



## ROAD TEST: VOLVO PV444

In Southern California, where advertising takes on strange shapes and forms, the Volvo has recently received more high-pressure sales treatment than any other imported car. Its name has been seen on signboards, buses, streaming behind a slow biplane, and radio and television audiences have been urged to "Go, go, go in a new Volvo!" For a perfectly respectable but entirely unrevolutionary two-door family sedan, all this fancy huckstering seems a little incongruous, but it appears to have worked its peculiar magic to the extent that in some areas Volvo sales have been running second only to Volkswagen among the imports. And in whatever characteristics of modern automotive design the Volvo may be lacking, one thing is certain: for a sedan of its engine size, go, go, go it does, does, does.

Aktiebolaget Volvo of Gothenberg, Sweden, have been manufacturing automotive products since 1924, and their range includes heavy duty trucks, commercial vehicles, diesel and gasoline powerplants, and farm equipment (one small tractor uses the passenger car engine, suitably modified). The proper designation of the sedan tested here is the PV 444: now, in engineering PV stands for pressure-velocity (referring to the load-speed factor in bearings), but whatever the Swedish intent, the initials seem appropriate if only because the car has lots of "pressure" and plenty of "velocity." The 444 part is a little outmoded, since it refers to an older model which had 4 cylinders and 44 bhp; the current version sold in Europe develops 51 bhp, and the U.S. import model uses what is called the "Sports" engine which puts out 70 bhp at 5500 rpm.

Looking at the Volvo for the first time, one cannot help but be

struck by the fact that the body design is of a type not built in this country since the late 'thirties. The split windshield, fat, curved rear section, squarish front end and fenders are reminiscent of such cars as the '39 Dodge (front) and '41 Ford (side and rear). So if you've got to have fins and furbelows, look no longer towards the Volvo; but if economy and performance are what count, consider this: no other sedan of under 1.5 litres we have ever tested has turned in acceleration times up to 60 mph equal to this Scandinavian import. There is nothing lavish or gaudy about the interior. Four people can ride comfortably, five with a squeeze. Seating is firm, but there is ample height (41 in. front; 37 1/2 in. rear, seat to roof) and adequate leg room (except for rear passengers when the front seats are set far back). The front seat-backs will adjust for angle (though not conveniently, since shims must be removed), and for hardy ones who want to sleep in their car a "bed set" is available consisting of fasteners and supports wherewith the cab can be converted into a boudoir. Interior trim is plain throughout, but everything gives the appearance and feel of being solidly made and reliably put together.

Riding qualities are all on the firm side. Of course, we did use 28 psi in the tires when the factory recommends 18 & 21, but we honestly felt that the recommended pressures actually impaired the car's excellent handling qualities. Suspension is by coils all around, and as a result of their firmness there is almost no roll except when cornering extremely hard. The car steers very easily requiring a minimum of effort at any speed; steering is almost neutral with, if anything, just a touch of understeer. The only disconcerting

*Unusual (these days) is the sturdy floor mounted "wobble-stick."*

*The sports engine turns up to 7000 rpm with 172 lb. valve springs.*



handling characteristic was noticed on a fast bend where even a light bump would cause the front end to jump sideways. Turns of the steering wheel required from lock to lock are 3.2.

Since the standard engine develops 51 bhp, it is easy to understand that the process of extracting 70 horses from 1414cc has not been accomplished without some penalties. The Sports engine is definitely noisy and rough compared to other 1.5 litre powerplants, and despite rubber mountings which allow the unit to rock gently at idle, there is no denying that considerable vibration is present, particularly between 50 and 60 mph in high gear. This is roughly in the 3000-3600 rpm range. The small air-cleaners on the twin SU carburetors also tend to be noisy and perhaps account for a rather peculiar but apparently harmless sound heard during deceleration.

A three-speed transmission is used in the Volvo, and its ratios are rather widely spaced, with an especially large jump from 1st to 2nd. In fact 2nd is more like the 3rd gear in most four-speed boxes. British reports (on the 51 bhp version, the 444K) comment on gear noise, but in our test car it was neither worse nor better than an average British car of comparable size and cost. There are times, how-

## a sturdy import from Sweden that tops in class in performance

ever, when a synchromesh low would be appreciated because 2nd gear is rather "flat" below 20 mph.

One astounding item is the almost astronomical revolution rate of this little pushrod engine; to check valve bounce we once reached an indicated 75 mph in 2nd gear, and even allowing for speedometer error (about average), such a velocity requires 7000 rpm. Examination of the acceleration curve shows that acceleration is tremendous (for a 1.5 litre sedan) up to 60 mph. High gear, however, has been chosen for best possible top speed as indicated by the fact that the blip peak 5500 rpm gives 91.8 mph-by coincidence exactly what we attained on the best run. This speed is a long time in coming (nearly two miles were required), and the fall-off in pulling power when shifting from 2nd to high is graphically illustrated in our usual chart. In fact, the high gear pulling power is only 160 lbs/ton, the Tapley meter holding this figure steadily between 50 and 60 mph. An optional 5.43 "mountain ratio" is available, but we do not recommend such an extreme ratio except for short-course production sedan racing where the theoretical top speed would be about 87 mph at 6200 rpm. This may, indeed, account for much of the phenomenal success of the Volvo in West Coast competition because with such a ratio the car would get up to its top speed (out of a corner) on even a short straight in quite a hurry. During the recent contest at Pomona, the sedan race was run along with the ladies' race, and although a Porsche Spyder finished first, there, hounding along in 2nd place overall, came a Volvo, comfortably ahead of all kinds of sports machinery. Not that many owners will want to race their cars, but it's reassuring to know that the push and handling are there on tap.

In a commendable effort to bring their product esthetically up to date, the parent company introduced at the London show last fall a new 1600cc, 4-door model called the "Amazon." It is not in production yet, and if it becomes available at all, the time will probably not be until late this year or early in 1958. Also, it will have a considerably higher price than the very moderate tag on the PV 444.

While the Sports engine makes itself heard and felt to some extent, anyone who wants performance from a small, low-priced import will be highly pleased with the Volvo PV 444. Its only serious shortcoming is the lack of a "gear" between 1st and 2nd. The company seems to be aware of this, and an alternative gearbox with five forward speeds is being readied as an extra cost option. For those interested, the ratios will be 1.00, 1.35, 1.85, 2.80, and 4.0. And as standard equipment at no extra cost an exhaust system is furnished which at certain speeds produces a "rap" embarrassingly reminiscent of that old party standby, the Whoopee Cushion.

## R & T ROAD TEST NO. 129



### VOLVO 444 SEDAN

#### SPECIFICATIONS

List price.....	\$1995
Wheelbase, in.....	102.4
Tread, f/r.....	50.8/51.6
Tire size.....	5.90-15
Curb weight, lbs.....	2120
distribution, %.....	53/47
Test weight.....	2460
Engine.....	4 cyl-ohv
Bore & stroke.....	2.95 x 3.15
Displacement, cu in.....	86.3
cu cm.....	1414
Compression ratio.....	7.80
Horsepower.....	70
peaking speed.....	5500
equivalent mph.....	91.8
Torque, ft-lbs.....	76
peaking speed.....	3000
equivalent mph.....	50.1
Gear ratios, overall.....	
3rd (high).....	4.55
2nd.....	7.37
1st.....	14.7

#### PERFORMANCE, Mph

Top speed, avg.....	90.0
best run.....	91.8
2nd (6500).....	67
1st (6600).....	34
see chart for shift points	
Mileage range.....	25/32 mpg.

#### ACCELERATION, Secs.

0-30 mph.....	4.1
0-40 mph.....	7.2
0-50 mph.....	10.5
0-60 mph.....	14.5
0-70 mph.....	25.0
0-80 mph.....	39.1
Standing start 1/4 mile.....	20.3

#### TAPLEY DATA, lbs/ton

3rd.....	160 @ 50 mph
2nd.....	285 @ 42 mph
1st.....	480 @ 26 mph
Total drag at 60 mph, 130 lbs.	

#### SPEEDO ERROR

Indicated	Actual
30 mph.....	28.3
40 mph.....	38.2
50 mph.....	48.0
60 mph.....	57.6
70 mph.....	67.0
80 mph.....	76.4
95 mph.....	91.8

#### CALCULATED DATA

Lbs/hp (test wt.).....	35.2
Cu. ft./ton mile.....	73.0
Engine revs/mile.....	3590
Piston travel, ft./mi.....	1885
Mph @ 2500 fpm.....	79.5

