THE HISTORY OF THE JAGUAR XJ SALOONS

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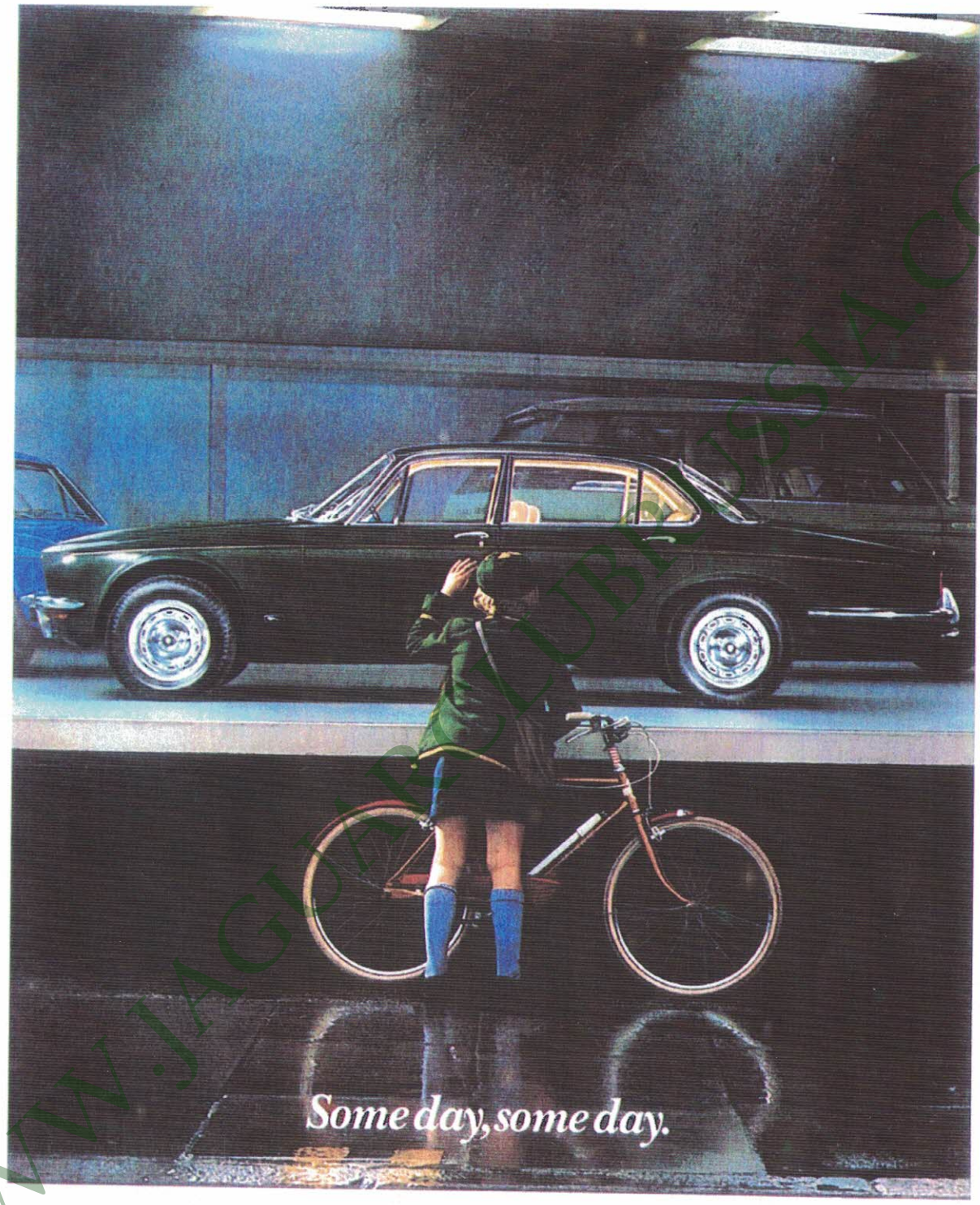
Jaguar Daimler Heritage Trust



Advertisement for the Jaguar XJ Series 2, originally published in May 1978.

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1. A BRIEF HISTORY OF JAGUAR CARS

The company we now know as Jaguar has been through numerous transformations over the past eighty years since it started in Blackpool in 1922 as the Swallow Sidecar Company. The name was changed on a number of occasions until it finally became Jaguar Cars Ltd in February 1945.

One of the founders of the company, William Lyons, soon moved his thoughts from sidecars towards motorcars, and in 1927 produced the first Austin Swallow, using a chassis from the Austin Motor Company. Lyons thought that Herbert Austin's car had a very strong appeal but the product could be improved with a body that was more luxurious and attractive to the eye – without the final result costing a fortune. From the start, his products were characterised by style, distinction, and value for money.

In 1928 Lyons won an order from the dealer Henlys in London for 500 cars, far surpassing his expectations. The company was struggling to turn out two cars a day and the factory was over-run with chassis. This was a major problem which needed to be resolved. Larger premises were the priority and since the majority of the suppliers were in the Midlands, it was an obvious choice to re-locate there. Suitable premises were found in Coventry and in late 1928, the company moved its production to the factory off Holbrook Lane at Foleshill.

The company went on to use chassis from a number of manufacturers, including the Coventry-based Standard company. William Lyons now reached an agreement with Captain Black, Managing Director of Standard, that Standard should supply a chassis exclusively to Swallow, making a car which was unique to the Swallow Company. This paved the way for Swallow to produce a complete car, which was launched as the SS1 at the 1931 Olympia Motor Show.

The SS1 and its smaller companion SS2 model based on the Standard Nine chassis were so popular that Lyons within a few years decided to launch an all-new six cylinder four door saloon, fitted with a more powerful overhead valve engine. The new model made its debut to great acclaim in 1935 and was the first car to bear the name Jaguar, or more precisely, SS Jaguar, as the company was now SS Cars Limited.

In 1937 Jaguar's most distinctive trademark was introduced, the 'leaper' mascot, designed by the artist Gordon Crosby, in the style still recognisable today, although many changes have been made over the years. By 1939, annual production was 5,000 cars.

With the outbreak of war in September 1939, munitions took priority over private cars. Jaguar produced sidecars for the military, and worked on aircraft ranging from the Whitley bomber, to the Gloster Meteor jet fighter. The change of name of the company in 1945 to Jaguar Cars Limited symbolised the realisation of William Lyons's dream to become a complete manufacturer of luxury cars, which now simply bore the marque name Jaguar.

The first proper post-war models were launched at the 1948 Earls Court Motor Show. The star exhibit was the XK 120 sports car that for the first time featured the twin overhead camshaft XK engine. Offered at a basic factory price of just under £1000 and with a top speed of 120mph, the sports model quickly became immensely popular in the important American export market. It was followed by the Mark VII, a six-seater saloon using the same engine, offering luxury motoring at 100mph. At the same time more specialised sports cars – first the C-type, then the D-type – began Jaguar's string of victories in sports car racing, most famously in the 24-hour race at Le Mans in France which was won five times by Jaguars between 1951 and 1957.

With the success of new models, Jaguar was expanding at an enormous rate and in 1953 production reached 10,000 units a year, while in 1958 almost twice as many cars were made. Therefore, space was paramount. In 1952 Jaguar had purchased the Browns Lane site from the Ministry of Supply, however, there was no room for expansion here. In 1960, Jaguar completed negotiations with the B.S.A. group to purchase the famous old Daimler company with its large, under-utilised factory at nearby Radford. Subsequently, new models of Daimler car were launched which took shape as luxury versions of Jaguars.

During the 1960s, the cushion of the post war boom was over and smaller companies had to look for safer options. As Sir William Lyons (knighted in the 1956 New Years honours list) was the major shareholder of Jaguar, he decided it was time to forge an alliance with another company if they were to survive. In 1966 Jaguar merged with B.M.C. to form British Motor Holdings. Sir William Lyons did, however, retain the title of Chairman of the Jaguar Group, which apart from Jaguar and Daimler now also included Guy and Coventry Climax.

In May 1968 'a major cloud had appeared over the horizon', with the consummation of the merger to end all mergers, between British Motor Holdings and the Leyland Group, now embracing Rover and Triumph cars, as well as vast commercial vehicle interests. The newly merged company would be known as the British Leyland Motor Corporation. Sir William Lyons's dream of 'getting together to face world competition' had come true. Seen with hindsight, British Leyland must rate as a catastrophe.

While 1968 was a watershed for the British motor industry, it also marked the pinnacle in the career of Sir William Lyons, as in September Jaguar unveiled its supreme creation, the XJ6 saloon. For Sir William Lyons, it was the model that he had longed for, attractive to the eye, well balanced and free from unnecessary embellishment.

For a few years, Sir William Lyons managed to retain Jaguar's autonomy within BL but he retired in 1972, and Jaguar began to loose its identity, as the unwieldy BL giant underwent the first of many re-organisations. Against everything Sir William had fought for, Jaguar lost its autonomy and was no longer governed locally; the central British Leyland board took over all decisions concerning the company. Then in 1977 Michael Edwardes was appointed Chairman of BL and began to turn BL around, encouraging the marques to assume their separate identities again. In 1980, Edwardes approached John Egan, a former BL Director, and offered him the position at the top of Jaguar. John Egan soon showed that his sole interest lay with Jaguar and he was committed to the company. Plans were now also being laid for the gradual re-privatisation of BL that had become effectively nationalised in 1975.

As an early part of this programme, Jaguar's shares were floated on the stock exchange in July 1984 and were over subscribed eight times. John Egan kept his position as Chairman and Managing Director of Jaguar Cars Ltd. Sir William Lyons himself bought shares in what had been his company, somewhat ironic, as he had founded the company, but he wanted to show his support. John Egan turned the company around from a loss of £47 million in 1980 to a profit of £90 million in 1984. Despite this turnaround, Jaguar became a victim of its own success. Although production figures were up, quality was costing millions in warranty claims. By 1988, profits were down to £47.5 million. The underlying financial trend continued downwards at an alarming rate, and during the final months of 1989 dramatic events were taking place behind closed doors that would change the course of Jaguar's history forever.

Just when Sir John Egan thought he had arrived at a suitable deal with General Motors, Ford announced that they were purchasing Jaguar shares. The following morning, the Chairman of Ford of Europe, L Lindsay Halstead, met with Ford's negotiating team and the Jaguar Board to discuss terms for a full take-over. This was subsequently approved by shareholders of Jaguar plc in a meeting on 1 December 1989, and the merger took effect in early 1990. Jaguar had once again lost its independence and was now to become part of a larger manufacturer. The realities of the situation were that the company would almost certainly have failed if it had tried to struggle on alone. The final cost to Ford was £1.6 billion.

2. THE XJ: THE STORY OF A REMARKABLE FAMILY OF JAGUARS

Since the launch of the first XJ6 in September 1968, Jaguar has made seven generations of XJ series saloons, which between them have reached a total production figure of over 850,000 cars – in other words, almost half of all Jaguars ever built are XJ models. Of these, just over 400,000 were of the three generations based on the original XJ design, which continued in production until 1992. Originally introduced as a single model range to replace no less than four different predecessors, to-day's XJ saloon stands at the top of the expanding Jaguar range, as the largest and most prestigious of three saloon designs. For many loyal Jaguar customers and enthusiasts, the XJ is still the defining Jaguar saloon.

The story of how the original XJ came about, and how the range has developed over the years, is part of the Jaguar legend, and provides a fascinating insight in how the company has remained true to the same ideals over the past 35 years, while always adapting to changing requirements, and staying at the forefront of contemporary engineering and design. The XJ range also represents a direct link with Jaguar's founder, Sir William Lyons (1901-1985). The original car was his inspiration, his vision of Jaguar's future as he saw it in the 1960s. The success of the XJ models over the years is his best memorial.

During the 1960s, the Jaguar saloon range consisted of the Mark II, a compact sports saloon, together with two intermediate models derived from this, the original S-type and the 420, while at the top of the range was the Mark X or 420 G model – a limousine-like prestige car. With this extensive range, Jaguar catered for every niche of the prestige market, but production of so many different models in relatively small numbers was a headache. Of the four ranges, there were altogether seven Jaguar and two Daimler models, using four different sizes of the famous six cylinder XK engine, as well as the Daimler V8. So the idea emerged of replacing all of these cars with a single model range, offered with a choice of just two engines, and available in both Jaguar and Daimler forms. The size and package of the new car was chosen so that it would be a replacement for the medium-sized S-type and 420 models, which were considered to be the ideal size for a future Jaguar model with international appeal.

The car that became the XJ was originally known by its internal project number, XJ4. Here XJ stood for 'eXperimental Jaguar' and there was no particular significance to the number 4. The germ of the project was a proposal to replace the E-type with a four-seater GT model, in response to such cars appearing in Jaguar's important American market – for instance the Buick Riviera. The styling of the bodywork, as ever overseen by Sir William Lyons, therefore originally featured front and rear ends rather like the E-type, and the body also only had two doors.

As the project progressed, emphasis turned once again to a new saloon model, so rear doors were added, and the front and rear ends were cut off, producing the typical XJ look, with the customary style and elegance expected of a Jaguar. The front end was modelled on the Mark X and 420 models, with a wider and lower version of the Jaguar grille and four headlamps. The grille was perhaps controversial, with its crosshatch of vertical and horizontal bars. The car was considered so unique and distinctive that early examples did not have a Jaguar nameplate! – only the 'growler' and 'leaper' badges. The interior was typical Jaguar, with leather upholstery, wood trim, and a full range of instruments.

The car was engineered under the direction of the late Bob Knight. He was already responsible for the Jaguar independent rear suspension, which in modified form was used on the new car. Knight's expertise was in developing suspension which combined impeccable road manners with a high degree of ride comfort. With sub-frames for both front and rear suspension and clever use of rubber mountings, the XJ set new standards in suppressing noise, vibration and harshness. A new feature was the anti-dive geometry of the front suspension, and for the first time Jaguar used rack-and-pinion steering on a saloon car, with power assistance standard on the 4.2-litre model. Brakes were discs all round, with dual circuits. To suit the characteristics of the suspension, Dunlop developed a new type of wide low-profile radial tyre with a high-speed rating. The result was a car that was superb to drive, and to be driven in.

It had originally been Sir William's hope that the new saloon car would from the start be fitted with the new V12 engine which was being developed by the team of Walter Hassan, Claude Baily and Harry Mundy. However the V12 was delayed (and would make its debut in the E-type in early 1971), and a V8 derived from the design was stillborn. In consequence, when the XJ appeared in 1968, the engine was the well-tried XK straight-six of 4.2 litres, with twin carburettors and 245bhp. As an alternative, with an eye to Continental markets where cars were taxed by engine size, Jaguar offered a new 2.8-litre version of the XK engine. The standard manual four-speed gearbox could be supplemented with an overdrive, while an automatic gearbox was an option. The model name XJ6 was finally chosen simply because the car had six cylinders.

The launch of the car took place on 26 September 1968, just before the London Motor Show. Sir William Lyons himself appeared in the advertisement for the new car, and declared that this was the finest saloon car Jaguar had ever made. The press agreed with him, and the car was given an enthusiastic reception. The combination of traditional Jaguar virtues such as style and sportiness, performance and comfort, at an unbeatable price, were now enhanced by the

advanced engineering of the XJ, and its remarkable refinement. Comparisons began to be drawn between the Jaguar XJ and the Rolls-Royce.

The Jaguar quite simply set a new standard, especially at its price – a basic 2.8-litre model cost just £1800 (albeit lacking a few creature comforts, and with Ambla rather than leather trim, which would add £100 to the price) and even a 4.2-litre automatic was only £2400. At the same time, the 4.2-litre car with manual gearbox had a top speed of 124mph, nearly 200km/h, and accelerated from 0 to 60mph (96km/h) in 9 seconds – respectable even today. In Britain, *Car* magazine chose the XJ6 as their 'car of the year' – although the European 'Car Of The Year' title was denied Jaguar.

Demand was such that for quite some time, Jaguar found it difficult to make enough XJ6s, and there were considerable waiting lists, both in home and export markets, while at the same time, some nearly-new second-hand cars changed hands at well over list price. The supply position eased up after the first two years, as Jaguar now dropped all the earlier models and concentrated on the new car. In 1969, the expected Daimler versions followed, bearing the model name Sovereign from the immediate predecessor in the Daimler range. At slightly higher cost than the Jaguars, the Daimlers had the classic fluted radiator grille with vertical bars, more luxurious trim, and overdrive as standard on manual cars.

In April 1971, the magnificent 5.3-litre V12 engine had made its debut in the E-type Series 3, and in July 1972, this engine also became available in the XJ saloon, in this form called the XJ12. A few months later, the Daimler version adopted the name Double-Six from the original V12-engined Daimler of the 1930s. These cars were only offered with an automatic gearbox, and for the first time on a Jaguar, air conditioning was standard. On the Jaguar XJ12, a vertical-bar grille with a V12 badge was used. In the 1970s, the XJ12 and Double-Six cars were the only V12-engined saloon cars available anywhere in the world, and Jaguar made the only V12-engined cars in large-scale production. With a top speed of 147mph, close to 240km/h, the XJ12 also captured the title of the fastest saloon car in the world.

If there had been any criticism of the original XJ, it was that rear legroom was rather limited for a luxury car. The problem was addressed in September 1972, when a long wheelbase model, adding an extra 4in (102mm) between the axles, was introduced. The first long wheelbase model was the Daimler Double-Six Vanden Plas, with unique luxury trim by the coachbuilder Vanden Plas which also built the Daimler limousine. Features included separate rear seats. It was quickly followed by long wheelbase versions of the other Jaguar and Daimler models.

Meanwhile, a face-lifted version of the XJ range was under development. A major reason for changing the styling of the original was that the bumper height needed to be raised to comply with new legislation in the US market. This meant that the radiator grille became even shallower, and the cross-hatch type grille was now found on both six and twelve-cylinder Jaguars. At the same time, Jaguar took the opportunity to revise the interior and improve the ergonomics, with a new dashboard which put all the instruments and major controls in front of the driver. Also as part of the revised range, a two-door pillarless coupé version was under development. Such a model had been planned already in the mid-1960s, when the trend in the USA was towards the 'hard top' body style.

The revised Series 2 range was introduced at the 1973 Motor Show. The 2.8-litre model was discontinued, except for limited production in left-hand drive form for export. The short-wheelbase four-door saloons were also soon discontinued, and all saloons were from then on built on the longer wheelbase, while the original shorter wheelbase was retained for the new coupé, also known as the XJ-C model. For the coupé, that October 1973 announcement was a little premature; because of problems with sealing the opening rear quarterlight to satisfactory Jaguar standards, series production did not commence until early 1975.

The coupé, in fact, turned out to be quite short-lived, and these elegant cars with their distinctive standard-fit vinyl roofs and optional alloy wheels, were discontinued at the end of 1977. With a total production figure of just over 10,000, the coupés remain among the rarest – but also the most desirable – of the classic XJ models. The V12 coupé was used for the unsuccessful attempt of the Leyland Broadspeed team to contest the European Touring Car Championship in 1976-77. Although spectacular and very fast, the cars were too heavy, and were never developed sufficiently to overcome reliability problems.

The saloons continued with the same model variations as before, together with the addition in 1975 of a 3.4-litre engined car, reviving the original size of the XK engine, and a little later a Vanden Plas-trimmed version of the Daimler Sovereign 4.2. On the mechanical side, fuel injection replaced carburettors on the V12 cars in 1975, and a GM400 automatic gearbox was introduced on all models in 1977. In 1978, six-cylinder cars for the North American market followed the V12 by adopting fuel injection.

It was almost time for a third XJ generation. For the first time in Jaguar history, the re-styling of the next model was entrusted to an external designer, the famous Italian house of Pininfarina. The greenhouse of the car above the waistline was completely re-designed, with a new roof, side windows, and screens, which increased window area and made the car look even lower,

although in fact rear headroom was improved. There were also new door handles, bumpers and rear lights, and improvements to the interior, as well as a handsome new vertical-bar radiator grille. Mechanically, an important change was that on the six cylinder cars with manual gearbox, a five-speed gearbox was fitted (and the overdrive option discontinued), while fuel injection was found on all 4.2-litre cars. The new models, called the Series III (or 3), were launched at the end of March 1979, and with the even more elegant styling, were warmly welcomed, and carried on the Jaguar traditions at a difficult and crucial time in the company's history.

During 1981, important improvements were made to the V12 engine. A new cylinder head designed by the Swiss engineer Michael May was introduced, with a very high compression ratio of 12.5:1 and other features which reduced fuel consumption by about 25 per cent – an extremely worthwhile improvement on these rather thirsty cars. When fitted with the modified engine, the XJ12 and Double-Six cars became known as the HE models. For 1982, Vanden Plas versions of the Jaguar XJ6 and XJ12 were offered in the North American market, equipped to the same standard as the home market Daimlers. In 1983 the Sovereign model name was transferred from Daimler to Jaguar, and from then on denoted the most luxurious versions of the Jaguars. The Vanden Plas nameplate was discontinued, except for North America and certain other export markets.

As however the basic XJ design was now well over ten years old, behind the scenes Jaguar was developing a replacement, now under the project code XJ40. There were several false starts, and many delays, before the new car would eventually emerge on 8 October 1986, just before the International Motor Show at the NEC. The XJ40 was an all-new car, fitted with the new AJ6 six-cylinder engine. Almost immediately it replaced the six-cylinder versions of the XJ Series III, but the new car had not from the start been designed to accept the V12 engine. Therefore the twelve-cylinder Series III models carried on in production, in XJ12, Sovereign and Daimler Double-Six versions, together with an export-only Jaguar Vanden Plas model.

All good things must come to an end, and as a V12-engined version of the XJ40 was belatedly developed, production of the Series III cars came to an end in 1992. Many enthusiasts for this model may consider this car to be the last classic Jaguar saloon. A total production period for the three versions based on the original XJ design of 24 years, with more than 400,000 cars made, was a final result that Jaguar could take the greatest satisfaction and pride in.

3. THE BEGINNING: XJ SERIES 1

The XJ6 was introduced to the public on 26 September 1968, before the British Motor Show, held at Earls Court in London. The following models were available:

- 2.8-litre Standard
- 2.8-litre De-Luxe
- 4.2-litre

Over £6 million had been invested in the development of the XJ6 since its conception in 1964. After four years, Jaguar finally came up with the model that would become known as the XJ6. The car was designed in very much the same way as all previous models. Sir William Lyons was renowned for achieving a look that was distinctive and easily recognisable as a Jaguar. The new car bore a definite resemblance to previous and much loved Jaguar saloons.

Development of the XJ6 was carried out by a small team of engineers and their passion for the marque gave them the strength to cope with budget limitations and find alternative methods to achieve their ultimate goal, a new Jaguar that would set the marque apart from the competition. Their determination and resolve was what made the XJ6 happen, all employees at Jaguar had the feeling that Jaguar was special, and much thought was given to the new car to ensure it shone above all other competitors. Components and workmanship had to be equally perfect, adequate was not good enough and whatever the competitors did, Jaguar would surpass them.

Any car manufacturer would be capable of designing a car with an attractive body shape and speed to match, however, the overall refinement of the new Jaguar was what set it apart from the competition. This refinement had already been present in pre-war Jaguar cars, but had only really become a major feature when William Heynes brought the XK engine together with the chassis with an independent front suspension for the production of the Mark VII. William Heynes joined SS Cars, later to be Jaguar, in 1935 as an engineer in the design office. Heynes along with Walter Hassan and Claude Baily was responsible for the development and introduction of the XK engine that would be used in many saloon models, including the XJ6.

Technology introduced on the 2.4 litre 'Mark I' saloon in September 1955 would prove invaluable for the new XJ6. The techniques for suppressing vibration and noise in a unitary bodyshell learned from the Mark I and improved with subsequent models such as the Mark II, Mark X and S-type, would add further value and desirability to the XJ6. This technology was being used increasingly by Jaguar and was becoming very sophisticated.

Head of the XJ6 project was Bob Knight, who had started with Jaguar in 1945 and worked predominantly under William Heynes during the introduction of the 2.4 litre. He pioneered numerous techniques to improve refinement that were used on subsequent models including the XJ6.

Sir William Lyons envisaged a saloon that would have the sharp handling of an E-type. Instead of the previous heavy models, it would be a lighter car with better fuel consumption, and this was achieved with the XJ6. Sir William Lyons also wanted higher standards of refinement, and regarded heating and ventilation as necessities. These features were to be standard and not optional extras as on previous models.

Realistically, for Jaguar to remain competitive and continue to offer outstanding value for money, changes had to be made. It was decided that only one saloon should be produced alongside the E-type. At the time in 1968, the 240/340, S-type, 420 and 420 G (Mark X) were in production, together with two Daimler versions. Jaguar made the bold decision to cease all models, except for the 420 G that would be phased out over a period of two years, and the 240 which was continued for a short period.

So it was envisaged that the new XJ6 would replace – and easily surpass – all previous models. In terms of size and packaging, it most closely resembled the S-type and 420 models – medium-sized cars within Jaguar's terms of reference. Its attributes, its increased refinement and its beauty would speak for itself.

4. General Description of the XJ Series 1

The following extract has been taken from the XJ6 launch press pack:

JAGUAR INTRODUCE COMPLETELY NEW SALOON CARS
THE XJ6 2.8 LITRE AND XJ6 4.2 LITRE

The introduction of a new Jaguar model is always an event of major significance on the international motoring scene and few cars have been awaited with such interest as the new Jaguar XJ6 models which will make their debut on the 26th September, 1968. They are the most refined, safest, and advanced saloons ever produced by the Company. For many years, Jaguar has set the pace in several areas of automobile engineering – roadholding, ride, steering and the elimination of noise and vibration – and with the XJ6 models, these features are enhanced to an even greater degree. In producing them, Jaguar has ignored the increasingly popular method of achieving a high performance by the simple expedient of fitting a big engine into a car designed around a smaller unit. [As successfully pioneered by Jaguar with the Mark II 3.8!] *The XJ6 models have been designed and developed from the outset as high performance cars capable of exploiting the high power output of both existing and future Jaguar engines. Three versions will be offered – the XJ6 2.8-litre Standard Model; the XJ6 2.8-litre De-Luxe Model and the XJ6 4.2-litre Model.*

The XJ6 models are medium-sized, high performance, high quality saloons – a category of car in which Jaguar has always been outstandingly successful and for which a high level of demand exists on an international scale. This thinking is reflected in the choice of power units – 2.8 litre (180bhp SAE) and 4.2 litre (245bhp SAE) – both of which are of the Jaguar six cylinder twin overhead camshaft design. The 2.8 litre is a new capacity and is derived from the 3 litre (300bhp) racing engine, which was developed by the Company for sports car racing, but not used by them because of the decision not to re-enter motor racing. In 2.8-litre (2792cc) form it produces 180bhp at 6,000rpm, and this unit is aimed specifically at the European market where tax and insurance payments rise very steeply when engine capacity exceeds 2.88 litres. In the United Kingdom also, this capacity will have a big appeal following the considerable success achieved by the Jaguar 240 saloon powered by the 2.4-litre engine. The very high performance version of the XJ6, fitted with the 4.2-litre engine, is aimed at all markets but, in particular, at the American market where Jaguar's sophisticated engineering approach to exhaust emission control has greatly impressed the American motoring public.

Both of these engines are offered with a choice of manual transmission, with or without overdrive, or fully automatic transmission – the control lever in each case being located between the two front seats. A new, sliding-type switch in the gear lever knob is used to operate the overdrive.

Within the next two year, it is intended to introduce new and additional power units into the range. The XJ6 has been designed from the outset to accept them and, therefore, in due course we plan to introduce further 'XJ' models featuring the new engines. [Note the plural of 'engines'. As we shall see, the V12 eventually appeared in the XJ, although it was nearer to four than two years later, but the companion V8 failed to materialise.]

The all-steel body is of integral body/chassis construction and has been styled and designed in its entirety by Jaguar stylists and engineers. Modern in appearance, yet retaining all the unique Jaguar flair for which the Company is rightly internationally famous, the XJ6 models offer generous accommodation for four or five persons together with all their luggage. Slightly longer, and noticeably wider and lower than previous Jaguar medium-sized saloons, the XJ6 models possess the 'Jaguar' hallmark of distinguished exterior styling coupled with a luxury and comprehensiveness of interior design and equipment which is exceptional even by Jaguar standards. A feature of the car is the very large window area and slim pillars which provide superb all round visibility whilst avoiding the 'greenhouse' effect of comparable competitive designs.

Individual front seats, with a combined adjustment for height and reach, are contour-shaped to provide a high standard of lateral location without impeding the ease of entry and exit. These features, together with a steering wheel adjustable for reach, enable drivers to find, individually, their most comfortable seating position. The rear seat, with central armrest, is similarly shaped to give armchair comfort for two persons, or three if the centre armrest is folded. 'Ambla' upholstery is fitted to the XJ6 2.8-litre Standard Model, whilst leather is standard on the XJ6 2.8-litre De-Luxe Model and the XJ6 4.2-litre Model. All four doors incorporate burst-proof door locks, with concealed child-proof locks on the rear doors, and safety-recessed door-opening and locking levers.

The instrument panel carries a full set of instruments, including an engine-revolutions counter and transistorised clock, whilst a row of clearly labelled rocker-type switches control the electrical circuits. As with all Jaguar models, the centre section of the instrument panel is hinged to give easy access to the fuse box in which the functions of each circuit are clearly indicated. The passenger's side of the panel contains a glove compartment with a lockable lid which, when opened, also reveals a large vanity mirror.

An alternator is fitted as standard equipment as are the printed circuits for the four gauges, the hazard warning lights (all four direction indicators flash simultaneously to define clearly the position of the car), and the new, compact, large capacity battery.

Beneath the instrument panel is a wide map shelf and beneath that is a centre console. The console panel contains the location for the radio, when fitted, and the heating and ventilating controls. The console itself incorporates the gear lever, for either manual or automatic transmission, flanked by two large ashtrays, and a cigar lighter. Between the front seats is a padded armrest which also serves as the lid for a large compartment for driver and passenger oddments. When electric lift windows are fitted, the operating switches are mounted in the forward face of the compartment – the rear face incorporates the outlets for the rear compartment heating and ventilating system. The whole of the floor area is covered with high-quality fitted carpet on top of thick insulating felt, whilst the roof lining is of nylon material on fibreglass insulation which is secured direct onto the roof panel.

A completely new heating and ventilating system has been designed specifically for the XJ6 models. It is of the fresh-air type and distribution of the air inside the car has been the subject of special study. The system incorporates several features which are completely new on Jaguar cars. Face level variable-direction and volume air ducts, distributing air at ambient temperature, are located at each end of the instrument panel. In addition, automatic temperature control is provided by a heat sensor, operated by a multi-setting regulator, mounted on the console panel. Also fitted is the new 'Posivent' air extractor system, designed by Jaguar engineers which ensures rapid changes of air inside the car, without draught or noise, even at low car speeds.

Rapid demisting and defrosting of the large windscreen is ensured by variable-direction ducts, located at the base of the windscreen, through which it is possible to pass the full volume of air available from the twin two-speed axial-flow booster fans. The rear compartment has its own air supply, which is distributed through a centrally placed outlet, supplemented by two fixed outlets – one on each side of the console – with their own volume controls. Full air conditioning can be supplied as an optional extra – the system forming an integral part of the car and thus occupying the minimum amount of space.

Jaguar were amongst the first to prove that a smooth, well-controlled suspension, giving a truly luxurious and comfortable ride, was compatible with the highest standards of roadholding. On the XJ6 models this precept of Jaguar engineering has been taken several stages further to provide

completely new standards of roadholding, ride and steering – standards which, we are convinced, will serve as yardsticks for the products of the motor industry throughout the world.
The front suspension is of completely new design; it employs unequal length wishbones, coil springs, telescopic dampers and an anti-roll bar – the telescopic dampers being mounted outside the coil springs in order to locate them in the most efficient position – that is, adjacent to the wheel. The suspension geometry is of the 'anti-dive' type, and this feature accounts for the almost complete absence of 'attitude change' by the car, in conditions of hard braking, and contributes enormously to its overall stability. This quality, by itself, increases the comfort of the driver and the passengers and, in addition, anti-dive geometry enables lower-rate front springs to be used in the front suspension to provide an even more luxurious ride without impairing, in any way, the car's roadholding and performance.

The rear suspension is Jaguar's famous race-roved independent suspension unit in which transverse upper and lower links and longitudinal radius arms locate the wheels – in relation to the differential unit – the suspension medium on each side being twin coil springs enclosing telescopic dampers.

Both front and rear suspension assemblies are mounted on quickly detachable sub-frames which are located in the body by rubber mountings of carefully calculated hardness. These mountings enable the sub-frames to move by a precise amount in order to absorb road noise and vibration.

To match the very high standards achieved in suspension design, Jaguar engineers have specified rack and pinion steering for the first time on their saloon models. Drawing on their experience of this system, as fitted to all Jaguar sports cars since 1955, they have produced a mechanism offering steering characteristics of the highest precision and retaining the delicacy of 'road feel' which this layout provides. The elimination of 'kick' at the steering wheel, through excessive feed back, and which is often found in competitive installations, has been achieved by mounting the rack on rubber using a patented Jaguar design. Power assistance, of a type which forms an integral part of the steering mechanism, is standard equipment on the 2.8-litre De-Luxe and 4.2-litre models; optional on 2.8-litre Standard Models.

It will be recalled that Jaguar pioneered the development of disc brakes for cars and subsequently proved them on their Le Mans winning sports-racing cars of the early and middle 1950s. They then became standard production equipment on all Jaguar models – a lead which has subsequently been followed by almost all of the world's car manufacturers.

It has always been Jaguar practice to fit disc brakes to all four wheels since the Company believe that a combination of disc and drum cannot give the braking stability which is essential for high speed motoring in all conditions. Thus the XJ6 models are fitted with Girling disc brakes on all four wheels; the front brakes are located on the wheel hubs, the rear brakes inboard of the drive shafts and adjacent to the differential unit. They are of the self-adjusting type and the quick-change pads reduce still further the time spent on maintenance. A powerful direct-acting servo provides progressive braking with light pedal pressures, and separate hydraulic circuits to front and rear brakes, together with a low-fluid-level and 'handbrake-on' warning light, form part of the many safety features in the new model.

Jaguar's interest in safety started many years before this subject became a topic of popular conversation and, in the XJ6 models, the Company has produced cars which put them clearly ahead in this vitally important field. Their knowledge of safety engineering enabled Jaguar to be amongst the very first to meet, in all details, the American Federal Safety Standards, and all the wealth of knowledge on the subject of safety has been built into the XJ6 models.

The 'primary safety' engineering features are:

1. *Anti-dive suspension geometry for better roadholding and braking.*
2. *Servo-assisted disc brakes on all four wheels with separate hydraulic circuits to front and rear wheels.*
3. *Very wide-section low profile radial-ply tyres with a special 'anti-aquaplaning' tread pattern (first used on the Jaguar 'E' Type) for maximum road grip in all weather conditions.*
4. *Rack and pinion steering for utmost precision.*
5. *The mounting of the steering rack on the rear face of the suspension beam in a position of maximum safety.*
6. *The incorporation of a swing-link type joint in the lower steering column to eliminate axial loadings up the column.*
7. *The fitting of energy absorption devices to inner and outer steering columns to cushion the impact of the body on the steering wheel in an accident.*
8. *The inclusion of a universal joint between the two columns, and the fitting of collapsible mountings to enable them to be displaced in a severe collision.*
9. *An immensely strong body centre-section for the passengers, with front and rear ends designed to provide progressive deformation characteristics to absorb the energy of the impact.*
10. *Burst-proof locks to all four doors with concealed child-proof safety catches to the rear doors.*
11. *Twin 11½ gallon petrol tanks (23 gallons total), enclosed in steel compartments in each wing.*

12. *Fuel lines located in the structure in such a way as to minimise the chance of rupture.*
13. *Petrol filler caps recessed into the bodywork to minimise the possibility of being 'torn off' in an accident.*
14. *Positive opening and closing of the filler caps by flush fitting levers.*

'Secondary safety' features are:

15. *Extremely rigid mountings for the front seats.*
16. *Specially shaped and padded tops to the front seat squabs to protect rear-seat passengers' heads in the event of a frontal collision.*
17. *Reinforced seat belt anchorage points for front and rear passengers.*
18. *Impact-absorbing instrument panel surround.*
19. *Rocker-type switches on the instrument panel and the elimination of all projections and sharp edges.*
20. *Combined ignition and steering lock.*
21. *Soft and heavily padded sun visors.*
22. *Large rear-view mirror with anti-dazzle secondary image position fitted into a spring-loaded breakaway holder.*
23. *Positive opening and closing of front quarter lights by large wheel.*
24. *Slim-line windows winding handles with soft plastic knobs.*
25. *Smooth-contoured door levers and locking tabs recessed into the doors.*
26. *Matt finish to metal parts likely to cause dazzle to reflection.*

Other safety features include:

27. *Large-area side lamps and flashers – both easily visible from the side.*
28. *Comprehensive fuse circuitry; as fuse system protecting all electrical circuits* [sic].
29. *Hazard-warning system, operated by switch on facia panel, by which all four direction indicators flash simultaneously. (This would be used for example, if it were necessary to stop to change a wheel on a motorway).*
30. *Large window area with slim pillars for maximum all round visibility.*

From this description it will be seen that the new XJ6 Jaguars represent an important milestone in the evolution of the passenger car. They are the latest additions to a long line of brilliantly successful Jaguar models each of which has offered, to a unique degree, individuality of styling, advanced engineering, outstanding performance, luxury, refinement and safety at truly competitive

prices. We are confident that these new models set a new standard for the motor industry and, as such are destined for a long and successful career.

NOTE: *Three versions of the XJ6 models are offered:*

XJ6 2.8-litre Standard Model

XJ6 2.8-litre De-Luxe Model

XJ6 4.2-litre Model

This description refers to the 2.8-litre De-Luxe Model and the 4.2-litre Model except where indicated. The 2.8-litre Standard Model differs from the other two in the following respects:

'Ambla' upholstery
Simplified armrests on doors
No central armrest in rear seat
Simplified console (large open tray in place of armrest-compartment)
No separate heat supply to rear compartment

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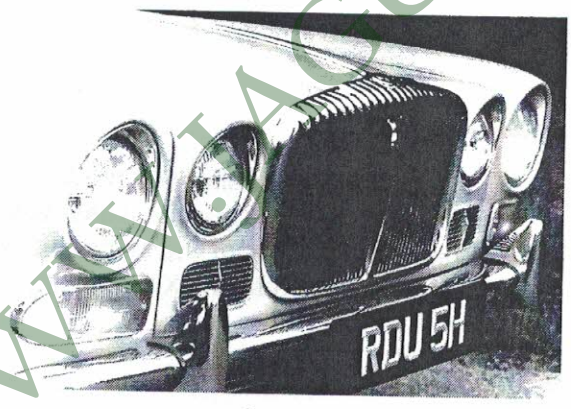
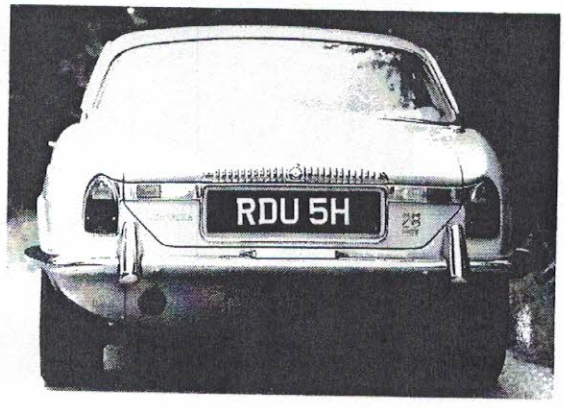
So much for the introduction to the original Jaguar Press Release, which was comparatively straight-forward and without too much in the way of 'hype' – the claims made on behalf of the new car, turned out to have ample justification. We shall now look at the XJ models in more detail, and follow the evolution over the years.

5. FEATURES OF THE XJ SERIES 1

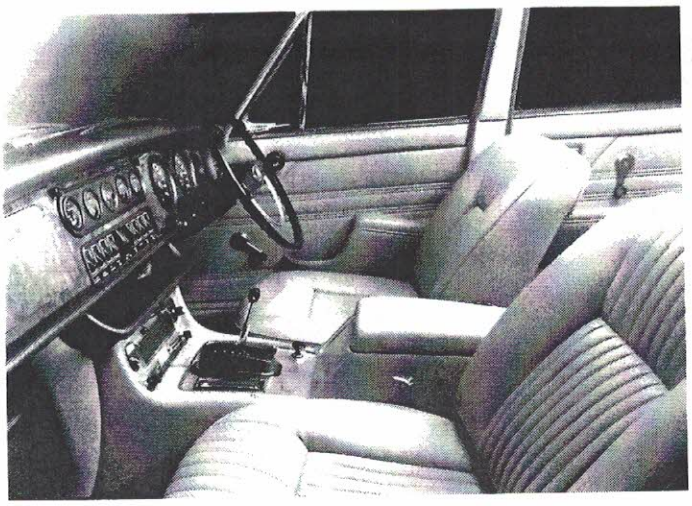
XJ6 – Front and rear view of two early cars, note the aerial on the front wing and the straight exhaust pipes on the rear.

XJ6 launched in 1968





Daimler Sovereign launched in 1969



XJ6 2.8 Litre De-Luxe – Interior shows black surround to bezels which makes it a post 1970 car.

XJ12 - Rear view showing the later style of lights with separate reverse lights and reflectors. The lights were changed on XJ6 in 1971.

XJ12 - Front view showing the V12 badge and the vertical bar grille which were the major differences of the exterior of the XJ12 compared to the XJ6.

Body Structure

The bodyshell was designed to be as rigid as possible giving immense strength, as this feature would enhance passenger safety and give the car more secure handling. There was an 18 inch controlled deformity zone built-in for crash protection, forming the 'crumple zone', and complying with safety regulations. As these features were paramount and given a high priority, the torsional strength of the bodyshell needed to be greater than on previous models. Despite the greater rigidity of the XJ6, the new car was 840lbs lighter than the 420 G.

The body was manufactured using the same processes as the 420 G. Many smaller panels were welded together to form the whole bodyshell which was produced by Pressed Steel Fisher – Jaguar's long-standing body supplier and now a fellow member of BL.

The basis of the design was an immensely strong, heavily ribbed central platform forming the floor-pan, with bracing provided by the sills and transmission tunnel. This was further strengthened by means of two large box section cross members, one at the centre door pillars, and the other under the rear seat pan. With such strength it was not necessary to provide heavy screen pillars, and the thin pillars gave the interior a spacious feel.

At the front of the bodyshell the two longitudinal members, inner wing panels and valances were welded up to form a strong fabricated assembly, linked by a further structure around the radiator. The bulkhead between the engine and passenger compartment was double skinned, and the ducting for the heating system formed a bracing between the front and rear bulkhead walls. The front wings were bolted on, which made replacement easier and more cost effective.

At the rear of the bodyshell, behind the seat pan two box section longitudinal members ran up and over the rear axle sub-frame, to meet the double-skinned floor of the boot. The rear assembly consisted of the boot, the inner wing panels and spare wheel well. The lower valance panels of the rear body sides behind the rear wheels were also bolted on, providing easy access to the twin side mounted fuel tanks, which were enclosed within the shell but sealed off from the cabin and the boot.

Exterior Features

The external styling of the XJ6 was in the Jaguar mould. The front end design was similar to that on the 420 and 420 G saloons. The characteristics were four separate headlights with chrome surrounds, slim chrome plated bumper with over-riders, while under the inner headlights were small chrome grilles, with a large combined indicator and sidelight under the outer headlights. Except for the headlights, all of these features were unique to the XJ6.

One of the most striking features of the new model was the radiator grille, which lost the heavy chrome surround of the previous models and for the first time on a Jaguar had horizontal bars, crossed by five vertical bars, and with a gold plastic 'growler' badge at the top. Also for the first time, the grille was more wide than tall, matching the new proportions of the body, and the wide stance of the car with front and rear tracks of 4 foot 10 inches and 4 foot 10 □ inches respectively. A secondary grille was introduced below the bumper to assist with cooling. The bonnet incorporated the grille and the inner headlamps, it was hinged at the front, and due to stricter safety legislation the 'leaping cat' mascot had disappeared.

Styling from the side was very precise and simple. Typical Jaguar styling hallmarks were the low build, the sweep of the rear wing up over the wheel arch, and the slightly overhanging quarter light in the rear door. The window frames and rain gutters were high-lighted with chrome, there was a single swage line along the body but no coach-lines, and a 'leaping cat' badge on the bottom of the front wing behind the wheel arch. These were the only adornments on the new Jaguar. The push-button door handles were chrome-plated. US export models had reflectors or side marker lamps with chrome surrounds on the front and rear wings, but these were not fitted to UK specification cars.

The Dunlop company developed and made a new design of radial tyre specifically for the XJ6, the low profile ER70 VR15 SP Sport. These had an irregular tread known as an 'anti-aquaplaning' pattern in which a central groove combined with drainage channels and side-located water dispersal venturi to provide an extremely high standard of grip, even in very heavy rain. The standard steel wheels were finished in silver paint with snap-fit chrome plated rim embellishers and hubcaps, as used on previous models. For the XJ6 however, wire wheels were not available as a factory option, due to concerns over the cornering loads that could be exerted. US specification XJ6s were fitted with white wall tyres as standard, with only a narrow white band.

From the rear the XJ6 was more angular than the previous round shape of earlier Jaguar saloons, although the slim one-piece wrap-around bumper and over-riders were the same as on other Jaguars of the 1960s. The rear light cluster was new. Its characteristic 'gothic' shape incorporated indicator, rear and stop light at the corner of the wings, with separate reflectors and reversing lights on the boot lid on either side of the number plate. The number plate had a chrome plated surround and was illuminated by lights positioned on the bumper. Above it were chrome wings on either side of the boot lock.

As the rear bumper was quite high, a valance was needed below the bumper, this had holes at both ends to allow the passage of the exhaust pipes. There was a lockable chrome fuel filler cap on the top of each rear wing, replacing the flush-fit cover of the Mark X/420 G. The twin tanks, one in each rear wing, were independent, with a facility for the driver to switch to the second tank when the first ran dry.

Badges were kept to a minimum with a chrome script of *2.8* or *4.2 litre* on the right hand side of the boot lid. US models had *XJ6* as the 2.8 litre was not available for this market. There was no Jaguar script on the early cars.

Interior Features

The interior of the new XJ6 was given a great deal of thought and consideration by the designers at Jaguar. The traditional craftsmanship was maintained, with the leather and walnut trim, features much loved by Jaguar customers. But the new car was a major improvement on previous models, with wider vision, better seating and generally a higher level of luxury. Although the XJ6 was smaller inside than the 420 G, it provided the occupants with greater comfort and improved ease of entry, unlike the previous model with its vast and heavy doors and high sills.

Seats: The seats were better proportioned, particularly the front seats with greater lateral support and enhanced shape. The front seats were designed in part by the bed manufacturer Slumberland, they were 10% lighter than conventional seats and incorporated 'posture' springing. Both front seats could be fully reclined but early cars had no provision for headrests.

On the 2.8-litre De-Luxe and all 4.2-litre models, the seats were faced with Connolly leather, featuring perforated panels. Seat side panels were made from Ambla, a man-made material. The standard 2.8 litre was trimmed in Ambla throughout. The rear seat was of conventional

design, proportioned to hold passengers firmly, yet in comfort. The 2.8-litre De-Luxe and 4.2-litre had a central rear seat armrest, missing on the 2.8-litre standard model.

Floor covering: High-quality pile carpeting was used throughout, with a thick felt underlay to help reduce noise levels.

Door fittings: The internal door handles were a new chrome finish flush mounted type. Conventional window winders were standard but electric window operation was available as an extra-cost option, with individual switches on the centre console.

To open and close the front quarter lights, a contoured wheel was positioned slightly above and behind the door handle. The rear quarter lights were fixed.

On the XJ6, the traditional walnut door cappings were replaced with a simple and plain piece of varnished wood on the actual window sill. On the 2.8-litre De-Luxe and 4.2-litre models the front and rear doors incorporated armrests, and rear door pockets were added, but the 2.8-litre standard model had simplified armrests on the doors and no door pockets.

Instrument Panel (Dashboard): The instrument panel kept the traditional Jaguar look whilst using new printed circuit technology. The basic layout was unchanged from the introduction of the Mark II in 1959. The two main instruments (speedometer and rev. counter) were positioned in front of the driver, and had chrome bezels on a veneered panel. Between these instruments was a vertical row of warning lights including the indicator tell-tales, hazard warning lights, ignition light, brake warning light and oil pressure warning light.

On the passenger side, the glovebox had a walnut veneer lid, and automatic illumination when opened. The inside of the glove box lid housed a vanity mirror.

The whole centre section of the dashboard was hinged and could easily be folded down for access to the wiring and fuses. This, too, was finished in walnut veneer, and contained the five smaller instruments mounted in a black panel – from left to right gauges for battery condition (i.e. a voltmeter), oil pressure, a transistorised clock, water temperature, and fuel level.

The switches were mounted in a black plastic panel within the veneered centre panel, just below the five smaller instruments. There were ten switches of the rocker style, all in row and neatly labelled, and they controlled virtually all of the electrical functions of the car. Just below the auxiliary switches, there was a shallow shelf or map tray for storing small items.

Centre Console: From the Mark II of 1959, Jaguar had gradually begun to develop a centre console integrated with the dashboard, and this was also a feature of the XJ6. On the 2.8-litre standard model the console had a large open tray between the front seats, whereas the 2.8-litre De-Luxe and 4.2-litre had a large heavily padded central armrest trimmed in leather, which also served as a lid to a storage compartment. Forward of the armrest or tray was an aluminium trimmed gear lever surround, which also housed twin ashtrays with chrome-plated lids, the cigar lighter and the rocker switches for electric windows (when fitted). At the front end, in the vertical part of the console reaching up to the dashboard, were the radio, and controls for heating and air conditioning (when fitted). If air conditioning was not fitted, the vacant hole to the left of the radio aperture was filled by a shield-shaped badge bearing the word 'Jaguar' above the 'leaping Jaguar' logo.

Heating and Air Conditioning: For many years, Jaguar customers had complained about the insufficient heating system. This was changed with the introduction of the Smiths fresh-air heating system that was standard on the XJ6. The system had been designed specifically for the new XJ6 and incorporated many features that were completely new for Jaguar.

Air entered the system through an intake at the base of the windscreen. Temperature control was automatic, controlled by a sensor, set by a rotary control on the centre console panel. Windscreen demisting and defrosting was by variable-direction ducts at the base of the screen, through which the full volume of air available could be directed. Twin two speed axial-flow booster fans supplemented the natural airflow. On the 2.8-litre De-Luxe and 4.2-litre models, there were additional heater outlets for rear passengers at the rear of the centre console.

In addition, at each end of the instrument panel was a face-level fresh air ventilation vent of eye-ball type. Jaguar also introduced an air extraction system, which did not require the use of outlet grilles on the exterior of the car, and thus preserved intact the smooth flowing body lines.

As an extra-cost option for 4.2-litre, air conditioning could be fitted, the system chosen was made by Delaney-Galley. The controls for the system were located on the left side of the front console and were within easy reach of both the driver and passenger.

Engines and Transmissions

Engines: Two engine sizes were offered in the XJ6 models, a 2.8-litre (2,792cc) and a 4.2-litre (4,235cc). Both were six-cylinder in-line units, developments of the well-proven Jaguar XK twin

overhead camshaft design, of which over 350,000 had been produced until 1968. Whether used in Jaguar's sports racing, grand touring or luxury cars, the XK engines had earned an unparalleled reputation for high power outputs allied to modest fuel consumption, flexibility, silence and the ability to run for enormous mileages with little more than routine maintenance.

The 2.8-litre engine: This engine was a new capacity in the range of XK engines and was derived from the 3.0-litre racing engine which had been developed by Jaguar for sports car racing. The 3.0-litre unit had bore and stroke of 85mm by 88mm and developed 300bhp at 6,750rpm. In the end Jaguar decided not to use this, due to the decision not to re-enter motor racing. Instead, development work progressed on this size for production cars. However, it became inevitable that the engine size would need to be adjusted due to high tax and insurance ratings in Europe for cars with an engine size above 2.88 litres. Jaguar took the decision to adopt a capacity of 2,792cc for this unit, and the 2.8-litre engine was born.

This used bore and stroke of 83mm by 86mm and, with a compression ratio of 9:1, this engine produced 180bhp at 6,000 rpm and 182lbs/ft of torque at 3,750 rpm. The design followed normal XK practice, with a chrome-iron cylinder block that carried a forged steel crankshaft in seven large diameter bearings. Steel connecting rods carried pressure die-cast aluminium alloy pistons with thermally controlled skirts, maintaining a constant clearance between the piston and cylinder bore.

In order to provide the maximum smoothness at the high crankshaft speeds of which this engine was capable, a very high standard of static and dynamic balancing, and matching of components by size and weight was maintained. An aluminium alloy cylinder head of the straight-port type (identical in design to that fitted to the E-type models) was fitted, and mixture was provided via a water heated inlet manifold by twin SU HD8 (2in diameter choke) carburettors with automatic enrichment for cold starting.

The 4.2-litre engine: This type of engine had been extensively used in other Jaguars since 1964, and had proved very successful. The bore and stroke were 92.07mm by 106mm giving a capacity of 4235cc. With the standar compression ratio of 8:1, it produced 245bhp at 5,500 rpm and 283lbs/ft torque at 3,750 rpm. (All power and torque figures quoted by Jaguar at this time were still gross figures, measured by the SAE method.)

A number of improvements had been made to the latest versions of XK engine, these being:

- On the 4.2-litre engine, the water gallery had been deleted to improve the water flow through the head and block.

- On both the 2.8-litre and 4.2-litre models the cylinder head, water pump and bypass systems had all received attention to increase the water circulation, thereby improving the cooling system.
- The filler cap on the 4.2-litre model was incorporated in the thermostat housing, and the cooling system incorporated a remote expansion and return tank.
- The 2.8-litre model had a separate reservoir tank that was piped into the inlet side of the water pump, a system that allowed air to be expelled quickly on initial filling.
- Both models featured a full flow oil filter with greatly increased filtration capacity. An improved relief valve of the piston type had been re-sited on the input side of the filter element. This ensured that all of the oil passing to the bearings was filtered, thus contributing towards a longer bearing life. The excess oil was returned to the sump without passing through the filter.
- On both models, a plastic-lined low friction cable operation of the progressive type throttle linkage had been adopted as one of the measures to insulate the passenger compartment from the engine noise and vibration.
- A new method of housing both engines was adopted. The engine was fitted to the front suspension sub-frame by rubber mountings located at the centre line of the cylinder block, whilst rear support was by a rubber mounting located between the rear of the transmission and the body longitudinal members. This method greatly improved the vibration and insulation of the passenger compartment.

Cooling system: The cooling system was specifically designed for the XJ6. A twelve-blade fan was fitted, driven from the engine via a viscous coupling, and the blades were of the short turbine type to reduce noise to a minimum. When the engine speed was below 2,500rpm at low car speed, and maximum cooling by the fan was required, it operated above engine speed to supply a greater airflow.

Above this speed, the torque capacity of the coupling was exceeded and the fan free-wheeled – the natural flow of air through the radiator as a result of road speed ensured adequate cooling. This meant that 'fan roar' at high revolutions was eliminated and car silence was greatly improved, particularly at the top end of the speed range. The system also reduced the amount of power absorbed by the fan by 75%.

Exhaust system: A twin pipe installation was used for both the 2.8-litre and 4.2-litre models. Two vitreous-enamelled manifolds, collecting from cylinders 1, 2, 3 and 4, 5, 6 respectively, were connected to down pipes of 1¾ inches in diameter. These pipes were then joined together for about 6 inches in order to remove the individual firing impulses from the exhaust

note. The pipes divided again, and each lead to a large absorption type silencer located just in front of the rear suspension. The pipe then passed over the rear suspension to a second acoustic type silencer, after which the exhaust was discharged through two tailpipes.

Manual transmission: The manual transmission featured the Jaguar four-speed unit with synchromesh on all forward gears, originally introduced in 1964. The short remote-control gear lever was mounted on the console between the seats. The ratios were well-chosen and closely spaced, with first at 3.04:1, second 1.97:1, third 1.33:1 and direct top. Within the gearbox, improvements were made to the helix angle of the gears that led to a reduction in noise, thus contributing to the quieter running of the XJ6. In addition to this a taper lock was added, to provide positive retention of the gears when meshed.

A Laycock de Normanville overdrive unit, electrically controlled and hydraulically operated, was available as an extra-cost option. It operated only on the top gear, with a ratio of 0.78:1, and thus provided a 28% reduction in engine speed relative to road speed. It offered high speed cruising at low engine speeds with consequent benefits to the overall fuel consumption figures. The operating switch for the overdrive was in the gearshift lever knob, a new feature for Jaguar. This sliding switch was a simpler and much neater solution, instead of the previous overdrive control mounted on the dashboard or the steering column. The system permitted the engagement or disengagement of the overdrive simultaneously with changes into or out of fourth gear.

Automatic transmission: There were two versions of the three-speed Borg Warner 'box, the 2.8-litre models used the type 35 and the 4.2-litre model used the model 8. Both models featured a torque converter and incorporated transmission oil heat exchangers, located in the bottom of the radiator. These units had been used extensively on other Jaguar models, but the type 35 unit for the 2.8-litre models now had a different method of operation, as for the first time the 'D' – '2' – '1' control system was adopted. With the lever in '2', automatic changes were made only between first and second excluding high gear, in other words a variation of Jaguar's old intermediate speed hold. Moving the selector from 'D' to '2' gave an immediate down change (engine speed permitting), which was particularly useful when negotiating twisting roads at high speed, or when overtaking other traffic at frequent intervals. In '1', only first gear was available, useful when descending long, very steep hills where maximum engine braking was required.

Another useful feature of the automatic transmission unit which was new to Jaguar, was the ability to make 'part throttle downshifts' which enabled the driver to change gear by increasing

the opening of the throttle, but without having to go past full throttle to the 'kick-down' position. This feature allowed smoother gear changes not previously permitted.

The model 8 version used on the 4.2-litre models incorporated the 'dual drive range (D1, D2)' method of operation in which 'D1' gave a first gear start and automatic change between all three ratios. 'D2' gave a second gear start and automatic changes between 2 and 3 only. In addition to being able to change gear by use of the accelerator, the model 8 enabled manual changes to be made and held by the simple expedient of moving the gearshift selector lever from 'D1' or 'D2' to 'L' (lock up), when a change to the next lower gear was made, provided the speed of the car was within the pre-set speed limitations for that gear. An upward change was achieved by returning the gearshift lever to either 'D1' or 'D2'. This system gave a considerable amount of control to the driver, ranging from fully automatic to full manual override.

Other Mechanical Features

Independent front suspension: The 'anti-dive' suspension geometry was a completely new design for Jaguar, and was then rarely found even in the most specialised cars. The system consisted of unequal length transverse wishbones with coil springs, telescopic dampers and an anti-roll bar – the whole assembly, together with the steering gear was mounted on a cross member which was located in the body on rubber mountings. This feature made a major contribution towards the truly outstanding road holding, ride and stability of the XJ6.

Both upper and lower wishbones were forgings, the lower units also incorporated the locating base for the springs, while upper location of the springs was by fabricated steel 'turrets' forming an integral part of the suspension sub-frame. The secret of the anti-dive geometry lay in the angling of the wishbones. The axis of the fulcrums of the upper wishbone was inclined upwards towards the front of the car at 3½ degrees, while the similar axis of the lower wishbone was inclined downwards by 4 degrees.

Unlike previous models, the XJ6 had the dampers mounted outboard of the springs (previously the dampers were inside the coil spring). The new position made removal and refit easier and rendered the dampers more effective. Girling 'Monotube' dampers were fitted, they were of the pressurised gas/fluid type, and their special design virtually eliminated two of the biggest problems with dampers – loss of setting due to temperature rise, and aeration of the fluid. The top mountings of the dampers were increasingly being produced from polyurethane, this made an important contribution towards the elimination of road noise and vibration.

Independent rear suspension: Jaguar chose to use the race-proved fully independent rear suspension, its design ensured that, when cornering, the outer wheel – which carried the main cornering forces – remained vertical on the road. This feature was of vital importance if the full benefits of very wide section tyres in terms of road holding were to be realised.

The system incorporated, on each side, a lower transverse tubular link pivoted at the wheel carrier and sub-frame adjacent to the differential case and, above this, a half-shaft universally jointed at each end. These located the wheel in a transverse plane. Longitudinal location was provided by the 'vee' rubber mountings locating the sub-assembly in the body structure, and by a radius arm between the lower link and a mounting point on the body structure.

Suspension was by twin coil springs, each enclosing a telescopic hydraulic damper. The whole assembly together with the differential unit was carried in an easily detachable sub-frame that was located in the body structure by rubber mountings. The total effect of the rubber mountings was to provide a compliance of 5 degrees around the centre of gravity of the differential unit under acceleration and 3 degrees under braking. This precise and carefully calculated degree of movement insulated the body from all road noise and vibration, and eliminated the transmission harshness inevitably associated with fixed differential units.

Steering: For the first time on a saloon model, Jaguar introduced rack and pinion steering on the XJ6. Power assistance was standard on the 2.8-litre De-Luxe and 4.2-litre models, and optional on the 2.8-litre standard model. The steering gear was developed by Jaguar's engineers in close collaboration with Adwest Engineering Company Limited and Alford and Alder, Adwest Engineering was responsible for the actual manufacture of the unit.

Low steering effort was combined with the precision and sensitivity of a top-class rack and pinion design which gave the XJ6 outstanding steering characteristics. From lock to lock, the steering wheel required 3½ turns. The turning circle was 36 feet.

Both the upper and lower steering columns were designed to collapse, and would meet the USA Federal Safety Regulations. The upper column incorporated an energy absorption sleeve, and the lower column had a special swing-link joint that accommodated the compliance movement of the front suspension, and also eliminated any axial loads up the column. The two columns were linked by a conventional universal joint that enabled the columns to be displaced in the event of an accident. The rack assembly was mounted at three points, and special damped rubber units assisted in the absorption of the road shocks. For safety reasons, the assembly was mounted on the rear face of the sub-frame in an area of maximum protection.

Power assistance was an integral part of the design. Oil flowed from the output side of the pump to the steering gear via a high pressure hose and then back to the pump – the oil reservoir was integral with the pump unit. A continuous flow of oil was pumped through the system whilst the engine was running, but pressure built up only when the steering wheel was turned.

The steering wheel had a two spokes with a half horn ring. The steering column could be adjusted for reach. The combined steering and ignition lock and starter switch was situated inboard of the steering column, under the left hand of the driver on a right-hand drive car.

Brakes: Jaguar fitted Girling disc brakes to all four wheels of the 2.8-litre and 4.2-litre models with automatic adjustment for wear. The rear discs were mounted inboard and adjacent to the differential unit, in order to reduce the un-sprung weight to a minimum. The callipers were cast-iron to provide the maximum resistance to bending deflections, and had three operating cylinders for each front brake, and two for each of the rear brakes. Disc shields were fitted to prevent corrosion to the pads and the piston guides, and to eliminate pad saturation in very wet conditions. In addition, they helped to equalise wear between the inside and outside pads, by reducing the amount of dirt thrown on them by the wheels.

An important safety feature was the fitting of two independent hydraulic circuits for front and rear brakes, therefore damage from any cause to one circuit did not affect the other. Mounted under the dashboard on the driver's left, the pull-out, self-adjusting handbrake operated on the rear wheels by means of separate callipers, and a combined handbrake 'on' and brake fluid low level warning light was provided on the facia panel. To achieve a quicker illumination of the brake lights, the switch was operated by the brake pedal rather than by hydraulic pressure. The self-adjusting handbrake would hold the XJ6 on a 1:4 slope with a pull of 64lbs on the lever.

The brakes were servo-assisted, with a Girling servo of the tandem suspended vacuum type. Brake linings of the segment type were an effective compromise between the 'hard lining' characteristics necessary for the elimination of fade and excessive wear at high speeds, and the 'soft lining' characteristics necessary for a good response at low speeds.

Electrical equipment: The XJ6 had a 12 volt negative earth system featuring an alternator and large capacity battery. The comprehensive electrical system was a major feature of the car. Electricity was generated by the high output Lucas alternator, driven by a 'vee' belt from the nose of the crankshaft, with a maximum output of 45 amps at 3,000rpm. The 2.8-litre models used a 9-plate battery and the 4.2-litre model used an 11-plate battery. The battery was

mounted in a very accessible position at the back of the engine bay, and the battery tray and clamp were made from steel heavily coated in plastic to prevent corrosion. Heavy-duty starter motors were fitted to both models, the 2.8-litre had an inertia-drive type and the 4.2-litre model had a pre-engaged type.

For the XJ6, a very high standard of illumination was required to cope with the performance of the car, so four headlamps were fitted – the outer pair of 7 inch diameter with 60/45 watt bulbs, the inner pair of 5 inch diameter and fitted with 50 watt bulbs. The asymmetric dipping of the lamps was by floor mounted dip switch. The headlamps could be flashed by a lever on the steering column. This lever also controlled the indicators, those at the front being visible from the side. As a new safety feature, the indicators could be operated as hazard warning lights.

At the rear were combined units for indicators, rear and stop lights, for the first time of a unique styled Jaguar design rather than a standard Lucas model. Two reversing lights were mounted on the boot lid, together with reflectors, although the latter were soon mounted to positions below the rear lamp units.

Interior lights were fitted to both centre door pillars and were operated automatically by any of the four doors being opened, or by a switch on the facia panel. A map reading lamp and a luggage compartment light were also standard.

Printed circuits were used by Jaguar for the first time, for the wiring of the four gauges mounted in the centre of the instrument panel. This panel was hinged to provide easy access to the comprehensive fuse system, with each circuit clearly labelled with its function.

The very large windscreen was kept clean by an electric washer, the pump for which was located away from the water container, making this easier to refill. The twin two-speed self-parking wipers cleared extremely wide areas of the windscreen to provide outstanding visibility, even in heavy rain. The powerful wiper motor was of the permanent magnet type.

Boot and spare wheel: The boot was of 17cu.ft capacity (459 litres), of regular shape thanks to the mounting of the twin petrol tanks in the rear wings, and easily accessible with the boot lid reaching all the way down to the level of the boot floor. However on the debit side, the boot was rather shallow. A Hardura boot mat was fitted over a thick sound-deadening felt underlay. The spare wheel was in a well below the false boot floor, this was at first a hinged hardboard panel, soon replaced by a lift out wooden panel. A tool roll was provided with a comprehensive selection of tools, the spanners being marked with the 'Jaguar' name.

6. PRODUCTION CHANGES OF THE XJ SERIES 1

Throughout production, changes were made to correct faults found and keep up with fashionable trends in technology and comfort. Jaguar were all too aware of the need for continual improvement and it is this philosophy that made them so successful.

To start with, 1969 was an eventful year for Jaguar as they decided to introduce a Daimler version of the XJ6. The new Daimler Sovereign was announced on the 9 October 1969. The Daimler Sovereign was identical mechanically except for:

The manual transmission was fitted with overdrive as standard.

The only differences externally were:

- A fluted radiator grille with a thicker chrome surround and vertical bars only.
- A fluted chrome boot lid plinth.
- The badges on the radiator grille and hubcaps were changed to the Daimler 'D' logo, but the wing badges were removed.
- A chrome strip was added to the centre of the bonnet.

Internally, the differences were:

- Daimler badging was added to the engine camshaft covers.
- There were new badges on the steering wheel centre and centre console.
- The door panels were redesigned with wider armrests and door pulls in the front.
- A black vinyl covering was added on the upper section of the door panels with a chrome horizontal strip.
- The seating had wider pleats without the perforated panels.

As with any mass produced product, changes were inevitable following complaints, innovations or changes in fashion, Jaguar was no exception. Numerous changes took place during the life span of the XJ6 Series 1 and these are detailed below:

- In early 1969 the exhaust system was changed from straight tailpipes to a curved design due to complaints of fumes entering the cabin when the windows were open.
- Head rests became available on the front seats as an extra-cost option (black or seat coloured grommets filled the holes when headrests were not fitted).

- Inertia reel seat belts also became an option as an extra-cost option.
- Factory fit mud flaps were available as an extra-cost option.

Following complaints of excessive heat felt through the floor, heat shields between the body and exhaust system were introduced.

Towards the end of the year, the Borg Warner Model 12 automatic transmission replaced the model 8 on the 4.2-litre models, the 2.8-litre kept the model 35 automatic transmission throughout its production.

A number of changes were made during 1970, these being:

- Foot-well fresh air ventilation was fitted, fed by small grille inlets in the outer headlamp surrounds.
- A heated rear screen was introduced and could be identified by horizontal wires in glass.
- Jaguar revised the spare wheel cover and fuel pump cover in the boot, this meant moving the jack and tool roll to the upper part of the boot.
- The scuttle ventilator grille changed to satin chrome to avoid glare on the windscreen.
- There was a new interior mirror.
- The chrome on the instrument bezels, switches and ventilator surrounds was replaced with non-reflective black.
- Improved provision for radio/cassette with extra door panel fittings to allow for four-speaker installation.
- Laminated windscreens became standard for many European markets and there was a wider choice of windscreens: clear toughened, Sundym toughened, clear laminated, Sundym laminated, and Sundym laminated with shaded tint top.
- A revised brake fluid reservoir was moved to the inboard side of the booster instead of at the rear.
- The front wheel arch flanges were altered to allow extra clearance between the tyre and wing.
- The chrome on the front windscreen was made slimmer.
- New door tread plates with the Jaguar or Daimler name etched on them were introduced.
- An easier-to-read water temperature gauge was fitted.

Yet again more changes were introduced in 1971:

- Some structural changes were made to the front wings, which meant the aerial had to move to the rear wing, but there was also the extra-cost option of a roof mounted version.
- A stop was fitted to the front seat reclining mechanism to prevent the seat returning to an over-upright position.
- A stiffer rear parcel shelf was fitted to prevent warping in hot climates.
- A mesh was fitted under the scuttle ventilator to stop debris and insects getting into the heating system.
- The rear bumper was redesigned in three separate sections with the joins under the over-riders, this made it easier and cheaper to change if damaged.
- EEC regulations meant the reversing lights had to be enlarged, so new reflectors had to be repositioned below the rear light cluster.

The Jaguar model range was expanded further on 11 July 1972 when the XJ12 was finally launched. It had been delayed several times over the previous two years through development problems. From the start, the XJ bodyshell had been designed to take alternative engines, and it had been Sir William Lyons's desire to offer the V12 from the start of production. The XJ12 gave Jaguar a commanding position, especially in the USA.

The V12 engine was created by the same team that came up with the XK engine: Walter Hassan, Claude Baily and William Heynes, with additional assistance from Harry Mundy. The original design had been for a 5-litre racing engine with two overhead camshafts per bank. Such an engine was fitted to the still-born XJ13 racer of the mid-1960s. When Jaguar decided not to return to racing at this time, the design was developed for road cars. The first Jaguar model to benefit form the new engine was the E-type, which featured the V12 in its Series 3 form introduced in early 1971.

The engine was developed from the racing engine, but the production engine had only one chain-driven overhead camshaft for each bank of cylinders. The layout used the conventional 60 degree angle. The seven main bearing cast crankshaft was made of EN16T steel. Bore and stroke were 90mm by 70mm, of considerable oversquare proportions, for a capacity of 5,343cc. The compression ratio was 10.6:1 (later changed to 9:1), and the engine developed 265bhp at 6,000 rpm (Jaguar now quoted net or DIN figures for power output). The all-aluminium V12 engine weighed 680lbs, just 80lbs more than the six-cylinder XK engine.

Mixture was supplied by four Zenith Stromberg 175CD carburettors, changed from Jaguar's traditional SU carburettors due to lack of space in the engine bay. They were fed by air ducts with filter units, shaped to follow the line of the bonnet.

A specially produced ignition system by Lucas called OPUS (oscillating pick-up system) with solid-state circuitry was used, as well as a new cross flow radiator divided into two sections for better temperature control.

Measures had to be taken in other areas to deal with the amount of heat generated by the engine in the confined engine bay. A re-circulating fuel system had to be designed to prevent fuel evaporation in the under bonnet area. Heat shields were fitted around the steering rack and engine mounts, as well as along the entire length of the under-body to protect the bodyshell from the heat of the exhaust system. The battery was housed in a steel casing with a thermostatically controlled electric fan that would activate at temperatures over 55° C.

Production of the V12 engine was in the old Daimler factory at Radford in Coventry. $3 million was spent on tooling-up the production line and the automation procedures involved were considerable. Many operations were carried out on automatic transfer equipment such as the three Archdale machines with a total of 57 stations that had the ability to handle the most complex aluminium components. The assembly of the engine was carried out on an electrically driven track with the block contained on a cradle that could be swung into a variety of positions. Meanwhile, various sub-assembly lines built the cylinder heads and the crankshaft/flywheel assembly. The new shop also included a small aluminium components section, they were responsible for the production of items such as the manifold, tappet blocks, sump, camshaft covers and water pump housings.

The extensive use of alloys meant components had to be handled and tested carefully. The final machining of the cylinder head was not carried out, until all other work had been completed. Once complete, Jaguar's policy of bench testing each unit was carried out before it was shipped to Browns Lane for final assembly. Radford delivered around 200 units per week but had the capacity to build 1,000 units over 80 hours (two shifts).

Changes to the rest of the XJ12 car as compared to the XJ6 included the following:

To combat the extra weight over the front wheels, stronger and lengthened front springs were used (with air conditioning fitted, springs were upgraded even more to compensate for the extra weight). The front wishbones were strengthened but no other changes were necessary.

The following changes were made to the brakes to cope with the increase in performance:

- Ventilated front disc brakes were fitted for the first time.
- A Kelsey-Hayes brake balance valve was fitted to prevent rear wheel lock-up under heavy braking and a Girling Supervac brake servo was used.

Other changes that took place were:

- Tyres and wheels were upgraded with a new Dunlop version of the E70 VR15 tyre, which had nylon casing and a steel breaker strip to cope with the extra weight.
- V12s had a four-pin limited slip differential ensuring maximum power to the wheels.
- New steel wheels with extra ventilation slots were used.
- The exhaust system had a larger bore and the pipes were increased to 2 inch from $1^{7}/_{8}$ inch diameter.

The XJ12 was only available with the Borg Warner model 12 automatic transmission due partly to the USA preferring this kind of transmission. Although the lighter E-type V12 was available with a manual 'box, it was also considered that the torque of the V12 engine in the heavier saloon would prove too much for the gearbox.

Externally there were few differences between the XJ6 and XJ12, and these were:

- There was a new style radiator grille with vertical bars only.
- Instead of the round growler badge, there was a thicker centre rib with a vertically mounted rectangular black plastic badge, with a small growler above a 'V Twelve' in gold.
- A chrome XJ12 script badge was placed on the right hand side of the boot lid, with a chrome Jaguar script badge on the left hand side.

Internally there were a few minor changes made:

- Daimler style door panels were used.
- There was black PVC trim for the centre console and radio panel replacing the bright-finish panels.
- A gold V12 badge was placed on the centre console.
- A manual choke control was situated under the instrument panel.

- A 7,000 rpm revolution counter and a 160 mph speedometer were also fitted.

A V8 version of the V12 was explored but Jaguar was not happy about the inherent vibration problems in a 60 degree V8, so the V12 was the only one of the promised new engines to become available in the XJ. Undoubtedly, it provided a bonus of prestige. The XJ12 was the only saloon with a V12 engine available in the world.

In August 1972, the Daimler version was introduced using the old Daimler name of Daimler Double-Six. The front and rear badges were changed, the grille badge was changed from 'D' to 'V12' (gold on black), and a Double-Six script was used on the right hand side of the boot lid instead of the Sovereign script. The mechanical features were identical to the Jaguar.

In September 1972, the model range was expanded when the Daimler Double-Six Vanden Plas was introduced as the top of the range model. It was basically a Double-Six with an extra 4 inches added to the wheelbase, giving the rear passengers more legroom. The Vanden Plas models were sent as partially completed running cars to the Vanden Plas works at Kingsbury, London, to be finished to a very high standard, including the paintwork. The Vanden Plas models therefore had the underside of the boot lid and the bonnet painted black (all other XJ models had body coloured undersides), as well as the engine bay, this avoided the removal of the mechanical and electrical components, before the cars were painted at Kingsbury. The specification included:

- A matching or contrast colour vinyl roof.
- A range of special metallic paint colours.
- Higher-quality Connolly leather for the seats and interior trim.
- Specially made seats, separately contoured at the rear, with fewer and wider pleats.
- Improved quality wood veneer on the instrument panel and door fillets, both with boxwood inlays.
- Door mirrors as standard.
- Waistline chrome trim.
- Painted coachline.
- Chrome plated wheels.
- Unique badges on the rear, with a 'Vanden Plas' script badge.
- Additional sound deadening.
- Improved quality carpets.
- Rear compartment reading lamps.
- A combined radio and cartridge player.

October 1972 saw the launch of the final additions to the range with the long wheelbase versions badged on the rear as XJ6L or XJ12L, as well as a long wheelbase Daimler Sovereign, all using the same basic bodyshell as the Daimler Vanden Plas. This development was possibly prompted due to Mercedes introducing a long wheelbase version of their own that was marketed successfully, but was more likely directly occasioned by critical comments from users of chauffeur-driven XJ models who found legroom in the rear rather limited. The only change was the extra four inches in the body length (in the floorpan and rear doors), to provide extra comfort for the rear passengers. It added 1.5 cwt to the weight but had little effect on performance. The difference is only obvious from the side, as the rear passenger window is longer than that on the standard wheelbase car. Even so it can be difficult to tell short and long wheelbase models apart at a superficial glance, unless they are parked side by side!

General changes to all models which occurred during 1972 included the following:

- The oil pressure gauge was re calibrated from 60psi to 100psi.
- Chrome plated steel wheels became available as an extra-cost option.
- In May 1972, on the 4.2-litre models with automatic transmission, this was changed from the Borg-Warner model 8 to model 12.

By September 1973, the XJ had been on the market for five years, and Jaguar decided it was time for a general update of the model range.

7. THE XJ SERIES 2

The new Series 2 range was introduced in time for the 1973 Motor Show. Much of the excitement centred around the introduction, premature though it would turn out to be, of the undeniably elegant two-door pillarless coupé version. The rest of the range was realigned, taking into account the experience gained over the past five years.

The 2.8-litre models which had acquired a reputation for patchy engine reliability, were discontinued except for certain export markets. For a short period, there was therefore still a Jaguar XJ6 2.8-litre short wheelbase saloon, available only with left-hand drive.

The 4.2-litre saloons (Jaguar XJ6 and Daimler Sovereign) continued in both short and long wheelbase forms, but the longer cars were now clearly considered more important, and the short versions were discontinued altogether after little more than a year.

The V12-engined saloons (Jaguar XJ12, Daimler Double-Six and Daimler Double-Six Vanden Plas) were now built only with the longer wheelbase.

The new coupé versions were built on the original short wheelbase platform, and there were four models available: Jaguar XJ6 and Daimler Sovereign, with the 4.2-litre engine size, and Jaguar XJ12 and Daimler Double-Six, with the 5.3-litre V12.

This was the original Series 2 model range:

- 2.8-litre Jaguar XJ6 (LHD for export only)
- 4.2-litre Jaguar XJ6
- 4.2-litre Jaguar XJ6L
- 4.2-litre Daimler Sovereign
- 4.2-litre Daimler Sovereign (LWB)
- 5.3-litre Jaguar XJ12L
- 5.3-litre Daimler Double Six (LWB)
- 5.3-litre Daimler Double Six Vanden Plas
- 4.2-litre Jaguar XJ6C (Coupé)
- 4.2-litre Daimler Sovereign (two-door)
- 5.3-litre Jaguar XJ12C (Coupé)
- 5.3-litre Daimler Double Six (two-door)

Both of the Jaguar factories in Coventry were extensively modernised and expanded, the assembly line virtually doubled in size at the Browns Lane site, and £1.5 million was spent on the engine assembly plant at Radford. Highly accurate and complex equipment was installed for quality control and the improvements made meant the possibility of increased production capacity, together with complete flexibility to switch between building different models as demand dictated.

At the time of the launch of the Series 2, Jaguar had a new Managing Director, Geoffrey Robinson. He had replaced 'Lofty' England in September 1973, after 'Lofty's' brief tenure as Managing Director of little more than a year after the retirement of Sir William Lyons. Robinson who had previously been in charge of Leyland's Italian Innocenti subsidiary said of the new models:

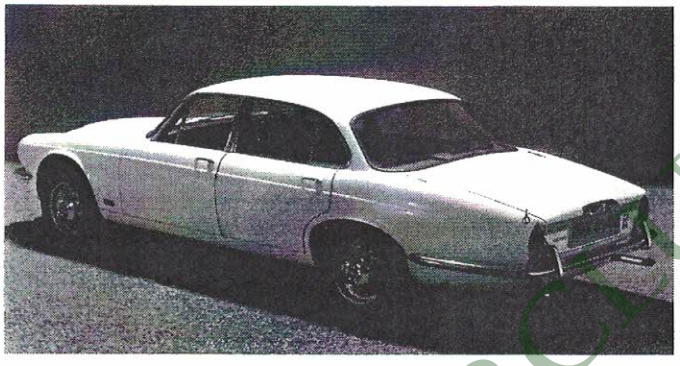
"We have carried out a big re-organisation and modernisation programme in the factory so that we can meet today's needs in terms of economy and variety of choice."

"The wider range of models will broaden the Jaguar appeal beyond our traditional markets. We now offer luxury cars with all the equipment that any owner could want or, on the other hand, high specification models at a lower price. None of them, in any way, falls below Jaguar's reputation for value, engineering and elegance."

8. FEATURES OF THE XJ SERIES 2

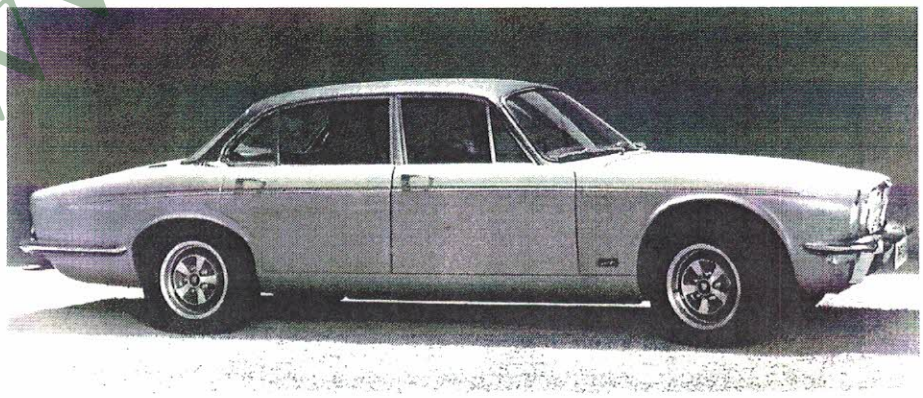
XJ12 - Interior

XJ6 - Front view shows the new higher bumper and new grille

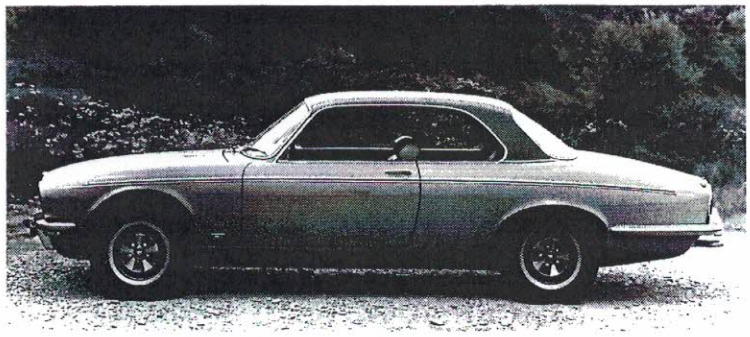


XJ6 3.4-litre launched in 1975

XJ12 – Front View



Jaguar 5.3-litre Saloon with Fuel Injection and Optional Alloy Wheels launched in 1975.



XJ 5.3C - Optional Alloy Wheels

Daimler Double Six Coupé

XJ6C

Daimler Double Six

Although the Series 2 bore a strong resemblance to its predecessor, there were a number of identifiable changes. These are detailed below, using extracts from the 1973 XJ Series 2 press pack:

Body Design

The Series 2 Jaguars and Daimlers retained the same basic design as their predecessors but had several significant improvements.

- Anti-side-intrusion barriers were fitted throughout the range as a standard safety feature. Each barrier resembles two 'W' section lengths of mild steel that came together and were welded to the edges of each door, inside the outer panel. This gave the doors immense strength in the event of a side-on collision.
- The difference between the standard wheelbase and the long wheelbase was 4 inches. This additional length in the long wheelbase versions gave the rear passengers additional legroom.
- The completely new Jaguar XJ6C, XJ12C, Daimler Sovereign two-door and Daimler Double Six two-door models were based on the standard wheelbase shell.
- They had four seats with access to all seats via the new extra wide front doors.
- There were no central door pillars, this allowed the rear passenger window to be of full length.
- Extra strengthening had been achieved by widening the rear corner panels to re-enforce the roof. Visually, this offered a purposeful yet attractive Coupé.

The passenger accommodation remained identical to that of the normal four-door version. There were some additional modifications, these being:

- Minor modifications to the bulkhead to accommodate the new heating system, ventilation and the optional air conditioning unit.
- Considerable attention had been paid to the cables and pipes that passed through the bulkhead; under-bonnet harnesses, heater hoses and air pipes had been linked together with double-sided bulkhead connectors.
- The wiring harness had a coded socket-and-plug system with a connector block at each end of the bulkhead to carry the two harnesses that contained the wiring for the under-bonnet electrical systems.
- The water and air pipes were attached to adaptors that were sealed into the bulkhead.

- An important factor was the elimination of rubber grommets as they had the potential to wear out or detach themselves with the consequent possibility of the wires 'shorting-out' (grommets are themselves poor sound barriers and they have a tendency to fall out).

The biggest advantage to this system was its serviceability, as the detachability of wires and pipes from either the front or rear of the bulkhead can save time and effort when diagnosing and rectifying potential faults.

To reduce interior noise, the bulkhead, footwells and transmission 'hump' were now covered by moulded sound-absorbing material. The materials used were Oldfield bitumen and cotton felt, and Hardura PVC foam with loaded PVC surface. These materials provided a good heat shield and were designed to fit neatly together to eliminate 'acoustic holes'. Fixed to the front of the bulkhead was a full-width heat shield that had the properties of sound absorption with heat and fire resistance.

With the use of the insulating materials, the transmission of noise into the passenger compartment was reduced even more than ever. Jaguar was one of the first manufacturers to employ the method of moulded floor coverings, as it recognised the importance of noise reduction.

Exterior Features

The new Series 2 was easily recognisable and could be 'picked out' by the attractive front-end styling. To comply with USA safety requirements for 1974, the front bumper height was raised to 16 inches above the ground. This gave Jaguar the opportunity to re-style the front of the car.

- The traditional cross-hatch XJ grille was mounted above the bumper, with a predominant growler badge and a central 'V12' below this to identify the XJ12 model.
- Daimler had a shallower version of the vertically slatted, fluted-top radiator grille.
- A rectangular grille with horizontal slats was mounted below the bumper of all Series 2 models.
- The wrap around front bumper was mounted on the chassis side members, with under-riders mounted at each end of the lower grille.
- The side lamps were mounted below the bumper, their housings were made from plastic, including the base and aluminised surround. This feature offered improved safety upon impact. The other advantages were ease of replacement and anti-corrosion properties.

- The rear number plate illumination was moved above the number plate to comply with lighting requirements, and was situated in a chrome-plated casting.
- The boot lid release lock was recessed for safety.
- A colour-coded coachline was applied to all V12 saloons and two-door models.
- Headlamps were tungsten filament sealed beam units with quartz halogen as an extra-cost option (except on the Daimler Double-Six and Vanden Plas models where this type of lamp was a standard feature).

Interior Features

New interior features were added to give the driver and passengers the maximum safety, security and comfort. These were:

- The instrument panel was completely re-designed. The speedometer, revolution counter, fuel gauge, oil pressure gauge, battery condition indicator and water temperature gauges were all mounted in front of the driver, and were clearly visible through the two-spoke steering wheel.
- All lights were operated via a switch beside the steering column, with the exception of the headlamp flash and dip, which was positioned on a steering column stalk for ease of operation.
- The windscreen wash and wipe controls were positioned on a stalk situated on the left of the steering column.
- The instrument panel lights had a rheostat controlling the brightness to the required level.
- The lighting, ignition switches and heating controls were illuminated by fibre optic cables. This was a first for a British car.
- Electric windows were fitted, except on the normal four-door six-cylinder models, for which they were optional. The controls were positioned on the forward face of the central glove box on the transmission tunnel, while rear passengers had additional individual controls that were located on the rear of the centre console.
- A master switch to the electric windows was positioned within the main control panel, this allowed power to be cut if required. It prevented small children playing with the windows.
- The front quarter lights were fixed to reduce exterior wind noise.
- The centre console was attractively finished with anti-dazzle reeded aluminium on the XJ6, whilst the Sovereign and V12 models had the console finished in cloth.

- The air vents at each end of the instrument panel were changed to a rectangular shape, as opposed to the previous round ones.
- An additional rectangular air vent was positioned in the middle of the instrument panel in place of the secondary dials.
- The map shelf had been swapped around with the auxiliary switches.
- Ashtrays for the rear passengers were now in the doors, or in the rear side panels on the coupés, rather than the centre console.
- A switch was mounted on the centre console that allowed all doors to be locked simultaneously. The driver could operate the system before leaving the car, manually override the lock, and relock with the key – thus reducing the possibility of leaving the keys in the car.
- Inertia reel seat belts with 'single hand' operation were fitted as standard to all models. Two-door models had the reel cleverly concealed behind the side trim panel, this reduced the risk of rear passengers tripping over the belt, whilst entering and exiting the car.
- Heated rear windows and laminated windscreens were standard throughout the model range.
- Head rests were fitted in all but the normal four-door models for which they were an extra-cost option.

The Series 2 Jaguar and Daimler had a completely new and advanced heating and ventilation, or air conditioning system. Both systems utilised the same layout and basic unit.

The functions were:

- The temperature selector gave varying degrees of heat and corresponding flap movement. For example, on 'DEF' most of the hot air was directed to the windscreen, with a small bleed to the footwells to give maximum high speed demisting.
- The outer vents could be opened to demist the side windows, or kept closed for maximum windscreen demisting.
- There were three speeds for the twin fans, which were mounted on either side of the heater box. The air was fed in from the windscreen scuttle vents and the fan speeds were high, medium and low. If the fans were switched off, there was still a natural flow of air (ram air) through the system.
- The outer facia and windscreen vents were continuously in operation, with multi-directional controls and an on/off facility.

The air conditioning system was described briefly:

- The system was fully automatic with automatic temperature control and fan speeds.
- It operated on the basis of the difference between the interior temperature and the temperature requested.
- A temperature sensor sent a signal to the system that was then compared with the requested temperature, and either hot or cool air was distributed as appropriate.

Mechanical

Mechanical changes to the Series 2 are detailed below:

- The automatic transmission on the early six-cylinder models was still the Borg Warner model 12 but this was soon changed to the Borg Warner model 65. Automatic transmission remained a cost option for the 4.2-litre model, the manual gearbox with overdrive being standard (although very few cars by now had the manual 'box).
- The XJ6 saw a great improvement by using the large ventilated front discs as first used on the Series 3 E-type, and subsequently on the XJ12.
- A pressure differential warning actuator was fitted to warn the driver of any fluid loss.
- On the six-cylinder models the exhaust system had been improved in both serviceability and reliability. This was achieved by merging the two down pipes to a point where a single length of double-skinned pipe was clamped to the down pipe. The double-skinned section extended for approximately 2 feet before splitting to the two main and two rear silencers. The whole system was constructed from aluminium and flexible pipe sections were eliminated. The twin-exhaust system of the XJ12 remained unchanged.

Engine

The engines used on the Series 2 were the same as in the Series 1. There were no significant changes, although the quoted performance figures were slightly different from the Series 1.

The performance figures for the Series 2 were as follows:

	V12	4.2-litre
Power DIN	250 bhp at 6,000 rpm	180 bhp at 4,500 rpm
Torque DIN	301 lbs/ft at 3,500 rpm	232 lbs/ft at 3,000 rpm
BMEP	139 psi at 3,500 rpm	136 psi at 3,500 rpm

Minor modifications were made to the cooling system:

- On twelve-cylinder cars, a supplementary thermostatically controlled electric fan was fitted for very high temperatures, and for constant use when the optional air conditioning unit was in operation.
- All models used an engine oil cooler mounted below the main radiator, V12 used a Marston tube and fin cooler, and the six-cylinder units used a Clayton Dewandre single tube cooler, with internal and external copper windings.
- Coolers for the automatic transmission fluid were mounted below the main radiator on the XJ6 and on the side tank of the radiator block of the XJ12.
- Both coolers were of the water/oil heat exchange type.

9. PRODUCTION CHANGES OF THE XJ SERIES 2

During the six-year life span of the XJ Series 2 there were a number of modifications and minor face-lifts. These have been identified and briefly detailed in the following section.

Early in 1974, the overdrive became standard on the Jaguar XJ6 with manual gearbox (previously an extra-cost option). Later that year the standard wheelbase saloons ceased being produced.

During 1975 a number of additional models were introduced. These included:

- 3.4-litre Jaguar XJ6
- 3.4-litre Daimler Sovereign
- 4.2-litre Daimler Sovereign Vanden Plas
- 5.3-litre Jaguar (fuel injected)
- 5.3-litre Jaguar two-door (fuel injected)
- 5.3-litre Daimler Double Six (fuel injected)
- 5.3-litre Daimler Double Six two-door (fuel injected)
- 5.3-litre Daimler Double Six Vanden Plas (fuel injected)

With the introduction of fuel injection for the V12 engine in May 1975, the carburettor-equipped models with this engine were discontinued.

Customers were able to choose the engine size and interior trim to suit their requirements and taste. With economy in mind, Jaguar introduced the 3.4-litre and it sold for around £340.00 less than the 4.2-litre car.

From around this time onwards, a new system of nomenclature was adopted for the Jaguars, which were now called XJ 3.4, XJ 4.2 or XJ 5.3, instead of XJ6 or XJ12.

The Daimler Sovereign Vanden Plas was lavishly equipped similar to its V12-engined sister model, but was powered by the smaller 4.2-litre engine.

Exterior Features

A number of exterior changes identified the additional models and they have been identified below:

- All 5.3-litre models were clearly identifiable as they had a black vinyl roof.
- A chrome plated side strip on the bodywork of the 5.3-litre models.
- The distinctive 'Kent' light alloy road wheels were offered as an extra-cost option on the 5.3-litre models.
- All 5.3-litre models had a 'V12' badge on the top of the radiator grille.
- XJ6 models had an 'XJ3.4', 'XJ4.2' or 'XJ4.2C' badge on the right hand side of the boot lid and the name 'Jaguar' on the left hand side.
- V12 models had an 'XJ5.3' or 'XJ5.3C' badge on the right hand side of the boot lid and the name 'Jaguar' on the left hand side, a 'Fuel Injection' badge was placed underneath the 'Jaguar' badge.
- Daimler's badges remained the same as on previous models with the addition of a 'Fuel Injection' badge.
- Tinted glass was not available on the 3.4-litre, it was an extra-cost option for all other models except the Vanden Plas where it was standard.
- Chrome plated rim embellishers were an extra-cost option for the 3.4-litre model and standard for all other models.
- Painted coachlines were not found on the 3.4-litre or the 4.2-litre saloons but were standard on all other models including the XJ4.2C and Sovereign two-door models.

Interior Features

As always when introducing new models, change was inevitable, and this applied to the interior features of the car as much as the exterior and mechanical aspects. A number of changes have been listed below:

- The new 3.4-litre models had cloth trimmed seat facings as standard.
- On the 4.2-litre and 5.3-litre models leather faced seating was standard, however, cloth trimmed seats and interior side panels were an option.
- The 3.4-litre and 4.2-litre had narrow pleats and the 5.3-litre model followed the Daimler tradition of wider pleats.
- Push-button radios were standard on the 5.3-litre models, but were an extra-cost option for all other models excluding the Sovereign Vanden Plas.

- The Vanden Plas model was fitted with a combination radio and stereo cartridge player as standard, and this was an extra-cost option for all other models.
- Electric windows and electric door locks were not available for the 3.4-litre models but were standard for all other models.
- Head rests were an extra-cost option for the 3.4-litre models, but standard on all other models.
- Air conditioning was not available for the 3.4-litre models, an extra-cost option for all other models, excluding the Vanden Plas models where it was standard.

The new cloth trim was anti-static, stain resistant and made of polyester with cropped pile surface to minimise wear on clothing.

Many combinations of paint and trim colours were offered and these are listed separately. In addition to other trim colours, black (called 'Ebony') was a standard cloth colour and could be specified with any body colour. Cloth trimmed 4.2-litre and 5.3-litre models had matching cloth interior door panels.

Engine

With the announcement of the 3.4-litre models, Jaguar recognised the change in the motoring climate throughout the world and the trends towards a smaller power unit giving maximum economy and efficiency. The 3.4-litre engine provided a standard of performance that became synonymous with the Jaguar name, but offered better economy.

Retaining extremely high standards of engineering, quality and reliability, the 3.4-litre model broadened the Jaguar range and increased potential sales in the sector of the market in which they already led. However this engine size was not offered in the USA.

The new engine reverted to the original XK dimensions of bore and stroke of 83mm by 106 mm for a capacity of 3,442cc, but was developed from the 4.2-litre version, and incorporated a number of improvements over the original XK 3.4-litre unit, making it even more reliable, efficient and economical, these being:

- The cylinder block was redesigned with external ribbing for increased strength.
- The coolant passages in the cylinder block were changed to give outstanding engine cooling under extreme conditions.

- The crankshaft had a redesigned web section for improved stiffness and to increase torsional rigidity.
- All main bearings were fully grooved to improve the flow of oil.
- Twin SU HS8 carburettors were fitted.
- An automatic enrichment device (AED) controlled by exhaust gas temperature assisted cold starting.

The 5.3-litre models were introduced with electronic fuel injection, initially on the two-door models, but soon expanded to the four-door models. The extra power was used to give more torque through the gears and enhanced long distance cruising economy, through the use of a higher axle ratio. The electronic fuel injection system was developed jointly between Jaguar and Lucas engineers, from the original German Bosch system, to provide the highest standards of quality and performance that were demanded by Jaguar. The system would be known as the Lucas Bosch 'D' Jetronic.

The system was tested in the USA and prototypes covered over 14,000 miles enduring some of the worst climate conditions, through hot arid deserts reaching temperatures of over 100° F and altitudes of up to 14,110 feet. The Motor Industry Research Association (MIRA) was responsible for subjecting the system to extreme cold conditions and this was achieved in the 'cold room' with temperatures falling below –40° F again without problems.

All models were fitted with stainless steel silencer boxes and tail pipes.

The performance figures for the 3.4-litre and 5.3-litre models were as follows:

	3.4-litre	**5.3-litre**
Power DIN	160 bhp at 5,000 rpm	285 bhp at 5,750 rpm
Torque DIN	189 lbs/ft at 3,500 rpm	294 lbs/ft at 3,500 rpm

For 1976 there was only one mechanical change on the 4.2-litre model, this being:

- The HS carburettors were changed for HIF (horizontal integral float chambers).

There were few changes made during 1977, these were:

- The automatic transmission on all twelve-cylinder models was changed to the General Motors GM400 three-speed box.
- A four-speaker Phillips radio/cassette AC460 system became available.
- The last coupés were made during November, partly to concentrate on saloon manufacture. With the limited production figures achieved by these versions, it had become uneconomical to continue production of the short wheelbase platform which by now was used only for the coupés.

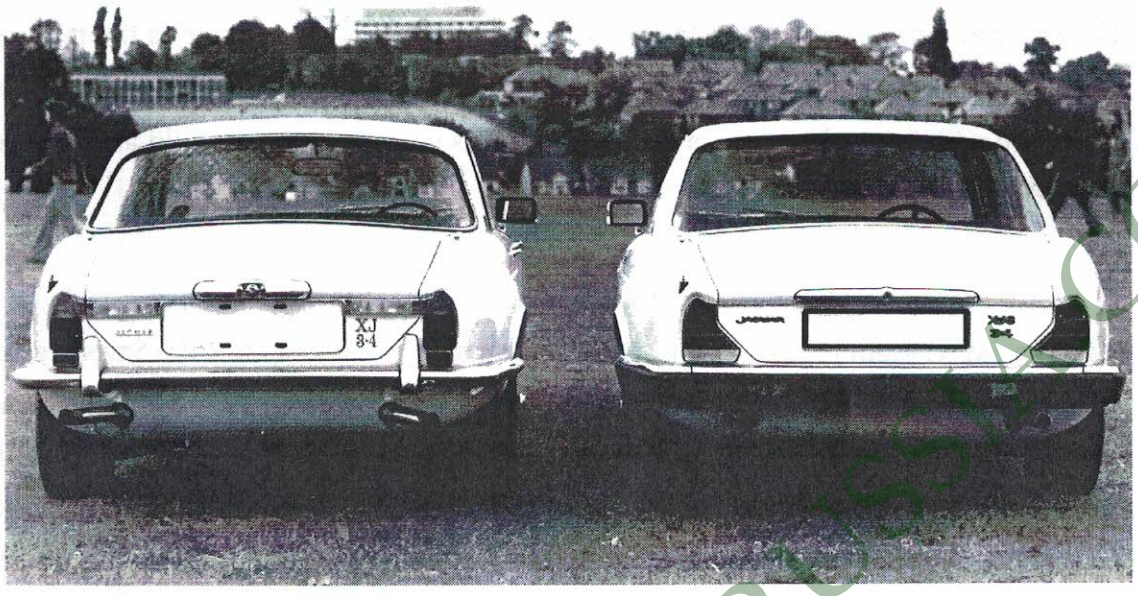
Further changes in some significant areas were made during 1978:

- New larger remote exterior door mirrors on the driver's side.
- Side intrusion door members were deleted on all models (except for Japan and USA).
- Alford and Alder's power steering rack was changed to the Adwest system.
- The sidelights were changed to single operation indicators, with full-width amber lenses, and the sidelight was integrated into the main outer headlamps.
- The steering wheel had a leather bound rim fitted to all models.
- In May 1978, the 4.2-litre XK engine was fitted with fuel injection on North American export models.
- At the Motor Show in October 1978, the new Rover-sourced five-speed manual gearbox (the so-called '77mm' box) was officially introduced, replacing the old Jaguar four-speed box with overdrive. Some five-speed cars were in fact built during the preceding months, at least from July onwards.
- The new mandatory world-wide VIN (Vehicle Identification Number) system of chassis numbers was introduced to replace the combined Jaguar and Daimler system of chassis numbers which had been used since 1962. See appendix for details.

In 1979 due to UK/EEC regulations, speedometers were required to show both mph/kph calibrations. The new speedometer contained the rear windscreen heater warning light, which had previously been positioned in the revolution counter.

Prior to production finishing in April 1979, the boot lid badges were changed to a new style.

XJ Series 2 and 3 Comparison



XJ6 3.4 Litre Series 2 (left) and XJ6 3.4 Litre Series 3 (right)

These cars are displayed where the Jaguar Social Club at Browns Lane is now situated.

XJ6 3.4 Litre Series 3 (left) and XJ6 3.4 Litre Series 2 (right)

These cars are displayed where the Jaguar Social Club at Browns Lane is now situated.

10. THE XJ SERIES 3

The XJ Series 3 nearly did not happen, it was only brought to fruition due to the replacement XJ40 project running behind schedule. The XJ Series 3 was going to receive a major facelift compared with its predecessors, as the XJ Series was now over ten years old and changes were needed for it to remain viable.

Sir William Lyons had been the driving force behind many of the designs, alongside him was Malcolm Sayer, again renowned for his innovative designs. When Malcolm Sayer tragically died and Sir William Lyons retired, who was going to bring the new designs forward. British Leyland had the bright idea of having a central styling facility to cover all makes and models. At Jaguar, Bob Knight was concerned, and rightly so, this was definitely unthinkable as far as Jaguar was concerned. A Jaguar engineer since 1945, Knight was now director of engineering, and after Geoffrey Robinson left as Managing Director in 1975 (to become a Labour MP in Coventry) and the death of plant director Peter Craig in 1977, Knight was the most senior Jaguar director on site at Browns Lane. He eventually became chairman of the Jaguar operating committee, and in 1978 was appointed managing director, before retiring in 1980. The very idea of having Jaguars designed alongside Triumphs and Austins must have sent shudders down his spine.

Although a nucleus of a styling department existed within Browns Lane under the direction of the late Doug Thorpe, Jaguar made the unprecedented decision to engage the services of an independent styling consultant, Pininfarina, for the XJ Series 3. Perhaps Geoffrey Robinson was the inspiration for this; his connections to the Italian industry from his time at Innocenti led him to commission designers such as Bertone and Giugiaro to prepare proposals for what eventually became the XJ40. Pininfarina also demonstrated their credentials with a beautiful show car based on the XJ12 in 1973, and were now given the task of redesigning the XJ without creating too many technical changes, and at the same time coming up with a design on a limited budget.

Pininfarina were given instructions that the body floorpan was to be unchanged, the main structure was to be retained but they had a free hand in redesigning the cabin. The front and rear end of the car could have a minor facelift, so long as tool changes were not required. Pininfarina were permitted to alter the front end of the car. This included the grille and new standardised larger bumpers of square section with black rubber covering, and a chrome finish top face that hid the shock absorbing pistons on US models. The rear of the car saw matching bumpers and larger tail/indicator lamps.

Pininfarina were commissioned in 1974, and their initial design for the Series 3 was quickly shown to Jaguar for approval. British Leyland then made the decision to put everything on hold

due to the energy crisis, and this moratorium lasted throughout 1975 while Ryder wrote his report which led to the corporation being effectively nationalised. No further progress was made until 1976 after which the XJ Series 3 became a priority. The eventual capital expenditure came to £7 million. The car was due for launch in October 1978, this was then delayed until March 1979 and to be honest, it was a miracle it was launched at all, with the crisis looming over British Leyland.

Apart from the body re-style, some important mechanical changes were made to the Series 3:

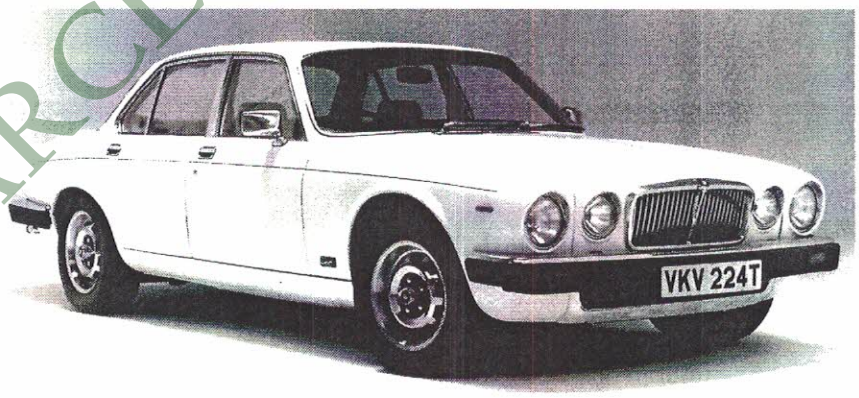
- All six-cylinder 4.2-litre cars were fitted with fuel injection using the Lucas Bosch 'L' Jetronic system, introduced at first on North American export cars, on some late Series 2 models.
- The introduction of the fuel injection system meant the power output was increased from 172 to 208bhp (US models: 178bhp) while at the same time, fuel economy was improved.
- As introduced on a few on the last Series 2 cars, the manual five-speed transmission was available on the 3.4-litre and 4.2-litre models, and the overdrive option was discontinued.

At around the time of the introduction of the Series 3, the original Fisher & Ludlow body plant at Castle Bromwich in North East Birmingham (built by the Nuffield Organisation in 1939 for mass-production of Spitfire fighters and since the 1960s part of BL's Pressed Steel Fisher division) was turned completely over to Jaguar to become their dedicated body plant. The change was not without a number of teething troubles, especially in a new paint plant which at first severely restricted the availability of paint colours on the Series 3. On the other hand, during 1979, as part of Michael Edwardes's on-going rationalisation of BL, the old Vanden Plas factory at Kingsbury closed its doors, and the production of the Vanden Plas versions, as well as of the Daimler limousine, was brought back 'in house' at Browns Lane.

11. FEATURES OF THE XJ SERIES 3

XJ12 – All Chrome Wheel Centre, Double Coachlines

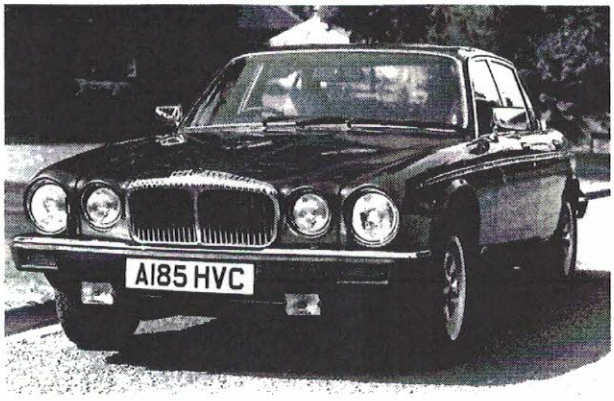
XJ6 4.2 Litre - Black and Chrome Wheel Centre, Single Coachline



XJ6 3.4 Litre – All Black Wheel Centre, no Coachline

XJ6 4.2 Litre - Rear View

Daimler Sovereign 4.2 Litre – Rear View



Daimler 4.2 Litre – Front View

Daimler 4.2 Litre – Rear View

Jaguar Sovereign HE – Rear View

Jaguar Sovereign HE – Front view showing the Pepperpot Alloy Wheels and headlamp wash/wipe.

Jaguar Sovereign HE - Interior

Daimler 4.2 Litre - Interior

Again, the Series 3 resembled its predecessors to a great extent, although changes had been made, they were subtle.

Body Design

Pininfarina made very few changes to their original proposal other than to the bumpers, lighting layout and door handles. Compared to the earlier XJs, they made few obvious changes below the waistline but above it was a different matter.

The changes to the roof size and screens had effectively increased the overall glass area by 7.5% compared with the XJ Series 2. The effects were subtle but the practical improvements were definite. The expanse of glass gave the car a feeling of space.

Exterior Features

In styling jargon, the body above the waistline is the 'green-house area' and the designers concentrated most of their efforts on this area of the Series 2 bodyshell to produce the new profile of the Series 3. Exterior features included:

- At the rear, the roofline had been raised to give the passengers more headroom.
- The roofline was less rounded when viewed from the side.
- The width of the roof had been reduced slightly, by increasing the curvature and angle (tumble home) of the side windows from the waistline upwards.
- The rear windscreen was flatter, and the front windscreen pillars were raked 3 inches further back at the top. The result was a sleeker silhouette.
- Along its entire length the 'green-house area' had a greater depth, giving the driver increased visibility through both side windows.
- The front quarter light was removed, and a minor change was made to the sweep of the body line under the rear quarter light.
- The laminated windscreen and the rear screen were directly bonded to the bodyshell, this well proven method of fixing the screens by thermal adhesion gave a better retention in addition to increasing bodyshell torsional strength. The smoother trim lines, where the glass bonded to metal, helped to improve airflow at high speed, and enhanced the sleeker styling.
- Tinted glass was standard on all models, except for the 3.4-litre model where it was an extra-cost option.

- New for the Series 3, an electrically operated sunroof was offered as an optional extra on all models. The metal sunroof (borrowed from the Rover SD1) was flush-fitting to the body, and retracted into the space between the roof and headlining. The controls for the sunroof were positioned and controlled by a console switch that also offered partial opening.
- A retractable wind deflector was fitted as standard.
- Flush-fitting door handles – the new contemporary style door release handles fitted neatly into the door line.

Other small styling changes that gave a neater and cleaner appearance whilst improving pedestrian safety were the recessed wheel trims, a smoother air intake grille, and the rounded edges. Other changes included:

- The sidelights were integrated into the outer headlamps, a feature that had been introduced on the later Series 2 models.
- Quartz halogen headlamps were now standard on all cars except the 3.4-litre version, on which they were an extra-cost option. The new headlamps replaced the tungsten sealed beam units, this change meant the bulbs could be changed without the necessity to change the complete sealed beam unit.
- A new radiator grille was used on Jaguar models, with vertical bars and a centre rib. On the top of the grille the Jaguar 'growler' motif was gold on black for XJ6 and gold on beige for XJ12. The Daimler grille was unchanged.
- Headlamp wash/wipe facility was standard on the Vanden Plas but an extra-cost option on all other models.
- The 'leaping cat' badge on the front wing was retained, silver for XJ6 (3.4-litre and 4.2-litre), gold for the XJ12.
- Repeater indicators were fitted to the side of the front wings.
- All models had large door mirrors, with manual remote control. Electric mirrors were also available for all models, controlled by two joysticks, and these were standard on Vanden Plas and USA specification cars.
- New wheel trims in black and stainless steel were introduced. There were three different styles to differentiate between the models.
    - The 3.4-litre had bright stainless steel trim and an all black centre area.
    - The 4.2-litre had the black centre area with a bright centre piece.
    - The 5.3-litre had an all-bright treatment.
- From the rear, there was a new larger light cluster that followed the line of the boot, and incorporated the reversing lamps.

- A re-designed number plate housing and boot lid handle was fitted, this was a flatter, wider housing, which extended the width of the number plate.
- Jaguar or Daimler badges were to the left of the rear number plate and on the right was *XJ6 3.4*, *XJ6 4.2*, *XJ12 5.3*, *Sovereign 4.2* or *Double-Six 5.3*. Vanden Plas models had *Daimler 4.2* or *Daimler Double-Six* on the left and the Vanden Plas script on the right.
- Rear fog lights were fitted as standard on all models, except for those destined for the USA.
- Each model derivative had their own style of coachlines, these being:
  - 3.4-litre had no coachline as standard, it was available as an extra-cost option.
  - 4.2-litre had a single coachline.
  - V12 had a double coachline.

Mechanical

Two transmissions were available at the same price for the Series 3 six-cylinder range, the Borg Warner model 66 three-speed automatic or the five-speed manual transmission, except for the 4.2-litre Vanden Plas and US specification cars, which had automatic transmission fitted as standard.

The five-speed manual transmission replaced the four-speed with overdrive. It was from the Rover SD1 3500 but had been modified by the Jaguar engineers to take the additional power and torque of the 4.2-litre engine. Including drive and clutch housing, it weighed 30lbs less than the former four-speed plus overdrive unit. Fifth was an overdrive ratio but not as high as the ratio of the former separate overdrive.

The GM400 automatic transmission continued as standard on all V12 Series 3 cars.

Jaguar and Lucas engineers had worked closely together to develop the Lucas-Bosch L-Jetronic fuel injection system. This advanced electronic fuel injection system was now standard on all 4.2-litre models. As anti-pollution regulations became tougher, it was essential that the engine maintained the correct state of tune to keep the exhaust emissions to the required level over many thousands of miles. To the owner, this meant efficiency, improved economy, flexibility and an increase in maximum power of 36bhp (DIN) (except on US models). The 3.4-litre engine continued with twin SU carburettors.

Interior Features

A number of changes were introduced that would benefit the occupants and these included:

- The interior rear view mirror was larger than on the Series 2 to give extra visibility.
- The Series 3 seats had wider pleats on the seat facings than its predecessor. Seats were upholstered in cloth on 3.4-litre models (cloth was a no-cost option on the 4.2-litre and 5.3-litre models), and leather on other models.
- The new front seats had adjustable lumbar support for added comfort for the driver and front passenger. The lumbar support was operated by a control knob on the inside edge of the seat and could be altered by as much as 1½ inches.
- Standard on the Vanden Plas, the front seats could be raised or lowered electrically by a rocker switch on the outer corner of each front seat, with an adjustment of nearly 2 inches. This feature was an extra-cost option on the driver's seat only on all other models.
- As a finishing touch, the new seat backs had map pockets on all models.
- To give the rear passengers more floor space and to 'tidy up' the interior, the seat belts were hidden in the centre door pillars. Provision had also been made to fit rear seat belts, which were standard fitments for USA, Canada and France.
- There were new deep pile carpets that apart from the more luxurious feel to the passengers, also added to the sound deadening.
- A new steering wheel with padded leather rim and centre was fitted, with restyled spokes to give improved instrument visibility.
- The instrument panel switches were now marked with symbols instead of words to comply with the International Code of Recognition. (US models continued to have labels with words.)
- The strip of warning lights between the speedometer and revolution counter now included low coolant level and rear fog lamp indicators as well as main beam, hazard warning lights, handbrake, brake failure (fault on one of the dual braking circuits), ignition, oil and a seat belt reminder. A brake or parking lamp bulb failure warning lamp was added to the speedometer face.
- The steering column control stalks now incorporated the additional functions of cruise control when fitted (not at first available on the 3.4-litre model), intermittent or flick wipe, and headlamp wash/wipe.
- The headlamp wash/wipe was standard on the Vanden Plas models, and an extra-cost option on the other models.

- The larger windscreen and headlamp washer reservoir was located in the left hand front wing and held 7 litres, instead of the 1.7 litres of the previous windscreen-only reservoir.

At the time, it was a rarity to have both intermittent and flick wipe, it was more common to have one or the other.

Cruise control (adaptive speed control) was used for the first time by Jaguar on the Series 3 and was an extra-cost option for automatic transmission 4.2-litre and 5.3-litre models. The USA models had it fitted as standard.

New Electrical Equipment

Rear window: A new energy saving refinement was that the rear windscreen heater automatically turned off after approximately 15 minutes, and this was standard on all models.

Interior light delay: Standard on all models. Once the doors were shut, there was a transistor switching device which kept the lamp on for between 10 and 15 seconds.

Aerial delay: All models had an electrically controlled rise and fall radio aerial with an advanced delay mechanism built into the system to prevent rise and fall when the engine was started. The delay was for around 10 seconds. A rocker switch on the centre console controlled the aerial.

Radio cassette: All UK specification cars had a radio/cassette player fitted as standard. The Vanden Plas models had the Phillips AC860 radio/cassette that had stereo on the cassette player and also stereo VHF radio reception. All other models had the Phillips AC460 mono radio with stereo cassette. All models had four speakers (one in each door) as standard.

12. PRODUCTION CHANGES OF THE XJ SERIES 3

In the months following the launch in 1979, a number of improvements were made to the Series 3, these included:

- The interior lamp bulb was changed from a 10w to a 6w, due to the plastic lens discolouring and melting.
- The driver's side wiper was lengthened to give a better sweep area.
- New Lucas H4 halogen headlamps with a flat face were used, because the earlier domed glass version proved ineffective for the wash/wipe facility.
- A new method of direct glazing was introduced, due to previous screen seal failure.
- Towards the end of the year, Pirelli P5 205 70 VR15 tyres became available alongside the Dunlop tyres. The Pirellis were standard on USA specification cars.

One major improvement came in 1980 and this was the introduction of the P-Digital EFI (electronic fuel injection) system on the V12 saloons. A couple of minor changes for the year included an improved matt black polyester powdered paint that was used due to dealers complaining about flaking paint on the door handles, a new flush fitting aerial, and matt black painted wipers instead of chrome.

In 1981, there were a number of improvements both mechanically and stylistically, these being:

- The major mechanical change happened when the HE head was introduced on the V12 engine. The 'Fireball' cylinder head designed by Michael May raised the compression ratio from 10:1 to 12.5:1. Also fitted were a new Lucas digital fuel injection system, and a revised ignition system with a higher power amplifier and twin coil. Fuel consumption was dramatically improved for a virtually unchanged performance. The revised V12 models were identified on the outside by the H.E. badge on the rear.
- Changes that affected all models were:
  - The front floor mat incorporated a PVC heel panel with a Jaguar or Daimler emblem.
  - The battery cooling fan and box were deleted on six-cylinder models towards the end of the year.
- Changes for Jaguar models included:
  - A chrome body strip was standard on V12s and could be fitted as an extra-cost option on six-cylinder cars.
  - Rear head rests became an extra-cost option on Jaguar models.

- Door opening warning lamps were fitted on all doors as standard.

➢ Changes to Daimler models included:

- The rear centre console incorporated a cigar lighter.
- Twin electric door mirrors were fitted as standard.
- A Daimler 'D' logo was positioned on the front wings.
- Extra lamps under the front and rear door armrests were fitted.
- A glove box lamp was included as standard.
- Upper door wood fillets in burr walnut became standard.
- Rear head rests were standard.
- The Double-Six had a chrome body strip as standard.
- A new non-reflective black finish to the radio/air conditioning panel replaced the satin finish.

In 1982 there was what could be seen as a 'facelift' because of the number of changes, enhancements and additions, for V12 models the following changes were implemented:

➢ V12 models changed to the Dunlop D7 215/70VR-15 tyres.
➢ 'Pepperpot' alloy wheels were fitted on Jaguar V12 models.
➢ There were twin electrically operated door mirrors.
➢ Revised headlamp wash/wipe system.

All models received:

➢ New cushioning in the front seats for improved comfort and durability.
➢ Trim styles were changed – new patterned cloth seat facings for Jaguar models.
➢ There was additional trim padding on the steering wheel and interior door handles.

Daimler models had the following changes made:

➢ The electric sunroof became standard.
➢ The Double-Six kept the old Kent alloy wheels.
➢ Double-Six and Vanden Plas models received detachable rear head rests as standard.
➢ There was revised fluting on the seats.
➢ Deep pile over-rugs were fitted to the rear floor, and floor carpeting was extended up the 'A' post.
➢ The front seats were fitted with electric adjustment – previously standard on the Vanden Plas only – this was still an extra-cost option on Jaguars.

For the 1982 model year, the North American markets (principally the USA) received two new models, luxury versions of the 4.2 and the V12 which were badged Vanden Plas. These cars were in effect equipped to the same level as the home market Daimler models.

Home market Daimler Vanden Plas 4.2-litre and V12 models got extra refinements in 1982, including:

- Cruise control as standard.
- Daimler models were fitted with rear seat belts as standard.

In October 1982 the Daimler name was discontinued in most export markets. It had of course not been used in the USA since the SP250 sports car of the early 1960s. Many considered this to be another 'nail in the Daimler coffin', a comment that proved incorrect.

Towards the end of the year, the central locking mechanism was operated from the driver's side only, the passenger's side lock only opened that particular door.

Again, 1983 saw a number of changes that affected the model range. They were:

- The interior of the 3.4-litre had new Raschelle cloth on the seats as standard (no cost option on other models).
- Change to the centre console where the satin finish on the radio and heating/air conditioning switch panel was now replaced by a black grain effect fabric finish.
- A new vacuum formed oddments tray was fitted.
- The new auxiliary switch panel included a new clock, lighting rheostat and cigar lighter but the lower switch panel remained – both panels were finished in wood veneer – burr walnut on Daimler and Sovereign models and walnut on other models. Jaguar had developed a process for veneering directly on to metal.
- The trip computer was fitted in the upper panel, allowing space in the lower panel to feature a scripted Jaguar or Daimler badge in place of the analogue clock, because the new console arrangement took up slightly more depth. Apart from a clock display, the trip computer functions included:
  - The amount of fuel held in the fuel tanks.
  - Fuel consumption which was updated every 15 seconds.
  - The distance travelled on a journey.
  - The average speed of the car on a journey.
- The automatic transmission quadrant was moved back for greater clearance.

- There was a thicker rimmed steering wheel with altered horn push on the Daimlers, and the graphics on the lighting switch were changed on all models.
- The 3.4-litre models got map pockets in the backs of the front seats, a single coach line and quartz halogen headlamps as standard. It could now be fitted with cruise control as an extra-cost option.
- The 4.2-litre models had a double coach line.
- The chrome body strip was no longer standard on Jaguar V12 models in the UK.
- All Daimlers had the bonnet centre strip deleted, with a slight alteration to the grille.
- All models had a new front wing badge, and the grille badge was changed to silver on black on all Jaguar models.
- Higher specification models had new style stainless steel wheel trims, incorporating a separate hubcap.
- Due to supply problems, the Phillips GCA 637 radio/cassette superseded the AC420.
- On cloth trimmed cars, cloth made of woven velour instead of polyester was used.
- Six-cylinder engines had revised camshaft covers with added internal ribbing to give more strength.
- Another new stereo system, the Clarion PU7009A was fitted to all models except the Vanden Plas that got the Clarion PU9021A model.

In September 1983 for the 1984 model year cars, the name Sovereign was removed from the Daimler range, and a new up-market model was introduced, the Jaguar Sovereign, in 4.2-litre and V12 forms. The Jaguar Sovereigns had the same standard specification as the previous Daimlers. The Sovereign name was however not used in North America. The Vanden Plas name was dropped from the Daimler range which now contained just two models, the Daimler 4.2 and the Daimler Double-Six, which were equipped to the same high standard as the previous Vanden Plas models had been.

The Vanden Plas name was now only used on the most luxurious Jaguar models sold in North America. These were in effect equipped to the same level as the home market Daimler models, and some featured the Daimler fluted grille and boot lid plinth, although they were badged as Jaguars. From time to time, similar cross-breed Jaguar XJ12 Vanden Plas models were also sold in some European export markets.

The Jaguar Sovereign models which were released in the UK had all the Daimler extras except individual rear seats. The V12, called the Sovereign HE, had the same as the 4.2-litre plus:

- Headlamp wash/wipe.

- Cruise control.
- Sunroof.
- On-board computer.
- A higher specification radio/cassette.
- Pepperpot alloy wheels were standard on Sovereign models and an extra-cost option on other Jaguars.

The two Daimler models, the 4.2-litre and Daimler Double-Six, both had the higher specification originally found on the Vanden Plas models which included fog/spot lamps, sunroof, wood fillets and the Kent alloy wheels. The HE badge was dropped from the Daimler Double-Six boot lid. Towards the end of the year, there were more changes to the entertainment system, with the Clarion E950 HiFi radio/cassette with dual-intensity lighting being standard on the Sovereign and Daimler models.

The year 1985 saw a revised trip computer with CMOS technology incorporating 'watchdog' circuitry to prevent wipe-out problems. On the 4.2-litre models with air conditioning, the receiver/dryer was moved, with the sight glass now on the left in a vertical position, but under-bonnet space restrictions meant the V12 was unchanged.

Towards the end of the year, a new electric central locking system was introduced, with full electric motor operation for doors and boot lid, replacing the electro-solenoid system.

Over the years, Jaguar continued its programme of improvement in both quality control and reliability which kept the Series 3 in demand, fortunately for Jaguar because the new XJ (XJ40) was not yet ready for release. Therefore, 1986 saw the following changes:

- The 3.4-litre interior had herringbone tweed wool upholstery as standard, and this was a no-cost option for other models.
- All models had new walnut trim to the top of the centre console and around the gear lever housing.
- Veneered door fillets arrived on the 3.4-litre and 4.2-litre models. The upper part of the door trim was now colour coded rather than black.
- Stainless steel tread-plates were fitted, with a label for either Jaguar or Daimler.
- Standard equipment on all models now included: Rear seat belts, electric door mirrors, and tinted glass.
- The Sovereign 4.2 had headlamp wash/wipe as standard.
- There were chrome surrounds to door handles, radio and front seat adjusters.

- Boot lid badges – the script badges were replaced with black-on-chrome rectangular plaques. The HE badge was dropped. The 3.4 litre model had an XJ6 script badge. The 4.2-litre models had an XJ6 plaque badge.

Mid-way through the year, a revised Mark 3 air conditioning system with computer controlled module was fitted, and stayed in use for the rest of the life of the Series 3. Due to complaints of buffeting when the sunroof was fully open, Jaguar developed a deflector made of tinted acrylic that solved the problem but unfortunately was an extra-cost option. For the USA there were only two models available, the Jaguar XJ6 and Jaguar Vanden Plas, the V12 version being dropped in the USA, although it continued to be made for Canada.

Following the introduction of the all-new XJ40 range in October 1986, in April 1987 the last XJ6 Series 3 left the Browns Lane production line, to join the growing collection of historic Jaguar and Daimler cars held by the Jaguar Daimler Heritage Trust. This was the end of the XK engine for the production saloons, although it continued in the limited-production Daimler limousine until 1992. The V12 remained in production and was still being developed. The Jaguar V12 dropped the Sovereign script and was fitted with just a V12 rectangular badge.

There were minimal changes to the model range in 1989, the V12 engine on home market cars was adapted to take 95 octane unleaded fuel, making it environmentally friendly, and export cars were already fitted with catalytic converters. In 1990 a few minor changes were introduced, these being:

- The V12 was fitted with ABS (anti-lock braking system).
- There was a revised steering wheel.
- A CD auto-changer could be fitted in the boot as an extra cost option.
- From February 1990, home market cars could be fitted with the catalytic converter as an option (it was not yet compulsory in the UK).

In 1991, Series 3 production was being reduced in readiness for the V12-engined XJ40 replacement, but limited quantities were being produced to ensure those made were for orders received, thus reducing stock levels in time for its replacement. Jaguar Series 3 V12 models officially finished in March of 1992, but a one-off final Jaguar was completed in December as the second from last of the Series 3, originally for the use of Mrs Scheele, the wife of Jaguar's new Managing Director Nicholas Scheele. It was followed immediately by the last Daimler Double-Six, which was handed to the JDHT for preservation straight from the production line.

APPENDIX 1 ~ 24 YEARS OF XJ COLOURS

Series 1: 1968, 1969 – 10 colours

Exterior paint colours	Leather trim colours	Ambla colours
Ascot Fawn	Beige	Beige
Black	Cinnamon	Black
British Racing Green	Dark Blue	Dark Blue
Cream (deleted)	Grey	Red
Dark Blue	Light Blue	
Light Blue	Red	
Regency Red	Suede Green	
Sable Brown		
Warwick Grey		
Willow Green		

1970, 1971 – 10 colours

Exterior paint colours	Leather trim colours	Ambla colours
Ascot Fawn (deleted in 1971)	Beige	Beige
Black (deleted in 1971)	Cinnamon	Black
British Racing Green	Dark Blue	Dark Blue
Dark Blue	Grey	Red
Light Blue (deleted in 1971)	Light Blue	
Old English White (new for 1970)	Red	
Regency Red	Suede Green	
Sable Brown		
Warwick Grey (deleted in 1971)		
Willow Green (deleted in 1971)		

1972, 1973 – 10 colours

Exterior paint colours	Leather trim colours	Ambla colours
British Racing Green	Antelope	
Dark Blue	Biscuit	
Fern Grey (new for 1972)	Black	
Greensand (new for 1972)	Cerise	
Heather (new for 1972)	Cinnamon	
Lavender Blue (new for 1972)	Dark Blue	
Old English White	French Blue	
Regency Red	Maroon	
Sable Brown	Moss Green	
Turquoise (new for 1972)	Olive	
	Russet	
	Tan	
	Terracotta	

Series 2: 1974 – 10 colours (Two-door coupé models had a black vinyl roof)

Exterior paint colours	Leather trim colours	Cloth colours
British Racing Green	Antelope	Ebony (black)
Dark Blue	Biscuit	Garnet (red)
Fern Grey	Cerise	Jade (green)
Greensand	Cinnamon	Navy (blue)
Heather (deleted)	Dark Blue	Sand (beige)
Lavender Blue	French Blue	
Old English White	Maroon	
Regency Red	Moss Green	
Sable Brown	Olive	
Turquoise (deleted)	Russet	
	Tan	
	Terracotta	

1975 – 10 colours (Two-door coupé models had a black vinyl roof)

Exterior paint colours	Leather trim colours	Cloth colours
British Racing Green	Biscuit	Ebony (black)
Carriage Brown (new during 1975)	Black (cost option)	Garnet (red)
Dark Blue	Cinnamon	Jade (green)
Fern Grey	Dark Blue	Navy (blue)
Greensand	Moss Green	Sand (beige)
Lavender Blue (deleted during 1975)	Olive	
Old English White	Russet	
Regency Red		
Sable Brown (deleted during 1975)		
Squadron Blue (new during 1975)		

1976 – 10 colours (Two-door coupé models had a black vinyl roof)

Exterior paint colours	Leather trim colours	Cloth colours
British Racing Green	Biscuit	Ebony (black) (cost option)
Carriage Brown	Black (cost option)	Garnet (red)
Dark Blue	Cinnamon	Jade (green)
Fern Grey (deleted)	Dark Blue	Navy (blue)
Greensand (deleted during 1976)	Moss Green	Sand (beige)
Juniper Green (new during 1976)	Olive	
Moroccan Bronze (new during 1976)	Russet	
Old English White		
Regency Red		
Squadron Blue		

1977 – 12 colours (Two-door coupé models had a black vinyl roof)

Exterior paint colours	Leather trim colours	Cloth colours
British Racing Green (deleted)	Biscuit	Ebony (black) (cost option)
Carriage Brown (deleted)	Black (cost option)	Garnet (red)
Cotswold Yellow (new)	Cinnamon	Jade (green)
Damson Red (new)	Dark Blue	Navy (blue)
Dark Blue (deleted)	Moss Green (deleted)	Sand (beige)
Juniper Green (deleted)	Olive (deleted)	
Moroccan Bronze (deleted)	Russet	
Old English White (deleted)		
Racing Green (metallic) (new)		
Regency Red (deleted)		
Silver Frost (metallic) (new)		
Squadron Blue (deleted)		

1978 – 8 colours

Exterior paint colours	Leather trim colours	Cloth colours
Chestnut Brown (metallic) (new)	Biscuit	Ebony (black) (cost option)
Cobalt Blue (metallic) (new)	Black (cost option)	Garnet (red)
Cotswold Yellow	Cinnamon	Navy (blue)
Damson Red	Dark Blue	Sand (beige)
Quartz Blue (metallic) (new)	Russet	
Racing Green (metallic)		
Silver Frost (metallic)		
Tudor White (new)		

Special order colours which were available at extra cost for Series 1 and Series 2 models included:

Exterior paint colours	Available from-to
Azure Blue	1972-74
Black	1974 onwards, and Series 3
Pale Primrose Yellow	1972-76
Sebring Red	1978 onwards, and Series 3
Signal Red	1972-77
Silver (Light Silver) (metallic)	1969-78
Yellow Gold	1976-78

Vanden Plas colours – all years: Vanden Plas colours were all metallic (except Black), and the Series 1 and Series 2 cars had a black vinyl roof

Exterior paint colours	Used from - to	Series	Leather trim colours	Used from - to
Amethyst	1976-79	Series 2	Burnt Umber	1980-83
Aegean Blue	1972-77	Series 1, 2	Chamois	1972-83
Aubergine	1972-75	Series 1, 2	Deep Olive	1972-79
Biascan Blue	1976-80	Series 2, 3	Doeskin	1980-83
Black	1980-83	Series 3	Tan	1976-79
Caramel	1972-83	Series 1, 2, 3	Tuscan	1972-75
Claret	1980-83	Series 3		
Coral	1972-79	Series 1, 2		
Evergreen	1980-83	Series 3		
Kingfisher Blue	1980-83	Series 3		
Mink	1976-79	Series 2		
Mistletoe	1976-79	Series 2		
Morello Cherry	1972-76	Series 1, 2		
Sage	1972-75	Series 1, 2		
Silver Sand	1972-83	Series 1, 2 3		

Series 3: 1979 – 10 colours

Exterior paint colours	Leather trim colours	Cloth colours
Black (cost option)	Biscuit	Ebony (black) (cost option)
Chestnut Brown (metallic)	Black (cost option)	Garnet (red)
Cobalt Blue (metallic)	Cinnamon	Navy (blue)
Cotswold Yellow (deleted)	Dark Blue	Sand (beige)
Damson Red (deleted)	Russet	
Quartz Blue (metallic) (deleted)		
Racing Green (metallic)		
Sebring Red (cost option)		
Silver Frost (metallic) (deleted)		
Tudor White		

Some late Series 2 and early Series 3 cars were painted at Castle Bromwich in Rover colours using the Rover names but it appears that these were the same as the better known Jaguar colours:

Exterior paint colours	Jaguar Colour Name
Brazilia Brown (metallic)	No other name known
Pendelican White	Tudor White
Richelieu Red	Damson Red
Turmeric Yellow	Cotswold Yellow

1980, 1981, 1982 and 1983 – 17 colours (15 per year)

Exterior paint colours	Leather trim colours	Cloth colours
Black	Biscuit	Copper
Chestnut Brown (metallic) (deleted 1983)	Black (cost option)	Ebony (cost option)
Claret Red (metallic) (new for 1982)	Burnt Umber	Fawn
Cobalt Blue (metallic)	County Tan	Loganberry
Coronet Gold (metallic) (new for 1980)	Doeskin	Marine Blue
Garnet Red (metallic) (1980-81 only)	Isis Blue	
Grosvenor Brown (new for 1980)	Mandarin Red (deleted 1982)	
Indigo Blue (1980-83 only)		
Mineral Blue (metallic) (1980-82 only)		
Portland Beige (1980-83 only)		
Racing Green (metallic)		
Rhodium Silver (metallic) (new for 1980)		
Sable Brown (metallic) (1980-83 only)		
Sapphire Blue (metallic) (new for 1980)		
Sebring Red (deleted 1983)		
Silver Sand (metallic) (new for 1983)		
Tudor White		

Metallic colours and black were cost options for the 3.4-litre and 4.2-litre models.

1984 and 1985 – 16/17 colours

Exterior paint colours	Leather trim colours	Cloth colours
Antelope (metallic) (new for 1984)	Biscuit	Beige
Black	Black	Fleet Blue
Cirrus Grey (new for 1984)	Buckskin	Graphite
Clarendon Blue (1984-85 only)	Doeskin	Parchment (new for 1985)
Claret Red (metallic)	Isis Blue	
Cobalt Blue (metallic)	Mulberry	
Coronet Gold (metallic) (deleted 1985)	Saville Grey	
Cranberry Red (metallic) (new for 1984)		
Grosvenor Brown (deleted 1985)		
Racing Green (metallic) (deleted 1985)		
Regent Grey (metallic) (new for 1984)		
Rhodium Silver (metallic)		
Sage Green (metallic) (new for 1984)		
Sapphire Blue (metallic) (deleted 1985)		
Sebring Red (re-introduced for 1985)		
Silver Sand (metallic)		
Tudor White		

1986 – 16 colours

Exterior paint colours	Leather trim colours	Cloth colours
Antelope (metallic) (deleted)	Barley	Cheviot Tweed
Black	Biscuit	Chiltern Tweed
Cirrus Grey (deleted)	Black	Cotswold Tweed
Claret Red (metallic) (deleted)	Buckskin	Pennine Tweed
Cobalt Blue (metallic) (deleted)	Doeskin	
Cranberry Red (metallic) (deleted)	Isis Blue	
Curlew (metallic) (1986 only)	Magnolia	
Jaguar Racing Green (new)	Mulberry	
Regent Grey (metallic) (deleted)	Saville Grey	
Rhodium Silver (metallic) (deleted)		
Sage Green (metallic) (deleted)		
Sebring Red (deleted)		
Silver Sand (metallic) (deleted)		
Steel (metallic) (1986 only)		
Tudor White (deleted)		
Windsor Blue (1986 only)		

1987, 1988 and 1989 – 16/17 colours

There was an almost all new colour range introduced with the XJ40 in late 1986

Exterior paint colours	Leather trim colours	Cloth colours
Alpine Green (metallic) (1987-89 only)	Barley	Cheviot Tweed
Arctic Blue (metallic) (new for 1987)	Biscuit (deleted in 1987)	Chiltern Tweed
Black	Black	Cotswold Tweed
Bordeaux Red (metallic) (new for 1987)	Buckskin	Pennine Tweed
Crimson (metallic) (1987-89 only)	Doeskin	
Dorchester Grey (metallic) (1987-89 only)	Isis Blue	
Glacier White (new for 1988)	Magnolia	
Grenadier Red (new for 1987)	Mulberry	
Jaguar Racing Green (deleted in 1988)	Saville Grey	
Jaguar Racing Green (metallic) (new for 1989)		
Moorland Green (metallic) (1987-89 only)		
Nimbus White (1987 only)		
Satin Beige (metallic) (new for 1987)		
Signal Red (re-introduced for 1989)		
Silver Birch (metallic) (1987-88 only)		
Solent Blue (metallic) (new for 1987)		
Sovereign Gold (metallic) (1987 only)		
Talisman Silver (metallic) (new for 1987)		
Tungsten (metallic) (new for 1987)		
Westminster Blue (new for 1987)		

1990 – 17 colours

Exterior paint colours	Leather trim colours	Cloth colours
Arctic Blue (metallic)	Barley	Cheviot Tweed
Black	Black	Chiltern Tweed
Bordeaux Red (metallic)	Buckskin	Cotswold Tweed
Diamond Blue (metallic) (new)	Doeskin	Pennine Tweed
Glacier White	Isis Blue	
Grenadier Red (deleted)	Magnolia	
Gunmetal (micatellic) (new)	Mulberry	
Jade Green (micatellic) (new)	Saville Grey	
Jaguar Racing Green (metallic) (deleted)		
Regency Red (micatellic) (new)		
Satin Beige (metallic) (deleted)		
Savoy Grey (metallic) (new)		
Signal Red		
Solent Blue (metallic)		
Talisman Silver (metallic) (deleted)		
Tungsten (metallic)		
Westminster Blue		

1991 and 1992 – to end of production – 17/20 colours

Exterior paint colours	Leather trim colours	Cloth colours
Arctic Blue (metallic)	Barley	Cheviot Tweed
Black	Charcoal	Chiltern Tweed
Black Cherry (micatellic) (new for 1992)	Doeskin	Cotswold Tweed
Bordeaux Red (metallic)	Isis Blue	Pennine Tweed
Brooklands Green (new for 1991)	Magnolia	
Diamond Blue (metallic)	Mulberry	
Glacier White	Parchment	
Gunmetal (micatellic)	Saville Grey	
Jade Green (micatellic)		
Morocco Red (micatellic) (new for 1992)		
Oyster (metallic) (new for 1991)		
Platinum (metallic) (new for 1992)		
Regency Red (micatellic)		
Savoy Grey (metallic)		
Signal Red		
Silver Frost (metallic) (new for 1991)		
Solent Blue (metallic)		
Tungsten (metallic)		
Tuscany Bronze (micatellic) (new for 1991)		
Westminster Blue		

A few notes at the end. Most Jaguar colours of the period were used not only on the XJ (and equivalent Daimler) models, but across the range, thus on other saloons of the 1968-70 period, the E-type, the XJ-S and the XJ 40 range. There were some instances where brighter colours used mainly on the sports cars were only available on the XJ saloons as extra-cost special order options (e.g. Azure Blue, Pale Primrose, Sebring Red, Signal Red, (Light) Silver, Yellow Gold).

The Kingsbury-finished Daimler Vanden Plas models had their own unique all-metallic colour range from 1972, and this practice was adhered to even after paint and final assembly of these cars came to Browns Lane in 1979. When the home market Vanden Plas versions were discontinued in 1983, some of these colours were adopted for the range in general (e.g. Silver Sand, but likely also Claret/Claret Red and Sage/Sage Green).

All the XJ colours at a glance

Colour name	Used from -to	Letter code	BLVC/ JBC no.	Supplier code	Notes
Aegean Blue (metallic)	1972-77	JDF			Vanden Plas
Alpine Green (metallic)	1987-89	HES	709		
Amethyst (metallic)	1976-79	KDB	274		Vanden Plas
Antelope (metallic)	1984-86	AFM	322		
Arctic Blue (metallic)	1987-92	JFE	337		
Ascot Fawn	1968-72			GIP 26896	
Aubergine (metallic)	1972-75	TDE		ICI 4720 M	Vanden Plas
Azure Blue	1972-74	JDN		GIP 29551	Special order
Biascan Blue (metallic)	1976-80	JEE	273		Vanden Plas
Black (used intermittently, not always a standard colour)	1968-92	PDE PDH	373 333		a.k.a. Jet Black
Black Cherry (micatellic)	1992 only	PDP	737		
Bordeaux Red (metallic)	1987-92	CEK	340		
Brazilia Brown (metallic)	1979 only	ACM	214		Rover colour
British Racing Green	1968-77	HDJ	254	GIP 28461	GIP 24400 pre-Oct 70
Brooklands Green	1991-92	HFB	753		
Caramel (metallic)	1972-83	ADA	275		Vanden Plas
Carriage Brown	1975-77	ADS	262		
Chestnut Brown (metallic)	1978-83	BDA	292		
Cirrus Grey	1984-86	LDN	335		a.k.a. Purbeck Grey
Clarendon Blue	1984-85	JER	326		
Claret (metallic)	1980-83				Vanden Plas
Claret Red (metallic)	1981-86	CEA	310		
Cobalt Blue (metallic)	1978-86	JDM	286		
Coral (metallic)	1972-79	EDA	279		Vanden Plas
Coronet Gold (metallic)	1980-85	GDB	306		
Cotswold Yellow	1977-80	FDE	212		a.k.a. Turmeric Yellow
Cranberry Red (metallic)	1984-86	CEE	316		
Cream	1968-70			GIP 18442	a.k.a. Old English White
Crimson (metallic)	1987-89	CEV/CFF	714/772		
Curlew (metallic)	1986 only	AFT	704		
Damson Red	1977-80	CDG	211		a.k.a. Richelieu Red
Dark Blue	1968-74	JDG	255	ICI 4647	
Diamond Blue (metallic)	1990-92	JFN	743		
Dorchester Grey (metallic)	1987-89	LDP	342		
Evergreen (metallic)	1980-83	HEF	304		Vanden Plas
Fern Grey	1972-77	HDH	253	GIP 29047	
Garnet Red (metallic)	1980-81	CDN	303		
Glacier White	1988-92	NDK/NDP	721/742		NDK 721: Police White
Greensand	1972-77	FDA	252	GIP 23055	
Grenadier Red	1987-90	CEH	332		
Grosvenor Brown	1980-85	AEB	298		
Gunmetal (micatellic)	1990-92	LEH	740		
Heather	1972-74	KDA		GIP 29499	
Indigo Blue	1980-83	JEB	301		
Jade Green (micatellic)	1990-92	HEV	735		
Jaguar Racing Green	1986-88				
Jaguar Racing Green (metallic)	1989-90	HER	705		
Juniper Green	1976-77	HDM	264		
Kingfisher Blue (metallic)	1980-83	JED	309		Vanden Plas
Lavender Blue	1972-76	JDH	256	GIP 29500	
Light Blue	1968-72			ICI 4385	
Mineral Blue (metallic)	1980-82	JEJ	311		

Colour name	Used from-to	Letter code	BLVC/ JBC no.	Supplier code	Notes
Mink (metallic)	1976-79	DDC	277		Vanden Plas
Mistletoe (metallic)	1976-80	HDK	278		Vanden Plas
Moorland Green (metallic)	1987-89	HET	717		
Morello Cherry (metallic)	1972-76	TDA			Vanden Plas
Moroccan Bronze	1976-77	BDB	267		
Morocco Red (micatellic)	1992 only	CFG	778		
Nimbus White	1987 only	NDJ	700		
Old English White	1970-77	NDB	250	ICI 2379	
Oyster (metallic)	1991-92	SDE	751		
Pale Primrose	Ca. 1972-76	FDB	251	ICI 6974	Special order
Pendelican White	1979 only	NCF	215		Rover colour name
Platinum (metallic)	1992 only	LEP	775		
Portland Beige	1980-83	AEA	299		
Quartz Blue (metallic)	1978-79	JEA	291		
Racing Green (metallic)	1977-85	HDN	281		
Regency Red (solid)	1968-77	TDD	257	GIP 27420	
Regency Red (micatellic)	1990-92	CFA	734		
Regent Grey (metallic)	1984-86	LDL	315		
Rhodium Silver (metallic)	1980-86	MDE/MDM	396		
Richelieu Red	1979 only	CCE	211		Rover colour name
Sable Brown (solid)	1968-75	ADR	259	GIP 25734	
Sable Brown (metallic)	1980-83	PDF	308		
Sage (metallic)	1972-75	HDG			Vanden Plas
Sage Green (metallic)	1984-86	HEG	314		
Sapphire Blue (metallic)	1980-85	JEC/JEY	307/719		
Satin Beige (metallic)	1987-90	AFV/AGA	711/747		
Savoy Grey (metallic)	1990-92	LED/LEK	713/731		
Sebring Red	1978-86	CDJ	287		Special order
Signal Red	1972-77	CDF	258	ICI 8385	Special order
Signal Red	1989-92	CFC	748		
Silver (metallic) or Light Silver	Ca. 1969-78			ICI 3308 M	Special order
Silver Birch (metallic)	1987-88	MDJ	716		
Silver Frost (metallic)	1977-79	MDD	216		Rover Platinum
Silver Frost (metallic)	1991-92	MDK	750		
Silver Sand (metallic)	1972-83				Vanden Plas
Silver Sand (metallic)	1983-86	GDA	280		
Solent Blue (metallic)	1987-92	JEW/JFJ/JHG	715		
Sovereign Gold (metallic)	1987-87	GDF	341		
Squadron Blue	1975-77	JDJ	265		
Steel (metallic)	1986-86	LEC	708		
Talisman Silver (metallic)	1987-90	MDF	336		
Tudor White	1978-86	NDC	215		a.k.a. Pendelican White
Tungsten (metallic)	1987-92	JEX	718		
Turmeric Yellow	1979 only	FCB	212		Rover colour name
Turquoise	1972-74	UDA		GIP 29136	
Tuscany Bronze (micatellic)	1991-92	SDD	754		
Warwick Grey	1968-71			ICI 4690	
Westminster Blue	1989-92	JEU/JFG	712		
Willow Green	1968-72			ICI 7000	
Windsor Blue	1986 only	JEV	706		
Yellow Gold	1976-78	FDD	266		Special order

The three-letter codes are commonly stamped on VIN identification plates from 1978 onwards. The BLVC (British Leyland Vehicle Colour) numbers were effectively used by Jaguar also after 1984 but from then on were re-named JBC (Jaguar Body Colour) numbers. These codes are useful when ordering paint.

APPENDIX 2 ~ JAGUAR AND DAIMLER XJ PRICES SINCE LAUNCH

Year	Month	Jaguar prices from	Jaguar prices to	Daimler prices from	Daimler prices to
1968	September	£1,797 7s 3d	£2,397 18s 4d		
1969	October	£1,999 15s 10d	£2,622 10s 10d	£2,356 4s 2d	£2,805 6s 5d
1970	October	£2,280.48½	£2,837.96	£2,558.56½	£2,959.37½
1971	November	£2,455.62	£3,010.62	£2,754.38	£3,131.88
1972	October	£2,602.61	£4,051.90	£2,953.52	£5,439.06
1973	September	£2,985.12	£4,379.37	£3,191.29	£5,878.49
1973	December	£3,673.91	£5,181.36	£3,783.54	£6,067.96
1974	December	£4,644.90	£6,131.95	£4,766.58	£7,479.81
1975	March	£5,136.30	£5,959.98		
1975	November	£5,198.31	£7,572.24	£5,407.74	£9,116.64
1976	November	£6,622.20	£9,417.33	£6,892.47	£11,607.57
1977	August	£8,173.62	£11,754.99	£8,829.99	£14,582.88
1978	December	£10,338.12	£13,430.43	£11,646.18	£18,219.24
1979	March	£11,188.71	£15,014.61	£12,983.49	£20,277.27
1980	November	£12,749.85	£18,155.53	£16,822.49	£24,995.16
1981	July	£13,299.27	£18,209.10	£16,259.37	£25,594.40
1982	October	£13,950.85	£19,771.38	£17,654.71	£26,964.82
1983	September	£13,990.70	£20,954.92	£21,951.58	£24,991.42
1984	October	£14,495.00	£21.995.00	£22,995.00	£25,995.00
1985	July	£15,595.00	£23,795.00	£25,195.00	£28,195.00
1986	July	£15,595.00	£23,795.00	£25,195.00	£28,195.00
1987	April	£27,000.00		£30,200.00	
1988	October	£31,000.00		£35,000.00	
1989		£31,000.00		£35,000.00	
1990	September	£37,000.00		£41,000.00	
1991	September	£40,340.00		£44,940.00	
1992	March	£38,788.47		£43,211.54	
1992	June			£43,211.54	

Prices are home market list prices, including Purchase Tax, or Car Tax and VAT, not including any extra-cost options.

Appendix 3 ~ Chassis Number Details

Series 1

Model Type	RHD/LHD	First chs. no.	Last chs. no.	First produced	Last produced
XJ6 2.8	RHD	1G 1001	1G 14301	1968.04	1973.05
XJ6 2.8	LHD	1G 50001	1G 56125	1968.06	1973.05
XJ6 4.2	RHD	1L 1001	1L 34467	1968.07	1973.07
XJ6 4.2	LHD	1L 50001	1L 75505	1968.07	1973.07
XJ6L 4.2	RHD	2E 1001	2E 1583	1972.06	1973.07
XJ6L 4.2	LHD	2E 50001	One car only	1973.01	1973.01
XJ12	RHD	1P 1001	1P 1720	1971.03	1973.07
XJ12	LHD	1P 50001	1P 51762	1971.12	1973.07
XJ12L	RHD	2C 1001	2C 1750	1972.05	1973.07
XJ12L	LHD	2C 50001	2C 50003	1972.09	1973.07
Sovereign 2.8	RHD	1T 1001	1T 4069	1969.07	1973.06
Sovereign 2.8	LHD	1T 50001	1T 50165	1969.08	1973.03
Sovereign 4.2	RHD	1U 1001	1U 11894	1969.07	1973.06
Sovereign 4.2	LHD	1U 50001	1U 50726	1969.08	1973.06
Sovereign 4.2 lwb	RHD	2D 1001	2D 1394	1972.09	1973.07
Sovereign 4.2 lwb	LHD	2D 50001	One car only	1973.03	1973.03
Double-Six	RHD	2A 1001	2A 1524	1972.05	1973.07
Double-Six	LHD	2A 50001	2A 50011	1972.01	1973.06
Double-Six VDP	RHD	2B 1001	2B 1337	1972.05	1973.06
Double-Six VDP	LHD	2B 50001	2B 50005	1972.09	1973.07

Dating individual models by year, first chassis number in each year of production

Model type	RHD/ LHD	First chs no. in					
		1968	1969	1970	1971	1972	1973
XJ6 2.8	RHD	1G 1001	1G 1105	1G 4611	1G 8268	1G 11751	1G 13670
XJ6 2.8	LHD	1G 50001	1G 50066	1G 52127	1G 54724	1G 55684	1G 56020
XJ6 4.2	RHD	1L 1001	1L 1390	1L 6177	1L 13278	1L 24642	1L 30772
XJ6 4.2	LHD	1L 50001	1L 50255	1L 53223	1L 58447	1L 65145	1L 72049
XJ6L 4.2	RHD					2E 1001	2E 1255
XJ6L 4.2	LHD						2E 50001
XJ12	RHD				1P 1001	1P 1008	1P 1372
XJ12	LHD				1P 50001	1P 50008	1P 50699
XJ12L	RHD					2C 1001	2C 1310
XJ12L	LHD					2C 50001	2C 50002
Sovereign 2.8	RHD		1T 1001	1T 1197	1T 2501	1T 3315	1T 3866
Sovereign 2.8	LHD		1T 50001	1T 50039	1T 50126	1T 50150	1T 50163
Sovereign 4.2	RHD		1U 1001	1U 1362	1U 3678	1U 7473	1U 10779
Sovereign 4.2	LHD		1U 50001	1U 50035	1U 50208	1U 50418	1U 50634
Sovereign 4.2 lwb	RHD					2D 1001	2D 1069
Sovereign 4.2 lwb	LHD						2D 50001
Double-Six	RHD					2A 1001	2A 1262
Double-Six	LHD					2A 50001	2A 50003
Double-Six VDP	RHD					2B 1001	2B 1124
Double-Six VDP	LHD					2B 50001	2B 50002

It should be noted that the first chassis numbers in 1973 are of particular significance in Britain, as cars made before 1 January 1973 are tax exempt as 'historic vehicles'. For an XJ Series 1 to

qualify for tax exemption, the chassis number of the car in question must therefore be *lower* than the number quoted as the first number in 1973.

It should also be pointed out that *none* of the Series 2 models, which only commenced in production in 1973, will qualify for tax exemption.

Series 2

Model Type	RHD/LHD	First chs. no.	Last chs. no.	First produced	Last produced
XJ6 2.8	LHD	2U 50001	2U 50170	1973.07	1974.07
XJ6 3.4*	RHD	3A 1001	3A 6004	1975.01	1978.05*
XJ6 3.4	LHD	3A 50001	3A 51486	1975.01	1977.11
XJ6 4.2	RHD	2N 1001	2N 8463	1973.04	1974.11
XJ6 4.2	LHD	2N 50001	2N 54907	1973.04	1974.11
XJ6L 4.2*	RHD	2T 1001	2T 27236	1973.05	1978.05*
XJ6L 4.2*	LHD	2T 50001	2T 74576	1973.07	1978.05*
XJ6C 4.2	RHD	2J 1001	2J 3606	1973.?	1977.11
XJ6C 4.2	LHD	2J 50001	2J 53899	1973.?	1977.11
XJ12L*	RHD	2R 1001	2R 5157	1973.03	1978.05*
XJ12L*	LHD	2R 50001	2R 60069	1973.05	1978.05*
XJ12C	RHD	2G 1001	2G 1604	1973.01	1977.11
XJ12C	LHD	2G 50001	2G 51269	1973.?	1977.11
Sovereign 4.2	RHD	2M 1001	2M 3313	1973.05	1974.06
Sovereign 4.2	LHD	2M 50001	2M 50115	1973.07	1974.05
Sovereign 4.2 (lwb)*	RHD	2S 1001	2S 12816	1973.07	1978.05*
Sovereign 4.2 (lwb)*	LHD	2S 50001	2S 50704	1973.12	1978.05*
Sovereign 4.2 coupe	RHD	2H 1001	2H 2586	1973.03	1977.11
Sovereign 4.2 coupe	LHD	2H 50001	2H 50112	1974.12	1977.10
Sovereign 4.2 VdP*	RHD	3C 1001	3C 1818	1975.04	1978.05*
Sovereign 4.2 VdP*	LHD	3C 50001	3C 50012	1975.10	1978.05*
Sovereign 3.4	RHD	3B 1001	3B 3344	1975.02	1977.11
Sovereign 3.4	LHD	3B 50001	3B 50004	1976.02	1976.12
Double-Six*	RHD	2K 1001	2K 2925	1973.05	1978.05*
Double-Six*	LHD	2K 50001	2K 50227	1973.07	1978.05*
Double-Six VDP*	RHD	2P 1001	2P 2220	1973.05	1978.05*
Double-Six VDP*	LHD	2P 50001	2P 50355	1973.07	1978.05*
Double-Six Coupe	RHD	2F 1001	2F 1372	1973.?	1977.11
Double-Six Coupe	LHD	2F 50001	2F 50027	1975.02	1977.07

*Models marked with an asterisk in the table above continued in production after May 1978, but from then onwards had the new VIN numbers (see below). The last chassis numbers quoted above the final pre-VIN numbers. From May 1978, all models which were still in production were given the new VIN numbers (see following section), with a common range of serial numbers for all Series 2 models. This range of serial numbers started with the number 100001:

Model Type	RHD/ LHD	First VIN number		Last VIN number
		1978.05	**1979.01**	**1979.04**
All	Both	100001	111640	111737

Dating individual models by year, first chassis number in each year of production until 1978

Model type	RHD/ LHD	First chs no. in					
		1973	1974	1975	1976	1977	1978
XJ6 2.8	LHD	2U 50001	2U 50004				
XJ6 3.4	RHD			3A 1001	3A 3014	3A 4163	3A 5498
XJ6 3.4	LHD			3A 50001	3A 50703	3A 51144	
XJ6 4.2	RHD	2N 1001	2N 5110				
XJ6 4.2	LHD	2N 50001	2N 52402				
XJ6L 4.2	RHD	2T 1001	2T 2094	2T 12003	2T 15585	2T 19623	2T 24361
XJ6L 4.2	LHD	2T 50001	2T 50005	2T 54980	2T 59295	2T 65056	2T 70511
XJ6C 4.2	RHD	2J 1001	2J 1009	2J 1011	2J 1955	2J 2721	
XJ6C 4.2	LHD	2J 50001	None built	2J 50010	2J 52250	2J 53067	
XJ12L	RHD	2R 1001	2R 1783	2R 3914	2R 3971	2R 4427	2R 4761
XJ12L	LHD	2R 50001	2R 50565	2R 53894	2R 55060	2R 57167	2R 59008
XJ12C	RHD	2G 1001	2G 1011	2G 1015	2G 1146	2G 1379	
XJ12C	LHD	2G 50001	2G 50007	2G 50025	2G 50836	2G 51159	
Sovereign 4.2	RHD	2M 1001	2M 2150				
Sovereign 4.2	LHD	2M 50001	2M 50005				
Sovereign 4.2 (lwb)	RHD	2S 1001	2S 1187	2S 4666	2S 6431	2S 8564	2S 11179
Sovereign 4.2 (lwb)	LHD	2S 50001	2S 50002	2S 50106	2S 50221	2S 50409	2S 50622
Sovereign 4.2 coupe	RHD	2H 1001	2H 1002	2H 1003	2H 1498	2H 2044	
Sovereign 4.2 coupe	LHD		2H 50001	2H 50002	2H 50033	2H 50062	
Sovereign 4.2 VdP	RHD			3C 1001	3C 1217	3C 1516	3C 1743
Sovereign 4.2 VdP	LHD			3C 50001	3C 50002	3C 50009	3C 50012
Sovereign 3.4	RHD			3B 1001	3B 1956	3B 2624	
Sovereign 3.4	LHD				3B 50001		
Double-Six	RHD	2K 1001	2K 1149	2K 2196	2K 2230	2K 2508	2K 2729
Double-Six	LHD	2K 50001	2K 50014	2K 50075	2K 50119	2K 50140	2K 50168
Double-Six VDP	RHD	2P 1001	2P 1216	2P 1833	2P 1926	2P 2035	2P 2162
Double-Six VDP	LHD	2P 50001	2P 50009	2P 50056	2P 50133	2P 50208	2P 50319
Double-Six Coupe	RHD	2F 1001	2F 1003	2F 1004	2F 1068	2F 1206	
Double-Six Coupe	LHD			2F 50001	2F 50014	2F 50025	

For dating 1978-79 Series 2 cars with VIN numbers, see table at the bottom of the previous page.

Other chassis number codes:

From February 1972 onwards, North American export models had an extra prefix letter U, followed by a letter for year of manufacture, C for 1972, D for 1973, etc, through to J for 1978.

An extra prefix letter A (e.g. A1L, A2T) indicates an XJ6 4.2 that was assembled from a CKD kit in South Africa.

The suffix letters DN indicate overdrive, and the suffix letters BW indicate automatic transmission.

Engine number prefixes:

These prefixes are found on all models that a type of engine is used in, and are found on all three Series.

2.8-litre	7G	3.4-litre	8A
4.2-litre	7L to 1974, then 8L to 1987	V12 5.3-litre	7P

Until 1978, the engine number was stamped on the same plate as the chassis number.

Body number prefixes:

On Series 1 and Series 2 cars, the body number prefixes mirror the chassis number prefixes; if a chassis number prefix is 1L, the body number prefix will be 4L. The Series 3 started a new system. Until 1978, the body number was stamped on the same plate as the chassis number. On all models, the body number should also be found on a tag on the valance panel behind the rear bumper. The following prefixes are found:

	Series 1:		**Series 2:**		**Series 3:**	
	Jaguar	**Daimler**	**Jaguar**	**Daimler**	**Jaguar**	**Daimler**
2.8-litre swb	4G	4T	5U	-	-	-
3.4-litre lwb	-	-	6A	6B	1C	-
4.2-litre swb	4L	4U	5N	5M	-	-
4.2-litre lwb	5E	5D	5T	5S	1A	1B *
4.2-litre lwb VdP	-	-	-	6C	1H **	1D *
4.2-litre coupe	-	-	5J	5H	-	-
V12 swb	4P	5A	-	-	-	-
V12 lwb	5C	-	5R	5K	1E	1F *
V12 lwb VdP	-	5B	-	5P	-	1G *
V12 coupé	-	-	5G	5F	-	-

Notes: * From 1983 onwards, 1B and 1F were found on Jaguar Sovereign models, while 1D and 1G were found on the later Daimlers, although these were not badged as Vanden Plas anymore.

** North American export model. The Jaguar XJ12 Vanden Plas export model may have body numbers prefixed either 1E (possibly for North America), or 1G (possibly for Europe).

Gearbox number prefixes:

Borg Warner automatic gearbox numbers on S.1 4.2 cars, and V12 cars to 1977, did not have prefixes.

Some known prefixes for other types are:

9EG	Borg Warner model 35 box on Series 1 2.8 1968-73
015 or 025	Borg Warner model 65 boxes on Series 2 4.2 ca. 1973-78
033	Borg Warner model 65 box on Series 2 3.4 ca. 1974-78
6056 or 6066	Borg Warner model 65 or 66 boxes on Series 3 4.2 ca. 1979-87; possibly also 6080
6067	Borg Warner box on Series 3 3.4 ca. 1979-87

GM 400 boxes found on V12 models from 1977 onwards have a year of manufacture code (77 through to 92) followed by the letters ZA (77 to 80), ZV (81 to 89) or ZX (90 to 92).

Manual gearboxes have the following prefixes:

4-speed, Series 1:	KF, or KFN if overdrive fitted
4-speed, Series 2: (believed all with overdrive)	KGN, later KPN
5-speed, late Series 2 and Series 3:	20A (a Rover-style prefix)

Until 1978, the gearbox number was stamped on the same plate as the chassis number.

APPENDIX 4 ~ UNDERSTANDING VIN CODES

VIN Codes

In 1978-79 world-wide VIN numbers (vehicle identification numbers) were introduced to identify cars. Jaguar began using the system in May 1978. The VIN prefix code under the original system identified:

- The World Manufacturer Identification code (three letters)
- Marque
- Model range
- Specification class
- Body variants
- Engine variants
- Transmission and steering
- Model or year change
- Emission control system or assembly plant
- The group of numbers (six digits) was the actual serial number

As an aid to identification a breakdown of the code is shown below:

SAJ	J	D	A	L	W	3	E	M	345678
1	2	3	4	5	6	7	8	9	10

1 **World Manufacturer Identifier (added in March 1981)**

- SAJ for Jaguar; SAD for Daimler until April 1987, afterwards SAJ also on Daimlers

2 **Car Marque**

- J for Jaguar and D for Daimler

3 **Model Range**

- A for XJ6
- B for XJ12
- C for Sovereign (incl. Jaguar)
- D for Double Six (and Jaguar Sovereign V12)

4 **Class**

- A for Baseline Specification
- J for Japan Specification
- N for Canada VdP Specification
- V for USA Specification
- G for Japan VDP specification
- L for Canada Specification
- R for Vanden Plas
- Y for USA Specification

5 **Body Variant**

- L for 4 Door Saloon

6 **Engine Variants**

- A for 3.4
- K, L, N, P, R, S or T for 4.2; in the UK normally L (carburettor) or P (fuel injection)
- V, W, X or Y for 5.3 V12; in the UK normally W

7 **Transmission and Steering**

- 1 for Manual 4-speed RHD*
- 2 for Manual 4-speed LHD*
- 3 for Automatic RHD
- 4 for Automatic LHD
- 5 for Manual 4-speed overdrive RHD*
- 6 for Manual 4-speed overdrive LHD*
- 7 for Manual 5-speed RHD
- 8 for Manual 5-speed LHD

**No actual 1978 Series 2 cars with manual four-speed gearboxes with or without overdrive have been found in the record in the period from May 1978 until the five-speed box was introduced.*

8 **Model or Year Change**

- B for Series 2
- C for Series 3

On cars for USA, Canada and from 1991 model year also for Korea – in this position, a character (number or letter) was used to indicate model year of build, as follows:

- 8 for 1978
- 9 for 1979
- A for 1980
- B for 1981
- C for 1982
- D for 1983

- E for 1984
- F for 1985
- G for 1986
- H for 1987
- J for 1988
- K for 1989
- L for 1990
- M for 1991
- N for 1992

9 **Manufacturing Plant or Emission Control System**

- C for Browns Lane (used for all markets up to 1987 model year)

Thereafter the following codes were applied:

- A for UK/Europe – high compression, non-catalytic 5.3 or 4.2-litre emission B
- B for UK/Rest of the world – standard compression, non-catalytic 5.3-litre emission B
- C for Middle East – 5.3-litre emission E
- F for Australia, and Canada (up to 1988 model year) – 5.3-litre emission C
- M for Germany (up to 1989 model year) – emission F; UK/Europe – 5.3-litre emission G
- P for Sweden/Norway – 5.3-litre emission F; Canada – 5.3-litre emission A; Switzerland (from 1 October 1987) – 5.3-litre emission F; Austria (from 1 January 1989) – 5.3-litre emission F
- R for Japan/Hong Kong – emission C; EEC (from 1990 to 1993 model year) – 5.3-litre emission G

10 **Serial Numbers**

- Series 2 (1978-1979): From 100001 to 111737
- Series 3: From 300001 to 400000, and from 410001 to 487641

The gap in the Series 3 number range from 400001 to 410000 was because numbers from 400001 upwards had been allocated to Daimler DS420 limousines supplied in chassis form for hearse coachwork. By not using similar numbers for the Series 3, Jaguar avoided the confusion that had arisen between the Series 2 and the XJ-S model ranges, both of which used serial numbers from 100001 upwards, but in two different ranges of numbers, with different prefixes!

Please also note that North American export models typically had secondary VIN numbers with differently constructed prefixes, according to Federal regulations.

Examples for Series 2:

Model type, engine	Trans-mission	VIN code RHD	VIN code LHD	From	To	Market (if applicable)
Jaguar:						
XJ6 3.4	Auto	JAALA3BC	JAALA4BC	1978.05	1979.04	UK, export
XJ6 3.4	Man o/d	JAALA5BC	JAALA6BC	1978.05	?	UK, export
XJ6 3.4	Man 5-sp	JAALA7BC	JAALA8BC	1978.07	1979.04	UK, export
XJ6 4.2	Auto	JAALL3BC	JAALL4BC	1978.05	1979.04	UK, export
XJ6 4.2	Man o/d	JAALL5BC	JAALL6BC	1978.05	?	UK, export
XJ6 4.2	Man 5-sp	JAALL7BC	JAALL8BC	1978.07	1979.04	UK, export
XJ6 4.2	Auto	N/A	JAVLN4-C*	1978.05	1979.04	USA/Canada
XJ12	Auto	JBALW3BC	JBALW4BC	1978.05	1979.04	UK, export
XJ12	Auto	N/A	JBVLV4-C*	1978.05	1979.04	USA/Canada
Daimler:						
Sovereign 4.2	Auto	DCALL3BC	DCALL4BC	1978.05	1979.04	UK, export
Sovereign 4.2 VdP	Auto	DCRLL3BC	DCRLL4BC	1978.05	1979.04	UK, export
Double-Six	Auto	DDALW3BC	DDALW4BC	1978.05	1979.04	UK, export
Double-Six VdP	Auto	DDRLW3BC	DDRLW4BC	1978.05	1979.04	UK, export

Examples for Series 3:

UK, general export and North American models

(certain other models had country-specific codes indicating special specifications)

Model type, engine	Trans-mission	VIN code RHD	VIN code LHD	From	To	Market (if applicable)
Jaguar:						
XJ6 3.4	Auto	JAALA3CC	JAALA4CC	1979.03	1987.04	UK, export
XJ6 3.4	Manual	JAALA7CC	JAALA8CC	1979.03	1987.04	UK, export
XJ6 4.2	Auto	JAALP3CC	JAALP4CC	1979.03	1987.04	UK, export
XJ6 4.2	Manual	JAALP7CC	JAALP8CC	1979.03	1987.04	UK, export
XJ6 4.2	Auto	N/A	JAYLS4-C*			USA/Canada
XJ6 4.2 VDP	Auto	N/A	JAVLN4-C*	1979.03	1987.04	USA/Canada
Sovereign 4.2	Auto	JCALP3CC	JCALP4CC	1982.10	1987.04	UK, export
XJ12	Auto	JBALW3CC	JBALW4CC	1979.03	1992.03	UK, export
XJ12	Auto	N/A	JBVLV4-C*	1979.03		USA/Canada
XJ12	Auto	N/A	JBVLX4-C*	1983.06		California
Sovereign V12	Auto	JDALW3CC	JDALW4CC			UK, export
XJ12 VdP	Auto	N/A	JBNLW4-P*			Canada
XJ12 VdP	Auto	N/A	JDRLW4CC			European exp.
Daimler:						
Sovereign 4.2	Auto	DCALP3CC	DCALP4CC	1979.03	1986.07	UK, export
Sovereign 4.2	Manual	DCALP7CC	DCALP8CC	1979.03	1986.07	UK, export
Sovereign 4.2 VDP; 4.2 from 1982-87	Auto	DCRLP3CC	DCRLP4CC	1979.03	1986.07	UK, export
DD6 VDP to 1982, DD6 1982-88	Auto	DDRLW3CC	DDRLW4CC	1979.03	1982.10	UK, export
DD6 to 1982, also 1989-92	Auto	DDALW3CC	DDALW4CC	1979.03	1992.11	UK, export

* The dash indicates a variable year of manufacture number or letter.

Please also note that the letters for engine specification (fifth position here) and, on 1987-92 models, the final letter for emissions specification, will vary.

Dating Series 3 cars with VIN numbers:

Year/month	VIN serial	Comments
1978.04	300001	First Series 3, pre-production car
1979.01	300171	First car in 1979 (approximately)
1980.01	311501	First car in 1980 (approximately)
1981.01	324523	First car in 1981 (approximately)
1981.03	327000 approx.	SAJ/SAD code added to prefix
1982.01	337368	First car in 1982 (approximately)
1983.01	355831	First car in 1983 (approximately)
1983.03	360000	End of manually kept production record ledgers
1983.07	368000 approx.	Start of production of Jaguar Sovereigns
1983.08	370458	Change-over to 1984 model
1983.11	375742	Change-over to 1984 models
1984.01	378916	First car in 1984 (approximately)
1984.10	400000	End of first range of numbers
1984.10	410001	New ranges of numbers start after gap
1985.01	415940	First car in 1985 (approximately)
1986.01	445769	First car in 1986 (approximately)
1987.01	474000 approx.	First car in 1987 (approximately)
1987.04	477500 approx.	SAJ code instead of SAD on Daimlers
1987.04	477824	Six cylinder models discontinued
1987.09	478383	Change-over to 1988 models
1988.01	479100 approx.	First car in 1988 (approximately)
1989.01	481200 approx.	First car in 1989 (approximately)
1990.01	483000 approx.	First car in 1990 (approximately)
1990.06	483818	Change-over to 1991 models
1991.01	484748	First car in 1991 (approximately)
1992.01	486299	First car in 1992 (approximately)
1992.03	486552	Last regular production Jaguar
1992.12	487640	The final one-off Jaguar
1992.12	487641	The last-of-line car, a Daimler Double-Six

Appendix 5 ~ Production figures

XJ Series 1:

	1968	1969	1970	1971	1972	1973	Total
Jaguar:							
XJ6 2.8	143	5,372	6,242	4,450	2,308	807	19,322
XJ6 4.2 swb	496	7,800	11,876	18,173	12,432	8,300	59,077
XJ6 4.2 lwb					232	642	874
XJ12 swb					669	1,805	2,474
XJ12 lwb					254	500	754
Total Jaguar	639	13,172	18,118	22,623	15,895	12,054	82,501
Daimler:							
Sovereign 2.8		208	1,383	806	621	215	3,233
Sovereign 4.2 swb		389	2,332	4,088	3,390	1,323	11,522
Sovereign 4.2 lwb						386	386
Double-Six					237	297	534
Double-Six VdP					97	254	351
Total Daimler		597	3,715	4,894	4,345	2,475	16,026
Total all models	639	13,769	21,833	27,517	20,240	14,529	98,527

XJ Series 2:

	1973	1974	1975	1976	1977	1978	1979	Total
Jaguar:								
XJ6 2.8 swb	3	167						170
XJ6 3.4 lwb			2.570	1,660	1,569	1,072	9	6,880
XJ6 4.2 swb	5,521	6,626						12,147
XJ6 4.2 lwb	370	14,012	8,597	10,125	9,241	14,684	775	57,804
XJ6 4.2 coupé	2	1	2,925	1,746	1,776	37		6,487
XJ12	985	5,479	1,303	2,737	1,904	3,337	265	16,010
XJ12 coupé		11	821	663	329	31		1,855
Total Jaguar	6,881	26,296	16,216	16,931	14,819	19,161	1,049	101,353
Daimler:								
Sovereign 3.4 lwb			892	707	728	14		2,341
Sovereign 4.2 swb	1,027	1,408						2,435
Sovereign 4.2 lwb	156	3,357	2,044	2,320	2,467	3,971	216	14,531
Sovereign VdP			199	319	219	146		883
Sovereign coupé			471	587	613	6		1,677
Double-Six	120	1,111	129	287	230	688	43	2,608
Double-Six VdP	200	661	181	192	208	274	10	1,726
Double-Six coupé		1	76	149	159	22		407
Total Daimler	1,503	6,538	3,992	4,561	4,624	5,121	269	26,608
Total all models	8,384	32,834	20,208	21,492	19,443	24,282	1,318	127,961

XJ Series 3:

	1978	1979	1980	1981	1982	1983	1984	1985
Jaguar:								
XJ6 3.4	1	625	553	892	824	826	861	784
XJ6 4.2	7	5,864	9,029	9,447	12,199	14,282	13,571	14,638
XJ6 4.2 VdP (USA)				120	1,438	2,639	4,121	4,501
Sovereign 4.2						*	5,112	6,832
XJ12	6	970	789	146				
XJ12 HE				316	424	369	260	370
Sovereign V12						*	1,492	1,700
Total Jaguar	14	7,459	10,371	10,921	14,885	18,116	25,417	28,825
Daimler:								
Sovereign 4.2; 4.2		2,347	2,444	1,214	2,502	3,009	478	546
Sovereign 4.2 VdP		43	240	77	150	248		
Double-Six		513	349	63				
Double-Six HE				164	581	1,149	773	847
Double-Six VdP	1	25	261	115				
Double-Six HE VdP				56	334	560		
Total Daimler	1	2,928	3,294	1,689	3,567	4,966	1,251	1,393
Total all models	15	10,387	13,665	12,610	18,452	23,082	26,668	30,218

* In 1983, separate figures are not available for the Jaguar Sovereign models; for this year, these were included with Daimler Sovereign figures for the 4.2, and with Double-Six figures for the V12.

	1986	1987	1988	1989	1990	1991	1992	Total
Jaguar:								
XJ6 3.4	433							5,799
XJ6 4.2	15,427	2,885						97,349
XJ6 4.2 VdP	5,487	483						18,789
Sovereign 4.2	3,938	464						16,346
XJ12								1,911
XJ12 HE	625	466	292	181	76	52	66	3,497
Sovereign V12	1,480	484	801	520	354	330	74	7,235
Total Jaguar	27,390	4,782	1,093	701	430	382	140	150,926
Daimler:								
Sovereign 4.2; 4.2	133	38						12,711
Sovereign VdP								758
Double-Six								925
Double-Six HE	774	595	910	1,084	1,316	1,144	1,235	10,572
Double-Six VdP								402
Double-Six HE VdP								950
Total Daimler	907	633	910	,084	1,316	1,144	1,235	26,318
Total all models	28,297	5,415	2,003	1,785	1,746	1,526	1,375	177,244

Figures are not available complete for the export-only Jaguar XJ12 Vanden Plas, and it is thought that this model is included with other V12 variants in the main tables. Only the following incomplete figures are available for this model:

	1981	1982	1983	1984	1985	1986	1987	1988
Jaguar XJ12 VdP	12	76	159	254	364	624	613	451