.5 in
Length.....175 in
Width.....64 in
Height.....59 in
Ground clearance.....7.5 in
Dry weight.....2310 lbs
Curb weight.....2380 lbs
Test weight.....2665 lbs
Weight distribution front/rear.....53/47 %
Pounds per bhp (test weight).....29.7
Suspension: F Ind., unequal-length wishbones and coil springs, stabilizer bar
R Rigid axle, radius arms and torque rods, coil springs, pan-hard rod
Brakes.....Girling 10.85-in discs front, 9-in drums rear, 339 sq in swept area
Steering.....Cam and roller
Turns, lock to lock.....3.33
Turning circle.....31.5 ft
Tires.....5.90-15
Revs per mile.....830

CHECK LIST

ENGINE

Starting	Good
Response	Fair
Noise	Fair
Vibration	Good

DRIVE TRAIN

Clutch action	Good
Transmission linkage	Very good
Synchromesh action	Excellent
Power-to-ground transmission	Good

BRAKES

Response	Excellent
Pedal pressure	Good
Fade resistance	Excellent
Smoothness	Good
Directional stability	Excellent

STEERING

Response	Good
Accuracy	Good
Feedback	Very good
Road feel	Very good

SUSPENSION

Harshness control	Very good
Roll stiffness	Good
Tracking	Very good
Pitch control	Very good
Shock damping	Fair

CONTROLS

Location	Excellent
Relationship	Very good
Small controls	Very good

INTERIOR

Visibility	Good
Instrumentation	Poor
Lighting	Good
Entry/exit	Very good
Front seating comfort	Very good
Front seating room	Excellent
Rear seating comfort	Very good
Rear seating room	Very good
Storage space	Excellent
Wind noise	Good
Road noise	Good

WEATHER PROTECTION

Heater	Excellent
Defroster	Very good
Ventilation	Good
Weather sealing	Excellent
Windshield wiper action	Good

QUALITY CONTROL

Materials, exterior	Excellent
Materials, interior	Very good
Exterior finish	Excellent
Interior finish	Excellent
Hardware and trim	Excellent

GENERAL

Service accessibility	Excellent
Luggage space	Very good
Bumper protection	Very good
Exterior lighting	Very good
Resistance to crosswinds	Good

VOLVO 122-S

A rugged, proved performer that even the toughest critics find difficulty in faulting

Automotive journalism can be a disillusioning business. After years of dewy-eyed enthusiasm, a newcomer arrives in the *Car and Driver* office, only to discover that most of what he believed to be gospel about cars is patent nonsense.

With barrages of new information and qualified opinion pummeling him from all sides, a fair number of his sacred cows are destroyed and he suddenly realizes that *truly* good automobiles are as rare as black pearls. One of the few vehicles that survives under this ruthless criticism, without getting torn apart for being over-priced, poorly-made, stupidly-designed or outdated, is the Volvo 122-S. In this sense the Volvo belongs to a very select group. Automotive journalists are hyper-critical, yet you'll travel a fair distance before you find a professional who won't agree that the pride of Göteborg, Sweden isn't one of the best cars in the world and one of the biggest bargains in history.

The Volvo 122-S is not the prettiest car known to man, nor is it the fastest. But it may be the strongest. "Car of the Year" awards and "The World's Seven Best-built Cars" notwithstanding, the Volvo is possibly the toughest vehicle anywhere this side of the Aberdeen Proving Grounds and there is a growing legion of happy owners in the United States who will be glad to verify the point. This ruggedness is backed up by an alert, aggressive sales and service organization that rivals the Volkswagen setup for efficiency.

It has been storied that various Detroit manufacturers have spent large sums of money to make car doors slam shut with the solid, reassuring sound of quality. It is doubtful whether it involves anything intentional, but shutting a Volvo door sounds like about eight-and-one-half million dollars. This is symbolic of the entire Volvo body, which utilizes an all-welded unit construction of immense rigidity. The body metal is phosphated, giving it a slightly etched surface that enables the paint to cling more effectively. Anti-corrosive oil and undercoating are used liberally throughout the assembly process. Extra effort like this means a definite increase in the Volvo's resistance to the elements, especially to moisture and salt.

Volvo's B-18 4-cylinder engine may be the closest thing to an unbreakable production powerplant ever developed. It is a straightforward in-line, overhead valve, slightly oversquare layout that, like the rest of the vehicle, has undergone years of painstaking refinement. Aware that bottom-end strength is the key to really long engine life, Volvo's 1800cc engine has an exquisitely rigid five-main bearing crankshaft and enough total bearing surface for a powerplant three times its size. For example, the new, five main-bearing BMC 1800cc engine has a total bearing surface area (including main and rod bearings) of 24.2 sq. in., while the same displacement Volvo has 42.8 sq. in! At the other end of the scale, the very strong Chevrolet 327 has 30.23 sq. in. and the old Chevy 409 has 41.02 sq. in.—both less than the Volvo!

Fitted with a pair of SU carburetors and operating with a compression ratio of 8.5:1, the B-18 is delivered in the 122-S with what seems to be a conservatively-rated 90 hp. The engine is highly flexible, easy to start and reasonably silent for a pushrod four-cylinder. It is one of the few engines that can be revved to valve float and beyond without damage. Brave souls have found that the B-18's valve action begins to get confused at about 6300 rpm, but will smooth out again at approximately 6500 rpm. That this can be done without immediate danger of bursting the works is a testimonial to the engine's strength.

The 122-S we tested was the four-door model, which has been imported since 1959. The similar two-door model was introduced here in 1963 and both remain essentially unchanged for 1965. The excellent four-speed all-synchro transmission with the long shift lever, and the beefy front disc brakes remain, as does the general feeling of soundness and quality of previous years.

The big changes come in the form of different wheels, with larger vents, a slightly larger pair of front grilles, and most important, super-adjustable seats. There is a diminishing, but still vocal group of so-called automotive pundits which maintains that a seat must be as firm as an oak board to be comfortable. Volvo apparently subscribed to this theory and their seats tended to be rather brutal on the back and shoulders during long trips. Additionally, the vinyl covering, though as durable as rhinocerous hide, did not breathe and caused nasty cases of prickly heat and other maladies resulting from Torrid Zone posterior temperatures. Both problems have been cured on the new models. The seat covering is now textured so that some ventilation exists and the frames have been fitted with no less than seven adjustment points so that anyone but an ape or a midget can fit behind the perfectly-positioned steering wheel. A screwdriver is needed to do the job, but one nevertheless can adjust the bulge in the seat for small-of-the-back support and that marks some sort of "first" in the science of driver comfort. Our taller staff members still complained about a lack of shoulder support on the new seats, but they should be satisfactory for people of average height. Volvo has also added new heater ducting to the rear seat—and that's a constructive step, though even the old setup could turn the entire interior into a Bessemer converter at will and we wonder why Volvo felt it needed improvement.

The Volvo's initial reputation was made from its giant-killer performance and that characteristic remains today. The car will accelerate to 60 mph in 15 seconds, has *usable* speeds to 90 and will carry four passengers and luggage in solid comfort at 75 mph for hours on end. It will corner with any sedan of its size and weight and will probably out-brake most of the competition.

When we consider that this car can be purchased with a fair number of options for less than $3000 and at that price will outperform most and outlast anything that can be considered remotely competitive, you better believe that you are getting one helluva automobile for one helluva bargain. Unfortunately, there are precious few makes that share that distinction. **C/D**

PRINTED IN U.S.A.