

Part of the Jensen-Healey production line.

JENSEN FACTORY VISIT

Impressive Jensen production

By JOHN BOLSTER

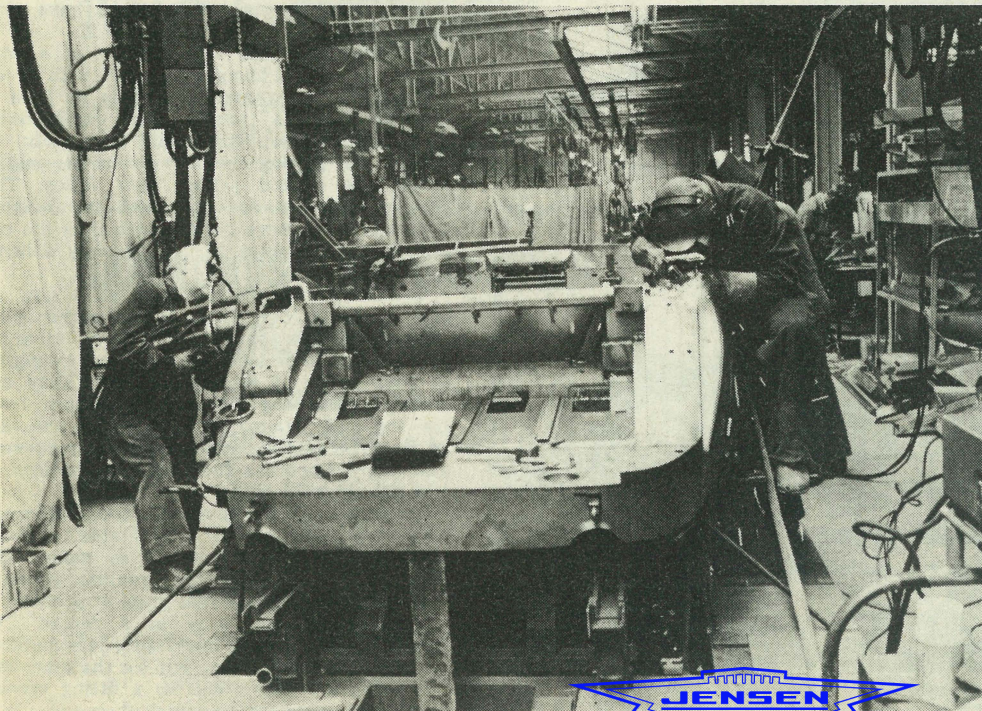
Well before the war, I knew Richard and Alan Jensen, first as builders of bodies on other people's chassis and then as motor manufacturers in their own right. At that time, they used traditional coachbuilding methods, but after the conflict they became outstandingly adept at the construction of glassfibre bodies, such as that of the Jensen CV8. They also proved their mastery of the modern pressed-steel monocoque by various design exercises for the big manufacturers, as well as the complete construction of the big Healey and the Sunbeam Tiger, for BMC and Rootes respectively.

Of recent years, the brothers have taken a less active part and have now both retired. It is no secret that the company has had its

ups and downs. When Leyland took over BMC, they soon cancelled the Healey 3000 contract, and a similar blow was sustained through Chrysler killing the Tiger, because it had a Ford V8 engine. The CV8 was hard to sell, having a somewhat Chinese look instead of the Italian line, which is now almost obligatory for costly cars.

First stage in the recovery was to take what was virtually the CV8 tubular chassis and get a body designed in Italy—indeed the first steel shells of the new Interceptor were made in that country. It was decided that the Interceptor should be built to a higher standard of quality than any previous Jensen, with price a secondary consideration. In addition, a less costly model, to fill the place

A Jensen Interceptor takes shape on the jig.



in the market—and on the assembly line—the Healey 3000 should be undertaken. The Americans were still shouting for the big Healey and British Leyland's MGC was a total flop, so it was natural for Donald Healey and Jensens to get together and produce the Jensen-Healey.

All this has not been done without blood, toil, tears and sweat. There have been several changes of management and of the financial structure but now there is a team which really believes in the company and its products. Leading the team is Kjell Qvale, who has the inestimable advantage of possessing a vast sales network for European cars in the United States, where most of the cars are sold.

I recently visited the Jensen factory at West Bromwich, which has been greatly expanded and employs more than three times as many people as only four or five years ago, if one includes the new factory lately opened in Wales. Production has now risen to 25 Interceptors and 105 to 110 Jensen-Healeys per week. Of the Interceptors, about half will be the new convertibles of which eight or nine will go to the North American market, including Canada, and a goodly portion of the saloons, too. At least 80 Jensen-Healeys per week will go to the same market. The demand in Australia is rising and in the nine-month period ending in December, 30 Interceptors and 75 Jensen-Healeys will have been sold to Japan.

There has been a bottleneck in the supply of Healey hard-tops, due to an outside supplier failing to meet the demand, so Jensens have gone back into the glassfibre game. In addition to rushing hard-tops to impatient purchasers, they now make their own transmission covers and instrument panels for the Interceptor.

Though the cars are built side by side, different methods are employed; while both bodies are of steel, the Interceptor has a twin-tube chassis but the Healey is of monocoque construction. The outer wing panels of the Healey are not part of the structure but bolt on, for ease of repair and reduced insurance premiums. The Healey is built on a normal assembly line but the Interceptor requires more craftsmanship and only moves on a chain when it is going through the priming-dip and painting booths. The body pressings for the Interceptor come from Motor Panels of Coventry and those for the Healey from Dowty, Boulton, and Paul.

The Jensen-Healey is of relatively simple shape but the Interceptor is more complex and requires a great many pressings. These are received straight from the press and undergo much trimming and hand-finishing. The two large tubes are welded to the body, the floor pan and front and rear diaphragms being secured first. Then the rear and side panels go on—different pressings for the convertible here—followed by the front wings, front panel to carry the grille, scuttle and roof. Bonnets and doors are fed in from the side as needed.

The amount of electrical wiring on a modern luxury car is enormous. All Interceptors have air conditioning and the doors contain window motors, locks and speakers. A very heavy jig is bolted in place, allowing the front of the body to be hammered into shape to take the screen accurately. A somewhat similar arrangement ensures the perfect opening and closing of the rear glass panel and the hoods for convertibles are built up on a jig and are completely interchangeable. There's a vast amount of undersealing on an Interceptor, applied while the body is mounted on pivots and turned over, while a lot of sound-proofing is applied before trimming. The trimming of a car of the Interceptor's class is a long and painstaking task, performed by craftsmen; only Connolly's best hides are used.

Construction is far advanced before the car meets its Chrysler engine with automatic transmission, Salisbury axle and Girling brakes with ventilated discs all round. Construction of an Interceptor, from the moment when the tubes are placed on the jig to the end of the 120 miles road test, takes six weeks. Options include sheepskin centre panels for the leather seats and louvred

bonnets for the saloon—standard on the convertible.

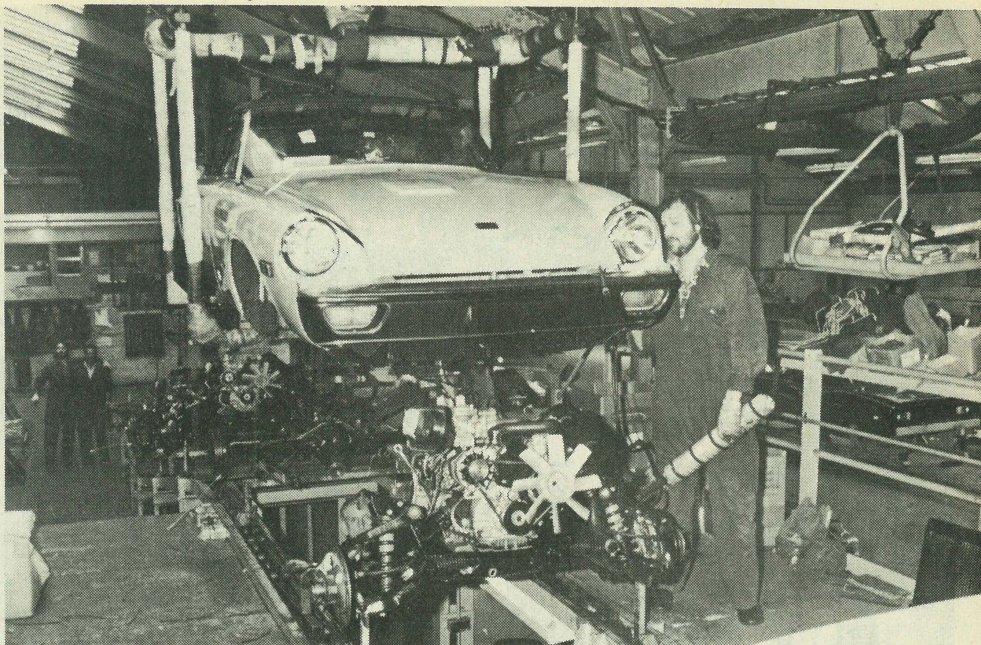
The Jensen-Healey also meets its engine and suspension late in the game. The body—painted, trimmed, fully equipped and glazed—arrives on an overhead conveyor and finds its mechanical components laid out underneath it. Gently lowered with a hoist, it lands accurately on the front crossmember, which already carries the engine and suspension parts, and the rear springs and axle. Suspension and axle are by Vauxhall, gearbox is Sunbeam Rapier, and the engine is the 2-litre Lotus 16-valve slant-four. The assembly only takes a matter of seconds and wheels and tyres are fitted at the end of the line.

As I knew that a few teething troubles had been experienced with the Lotus engine, I interviewed Roy Marshall, the technical service supervisor.

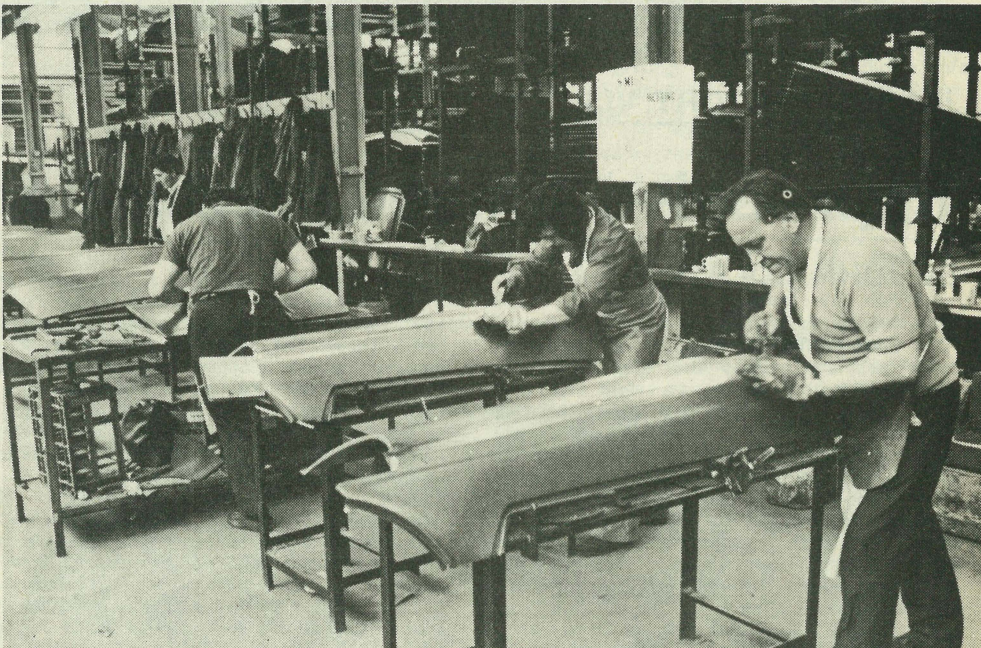
Oil leaks were at first a problem, that from the cam cover being cured by a gasket of later specification. A leakage between the cam housing and head was remedied by the use of a latex-dip gasket positively located by a hollow dowel. Excessive oil level was traced to owners, who did not wait for the oil to drain back from the top of the engine to the sump before reading the dipstick—a job much better done with a cold engine. Actual oil burning with new engines was experienced and has been overcome by fitting different piston rings, including 3-piece oil-control rings. There was a tendency for oil to be drawn through the breathing system, which has been prevented by improving the crank case ventilation.

More serious was a delay in building up oil pressure after a cold start. This was due to air on the pressure side of the pump and was cured by drilling a .05 inch hole—the leakage of oil through this back to the sump is of no consequence and does not affect the pressure as the relief valve is working at all times anyway. It was this oil delay that was the primary cause of some camshaft seizures, forcing the drive belt to jump a cog or two, but this has been eliminated by increasing the bearing clearance by .001 of an inch and re-shaping the oil drillings.

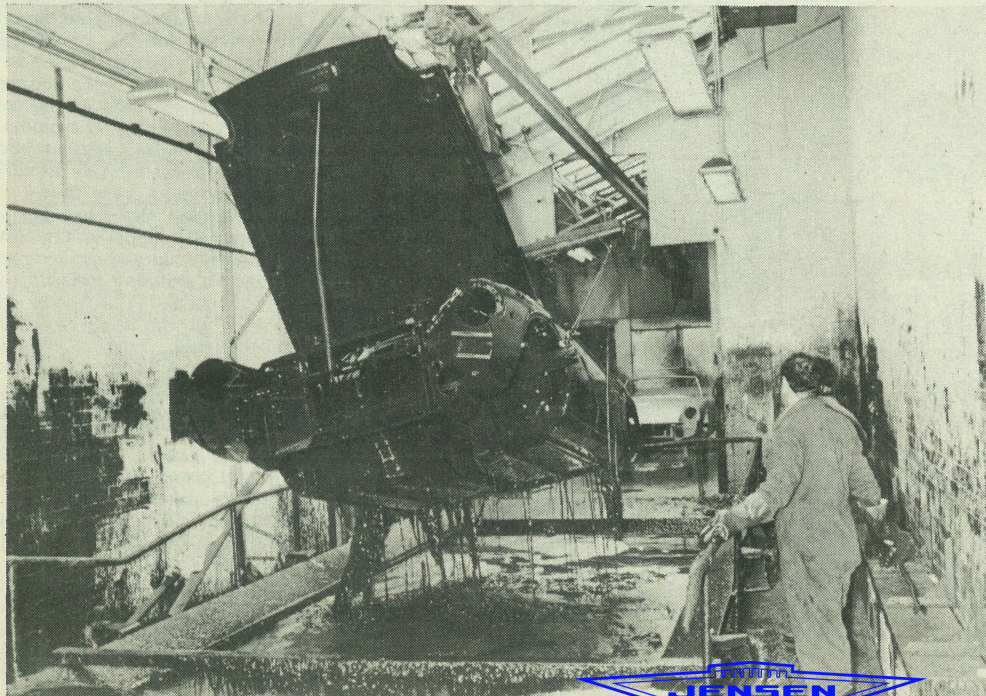
If the car was parked all night facing downhill, petrol could siphon out of the tank and, overcoming the needle valves of the Dellorto carburettors, could flood into the engine. A little anti-siphon valve has overcome this problem, which never occurred on engines fitted with Stromberg carburettors to US specification. The back axles have been blameless and a tendency to slip out of gear was cured by replacing the rubber gearlever gaiter with a leather one. Complaints about the paint job on early cars have been avoided by



A Healey body is lowered on to the running gear.



Above: Hand smoothing Interceptor panels. Below: Healey body comes out of the primer bath.



improved finishing techniques and a new insulating strip between mudguard and body has greatly reduced fretting at this point. Some improvements to the hood have also taken place.

Unfortunately, the first owners of a new model are apt to get loaded with such unexpected annoyances and it is at least a blessing that the troubles were really quite trivial. Colin Chapman should be grateful to Jensens for getting the bugs out of his engine before he started selling new Elites. The Jensen-Healey is now a sound and reliable car, with a lot more performance than the old big Healey in spite of having only 2-litres instead of 3.

I was very impressed with all I saw at the Jensen factory. There is a cheerful spirit among the men on the shop floor, most of whom seem to be avid darts players, indulging in their sport at every tea break. They are certainly receiving dynamic leadership from the top and, against all predictions, the sale of powerful and expensive cars has recovered amazingly since the fuel crisis, regardless of the rising price of petrol.

To appreciate the materials and craftsmanship in a costly car, it is profitable to spend a few hours seeing how it is made. The ordinary car of commerce provides effective transportation, but for real pride of possession the hand-built job wins in a canter. The ownership of a Jensen Interceptor is something to which few can aspire, but for the man who has made his pile it can be a fitting reward for years of endeavour and toil.