



### FAST FACTS

The XKR-S GT, developed by Jaguar's ETO division, is the ultimate road-going but track-ready version of the XK coupe. Initial production will be limited to just 30 cars, making it the rarest 'R' model in the 25-year history of Jaguar's R performance cars. Evolved from the successful XKR-S coupe, the XKR-S GT features bespoke aerodynamic components and suspension developments to increase downforce and optimise highspeed cornering ability.

Through the addition of aerodynamic aids including a carbonfibre front splitter,

fibre front splitter, dive planes, extended wheelarch spats, an elevated rear wing, rear diffuser and an aluminium valance, the XKR-S GT achieves maximum downforce of 145kg. Its carbon ceramic brake system a first for a production Jaguar features 398mm and 380mm discs front/rear gripped respectively by six- and four-piston monoblock calipers. 5 New suspension and steering includes a wider

front track, increased camber, revised bushings and faster steering ratio, all developed using learning gained from Jaguar's new F-TYPE two-seater sports car. Height-adjustable and bespoke adaptive dampers feature a race-derived twin spring system.

Powered by Jaguar's proven 550PS, 680Nm supercharged 5.0-litre V8 engine - driving through a six-speed transmission and active electronic differential - the XKR-S GT reaches 60mph in 3.9 seconds with an electronically limited top speed of 186mph.

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7 New, wider, 20-inch forged and lightweight alloy wheels are designed to optimise brake cooling and are shod with Pirelli Corsa 255/35 front and 305/30 rear tyres to maximise grip.



THE XKR-S GT IS THE MOST EXTREME ITERATION OF THE JAGUAR R BRAND'S PERFORMANCE FOCUS. UTILISING RACE-CAR DERIVED TECHNOLOGY, ALL-ALUMINIUM CONSTRUCTION AND AN UNCOMPROMISED APPROACH TO AERODYNAMIC EFFICIENCY, THE RESULT IS A CAR AS CAPABLE ON THE TRACK AS IT IS EXHILARATING ON THE ROAD."

#### ADRIAN HALLMARK

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GLOBAL BRAND DIRECTOR, JAGUAR

## SUMMARY

he XKR-S GT has been developed by Jaguar's ETO division to be the ultimate track-focused but road-going iteration of the XK coupe. Extensive aerodynamic and suspension changes, as well as the addition of carbon ceramic brakes, have combined to give the XKR-S GT a race car-inspired connected feel and braking performance. Initial production will be limited to just 30 cars for the North American market.

A range of bespoke carbon fibre components, including an extended front splitter, diveplanes and elevated rear wing, all work to maximise the XKR-S GT's aerodynamic downforce. Technical learning from the development of the new Jaguar F-TYPE two-seater sports car has also been applied to the XKR-S GT's suspension and steering systems, optimising both immediacy of response to driver input and agility.

Stunning performance is provided by Jaguar's proven 5.0-litre supercharged V8 engine, boasting 550PS and 680Nm, driving through a six-speed transmission and active electronic differential. Combined with the aerodynamic and suspension changes, plus revisions to the traction control system's calibration, the result in straight-line terms is a 0-60mph time of 3.9 seconds.

Electronically limited top speed is 186mph. The XKR-S GT is available in Polaris White with unique graphics and Jaguar R-S GT script on its louvred bonnet. The Warm Charcoal interior – with red accents – features 16-way electrically adjustable 'Performance' seats finished in soft-grain leather and Suedecloth with the Jaguar and R-S GT scripts integrated into the backrests. Jet Suedecloth headlining and a Jet Suedecloth steering wheel, with aluminium paddle shifters, are fitted as standard. Script to the treadplates and console highlight the exclusiveness of the XKR-S GT. THE XKR-S GT IS AN UNCOMPROMISED CAR, BUT ONE THAT INSPIRES CONFIDENCE AND ENCOURAGES THE DRIVER TO PUSH IT TO ITS LIMITS, FULLY EXPLORING ITS HANDLING ABILITIES. IT'S A CAR THAT DRAWS YOU IN AND IS NEVER INTIMIDATING, WITH PERFORMANCE THAT IS BOTH ACCESSIBLE AND REWARDING."

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DAVID POOK

TECHNICAL SPECIALIST STEERING AND HANDLING, JAGUAR XKR-S GT



THE DEVELOPMENT OF THE XKR-S GT DEMANDED AN UNCOMPROMISED APPROACH TO ENHANCE AERODYNAMIC DOWNFORCE, WITH COMPLEMENTARY SUSPENSION CHANGES TO MAXIMISE HIGH-SPEED CORNERING ABILITY. IN COMBINATION WITH THE USE OF A CARBON CERAMIC BRAKING SYSTEM, THE RESULT IS THE MOST FOCUSED 'R' MODEL JAGUAR HAS EVER BUILT WHICH DELIVERS HEIGHTENED LEVELS OF PERFORMANCE AND DRIVER REWARD."

#### PETE SIMKIN

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DIRECTOR, ETO SPECIALIST PRODUCTS, JAGUAR

## AERODYNAMICS AND CHASSIS

he XKR-S GT features a carbon-fibre front splitter of race-car wrap-around type; extending forward by 60mm, it starts the optimisation of airflow around, over and underneath the car.

Aggressive carbon-fibre twin dive-planes and wheelarch extensions further the efficiency of airflow around the car, while below the addition of an optimised aluminium front valance serves to smooth airflow under the car as well as enhancing engine and brake cooling performance.

A rear carbon-fibre diffuser ensures the smooth exit of air from underneath the car, while the elevated rear wing – also in carbon-fibre – works in combination with the decklid-mounted spoiler to maximise rear downforce. At its electronically limited top speed of 186mph, the XKR-S GT produces 145kg (320lb) of downforce. Bonnet louvres serve as a further engine cooling aid while also helping aerodynamic performance by improving the airflow through the front end of the car.

Allied to the extensive aerodynamic revisions are detailed suspension changes. The front and rear suspension arms, uprights, wheel bearings, bushings and rear subframe are all new and draw on hardware developed for the F-TYPE. The overall set-up works to increase lateral suspension stiffness for greater precision and responsiveness. Integral to the revised suspension system is its new spring and damper module design. The XKR-S GT has a motorsport-derived twin spring system mated to Jaguar's Adaptive Dynamics damping system – the dampers now being ride-height adjustable. Front and rear spring rates are respectively 68% and 25% stiffer than on the XKR-S, while the damper tune is much more track-focused, providing increased levels of body control and grip.

Jaguar's Adaptive Dynamics have been specifically tuned for the XKR-S GT so that the suspension parameters change to deliver a higher level of body control with maximum traction and grip when the dynamic mode is deployed, offering optimum performance for focused track driving.

The XKR-S GT has a front track which is 52mm wider than that of the XKR-S while the rear remains the same. The steering rack is from the F-TYPE, with a correspondingly faster ratio and retuned steering valve. The result is immediacy of turn-in and response to steering inputs.

The unique 20-inch forged and lightweight alloy wheels – finished in gloss black – are shod with specially developed Pirelli Corsa performance tyres (255/35 and 305/30 front/rear), giving the XKR-S GT a more muscular stance and greatly increasing its grip and stability.



THE XKR-S GT HAS BEEN DESIGNED PURELY BY THE LAWS OF PHYSICS. IT HAS BEEN DEVELOPED IN THE WIND TUNNEL AND ON THE RACETRACK WITH THE SOLE AIM OF CREATING AS MUCH HIGH-SPEED STABILITY AND DOWNFORCE AS POSSIBLE. NOTHING HAS BEEN STYLED FOR THE SAKE OF IT. IT'S BEEN AN EXERCISE IN EFFICIENCY AND THE RESULT IS A CAR THAT'S RAW, FOCUSED AND DEVASTATINGLY QUICK."

> IAN CALLUM DIRECTOR OF DESIGN, JAGUAR

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## BRAKES

he XKR-S GT is the first production Jaguar to be fitted with a carbon ceramic braking system. The internally ventilated and crossdrilled lightweight brake discs measure 398mm and 380mm front/rear respectively. Combined with six-piston monoblock calipers

at the front and four piston units at the rear - the yellow calipers being branded with 'Jaguar Carbon Ceramic' script - the XKR-S GT delivers race-car levels of fade-free stopping power and brake pedal feel. Enhanced braking feel comes courtesy of the electronic Pre-Fill system.

Working in conjunction with the car's DSC system, Pre-Fill pressurises the brakes every time the driver comes off the throttle pedal, resulting in a very short and consistent level of travel on

the brake pedal. This maximises braking response, reduces the car's stopping distance and delivers increased levels of confidence during high performance driving. 66

The lightweight nature of the carbon ceramic system means a reduction in unsprung weight of 21kg – so further enhancing the XKR-S GT's handling.

The XKR-S GT's carbon ceramic braking system also has a significantly longer life span than a standard system.

THE BRAKE DISC AND PAD MATERIALS ARE SPECIALLY TAILORED FOR JAGUAR CHARACTERISTICS. BECAUSE THE XKR-S GT IS A ROAD CAR AS WELL AS ONE SUITABLE FOR CUSTOMERS TO TAKE ON THE TRACK, WE ENGINEERED IT FOR RACE-CAR BRAKING PERFORMANCE BUT WITH NO COMPROMISE TO COLD OR WET WEATHER ABILITY."

#### EDWARD NIXON

GROUP LEADER, BRAKES, JAGUAR XKR-S GT



## PERFORMANCE

aguar's proven all-aluminium 5.0-litre supercharged quad-cam V8 engine, boasting 550PS and 680Nm of torque, delivers not only exhilarating performance but also tremendous efficiency thanks to the technologies incorporated into it, including spray-guided direct injection (SGDI) and dual independent variable cam timing (DIVCT). The high-pressure die-cast lightweight aluminium block is stiffened with cast-iron liners

and met

and cross-bolted main bearing caps, providing refinement to match its power. The four-valve cylinder heads are constructed from recycled aluminium, between them sitting the Roots-type twin vortex supercharger fed by two intercoolers, which feature their own watercooling circuit to reduce the temperature of the pressurised air thereby optimising power and efficiency.

The XKR-S GT features a fully active

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performance exhaust system with valves that open under load, both enhancing gas-flow and the car's aural character, while optimising power output.

In straight-line terms, the powertrain's significant output, combined with the aerodynamic, suspension and traction control software revisions, mean the XKR-S GT can sprint from 0 to 60mph in 3.9 seconds and onto an electronically limited top speed of 186mph.

# TECHNICAL SPECIFICATION

#### JAGUAR XKR-S GT

Engine	5.0-litre V8 supercharged petrol
Capacity (cc)	5000
Bore/Stroke (mm)	92.5/93
Bore/Stroke (inches)	3.64/3.66
Peak Power (PS @ rpm)	550@6500
Peak Power (kW @ rpm)	405@6500
Peak Torque (lb/ft @ rpm)	502@2500-5500
Peak Torque (Nm @ rpm)	680@2500-5500
Transmission	Six-speed automatic
0-60mph (secs)	3.9 sec
Top Speed (mph / km/h)	186 / 300 (electronically limited)
Combined Economy (EU mpg   I/100km   US mpg)	23.0   12.3   17
$CO_2$ Emissions (g/km)	292

\*Manufacturer's figures

#### Technical changes over XKR-S

- Carbon ceramic brake system with 398mm and 380mm discs front/rear, gripped respectively by six- and four-piston monoblock calipers.
- Electronic Pre-Fill system pressurises braking system and maximises
  braking performance.
- Addition of carbon-fibre front splitter, dive planes, extended wheelarch spats, an elevated rear wing, a rear diffuser and an optimised alumnium front valance contribute to a maximum downforce figure of 145kg (320lb) at the XKR-S GT's electronically limited top speed of 186mph (300km/h).
- The addition of race-derived, height-adjustable and retuned adaptive dampers with twin-spring system. Spring rates up by 68% at the front and 25% at the rear.
- New development of front and rear suspension from the F-TYPE sports car.
- The fitment of an F-TYPE steering rack for enhanced agility.
- New, wider 20-inch forged alloy wheels shod with Pirelli Corsa 255/35 front and 305/30 rear tyres for maximised grip.
- Bonnet louvres aid engine cooling and reduce under-bonnet air pressure.

#### **Editors Notes**

The XKR-S GT is the latest car developed by Jaguar Land Rover's specialist ETO division. The division is responsible for extending the Jaguar and Land Rover brands with a series of 'special edition' models as well as a range of personalisation options allowing owners to tailor their cars.

The designers and engineers in ETO work alongside the JLR Product Development teams on future products with a focus on offering additional luxury, performance and capability, by exploring different facets of the brands' personalities. Previous Jaguar models developed by ETO include the XKR-S, the XJ Ultimate and the XFR-S.



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