



PRESS

New Ghibli: Maserati's first Full-Size Luxury Sedan Segment car delivers twin-turbo V6 gasoline power, an efficient diesel engine, all-wheel drive and undiminished luxury.

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OVERVIEW

The all-new Ghibli marks a turning point in Maserati's history. Unveiled at the Shanghai Motor Show and arriving just months after the new Quattroporte, the Ghibli will give Maserati two concurrent four-door sedan models for the first time in its history.

The Ghibli is smaller, shorter, lighter, more dynamic, less expensive and more economical than the flagship Quattroporte and provides a cornerstone in Maserati's plans to build 50,000 cars a year by 2015.

Its petrol range provides high performance from both of the power outputs from the twin turbo-charged, 3.0-litre V6 petrol engine and it also offers customers the choice of rear- or all-wheel drive in an E-segment luxury sports sedan.

The Ghibli has a more-focused, sportier philosophy than the larger Quattroporte and its most powerful model, the Ghibli S, has 301 kW (410 hp) of power, races to 100km/h in 5.0 seconds and stretches out to a top speed of 284km/h.

The Ghibli is also the first Maserati in history to be powered by a diesel engine, with a turbo-diesel V6 producing all the sound, refinement and driving pleasure typical of Maserati while delivering fuel consumption below six litres per 100 km on the NEDC formula. The Ghibli diesel will also become the first Maserati with Start-Stop technology.

It shares much of its core architecture, including its crash safety, its chassis, its suspension architecture, its engines and its LED headlight technology, with the larger Quattroporte, though it is 50 kg lighter, 173 mm shorter in the wheel base and 291 mm shorter overall.



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The Ghibli's design team was challenged to produce a sedan that emphasized its more dynamic driving characteristics through a more aggressive visual personality, yet still maintained discernible visual links with the Quattroporte.

The outline of the body reflects a coupe-like philosophy for the four-door sedan, while there are strong feline hints around the Ghibli's grille and headlights. The grille takes its inspiration from the current GranTurismo and it can draw a line back to the classic 1950s A6 GCS.

It also maintains Maserati's distinctive C-pillar treatment, which delivers much of the coupe-like stance and carries the classical Saetta Maserati logo, carrying on a tradition dating back to 1963.

The side profile is dominated by a swage line that runs from the traditional Maserati grille vents behind the front wheels and finishes in the rear lights themselves.

Inside, the Ghibli sets itself apart from the Quattroporte with a unique dashboard design that perfectly matches its sportier and more youthful character without losing any of the luxury expected from Maserati. The Ghibli also delivers a sporty design combined with all the spaciousness expected in an executive sedan from Maserati.

The Ghibli, the Ghibli S, the Ghibli S Q4 and the Ghibli Diesel all utilize an eight-speed automatic transmission to deliver their performance, providing seamless comfort with fast gear shifting for hard acceleration.

All Ghibli models deliver exquisite handling thanks to their perfectly balanced weight distribution, a double-wishbone front suspension and a state-of-the-art five-link rear suspension. It can now deliver the added security and all-weather assurance of all-wheel drive as well.

It also delivers new standards in quality in every area from design, development, fabrication and process controls. It is produced in a new plant that combines Maserati's traditions of craftsmanship with cutting-edge technologies that are able to guarantee outstanding quality by controlling even the tiniest details.



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The Ghibli has entered the E-segment sports premium market with a marked advantage in cabin craftsmanship and detailing, including luxury features like the Maserati Touch Control screen, adjustable pedals, reversing camera, Poltrona Frau leather interior and the 15-speaker Bowers & Wilkes audio system, as well as WLAN-based WiFi and compatibility with most modern mobile phone systems.

The original 1963 Quattroporte invented the concept of the luxury sports sedan, the new Quattroporte continues to be the genre's benchmark and now the Ghibli offers all the Quattroporte's qualities in a more dynamic, more affordable package.



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EDITOR'S GLANCE

- The Ghibli launches with two models and two engine tunes, lead by the 301 kW (410 hp) version V6 BiTurbo in the Ghibli S and Ghibli S Q4
- The Ghibli will also deliver a state-of-the-art V6 turbo diesel, the first in Maserati's history, which has been designed with the European market primarily in mind
- The Ghibli S delivers customers the choice of rear-drive efficiency or the security and agility of the Q4 all-wheel drive system
- The Ghibli S Q4 accelerates to 0-100 km/h in 4.8 seconds and reaches 284 km/h
- The rear-drive Ghibli S is 0.2 seconds slower to 100 km/h (5.0 seconds) but 1 km/h faster in top speed, with 285 km/h
- Traditional handling excellence is assured through 50 : 50 weight distribution, a double wishbone front suspension and a five-link rear suspension
- Cabin features include WiFi WLAN hotspot, up to 15 speakers of Bowers and Wilkens audio quality, 8.4 " Maserati Touch Control screen
- The Ghibli has been designed and engineered by Maserati and is the second model (after the Quattroporte) to be manufactured to new benchmark quality standards in Maserati's refurbished facility in Torino



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- The Ghibli has targeted a five-star NCAP crash safety rating by including a third force load path and seven airbags to complement its high-strength chassis design



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ENGINES

A new range of completely innovative gasoline engines, designed entirely by Maserati and manufactured by Ferrari, form the beating heart of the Ghibli. New proprietary Maserati V6 engines - all of which twin turbo, latest GDI (Gasoline Direct Injection) technology developed in strict cooperation between the Maserati powertrain development team and the Ferrari powertrain development team – are built in Maranello for exclusive use of Maserati.

They are being produced in the Ferrari plant in Maranello that is famous for its 60 years of

passion and cutting-edge technology. This new generation of Maserati engines is more powerful than ever, more exciting to drive than ever and more eco-friendly than ever.

The Ghibli will be available with two versions of its twin-turbocharged 3.0-litre V6 gasoline engine and a 3.0-litre V6 diesel engine.

The most powerful of the V6 gasoline engines will be fitted to the rear-wheel drive Ghibli S and all-wheel drive Ghibli S Q4. This engine produces 301 kW (410 hp) of power at 5500 rpm and 550 Nm of torque from just 1750 rpm.

The Ghibli S Q4 will reach 100 km/h in just 4.8 seconds, while the rear-wheel drive version takes just 0.2 seconds longer. The Ghibli S has a quoted top speed of 285 km/h, which is just 1 km/h faster than the Ghibli S Q4.

The more affordable V6 gasoline engine variant not only has an impressive 243 kW (330 hp) of power and 500 Nm of torque, but also delivers a fuel economy figure of just 9.6 litres/100km. It is much more than a fuel saving car, though, and it is capable of accelerating to 100km/h in just 5.6 seconds.



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The Ghibli Diesel becomes the first car in Maserati's near-100 year history to use a diesel powerplant. In keeping with Maserati traditions, it is the most powerful single-turbo 3 liter engine on the market with its 275 Hp and 600 Nm of torque at 2,000 rpm.

It is capable of sprinting to 100 km/h in 6.3 seconds and hitting a top speed of 250 km/h, even though it emits just 158 grams of CO₂/km uses just 5.9 litres/100 km on the NEDC test cycle.

In another first for the Maserati brand, all Ghibli models will have an Active Speed Limiter function as standard equipment. Activated (and deactivated) via a button on the steering wheel, the Active Speed Limiter function lets the driver set a maximum speed for the car, which can be over-ridden by pushing the accelerator pedal through the "kick down".

GHIBLI S AND S Q4 V6 ENGINE

The most powerful version of the Ghibli's 2987 cc V6 shares much of its technology with the Quattroporte's flagship 3.8-litre V8 engine.

With 301 kW (410 hp) of power at 5500 rpm, the downsized V6 TwinTurbo delivers big V8 performance with 550 Nm of torque between 1750 rpm and 5000 rpm.

The V6's maximum engine speed of 6500 rpm, yet it delivers 90 percent of its 550 Nm of torque from 1600 rpm and its specific torque is actually higher than the V8's, at 183 Nm per litre. It also has an overboost function that is capable of providing the engine's maximum boost between 1750 rpm and 5000 rpm.

It uses the V8's gasoline direct injection technology, cylinder architecture and combustion technology along with two low-inertia parallel turbochargers and four continuous camshaft phasers. It uses high-pressure fuel injection to deliver its fuel at around 200 bar of pressure.



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With its rear-wheel drive layout, the Ghibli S Q4 accelerates to 100 km/h in 4.8 seconds, while the Ghibli S finishes the sprint in 5.0 seconds, with each Ghibli model a tenth of a second faster to 100 km/h than the corresponding Quattroporte S and S Q4.

Both cars have the top-end speed people have come to expect from Maserati, with the rear-wheel drive's 285 km/h top speed almost matching the Quattroporte S and besting the Ghibli S Q4 by 1 km/h.

The engines are also efficient, given their powerful performance numbers. The Ghibli SQ4 loses little to its rear-drive sibling, posting 10.5 litres/100km on the NEDC cycle compared to the Ghibli S's 10.4.

The rear-wheel drive version claims a very slight emissions advantage, with 242 grams of CO2/km compared to the all-wheel drive's 246 grams.

The V6 engine's parallel turbochargers are slightly different to the twin-scroll units on the V8, but it retains the V8's core dimensions with its bore measurement unchanged at 86.5 mm.

It uses high-tumble cylinder heads and two continuous cam phasers for each cylinder head; it can advance or retard the inlet and exhaust valve timing independently in real time four-phase variators for optimal combustion control for high performance and low consumption.

Another characteristic feature of the new Maserati engine family is the 200 bar direct fuel-injection system. This very high pressure helps atomise the fuel, thus improving the fuel-air mixture and optimising combustion at higher engine speeds.

The Ghibli S has two intercoolers – one to feed each of the turbo chargers – mounted low on either side of the main radiator to catch a constant supply of fresh, cool air.

The engine also uses a state-of-the-art ECU, with integral high-speed processors, which handle an array of shifting functions in real time.



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Maserati Powertrain has also switched to on-demand ancillaries, with a variable displacement oil pump that works under electrical control for improved consumption and performance.

It also uses an innovative, computer control of the alternator, which monitors the vehicle's electricity consumption and manages the alternator's workload to suit.

The engine also operates in both Normal and Sport modes, along with Manual versions of either mode, operated by elongated shift paddles fixed to the steering column.

The new Ghibli also makes available the I.C.E. (Increased Control and Efficiency) strategy, a function aimed at reducing consumption, emissions and noise. This is a user-select strategy that delivers a softer throttle pedal response for smooth driving, cancels the turbocharger's over-boost function and keeps the exhaust's Sport flaps closed until 5000 rpm. It also adjusts the gear changes to make them softer and slower and reduces torque at each gear's take-up point.

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While the engines for the Ghibli S and the Ghibli S Q4 deliver identical outputs, the Q4 engine has an altered oil sump to allow the front differential's driveshaft to pass through.

Like the Quattroporte's engine family, the Ghibli V6 engines were developed by Maserati Powertrain in partnership with Ferrari Powertrain and will be built by Ferrari in its world-leading engine construction facility in Maranello.

GHIBLI V6 ENGINE

The second turbocharged 3.0-litre V6 gasoline engine available on the Ghibli has 243kW (330hp) of power at 5.000rpm, This engine has been designed to offer an outstanding driving experience, versatile utilization with low fuel consumption; not only has an impressive power of 243kW and a torque of 500Nm, but delivers a fuel economy of just 9.6 litres/100km with 223 grams of CO2 emissions/km, and is capable of accelerating to 100km/h in just 5.6 seconds.



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GHIBLI V6 DIESEL ENGINE

The Ghibli's highly advanced V6 diesel engine will be the first of its kind in Maserati's history.

The 2987 cc V6 turbo-diesel, produced by VM Motori, develops 202 kW (275 hp) of power and a crushing 600 Nm of torque, both of which help it from rest to 100 km/h in just 6.3 seconds. Critically, its NEDC fuel economy figure is 5.9 litres per 100 km and it emits just 158 grams of CO2 per kilometre.

It uses highly advanced Common-Rail direct fuel injection with 2000 bar of injection pressure and it also features reduced-dwell-time injectors. This helps it to deliver sequential multiple injections for highly responsive performance and cleaner emissions.

It uses a single, variable-geometry turbo charger and the fabricated exhaust manifold includes air-gap.

It is also the first Maserati to use Start-Stop technology, which can lower the fuel consumption and the CO2 emissions by up to six percent, depending on the route and the traffic density. The system turns the engine off when the car comes to a stop and turns it on again almost instantly whenever the accelerator pedal is depressed.

Every Maserati can be identified instantly by its engine note and, thanks to its new Maserati Active Sound system, the Ghibli Diesel is no different.

Two sound actuators, fitted near the exhaust tailpipes, accentuate the engine's most distinctive tones and modulate them precisely to suit the way the car is being driven. When the driver presses the Sport button on the central tunnel, the sound becomes even more resonant and utterly inspiring.

For the Italian market, Ghibli Diesel will be available with both 202 kW (275 hp) and 184 kW (250 hp) power versions.



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EXHAUST SYSTEM

In the best Maserati tradition, the sound and performance of the Ghibli's exhaust system is controlled by pneumatic valves in the pipes emerging from each bank, and passes through the unique Maserati Sound Tank to maintain the rich aural tradition of the brand.

In the default Normal mode, the bypass valves are closed to give a comfortable and discreet engine sound, which emerges through four sport exhaust tips.

In Sport mode, not only does the car adjust a variety of handling parameters, but also the exhaust valves are opened, giving the shortest possible, high-energy route for the exhaust gases, which gives the Quattroporte its maximum engine performance and the unique Maserati engine sound.

DRIVETRAIN

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TRANSMISSION

All versions of the Ghibli are fitted with the same ZF AT8 - HP70 eight-speed automatic transmission that has already proven itself in the new Quattroporte.

Pre-engineered for both the traditional rear-wheel drive and the new Q4 all-wheel drive system, the transmission delivers in every parameter, from comfort to fast gear shifting, and from minimized fuel consumption to low NVH (Noise, Vibration and Harshness).

As befitting Maserati tradition, it is capable of being in five dedicated shift modes: Auto Normal, Auto Sport, Manual Normal, Manual Sport and the extreme weather ICE mode.

Auto Normal is the Ghibli's default setting and performs its gear changes with fluid shifts at low engine speeds to emphasize the car's comfort and to minimize fuel consumption.



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The Auto Sport mode sees the transmission switch character to change gears with greater alacrity at higher engine speeds and deliver a distinct gear engagement to enhance the powertrain's sporting feel.

In both of these modes, the car recognizes a variety of conditions, such as whether the car is travelling up or down hill, is braking hard or is driving through a corner, and selects the best gear and the best gear-shift style accordingly.

The transmission can also be controlled manually by selecting the M button on the transmission tunnel.

In Manual Normal mode, the driver can change gear with either the elongated gearshift paddles attached to the steering column or by using the transmission lever. The driver is in charge of the gear selection, though the system will intervene and change to a lower gear if the engine revs drop too low or change to a higher gear if the engine revs climb too high.

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In Manual Sport mode, however, the gearshifts are at their fastest and crispest, giving the driver full control of the powertrain. The system will not intervene, even if the driver strikes the engine's rev limiter. It will only intervene if the engine's revs drop too low to be effective in a given gear.

The ICE (Increased Control Efficiency) mode is designed for remarkable fuel economy, relaxed driving and extremely low grip conditions. The transmission changes gear as softly as possible, both going up through the gears and returning back down.

All gearshift modes can be selected via buttons on the left of the gear knob.

LIMITED-SLIP DIFFERENTIAL



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As has become expected of Maserati, the Ghibli also utilises a mechanical limited-slip rear differential as well, in both its rear- and all-wheel drive versions.

The Ghibli is the only car in its class to use a standard mechanical limited slip differential in all its versions in order to deliver the best inherent traction in all driving situations.

The bevel-drive, asymmetric unit offers 35 percent lock-up under power and 45 percent under release.

The rear differential is driven via a two-piece, 80 mm-thick light-weight steel prop shaft with two constant velocity joints and a head rubber coupling, which runs through a cross member-mounted rubber bearing for lower NVH levels without compromising rigidity.

Q4 ALL-WHEEL DRIVE

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The Q4 all-wheel drive system is a breakthrough for Maserati. With the Q4, the Ghibli S is capable of finding grip on the slipperiest surfaces thanks to its state-of-the-art, on-demand intelligent traction system.

The Q4 system delivers the responsiveness of a rear-wheel drive combined with the added security that only an all-wheel drive can bring in critical situations, without creating extra fuel consumption.

That is what Maserati has achieved with the Q4. The system leaves the front wheels passive until they are needed to help with traction and then they are instantly and intelligently engaged.

The system architecture is based on an electronically controlled multi-plate wet clutch, installed into a transfer case linked by a drive shaft to the front axle.

When grip is lost through excessive cornering speeds, hard acceleration or very low grip at the rear axle, the system takes just 150 milliseconds to change from delivering 100 percent of the drive to the rear wheels to an equal, 50%-50% split



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between the axles. The multi-link rear suspension provides so much rear traction, though, that the Q4 rarely needs to send more than 35 percent of the drive to the front wheels.

It is also capable of returning to rear-drive status just as quickly, ensuring at any time the best possible traction without the traditional all-wheel drive penalties of added fuel consumption and poor responsiveness.

Maserati developed its own sophisticated algorithm to oversee in real time an enormous array of vehicle parameters (such as wheel slip, steering and yaw angle, power output, speed, braking action, ESP) as well as wheel grip versus driving style. By processing this data, the Q4 system can maximize a dedicated grip profile for each single wheel, creating the optimal vehicle dynamic management to suit any given road condition, at any time.

EXTERIOR DESIGN

The Ghibli's design ethos emphasizes its more dynamic driving characteristics while maintaining visible links with the larger Quattroporte and delivering a more aggressive visual personality.

The outline of the body reflects a coupe-like philosophy for the four-door sedan, while there are strong feline hints around the Ghibli's grille and headlights. The dominating grille takes its inspiration from the current GranTurismo and it can draw a line back to the classic A6 GCS of the 1950s.

It also maintains Maserati's distinctive C-pillar treatment, which delivers much of the stunning coupe-like stance and carries the classical Saetta Maserati logo, carrying on a tradition dating back to 1963. It is gloss black in colour and its variable cross section contrasts with both the satin chrome surrounding it and the Trident symbol at its centre.



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The grille design is accentuated by the flow of the front quarter panels, which emphasize the shape of the engine compartment lid, then run into the headlights at the front. The shape of the headlights converges onto the Trident symbol, with every angle designed to attract the eye to Maserati's legendary badge.

The side profile is dominated by a swage line that runs from the traditional Maserati grille vents behind the front wheels and finishes in the rear lights themselves.

With its long wheelbase, total length and wide tracks, the Ghibli comes together as one of the sportiest and most elegant looking cars in the E-segment.

The Ghibli's body and underbody design fulfils the sporty promise of its looks, with a low drag coefficient of 0.31 to keep fuel consumption low and increase stability at the high speeds that, of the E-segment category, only the Ghibli is capable of.

CHASSIS

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It may be closely related to the Quattroporte, but the Ghibli has a character all its own thanks to its combination of double-wishbone front suspension and a state-of-the-art, multi-link rear suspension with the option of the active Skyhook system, part-time all-wheel drive, firm suspension damping and powerful braking system.

Like the Quattroporte, its chassis design is based around a rigid and extremely secure steel safety cell that employs an array of different steel and aluminium alloys to deliver precise strengths and minimal weight.

The front of its chassis is based around an aluminium casting with a reinforced cross-strut which helps deliver outstanding rigidity in all directions, while the rear of the chassis is made from rolled steel.



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BODY

The chassis of the new Ghibli shares its core architecture with the Quattroporte and has been precisely designed to meet the performance and comfort demands of Maserati buyers, and meets all foreseeable safety regulations.

Based around a rigid and extremely secure steel safety cell, it uses an array of different steel and aluminium alloys, each designated a precise task to maximize strength, minimize weight and retains the sports sedan's perfect 50 : 50 weight distribution in its rear-drive models.

The front of the chassis is based around an aluminium casting, with a reinforced cross-strut which helps deliver outstanding rigidity in all directions, while the rear of the chassis is made from rolled steel.

The choice of aluminium for the bulk of the Ghibli's body panels was based around the delivery of the maximum possible occupant safety for the lowest possible weight. Accordingly, all four doors and the bonnet (hood) are all made from aluminium.

Along with the freedom it allowed Maserati's designers, the choice of aluminium has also had a positive impact on reducing weight, reducing its fuel consumption and lowering its emission.

Other exotic materials are also used in the Ghibli's body, including ultra-light weight magnesium, which is used in the dashboard's cross strut.

SUSPENSION

Double wishbone suspension layouts are a race-bred tradition at Maserati and the Ghibli continues with this heritage but also incorporates some new technologies for greater accuracy.

Utilizing a suspension layout and software system that has already proven a hit in the Quattroporte, the Ghibli has high-mounted all-aluminium double wishbones at the front to guarantee light and precise handling characteristics.



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Aluminium is the dominant metal of the front suspension system, with the dome nuts, the hub carrier bars and uprights all made from forged aluminium, while the springs are steel. This matches up to constantly adaptive Skyhook dampers and an anti-roll bar.

The geometry of the system has delivered a quadrilateral architecture, which has enabled Maserati's handling team to deliver steering that is precise, communicative and comfortable.

The rear suspension employs a firmer version of the Quattroporte's five-bar multi-link system, with four aluminium suspension arms, and has achieved the conflicting targets of executive ride comfort and extreme sports performance.

The Ghibli's suspension package is based around a fixed rate damping system to control the movement of its steel springs and anti-roll bars.

All Ghiblis are available with the option of the Skyhook adaptive damping system, where all four Skyhook dampers can now be electronically controlled independent of each other. This is a variation of the Quattroporte's standard system, though its performance and tuning has been heavily modified to cater for the Ghibli's more dynamic ethos.

The default mode for the optional Skyhook system prioritizes comfort, and then becomes more athletic if the driver presses the suspension button. This extra damping stiffness pushes the Ghibli's handling to even higher levels and its tune was developed in both extreme test scenarios and on the racetrack. Essentially, it drastically reduces both longitudinal and lateral load transfers and minimizes body roll to bring out the sportiest side of the car's character.

The computer system in control of the Skyhook dampers monitors an enormous array of parameters, including speed and lateral and longitudinal acceleration, individual wheel movements, body movement and damper dynamics.

Adjusting also to suite the suspension mode chosen by the driver, the system delivers the perfect damping mode for each wheel almost instantly.



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Late this year, the Ghibli Diesel and the Ghibli S Q4 will both be available with the option of a Sports suspension setup, which will be based around the fixed damping system rather than the optional Skyhook system.

While the architecture of the Sport suspension is unchanged, it lowers the ride height by 10 mm and uses stiffer springs and firmer, dual-rate Koni dampers that adjust to varying conditions. This is available only on these two models to counteract their slightly heavier front weight distribution (51 : 49).

WHEELS AND TYRES

Featuring 18-inch rims as standard equipment, the Ghibli is also available with 19", 20" or 21-inch rims as well.

While the 18" 19" and 20" alloys are crafted from flow-forming technology that reduces the core thickness of the wheels and prioritizes light weight without sacrificing stiffness and strength.

The 21" rim is a forged alloy wheel, which also emphasizes light weight and is no heavier than the 20" rim.

All the Ghibli's rims have been designed and engineered to enhance both the visual design of the body and to lower the unsprung masses to improve grip and handling.

The 18" wheel rims, a 12 spoke-design, ensure a dynamic effect.

On the Ghibli and Ghibli Diesel versions they have the same 235/50 size for front and rear.

On Ghibli S and S Q4 versions they get staggered size with 235/50 at the front and 275/45 at the rear.

The 19" wheel, with its 245/45 front and 275/40 rear tyres, is geared towards reduced fuel consumption combined with low road noise and long, comfortable journeys.



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The 20" wheel, with a 245/40 front tyre and a 285/35 rear tyre, is the perfect compromise between sports and comfort, while the 21" wheel, with a 245/35 front and 285/30 rear tyre combination, is focused on sports handling.

All four wheel sizes are available with Pirelli, Dunlop and Continental tyres. All wheels can be fitted with winter tyres.

The Ghibli also continuously monitors its tyre pressure with a sensor mounted inside the rim, as part of the valve. The pressure can be read off the display on the dashboard. If a tyre punctures or its pressure changes, the system notifies the driver with visual and acoustic warnings.

DIMENSIONS

The Ghibli's three ground-breaking engines will be fitted into a wheelbase that, at 2998 mm, is 173 mm shorter than the Quattroporte's wheelbase and an overall length that is, at 4.97 metres, 29cm shorter.

It is also 20 mm lower than the Quattroporte but the measurements that cement its visual stance as one of the most aggressive in the E-segment are its front and rear tracks. Its 1635 mm front track is actually a millimetre wider than the Quattroporte's, while its 1653 mm rear track is six millimetres wider.

It is also 50 kg lighter than its larger sibling, with the Ghibli S weighing 1810 kg while the Ghibli S Q4 is 1870 kg.

It carries a 500-litre luggage capacity, as well as class-leading front legroom.

BRAKES

Maserati has continued its long association with Brembo on the new Ghibli and all models feature fixed-caliper braking technology.

The brakes on the Ghibli S models are 360 mm x 32 mm ventilated and cross-drilled Dual Cast brake discs and six-piston fixed alloy Brembo calipers on the front



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axle. It carries over the Quattroporte's four-piston, fixed alloy Brembo rear brake caliper.

Its brake discs continue with the Dual Cast technology pioneered by Maserati. This technology allows the weight of the cast-iron braking surface area to be offset with an alloy hat to minimise unsprung mass and the Ghibli S and the Ghibli S Q4 utilise this to stop from 100 km/h in just 36 metres.

These brakes have a large swept area, highly efficient cooling, are designed for consistent performance in sports driving situations and are oversized for the demands created by even the new Quattroporte's extremely high performance potential.

With slightly less engine power, the Ghibli and the Ghibli diesel employ smaller 345 mm x 28 mm front brake discs with four-piston fixed calipers on the front axle and 320 mm x 22 mm discs with floating calipers at the rear. The smaller brakes don't compromise its stopping power, though. Like the faster Ghibli S, the Ghibli and Ghibli Diesel both stop from 100 km/h in 36 metres.

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But high-performance stopping power is only one measure of overall braking performance and the collaboration with Brembo also concentrated on evolving the acoustic comfort of the Ghibli's braking systems. As befitting the rest of the Ghibli story, the braking development reconciled the seemingly opposing goals of pure performance and pure comfort.

The Ghibli also uses an electronic parking brake, which operates on all four wheels. The ergonomically placed button on the gear lever bezel activates the brake when the car is at rest.

However, it can also act as a safety device when driving. In this case the system communicates with the stability control ECU and decelerates the car at 0.5g in full safety until released.

The brakes also operate as part of the Ghibli's automatic hill starting system. The on-board sensors detect the vehicle's tilt when parked facing uphill, then lock the brakes for a few seconds; this gives the driver's foot time to move from the brake pedal to the accelerator pedal without the vehicle rolling back.



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Besides being effectively strong, Maserati brake calipers have also always added a significant stylistic effect.

This continues with the Ghibli, with the front and rear brake calipers available in the standard classic black form, with the Maserati name in white.

These are also available in the aggressively sporting red colour, Maserati blue to lend an air of elegance, luminous silver grey.

STEERING

The Ghibli uses an all-new aluminium steering box, developed specifically for the new front-suspension geometry it shares with the Quattroporte with the goal being to deliver more feedback to the driver, more consistency at high speed and easy manoeuvring at low speed.

This allowed Maserati's suspension engineers to deliver extreme precision combined with the steering sensitivity needed for turning into corners at high speeds.

It also has a reduced steering ratio, which delivers an agility that is rare for this class of limousine and while it is comfortable in all situations, the steering feel is geared up towards driving enjoyment.

For reasons related to customer demand, Maserati has bypassed the trend to electro-hydraulic steering systems. The Ghibli employs a speed-sensitive, servo-powered hydraulic system that prevents unpleasantly artificial assistance when the driver turns the wheel quickly.

MASERATI STABILITY PROGRAM

Maserati drivers have long known the benefits of the Maserati Stability Program (MSP) and the Ghibli's system has evolved and improved even from the new Quattroporte.



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Developed in the most extreme of test circumstances, the MSP uses a wide array of sensors to detect any need to intervene on the driver's behalf.

MSP adds a layer of security on top of the Ghibli's inherent chassis stability that helps drivers enjoy anxiety-free handling under all driving conditions.

MSP constantly measures the car's handling and grip and combines a host of safety and performance systems to maintain the car's ideal handling stance.

Two of the bigger keys to the MSP's operation are the engine and the brakes. If skidding is detected, the MSP reduces the engine's torque output and can actuate the brakes with minute, finely varied inputs to restore the car's stability within milliseconds.

The other key systems that make up MSP include:

- ABS, which stops the wheels locking up under brakes, thereby maintaining steering control at all times.
- EBD (Electronic Brake Force Distribution), to distribute braking force between the front and rear axles to prevent rear-wheel lock up.
- ASR (Anti-Slip Regulation) stops the driven wheels from spinning in low-grip situations.
- MSR prevents the driven wheels from locking up when downshifting on low-grip surfaces. It does this by measuring the speed of the driven wheels against the speed of the free wheels and accelerating the driven wheels slightly if needed.
- BAS (Brake Apply Sensor) uses a variety of sensors to recognise panic or emergency braking situations and increases the pressure in the braking circuit.
- Hill Holder. Automatically connects to the braking system to prevent roll back when the car moves away from rest on hills.



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SAFETY

The new Ghibli's passive safety equipment has been designed to achieve both maximum peace of mind for its occupants and to achieve five stars on the Euro NCAP crash test regime, all without compromising its weight or fuel consumption.

Maserati has balanced these conflicting demands by using hot-formed steels in critical areas of the passenger compartment for added occupant safety, while using aluminium in other areas to save weight.

In particular, the front of the passenger compartment (the pillars and under-door mouldings) features hot-moulded steel components, with a magnesium dashboard strut to save weight, while the rear is stiffened with high strength steel.

The crash bars at the front and rear of the car are made of extruded aluminium, while the doors, engine compartment, mudguards and luggage compartment are in aluminium.

Maserati's engineers added a third crash load path to the front structure of the car to help dissipate load and distribute the forces on the car to guarantee the stability of the body structure in frontal impacts.

The US versions contain a roof reinforcement to account for US NCAP's particular roof crush and lateral impact tests and the car also has reinforcements added to its rear longitudinal beams to comply with the US rear impact standard.

The New Ghibli is equipped with a seven-airbag system and anti-whiplash front headrest to provide maximum occupant safety.

AIRBAG

At the front, two-stage airbags are concealed from the occupants inside the steering wheel and dashboard to protect the head in frontal accidents while a knee airbag protects the driver's legs and reduces the femur load in crash situations.



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The chest and hips of the front occupants are further protected by the side airbags beneath the seat leather.

The sides of the occupants' heads are protected by two head "curtain" bags mounted in the roof of the car, next to the B-pillar. The "curtain" bag protects the heads of the front and rear occupants against lateral impact.

SEATBELT FEATURES

The front seats are brimming with safety equipment designed to reduce trauma to the occupant's cervical vertebrae.

If the car is involved in a rear-end accident, its active headrests automatically reduce the distance between their surface and the passenger's head.

The front three-point seatbelts are equipped with load-limiting pyrotechnic pretensioners, which trip in a collision to hold the passengers securely and prevent or minimise injury.

The front seatbelts are fitted with height adjusters; properly adjusting the height of the seatbelts to the occupant's height, which is not only more comfortable but also improves the safety function of the device.

REAR VIEW CAMERA

The rear-view parking camera on the new Ghibli makes manoeuvring and reversing safer and more comfortable.

Installed next to the luggage compartment's release button, it views the area behind the car, and shows the resulting colour image on the 8.4" MTC display. The system works together with the standard parking sensors and sounds an acoustic warning as it approaches obstacles behind the car.



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LIGHTING

Part of the reason the Ghibli's exterior design is so distinctive is, in part, due to its use of Bi-xenon headlights and LED daytime running lights.

The LED tail light assembly is also highly innovative, providing excellent visibility with the style and safety essential to this class of car.

HEADLIGHTS

While the Ghibli and the Ghibli Diesel get standard the bi-xenon headlights, the Ghibli S and the Ghibli S Q4 add an Automatic Frontlighting System (AFS, available as option also on Ghibli and Ghibli Diesel), which actively adjusts the headlight depth to combine an outstanding view of the road with very low glare for oncoming traffic. The bi-xenon headlights combine technology and style, with all of its secondary functions entirely provided by LED.

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Each headlight includes LED daytime running lights, with a light shape that provides instant recognisability in both day and night running. Each light also contains direction indicators, LED side position lights and a side reflector.

With a video camera mounted in front of the rear-view mirror, the lighting system offers a beam control specifically for motorway driving which increases the depth of the light beam without the need for manual high beam activation.

Sensors monitor the driving style and speed and if the road is clear, the beam depth offers the greatest depth and width, combined with the directional rotation of the headlights themselves.

In addition, there are four different automatic lighting setups: for city driving, for motorway conditions, for low visibility and for driving on the opposite side of the road in applicable countries. Each of these modes automatically activates a strategy to best illuminate the road surface.



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The Town Beam turns on below 45km/h and sets the beam wider and shallower, giving a better view for turning and for peripheral danger zones while causing minimum disturbance for fellow road users.

There is also a Rain Beam, which begins when the windscreen wipers operate. The individual beams are set to different levels to minimise reflections, while the outer beams are set wider and higher to make the Ghibli more visible to other road users.

Note: In the USA and Canada, cars are not equipped with the AFS function. They retain the automatic depth and rotation control functions. The beam rotation function and the four AFS functions may be deactivated via the menu in the European Union, while in the USA, only the beam rotation function may be deactivated in this way.

TAIL LIGHTS

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The Ghibli's taillights have been designed to offer maximum visibility and to have a recognisable style. These LED lights integrate the position light function in an illuminated ring running right around the tail light itself. Inside this ring are the brake lights, the direction indicators, reversing lights and fog lights. The outside reflector and LED side position lights round off the unit.

INTERIOR

Inside, the Ghibli sets itself apart from the Quattroporte with its own dashboard design that perfectly meets the buyer's need for a sportier and youthful experience without losing any of the luxury expected in a Maserati.

Its layout provides the standard fine Poltrona Frau leather finish that is the envy of the rest of the premium and luxury contenders. Uniquely, it combines this with the ability to choose two leather trims for the dashboard.



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The interior of the new Ghibli unites refined, clean styling with high technology and a timeless sporting character.

Even with its aggressive, coupe-like silhouette, the Ghibli manages to deliver typical executive sedan rear head room without the compromises people have to accept in other coupe-like premium sedans.

The clever interior packaging has also allowed Maserati to deliver 60:40 folding rear seats and 500 litres of luggage capacity, along with a capacious centre console compartment, large door pockets and a large and ventilated glovebox.

The standard driver's seat delivers six-way electronic adjustment and leather trim, while Maserati also offers two higher levels of leather trim as options.

The Ghibli S models use an even more supportive seat with eight-way electric adjustment, while there is an optional electric adjustment system to move the pedal box up and down. The drivers preferred seat, lumbar and mirror settings can all be saved, then recalled at the touch of a single button.

A large central tunnel splits the front seats and contains two cup holders as well as a 12V power socket, while its console houses a compartment for mobile phones as well as USB and Aux-in connections for external devices.

The longitudinally split console lid doubles as the armrest for the front occupants, with each half springing open to reveal two additional cup holders and another 12 Volt power socket. (There are additional 12 Volt power sockets alongside the gear shifter, in the rear armrest and in the luggage area.) The console also has its own air vent to allow the air conditioning to cool its contents.

The Ghibli's rear seats are similarly plush, with the two outer seats particularly designed for lasting comfort as well as strong lateral support and are equipped with ISOFIX fittings to securely anchor child seats.

The seats have a foldable central armrest, which doubles as a fifth seat when necessary and houses two cup holders and a storage box.

"The interior design achieves elegant simplicity, with clean lines and user-friendly instrumentation," Mr Ramaciotti said.



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“The functional features are camouflaged to allow the attention to focus on the soft curvaceous surfaces of the dashboard and the central tunnel,” he said.

Like all Maseratis, the Ghibli’s interior is built around a driver interface that is intuitive and simple to use. The instrument cluster features a large speedometer and a large tachometer that flank a 7” TFT display for many of the car’s operational features.

Many of the vehicle's settings are oriented towards the driver and are controlled with the buttons alongside the gear shifter, while other on-board settings can be set by the driver via the Maserati Touch Control (MTC) at the centre of the dashboard.

The Ghibli S standard equipment includes leather seats, wood trim, eight-way electrically adjustable front seats, dual-zone climate controlled air conditioning and active cruise control, with Bi-Xenon Adaptive Front Headlights System, and fixed braking callipers.

Maserati also provides an exceptional degree of personalisation with a vast range of materials for the client to choose from, including wood, carbon fibre, leather, Alcantara ceiling and numerous optional choices.

Some key features include:

MASERATI TOUCH CONTROL (MTC)

By utilising the MTC’s 8.4" Touch Screen display, the user can control almost all of the Ghibli’s on-board equipment simply and intuitively.

The system includes features like the radio, the navigator and the DVD player. It can have also the Bluetooth connection for telephones to connect to external sources like cell phones and Apple devices.

Using its Aux-in, USB sockets or the SD card reader, the user can play music, watch films or even view images.



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Its menus have options to configure the car's main settings and the system's various menus are always available from the icons displayed at the bottom of the screen.

The MTC also controls the front seat heating and ventilation, the steering wheel heating and the operation of the optional rear window shade, as well as providing the screen for the reversing camera.

CRUISE CONTROL AND SPEED LIMITER

An active cruise control system is standard on the new Ghibli. The controls for this system are mounted on the steering wheel and the speed is displayed on the instrument panel display. The cruise control is active: when driving up or downhill, the car accelerates or decelerates on descents to maintain the speed setting.

A new addition to this system is the Active Speed Limiter function, which allows drivers to set a maximum speed to prevent accidental over speeding.

Activated and deactivated via button on the steering wheel, the system is simple to use and can be over-ridden by the driver in urgent situations by pushing the accelerator pedal through its "kick down".

WI-FI HOTSPOT

The new Ghibli contains optional WLAN technology that effectively turns it into a rolling Wi-Fi HotSpot.

Owners can place a SIM card into its WLAN router to receive Internet signals, which can be resent around the car as a wireless Internet signal.

Up to three devices, such as laptops, cellular phones or tablets, can be connected simultaneously. The system supports HSDPA, UMTS, EDGE and GSM.



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AUDIO

The New Ghibli's standard audio system gives outstanding power and sound quality, based around eight speakers driven by the head unit. Additionally, there is the option of a premium sound system, with 10 speakers and a 600 Watt amplifier.

Above this is the optional Bowers & Wilkins Premium Surround Sound system, with 15 speakers, a 1280 Watt amplifier and a perfect configuration of the QuantumLogic™ Surround Sound required long and very demanding sound engineering studies.

The result is a system that perfectly reproduces every nuance of the sound, with a dynamic purity at the highest level, for total realism and delivers a completely new level of music enjoyment on the road.

As the QuantumLogic™ Surround Sound system processes each track; individual elements of the track, including musical instruments, voices and the interior's reverb, are identified, separated and processed into a surround sound field which is exceptionally realistic and precise and gives a crystalline, perfectly defined audio image.

It features a central 100 mm Kevlar cone for midrange sound and three 25 mm tweeters at the centre and sides of the dashboard. The front doors house a 165 mm woofer and 100 mm Kevlar cone midrange speaker, while the rear doors each carry a 165 mm Kevlar woofer and 25 mm tweeter. The rear shelf has two 100 mm Kevlar midranges and a 350 x 200 mm subwoofer.

CLEVER KEY

Incorporating Keyless Go technology, the body of the new Ghibli's key is made from polished aluminium and looks and feels heavy, elegant and confidently technical.

When the car is locked, it is enough to keep the key in a pocket or a handbag and simply open the car by pulling on the door handle or luggage compartment button. This way, there is no need to always find the key to push a button to open the car.



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WINDOWS

The new Ghibli is intended to be not only safe and technically superb, but also comfortable.

Because of the large door window areas, the Ghibli can be supplied with double laminated acoustic glass on the windows too (the windscreen is already equipped).

All this adds up to reduced external noise and excellent temperature stability, along with more robust windows, all of which increases the occupants' comfort and safety.

In addition, the all three rear windows can be fitted with darkened glass for greater privacy

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CLIMATE CONTROL SYSTEM

The automatic climate control operates on a dual-zone system and delivers huge amounts of air through 13 ventilation ports.

Four of its ventilation ports are in the rear of the car and it balances its output through a sunlight sensor to provide outstanding levels of comfort and the seamless maintenance of the chosen temperature.

There are separate temperature adjustment functions for the driver and the passenger, which can be controlled through the MTC or via a physical control panel under the screen.

This power is driven by a variable-displacement compressor that is electronically controlled to ensure that its operation matches perfectly to the exact demands from the car's occupants.

A wide array of sensors help the system to maintain its internal environment, including a humidity sensor that governs the flow from the defrosting and demisting



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ports and the sunlight sensor that regulates the temperature of the air from the ports that cancel the effects of the sunlight and outside temperature.

The system has 13 ventilation ports: a demister on the windscreen, four outlets on the dashboard, two on the joint between the front pillars and upper door surround, two at the feet of the front occupants, two central ports on rear unit and two more at the feet of the rear occupants.

QUALITY

The programs for the new Quattroporte and Ghibli ushered in a new era of extreme quality at Maserati.

This push starts from the ground up, with a complete refurbishment of its factory near Torino and continues all the way through to testing every single Ghibli as it emerges from the production line.

It also came to the fore during the development of the Ghibli, with an intensive reliability program that included:

- More than six million test kilometres with a fleet of more than 90 Ghiblis
- Hundreds of thousands of additional test kilometres to validate any upgrades
- Testing in extreme heat in South Africa and Morocco
- Testing in extreme cold in Sweden and New Zealand
- Testing every single component for endurance, quality and noise
- Severe process control, including four in Body-in-White, three in painting, four in the assembly process, plus additional electronics, dynamometer and water testing
- A total of more than 700 control checks for each car in production



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- Every finished Ghibli has a final, 30-minute quality audit before being delivered to the customer

Every finished Ghibli is tested on-road for 60 km before it is delivered to the customer.