



Koenigsegg

Jesko – Suspension and Handling

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The Koenigsegg Jesko was designed as the ultimate road-friendly track car.

As such, we've re-engineered what was already a class-leading chassis, equipping it with a host of new technologies to make driving easier around town and much faster on the circuit.

A STRONG CORE

At the core of every Koenigsegg is its carbon fibre monocoque.

Jesko uses an all-new monocoque, designed with the experience of vehicles past but with the requirements of our future customers in mind. The new tub is 40mm longer and 22mm higher, which allows for more legroom, headroom, a more spacious cabin feel and a clearer view through the wrap-around windscreen.

The tub retains its industry-best torsional rigidity, at 65,000 Nm per degree. The Koenigsegg chassis has long proven to be an outstanding base for chassis tuning. It's also extremely strong and safe, with both the Agera RS and Regera passing crash tests for both EU and USA homologation in recent years.

The monocoque is a carbon fibre and aluminium sandwich construction with integrated fuel tanks, rollover bars and reinforcement using Dyneema - the strongest fibre in the world - an industry first. It is assembled at our factory in Ängelholm, Sweden.

TRIPLEXTENDED

Koenigsegg developed the Triplex Suspension system for the Agera in 2010. A third, horizontal damper added at the rear allowed the car to employ natural physics to combat squat - the tendency for the car's rear to lower itself under hard acceleration. Jesko is equipped with a second Triplex unit in the front suspension, extending this capability to the front of the car.

Jesko has up to 1400 kilograms of downforce available. The forward Triplex unit helps to keep the front of the car level, maintaining optimal ride height during high aerodynamic loading without compromising grip and handling at lower speeds.

ACTIVE REAR STEERING

Koenigsegg has equipped Jesko with an adaptive, active rear steering system that increases responsiveness and heightens the senses at both high and low speeds.

Using inputs such as speed, throttle and brake positions, steering and slip angles and other parameters, the steering system can turn the rear wheels up to three degrees in either direction for quicker cornering and increased stability.

At low speeds, the system counter-steers the rear wheels, giving Jesko a faster turn-in, effectively shortening the turning circle of the car.

At high speeds, the rear wheels turn with the front wheels, a virtual lengthening of the wheelbase that provides increased stability and agility.

The result: Faster cornering, better maneuverability, improved steering feel, more grip and increased confidence.

ACTIVE ENGINE MOUNTS

The engine mounts used in the new Koenigsegg Jesko are taken from the existing Regera. They are active engine mounts designed to deliver a more relaxed ride at lower speed.

When driving at posted speeds, the mounts stay soft to isolate engine noise and vibrations. During spirited driving, the mounts firm up to solidify the car and give greater response. The effect is visceral, transforming the car from relaxed to active in the blink of an eye.

NEW WHEEL DESIGNS

Jesko is equipped with two new wheel designs - one forged aluminium and one carbon fibre. Both are designed to be as light as possible for their size, with the carbon wheels being the super-light option.

Both front and rear wheels are larger than the Agera wheels that came before them. Still, the 21" x 12" rear carbon wheels weigh just 7.4 kilograms each, while the 20" x 9.5" front wheels weigh 5.9 kilograms.

Lighter wheels help to minimise unsprung weight - the mass that is not controlled by the vehicle's suspension system. They also allow for faster acceleration, better braking and more responsive cornering.

The enlarged wheel design allows for larger brake discs and better brake cooling while still retaining optimal strength and super-light weight for the wheel's size.

CLASS-LEADING GRIP

Jesko's new wheels are fitted with Michelin Pilot Sport Cup 2 tires as standard. Michelin's all-new Pilot Sport Cup 2 R is an available option for dry weather use only.

The Pilot Sport Cup 2 R is Michelin's latest high-performance tire. It features a new compound, increased sidewall strength and a new tread pattern to provide a contact patch 10% bigger than the standard Cup 2 tire.

Michelin's track tests suggest an improvement in lap times with the Cup 2 R similar to what the same car on standard Cup 2's might achieve with a 10-30% increase in engine output, depending on the car.

Koenigsegg works closely with Michelin to provide customers the absolute best in on-track and on-street performance. The new Michelin Pilot Sport Cup 2 R is the perfect complement to Jesko's new engine, gearbox, chassis and aerodynamics package.

TRIED AND TRUE, LEARNED FROM EXPERIENCE

These new technologies are a great addition to Koenigsegg's existing chassis dynamics package, developed over 20 years at the cutting edge of vehicle performance.

Koenigsegg uses the industry's longest front and rear wishbones, more akin to Formula racing than a typical road car. Enlarged wheel bearings in lightweight housings provide an unrivalled mix of responsiveness and stability.

Our adjustable dampers are manufactured by the Swedish specialists at Öhlins, and then customised with new electronics at the Koenigsegg factory in Ängelholm. The dampers are fully electronically adjustable for both bump and rebound damping, as well as spring ratio and ride height, with suspension management modes available at the driver's fingertips. Once fitted, they integrate perfectly with Koenigsegg's in-house traction and stability control programs for the ultimate in dynamic performance, safety and control.

Koenigsegg has been breaking records - both in a straight line and on the track - for 25 years. Jesko has been designed to build on this pedigree - especially on the track - where its combination of power, aerodynamics, chassis dynamics and technology will set new standards in high-performance driving for years to come.

Press contact

Steven Wade
steven@koenigsegg.se
Ph: +46 (0)735 023 150