THE VOLVO 145 ESTATE

By J. EASON GIBSON

THE Volvos, which have for so long used engines of 1,778 c.c., have now had them replaced by units of 1,986 c.c. As before, these are available with either one carburettor—as I tested—or two, when the car is known as the 145 S. The purpose of the larger engine is not to raise the performance in the usual sense, but to provide greater torque at low and medium engine speeds and so provide better acceleration and low-speed pulling.

This latest overhead valve four-cylinder engine has a lower compression ratio than the earlier unit—9·5 instead of 10 to 1—allowing it to be run on four-star petrol. A special Zenith-Stromberg carburettor has been designed in conjunction with the Volvo engineers to reduce the emission of carbon monoxide gas to a figure acceptable to the prevailing federal regulations in the USA. After the carburettor has been correctly adjusted at the factory, and the percentage of carbon monoxide in the exhaust gas carefully measured, the carburettor is sealed to prevent tampering. This and the use of closed-circuit crankcase ventilation, reduces the emission of carbon monoxide and other noxious gas into the atmosphere. The increase in the engine's capacity of 10 per cent has given a gain of 15 per cent in the torque. Five main bearings are used on the crankshaft, to give the maximum rigidity and smoothness of operation. A full-flow oil filter is incorporated in the lubrication system. A total output of 90 brake horse power is given at 5,000 r.p.m., and the maximum torque at 3,000 r.p.m., but a high torque figure is available over a wide range.

The car is of integral construction and independent suspension is used at the front, by means of coil springs and wishbones, assisted by an anti-roll bar and telescopic hydraulic dampers. The live rear axle's suspension is by trailing arms, coil springs, an anti-roll bar and telescopic hydraulic dampers. The turning circle of 30 ft. 9 in. is a modest one for a car with such overall dimensions, and the steering is not too low-geared at 4·2 turns of the steering wheel to change from lock to lock. Girling hydraulic disc brakes are used all round, with a divided hydraulic circuit to avoid complete failure at any time. There are no points on the car requiring attention with a grease gun at any time. The overall gear ratios are on the low side, to allow for the enormous loads that can be carried with the rear seat folded down, so there is naturally a tendency for engine noise to become apparent at lower speeds than on some cars of equivalent engine capacity. In spite of this, third gear gives a maximum of 70 m.p.h., which is a useful proportion of the car's maximum. The suspension is deliberately set to be firm, to allow for the possible load of five people and considerable luggage, or only two and a great load. The relation between the wheelbase and the overall length is accounted for by appreciable overhang at the rear.

The car tested was fitted with the optionally extra windscreen wiper on the rear window, which was electrically heated, and this was a great help when driving on dirty roads. All-round visibility was good, and generally speaking the driving position was comfortable and efficient. The brake pedal, when in the off position, was mounted rather high so the right foot had to be lifted deliberately to change the foot from the accelerator, which is time-wasting and tiring. The controls for the heating and ventilating system take the form of rotating wheels, which are both easy and accurate to set. An outstandingly sensible idea, unique to the Volvo, is an adjustment which enables the uphostery of the front-seat backs to be made more concave, or convex, to give the exact support needed in the small of the back. No face-level fresh-air inlets are fitted, but there is one at each side approximately at foot level—useful in hot weather, but they do not prevent the accumulation of stale air around the face. Apart from the big loading space with the rear seat folded down, there are additional storage spaces beneath the floor, which could be useful for the concealment of valuables, such as cameras. With adjustment for rake and the very good shaping of the seat itself, most occupants will find the car comfortable. A clever small feature is that the tailgate is held open by small gas cylinders incorporated in the stays.

During the first few miles of my test it was noticed that the suspension is not at its best on the average smooth British road. There is too much high-frequency movement over relatively minor bumps and ridges and road noise is quite noticeable to the occupants. In view of this I immediately tried the car over rough side roads and unmade tracks. Under these circumstances the car showed itself capable of coping with the worst conditions, and the feeling of robustness and strength was very encouraging. The suspension is obviously intended for the worst conditions likely to be met with by motorists anywhere. Against the above must be set the fact that the car's cornering and road-holding are good, no matter whether the car be fully loaded, or carries the driver alone.

The servo-assisted brakes work very well, and give a good stopping distance with only slight physical effort, and in spite of deliberate efforts to cause fading I could reproduce no symptoms. Some cars with disc brakes on all four wheels suffer from inefficient hand brakes, but this does not apply to the Volvo, as small drum brakes are built into the rear discs. The steering is rather on the heavy side when manoeuvring. In fact it never becomes what some would describe as light, but this is more than counteracted by its accuracy.

The car, again compared with "softer" and more popular types, becomes rather noisy at higher engine speeds, but at no time does this noise give the impression of mechanical strain. No doubt the spending of a relatively small sum of money on sound deadening equipment would make a startling difference. One irritating feature relates to the gear change as it is effected by the clutch action. It is necessary to press the clutch pedal to the full extent of a long travel of 6·25 in. to obtain clean gear changes. Unless this is done the change becomes awkwardly sticky, and while this peculiarity is unimportant on the open road it can be irksome in town driving, or very heavy traffic elsewhere. Both front and rear bumpers are rubber faced. This not only avoids unsightly blemishes, but counters the efforts of clumsy parkers to dent the bumpers in preference to judging the length of their own car with accuracy. The handbrake lever is sensibly placed to the right of the driver's seat, and its end is shaped so that the right heel cannot accidentally release the brake.

I have mentioned the lengthy travel of the clutch which mars gear changing under certain circumstances, so it is only fair to mention that the gear change itself is good, and has a helpfully powerful synchromesh. In addition to the wiper for the rear window, a washer can be fitted as well. Stemming, no doubt, from the dirt roads in much of Sweden this is a most sensible fitting on a square-backed estate car, which tends to suck its own dirt along with it. Not too dear to buy, the 145 Volvo seems the type of car that will give reliable service for many years and miles.

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Concessionnaires: Volvo Concessionnaires, P.O. Box 7, Tower Ramparts, Ipswich.

SPECIFICATION

Price	£1,599 (including P.T.) £349	Brakes	Girling dual-circuit hydraulic (servo-assisted; disc all round)
Cubic capacity	1,986 c.c.	Suspension	Independent (front)
Bore and Stroke	88·9 × 80·0 mm.	Wheelbase	8 ft. 6·5 in.
Cylinders	Four	Track (front)	4 ft. 5 in.
Valves	Overhead	Track (rear)	4 ft. 5 in.
B.h.p.	90 at 5,000 r.p.m.	Overall length	15 ft. 2·5 in.
Carburettor	Zenith-Stromberg	Overall width	5 ft. 8 in.
Ignition	Coil	Overall height	4 ft. 9 in.
Oil filter	Full-flow	Ground clearance	7 in.
1st gear	13·46 to 1	Turning circle	30 ft. 9 in.
2nd gear	8·56 to 1	Weight	25·5 cwt.
3rd gear	5·85 to 1	Fuel capacity	13·5 gall.
4th gear	4·30 to 1	Oil capacity	6 pints
Final drive	Hypoid bevel	Water capacity	15 pints
		Tyres	165 × 15

PERFORMANCE

Acceleration	Top	3rd
30–50	10·8 sec.	7·4 sec.
40–60	11·5 sec.	8·0 sec.
0–70 (all gears)	20 sec.	

Max speed 90 m.p.h. (estimated)

Petrol consumption 22 m.p.g. at average speed of 50 m.p.h.

Brakes 30 to 0 in 31·5 ft. (96 per cent efficiency)