# THE MAGNIFICENT WORLD OF JAGUAR.













# XJ12C

Notice the additional air conditioning outlet at the rear of the center console with its own flow controls for the convenience of rear seat passengers. Jaguar's new heating and air conditioning system is a highly sophisticated one. Totally automatic, it thermostatically maintains the temperature you select.





The Jaguar XJ12C (top photo) has an outward appearance of understated elegance. The specially developed Dunlop Series 70 SP Sport steel-belted radial-ply whitewall tires are mounted on chrome turbo-disc wheels as standard equipment.

The power windows are quickly and silently operated from a panel on the center console within easy reach of both driver and passenger. Also notice the master switches that lock both windows and doors.





Beautifully panelled, the doors of the XJ12C include a sculptured arm rest and stowage pocket. Each Jaguar door has a steel "W"-section protective barrier welded into it, designed to exceed all present world legislative requirements.





The spacious XJ12C interior has as much roominess and elegance as the four door XJ6.

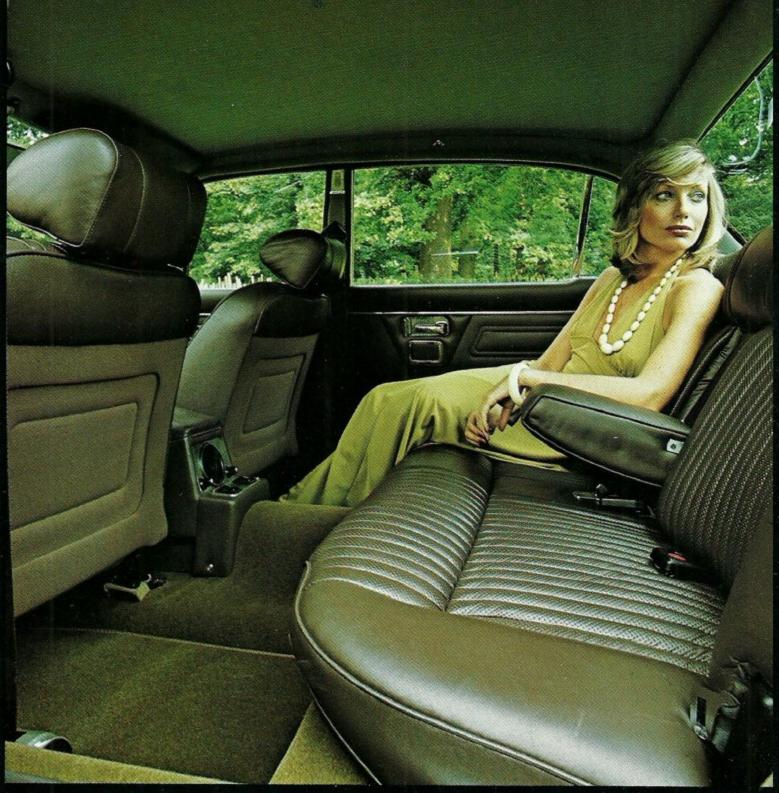
Reclining, leather upholstered front seats are scientifically designed to support you in comfort for hours. The gleaming facia is burled walnut.

The automatic tranmission is standard.

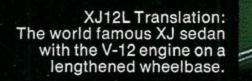
From any view, the XJ12C is a magnificent creature. It takes more than 30 operations to achieve the lustrous finish, including seven coats of paint.



# XJ12L



Amid the ambiance of smooth leather and thick carpeting, the XJ12L rear compartment affords an abundance of room and convenience. The center armrest folds down for armchair comfort and tucks away neatly when additional space is desired.







The luxurious doors of the XJ12L house the speakers for the only option on the car: an AM/FM multiplex four-speaker stereo system.



The standard automatic transmission lever is mounted on the center console. Controls for the standard power windows and power door lock are on the console, convenient for passenger and driver.



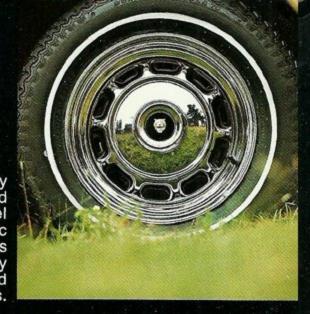
The standard air conditioning is integrated with a new Automatic Temperature Sensing and Control system. The AM/FM stereo receiver (shown) is optional.



The look of Jaguar is unmistakable. Low and lean, the XJ12L gives the distinct impression of movement even when at rest.



Included in the lengthy
list of standard
features are four wheel
power-assisted disc
brakes. Dunlop Series
70 SP Sport radial-ply
whitewall tires and
chrome turbo-disc wheels.

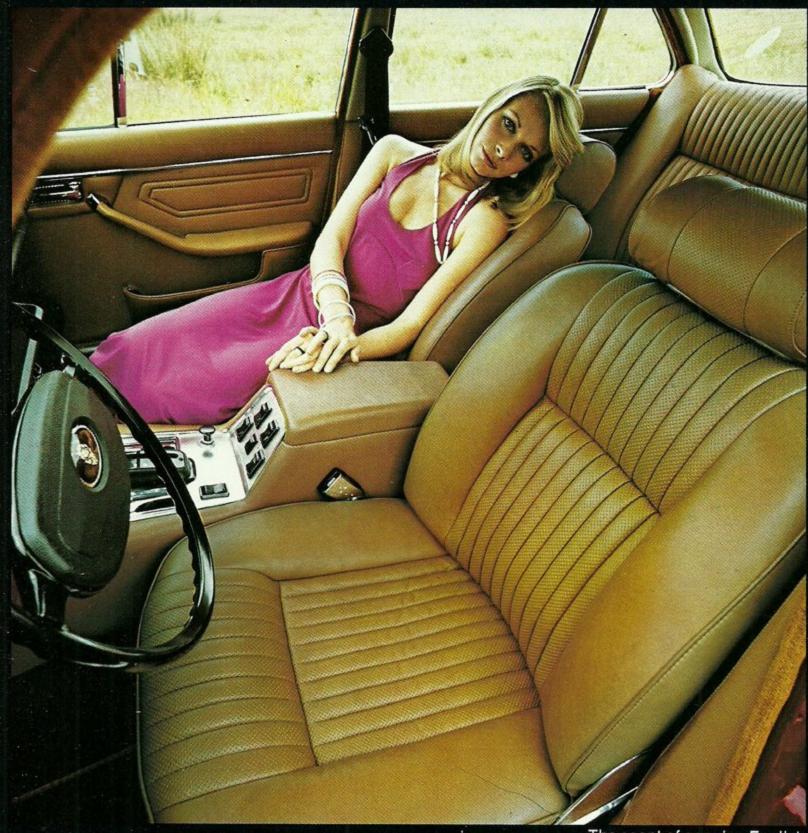


You can distingush the Series
Two XJ6 from the predecessors
by the dramatic new grille.
However, the distinctive low
profile and wide stance of the
Jaguar is unchanged.

The new XJ6 and XJ12 (shown here) instrument cluster is conveniently grouped directly in front of the driver. Stalks on either side of the steering column control turn signals, headlight flashers and windshield wiper-washer. The facia is burled walnut. Fibre-optic cables illuminate the lighting, heating and ignition controls, eliminating the problem of changing inaccessible bulbs.









The scent of genuine English leather pervades the interior of the XJ6. The center console is replete with stowage compartment, power window controls, master door lock and cigarette lighter.

The front seats, finished by hand, are both fully reclining.

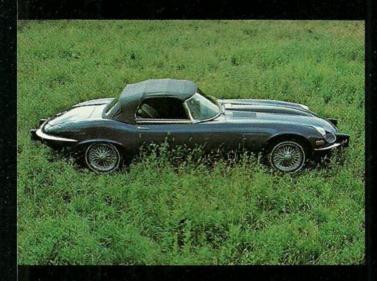
A thoughtful touch! A vanity mirror tucked behind the glove box door in every XJ.















The Jaguar manual choke is precisely calibrated allowing you to control the proper fuel mixture for all conditions. Also shown is a demisting and ventilation system control.



The side-view mirror is adjustable from inside the driver's compartment.



Reclining, thickly upholstered bucket seats are faced with genuine English leather. Padded armrest is also a cover for the convenient stowage compartment.

### JAGUAR XJ12C SEDAN SPECIFICATIONS

 12-cylinder water-cooled aluminum alloy 60-degree "V" with overhead camshafts (1 per bank)
 3-plane, 7-bearing crankshaft Exhaust and evaporative emission control
 Compression Ratio: 7.8:1 • Bore: 3.54 in. • Stroke: 2.76 in. • Stroke/bore ratio: 0.78:1 • Displacement: 5343 c.c. (326 cu. in.) • Ignition: Opus Mark II Electronic system consisting of electronic distributor with rotor arm, amplifier unit, ballast resistance unit and high performance coil • Carburetion: Four Zenith-Stromberg 175CD2SE carburetors (2 per bank) • Fuel Pump: Two S.U. Electric (1 per tank) • Fuel Tank Capacity: Left hand-12 gal. Right hand-12 gal. · Sump Capacity: 10 quarts.

#### TRANSMISSION:

 Borg Warner model 12 three-speed fully automatic with overriding manual control, torque converter • Rear Axle Ratio: 3.31:1 • Overall Gear Ratios: First 7.79:1, Second 4.8:1, Drive 3.31:1, Reverse 6.82:1.

- Rack and pinion, power assisted Adjustable steering column
- Turns-lock to lock: 3.16 Turning circle: 39 feet.

#### SUSPENSION:

 Front: Independent with "anti-dive" geometry incorporating coil springs and monotube dampers and anti-roll bar • Rear: Independent with drive shafts forming upper link, and paired monotube dampers in coil springs.

· Servo-assisted 4-wheel disc brakes with independent circuits to front and rear incorporating a pressure differential warning actuator • Front: 11.18 in. diameter ventilated discs • Rear: 10.38 in. diameter discs mounted inboard.

#### ROAD WHEELS:

· Ventilated chrome disc wheels, 15 in. diameter fitted with Dunlop whitewall 205/70 VR15 SP Sport steel-belted radial-ply tubeless tires.

#### **ELECTRICAL:**

 Negative ground 12-volt system
 Battery Rating: 68 amps at 20 hours • Alternator: 66 amps.

#### **INSTRUMENTS:**

- Speedometer with trip odometer Electric tachometer Manual Choke • Battery condition indicator, oil pressure, water temperature and fuel gauges . Clock . High pressure electrically operated windshield washer with two speed wipers . Brake fluid/handbrake. oil pressure, direction indicator, ignition, seat belts, choke, heated rear window, main beam and emergency flasher warning lights
- Interior courtesy lights operated by both doors Map reading light Luggage compartment light • Heated rear window • Central door and window locking switch.

#### BODY:

 Two-door, all steel. Integral body/chassis construction lock anti-burst door catches . Vinyl covered roof.

#### **HEATING AND VENTILATION:**

 Factory-installed automatic temperature control for heating and air conditioning . Face level and foot level air ducts coupled with "posi-vent" air extraction system provides rapid changes of air Separate outlets and control for the rear compartment speed (high, low, automatic) flow fans.

#### INTERIOR:

 Tinted glass • Fully-reclining leather-faced front seats adjustable for reach and height (with adjustable head restraints); leather-faced rear bench seat . Inertia-reel seat belts, front-one handed operation • Parcel shelf • Console and lockable glove box • Deep pile carpet • Cigarette lighter • Electric power windows Electrically heated rear window • Burled walnut facia.

#### **OPTIONAL EQUIPMENT:**

Solid-state AM/FM multiplex radio with four speakers.

#### MAIN DIMENSIONS:

 Overall length: 194.8 in.
 Overall height: 54.1 in.
 Overall width: 69.75 in. • Wheelbase: 108.8 in. • Track at front: 58 in. • Track at rear 58.6 in. • Ground clearance: 7 in. • Curb weight: 4150 lbs. • Trunk capacity: 17 cu. ft.

XJ12C SCHEDULED FOR AVAILABILITY IN 1974; WILL NOT BE

- Power-assisted four wheel disc brakes. ventilated in front, mounted in-board in the rear
- · Power-assisted rack and pinion steering · Radial-ply whitewall tires (steel belted on XJ12 models)

#### JAGUAR XJ12L SEDAN SPECIFICATIONS

• 12-cylinder water-cooled aluminum alloy 60-degree "V" with overhead camshafts (1 per bank) • 3-plane, 7-bearing crankshaft · Exhaust and evaporative emission control · Compression Ratio: 7.8:1 • Bore: 3.54 in. • Stroke: 2.76 in. • Stroke/bore ratio: 0.78:1 • Displacement: 5343 c.c. (326 cu. in.) • Ignition: Opus

Mark II Electronic system consisting of electronic distributor with rotor arm, amplifier unit, ballast resistance unit and high performance coil . Carburetion: Four Zenith-Stromberg 175CD2SE carburetors (2 per bank) • Fuel Pump: Two S.U. Electric (1 per tank) • Fuel Tank Capacity: Left hand-12 gal. Right hand-12 gal. Sump Capacity: 10 quarts.

#### TRANSMISSION:

 Borg Warner model 12 three-speed fully automatic with overriding manual control, torque converter • Rear Axle Ratio: 3.31:1 • Overall Gear Ratios: First 7.79:1, Second 4.8:1, Drive 3.31:1, Reverse 6.82:1.

Rack and pinion, power assisted • Adjustable steering column

• Turns-lock to lock: 3.16 • Turning circle: 39 feet.

#### SUSPENSION:

· Front: Independent with "anti-dive" geometry incorporating coil springs and monotube dampers and anti-roll bar . Rear: Independent with drive shafts forming upper link, and paired monotube dampers in coil springs.

#### BRAKES:

 Servo-assisted 4-wheel disc brakes with independent circuits to front and rear incorporating a pressure differential warning actuator • Front: 11.18 in. diameter ventilated discs • Rear: 10.38 in. diameter discs mounted inboard.

#### **ROAD WHEELS:**

 Ventilated chrome disc wheels, 15 in. diameter fitted with Dunlop whitewall 205/70 VR15 SP Sport steel-belted radial-ply tubeless tires.

#### ELECTRICAL:

. Negative ground 12-volt system . Battery Rating: 68 amps at 20 hours • Alternator: 66 amps.

#### INSTRUMENTS:

- · Speedometer with trip odometer · Electric tachometer · Manual Choke • Battery condition indicator, oil pressure, water temperature and fuel gauges • Clock • High pressure electrically operated windshield washer with two speed wipers . Brake fluid/handbrake, oil pressure, direction indicator, ignition, seat belts, choke, heated rear window, main beam and emergency flasher warning lights
- · Interior courtesy lights operated by all 4 doors · Map reading light Luggage compartment light • Heated rear window • Central door and window locking switch.

 Four-door, all steel. Integral body/ chassis construction • Positive lock anti-burst door catches with child proof safety catches on rear doors.

#### **HEATING AND VENTILATION:**

· Factory-installed automatic temperature control for heating and air conditioning . Face level and foot level air ducts coupled with "posi-vent" air extraction system provides rapid changes of air

· Separate outlets and control for the rear compartment · Three speed (high, low, automatic) flow fans.

#### INTERIOR:

 Tinted glass • Fully-reclining leather-faced front seats adjustable for reach and height (with adjustable head restraints); leather-faced rear bench seat . Inertia-reel seat belts, front-one handed operation • Parcel shelf • Console and lockable glove box • Deep pile carpet . Cigarette lighter . Electric power windows Electrically heated rear window.

#### OPTIONAL EQUIPMENT:

Solid-state AM/FM multiplex radio with four speakers.

#### MAIN DIMENSIONS:

· Overall length: 198.8 in. · Overall height: 54.1 in. · Overall width: 69.75 in. • Wheelbase: 112.8 in. • Track at front: 58 in. • Track at rear 58.6 in. • Ground clearance: 7 in. • Curb weight: 4208 lbs. • Trunk capacity: 17 cu. ft.

- · Chrome turbo-disc wheels
- · Thermostatically controlled air conditioning
- · "Posi-Vent" ventilation system
- · Electric power windows



#### JAGUAR XJ6 SEDAN SPECIFICATIONS

- · 6-cylinder in-line. Twin overhead camshaft engine with straight port-type cylinder head • 7-bearing crankshaft • Exhaust and evaporative emission control . Compression ratio: 7.5:1
- Bore: 3.625 in. Stroke: 4.17 in. Stroke/bore ratio: 1.15:1 · Displacement: 4235 c.c. (258 cu. in.) · Carburetion: Two Zenith-Stromberg 175CD2SE • Fuel Pumps: Two S.U. Electric • Fuel Tank Capacity: Left hand: 12 gallons. Right hand: 12 gallons • Sump Capacity: 8.75 quarts.

#### TRANSMISSION:

· Borg Warner three-speed fully automatic with torque converter Rear Axle Ratio: 3.31:1
 Overall Gear Ratios: Reverse 6.82:1, 1st 7.79:1, 2nd 4.8:1, Drive 3.31:1.

#### STEERING:

- · Rack and pinion, power assisted · Adjustable steering column
- Turns—lock to lock: 3.33 Turning Circle: 36 feet.

#### SUSPENSION:

. Front: Independent with "anti-dive" geometry, incorporating coil springs and separate dampers and anti-roll bar . Rear: Fully independent with paired coil springs and damper units.

#### BRAKES:

· Power-assisted 4-wheel disc brakes with independent circuits to front and rear incorporating a pressure differential warning actuator • Front: 11.18 in. diameter ventilated discs • Rear: 10.38 in. diameter discs mounted inboard.

#### **ROAD WHEELS:**

· Ventilated chrome disc wheels, 15 in. diameter, fitted with Dunlop whitewall E70VR15 SP Sport radial-ply tubeless tires.

#### ELECTRICAL:

· Negative ground, 12-volt system · Battery Rating: 68 amps at 20 hours • Alternator: 66 amps.

#### INSTRUMENTS:

locking switch.

- Speedometer with trip odometer Electric tachometer Battery condition indicator, oil pressure, water temperature and fuel gauges
- · Clock · High pressure electrically operated windshield washer . Two speed wipers . Brake fluid/hand brake, oil pressure, heated rear window, main beam, direction indicator and emergency flasher, ignition, seat belt warning lights . Interior courtesy and map reading lights • Electrically heated rear window • Central door and window

#### BODY:

 Four-door all-steel. Integral body/frame construction • Positive lock anti-burst door latches with child-proof safety catches on

#### **HEATING AND VENTILATION:**

· Factory-installed automatic temperature control for heating and air conditioning . Flow-through "posi-vent" ventilation system . Three-speed (high, low, automatic) flow fans . Adjustable defroster vents . Footwell ventilation.

#### INTERIOR:

 Tinted glass • Electric power windows • Fully-reclining leather-faced front seats (with adjustable head restraints); rear seats leather-faced . Inertia-reel seat belts . Cigarette lighter with luminous socket . Console and lockable glove box . Deep pile carpet . Parcel shelf.

#### OPTIONAL EQUIPMENT:

Solid-state AM/FM multiplex radio.

#### MAIN DIMENSIONS:

 Overall length: 194.8 in. • Overall height: 54.1 in. • Overall width: 69.75 in. • Wheelbase: 108.8 in. • Track at front: 58 in. • Track at rear: 58.6 in. • Ground clearance: 7 in. • Curb weight: 4005 lbs. · Trunk capacity: 17 cu. ft.

#### **BODY COLORS FOR ALL JAGUAR SEDANS:**

BRITISH RACING GREEN . DARK BLUE . FERN GREY . GREENSAND OLD ENGLISH WHITE . PALE PRIMROSE . SABLE . SIGNAL RED SILVER GREY . REGENCY RED . TURQUOISE COLOR COORDINATED INTERIOR TRIM AVAILABLE.

- Central door and window locking system
- Genuine leather seating surfaces
- Burled walnut facia Automatic transmission



#### JAGUAR E-TYPE, V-12 SPECIFICATIONS

12-cylinder water-cooled aluminum alloy 60-degree "V" with overhead camshafts (1 per bank) • 3-plane, 7-bearing crankshaft
• Exhaust and evaporative emission control • Compression ratio: 7.8:1 • Bore: 3.54 in. • Stroke: 2.76 in. • Stroke/bore ratio: 0.78:1 • Displacement: 5343 c.c. (326 cu. in.) • Ignition: Opus Mark II Electronic System consisting of electronic distributor with timing rotor, amplifier unit, ballast resistance unit and special high performance coil . Carburetion: Four Zenith-Stromberg 175CD2SE carburetors . Fuel Pump: S.U. Electric . Fuel Tank Capacity: 21.7 gallons • Sump Capacity: 11.5 quarts.

#### TRANSMISSION-Manual:

 Four-speed all synchromesh • Clutch: Diaphragm spring-type Borg & Beck 10.5 in. with hydraulic actuation . Limited slip differentia Rear Axle Ratio: 3.31:1
 Overall Gear Ratios: First 10.38:1, Second 6.74:1, Third 4.91:1, Fourth 3.54:1, Reverse 11.92:1.

#### TRANSMISSION-Automatic (Optional):

· Borg Warner Model 12 three-speed fully automatic with torque converter • Limited slip differential • Rear Axle Ratio: 3.31:1 • Overall Gear Ratios: 1st 7.94:1, 2nd 4.8:1, Drive 3.31:1, Reverse 6.62:1.

· Rack and pinion, power assisted. Adjustable steering column Steering Ratio: 18:1 • Turns—lock to lock: 3.5 • Turning Circle:

#### SUSPENSION:

· Front: Independent transverse wishbones with torsion bars. monotube hydraulic shock absorbers, and anti-roll bar. Incorporates 'anti-dive" geometry . Rear: Wishbones with drive shaft forming upper link, radius arms, monotube hydraulic shock absorbers inside coil springs.

#### BRAKES:

 Power-assisted 4-wheel disc brakes incorporating a pressure differential warning actuator • Front: 11.18 in. diameter ventilated discs . Rear: Inboard 10.38 in. diameter solid discs.

· Ventilated chrome disc wheels, 15 in. diameter, fitted with Dunlop E70VR15 SP Sport radial-ply whitewall tires. ELECTRICAL:

· Negative ground, 12-volt system · Battery rating: 68 amps at 20 hours • Alternator: 66 amps.

#### **INSTRUMENTS:**

- · Speedometer with trip odometer · Electric tachometer · Battery condition indicator, oil pressure, water temperature and fuel gauges
- Clock Manual choke High pressure electrically operated windshield washer Brake fluid/hand brake, oil pressure, direction indicator, emergency flasher, choke-control, ignition, fuel level, mainbeam and seat belt warning lights . Door-operated courtesy and map-reading lights. Heater/defroster with two-speed blower.

#### BODY:

· All-steel monocoque construction with separate engine sub-frame

Convertible: 2 passenger. Quick-folding weatherproof top.

#### INTERIOR:

· Semi-reclining bucket seats leather-faced with ambla panels on non-wearing surfaces . Inertia-reel seat belts . Cigarette lighter and ashtray . Console and lockable glove box . Ambla-trimmed interior · Wind screen demister · Fitted carpet.

#### **OPTIONAL EQUIPMENT:**

· Automatic transmission · Factory-installed air conditioning · Solid-state AM/FM multiplex radio · Chrome wire wheels (requires tubed tires) . Tinted glass . Removable hardtop.

#### MAIN DIMENSIONS:

 Overall length: 189.6 in. • Overall height: 48.4 in. • Overall width: 66.06 in. • Wheelbase: 105 in. • Track at front: 54.4 in. • Track at rear: 52.75 in. • Ground clearance (minimum): 5:38 in. • Curb weight: 3375 lbs. . Trunk capacity: 4.75 cu. ft.

#### **BODY COLORS:**

AZURE BLUE • BRITISH RACING GREEN • DARK BLUE • FERN GREY GREENSAND • OLD ENGLISH WHITE • PALE PRIMROSE • SABLE SIGNAL RED • SILVER GREY • REGENCY RED • TURQUOISE COLOR COORDINATED INTERIOR TRIM AVAILABLE.

JAGUAR CARS CONFORM TO U.S. FEDERAL MOTOR VEHICLE SAFETY AND AIR POLLUTION STANDARDS APPLICABLE AT THEIR DATE OF MANUFACTURE.

V-12 ENGINES WILL MEET 1973 CALIFORNIA AND 1974 FEDERAL EMISSIONS STANDARDS.

SPECIFICATIONS AND COLORS SUBJECT TO CHANGE WITHOUT NOTICE.



# Amatomy Jaguar Jaguar

Perhaps more than any other motor car in the world, the Jaguar is essentially the expression of a single man's genius.

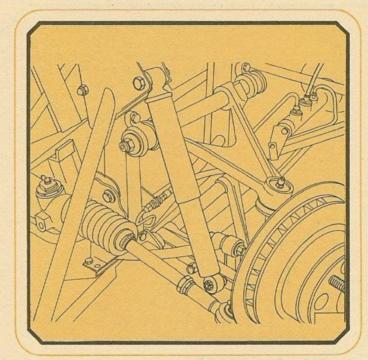
Sir William Lyons.

More than fifty years ago, he founded the company that was to become Jaguar.

From those modest beginnings, the philosophy and principles of Sir William have been embodied in every vehicle the company has produced. Sir William insisted that his motor cars perform their function as road machines with uncommon agility, stamina and safety, yet also provide their owners with an abundance of those elusive qualities of dignity, good taste and "value for money." To him, luxury had to be deep and genuine. And every new Jaguar had to be a worthy successor to the ones that came before.

His sense of styling emerged from his innermost instincts. Indeed, Jaguar has set automotive styling trends in every decade of its existence.

Now Sir William has retired, but the Jaguar motor cars on these pages are his—visual proof of his eminent achievements.



E-type front suspension with "anti-dive" geometry.

# Jaguar Suspensions

The very successful XK-E independent rear suspension, which had been the result of intensive development after the racing days at Le Mans, has been adapted to the XJ sedan.

The rear wheels respond individually to the road surface, enhancing both comfort and control. Road vibrations are further dampened by four Girling telescopic shock absorbers encased in coil springs. The shock absorbers are divided between the two rear wheels, mounted from the transverse link to the rear suspension cross member. In addition, two radius rods are fastened to the body.

The XJ front suspension is the result of an extensive engineering study to determine the precise combination that delivers the stability and smoothness desired. Key to this is the "anti-dive" geometry, also incorporated into the E-type suspension, which counteracts the natural nosediving tendency of a car during braking. In the XJ sedan, this is accomplished by angling the front wishbones.

The front springs, therefore, can be made compatible with a soft ride, yet still deliver firm, sure, high-performance handling characteristics.

An element in the success of the suspension is the selection of the tires. They were developed by Dunlop specifically for the XJ suspension system.

In short, the tires are an integral part of the suspension system, designed to give maximum road grip and outstanding handling. Designated the Dunlop SP Sport Series 70, these low profile radials give superior performance under both dry and wet conditions.

# Steering

The power assisted rack and pinion steering system, standard on both the E-type and XJ sedan, was designed to offer the maximum feel of the road combined with maximum ease of maneuvering.

The main benefit of the rack and pinion design is its handling precision—the reason it is used in many racing cars. However, many systems have a harsh reaction to road surfaces. In Jaguar, this drawback has been all but eliminated by a multijointed steering column and carefully designed rubber mounting.

# Superb handling luxury ride

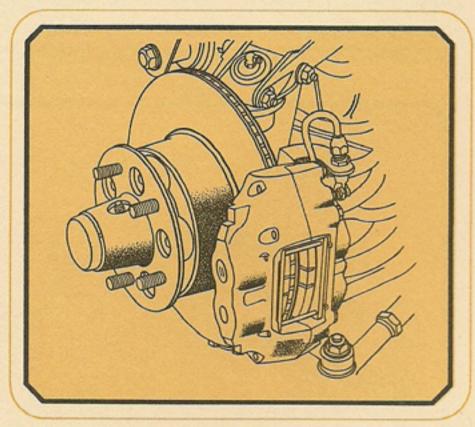
How can superb handling be achieved without sacrificing a quiet, comfortable, lux-ury-car ride? This is the very point where lux-ury cars and performance cars usually part company—or strike some compromising middle ground that fails to satisfy either point of view.

The Jaguar XJ, however, is driving proof that a satisfying combination can be achieved. For it does have superb high-performance handling and it does isolate the passengers from the noise, vibration and harshness of the highway.

The secret: the suspension, engine and steering system are mounted on separate subframes that are insulated from the body proper with carefully tuned rubber mountings. The engine is mounted in such a way that the vibrations must pass through two separate sets of absorbent rubber mountings before reaching the body of the car.

In addition, the entire body is thickly insulated against the outside world.

# Brakes



XJ ventilated front disc brakes.

In 1953, Jaguar won first, second and fourth place at the *Grand Prix d'endurance* 24-Hour Race of Le Mans. The first place Jag set an average speed record of 106 mph.

But that was not Jaguar's most notable achievement of the 1953 Le Mans. For that year Jaguar demonstrated an entirely different development to the automotive world—not going power, but stopping power.

Up against 5.4-litre Cunninghams and 4.5-litre Ferraris, the 3.4-litre Jaguar won because it had a revolutionary kind of braking system—disc brakes.

From the start, the Jaguars excelled at every corner and curve. As the cars took the hump at the end of the Mulsanne Straight, the Jaguars flew towards the harrowing, right-angled Mulsanne Corner, holding off the brakes until the last vital second—a hundred yards beyond the others.

It was a milestone in the design of high speed automobiles. What's more important, however, is that shortly thereafter Jaguar became the *first production car in the world* to equip all four wheels with disc brakes.

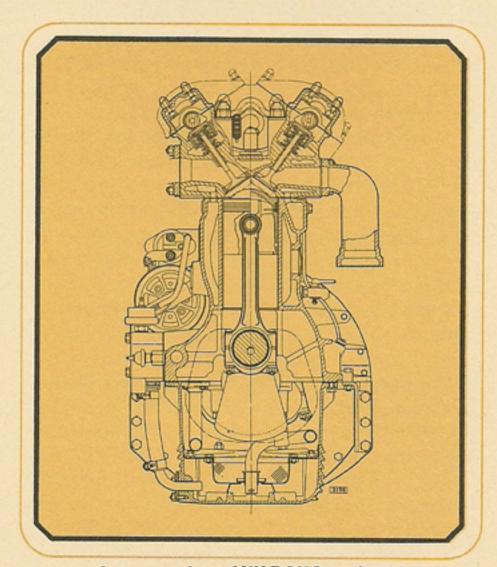
Today's Jaguars have 11-inch disc brakes on the front, ventilated to resist overheating. On the rear, 10-inch disc brakes are mounted inboard to aid stability. The ability to stop quickly and safely is one of the most important properties of any motor car, Jaguar is understandably proud of its pioneering contribution.

# Jaguar Power The unconquerable Six

If any car maker today were to announce a new six cylinder engine with double-over-head camshafts, a three-plane, seven main-bearing crankshaft and hemispherical heads—automotive journalists would respectfully sharpen their pencils and take note.

Any car maker, that is, except Jaguar. Because Jaguar announced such an engine far back in 1948. And while improvements have been constantly added in the ensuing years, the basic engine continues to serve admirably.

Placed in the rarified setting of the XJ6 sedan, the 4.2-litre Jaguar XK engine delivers smooth, quiet performance along with acceleration and top-speed capacity comparable to its contemporaries.



Cut-away view of XK DOHC engine.

# A new dimension of power: the incredible V-12

The first prototype Jaguar V-12 was fitted into a racing carand tested on a track in the Warwickshire countryside in the mid-1960s. The experimental vehicle lapped at 161.5 mph, which is believed to be the highest speed ever achieved for a lap of any circuit in Britain.

However, Jaguar decided not to return to international racing and the V-12 evolution took on a different form.

Jaguar engineers proceeded to develop a V-12 engine that was suited to today's enormous range of driving conditions. One that would perform with a degree of superiority instantly recognized by both enthusiast and average driver.

The intent also was to provide yet another landmark development from Jaguar that would be a worthy successor to the XK.

The Jaguar V-12 engine that was introduced to America in the 1971 E-type, and now powers the XJ12C and XJ12L, amply fulfills those expectations.

It is incredibly smooth and quiet and offers a satisfying surge of acceleration throughout the range of driving speeds—especially in the low and middle range.

Smoothness and quietness beyond the usual are virtually the birthrights of any well-designed V-12 engine. Because, from an engineering viewpoint, the V-12 configuration is in perfect balance. This is because the engine's capacity is spread over twelve cylinders. Therefore, the cylinders and pistons are smaller and the crankshaft receives a smaller pulse with each power stroke—but the pulses arrive more frequently. As a result, the action of the engine possesses a turbine-like smoothness.

Given the stability of a seven main-bearing crankshaft and the extraordinary care with which all components are balanced and matched, the Jaguar V-12 offers an unprecedented driving experience.

It required years of experimenting to determine the optimum components for the final design.

Flat-faced heads were selected because they provide smooth acceleration when it is most needed in city and highway driving—in the low and middle speeds.

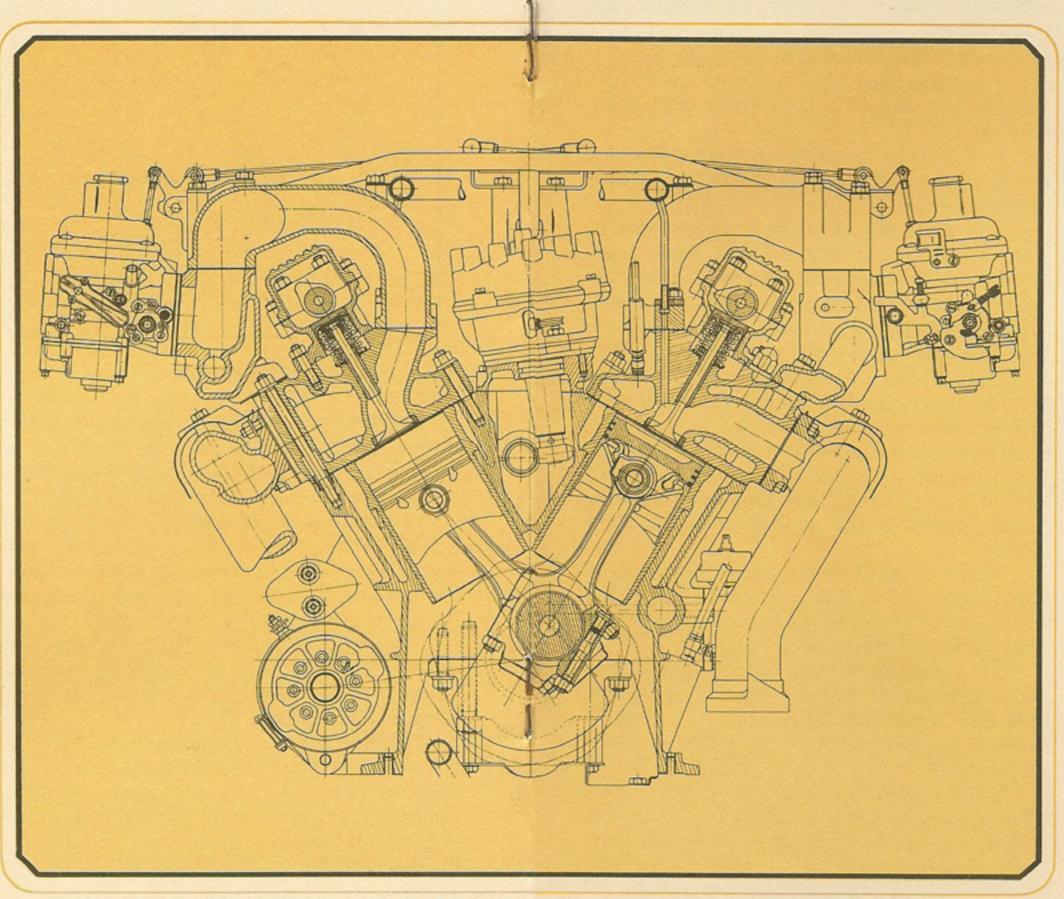
Single overhead cams on each bank of cylinders were selected for the simplicity they offer by comparison with double camshafts.

Four Zenith carburetors offer the best

tion, one block was cast in aluminum and one in iron. Jaguar engineers found that there was no discernible difference in the noise levels.

The chief advantage of the aluminum block is that it reduces the engine's weight by over 100 pounds. Other aluminum alloy components include heads, sump, front timing cover and inlet manifold.

The three-plane crankshaft is anchored



12 cylinders in 60° "V" formation.

performance over a wide range of driving conditions.

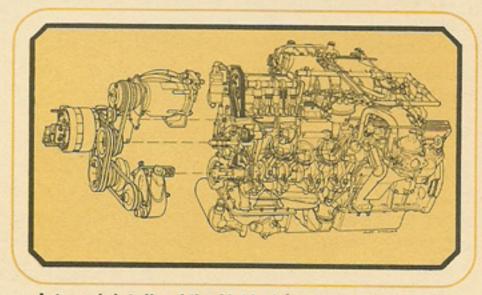
There was intensive testing before deciding on an aluminum alloy block instead of cast iron. It had always been assumed in automotive circles that the aluminum alloy would increase the noise factor. To test the assump-

by seven main bearings, each with a cast iron bearing cap and four bolts—the result is maximum rigidity. The shaft itself is forged in Tufftrided steel and specially hardened in a cyanide bath at 800° F.

An electronic ignition system was selected because of the high sparking rate required for twelve cylinders. This system has no contact points, therefore no adjustments are needed. The firing is triggered by a magnetic impulse in the distributor head. For years, this type of ignition system was exclusively associated with the stringent demands of racing engines.

Unlike the other V-12 engines available in the world today, the Jaguar V-12 is a volume production unit. The cost is therefore reduced considerably. To achieve the desired production capacity, Jaguar invested \$7.5 million in the most modern machine tool equipment.

But no amount of automated equipment will automatically insure that the finished product achieves the highest standards in performance, reliability and durability.



Internal details of the V-12 aluminum alloy engine.

The building of each Jaguar V-12 is done with exacting care and craftsmanship. Components are machined and balanced to extremely fine limits and then inspected by sensitive measuring instruments. Any piece that fails to meet our standards is either returned for new tooling or scrapped.

Components that were balanced individually, such as the crankshaft and flywheel, are rebalanced after they are assembled into one unit.

Pistons and connecting rods are joined together according to predetermined grades, then individually weighed and sorted into perfectly balanced sets.

Camshafts are matched with valves and tappets and precisely measured—the minute variations due to machine tolerances are compensated for by adjusting shims of seven different thicknesses.

After its slow, exacting assembly, each unit is sent to the test bench where it is run-in. Fine adjustments are made and every function is checked by a dynamometer.

## The Jaguar form of luxury

In the automotive world, an appearance of luxury is sometimes achieved through enormous size, excessive ornamentation, and synthetics that simulate natural materials.

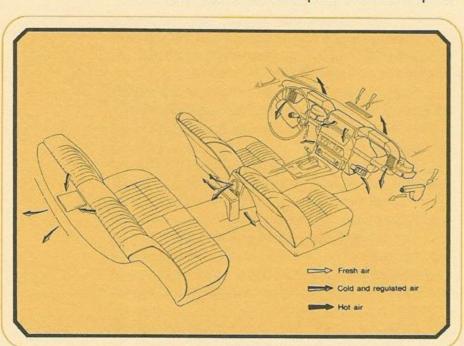
In a Jaguar, however, luxury comes from a richer lode. Excellent materials. Painstaking workmanship. And a loving attention to detail.

Indeed, given the enormous attributes of a Jaguar from an engineering view, would anything less than genuine luxury be appropriate?

Two hides of top-grade English leather adorn every XJ interior. The hides are selected by a skilled patternmaker. He makes sure that their grains and shades match, and examines them for any trace of imperfection. He then cuts the patterns by hand, careful to get the best from each hide.

Seamstresses put the pieces together as they would a finely tailored suit. Each stitch is inspected, each seam made perfectly true.

The material is then passed to the uphol-



XJ standard air conditioning with automatic temperature sensing and control system.

sterers who actually build the seats up from the metal frames. Placing the padding into position, they tie and glue until a firm contour has been constructed. They then fit the leather over the padding—snipping here, adjusting there—until a fine piece of furniture emerges.

After every step in the process, inspectors pass on the work. Even the workers inspect—if an upholsterer notices a missed stitch or a marred surface, he'll return the material to the seamstress. The motive is pride—nothing more and nothing less.

The same level of caring goes into covering the door panels and finishing the center console.

In Jaguar's wood shop, cabinetmakers and wood finishers prepare the burled walnut for the interior.

The wood enters the shop as raw pieces and exits as beautifully finished, highly polished facia housings. Each piece gets four coats of lacquer and is finely sanded by hand. The final step in the process is the "mop" polisher that brings out a deep sheen in the grain.

But nothing is considered completed until it all comes together on the assembly line. The workers who fit the interiors approach each car in an unhurried, methodical way.

The carpeting is carefully stretched and laid in place. Seats are installed, chrome guards mounted and window trim precisely fitted.

The exterior finish is given as much attention as the interior. Each body shell is given a thorough cleansing to remove impurities and then carefully inspected by hand.

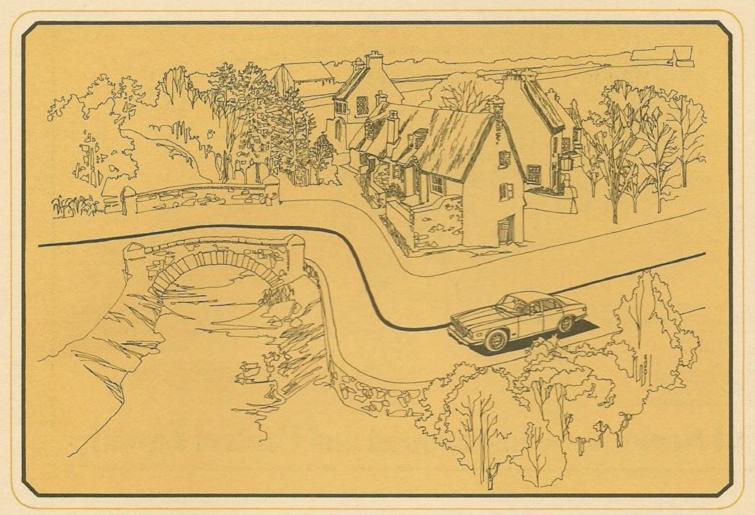
The bodies are then dipped into a rust preventative that heavily covers the front, rear and undercarriage sections. A coat of oxide is applied and hand sanded to perfect smoothness.

Before the primer and color coats, a special caulking solution is applied to all inside seams. As the body dries from subsequent coats of paint, the solution "melts," seeping into the seams where it hardens and seals.

In all, there are 39 different stages in the finishing process, including rustproofing, undersealing, three primer coats, one sealer coat and three color coats.

The last of the color coats is saved until the very end—after assembly and a series of road tests and inspections.

Only then is the Jaguar definition of luxury fulfilled.



Each and every Jaguar is tested on Coventry roads...twice.

# The Jaguar Double Road Test

While the practice of quality control is a never-ending process in the production of a Jaguar—each step is checked and double-checked along the way—nothing quite dramatizes its thoroughness as well as the Final Acceptance Test.

The mission of the Jaguar Test Department is to completely examine each and every Jaguar and insure that it was built flawlessly.

The department's backbone is a crew of crack test drivers, whose expertise comes from long experience in the Jaguar factory giving them a complete knowledge of the car.

These specialists road-test every car that Jaguar builds. Not just once, but twice.

The assigned test driver gives the car a pre-test check, as one would before starting on a long trip. He checks items like the belt tensions, oil level, engine fittings, and tire pressures.

At the start of the first trek—roughly 10 miles—he makes sure all the instruments are

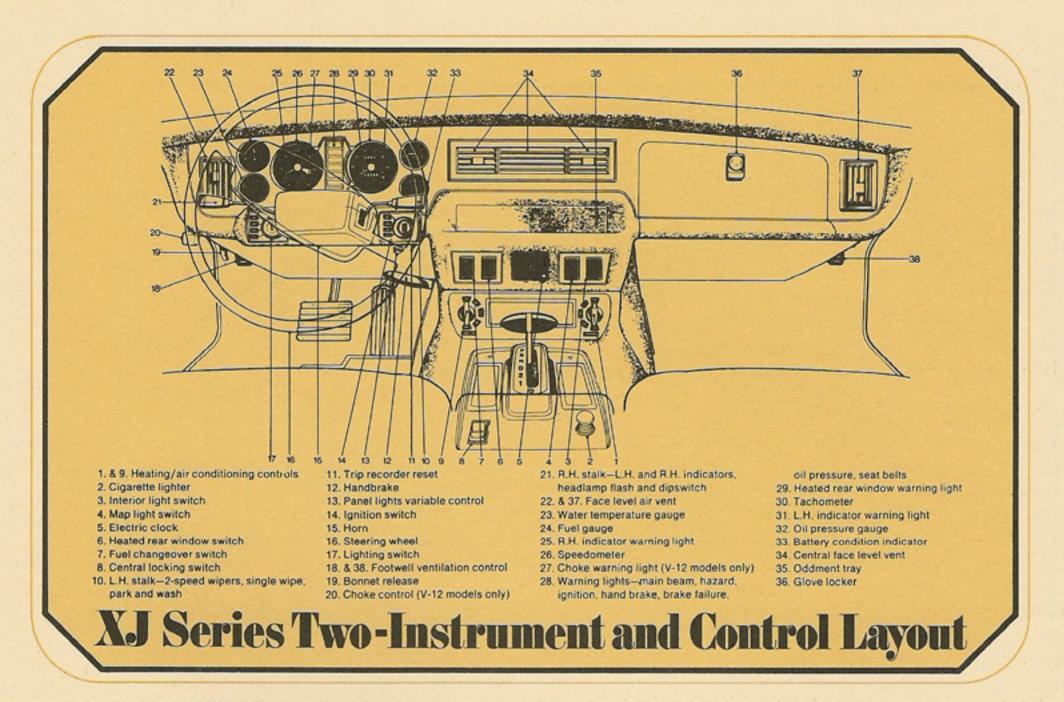
working properly and the electrical systems are functioning. As the test driver puts the car through a series of maneuvers over the Coventry public roads, all his senses are alert to any variation from the smooth, flawless functioning of the car.

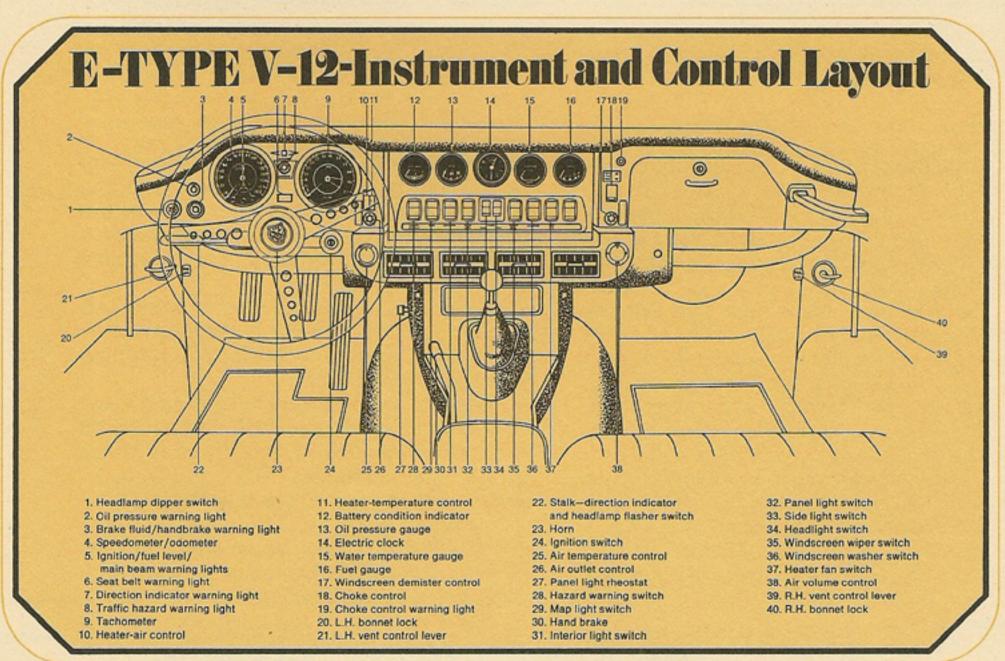
Any detected malfunction is noted and ordered rectified. The car is then gone over by a team of expert mechanics and returned for a second road test.

The second test route is around 5 miles long and every car is expected to pass with honors. If one doesn't, it is again ordered back to the mechanics. The process is repeated until the test driver is satisfied to the last detail.

The two road tests equal approximately 15 miles. It is impossible to buy a Jaguar with fewer miles on the odometer.

Let those few miles remind you of the high standards of Jaguar—from basic concept to final approval.





# THE MAGNIFICENT WORLD OF JAGUAR.

