



Total
911
PRESENTS

NEW 911

FIRST LOOK



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991.2

The new Porsche 911 Carrera has arrived. Internally codenamed the 991.2, this facelifted generation signals a new dawn as, for the first time, the Carrera will switch to turbocharging. The 3.0-litre flat six engine – in both the Carrera and Carrera S – will develop 370hp and 420hp respectively, which is an improvement of 20hp over the naturally aspirated 991.1 Carrera. Driving efficiency has also improved: the new Carrera boasts improved MPG and emissions over the outgoing model, and also meets Euro 6 emissions legislation, which came into effect as of September 1st.



DECKLID

The business end of the 991.2 is where the Carrera is most changed from the first generation. Two small exhaust turbochargers help power the flat six, with modified compressors, a specific exhaust system and tuned engine management the difference between the Carrera and Carrera S models. Externally, 3D rear clusters are used, while a new decklid with longitudinally placed louvers ensures better airflow is directed into the flat six.





AIRFLOW

The new Carrera boasts revised door handles, while four-point daytime running lights are used in its headlamps. Beneath them, small active vents that open and close according to the speed of the 911 dominate bigger air intake grills. These vents manage both aerodynamics and cooling of the car simultaneously. Special colours available on the new Carrera include Lava orange, Miami blue and Carmine red.





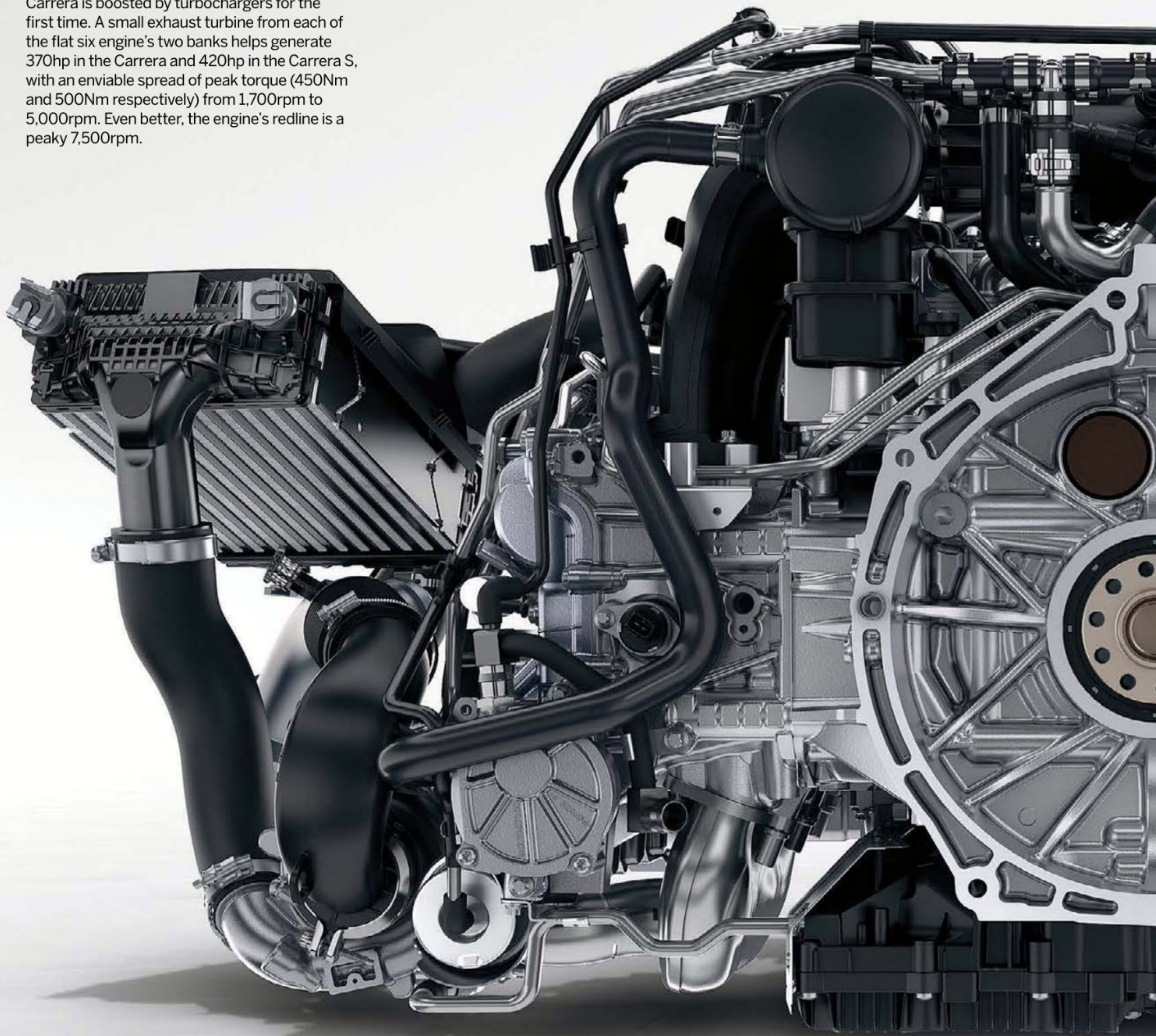
EXHAUST

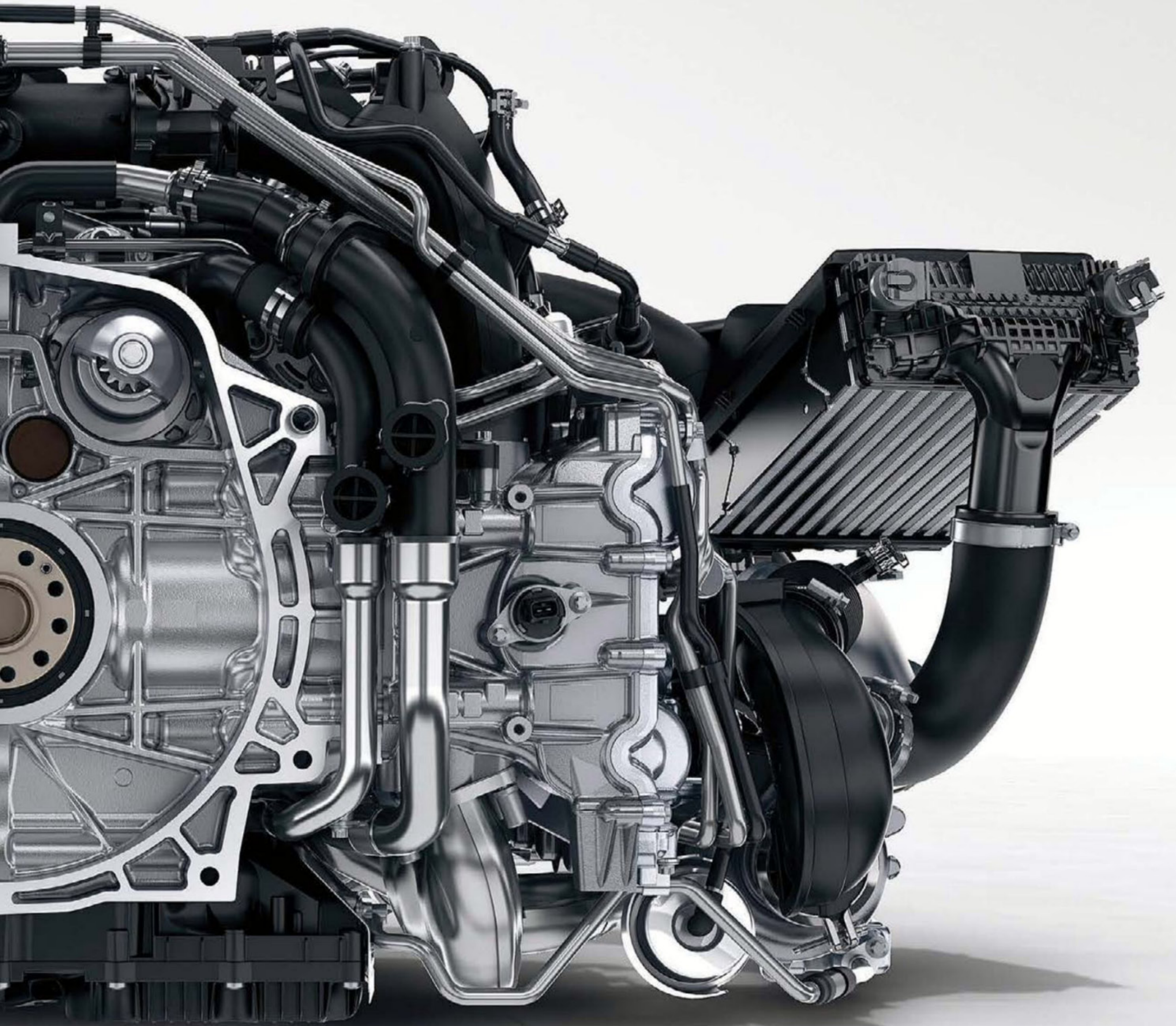
Smaller aesthetical changes evident from the rear of the 991.2 include heat dissipation vents between the wheels and reflectors. Rear rim width has also increased by half an inch to 11.5-inches, wrapped in 305 instead of 295 section rubber (N-rated brands are still to be confirmed). There are three exhaust configurations available: two single-exit stainless steel exhausts for the Carrera, or two twin-exit exhausts on the Carrera S. Centrally mounted exhausts – evocative of the 991 GT3 – are part of the Sports Exhaust option.



TORQUE

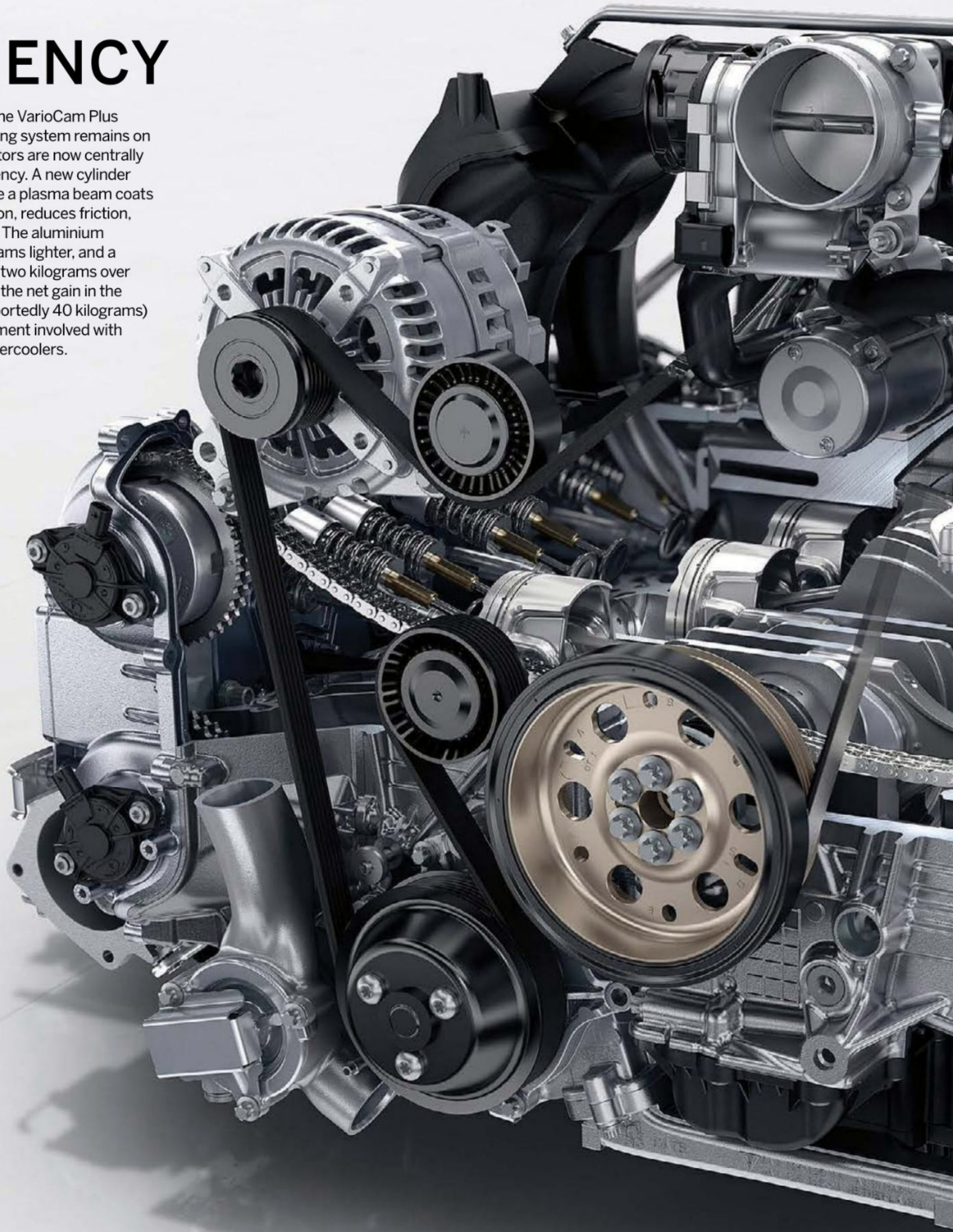
In a move that signals the future of Porsche engine technology for all its vehicles, the new Carrera is boosted by turbochargers for the first time. A small exhaust turbine from each of the flat six engine's two banks helps generate 370hp in the Carrera and 420hp in the Carrera S, with an enviable spread of peak torque (450Nm and 500Nm respectively) from 1,700rpm to 5,000rpm. Even better, the engine's redline is a peaky 7,500rpm.

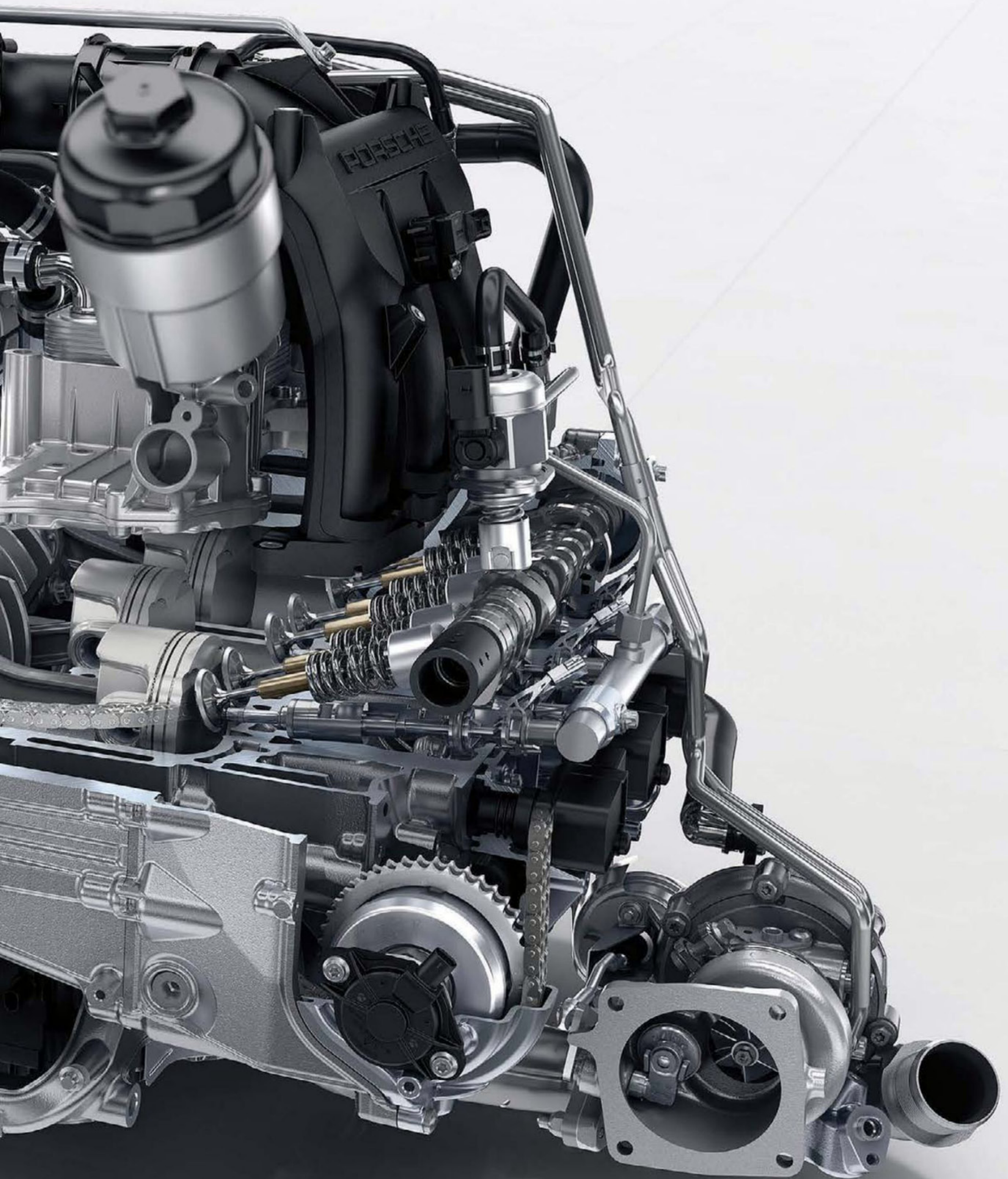


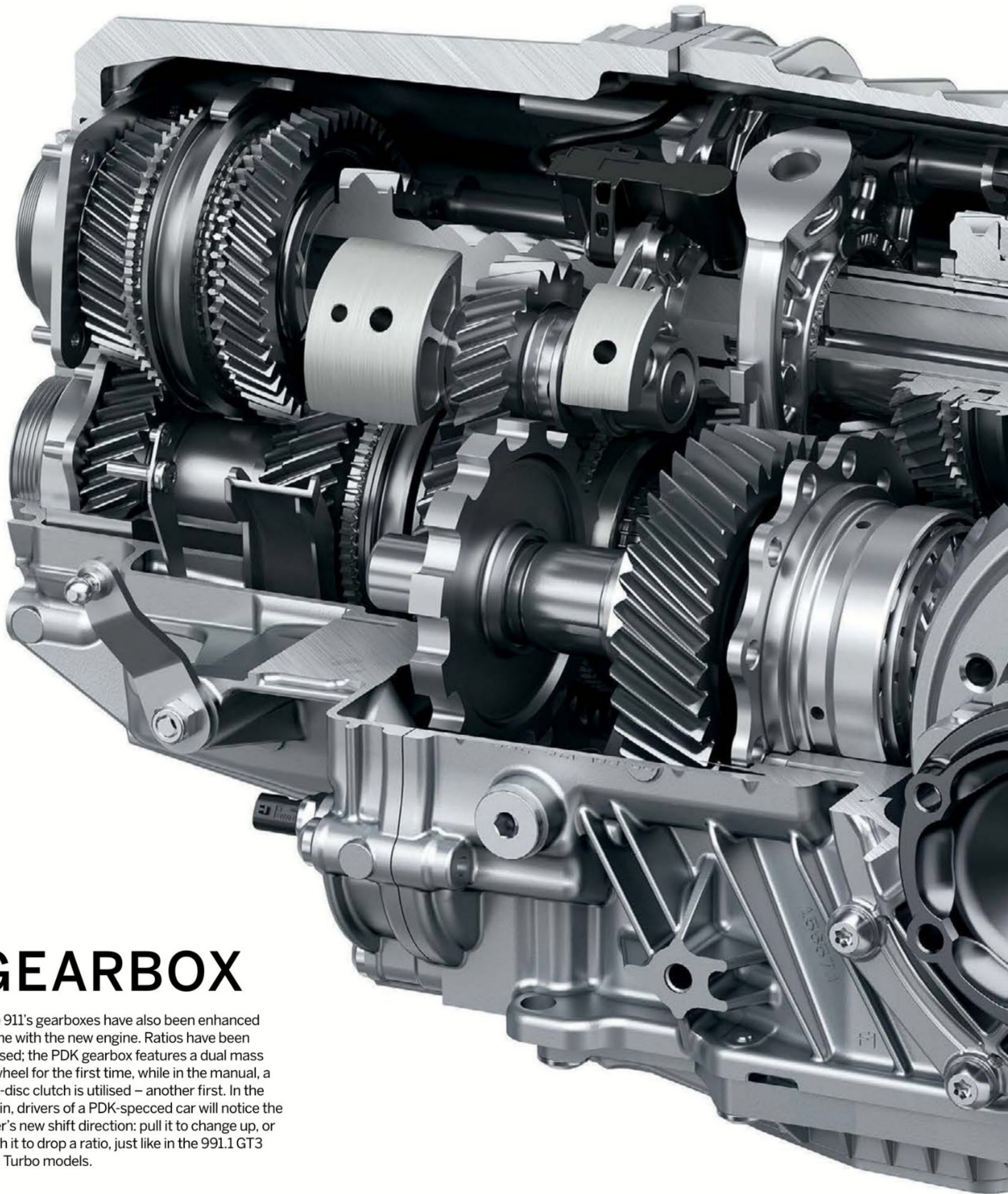


EFFICIENCY

The tried and tested Porsche VarioCam Plus variable valve lift and opening system remains on the new engine, while injectors are now centrally positioned, boosting efficiency. A new cylinder wall coating process, where a plasma beam coats the cylinder surface with iron, reduces friction, again improving efficiency. The aluminium crankcase is also 1.5 kilograms lighter, and a new polymer oil pan sheds two kilograms over the 991.1. This helps offset the net gain in the engine's overall weight (reportedly 40 kilograms) thanks to the added equipment involved with turbochargers and alloy intercoolers.

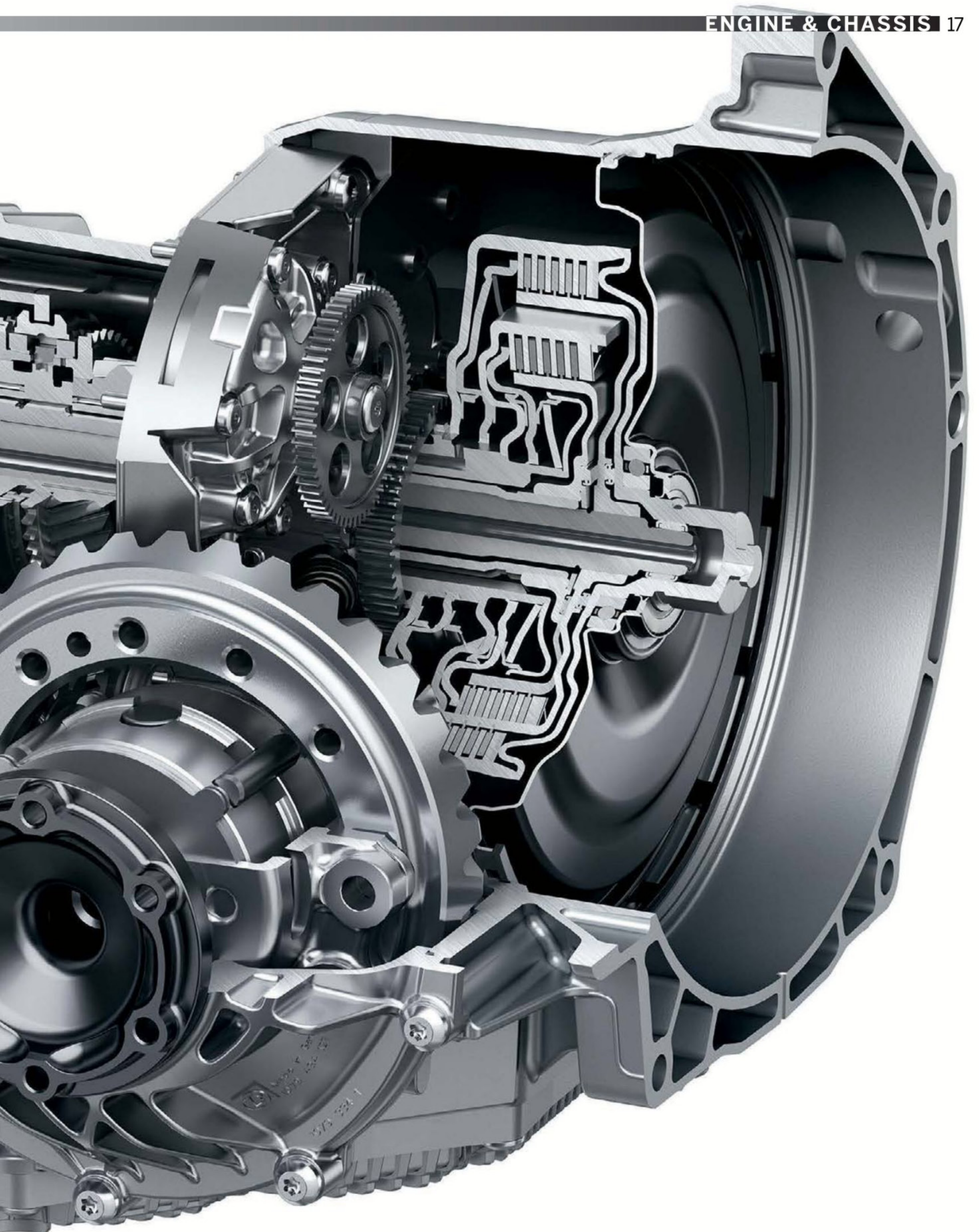


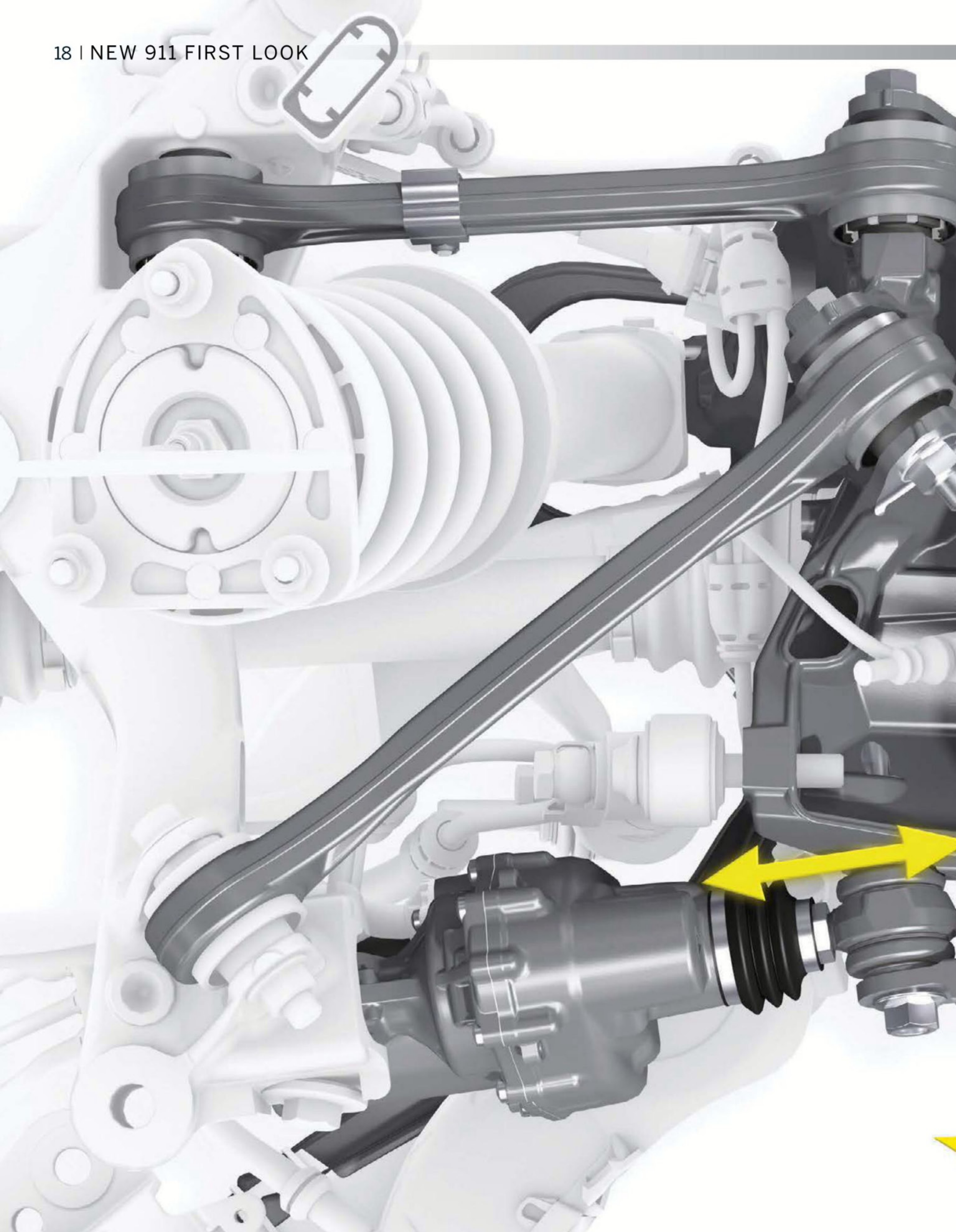




GEARBOX

The 911's gearboxes have also been enhanced in line with the new engine. Ratios have been revised; the PDK gearbox features a dual mass flywheel for the first time, while in the manual, a two-disc clutch is utilised – another first. In the cabin, drivers of a PDK-specified car will notice the lever's new shift direction: pull it to change up, or push it to drop a ratio, just like in the 991.1 GT3 and Turbo models.







CHASSIS

There are various chassis improvements on the new 911 Carrera. PASM is standard for the first time, offering two switchable damping maps, while a front axle lift system raises the car at its nose by up to 40 millimetres in five seconds. Brakes have been improved all round too, with four-piston callipers pinching larger (330mm x 34mm) discs up front. The Carrera S adopts 911 Turbo-spec brakes all round, with rear axle steering also an optional extra on the S.

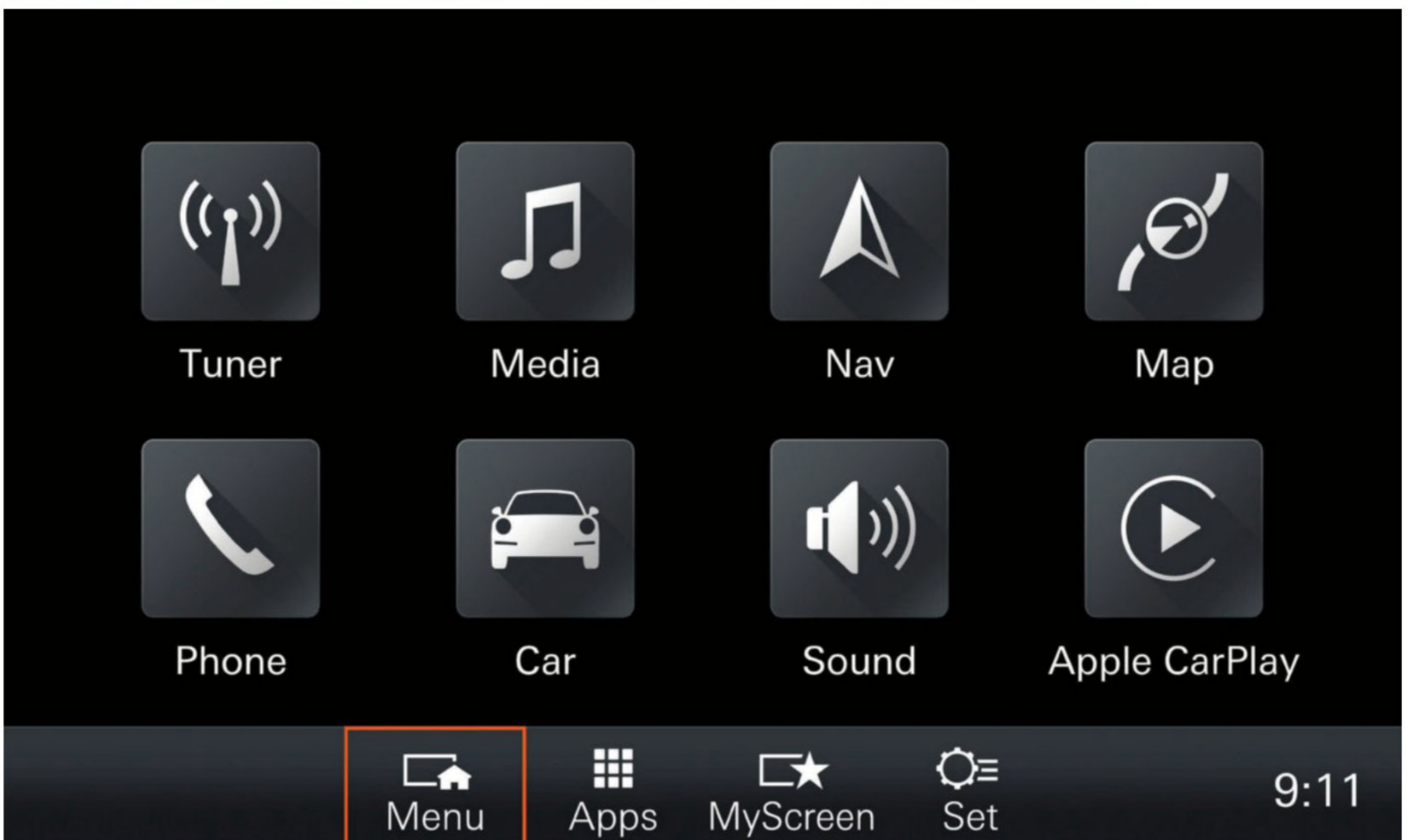
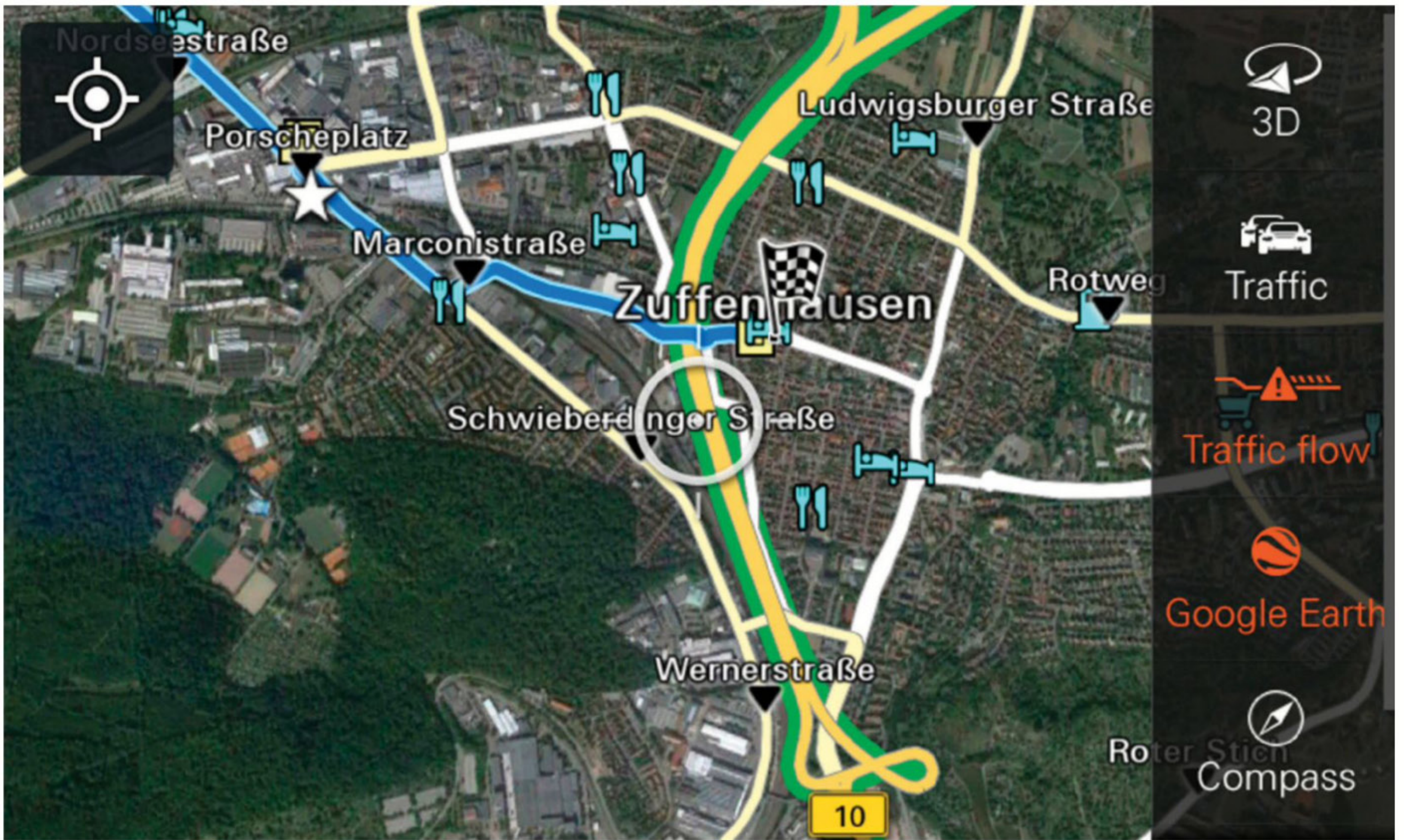
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CABIN

The 911's cabin refinements are now more indicative of a grand tourer rather than a bona fide sports car. The centre console is raised and more steeply raked, with a larger touchscreen housed at its summit in the centre of the dashboard. A 918-inspired Sports wheel offers a new grip for the driver, which, for those spec'ing the Sport Chrono Package, will house a new Mode toggle switch. The driver can select Normal, Sport, Sport Plus or Individual settings here, while a banzai 'Sports Responsiveness' button ensures the engine is finetuned for maximum possible output for up to 20 seconds once pressed.





PCM

The new 911's engine isn't the only component that has come in for huge revisions: PCM has been completely revamped with a larger touchscreen boasting more intelligent responsiveness to inputs, similar in nature to a smartphone. Standard on all models, new features include handwritten input detection, Apple CarPlay, online navigation and real-time traffic information. Google Earth and Google Street View give the driver a 360-degree view of a chosen environment, while Porsche Car Connect allows Apple and Android users to, among other things, remotely control certain vehicle functions.



TEST DRIVE

Total 911 gets an exclusive look at the next-generation Porsche 911 during hot-weather testing in Cape Town, South Africa





New 911-style steering wheel will feature a 'Mode' switch for Sport and Sport Plus (left), while the PCM infotainment system will be more dynamically advanced than ever. Head of 911 production August Achleitner discusses the changes with Total 911's Juergen Zoellter (right)



A German tourist approaches our parked convoy of all-black sports cars and asks suspiciously: "Why are your Porsches camouflage? What is it you're hiding?" Of course, you do indeed have to look incredibly closely at the Xenon four-point daytime running lights and redesigned decklid (where longitudinal slats replace cross vents) to realise that, just outside Cape Town, the new models of Porsche's iconic 911 are on the move.

So, is the 911 Carrera Coupé, Targa and Cabriolet receiving a so-called facelift? "Well, if they were just optical changes we would not be driving them on such an extensive testing program," August Achleitner replies with a wry smile. The new 911 will be officially presented for the first time at the 2015 IAA in Frankfurt, but right now it is in the last quarter of its test program, and the man who is in charge of 911 production at Porsche has exclusively invited us to accompany him for a few days of warm weather testing.

These examples in South Africa are part of the third series of pre-production. Following the warm weather testing, a cold test follows in



the icy terrain of northern Canada – only then will it be determined how the new product features will go in the final series of the car. And, because the innovations are mostly under the skin and redefine the driving dynamics of the 911, Porsche's engineers are driving 10,000 kilometres per test series with the highest level of load placed on each car. We sit in the front seat of a test mule while Achleitner summarises the full scope of the technical improvements in just one single sentence: "The jump to this new 991-II corresponds approximately with the air-cooled to water-cooled Elfer in the late nineties."

While driving, Achleitner opens the sunroof of our Coupé and closes it – repeatedly. We listen to the noise from the drive unit. It is a roar that overlays the typical rattling of the six-cylinder boxer engine and is especially evident when the roof is open. "The turbochargers are still too loud," says Achleitner, confirming news that will be sure to shake the 911 world: from Autumn, all Porsche 911 Carreras will be powered by a new, smaller six-cylinder turbocharged boxer unit with a displacement of 3.0-litres, to extend the range between fill-ups to 800 kilometres and to push the average consumption of both the Carrera and Carrera S to less than 7.5-litres per 100 kilometres. This is 1.2-litres less compared to the current Carrera. Achleitner says: "We've managed to achieve even greater fuel consumption than with the current 991 Carrera."

The face of 'Mr. 911' lights up: "Do not worry though! Two small turbochargers, fitted directly to the manifold, kindle a fire that burns brighter than the free-breathing units so far." Achleitner then explains why this conversion of the Carrera series means increased driving dynamics with turbo

engines. We can expect up to 20 more horsepower on the base and S models at 6,500 or 6,600rpm with torque increasing to 450 and 500Nm respectively. This torque will be available from 1,700rpm. With a factory tuning kit the Carrera S will come to 450hp. You can see from the numbers exactly what we are experiencing here in South Africa: the new 911 is evolving in the direction of a fast Grand Touring Coupe. This means more acceleration at low rpms and less gear changes on a car that's more 'versatile' for daily use, with a top speed (for a manual gearbox car) of 304 kilometres per hour. A downshift to sixth gear while sprinting at high speed is now no longer necessary, says Achleitner, commenting on the engine's improved torque spread.

Achleitner then demonstrates the advantages of the complex new technology. The moment his right foot moves towards the floor, the quiet whir in the rear changes to a throaty growl. We are grabbed by a forceful shove which grows in a linear fashion and pulls us along. The rev counter rushes from 1,800 to over 3,000rpm. Now the two sound symposers come into play and pump the noise of the powertrain into the cabin, then the mechanicals begin to speak to us more loudly, asking for more engine revolutions. Up to 5,000rpm the Carrera pushes forward as if being powered by a jet engine; by 7,500rpm we've reached the rev limiter.

August Achleitner then ups the ante as he changes into Sport Plus mode. He does this with a new control knob at the bottom-right of the steering wheel, which replaces the PSM button from the centre console. This is simply called the 'Mode' switch in the new Carrera. It is used to access the Sport and Sport Plus



The new 911 Carrera: What we know



- Powered by a **3.0-litre turbocharged** engine
- Gains of up to **20bhp** over current Carrera and Carrera S
- A **Powerkit** will boost the Carrera S to **450bhp**
- **Carrera 0-62mph:** 4.3 secs; Carrera S 4.0 secs



- **Seven-speed** manual transmission will be offered



- **'Mode'** switch on the steering wheel will be used to select **'Sport'** and **'Sport Plus'**



- New safety features include **lane change assist**

- **Active flaps** in front bumper manage airflow to radiators



- Carrera S to feature **rear-axle steering** from Turbo

“The jump to this new 991-II corresponds to the air-cooled to the water-cooled Elfer in the late Nineties”



Above: Our spies spotted the next-gen 911 free of camo for the first time at the 'Ring





programs that sharpens the throttle response and gearshift of the PDK gearbox and stiffens the adaptive dampers, as well as dropping the car up to 20 millimetres. Personal settings can be saved in 'Individual'.

The middle of the Mode wheel contains what is referred to as the 'magic button'. Achleitner presses this after switching to Sport Plus mode, causing the PDK to instantly select the optimum gear and the PSM to allow a greater degree of slip. For the next 120 seconds the maximum power available from the turbocharged engine is accessible. In order to achieve the best possible acceleration times, the turbos spin up electrically and close the lag down in the blink of an eye, sharpening the throttle response. The Carrera hits 62 miles per hour in 4.3 seconds (4.0 in the Carrera S), though manual cars take 0.2 seconds longer.

A twisty mountain pass shows us the correlation between optimum boost and instant throttle response. Drivers of the free-breathing boxer engine must adjust their driving style: those who keep the car on boost with use of the gas pedal can taste the spontaneous response of the new engine and steer

the new Carrera with just their right foot.

The Carrera S with Chrono Plus package is aided by the regulated LSD as well as the rear axle steering taken from the 911 Turbo. Here, the wheels countersteer by three degrees up to 30 miles per hour and steer in the same direction above 30 miles per hour. In addition, the steering, which is also taken from the Turbo, is ten per cent more direct and gives more feedback to the driver. This means that the cornering ability of the new Carrera reaches a sensational new level of quality. Indeed, Porsche has a goal for the new Carrera S to lap the Nordschleife in 7 minutes 34 seconds, and Achleitner tells us "We are already close to it!"

Dynamics expert Dr. Manfred Harrer attributes the significant increase in high-speed stability to the wider tyres, which now measure a huge 305/30ZR20 at the rear. The wider rear tyres are necessitated by the 30-kilogram increase in engine weight, while the total weight of the new Carrera is 1,475 kilograms.

Because the smaller engines require less fresh air, the new Carreras come without the characteristic air intakes that the 911 Turbo has in front of the rear wheels, according to testing chief Alex Ernst. Instead, it is sufficient to simply flow air through to the intercoolers behind the rear wheels on either side of the car, and to then let the air escape beneath the 911's bumper. Meanwhile, airflow to the two radiators behind the air dam in the front

bumper is controlled by a flap system. These close at 10 miles per hour to improve aerodynamics and reopen north of 100 miles per hour to keep the car balanced.

Additionally, the new Carrera generation gets many safety and comfort functions that one would expect from the modern GT. A hydraulic lift on the front axle provides 50 millimetres more ground clearance to stop the front lip scraping in car parks. Together with the ceramic brakes from the 911 Turbo, the new Carrera also gets the multi-collision brake system, where the car automatically brakes after an impact to minimise more damage.

The fact that there is a lane change assistance next to the 15 millimetre higher armrest hints at the provision for a changing clientbase in the Carrera market. Thankfully the assistance does away with steering wheel vibrations that only gives the driver an optical warning. These evolutions have also occurred in the improvement of the multi-media system which now allows multi-touch input, handwriting recognition and smart search. Multi-media expert Matthias Worch gives us a demonstration and writes 'I really need to go', to which the navigation responds by taking us to the nearest public toilets! It's nice to see that the new Carrera, in spite of its growing complexity, also shows the qualities that have always defined the Porsche 911 in meeting the fundamental requirements that come with travelling fast. **911**



PRICING

The new 911 Carrera and Carrera S is available to buy now, with first deliveries expected in December 2015. Cabriolet and Coupe variants are available.

CARRERA COUPE £76,412
CARRERA CABRIOLET £85,857

CARRERA S COUPE £85,253
CARRERA S CABRIOLET £94,698

