



XJ-S V12 CONVERTIBLE

*I/N/F/O/R/M/A/T/I/O/N*





JAGUAR

JAGUAR XJ-S V12 CONVERTIBLE

Neg No. /R.G.B. 88/ 27





JAGUAR XJ-S V12 CONVERTIBLE

Neg No. /R.G.B. 88/ 24



**JAGUAR** JAGUAR XJ-S V12 CONVERTIBLE

Neg No. /R.G.B. 88/ 21





# SPECIFICATION

## XJ-S V12 CONVERTIBLE UK (NON-CATALYST SPECIFICATION)

### ENGINE TYPE

60° Vee twelve  
Aluminium Alloy  
cylinder heads/block  
SOHC per bank  
2 valves/cyl.

|                                      |                     |
|--------------------------------------|---------------------|
| Displacement (cm <sup>3</sup> )      | 5345                |
| Bore x stroke (mm)                   | 90 x 70             |
| Compression ratio                    | 12.5:1              |
| Max. power DIN bhp (kW) @ rev/min    | 291 (217) @ 5500    |
| Max. torque DIN lb.ft (Nm) @ rev/min | 317 (430) @ 3000    |
| Combustion chambers                  | May high efficiency |
| Ignition/fuel system                 | Lucas electronic    |
| TRANSMISSION TYPE                    | 3 speed automatic   |
| Top gear ratio                       | 1.00:1              |
| Final drive ratio                    | 2.88:1              |
| MPH/1000 r.p.m. in top gear          | 26.9                |

|                  |                           |
|------------------|---------------------------|
| WHEEL TYPE/SIZE  | Starfish alloy 6.5 x 15in |
| Tyre size        | 215/70 VR 15              |
| DRAG COEFFICIENT | 0.39                      |

### BRAKING SYSTEM

Electronically controlled anti-lock braking system with yaw control. Hydraulic power assisted 4 wheel disc brakes, ventilated at front. Safety split front and rear hydraulic circuits incorporating fluid loss sensor warning. Hand operated mechanical parking brake on rear wheels.

### STEERING

Rack and pinion power assisted steering. Energy absorbing steering column with axial adjustment.

|                                      |           |
|--------------------------------------|-----------|
| Turns lock to lock                   | 2.7       |
| Turning circle between kerbs ft. (m) | 39.4 (12) |

### SUSPENSION

**Front:** Fully independent with twin wishbones, coil springs and telescopic dampers. Anti-roll bar. Anti-dive geometry providing longitudinal stability under heavy braking.

**Rear:** Fully independent with lower transverse wishbones and driveshafts acting as upper links. Radius arms, twin coil springs and telescopic dampers.

### BODY CONSTRUCTION (Two Door Convertible)

Structural stiffening added to A posts, sills, underfloor and bulkheads. Frameless door glass and direct glazed windscreen. Bumpers, bonnet and crumple zones as coupé.

### PAINT AND PROTECTION

Box sections and closed members hot wax injected. Zinc phosphate pre-treatment. Cathodic electrocoat. Clear over base paint process with automated electrostatic application of primer/sealer and clear coats. Twin colour coats. Bitumen wax underseal.

|                                       |           |      |
|---------------------------------------|-----------|------|
| PERFORMANCE (Manufacturer's estimate) | -         | Auto |
| Acceleration — 0-60 m.p.h. (s)        | 7.9       |      |
| Top speed — m.p.h. (km/h)             | 150 (241) |      |

### ECONOMY

|                                      |             |
|--------------------------------------|-------------|
| Urban cycle — m.p.g. (litres/100 km) | 15.0 (18.8) |
| 56 m.p.h. — m.p.g. (litres/100 km)   | 27.1 (10.4) |
| 75 m.p.h. — m.p.g. (litres/100 km)   | 22.5 (12.6) |

### WEIGHT

|  |             |
|--|-------------|
| Kerb weight — lb (kg) with options     | 4190 (1900) |
| Gross weight — lb (kg) max permissible | 4631 (2100) |

### DIMENSIONS

|  |               |
|--|---------------|
| A Overall length in. (mm)                        | 187.6 (4764)  |
| B Overall width excl. mirrors in. (mm)           | 70.6 (1793)   |
| C Overall height in. (mm)                        | 49.7 (1261)   |
| D Ground clearance — at kerb wt in. (mm)         | 5.5 (140)     |
| E Track width — front in. (mm)                   | 58.6 (1488)   |
| F Track width — rear in. (mm)                    | 59.2 (1504)   |
| G Wheelbase in. (mm)                             | 102.0 (2591)  |
| H Max. legroom — front driver in. (mm)           | 42.1 (1069)   |
| I Max. legroom — front pass. in. (mm)            | 43.2 (1097)   |
| J Min. legroom — rear outboard in. (mm)          | —             |
| K Max. headroom — front in. (mm)                 | 36.0 (914)    |
| L Max. headroom — rear in. (mm)                  | —             |
| M Shoulder width — front in. (mm)                | 55.9 (1420)   |
| N Shoulder width — rear in. (mm)                 | —             |
| O Boot volume cu ft (m <sup>3</sup> ) — absolute | 14.15 (0.400) |
| — usable   | 9.24 (0.262)  |
| P Fuel tank capacity Imp. gal. (litres)          | 18 (82)       |

Note: Dimensions will vary marginally from car to car due to design and production tolerances. The nominal condition has been used wherever possible.

## Standard and optional equipment

### FEATURES

#### MECHANICAL

|                                       |   |
|---------------------------------------|---|
| Power assisted steering               | ■ |
| Adjustable steering column (fore/aft) | ■ |
| Impact absorbing wrap around bumpers  | ■ |
| Anti-lock braking system              | ■ |
| Four wheel disc brakes                | ■ |
| Limited slip differential             | ■ |
| Comprehensive tool kit in boot        | ■ |
| Cruise control                        | ■ |
| 3 speed automatic transmission        | ■ |

#### EXTERIOR TRIM

|                                       |   |
|---------------------------------------|---|
| Solid or metallic paint               | ■ |
| Twin styled halogen headlamps         | ■ |
| Two tone coachlines                   | ■ |
| *Sports alloy wheels                  | △ |
| Starfish alloy wheels                 | ■ |
| Lockable fuel filler                  | ■ |
| Power operated lined convertible hood | ■ |
| Frameless door glass                  | ■ |
| Glass rear window                     | ■ |
| Front fog lamps                       | ■ |
| Direct glazed windscreen              | ■ |

#### INTERIOR TRIM

|  |   |
|--|---|
| Herringbone tweed cloth seat centre panels | △ |
| Leather seat trim                          | ■ |
| Leather trimmed console                    | ■ |
| Leather trimmed door armrests              | ■ |
| Burr walnut veneer fascia                  | ■ |
| Burr walnut veneer centre console insert   | ■ |
| Burr walnut veneer door inserts with inlay | ■ |
| Lockable glove box with vanity mirror      | ■ |
| Lockable rear stowage box                  | ■ |
| Hood cover and stowage bag                 | ■ |
| Stainless steel treadplates                | ■ |

#### INTERIOR FEATURES — ELECTRICS

|  |   |
|--|---|
| Laminated windscreen   | ■ |
| Tinted glass   | ■ |
| Central door and boot locking  | ■ |
| Electric front windows   | ■ |
| Electric rear quarter windows  | ■ |
| Heated rear window with timer  | ■ |
| Courtesy light delay   | ■ |
| Two speed windscreen wipers with intermittent and flick wipe                         | ■ |
| Electric windscreen washers with heated jets   | ■ |
| Boot light   | ■ |
| Kerb illumination lamps on doors   | ■ |
| Electrically adjustable heated door mirrors  | ■ |
| Fully reclining sports style front seats with head restraints                        | ■ |
| Heated front seats with electric lumbar support                                      | ■ |
| Air conditioning   | ■ |
| Inertia reel front seat belts  | ■ |
| Headlamp wash/wipe with heated jets  | ■ |
| Trip computer  | ■ |
| Removable electronic stereo radio/cassette with Dolby noise reduction and 4 speakers | ■ |
| Electric aerial  | ■ |

■ Standard △ Optional at no cost

\*Fitted with 235 x 60VR15 tyres. Turning circle is 42.7 ft between kerbs in this condition.





# I/N/F/O/R/M/A/T/I/O/N

EMBARGO: NOT FOR PUBLICATION BEFORE  
27TH APRIL 1988

## XJ-S V12 CONVERTIBLE

### THE JAGUAR XJ-S V12 CONVERTIBLE REFINEMENT, LUXURY AND PERFORMANCE

Jaguar's new V-12 powered XJ-S Convertible goes on sale in the United Kingdom today (Wednesday April 27). The new car, which was previewed at the recent Geneva Motor Show, is one of the world's fastest and most refined open topped cars.

It is the fourth generation of exclusive, exciting convertibles produced by the Coventry based luxury car manufacturer. The tradition started with the SS100 in 1936 and continued with the XK Series of convertibles in the forties and fifties and found perhaps its most sensuous expression in the E-type roadster, which ceased production in 1974.

The tradition is continued in the XJ-S Convertible. It is fast, it is refined, its interior appointments are luxurious and, unlike its three famous predecessors, it has a fully power operated hood which can be raised and lowered at the touch of a button. Unlike many Convertibles, it also has a heated and tinted glass rear window.

Jaguar expects to sell around 4,000 XJ-S Convertibles during 1988 - with over 80 per cent destined for export markets. Over half this year's production is destined for the United States. Sales next year are expected to significantly exceed 5,000 units - expanding the market for the XJ-S range to a record 12,000 sales.

The XJ-S Convertible is introduced following a three year development programme by Jaguar engineers. Once the design parameters for the car had been established Jaguar adopted a new and progressive Project Team management technique to take the car from the drawing board through to the public launch.

"Our objective was to produce a world class Convertible and we believed that by adopting a project team approach we would be able to co-ordinate all the major Company functions involved in bringing this very important new car to the marketplace", said Sir John Egan, Jaguar's Chairman and Chief Executive.

Utilising this cohesive approach the 12 man team, headed by Manufacturing Executive Ken Giles, co-ordinated relevant Jaguar resources and the external suppliers who were contracted to support the programme. The team also liaised with Karmann who, with their acknowledged expertise in convertible manufacture, co-operated in the design of the press tooling and assembly jig manufacture.

The entire body structure - which is based on the XJ-S Coupe underframe - has been re-engineered to optimise vehicle refinement. Over one hundred and fifty body pressings - one third of the pressings in the vehicle - are either new or modified.

Additionally the Convertible shell has been strengthened around the transmission tunnel, front and rear bulkheads and rear floor area. Steel tubes in the inner sills and 'A' posts further optimise torsional rigidity.

The XJ-S Convertible is powered by Jaguar's 291 BHP/217kW 5.3 litre V-12 engine (non-catalyst form), which delivers outstanding performance and relaxed and effortless high speed cruising. The 150 mph(240 kph) top speed - just one mph(1.6 kph) slower than its coupe stablemate - demonstrates how effectively Jaguar engineers have addressed the question of vehicle aerodynamics.

Anti-lock braking is, of course, standard.

Interior fittings are luxurious and comprehensive. Top quality hides cover the anatomically designed seats. Burr walnut veneer is used extensively on the fascia panel, on the door cappings, where it has intricate matchwood inlays, and on the console.

Air conditioning is standard and the padded and lined hood ensures that the chosen temperature can be maintained regardless of outside conditions. Seat heating and electrically adjusted lumbar support are among the wide range of standard features.





# *I/N/F/O/R/M/A/T/I/O/N*

## XJ-S V12 CONVERTIBLE

### MARKETING

#### OPPORTUNITY FOR FURTHER XJ-S SALES GROWTH

The new XJ-S V12 Convertible is Jaguar's first fully open top car since the 'E' type ceased production in 1974. It replaces the XJ-S Cabriolet range and is expected to generate significant incremental sales.

"The XJ-S Cabriolet has been a successful concept for us", said Roger Putnam, Jaguar's Director of Sales and Marketing. "Last year we sold almost 2000 worldwide. A fully convertible XJ-S with a power operated hood however does represent a significantly greater sales opportunity and we expect to sell around 4000 of the new car this year and well in excess of 5000 next year. It's going to be a very desirable motor car; it's beautiful, it's fast, it's refined and it is very much in the tradition of the great Jaguar open-top cars".

Over 80% of production will be exported. The USA will be the largest single market, eventually accounting for 55% of worldwide sales. The United Kingdom, Canada, W. Germany, Japan and Australia will also be key markets for the new car, collectively taking a further 35% world sales. Around 600 convertibles should be sold this year in the UK, rising to 1000 next year.

Last year about 100,000 luxury sports cars were sold around the world with the USA accounting for approximately 70,000 of them. GM's Corvette and Porsche 944 and 911 ranges accounted for over 60% USA sales. W Germany and the UK are the next most significant luxury sports car markets with 12,000 and 7,000 sales respectively.



The main competitors for the new car will, of course, be other convertibles in the luxury sector, primarily the Mercedes SL and Porsche 911 Cabriolet. In the USA GM's Cadillac Allante and Corvette convertibles are also major competitors. The Mercedes SL is, however, seen as its closest rival. Last year 19,500 SL's were produced, 12,000 of which were sold in the USA, underlining the scale of the opportunity for Jaguar's new contender.

The 150 mph(240 kph) newcomer is launched at a time of record breaking sales for the XJ-S range. Last year almost 10,000 were sold worldwide. This represents a dramatic turnaround from the 1,200 sales achieved in 1981.

Roger Putnam added:

"The newly structured range of XJ-S 3.6 and V12 coupes together with the new V12 convertible will push worldwide range sales well beyond 12,000 in 1989 and the potential is there for considerably more".

#### COHESIVE MARKETING STRATEGY

During the early design phases, Marketing staff worked closely with Styling and the Convertible Project Team to ensure that the basic design had that special Jaguar quality of 'desirability'. Market research studies, including customer clinics were used to confirm the vehicle's appeal and identify the likely buyer groups.

Stephen Perrin, Marketing Director, believes that customer research has played an important role in achieving an integrated Marketing strategy which links product development and advertising:

"We knew what image we wanted to convey with the new car. A new Jaguar Convertible had to suggest glamour, performance, prestige, exclusivity and classic elegance. Our research data confirmed that the final design did have these qualities and the advertising style we have adopted reflects this".

The research also highlighted the target buyers. Aside from being affluent, the likely customers around the world will probably share other attributes as Stephen Perrin explains:

"They are ambitious, successful entrepreneurs and professionals, international in outlook and cosmopolitan in taste. They enjoy driving and are style or image conscious. In the UK our buyers will probably be over 35 with an annual income in excess of £35 - 40,000. In the USA they will be an equal mix of men and women. We do expect the car to have a high percentage of female owners there and in other markets too".

#### XJ-S V12 CONVERTIBLE - LUXURY GRAND TOURER

In keeping with Jaguar's tradition, the new Convertible is a very well equipped luxury grand tourer, offering exceptional value for money, with a large number of attractive features fitted as standard equipment. These include ABS, air conditioning, the electrically operated hood, heated and tinted glass rear window, heated front seats, electric lumbar support, leather upholstery, burr walnut fascia, door and centre console inserts as well as a fully removable electronic stereo radio/cassette unit to aid security. Many of these are fitted as extra cost options on rival models.

The Convertible is powered by the renowned Jaguar 5.3 V12 engine developing 291 BHP/217 kW in non-catalyst form (260 BHP/194 kW in catalyst form).

Maximum speed for the non-catalyst version is 150 mph/241 kph, just 1 mph(1.6 kph) short of the V12 coupe version, which is a tribute to Engineering's efforts in designing an aerodynamically efficient convertible. The new car will reach 60 mph (96 kph) from rest in just 7.9 seconds, only 0.3 seconds slower than the coupe. The maximum speed for a catalyst equipped convertible is 144 mph/231 kph; the 0 - 60 (0-96 kph) time is 8.7 seconds.

**FOR FURTHER INFORMATION: *Communications & Public Affairs***  
**0203 402121**





# *I/N/F/O/R/M/A/T/I/O/N*

## XJ-S V12 CONVERTIBLE

### THE PROJECT TEAM

The XJ-S Convertible development project presented Jaguar with a practical opportunity to apply new and progressive management techniques. The Company had been considering new approaches to product development and a 'Project Team' approach was felt to be ideal for taking the embryonic car through to launch.

A senior Manufacturing executive, Ken Giles, was appointed to head a project team in May 1985. The 12 man team was drawn from almost all company functions including Engineering Design and Development, Timing, Quality, Purchasing, Manufacturing, Finance and Sales and Marketing. Ken Giles recalls:

"The Chairman's brief to us was typically straightforward - he wanted a world class convertible, we had to have a saleable vehicle on our stand at the 1988 Geneva Show and be able to start selling cars in the UK and Europe by May 1988".

This involved the team in co-ordinating their own efforts, relevant departmental resources within the company and external suppliers contracted to support the programme.

Meeting weekly, the team's first task was to finalise the design concept. The Structural Dynamics Research Corporation (SDRC) was appointed to assist the structural design and vibration development to optimise ride refinement.

Karmann of West Germany with its acknowledged expertise in convertible vehicle manufacture were enlisted to design the hood, new press tooling and assembly jigs.

There were to be three stages of prototype build prior to pre-production, all of which were supervised closely by the project team. Concept vehicles were prepared to the design intent for initial aerodynamics and structural appraisal followed by semi-engineered prototypes (SEPs), one of which was used as an early ride and drive sign off car by the Board.

Karmann was called upon again to build fully engineered prototypes (FEPs) which were used to complete the bulk of the engineering development programme. Jaguar Project Team members, based in Karmann, managed this process.

By January 1987 Ken Giles and the team were ready for a full 'Methods Build', which is the static assembly of complete vehicles using approved off-tool samples to ensure their fit and function as well as the validity of the processes. This exercise was complete by March 1987, one year before the proposed Geneva preview.

At Browns Lane, a new installation had been constructed at a cost of £2 million to build pre-production vehicles. This facility which has now been adopted as a 'manufacturing test bed' for all new programmes, allows operators to be trained in small groups and enables process engineers to experiment with new production techniques away from the demands of the main car assembly tracks.

By Autumn 1987, the time had come for the project team to evaluate its own work. A full 'ride and drive' appraisal was arranged and in November the team took vehicles from pre-production and tested them at the MIRA proving ground facility and on local road routes. Having satisfied themselves on the essential issues of ride quality, body stiffness, hood operation, wind noise and waterproofing, the team invited Sir John Egan and the Board to carry out exactly the same appraisal. They did so and approved the team's request to move to pilot production.



In parallel, the Sales & Marketing function began to implement their launch plans in earnest, involving the Project Team fully in the worldwide preview activities planned for the new Convertible.

As the 12 man project team visited the Geneva Motor Show for their car's preview in March, volume production was beginning at the Company's Browns Lane Assembly Plant. They had achieved their objective.

Throughout the development of the project, the accent had been on teamwork and a total commitment to the objective. In addition to the detailed monitoring of progress on a weekly basis, the group also held periodic informal meetings to discuss progress and interaction away from Browns Lane. Senior Training staff were always on hand at these sessions to help maximise the effectiveness of the group.

Ken Edwards, Jaguar's Director of Personnel and Company Secretary, comments:

"The multi-functional Project Team approach has proved itself within Jaguar. The Convertible Project Team brought a co-ordinated, multi-disciplinary approach to the development of the car. In addition to the significant benefit to the Company, the individuals involved acquired a much broader understanding of the business. This cross fertilisation between team members has been a key to this project's success and the team concept is now being used on other Jaguar projects".



# *I/N/F/O/R/M/A/T/I/O/N*

## XJ-S V12 CONVERTIBLE

### THE DESIGN AND DEVELOPMENT STORY

#### PRODUCT DEVELOPMENT ON XJ-S

The new convertible represents the most significant of the recent product actions implemented on the XJ-S range. Last year the 6 cylinder coupe benefitted from the 4 speed automatic transmission and engine management system developed for the new XJ6 range. A new sports suspension was developed for 3.6 versions with new alloy wheels and lower profile Pirelli P600 tyres.

Both 6 cylinder and V12 versions were fitted with new sports style seats and steering wheel to improve driver comfort and sports appeal.

Earlier this year Jaguar announced the fitment of Teves anti-lock brakes as standard equipment across the range. The availability of a convertible version confirms that XJ-S will continue to feature prominently in Jaguar's forward product plans.

Jaguar's engineers are working to a very busy forward product plan. With this in mind the Company decided to outsource some convertible design and development work under the control of the dedicated Jaguar Project Management team.

Karmann of West Germany were selected as the most suitable company due to their extensive experience on similar projects and their high reputation in this field.



## THE DESIGN IN DETAIL

### A NEW BODY SHELL

The new XJ-S Convertible has a new body shell based on an XJ-S Coupe underframe. There are 108 new panels and 48 modified panels. The main areas affected are the rear wings, rear saddle panel immediately behind the hood, the windscreen panel, header and 'A' posts and the doors which are frameless, allowing deletion of the quarter lights. The direct glazed front windscreen has a thickness of 5.0 mm compared to 6.35 mm on the current coupe.

The Convertible shell has been strengthened around the transmission tunnel, front and rear bulkheads and rear floor area. In addition, steel tubes have been located within the inner sills and 'A' posts in order to optimise torsional rigidity.

A great deal of development work has taken place to ensure the very highest standards of ride quality and comfort for occupants. This involved the Jaguar Engineering Team, led by Jim Randle, Director of Product Engineering, in work on three main areas:-

Firstly, dynamic finite element modelling, using sophisticated computer programmes was applied to predict the shake behaviour of the complete vehicle, including all running gear and mountings.

Secondly, tests were carried out to establish the vehicle's response to vibration inputs over the frequency range 5-30Hz in a laboratory using a dedicated piece of vibration equipment known as a "paddle rig".

Thirdly, development FEPs (fully engineered prototypes) were tested on varied road surfaces to examine the interaction of mounts and the effect on noise isolation. This was conducted in Phoenix, Arizona and involved testing 30 combinations of mounting rubbers on test vehicles. Each combination was assessed for shake and internal noise levels. This development work resulted in a reduction of 40% in peak response at the body resonant frequency versus the original undeveloped prototype.

The whole package of actions, the structural strengthening and the optimised settings for engine, front and rear crossbeam and suspension mounts achieves excellent resistance to body shake as Jim Randle makes clear:

"Convertibles pose obvious problems for the car designer - how to achieve a very high standard of dynamic refinement with minimal body vibration and deflection over varying surfaces without the aid of the rigidity provided by a roof. We examined this issue more rigorously than many because we believe all Jaguars should have good chassis refinement. The Engineering and Project teams had as their objective, the production of a world class convertible. I believe we have achieved that".

#### THE HOOD

The electrically operated hood represents not only a very elegant design solution but also a very practical one. The hood is of the highest quality and is internally stuffed and fully lined. Its tinted and heated glass rear window ensures excellent 'hood up' appearance as well as offering the obvious demisting, security and durability advantages over the more commonly used plastic rear windows.

The entire assembly, including the rear quarter windows, will lower in 12 seconds by the operation of a single rocker switch on the centre console, once unlatched by a lever at the top of each 'A' post.

The hood motor and hydraulic pump are situated on one side of the rear stowage compartment, completely out of view. A padded fabric hood cover is part of the standard specification to ensure an attractive appearance when the hood is fully retracted.

The hood itself has undergone a severe rig test cycle. Jaguar's test standard of 8,000 cycles, or one hood operation a day for 22 years is believed to be considerably more stringent than those of competitors.



### ADDITIONAL ENVIRONMENTAL TESTING

In addition to the hood development work a comprehensive proving programme including crash tests, and hot and cold climate durability mileage testing has taken place.

The frameless door glass design has been through a particularly tough test programme. A rig test slams each door 100,000 times both by pushing the door itself and by pushing the unsupported door glass. This equates to 8 times per day for 34 years!

### TEVES ANTI-LOCK BRAKES

The new Convertible also features the Teves ABS system as standard. Operating on the Girling four wheel disc brakes fitted to XJ-S models, the Teves anti-lock actuation system has a hydraulic power boost operated from an electric pump mounted on the body. Like the ABS fitted on Jaguar's XJ-6 range the XJ-S Teves system has the added refinement of 'yaw' control. This allows the system to differentiate between, and compensate for, differing road surfaces under near and offside wheels.

The ECU features a self-checking facility which detects whether or not the system is working properly alerting the driver through a warning light on the fascia.

### WEIGHT, AERODYNAMICS AND PERFORMANCE

The kerb weight of a UK specification XJ-S Convertible is 1900 kg compared to 1800 kg for the V12 coupe. The weight increase of 100 kg is accounted for by the strengthening of the body structure and the incorporation of the hood motor and operating mechanism and the rear quarter window motor-regulator assemblies.

The new car has a drag coefficient of 0.39 against a figure of 0.38 for the coupe. Effective sealing around the windows, the incorporation of a direct glazed windscreen and deletion of the front quarter windows have all helped to reduce the aerodynamic penalty. This in turn has minimised the performance fall-off with the Convertible's 150 mph/241kph (non catalyst) maximum speed only 1 mph(1.6 kph) short of the coupe's maximum. The Convertible is only 0.3 seconds slower from 0-60 mph(0-96 kph).

Apart from its high maximum speed, the new car displays the benefits of Jaguar's V12 engine in terms of its smooth power delivery. Peak torque of 317 lb ft (430 Nm) is achieved at a very low engine speed of 3000 rpm making it a very good top gear accelerator at low speeds.





# *I/N/F/O/R/M/A/T/I/O/N*

## XJ-S V12 CONVERTIBLE

### MANUFACTURING OPERATIONS

#### NEW FACILITIES AND PROCESSES FOR CONVERTIBLE

The introduction of the new car has involved new Body in White press tooling to produce the 108 new and 48 modified panels. This total of 156 panels represents about a third of the total panel count. Tooling for the completely new panels was produced by Karmann and for the modified panels by the Rover Group at Swindon.

New assembly tooling has been designed by Karmann, including the production of an Automated Guided Vehicle (AGV) system. This AGV assembly facility was installed at Jaguar's Castle Bromwich, Birmingham, plant at a cost of £3.6 million. It consists of unique build stations for various sections of body build with pneumatic clamping to maintain accuracy. The AGVs move body shells from one station to another by following a wire concealed in the factory floor. A scissor lift system on the AGV allows the working height of the body to be altered to suit a particular welding operation.

Checking fixtures were also specially installed to ensure consistency in body build.

The hood obviously requires special assembly stages at Browns Lane. It starts as a very strong frame which is assembled in the Trim Shop, on a dedicated buck. This buck accurately represents the cockpit of the car. Tension straps and padding are then added, and the high quality fabric cover is stretched over the frame. Three colours are available, Black, Blue and Brown to co-ordinate with our colour and trim range.

The header rail is finished off and then the detail brackets, handles and seal carriers are added.

The interior of the hood is finished in standard limestone headlining material as used on the coupe. The hood moves from the Trim Shop to the main assembly area. With the hood in position and bolted to the car, the hydraulic system can be connected. The glass rear screen, with its heater element, is fitted on line giving an attractive flush fitted appearance.