

Volvo's policy of constant product improvement is responsible for a beefier engine, a different grille, and stronger bumpers — all more in line with American taste. Interior of the car has been changed a bit, too.



SCI CAPSULE ROAD TEST: A HOTTER VOLVO

THE FIRST Volvo to reach the U. S. was a subject of capsule road test in SCI for July '56. This car, driven by Ron Pearson, instantly dominated racing in Southern California in the under-1500 cc production sedan class. A year has passed, Volvo was beaten only once, and our old test car still is running like a watch. This is in spite of having been flogged in umpteen races and constantly thrashed as a sales demonstrator. It gives credence to the claim that 120,000 miles without a rebore is not unusual for these well-made Swedish cars.

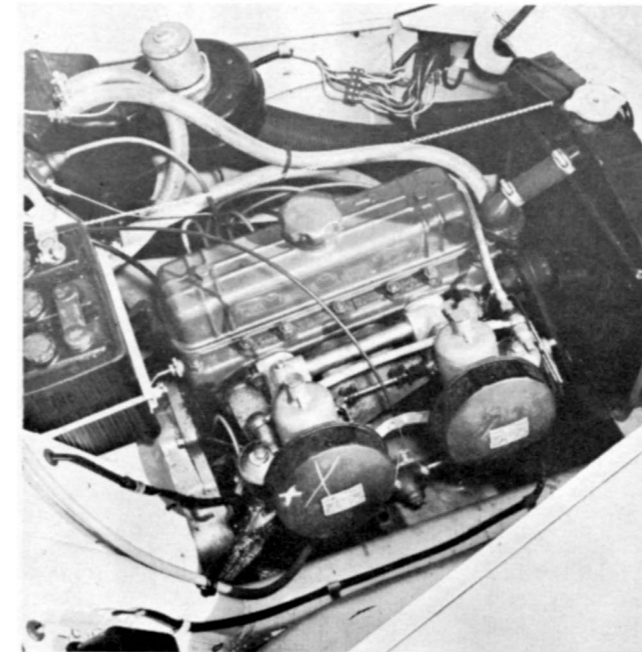
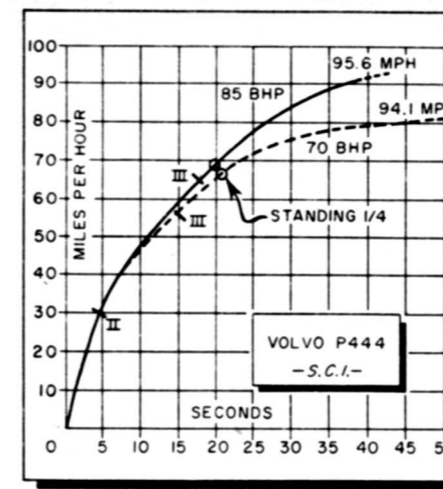
Pearson's machine has been followed by over 11,000 Volvos on the west coast alone. They are not all the same by any means, because of the factory policy of steady improvement of the product, as opposed to design that is frozen for one or more model years.

The latest development in Volvo evolution is the retirement of the 86.7 cu. in., 70-bhp engine in favor of a 96.6 cu. in., 85-bhp version called the B16B. The increased displacement comes from enlarging the cylinder bore from 2.96 to 3.125 ins. The 21.4 per cent increase in power out-

put results from the added inches plus an 8.2 compression ratio in place of 7.8 and two 1.5-in. S.U. carbs in place of a pair with 1.25-in. throats. A different camshaft evidently has been fitted, resulting in a less-flat torque curve that peaks with 87 lbs.-ft. at 3500 rpm rather than 76 at 3000.

What does the increased potency at the flywheel mean to the Volvo's performance? There is no difference below 40 mph but in the upper rpm range the transformation is radical. The zero to 80 mph time is reduced by 36 per cent and the car now surges up to 90 mph in almost ten seconds less time than the 70-bhp model takes to reach 80. Torque and pulling power are excellent in the new model's high speed range. In spite of the increased urge the difference in fuel consumption between the two models is insignificant. Engine noise and vibration are a bit more prominent in the 85-bhp model and it has a more pronounced tendency to run on for a few revs when the ignition is switched off.

The B16B engine develops its peak power at 5500 rpm but can be run up to at least 6400 without valve float. Our



The B16B engine is rated 85 bhp. The higher output comes from a larger bore, a higher compression ratio, and bigger carbs. A new cam produces a steeper torque curve with a higher peak.

top speed of over 95 mph was clocked at 5800 rpm at the end of a 1.25-mile approach but revs still were mounting slowly. At top speed the car's handling is above criticism but from about 50 mph wind drums loudly in the passenger space if a window is open.

The Volvo recently has been given a beefier low gear but to engage it silently at a standstill it must first be "synchronized" by engaging top gear. The bumpers have been greatly improved and husky over-rider bars are standard equipment. The grille has been changed, heavy-duty electric windshield wipers have been adopted, and many detail improvements have been made to the car's interior. Points praised in last September's full-scale test report that deserve to be emphasized again are this machine's cornering ability and its welded body-frame structure, which feels as strong and solid as a steel safe.

The Volvo with B16B engine carries a port of entry base price of \$2295 and represents an exceptional blend of low price, high performance, maneuverability, economy of operation, large carrying capacity, and low depreciation.

Griff Borgeson

VOLVO PV444, 85 BHP MODEL

TEST CONDITIONS:

Number aboard 1
Temperature 73°F.

PERFORMANCE

TOP SPEED:

	85 BHP	70 BHP
Two-way average	95.0	94.1
Fastest one-way run	95.6	94.8

ACCELERATION:

From Zero to		
30 mph	4.5	4.9
40 mph	7.7	7.5
50 mph	10.9	11.6
60 mph	15.2	17.3
70 mph	20.4	22.9
80 mph	26.5	47.2
90 mph	37.9	
Standing 1/4 mile	20.1	21.2
Speed at end of quarter	73	68

SPEED RANGES IN GEARS:

I	Zero to 34 mph
II	10 to 65 mph
III	18 to top

SPEEDOMETER CORRECTION:

Indicated	Actual
30	28
40	38
50	48
60	58
70	68
80	76
90	86
100	94

FUEL CONSUMPTION:

Hard driving during accel. & speed runs 22.7 mpg
Average driving (under 60 mph) 28 mpg

BRAKING EFFICIENCY:

1st stop	70
2nd	70
3rd	70
4th	70
5th	68
6th	67
7th	62
8th	55
9th	47
10th	46

POWER UNIT:

Type	In-line four (three main bearing shaft).
Valve Arrangement	Pushrod ohv.
Bore & Stroke	3.125 x 3.15 ins. — 79.4 x 80mm
Stroke/Bore Ratio	1.01 1.01/1
Displacement	96.6 cu. ins. — 1584 cc
Compression Ratio	8.2/1
Carburetion by	Dual 1.5-in. SU side-drafts.
Max. bhp @ rpm	85 @ 5500
Max. Torque lb-ft @ rpm	87 @ 3500
Idle Speed	450

DRIVE TRAIN:

Transmission ratios	
I	3.13
II	1.62
III	1.00
Final drive ratio (test car)	4.55
Axle torque taken by	Torque arms.

CHASSIS:

Wheelbase	102.5 ins.
Front Tread	51.0 ins.
Rear Tread	51.5 ins.
Suspension, front	Independent, coil spring and wish-bones. Anti roll bar.
Suspension, rear	Coil springs, track rod.
Shock absorbers	Double-acting telescopic.
Steering type	Cam and two-stud lever (ZF).
Steering wheel turns L to L	3.25
Turning diameter	33.5 ft.
Brake type	Hydraulic; leading & trailing shoes F&R.
Brake lining area	116 sq. ins.
Tire size	590 x 15 (tubeless) Loaded radius 12.5 ins.

GENERAL:

Length	177 ins.
Width	62.5 ins.
Height	61.5 ins.
Weight, test car	2140 lbs (full fuel tank).
Weight distribution, F/R	52.4/47.6
Fuel capacity	9.5 U.S. Gallons

RATING FACTORS:

Bhp per cu. in.	0.88
Bhp per sq. in. piston area	2.78
Torque (lb-ft) per cu. in.	0.90
Pounds per bhp — test car	25.2
Piston speed @ 60 mph	1910 fpm
Piston speed @ max bhp	2890 fpm
Brake lining area per ton (test car)	108.5 sq. ins.
Mph per 1000 rpm	16.5