

# BMW *car*

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THE INDEPENDENT BMW MAGAZINE

## COMPACT!

### *Baby BMW on test*



**FIND A FIVE**  
*Used E34*

**850 CSI**  
*Last of its kind*



**HARTGE'S HEART**  
*2.8 H3 on the road*

**ECONOMY MINDED**  
*318tds first drive*





# A Breed Apart



What do Concorde, cross-Channel hovercraft and A4 Pacifics have in common? They are the best, and last, of their kind. How does the BMW 850CSi match up?

Sir Nigel Gresley (above) has rather fewer – and larger – controls and instruments than the 850CSi (right). Both 'fascias' are thoroughly logical, though

**J**ust as we shall never again see the like of the three other means of transport shown on this and the next seven pages, so there will probably never be another BMW quite like the fabulous 850CSi.

As we reported in the September issue (*Newsline*, page 8), BMW has made firm commitments, and not just vague forecasts, about its energy policy into the next century. These won't necessarily preclude the use of the V12 engine in a large luxury saloon, but they almost certainly rule it out for a sporting and inherently much thirstier two-plus-two.

The 8-series' days may be numbered, then, but that by no means detracts from its technological excellence, or the considerable courage that even a manufacturer of BMW's standing must have required to build such an expensive and essentially impractical car with so much power and performance.

That's why we chose loosely to compare it with three such apparently diverse means of transport as a high-speed steam locomotive, an example of what is still the fastest-ever cross-Channel ferry, and a supersonic aircraft. Each was a unique, mould-breaking, high-performance machine in its own right and time, and each, for a variety of reasons (but mostly prohibitively high running costs), was ultimately doomed



## A4 Pacific Sir Nigel Gresley

Sir Nigel Gresley's A4 Pacific engines, with their 4-6-2 wheel arrangement, are true masterpieces of steam locomotive design. Introduced by the LNER (London and North Eastern Railway) in September 1935, they evolved from Gresley's earlier A3 class, of which No 4472 *Flying Scotsman* is the famous and sole survivor. In the interests of greater power, the A4 featured increased boiler pressure, larger-diameter piston valves and the internal streamlining of steam ports and passages (sound familiar?). Like the earlier 2-8-2 P2, the A4 was instantly recognisable by its characteristic, and highly effective frontal streamlining.

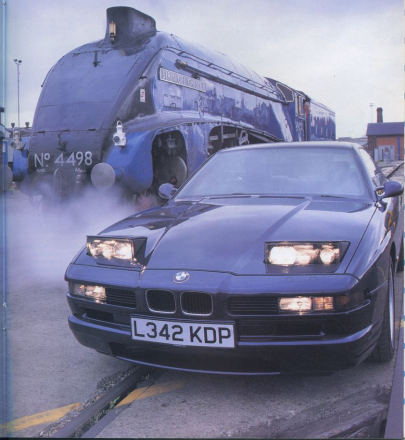
No 2509 *Silver Link* achieved 112mph on its first public outing, and in July 1938 No 4468 *Mallard* set a world record for steam traction (which still stands) of 126mph. The class remained in active service until 1962, regularly hauling trains of more than 400 tons between Kings Cross and Edinburgh in 6½ hours, at an average speed of just over 60mph.

Today *Mallard* is a largely static exhibit at the National Railway Museum in York; No 4498 *Sir Nigel Gresley* is in the hands of the A4 Locomotive Society Ltd and, fittingly in view of the illustrious name it bears, very much alive and well. ●

PHOTOS: DAVE KENNARD



# 850CSi







## BMW 850CSi

£77,500

# Specification

<b>Body type:</b>	Two-door pillarless coupé
<b>Construction:</b>	All-steel unitary
<b>Engine:</b>	Light-alloy V12 with single overhead camshaft per cylinder bank actuating two valves per cylinder. Seven-bearing crankshaft with 12 counterweights. Sequential electronic fuel injection controlled by Digital Motor Electronics engine management system and selectable sport or economy modes
<b>Capacity:</b>	5576cc
<b>Bore and stroke:</b>	86 x 80mm
<b>Compression ratio:</b>	9.8:1
<b>Maximum power:</b>	380bhp at 5300rpm
<b>Maximum torque:</b>	406lb ft at 4000rpm
<b>Output per litre:</b>	68.1bhp
<b>Transmission:</b>	Six-speed all-synchromesh manual gearbox with triple-cone synchromesh

<b>Gear ratios:</b>	1st 4.25; 2nd 2.53; 3rd 1.68; 4th 1.24; 5th 1.00; 6th 0.83; reverse 3.89
<b>Final-drive ratio:</b>	2.93:1
<b>Suspension:</b>	Front: double-pivot MacPherson struts with anti-roll bar. Rear: multi-link independent. Gas-pressure dampers all round. ASC + T fitted as standard
<b>Brakes:</b>	324mm diameter servo-assisted discs all round, ventilated at front. ABS fitted as standard
<b>Wheels:</b>	8 x 17 and 9 x 17 light alloy front/rear
<b>Tyres:</b>	235/45R17 and 265/40R17 front/rear
<b>Dimensions</b>	
<b>Length:</b>	4780mm
<b>Width:</b>	1855mm
<b>Dry weight:</b>	1900kg

*The Princess Anne's four gas turbines (above) can push the craft along at up to 65 knots (75mph) on a calm sea. Their total output is around 15,200 horsepower*

850CSi



## SRN4 The Princess Anne

Like many other great British inventions, the large cross-Channel hovercraft has been plagued by a lack of development, over-complexity, indifference to its undoubted attributes and fierce competition – first from conventional ferries, and more recently from the present operator's own Seacraft, the Channel Tunnel won't help, either.

The hovercraft – which can float over water or flat land with equal ease – was invented by Sir Christopher Cockerell in the 1950s. The first Channel crossing by hovercraft was on 25th July 1959, when a Seacraft-Bee SRN1 'New' from Calais to Dover in just over two hours.

Regular commercial services began seven years later, first on the Southampton-Cowes route and later from Dover to Calais. Six much larger hovercraft have plied the Channel since then, but only two – 'stretched' Mark II SRN4s *The Princess Margaret* and *The Princess Anne* – now survive.

Earlier this year the 25-year-old Swift (holder of the title *World's Fastest Ferry* for a 24-minute Channel crossing in 1987, but now beyond repair) was towed to the new Hovercraft Museum in Gosport, Hants. ●



to suffer commercial failure.

It's hard to define just what it is that makes the 5-series, and the 550CSI in particular, so special. Exclusivity is one obvious quality – BMW sells fewer than 100 5-series a year in Britain – but, while it's clearly an extremely attractive and very carefully styled car, it's certainly not drop-dead beautiful.

Critics argue that the styling is anonymous, bland and cautious – indeed, not long after the launch of the 5-series, in 1992, it was unfavourably compared by some to the then equally new Volkswagen Cabrio coupé. But our week with the car shown here proved beyond doubt that it has since gained widespread public recognition and respect.

To our considerable surprise, and without any aggressive driving on our part, the CSI carved a swathe through the overtaking-lane traffic on the A4 just Oxford one Sunday morning. All but the most unobservant or terminally optimistic drivers were well aware that the car

*Of the 5-series cars, only the 550CSI has these elegant door mirror mounts (above right)*

behind them wasn't built in Luton or Ellesmere Port, and seemed happy to let it cruise serenely past.

It is as if – like A4 Pacific locomotives, SRN4 hovercraft and Concorde – the 850 has become for more than a means of transport, a sort of technological *tour de force* so distant from the realities of daily life that it transcends mere utility, and becomes treated an object of rapt curiosity.

And that, until I first drove an

igned throughout, so painstaking is the attention to detail within its understated but beautifully constructed body shell, that within a few hundred yards of taking control one feels as much at ease as in a 518.

Some might even say that for a high-performance car it's simply too refined for its own good, artfully insulating the driver from what is going on around him, and even dangerously flattering what might well



automatic-transmission 850G, in October 1991, was exactly how I thought of it, too. How else can you view a 131bhp two-plus-two – which costs more than many people's houses are worth – unless you've actually felt what it's like to floor the throttle and hit 60mph in 6 seconds, or accelerated from 30 to 70mph, in fourth gear, in almost exactly the same time!

Unlike many agencies, however, the 550CSI is rather more than an up-market hot-rod. So meticulously and thoughtfully has it been des-

igned to mediate driving ability.

From pillarless door windows which automatically drop a few millimetres when you touch the handles (so that they don't foul on the seals as the door itself is opened), through electrically adjustable seats which 'remember' settings, to an electrically operated height-adjustable steering wheel, one's every whim is catered for. There's even an electrically operated rear-window blind – although nothing can disguise the fact that the rear seats are virtually unusable for all but the smallest

*The CSI's 200bhp 5.0-litre V12 (right) is great for an electronically powered 135bhp. Every subtle corrective of the massive engine bay is crammed with high-tech hardware*

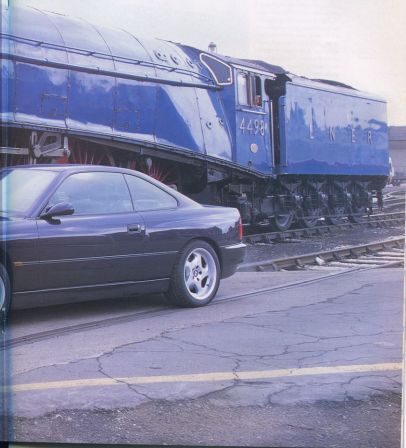








# 850CSi





adults, or that the boot is little bigger than a shoe box.

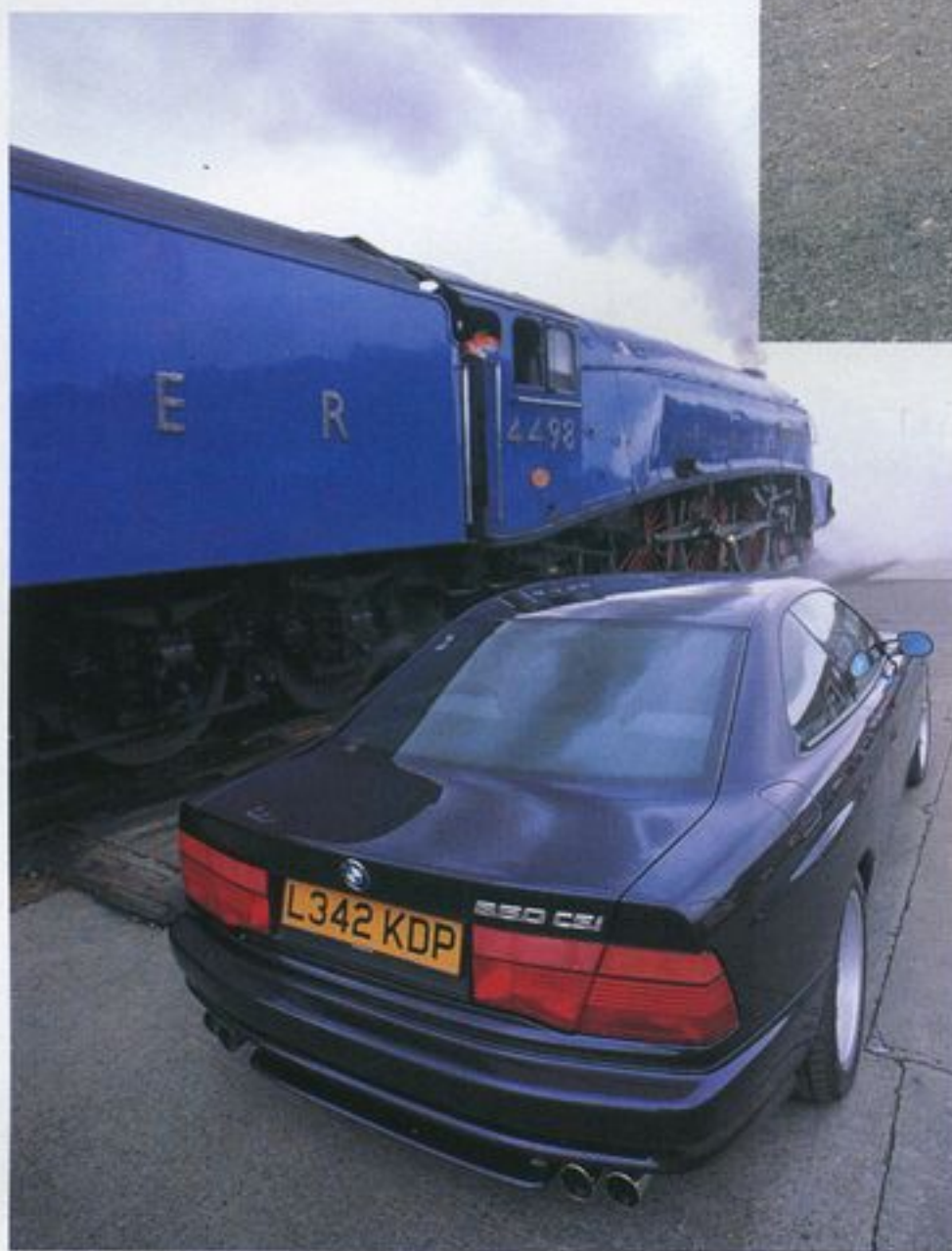
Neither, like some high-performers, is the 850CSi some wild, uncontrollable animal of a car waiting to bite the unwary. It's certainly big, and such is its awesome accelerative capacity that you could certainly have a substantial accident in one if you tried hard enough – just as you could in a 318, come to that – but you would have to be driving so badly, and so irresponsibly, that you would deserve to be locked up.

The car has any number of innovative and largely unseen features which ensure that the transmission of its considerable power and torque to the road is nearly always a totally drama-free affair. There's ABS, Active Rear Axle Kinematics, Automatic Stability Control + Traction and a limited-slip differential – and, of course, a highly sophisticated speed-limiting device in the form of the driver's right foot.

For me by far the most interesting aspect of the CSi is its six-speed manual gearbox. This is an increasingly common feature of cars of all types, but at the time of the 850's launch only Vauxhall's high-performance Lotus Carlton offered this many forward gears.

At first it's hard to imagine how,

*The 850CSi looks stunning from most angles (below) but bland and anonymous from others. It's hard to fault the lines of Gresley's streamlined masterpiece – from any angle*



in day-to-day driving, one could use them all, but use them one does. Not surprisingly, the 5.6-litre V12's 380 bhp and noticeably flat torque curve provide considerable acceleration whatever gear you happen to be in. Select the right one for the job, though, and the car simply flies.

Neither does it take long to become accustomed to that extra slot in the gear-lever gate. The shift is smooth and precise, if heavy and rather slow by the standards of most modern cars, and occasionally reluctance to slip into second. This last characteristic, says BMW, is probably a result of the special triple-cone synchromesh on this ratio.

Just as intriguing as the gearbox is the fly-by-wire throttle-actuating mechanism. Instead of a nasty old-

fashioned rod or cable linked to the loud pedal, each of the two throttle butterflies is controlled by a small electric motor.

And by means of a discreet rocker switch on the centre console you can select either sport or comfort modes of the so-called Electronic Power Control (EPC) and instantly alter the engine's entire character. In 'K', throttle response is quick. In 'S' it's truly hair-trigger stuff.

Handling and roadholding, given the car's size, are remarkably good – although you'll be disappointed if you expect it to have the liveliness of a lighter and inherently more agile car. We drove the CSi in the middle of this year's dry summer, and so we didn't get the chance to put the traction control or limited-





## Concorde 101

Concorde was conceived in 1956 by the British Supersonic Transport Aircraft Committee and in 1962 Britain and France agreed on a joint development programme, using Bristol-Siddeley engines with reheat jet-pipes and thrust reversers from the French company SNECMA. BAC and Sud Aviation designed Concorde's airframe between them, and construction was undertaken in both Bristol and Toulouse.

The first of two Concorde prototypes made its maiden flight on 2 March 1969 at Toulouse, the British prototype took to the air on 3 April 1969 from Fairford in Gloucestershire. Sixteen production aircraft, each larger and heavier than any of the prototypes, were constructed and the first scheduled Concorde flight took place on 21 January 1976. See largely to commercial protectionism in the USA it wasn't until 1978 that Concorde began a regular – if expensive – service to New York.

Concorde 101 (above) was the second British Concorde and the third to fly, from Filton, Bristol, on 17 December 1971. Its last trip, in August 1977, was to the Imperial War Museum at Duxford, Cambridgeshire, where it is now on display courtesy of Duxford Aviation Society. ●

slip differential (or certainly the ABS) to any real test, but with the former engaged only really brutal use of the throttle could induce the rear wheels to step out of line.

Cornering, again considering the car's enormous weight and width, is more than competent. So precisely does it turn in to even the tightest corners, and at such ludicrously high speeds, that it is easy to forget that the CSi weighs just under two metric tonnes. And while some body roll is inevitable, it's not something you sense easily from inside the car.

Neither is this achieved at the expense of ride comfort. The CSi is no limousine, but then it's by no means a bouncy little hot hatchback. Suspension is supple and compliant, and even the worst pot-holes generate no more than a distant thud from somewhere beneath you.

The Servotronic steering is a good ambassador for the cause of power assistance, too. The degree of assistance is determined by road speed rather than engine speed. This provides more than enough effort to swivel the huge front wheels while parking, but retains real precision at high speed. The downside is that like almost any power-assisted system it's essentially lacking in feel.

At the end of the day, though, the 850CSi really is too refined – and certainly too expensive – for its own good. It remains one of the most – if not the most – technically proficient cars I've driven, and in terms of usable performance it's easily the fastest and the most sun-footed. But somehow it fails to set the pulse really racing.

Despite its power and presence and inevitable feel-good factor I found, after a week, that I could take it or leave it. It's neither the most endearing nor exciting – to me, at least – of the many great cars BMW has built over the years, and neither is it as truly outstanding today as its specification (and certainly its price) suggest it ought to be.

Steam locomotives, large passenger-carrying hovercraft and supersonic airliners have all, with the possible exception of Concorde, had their day. But both then and now our three examples stood head and shoulders above their contemporaries for their boldness, power and single-minded ingenuity.

Today the BMW 850CSi is one among at least a dozen cars with broadly similar capabilities. ●

Even new Concorde (left) is a technological masterpiece. For the 850CSi, with features like its fly-by-wire throttle linkage, is nearly as complex as a modern light aircraft

This feature would not have been possible without the help of several organisations and individuals. Our thanks go to Gordon Pope of the A1 Locomotive Society Ltd, Hugh Parkins of BRML, Doncaster, Nick Stevens of Hoverpod and the Duxford Aviation Society