

with four--Bosch fuel injection which increases the power by about 10percent unately this is only although Americans matic transmission, Unfort-Borg Warner autoavailable with standard can have it 95DIN. electronic speed box. the 2

We examine the origins of the Swedish

industry, and assess two of its newest

productions-the Saab 99

and Volvo 164

1968 we drove one of the early prototype press and were more impressed than we judging from a fairly had expected to be, In Back cars

The steering wheel design has joints and given the car new engine mountings the engine now give you a clock, choke warning lamp on the dash panel. The door trim has also been changed, so you now have new armrests the doors, ashtrays on tame specification. Then, last year, Ronald Barker took a production model to Italy and and by pronounced Since then, himself disappointed driveshaft insulation between the inner corners. snatch in been changed and they and announced gearchange improved a cigarette lighter and specification. to improve the and the body. transmission Saab have the back with

both sides of the rear seats, and new upholstery.

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photography: John Perkins

shoulder lines and large glass area the 99 is the mechanical bits, and it is also noticeable that Saab use a foil-covered insulation pad and padding abounds, with built-in headrests as III Gothenburg. It was finished in Saab's distinc-tive red with black upholstery. With its low its styling will not withstand detail analysis. In this it resembles the XJ6. The bonnet pulls forward and then tilts downwards, as in the other Saabs, so that you can get easy access to above the engine. The body is solid and Saab feet off the ground and just drop it on its roof to see if the pillars break. They are very safety conscious undoubtedly attractive to look at even though store by their ultimate crash test, Motor Hotel us, for a 99 about six waiting arranged, outside the OK test car was and belts front and rear. which is to raise great Our set

itself because he lifted his foot off the accelerator! Behind this is the ignition key slot (on the floor between the seats, would you when he arrives at a corner covered in black ice only to have the transmission disengage believe) and the usual Saab transmission lock, has a floor gearchange and beside it is the lever to engage or disengage the free wheel, a device now peculiar to Saab which is favoured by the The dash layout is clean, with three circular average British driver dials in front of the driver. On the right are the standard car Swedes in winter but which scares the living The warning lights in a circle. daylights out of the

and pockets in

the standard 99 called the 99E, with

having to take out the camshaft and valve the applied their winter weather experience to make sure it is cylinder head bolts are located in one row at an angle so that the nuts can be reached without suitable for their climate. The overhead camshaft is driven by a single track chain and turns mechanism. Zenith-Stromberg provide carburettor, but Saab have applied 1 is an alternative specification to out to be remarkably quiet in operation. There

flow breathing. What is interesting about the detail design of the head, however, is that the aluminium cylinder head is used with crossan a cast iron block and crank, but steel

insist, idling 5000 engine is solidly built, with duction engines do reliable and had a that series of 400hr for any valve adjust-ment. The engine but they emphasise that they wanted an Was range running tests at full is far from brilliant, proneed which some of the 1000 to instance, the and They torque without throttle engine from rpm. for fat B So

Lift the bonnet and the engine compartment was a layout is not altogether tidy, though everything such as armrests sunk deeply into the doors feeling of quite remarkable roominess without as in a 3 15 the engine which, incidentally, result Sweden there gearbox beneath it the and we drove in rear trim sections, undue exterior bulk. is very well finished. with the the model wheels, against and

15 Bahco petrol heater mounted as an extra which an mounted at a 45deg angle between the front Triumph 1300. The battery is wedged into the front corner just behind one headlight, and in took up even more space. The underbonnet looks pretty full. There is the radiator right up

unitary SHAPE, been announced by the time this ing to front wheel drive are that it allows best that. In the 99 the company have sought to door five-seater (a four-door should holding characteristics', and few will challenge has front wheel Saab's official reasons for stickof the interior space 'and the best roadto speak, than in pictures. It's a twoincorporate a number of space-saving features, flesh, eolid Swedish steel UNUSUAL better looking in the AN IS construction. and appears in 66 much drive have THE use

to admit that the present 87DIN hp output 83.5mm bore and 78mm stroke, and the crank runs in five main bearings. Saab are the first The engine design is oversquare, with

Not which means you must be in reverse with the engine switched off before you can pull the key out. Our car had done just over 14,000km and ran on Firestone Cavallino Sport tyres.

We drove up to Linkoping (pronounced Linshopping), where Saab's aircraft factory is based, one Saturday morning, and this gave us the chance to try the car out in all sorts of conditions. For a start, photographer Perkins wanted it in the woods so nothing would do but we took the car off the main drag and up a typical Swedish forest road. The first thing that struck us was that the 99 seems much softer than the competition-inspired 96 range. Through the gears, however, it pulls quite well, although acceleration is far from inspiring. On hitting a bump, the old rally trick of pulling on the handbrake to lift the front just doesn't work as Saab have put the handbrake on the front wheels-a fact which has apparently given rise to a number of interesting moments. The story is told by Saab's competitions press man, Torsten Ahman, of the day the competitions manager decided to do a handbrake turn down near the river at Trollhattan. They almost ended up dredging him production and in addition to their saloons they out of the slimy briny.

free wheel, as there is a transmission drag on a different cylinder head and a tougher gearbox large locking clip from the door pillar, passing pick-up, and for the rest of the time we drove in a conventional manner. What impresses one about all Saabs is the efficient way in which they work. The broken up roads following a hard winter produced no body rattles, and there was a solid oneness about the car which one could only really appreciate in Sweden or probably in Africa. The engineers appear to have mastered the setting up of suspension for fragmented road surfaces so that the car soaks them up with little effort and apparently little damper action, so producing an impression of flexible firmness. On British roads a 99 therefore feels very smooth indeed. As can be imagined, all the handling is concentrated up front. The steering feels positive save when driving fast on badly cut-up roads, when the driveshafts appear to be assisting the steering, pulling the car one way or the other. Parking effort is high, but the faster you go the less this is apparent. Roll on the corners is minimal and you tend to forget about what the back wheels are doing as they have no task other than to follow the front wheels. The brakes, which are disc all round, are interlinked diagonally for safety in case of failure in one of the dual master cylinders. They stop the car quickly but suffer from a pedal deadness, like standing on an orange. Going through the gears you can get the front wheels to spin and our test car's speedometer, which was very accurate (70 km/h = a true 69), showed that it would reach 50mph in 12sec and 70mph in something over 25. It would do 50mph in second, and flat out when the police were not looking it touched 95mph more than once. Obviously, at this rate, no one is going to pass over an E-type for Saab 99 performance; what is remarkable about the car is its quietness and lack of fuss. At the end of the day you know you have driven something which is different. Even so, with the current emphasis on performance from family saloons

the Saab 99 needs the rally treatment to give the familiar cloth which is also used in it more low down torque with a steeper curve.

Turning now to the 164, you must consider that Volvo is the largest engineering industry in Scandinavia with 20 factories and 50,000 people earning their living out of the company. They manufacture 90 different products and among these are cars, trucks, buses, tractors, agricultural machinery (their subsidiary Bolinder-Munktell), marine engines (AB Penta) and jet engines for Saab aeroplanes. Indeed, up to this year they also made printing machines and *Pravda* is printed on them!

On the car side they have their main manufacturing plant just outside Gothenburg. On this trip there was no time to visit the factory—we arrived on May Day which was a national holiday—but having been there many times before I never fail to be impressed by its organisation and above all its cleanliness. Part reason for this may be that there are a lot of girls working there who get equal pay to the men and probably demand better working conditions than you get at Longbridge.

Volvo export around 60percent of their still build the two-seater GT car now called After about 50 miles we took the car out of the 1800E and boasting fuel injection by Bosch, the system of one movement by taking the and back axle. The 1800 coupé used to be it over your body and locking it on to a steel bodied in Britain-at Pressed Steel up in Linwood-but today one of the Volvo subsidiary plants, Olofstrom AB in Blekinge, in the southeast of Sweden, builds the cars. Among other things Volvo were the ones who developed the unique Swedish car insurance system whereby the factory or, in the case of foreign imports, the importer, insures the car for body damage whilst the purchaser insures third party and personal damage. It took years of fighting the insurance establishment to have the laws changed on this and today you have a five-year warranty in Sweden on any Volvo, Saab, Ford, etc, which covers body damage, provided the work is done by an approved dealer. The Volvo 164 was introduced to the public on July 16 1968 and was the first six-cylinder Volvo for over 20 years, the last model being the PV60 which had a 3.6-litre side-valve 6 with styling along American lines as was the custom at Volvo just prior to and immediately after the war. From the start the 164 was aimed at the luxury market and even in its native land it is expensive. At first glance it even looks like a Bentley or a Rolls-Royce and our test car was the latest press car on the fleet which right out before the gears would come smoothly. had just been yanked back from some Swedish journalists. Finished in mustard paint and with black upholstery it looked a reasonably impressive proposition. Yet one must admit from the start that both the 140 and 160 series Volvos have plain and rather heavy styling with little distinguishing character to my mind. It may be that the cars just look dull and overbodied but certainly they are built for toughness. Our model had a sunshine roof as standard and overdrive fitted to a manual gearbox with a floor change. The seats were leather and not

the 164. They were fitted with good firm headrests and the Volvo engineers have gone a long way towards producing a car which is as comfortable to drive as to sit in. The big contour-moulded seats are more chunky than the ones on the 140 series and they have fore and aft movement as well as vertical movement and reclining backs. If you can't fit into the car you must really be made like Quasimodo, in which case you should maybe buy a Bond Bug and forget the Volvo. Volvos have this lumbar knob on the seats which manœuvres the seat back to fit into the contours of your spinal column.

Once seated a glance at the dashboard confirms a simple and uncluttered layout of instruments with a horizontal speedo with a teak-like surround, two clusters of knobs which are clearly marked with drawings as to their purpose and the three vertical dials for selecting your heat and where it is going. The gear lever sits between the seats and is chunky and small, behind which is the double clip where the seat belts fit. I must say that of all the cars I have used the Swedish ones have the best seat belts-usually Klippan. They operate on hoop between the seats (as in the Saab) or into two slots with release levers (as in the Volvo). The two-belt system we use in Britain is Heath Robinson by comparison. Among the standard items on the 164 are a heated rear screen, dual circuit braking, and an alternator. The B30 engine or the new 3-litre sixcylinder produces 145bhp and is a logical development of the 2-litre 140 series engine. Indeed, it is so logical it is in fact the 2-litre four-cylinder with a new block and two more cylinders of exactly the same dimensions  $(80 \text{mm} \times 88 \text{mm})$  added. This is great for Volvo dealers who just stock the same pistons, rings, etc, for both engines. The engine has a seven bearing crank with lead-bronze alloy main bearings for added toughness and the compression ratio runs 9.2 to 1. Turn the key and the engine turns over quietly. We twice tried to light the engine up when it was running so it can be said the Volvo is quiet on idle, or else my hearing isn't as good as it used to be. The first thing that fazed me about the car was the clutch action, which was long in the travel department and it had to be pushed Having started it and moved it off there came the matter of the steering which was power assisted much in the way the Jaguar models have it with progressive feel as you increase speed. At low speeds the steering is as light as a feather which leads to wild understeer on roundabouts but on fast cruising it handles beautifully and has plenty of feel. Driven normally and sedately it is as smooth a car to drive as you will get at the price but what might surprise a lot of people is that if you give it the big stick and wind it up through the gears it goes very well indeed. When we corrected the speedo which recorded 70km/h when it was actually doing 67km/h we found it

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would hit 60mph in around 10 seconds and through the gears it would reach over 60mph in second and almost 90mph in third with a top speed of 102mph in overdrive. The car rolls more than it should and a few leaves out of the competition department book, such as slightly stiffer suspension and maybe even wider wheels, would give the 164 a more comfortable feel. Overdrive operates on top gear only and is simply a fuel saver and long distance cruise gear; it doesn't give the impression of an extra gear as you can get with other cars. The remote control gearbox on the other hand is very good, being precise and firm.

Brakes are disc all round with servo assist and they passed the low speed test with flying colours.

The seating accommodation is excellent. It is hard to say how Volvo could build in more character to the 164 but certain things about it are appealing. It really is a strong and robust car, it is properly screwed together and doesn't rattle anywhere. You can hammer the engine and it doesn't complain and for anyone who is wanting to buy a car to keep it for any length of time there are few which would remain in one piece despite hard usage in the way Volvos do. In this respect Swedish cars have a feel of their own and if customer reaction is anything to go by your first Volvo will not be your last. It grows on you as a thoroughly well-engineered car. GG



The more luxurious seating in the Volvo (top right) is just as comfortable as it looks while in the more conventional Saab layout there was little support anywhere. Both the engine compartments were a little messy although the Saab (bottom right) offered better general accessibility due to the helpful way the bonnet goes up. From a styling point of view neither car is going to win any beauty prizes, which is surprising when you consider the Swedish reputation for industrial design





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