

Ferrari



430 Scuderia – Description and Tech Specs

Lightweight, simple and striking with a distinctive engine and exhaust sound: every last detail of the Ferrari 430 Scuderia simply exudes uncompromising sportiness, the fruit of its close links to the world of racing, links reflected in the Scuderia of its name. Seven-times World Champion Michael Schumacher was also involved in the car's development with the result that the most advanced single-seater technology is now available to Ferrari's sportiest and most passionate clients.

ENGINE AND ENGINE SOUND

The 430 Scuderia's engine is an evolution of the F430's 90° V8 which has been given a whole series of modifications to boost its specific power output from 114 hp/litre to 118 hp/litre.

The inlet ducts and exhaust system have been optimised, most notably through the adoption of the exhaust geometries derived from the F430 Challenge and the use of carbon-fibre on the intake manifold and for the filter housing to aid weight reduction.

Thanks to our Formula 1 experience, the 430 Scuderia's ignition system boasts special coils and, for the first time on a market-targeted car, a dedicated CPU capable of monitoring the ionising



currents generated inside the combustion chamber between the spark plug electrodes. This means that every single sparking phenomenon is detected for every cylinder and sparking is faster and more accurate across the board.

Cutting-edge calculation tools were employed to optimise the 430 Scuderia's intake and exhaust systems and sound damping also with the result that the exhaust and engine sound inside the cabin is clear, powerful and particularly thrilling in full acceleration.

F1 SUPERFAST 2 GEARBOX

The F1 SuperFast 2 is an evolution of the F1 gearbox used on all of Ferrari's models and cuts gear-shifting times to just 60 ms, the fastest time of any of the models in the Prancing Horse range, the lowest overall of any automatic gearbox. In the case of the F1 SuperFast 2, absolutely innovative integrated engine and gearbox management programmes allow the combined disengaging/engaging of the gears partly in parallel with letting the clutch in and out.

E-DIFF 2: E-DIFF WITH F1-TRAC

The E-Diff (which is integrated with the gearbox) has to be the component that really copper-fastens the 430 Scuderia's links to the track. In use for many years now in Formula 1, it is integrated with the car's stability control system.

The 430 Scuderia is the first high performance road car after the F430 to sport an electronic differential. Torque is continuously distributed between the wheels via two sets of friction discs (one for each driveshaft) controlled by a hydraulic actuator.



The F1-Trac traction control system, which is also derived from Ferrari's F1 experience, ensures that even less expert drivers will be able to take the car to the limit, thanks to the exceptional cornering, safety and stability it offers.

The integrated E-Diff and F1-Trac systems offers 40% more acceleration coming out of corners than a traditional traction and stability control system.

RACING MANETTINO

The manettino may have already made an appearance in Ferrari's road cars but the 430 Scuderia features the special Racing version which puts the emphasis firmly on track-specific sporty driving, giving the driver even more choice in terms of the parameters involved. With this in mind, in fact, the ICE setting available with the F430 has been replaced with a CT-Off setting which deactivates the car's traction control without impinging on its stability control system.

Another novelty with the 430 Scuderia is a button on the tunnel which allows the suspension to be controlled separately from the predefined manettino strategy. In short this allows the driver to ensure that the car will be able to deal more efficiently with any asperities, something that is essential to guarantee maximum performance on irregular surfaces.

BRAKES

The 430 Scuderia boasts a specific braking system featuring CCM (carbon ceramic material) discs specifically dimensioned to cope with the car's boosted performance.

The front discs are now 18 mm larger than those on the F430 and thus more efficient too. The front brake pads are also designed to



dissipate the extra heat created by the higher performance and are even more hard-wearing too. These components, together with 6-pot callipers, guarantee blisteringly performance at all times and consistently efficient braking during prolonged track use.

AERODYNAMICS

The 430 Scuderia's external styling has been honed to improve its aerodynamic efficiency still further over that of the F430, by increasing overall downforce whilst still retaining the same drag values.

The aerodynamic efficiency of the newly styled rear diffuser has been enhanced by the addition of a nolder to the engine cover and by the large venturis that run from the front wheel houses to the rear bumpers. This creates the patented Base Bleed effect developed by Ferrari as part of the FXX project, which reduces the pressure in the rear wheel house (increasing downforce).

STYLING AND PERSONALISATION

The 430 Scuderia's ultra-sporty concept and blistering performance have led to the redesign of many of its exterior and interior styling features. This was done to give the F430-inspired model its own strong personality and to further enhance the aerodynamics of what is a very extreme car indeed. The modifications made to the exterior in this regard are particularly obvious and focus on increasing downforce. In-depth research also went into cutting the car's weight still further and has led to extensive use of carbon-fibre, including in some of the bodywork components.

The cabin is very much racing-inspired and, once again, the emphasis was on weight reduction and using technical and functional materials where possible.



The new “Super Racing” seat deserves a mention all of its own. It boasts an all-carbon-fibre structure and comes in several different sizes as well as being adjustable (manually).

Needless to say, the already abundant Carrozzeria Scaglietti Personalisation programme has been enhanced to meet the 430 Scuderia’s specific requirements too. The Racing and Track area, in particular, now offers carbon-fibre kits for the 430 Scuderia to enhance the message that this is a lean, mean machine. The headlamp assembly, rear door, front spoiler, side sill kick panels and diffuser are all available in this high tech material.

430 SCUDERIA – Technical Specifications

Vehicle dimensions

Overall length 177.6 in (4512 mm)

Overall width 75.7 in (1923 mm)

Height 47.2 in (1199 mm)

Wheelbase 102.4 in (2600 mm)

Front track 65.7 in (1669 mm)

Rear track 63.6 in (1616 mm)

Dry Weight* 2775 lb (1250 kg)

Kerb Weight* 2975 lb(1350 kg)

Weight Distribution 43% Front, 57% Rear

Boot capacity 8.83 cu ft (250 l)

Fuel tank capacity 25.1 US gal (20.9 UK gal) (95 l)



Carbon-ceramic brakes Front 15.6 x 1.4 in (398 X 36 mm), Rear 13.7 x 1.3 in (350 X 34 mm)

Tyres Front 235/35 19', Rear 285/35 19"

Engine

Type 90° V8

Bore and Stroke 3.26 x 3.19 in (92 x 81 mm)

Total displacement 263 cu in 4308 cm³

Compression ratio 11.88:1

Maximum power** 375.4 kW (510 CV) at 8500 rpm

Specific output 118.4 CV/litre

Maximum torque 470 Nm (346.67 lbft) at 5250 rpm

Maximum revs per minute 8640 rpm (with limiter)

Performance

Acceleration 0-62 mph (0-100 km/h) in less than 3.6 s

0-124 mph (0-200 km/h) in less than 11.6 s

0 - 1000 m in 20.9 s

Maximum Speed 198 mph (320 km/h)

Dry weight/Power 5.4 lb/CV (2,45 kg/CV)

Electronic Controls



CST Stability and Traction Control with new traction control logic F1-Trac integrated with the electronic differential (E-Diff)

Transmission and Gearbox

Electronic differential E-Diff2 (E-Diff + F1-Trac)

Gearbox F1, 6-gears + Reverse

Fuel Consumption

Combined* 15.7 l/100 km

CO2 Emissions

Combined* 360g/km

* European market version

** Engine power is expressed in kW, in accordance with the International System of Units (SI) and in CV for reasons of homogeneity. The horse power (hp) can be calculated as follows: 1 kW = 1.34 hp