



Often compared to a '41 Ford, the Volvo has a certain pleasing quality. Who knows, maybe the '41 Ford is coming back.

ROAD TEST VOLVO PV-444-L

ONLY A FEW MONTHS AGO, in April, we tested the 70-bhp Volvo. Now, along comes a real surprise, the same car with 85 bhp. Everyone remarks about the similarity of appearance between the Volvo and a 1941 Ford. Now we can add another Ford feature of that era, the 85 horsepower. Volvo called the 70-hp model the PV-444-K; the new 85-hp model is officially the PV-444-L.

The new engine (with a larger bore) is designated as the B-16-B, and already some sources are casting strong doubts as to the accuracy of the advertised bhp. Simply on the basis of a displacement increase from 1414 cc to 1577 cc, the power should go up from 70 to 78. But the compression ratio has been raised from 7.8 to 8.2:1, and this will add further to the output. Also, the torque peak now occurs at 3500 rpm (formerly 3000) which would indicate a camshaft change. Accordingly, we see no reason to doubt the ability of this engine to produce as claimed.

As a matter of fact, we essayed a rather extensive series of Tapley meter tests, toward the end of determining the exact

rear-wheel horsepower. We were hampered by a low-speed carburetion fault, and the results were inconclusive. This much we do know: the Tapley readings of pulling power indicated more than the claimed 14.5% increase in torque.

The carburetion fault was corrected by our supplier (Ron Pearson, the invincible Volvo exponent) but even so, the cold figures show that the 0 to 30 and 0 to 40 times were not quite so good as before. This was hard to explain until we discovered that low gear has been altered slightly, from 3.23 to 3.13. The most impressive performance gain found is in high gear and above 60 mph. The improvement is shown graphically on the acceleration chart.

The average timed top speed proved to be 93.8 mph, or 3.8 mph more than in the earlier test. Such a speed is truly astonishing for a 1.6-liter sedan. A rough calculation shows that this increase in top speed would require 8 more bhp at the rear wheels. (Based on $cw = .5$ and $A = 22$ sq. ft.)

Putting all considerations of performance aside, the Volvo is still a tremendous automobile as a sturdy and practical. *Pleasing use of trim to compliment rather than to ornament the lines of the body . . .*

Chock full of machinery, the engine room shows no exterior change from the earlier 70-hp version.





Blue and cream plastic interior suggests a very expensive customizing job.

With 85 bhp, this Sturdy Swede comes out swinging

utility sedan. When really thrashed the fuel consumption drops to 23 mpg, but normal 55/60-mph highway cruising will give 27 mpg as a best figure. It will cruise comfortably and easily at 75/80 mph, and under light throttle application the power unit is smooth and quiet. Unfortunately, the vigorous sports character of this unit becomes quite apparent when it is pushed hard. Under full throttle it seems to vibrate and becomes noticeably rough and noisy. With fond recollections of the 1931 PA Plymouth's smoothness, we fail to see why a small 4 should be quite so harsh as this one. Yet there is no question but that this is as tough a little engine as you will find anywhere, today.

Chassis-wise, the new Volvo continues with its proven unit construction. Road-rumble has been well subdued. As a matter of fact, the Volvo is not a light car (this one had a radio and weighed 50 lb more than our 70-bhp test car) and it uses heavier than normal gauge steel in many body and structural parts. The solid rear axle is located by a long rubber-insulated trailing arm on each side and uses coil springs. This and an equally well insulated front suspension of conventional design are responsible for an excellent ride, moderate roll, and generally good handling qualities.

The steering, as before, requires 3.2 turns and is light in action, with moderate understeer. Cornered really hard, there is perhaps more roll and a shade more caster return than a sports car driver would like, but a family car man (or woman) will never complain about this. At over 80 mph the steering seems to get "light" and is a little vague, but not so sensitive as to be frightening. Freedom from road shock transmission to the steering wheel is excellent.

Clutch action is unobtrusive, with no sign of slip at any time. The brakes were used fairly hard on several occasions. They, too, are eminently satisfactory. The 85-hp car has more brake lining area than the other version.

Externally, the new model can be identified by the tubular bumper guards at both ends and a new trim around the grille. The interiors are substantially unchanged, except that two-tone plastic upholstery tends to brighten things up considerably. A heater and defroster are standard equipment, but there was no opportunity to try these.

We understand that plans for producing the sports roadster and a five-speed gearbox have been completely abandoned, but with a car like this—who needs a sports car? |§

ROAD & TRACK ROAD TEST NO. 145

VOLVO 85-HP SEDAN

SPECIFICATIONS		PERFORMANCE, Mph	
List price	\$2095	Top speed, avg.	93.8
Wheelbase, in.	102.4	best run	95.3
Tread, f/r	50.8/51.6	2nd (6500)	67
Tire size	5.90-15	1st (6400)	35
Curb weight, lb	3170	see chart for shift points	
distribution, %	53/47	Mileage range	23/29 mpg
Test weight	3490	ACCELERATION, Sec.	
Engine	4 cyl, ohv	0-20 mph	4.3
Bore & stroke	3.125 x 3.15	0-40 mph	7.3
Displacement, cu in.	96.3	0-50 mph	10.3
cu cm.	1577	0-60 mph	14.3
Compression ratio	8.20	0-70 mph	21.0
Horsepower	85	0-80 mph	29.0
peaking speed	5500	0-90 mph	44.5
equivalent mph	91.8	Standing start 1/4 mile	19.5
Torque, lb-ft	87	TAPLEY DATA, Lb/ton	
peaking speed	5300	3rd	300 @ 53 mph
equivalent mph	58.3	2nd	340 @ 44 mph
Gear ratios, overall		1st	540 @ 27 mph
3rd (high)	4.55	Total drag at 60 mph, 117 lb	
2nd	7.38	SPEEDOMETER ERROR	
1st	14.3	Indicated	Actual
		30 mph	28.6
		40 mph	38.0
		50 mph	47.9
		60 mph	57.5
		70 mph	67.0
		80 mph	76.3
		90 mph	85.3
		103 mph	95.3

CALCULATED DATA

Lb/hp (test wt)	29.4
Cu ft/ton mile	80.4
Engine revs/mile	3590
Piston travel, ft/mile	1885
Mph @ 2500 ft./min.	79.5

VOLVO 85-HP SEDAN
Acceleration through the gears.



ROAD TEST 4-SPEED VOLVO

THE VOLVO has steadily, since the date of its first appearance in the U.S., continued to make friends. In the past it has been because of some fine virtues: economy, performance, sturdy construction and rugged dependability, and in spite of some drawbacks: the resemblance to a 1940 Mercury with 1948 Ford fenders (all reduced in size), and a strictly American-style, 3-speed transmission. These latter "features," of course, may appeal to enthusiasts of older-model Fords and therefore would not be considered drawbacks by them.

Well, it still looks like the aforementioned hybrid refugee from Dearborn, but it now has a wonderful 4-speed, all-synchromesh transmission. Still operated by a long, floor-mounted lever, as in past models, it nevertheless is smooth in operation and adds to both the performance and the pleasure of driving the car. The only possible criticism of the transmission might be the spacing of gear ratios. Second and 3rd are just a mite too far apart.

This fault will not bother the driver in normal city driving, but only when maximum performance is desired or, occasionally, when ascending hills that may be too steep for 3rd yet not steep enough to require the use of the much lower 2nd gear.

When maximum speed in low gear is reached and a

quick shift into 2nd is made, the car continues to accelerate in a brisk fashion. But when the car is all extended in 2nd gear and a shift made to 3rd, it bogs down a little due to the wide gap between the gear ratios. Then, with an upshift from 3rd to 4th, acceleration is steady once again.

In spite of the long floor shift lever, the gears were always easily engaged and the transmission is a real tribute to its designers. A remote shift in place of the long lever would be like having egg in your beer, and it should be possible without altering the passenger compartment at all, due to the individual front seats.

There has always been a certain amount of comment, from readers as well as the distributors of the cars tested, about the figures obtained during our road tests.

The tests conducted by Road & Track's staff are road tests, not destruction tests. Each car tested is driven as though it belonged to us, and therefore it is neither thrashed nor coddled. It is given as much consideration as our own personal cars. Accordingly, acceleration and gas mileage figures obtained by us should also be obtainable by an individual owning the same make and model car.

In the case of the Volvo, a mileage check resulted in an actual average of 25.8 miles per gallon in normal city driving. If the car were driven extremely hard this mileage

Engine and accessories are easy to get at and service.



Seat mounting leaves foot room for rear-seat passengers.

PHOTOGRAPHY: POOLE





Finer mesh grille is one of few changes in appearance.

a family-type sports car that really is

would fall off, and on the open highway, or if treated with extreme care, it would, of course, improve.

No changes have been made in the chassis/body of the Volvo, and apparently none are contemplated in the immediate future, so the handling and riding qualities have not changed from previous models (R&T tests, April 1957 and September 1957). Enthusiasts will welcome the added gear, though, as it does enable the driver to select a more suitable ratio to fit each occasion.

The engine still has the roughness that was mentioned in past tests (although to a lesser degree) but is one of the most free-revving rocker-arm engines we've seen. During the test, 80 mph (indicated) was reached in 3rd gear, and the car was still picking up speed when road conditions made it necessary to slow down. This works out to an actual 75 mph, at which the engine rpm was 6500, with no valve float indicated.

The company's claims for a family sports car are obviously not without justification, and if the prospective purchaser of an economy car is satisfied with the appearance of the Volvo he would be wise to give it consideration. There is ample reason to believe he will be happy with the car and can expect, and get, a long, trouble-free life from this Swedish product. @

Bumper bracing is for U.S.-style bash and smash parking.



ROAD & TRACK ROAD TEST 184

4-SPEED VOLVO

SPECIFICATIONS		PERFORMANCE	
List price	\$7360	Top speed (avg), mph	93.1
Curb weight	2160	best timed run	95.1
Test weight	2490	3rd (6450)	81
distribution, %	50.5/49.5	2nd (6500)	54
Dimensions, length	177	1st (6500)	31
width	62.2		
height	61.4		
Wheelbase	102.4		
Tread, f and r	50.8/51.6		
Tire size	5.90-15		
Brake lining area	147		
Steering, turns	3.2		
turning circle	36		
Engine type	4 cyl, ohv		
Bore & stroke	3.125 x 3.15		
Displacement, cu in	96.6		
cc	1584		
Compression ratio	8.20		
Bhp @ rpm	88 @ 5500		
equivalent mph	92.0		
Torque, lb-ft	90 @ 3500		
equivalent mph	58.5		

FUEL CONSUMPTION		ACCELERATION	
Normal range, mpg	25/24	4-30 mph, sec	4.2
		0-40 mph	6.8
		0-50 mph	9.9
		0-60 mph	13.0
		0-70 mph	18.8
		0-80 mph	27.0
		0-90 mph	
		0-100 mph	
		Standing 1/4 mile	19.1
		speed at end, mph	71

GEAR RATIOS		TAPLEY DATA	
O/d	overall	4th lb/ton @ mph	195 @ 55
4th (1.00)	4.55	3rd	245 @ 50
3rd (1.31)	5.97	2nd	380 @ 37
2nd (2.18)	9.93	1st	540 @ 22
1st (3.45)	15.7	Total drag at 60 mph, lb	117

CALCULATED DATA		SPEEDOMETER ERROR	
Lb/hp (test wt)	29.4	30 mph	actual 29.2
Cu ft/ton mile	80.4	40 mph	38.3
Mph/1000 rpm (4th)	16.7	50 mph	47.4
Engine revs/mile	3590	60 mph	56.2
Piston travel, ft/mile	1885	70 mph	65.2
Rpm @ 2500 ft/min	4760	80 mph	74.8
equivalent mph	79.5	90 mph	84.5
R&T wear index	67.6	102 mph	95.0

4-SPEED VOLVO