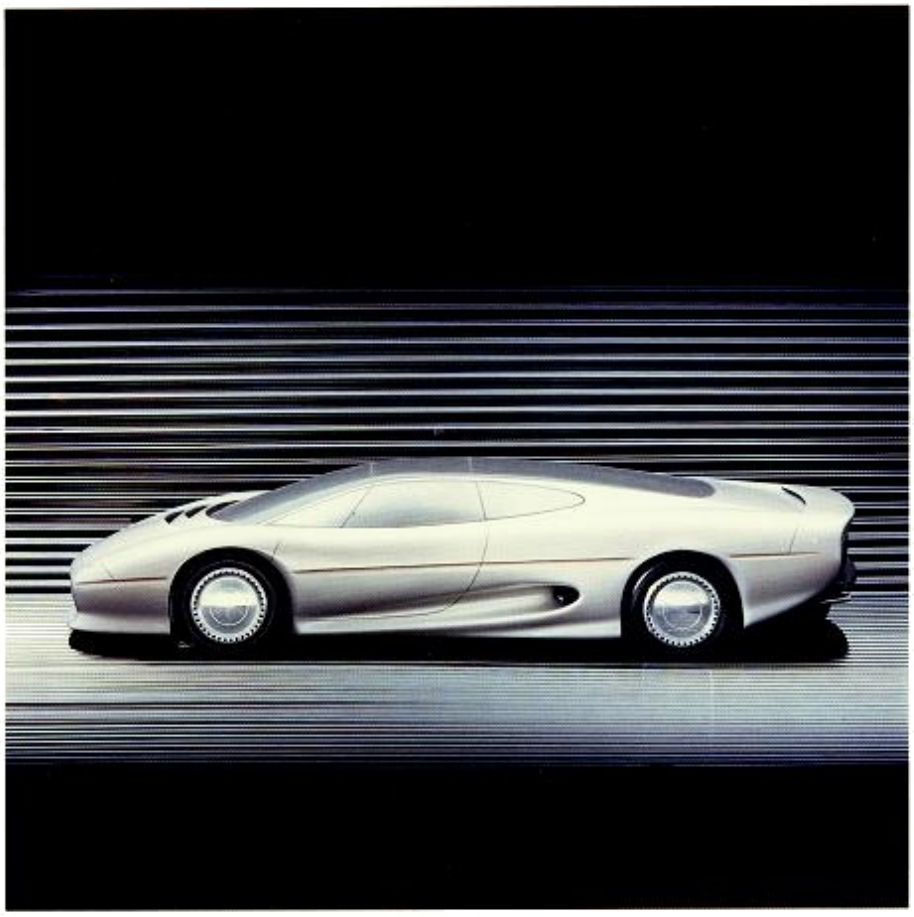
JAGUAR



XJ 220

JAGUAR

INFORMATION

Communications & Public Affairs Dept.,
Jaguar plc, Browns Lane, Allesley, Coventry CV5 9DR. Telephone (0203) 402121 Telex 31622

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JAGUAR UNLEASHES XJ 220 SUPERCAR

On the eve of the Birmingham International Motor Show Jaguar unveils a stunning prototype sports car which is sure to excite motoring enthusiasts everywhere.

The car, codenamed XJ 220, was conceived originally as a design exercise for a small team of Jaguar engineers. As the project progressed considerable support was given by several of the Company's suppliers and many of the Whitley-based Jaguar engineering team gave up their own time to ensure the car was ready for display at Birmingham.

Jaguar itself has no plans to produce the car and no orders are being accepted for it. The project will now be handed over to JaguarSport Ltd. who will review public reaction and assess the commercial viability of the project. Even limited production of such a vehicle would not be possible until the early 1990's.

The mid-engined, all wheel drive, two-seater is powered by a 6.2 litre, 48 valve version of Jaguar's production V12, generating over 500 BHP and giving a predicted maximum speed of over 200 MPH. XJ 220 is designed to accelerate from rest to 100 MPH in 8 seconds.

The XJ 220 body style is boldly contemporary and distinctively Jaguar. The flowing lines are clearly reminiscent of the great Jaguar sports car designs of the past.

Sir John Egan, Jaguar's Chairman and Chief Executive, commented:

"I am absolutely delighted that the prototype was completed in time for the Birmingham Show. It is a fitting venue for us to demonstrate to the world what Jaguar stylists and engineers are capable of when they turn their attention to future concept design.

"I think the XJ 220 prototype is quite simply a beautiful sports car and we are very proud of it. We will now hand the project over to JaguarSport Ltd. who will carefully evaluate its future potential."

The body consists of a unitary frame or 'tub', constructed in bonded aluminium to achieve high strength and lower weight. A steel roll cage is incorporated within the 'tub'. The outer body panels are also made of aluminium. The material specification and bonding process have been developed in secret with the Aluminium Structured Vehicle Division of Alcan.

XJ 220 features a very large surface area of glass. There is tinted and laminated flush glazing to the windscreen, side glasses and roof panels.

The doors swing up 'butterfly' style to ease entry and exit. A switch on the fascia provides powered door closing.

At the rear of the car there is an adjustable rear wing, enabling adjustment of the balance of downforce. This is controlled by a switch on the main fascia. Aerodynamic efficiency is also aided by the completely smooth underbody.

The 6222cc engine is based on Jaguar's production V12, but features 4 valves per cylinder, double overhead camshafts per bank, enlarged bore and stroke, titanium con rods and dry sump lubrication among the many modifications from standard.

The four-wheel-drive system is the result of a close collaborative effort between Jaguar engineers and FF Developments who carried out the detail design work and whose viscous control units are employed in the centre, rear and front differentials.

A unique design has been adopted so that the power unit and the drive shaft to the front can lie on the centre line of the car. This provides the advantages of a more even lateral weight distribution and minimises the number of power-consuming universal joints in the driveline.

The suspension design is heavily biased towards racing car principles in view of the vehicle's performance capabilities. Both front and rear suspensions follow conventional Double Wishbone practice with the details adapted to suit four-wheel-drive and potentially, rear wheel steer systems.

The foundation brakes incorporate ventilated discs front and rear, using differential bore A.P. Racing calipers mounted outboard. The brake power boost and integrated ABS systems have been specifically designed for the high performance four-wheel-drive layout.

XJ 220's interior has a bold wraparound theme in sympathy with the exterior styling, which envelops the occupants in two cockpits. The aim has been to produce an interior that is ergonomically sound from the driver's viewpoint and also typically Jaguar in terms of its appearance and the quality of materials used.

Leather is used extensively throughout. Leather trim is used on the seats, fascia, intrument binnacle, door casings, door pockets, grab handles, armrests, centre tunnel saddle and door sill exit pads.

The trimming of the car was completed by Callow & Maddox using a particularly soft grade of hide from Conolly Brothers.

XJ 220 is also extensively equipped. The car features heated front and rear screens, air conditioning, electric windows, infra red remote central locking, electrically heated seats with electric Lumbar support, a C D player with graphic equaliser and five position tilt steering column.

Instrumentation is comprehensive and the preference has been for analogue gauges to give vital information. The intruments are a modular type made by Veglia and were chosen to enhance the 'cockpit' design of the main binnacle. Particular attention was paid to the amber graphics to give a precise 'engineered' appearance whilst being absolutely clear and simple to read at very high speed.

The instrument binnacle extends to the drivers' door and incorporates gauges covering fuel pressure, fuel contents and gearbox temperature. The main instrument pack includes gauges covering oil pressure, oil temperature, water temperature and volt meter.

XJ 220 is the result of a three and a half year development plan. It was originally conceived by Jim Randle, Jaguar's Director Product Engineering, as a Group B road racing concept in early 1985. A group of twelve Jaguar designers and engineers volunteered to work on the project in their own time. Once Jim Randle had established the parameters of a four-wheel-drive, mid engined, ground effects road car, the team developed styling proposals. By early 1987, the basic style had been finalised and the decision to move from 1/4 scale model to full prototype was taken.

At this point, work started in earnest on a possible show car prototype with tremendous contributions coming from a committed group of Jaguar suppliers.

Park Sheet Metal, who are a specialist body engineering company, based in Coventry, had the key responsibility of fabricating the body structure and panels under guidance from the Jaguar Project Team.

Similar contributions were made by F.F. Developments, Triplex, Alcan and Callow & Maddox.

Jim Randle sums up his views as follows:

"With XJ 220 we set out to create a Jaguar. We think the car maintains Jaguar's styling heritage yet has the modernity to stand comparison with design concepts from the world's finest styling houses."

"We have had tremendous support from all our suppliers in bringing this idea to fruition. I think it demonstrates once again just how much specialist engineering skill there is in the Midlands, traditionally the heart of the British Motor Industry."

FOR FURTHER INFORMATION: Communications & Public Affairs
(0203) 402121

XJ 220 SPECIFICATION OUTLINE

ENGINE:	V12 aluminium alloy cylinder head and block. Twin overhead camshafts per bank, 4 valves per cylinder.
DISPLACEMENT:	92mm bore x 78mm stroke. 6222cc capacity.
COMPRESSION RATIO:	10 : 1
MAXIMUM POWER:	Over 500 hp @ 7000 rpm.
MAXIMUM TORQUE:	Over 400 lb.ft. @ 5000 rpm.
FUEL SYSTEM:	Multi point sequentially injected electronic.
IGNITION SYSTEM:	On plug coils - distributor-less.
GEARBOX/TRANSAXLE/ TRANSFER BOX:	5 speed 2 shaft gearbox all indirect Dog engaged on prototype - synchromesh available Integral Epicyclic centre differential with viscous control unit

Ratios:		
	1st	3.000
	2nd	1.941
	3rd	1.450
	4th	1.130
	5th	0.923 (prototype)

Hypoid rear final drive with negative offset, and viscous control unit.
Axle ratio 2.88:1

FRONT AXLE:	Aluminium cased negative hypoid offset Optional viscous control unit Axle ratio 2.73:1
TORQUE SPLIT:	69.1% rear 30.9% front
CLUTCH:	Twin plate 7 1/4" dia pull clutch
BRAKING SYSTEM:	4 pot front and rear alloy calipers 42mm x 44mm differential bore size front and rear 330mm x 34mm front discs ventilated outboard 330mm x 34mm rear discs ventilated outboard

BRAKE ACTUATION:	Hydraulic power booster with 4 channel ABS system with separate electrically driven power source
STEERING:	Manual rack and pinion
SUSPENSION FRONT:	Double unequal length transverse links with pushrod and rocker operated overhead spring damper units
SUSPENSION REAR:	Double unequal length transverse links with twin overhead spring damper units bell crank operated by the top links. Steer control by separate 3 link system capable of incorporating a rear wheel steer actuator
WHEELS & TYRES:	295-40-17 on 11" rims ZR rated
AERODYNAMICS:	Drag Cd .38 Down force C1 -1 road .35 -1.5 racing
PERFORMANCE:	Estimated 200+ mph 0 - 60 mph estimated 3.5 seconds 0 - 100 mph estimated 8.0 seconds 0 - 124 mph estimated 12.0 seconds
DIMENSIONS:	Overall length: 5140 mm Overall width: 2000 mm Height: 1150 mm Wheelbase: 2845 mm Weight: 1560 kg Weight Distribution: 30% front 70% rear

XJ 220 STANDARD EQUIPMENT

INTERIOR TRIM:

Leather trimmed reclining sports seats
Leather trimmed fascia
Leather trimmed instrument binnacle
Leather trimmed door casings
Leather trimmed centre tunnel saddle
Leather trimmed rear storage box
Leather trimmed door pockets, grab handles and armrests
Passenger glove box
Lockable storage boxes in each rear wing
4 spoke steering wheel with anatomic rim grip
Roof console with interior lights and map light

INTERIOR FEATURES:

Laminated windscreen, side glasses and roof panel
Tinted flush glass all round including roof panel
Heated front and rear screens
Powered 'butterfly-type' doors
Remote central door locking
2 speed single pantograph type wiper with intermittent/flick wipe
Electric door mirrors
Heated seats with electric lumbar support
Alpine CD player with DNR, 2 x 5 1/4" full range door mounted speakers with 2 tweeters in fascia
Graphic equaliser
5 position tilt steering column

SWITCHGEAR:

Fascia Mounted:

Hazard warning
Heated rear window
Powered door closing
Interior lights
Map light
Rear fog lights
Key ignition with adjacent push button 'start switch'
Electric door mirror switches
Electric lumbar support seat heating on seat side bolster
Power adjustable rear wing controlled by 3 position switch on steering column

INSTRUMENTATION:

Main Pod:

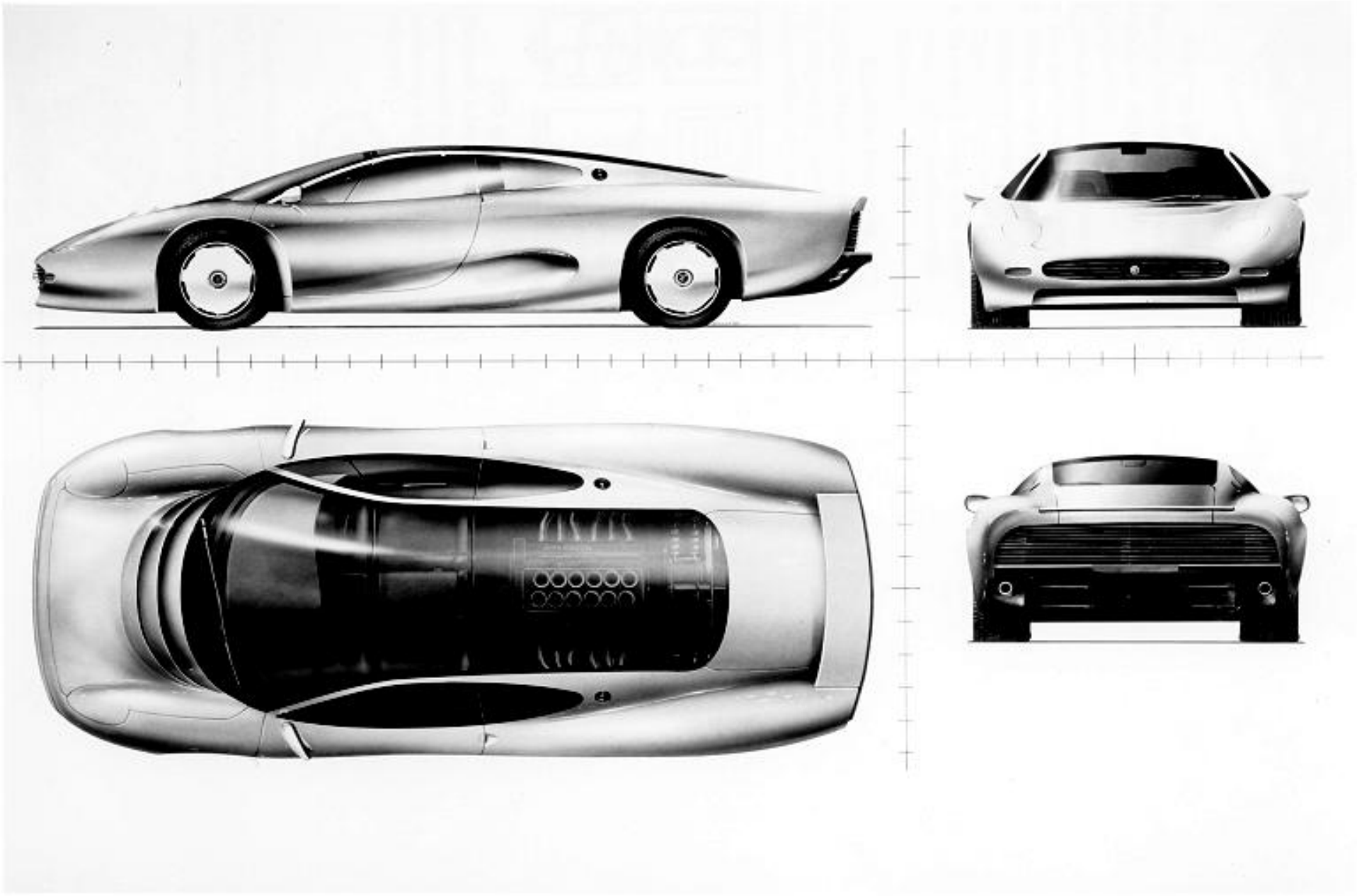
Tachometer
Speedometer
Integral odometer with trip meter
Oil pressure guage
Oil temperature guage
Water temperature guage

Drivers Door Pod:

Fuel pressure
Fuel contents
Gearbox temperature
Clock

XJ 220 – COMPANIES INVOLVED

AB Automotive Electronics
AC Delco
Adwest
Alcan
Alpine
AP Racing
Bendix Safety Products
Boge
Bowden Controls
Callow & Maddox
Clayton Dewandre/
Wabco Automotive Group
Connelly Brothers
Dowty
Dunlop Polymer (Metalastik)
Electrolux
FFD
GKN
Goodrich
Granges
Grundy
Gurit Essex
Hiflex
IMI Marston Palmer
IMI Radiators
INA
Kenilworth Engineering Supplies
Kirsten
MB Fasteners
Momo Spa Milan
Nadella
Park Sheet Metal
Pioneer Weston
Pirelli
Project Aerospace
QCR
Sarginsons
Schlegel UK Ltd.
Silent Bloc
Timkin
Tinsley Bridge
Triplex
TWR
Veglia UK
Wellvil Engineering
Zytek



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JAGUAR XJ 220
concept drawing

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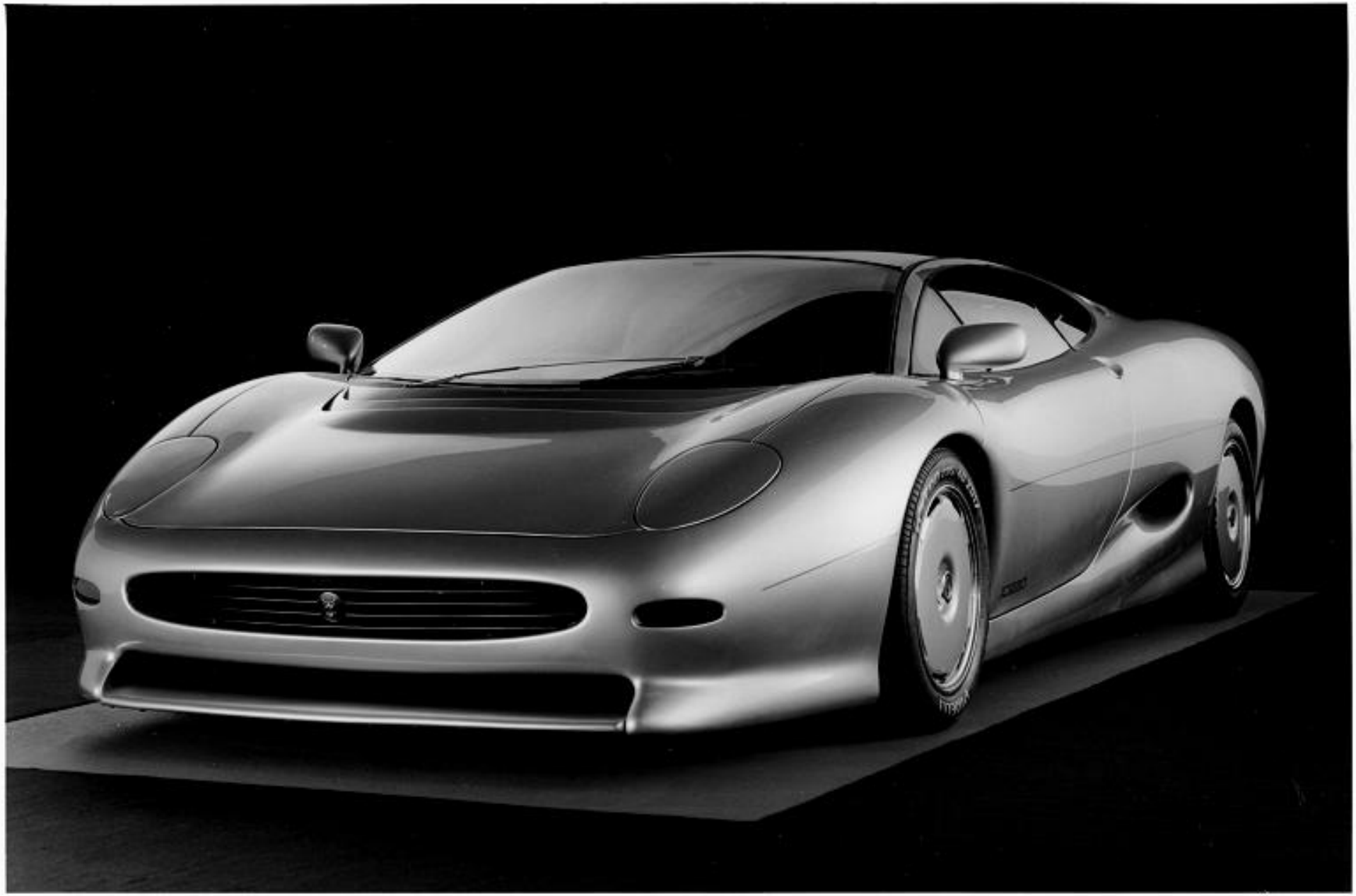

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