

The New Jaguar XE

AT-A-GLANCE

- The new Jaguar XE: *the* driver's car in the global midsize segment
- Aluminium-intensive monocoque - the first in the class
- Dynamic design, classic rear-drive stance
- Smallest, lightest, stiffest Jaguar saloon
- Most aerodynamic Jaguar ever: Cd 0.26
- Double wishbone and Integral Link suspension for precise handling and a supple ride
- High-efficiency 2.0-litre Ingenium diesel: 163PS; 75mpg, 99g/km CO2
- Supercharged 3.0-litre V6: 340PS; 0-60mph: 4.9s
- Six-speed manual and eight-speed automatic transmissions
- Electric power steering delivers benchmark response with CO2 savings of up to 3 per cent
- Intuitive new InControl infotainment system with 8-inch touchscreen
- World debut of Jaguar All Surface Progress Control: a revolutionary system that maximises low-speed traction in adverse conditions
- Jaguar Drive Control with Eco, Normal, Winter and Dynamic modes
- Stereo camera technology enables autonomous emergency braking, lane departure warning and auto high-beam assist
- Laser head-up display generates high-contrast colour images
- Deployable bonnet delivers enhanced pedestrian protection

Summary

The Jaguar XE redefines the concept of the sports saloon and will be the driver's car in its class. Its lightweight construction, streamlined styling, luxurious interior and outstanding ride and handling are testament to company founder Sir William Lyons' vision: 'The car is the closest thing we will ever create to something that is alive'

The rear-drive XE is the only vehicle in its class to use an aluminium-intensive monocoque. This extremely robust yet light structure, together with double wishbone front suspension and an Integral Link rear axle, is fundamental to the XE's innovative benchmark vehicle dynamics.

Jaguar's world-leading expertise in aluminium structure engineering enables exceptional fuel consumption and emissions figures: with the new Ingenium diesel engines, the XE can achieve 75mpg and 99g/km CO2 - the most efficient Jaguar ever.

Powered by the supercharged 3.0-litre V6 petrol engine from the acclaimed Jaguar F-TYPE, the XE S is capable of 0-60mph in just 4.9 seconds.

"The XE's driving behaviour fully matches the promise of its seductive looks, and the emotional appeal is supported by state-of-the-art approaches to efficiency, from aerodynamics to the advanced Ingenium engine family."

Kevin Stride, Vehicle Line Director, Jaguar XE

The aluminium-intensive Jaguar XE is the first model developed from Jaguar Land Rover's new modular vehicle architecture. The long 2,835mm wheelbase and low seating position enable perfect proportions and a streamlined profile.

The cabin offers outstanding levels of comfort and spaciousness. Exquisite materials and finishes combined with Jaguar craftsmanship make this a class-beating interior that's unlike anything else in the segment. Jaguar's new InControl infotainment system takes centre stage: its innovative 8-inch touchscreen brings fast, intuitive access to all features and functions - and iOS and Android smartphone apps.

The XE has some of the most advanced driver assistance systems available. All Surface Progress Control (ASPC), developed through decades of Jaguar Land Rover experience in off-road traction systems, can electronically gain traction in seconds and is ideal for use on low-grip surfaces, such as snow-covered roads.

Laser projection technology enables the XE's head-up display (HUD) to generate sharp, high-contrast colour graphics (such as vehicle speed and navigation) from a module smaller and almost a third lighter than existing systems, retaining clarity even in direct sunlight.

A stereo camera is mounted behind the front windscreen to give the XE a 3D view of the road ahead: this highly accurate data is used for functions including autonomous emergency braking and a lane departure warning system.

The XE is the stiffest, most aerodynamic Jaguar saloon car ever built. It is also the first Jaguar to be equipped with electric power steering, tuned to provide exceptional responsiveness and feel but with lower energy consumption than hydraulic systems. The XE also boasts the lowest cost of ownership and most environmentally sustainable credentials of all Jaguar models.

Manufacturing of the aluminium-intensive Jaguar XE occurs at Jaguar Land Rover's Solihull plant in an all-new facility. Part of a Â£1.5bn investment, this flexible, purpose-built site will create 1,700 UK jobs.

The XE now completes the Jaguar saloon car range, sitting below the XF and XJ model lines.

The XE range

From luxurious to high-performance, the XE range offers a model perfectly suited to every taste

Sports saloons tailored to suit every driver

Each XE is designed to offer an unrivalled combination of steering response, ride comfort, refinement and performance. These attributes are matched to the sleek, perfectly-proportioned exterior styling and the premium materials and meticulous attention to detail defining the interior.

Pure:

The entry-level to the XE range, the Pure* model features high-quality cloth seats and a gloss black treatment for the door trim finishers and the signature 'Riva Hoop' sweeping around the instrument panel.

Prestige:

Taurus leather upholstery with contrasting stitching delivers a modern, progressive luxury interior, complete with phosphor blue ambient lighting. Inserts on the air-conditioned seat option are perforated and the 'Riva Hoop' and door finishers are finished in brushed aluminium.

Portfolio:

The most luxurious XE model, Portfolio features a wide range of colour options for the premium Windsor leather with herringbone perforations. The instrument panel features split upper and lower coverings in two colours, complete with colour-keyed twin-needle stitching for a truly bespoke feel. The aluminium trim has an embossed surface finish.

R-Sport:

Seats are trimmed with Taurus leather with unique technical mesh fabric inserts. The 'Riva Hoop' and door finishers are in etched aluminium, and the tread plates and sports steering wheel feature R-Sport branding. The exterior is enhanced by a subtle rear spoiler and a noble chrome treatment for the side power vents. Sports suspension delivers even better handling.

S:

The most performance-orientated XE model features a race-inspired interior. The Taurus leather seats have suede cloth panels and the tread plates and leather sports steering wheel carry the S logo. Dark hex aluminium graces the door finishers and the 'Riva Hoop', while the centre console is gloss black. The front bumper's enlarged air intakes hint at the performance potential of the supercharged V6. Side sill extensions, rear spoiler, gloss black rear valance, red brake calipers and optional forged, 20-inch 'Propeller' alloy wheels complete the package.

*SE in the UK

Design

The most advanced sports saloon that Jaguar has produced, the new XE is instantly recognisable as a Jaguar, its aluminium skin formed around the fundamental principles of perfect proportions and aerodynamic efficiency. The new XE looks and feels like no other car in its class

Purity and purpose: Form and function without compromise

Always at the forefront of innovation, Jaguar created the blueprint for the first ever sports saloon with the iconic Mk II, a car which distilled sports car performance and dynamics into a stylish four-door body. The new XE builds on this unique heritage, combining Jaguar's unrivalled expertise in lightweight construction with exquisite lines, sharp radii and perfectly executed surfaces.

The only car in its class to use an aluminium-intensive monocoque, the XE was developed in parallel with Jaguar's lightweight, modular vehicle architecture. Created from a clean sheet, this architecture - which will form the backbone of several future Jaguar models - unlocks entirely new design possibilities for the brand.

"Great proportions and a dynamic, edgy feel are at the core of Jaguar design. We wanted to create a strong sense of movement, and have given the XE a dynamic and purposeful look that is without compromise. Sleek, low, coupe-like exterior proportions combine with an efficient package that is instantly recognisable as a true Jaguar."

Ian Callum, Jaguar Director of Design

The strongly-sculpted bonnet is a testament to Jaguar's expertise in working with aluminium, creating a taut, muscular appearance. The very steeply raked windscreen and the rising waistline accentuate the streamlined, coupe-like profile, adding to the sense of movement.

The signature 'J-Blade' running lights are another instantly recognisable Jaguar design. In the rear lights, a horizontal line intersecting a roundel is an iconic styling feature inherited from the iconic Jaguar E-type.

Smooth progress: Sleek styling, low aerodynamic drag

Jaguar has a rich history of designing stunning, yet aerodynamically efficient cars. The new XE continues this tradition of uncompromised form and function: its profile has the lowest drag coefficient of any Jaguar yet - Cd 0.26. This was achieved through a combination of over 1,200 computational fluid dynamics (CFD) simulations and over eight million hours of processor time.

The body's low-drag shape is enhanced by features that amplify each improvement made. Innovations include front bumper ducts which channel laminar airflow over the surface of the front wheels to reduce drag. This is combined with lightweight under-floor panels running back to the rear silencer, creating an almost perfectly smooth surface, also significantly reducing drag.

Inside story: Spacious, luxurious

Expectations raised by the XE's beautiful exterior styling are exceeded once inside. The spacious cabin cocoons front seat passengers with a deep centre console, creating a cockpit-like feel. The 8-inch touchscreen for the new InControl infotainment system takes centre stage in the sweeping curves of the instrument panel. On models equipped with automatic transmissions, Jaguar's unique rotary drive selector rises up from the centre console - the XE feels alive.

The contour-hugging front seats are mounted low, creating a sports-car like driving position with heating and cooling options and 12-way power adjustment. The rear seats may also be heated and can offer a 40:20:40 split-fold - a first for Jaguar - and a through-loading feature.

The XE proves that sleek, streamlined styling and interior space need not be mutually exclusive. All occupants enjoy generous amounts of head and legroom, and the deeply scalloped seatbacks liberate even more space for passengers seated in the rear of the XE.

Technical fabrics, fine-grain leathers and contrasting twin-needle stitching give the cabin a bespoke quality. Gloss black, textured aluminium, contemporary wood veneers, and carbon-fibre trim enhance a luxurious, handcrafted feel.

Body structure

Jaguar is more experienced in the use of aluminium construction than any other vehicle manufacturer, allowing the development of the revolutionary body structure of the new XE. It is the only car in the class built around an aluminium-intensive monocoque

Light, stiff, safe

Following development of the aluminium XJ in 2003, the XK, the current XJ and the F-Type, Jaguar's experience is embodied in the new XE's aluminium-intensive monocoque. The XE is the most rigid saloon that Jaguar has ever built and no other vehicle in the midsize segment contains more aluminium.

"The Jaguar XE body uses over 75% aluminium content, which far exceeds any other car in its class. This gives us a body structure with unrivalled low weight: it's light but also immensely strong with extremely high levels of torsional stiffness and safety without

compromising on vehicle design or refinement"

Dr Mark White, Jaguar Chief Technical Specialist, Lightweight Vehicle Technologies

The XE is the first model designed using Jaguar's all-new modular vehicle architecture. This advanced structure, which will underpin a range of different models in a number of different segments, is engineered to utilise the most intelligent mix of materials, including aluminium, high-strength steel and magnesium, providing exceptional manufacturing flexibility.

For the XE, satisfying the demanding targets for ride, handling, fuel economy and safety dictated an aluminium-intensive monocoque. When Jaguar started work on the original aluminium XJ, the luxury saloon's body comprised around 70 per cent conventional grades and 30 per cent high-strength alloys respectively. In the new XE, these proportions have been reversed.

High-strength aluminium alloys, including AC300 and AC600 grades, are also used in areas such as the A-pillars, front and rear crash structures, and the cant rail. The B-pillars are high-strength aluminium reinforced with ultra-high strength steel, with a layer of high-density foam between.

All of this makes the passenger compartment exceptionally stiff, preventing intrusions in the event of a collision. The new XE has been engineered to meet the most stringent legislative and consumer crash test requirements worldwide, including US and Euro NCAP.

Pedestrian protection reaches new levels too: the energy absorbing properties of the aluminium bonnet are enhanced by a deployable hinge system, which creates additional clearance between the underside and stiff structures such as the powertrain, suspension towers and the bulkhead.

Recycled aluminium alloy: A world-first

Sustainability is another big part of the story at Jaguar Land Rover. The new XE is the first car in the world to use a high-strength aluminium alloy - RC5754 - made predominantly from recycled material. The product of several years of research, this grade contains only a small quantity of primary material, essential to achieving the desired mechanical properties.

Steels, including advanced high-strength and dual-phase steels, are used for parts such as the rear underbody, door panels and bootlid. These materials satisfy the particular strength, stiffness and geometrical requirements of these parts and they also contribute to the XE's ideal weight distribution. Cast magnesium also makes an appearance: this ultra-light material is used to make the front-end carrier as well as the cross-car beam.

Aerospace-inspired joining technologies

In 2003, replacing spot welds with a combination of self-piercing rivets and structural adhesives - a technique proven in aircraft production - represented another step-change in body engineering at Jaguar. These techniques enable highly optimised joint design with an outstanding combination of strength, stiffness and durability. Another advantage - and one extremely difficult to realise with welding processes - is compatibility with dissimilar materials.

To prevent any risk of galvanic corrosion between steel and aluminium panels the XE's monocoque benefits from five layers of protection between the two materials. The first is a protective coating of zinc on the steel parts. The joints are filled with structural adhesive and then the body is e-coated. Seam sealer is applied, and then, finally, paint.

Chassis

Jaguar saloons have always been renowned for their matchless combination of sublime ride comfort and outstanding driving dynamics. The new XE will take this to the next level thanks to double wishbone front suspension, Integral Link rear suspension and Jaguar's first application of electric power steering. Development target: be the driver's car in the segment

Agile, responsive, supple

Designing the XE entirely from scratch using a brand new architecture presented the programme team the rare opportunity to develop a car free of the compromises imposed by legacy platforms and carryover components. As a result the XE has the most sophisticated chassis of any vehicle in its class and will set the benchmark for ride and handling.

The XE's light, stiff body structure and longitudinal, rear-drive powertrains provided the perfect starting point for development. Where most competitors use the simple MacPherson strut front suspension, Jaguar's vehicle dynamics team insisted on the superior double wishbone configuration.

"Jaguars have always been renowned for a balance of precise handling and a high-quality ride. The XE is the culmination of everything the company has learned over the years, providing a combination of supple ride and crisp handling that is unmatched in this segment."

Mike Cross, Chief Engineer of Vehicle Integrity, Jaguar

Camber stiffness was an important consideration. This attribute - the resistance to lateral load when the car is cornering - is crucial to steering feel. To keep unsprung mass to a minimum, the forged aluminium knuckles are made from cast blanks using a patented production process. Further weight savings come from the tubular anti-roll bars and springs made from stiffer, narrower-gauge steel.

Front suspension geometry was optimised from the outset to suit all-wheel drive and rear-wheel-drive configurations. The suspension mounting points enable efficient packaging of the spring and damper assembly - essential to achieving the low bonnet height fundamental to the XE's sleek styling and to pedestrian impact protection.

The dampers have been meticulously tuned, giving the sublime ride quality Jaguar cars are famous for and the taut body control needed for agile handling.

Integral Link: The most sophisticated rear suspension in the segment

Jaguar evaluated conventional multilink suspensions that are the class standard, but these could not deliver the dynamic attributes demanded of the new XE.

The solution was Integral Link: a system usually found only in larger, more expensive vehicles and which delivers benchmark performance. Only Integral Link delivers the combination of lateral and longitudinal stiffness needed for the XE's precise handling and smooth, quiet, supple ride.

To keep weight to a minimum, extensive use has been made of aluminium: toe links and upper control arms are forged; knuckles and lower control arms are hollow cast, saving even more weight.

Electric power steering redefined

Steering response, weight and feel are core elements of Jaguar's brand DNA, and the ones which probably contribute most to the '50 metre feel' - the all-important first impression that the vehicle conveys about the way it drives.

Hydraulics have provided power assistance because they deliver the most natural, intuitive system performance. Electric power steering (EPAS) offers greater tuning potential and greater energy efficiency, but Jaguar's engineers have not considered the technology sufficiently mature - until recently.

As a result, the new XE is the first Jaguar to use EPAS and delivers the immediate response and connected feel expected of a Jaguar sports saloon. All system hardware has been optimised to reduce backlash and friction - the enemy of natural steering feel - while the control software was honed during an exhaustive tuning phase. The control algorithms can even account for changes in the ambient temperature, ensuring a consistent steering feel no matter what the conditions.

As well as functions such as speed-dependent assistance and damping, which varies subtly with the rate with which steering lock is applied, the steering system also compensates for changes in road camber, keeping the car firmly on track.

EPAS also cuts the XE's CO2 emissions by 3 per cent and 2 per cent from petrol and diesel models respectively.

High performance brakes

The dynamic driving character of the new XE is matched by brake system specification. Lightweight sliding calipers and large discs are used front and rear, with diameters from 316mm to 350mm and 300mm to 325mm respectively.

The ventilated front discs benefit from enhanced cooling thanks to suspension-mounted ducts, which channel air to the centre of the rotors through apertures in the back plate.

The latest-generation electronic brake system controller is lighter, smaller and more powerful than previous modules and enables myriad functions which improve safety, stability and dynamics.

Torque Vectoring by braking

One of the most impressive functions on the new Jaguar XE is Torque Vectoring by braking - state-of-the-art technology that has been proven on the F-TYPE Coupé and is now standard on the new XE.

This high-tech innovation mitigates the onset of understeer by lightly braking individual inner wheels as required to help keep the car on the optimum line through corners.

Intervention is subtle and barely noticed by the driver, who benefits from more neutral handling, reduced steering effort and, ultimately, a more rewarding driving experience.

Powertrain

The XE is powered by a range of four- and six-cylinder petrol and diesel engines offering a blend of performance, refinement and efficiency from 99g/km CO2 to 250km/h. All engines benefit from direct injection, variable valve timing and boosting to deliver clean, quiet combustion and exceptional throttle response. Intelligent stop-start systems and smart regenerative charging save even more fuel. Power is sent to the rear wheels through smooth-shifting 6-speed manual and 8-speed automatic transmissions

Smooth, refined, efficient

Jaguar is launching the new XE with an equally new engine family - Ingenium. This advanced modular design will provide petrol and diesel derivatives and was started from a clean-sheet to deliver performance, efficiency and refinement without compromise.

The first Ingenium engines in the Jaguar XE are 2.0-litre four-cylinder

diesels with a choice of two power and torque outputs: 163PS/380Nm and 180PS/430Nm. The 163PS version makes the XE the most fuel-efficient Jaguar ever, achieving 75mpg and 99g/km CO₂ on the European combined cycle.

Proven over 2 million miles of testing, Ingenium forms the cornerstone of Jaguar's future low-CO₂ powertrain strategy. It will also meet the most stringent exhaust emissions legislation worldwide.

"The new generation of Ingenium diesel engines are wholly designed and manufactured in-house at our new engine plant in Wolverhampton. No opportunity has been missed in ensuring their design is right on the cutting edge of technical advancement to achieve the highest levels of efficiency, performance and refinement."

Ron Lee, Group Chief Powertrain Engineer, Jaguar Cars

All Ingenium engines, developed from scratch by Jaguar engineers, are based around a deep-skirt aluminium cylinder block featuring thin-wall, press-fit cast iron liners: these offer the best balance of weight, surface finish, and robustness.

The engine's split-cooling system, mapped thermostat, and fully variable mechanical water pump enable standing water in the block while coolant circulates through the crossflow channels in the cylinder head. So the engine warms up more quickly, reducing friction and therefore fuel consumption.

Parasitic losses have been cut in other ways too: the electronically-controlled oil pump matches its flow rate according to engine speed, load and temperature, and switchable piston cooling jets operate only when needed.

Variable valve timing has been a feature on all Jaguar petrol engines for many years, and now the technology is making its way into the diesel too: the Ingenium units benefit from a cam phaser on the exhaust side. Variable exhaust valve timing enables more rapid catalyst heating, thereby minimising harmful emissions during the critical warm-up phase.

Fuel is fed to the combustion chambers by an 1,800bar solenoid common rail system. Key attributes are low noise, high efficiency and excellent mixture formation.

Ingenium diesels are characterised by the rapid build-up of torque from very low engine speeds, enabled by highly efficient variable geometry turbochargers. Maximum torque is maintained over a wide rev range, ensuring instantaneous response and strong acceleration whenever the driver demands it.

Performance does not come at the expense of fuel economy: coupled to the six-speed manual transmission, the 163PS/380Nm version delivers

the XE's benchmark 99g/km efficiency.

In more powerful 180PS/430Nm form, the figures are just as impressive for models equipped with either the manual or automatic transmissions.

Emissions minimised: Clean combustion and advanced aftertreatment

As well as a sophisticated exhaust gas recirculation system, Jaguar's powertrain engineers have integrated the most advanced exhaust gas aftertreatment technology into the XE: a highly efficient, selective catalytic reduction (SCR) system ensures that tailpipe nox emissions are below the limits set by Euro 6 regulations.

Four-cylinder petrol engines blend performance with efficiency

The petrol engine range begins with the turbocharged, direct-injection, 2.0-litre four-cylinder unit, which made its debut in the Jaguar XF and XJ saloons. Further refined for the new XE, this refined, lightweight powerplant is available in two ratings: 200PS/280Nm and 240PS/340Nm.

Weighing only 138kg, these all-aluminium engines feature twin counter-rotating balancer shafts to cancel-out second order forces, offering the smoothness and power of a naturally aspirated six-cylinder but in a smaller, more efficient package.

An innovative feature is the sheet metal turbine housing integrated into the air-gap insulated exhaust manifold. As well as saving weight, the assembly's reduced thermal mass means that the catalyst reaches light-off temperature more quickly, reducing emissions. The low-inertia turbine wheel delivers outstanding transient response.

V6 supercharged: Power in reserve

For customers demanding superior performance and an exhilarating engine note from idle right up to the redline there's the XE S, which shares its supercharged 3.0-litre V6 with the lightweight F-TYPE sports car. This all-aluminium engine is a modular design which takes its core architecture, including the 90° cylinder bank angle, from Jaguar's acclaimed 5.0 V8.

A balancer shaft ensures that the V6 matches the larger unit for refinement, while the wide vee provides the packaging space for the twin-vortex Roots-type supercharger. Rated at 340PS/450Nm, this engine provides the XE S with truly exceptional acceleration, driveability and performance: 0-60mph takes just 4.9 seconds, and top speed is electronically-limited to 155mph.

Selecting the best: New six-speed manual transmission

The smooth-shifting manual transmission in the new Jaguar XE is characterised by its light, precise gear changes and a wide ratio spread

offering a blend of excellent launch performance and quiet, refined cruising.

As well as rewarding keen drivers with its smooth shifts, the transmission also contributes to the XE's excellent fuel efficiency. Its lightweight aluminium alloy casing reduces weight, while details such as hollow shafts and pocketed gears make the transmission lighter still.

The pursuit of efficiency also meant adopting a semi-dry sump system instead of relying on the usual method of splash lubrication with its inherent parasitic losses. Instead, the oil is separated from the gears by a lightweight polymer baffle and sprayed onto the moving parts by a compact pump.

Optimised eight-speed automatic transmissions

The XE's aluminium-intensive construction has enabled weight-optimised versions of the benchmark eight-speed ZF 8HP transmission found in XJ and XF saloons to be offered with all petrol and diesel engines, saving around 10kg.

Always offering the right gear for any condition, the transmission ECU monitors driving styles and adapts shift patterns to suit. This intelligent control strategy makes the modes chosen in the Jaguar Drive Control system even more effective. In the high-performance XE S model, the transmission features steering wheel-mounted paddle shifts, giving the driver full manual control over gear changes for an even more involving experience.

Advanced driver assistance systems

Jaguar has developed a suite of technologies to make driving safer, more relaxing and more enjoyable. From systems that improve low-speed traction in adverse conditions to smart braking systems which use stereo cameras to scan the road ahead - the XE is the intelligent choice in the midsize segment

Gaining traction: All Surface Progress Control

Making its world debut in the new XE is All Surface Progress Control (ASPC). This unique traction management system, akin to a low-speed cruise control, will give the XE unrivalled all-weather capability among rear-drive cars in the segment.

ASPC is ideal for low-grip surfaces such as snow-covered driveways and ungritted winter roads, and even wet grass. Developed with the input of decades of Jaguar Land Rover experience in off-road traction systems, ASPC can electronically gain traction with far less drama than the driver can achieve.

The system functions between 3.6km/h and 30km/h and is activated using the cruise control switches on the steering wheel. Having set the

desired speed the driver concentrates on steering - the car takes care of the rest, ensuring smooth progress without skidding and without the driver touching the pedals. Available with automatic transmissions only, ASPC is compatible with all engines. Winter tyres make ASPC even more effective.

Laser Head-Up Display: Information right where it's needed

A first for Jaguar and for the industry, the XE's laser head-up display (HUD) projects high-contrast colour images directly in the driver's line of sight and is smaller and almost a third lighter than existing TFT systems.

The virtual images appear to 'float' two metres in front of the driver. Displaying information such as speed, turn-by-turn navigation instructions, traffic signs, and cruise control settings in this way means that the driver's eyes remain focused where they're needed most: the road ahead.

Greater contrast means greater resistance to image 'washout' in very bright sunlight. Another advantage of laser technology is that the images remain clearly visible should the driver be wearing polarised glasses.

Seeing things clearly: Stereo camera technology

The new XE is one of the first vehicles in the segment to feature a stereo camera. This state-of-the-art sensor provides a 3D view of the road ahead and is at the heart of the autonomous emergency braking (AEB) and traffic sign recognition systems.

Mounted in front of the rear-view mirror, the forward-facing stereo camera can detect vehicles up to 100 metres away. If the algorithms in the AEB control module determine that a collision is likely, the brake system is pre-charged and the driver receives a visual warning in the instrument cluster and, if fitted, the head-up display. If no action is taken, full braking force is triggered automatically: the AEB system enables collision avoidance or mitigation at speeds up to 80km/h.

The traffic sign recognition system relies on the stereo camera to keep the driver informed of speed limits - including temporary limits which apply in roadworks, for example. To ensure a high degree of system robustness, camera data is always cross-referenced with speed limit information from the navigation system. A driver-selectable function enables subtle notifications if speed limits are exceeded: a ring flashes around the speed limit image, but there is no audible warning.

In addition to road signs, the advanced stereo camera also 'sees' the road markings too, and this capability is used by the XE's lane departure warning system. If the system determines that the vehicle will unintentionally leave its lane, the driver receives haptic feedback through the steering wheel rim.

The stereo camera can also help the driver to see more clearly: intelligent control of the headlights enables greater use of high beam, making night

driving safer. By networking the headlight modules to the camera's image processing algorithms, the high beam assist function will automatically dip the beams when oncoming traffic is detected.

Always looking ahead: Adaptive Cruise Control

The new XE's adaptive cruise control (ACC) makes motorway journeys even more comfortable. A long-range 77GHz scanning radar monitors the road ahead, enabling the car to maintain a pre-set distance from vehicles in front. The ACC system can also initiate emergency braking if it detects an impending collision.

Keeping watch: Blind Spot Monitoring with Closing Vehicle Sensing

The new XE can also be equipped with a system to monitor the area behind the car, making overtaking safer. Medium-range 24GHz radar sensors detect vehicles approaching fast from behind: a flashing icon in the mirrors alerts the driver of the potential hazard. Once the vehicle enters the blind spot, the icon is shown as a solid.

Slotting into position: Parking made easy

The effort of trying to park in tight spots has become a thing of the past. The new XE can be specified with two semi-automated park-assist functions, which do the hard work for you. The ultrasonic sensors measure the space and, if suitable, will enable the car to steer itself during both parallel and bay parking manoeuvres - the driver only has to control the brakes and accelerator. An exit-assist function will guide the XE out again.

Backing out of parking spaces can be made even safer with the reverse traffic detection system. The sensors used in the blind spot monitoring system will detect approaching vehicles which may be unseen by the driver and can trigger an alert.

Infotainment and connectivity

From smartphone apps and Wi-Fi to premium audio systems developed with world-renowned experts Meridian - the new XE offers a suite of technologies designed to keep you informed and entertained, making every journey even more of an experience

Perfectly positioned in the sweep of the fascia, the eight-inch touchscreen is at the heart of the XE's all-new InControl infotainment system.

The touchscreen features a clear, intuitive user interface designed to give quick, easy access to all features and functions. Voice control makes the system even simpler - InControl responds to plain speech commands without the need to navigate down through menus, allowing drivers to keep their eyes on the road.

"In-car technologies in this ever-more connected and fast-paced world are an integral part of your driving experience. With the all-

new XE we're introducing an entire suite of cutting-edge driver aids and entertainment systems. Designed and developed from scratch, they will ensure that every journey you take is simpler, more relaxing, safer, and effortlessly enjoyable."

Dr Mike Bell, Jaguar's Global Connected Car Director

A feature first developed for the flagship Jaguar XJ, dual-view technology is now available in the XE. This segment-first innovation enables the touchscreen to display vehicle information for the driver while, at the same time, front seat passengers can sit back and enjoy a movie.

Smartphones are changing the way people interact with the world around them - the new XE ensures that drivers stay connected. Jaguar InControl Apps allows users to seamlessly access smartphone apps through the XE's touchscreen, making it easy to do everything from make a conference call, find a parking space or book a hotel room. Some of the most popular apps include iheartradio, INRIX, Glympe, Stitcher, cityseeker and Parkopedia.

The XE also functions as a Wi-Fi hotspot, enabling multiple devices to connect to the internet - the vehicle antenna provides the best possible signal.

Jaguar InControl Remote allows users of iOS and Android smartphones to connect to the car from wherever they are using a specially-designed app. The technology enables a range of functions, from checking how much fuel is in the tank and unlocking or locking the doors, to seven-day timed pre-setting of the XE's climate control system.

InControl Secure enhances security by providing proactive vehicle monitoring. Should the XE be stolen, the tracking service can work with law enforcement agencies to locate and recover the car.

InControl Protect provides further reassurance: in the unlikely event of a malfunction, it provides optimised Jaguar Assistance, transmitting your location and vehicle diagnostic data to help minimise delays to your journey. Should the unthinkable happen and a collision occurs it will automatically make an SOS call and summon the emergency services.

Sound quality: Premium audio from Meridian

For drivers who just want to sit back and enjoy the music, the new XE brings Meridian audio technology to the segment for the first time. The latest product of the long-standing partnership between Jaguar and British audio experts Meridian, the 11-speaker system includes a powerful subwoofer and was developed specifically for the XE. Unique algorithms guarantee the best possible sound reproduction and tailor the experience to the interior's acoustics. With such an advanced music and infotainment system, the Jaguar XE will set a benchmark in its class for high quality driver and passenger entertainment that will be very difficult to beat.

Note: Australian pricing and specification will be announced at a later date.

TECHNICAL DATA

Jaguar XE 2.0 Diesel 163

ENGINE & TRANSMISSION

Engine capacity (cc) 1,999
Cylinders 4 in-line
Valves per cylinder 4; DOHC
Bore/ stroke (mm) 83.0/ 92.4
Compression ratio 15.5:1
Fuel injection system 1,800bar common rail
Boosting system Single variable geometry turbo
Power PS (kW) 163 (120) @ 4,000rpm
Torque Nm (lb ft) 380 (280) @ 1,750-2,500rpm
Transmission ZF 8HP45 8-speed automatic,
6-speed manual

PERFORMANCE & FUEL ECONOMY

0-60mph (sec) 7.9 [man] / 7.7 [auto]
0-100km/h (sec) 8.4 [man] / 8.2 [auto]
Top speed mph (km/h) 141 (227) [man]* / 141 (227) [auto]* *UK only:
132 (212)
Fuel consumption mpg (litres/100km) EU combined 75.0 (3.8) [man] /
71.7 (3.9) [auto]
CO2 emissions (g/km)
EU combined cycle 99 [man] / 104 [auto]

DIMENSIONS & VOLUMES

Length (mm) 4,672
Width inc./ excl. mirrors (mm) 2,075/ 1,850
Height (mm) 1,416
Wheelbase (mm) 2,835
Track front/ rear (mm) 1,607/ 1,608
Kerbweight (kg) From 1,474 [man] / 1500 [auto]
Boot volume (litres) 450 / 455 [no spare]
Fuel tank capacity (usable) litres 47

Jaguar XE 2.0 Diesel 180

ENGINE & TRANSMISSION

Engine capacity (cc) 1,999
Cylinders 4 in-line
Valves per cylinder 4; DOHC
Bore/ stroke (mm) 83.0/ 92.4
Compression ratio 15.5:1
Fuel injection system 1,800bar common rail
Boosting system Single variable geometry turbo
Power PS (kW) 180 (132) @ 4,000rpm
Torque Nm (lb ft) 430 (317) @ 1,750-2,500rpm
Transmission ZF 8HP45 8-speed automatic,
6-speed manual

PERFORMANCE & FUEL ECONOMY

0-60mph (sec) 7.4 [man] / 7.4 [auto]
0-100km/h (sec) 7.8 [man] / 7.8 [auto]
Top speed mph (km/h) 142 (230) [man]* / 142 (230) [auto]* *UK
only: 140 (225)

Fuel consumption mpg (litres/100km) EU combined From 67.3 (4.2) [man] / 67.3 (4.2) [auto]

CO2 emissions (g/km)

EU combined cycle From 109 [man] / 109 [auto]

DIMENSIONS & VOLUMES

Length (mm) 4,672

Width inc./excl. mirrors (mm) 2,075/ 1,850

Height (mm) 1,416

Wheelbase (mm) 2,835

Track front/ rear (mm) 1,602/ 1,603

Kerbweight (kg) From 1,550 [man] / 1,565 [auto]

Boot volume (litres) 450 / 455 [no spare]

Fuel tank capacity (usable) litres 56

Jaguar XE 2.0 Petrol 200

ENGINE & TRANSMISSION

Engine capacity (cc) 1,999

Cylinders 4 in-line

Valves per cylinder 4; DOHC

Bore/ stroke (mm) 87.5/ 83.1

Compression ratio 10.0:1

Fuel injection 150bar direct injection

Boosting system Single monoscroll turbocharger

Power PS (kW) 200 (147) @ 5,500rpm

Torque Nm (lb ft) 280 (206) @ 1,750-4,000rpm

Transmission ZF 8HP45 8-speed automatic

PERFORMANCE

0-60mph (sec) 7.1

0-100km/h (sec) 7.7

Top speed mph (km/h) 147 (237)

Fuel consumption mpg (litres/100km) EU combined 37.7 (7.5)

CO2 emissions (g/km)

EU combined cycle 179

DIMENSIONS

Length (mm) 4,672

Width inc./excl. mirrors (mm) 2,075/ 1,850

Height (mm) 1,416

Wheelbase (mm) 2,835

Track front/ rear (mm) 1,602/ 1,603

Kerbweight (kg) From 1,530

Boot volume (litres) 450 / 455 [no spare]

Fuel tank capacity (usable) litres 63

Jaguar XE 2.0 Petrol 240

ENGINE & TRANSMISSION

Engine capacity (cc) 1,999

Cylinders 4 in-line

Valves per cylinder 4; DOHC

Bore/ stroke (mm) 87.5/ 83.1

Compression ratio 10.0:1

Fuel injection 150bar direct injection

Boosting system Single monoscroll turbocharger

Power PS (kW) 240 (177) @ 5,500rpm
Torque Nm (lb ft) 340 (250) @ 1,750-4,000rpm
Transmission ZF 8HP45 8-speed automatic

PERFORMANCE

0-60mph (sec) 6.5
0-100km/h (sec) 6.8
Top speed mph (km/h) 155 (250)
Fuel consumption mpg (litres/100km) EU combined 37.7 (7.5)
CO2 emissions (g/km)
EU combined cycle 179

DIMENSIONS

Length (mm) 4,672
Width inc./excl. mirrors (mm) 2,075/ 1,850
Height (mm) 1,416
Wheelbase (mm) 2,835
Track front/ rear (mm) 1,602/ 1,603
Kerbweight (kg) From 1,535
Boot volume (litres) 450 / 455 [no spare]
Fuel tank capacity (usable) litres 63

Jaguar XE 3.0 Petrol 340

ENGINE & TRANSMISSION

Engine capacity (cc) 2,995
Cylinders V6
Valves per cylinder 4; DOHC
Bore/ stroke (mm) 84.5/ 89.0
Compression ratio 10.5:1
Fuel injection 150bar spray-guided direct injection
Boosting system Twin-Vortex supercharger
Power PS (kW) 340 (250) @ 6,500rpm
Torque Nm (lb ft) 450 (332) @ 4,500rpm
Transmission ZF 8HP45 8-speed automatic

PERFORMANCE

0-60mph (sec) 4.9
0-100km/h (sec) 5.1
Top speed mph (km/h) 155 (250)
Fuel consumption mpg (litres/100km) EU combined 34.9 (8.1)
CO2 emissions (g/km)
EU combined cycle 194

DIMENSIONS

Length (mm) 4,672
Width inc./excl. mirrors (mm) 2,075/1,850
Height (mm) 1,416
Wheelbase (mm) 2,835
Track front/ rear (mm) 1,602/ 1,603
Kerbweight (kg) From 1,665
Boot volume (litres) 450 / 455 [no spare]
Fuel tank capacity (usable) litres 63

Figures are manufacturer's estimates and are subject to certification