Ferrari





FERRARI 599 GTB FIORANO

The Ferrari 599 GTB Fiorano is the most high performance 12-cylinder berlinetta ever built at Maranello. It boasts the most innovative and technologically advanced features ever to be used by Ferrari in a mid-front-engined two-seater, setting a whole new standard in terms of sportiness, design and driving pleasure.

The music of the V12 created for the Enzo

5,999 cm³ displacement, a specific power output of 103 CV/litre; chain-driven distribution and twin overhead camshafts per cylinder bank with continuously variable timing on both inlet and exhaust cams to optimise torque delivery; twin-plate, low inertia clutch in unit with the engine; maximum torque of 608 Nm at 5,600 rpm, maximum power of 620 CV at 7,600 rpm, Euro and LEV2 compliant. The engine development work focused specifically on sound, eliminating mechanical resonance in favour of a pure V12 soundtrack from both the intake manifold and the exhaust system.

F1-SuperFast gearbox

The new generation F1 gearbox cuts overall gear-shift times to 100 ms by simultaneously implementing the various stages involved in changing gears: lifting off and declutching; disengaging then re-engaging the gear and then letting out the clutch. The speed of these operations is enhanced by the fact that gears engage in 40 ms. Simultaneous to this, however, is the combined disengaging of the clutch on lift-off and then re-engaging of the clutch as the power is fed back in.

F1-Trac

The experience built up over thousands of kilometres of Formula 1 testing and races by Ferrari's drivers is now being made available to allow even non-professional drivers push this car to the limit in terms of road-holding, safety and stability. The system is integrated with the stability control. Its predictive software estimates the maximum available grip in advance, compares this information with the vehicle dynamics model stored in the control system, and adjusts its reactions to suit, optimising traction by modulating power delivery. The result is smooth, tenacious road-holding thanks to maximum grip out of bends (20% increase in acceleration compared to a traditional traction and stability control systems) and predictable handling even in extreme situations.

SCM suspension (Magnetorheological Suspension Control)



Unlike traditional oleodynamic systems, magnetorheological (MR) fluid suspension systems react instantly to road conditions and driver inputs, thanks to the fact that they use a fluid the viscosity of which is modified by applying an electronically controlled magnetic field. For the driver, this translates to greatly improved body control, which in turn directly improves handling and road-holding thanks to optimal tyre grip. The result is a safer and more enjoyable driving experience, courtesy of reduced roll and greater control when accelerating, braking and cornering.

Aerodynamic efficiency

Lengthy testing in the wind tunnel at Ferrari has yielded excellent results in terms of both downforce and drag. The suction created under the car is now far superior to the lift generated by the upper part of the bodywork. The flying buttresses either side of the wraparound rear window help channel the air without increasing drag. The Cl -coefficient of lift – is 0.190 with a 160 kg aerodynamic load at 300 km/h and 190 at top speed. Similarly, the Cd – drag coefficient – is 0.336.

Enhanced manettino

The steering wheel-mounted manettino vehicle dynamics control switch, available to our Formula 1 drivers since the 1996 season, has been further developed for the new 599 GTB Fiorano. It integrates the stability and F1-Trac traction control systems, the F1-SuperFast sequential gearbox, the SCM (Magnetorheological Suspension Control) fluid suspension and engine management unit, which means that the driver can instantly intervene on the car's dynamic behaviour. The manettino settings can be changed to suit snowy or icy, wet or low grip situations. The driver can also select the sport and race settings. Its readouts are displayed on the new on-board Multi Display unit which also incorporates lap times and trip computer readouts.

Interior and personalisation

The 559 GTB Fiorano's cockpit is a fine balance of sportiness, warmth, artisan craftsmanship and bespoke personalisation. The passenger area features leather trim while the driver-car interface areas are finished in high tech carbon-fibre and aluminium. The arrival of the Ferrari 599 GTB Fiorano also added new features to the personalisation programme available to every Cavallino Rampante model. Four main areas are covered: Racing and Track; Exterior and Colours; Interior and Materials; Equipment and Travel. At the end of 2008, with the One-to-One personalisation programme, clients can visit a private Atelier in Maranello where they can tailor their car, by choosing materials and details to suit their own personal requirements and preferences.

Handling GTE package

The new Handling GTE (Handling Gran Turismo Evoluzione) package offers a series of features that further underscore the 599 GTB Fiorano's sporty character. This optional kit was developed for owners that appreciate the model's exceptional versatility and spec but are keen to embrace an even more dynamic driving experience. Technically,



the package includes a modified set-up with stiffer springs and rear anti-roll bar as well as new calibration settings for the magnetorheological shock absorbers when the manettino is at its sportier settings (SPORT, RACE and CST). The ride height has also been lowered, which in turn lowers the car's centre of gravity, improving body control. The latter is also enhanced by tyres specifically optimised for the Package and featuring a compound that offers even better grip. The F1 gearbox's shifts are now even faster in high performance settings, while a new engine software strategy has improved accelerator response across the board. Stylistically, the package offers distinctive new sporty exterior and interior features with carbon-fibre widely used in the latter, lending the car a more track-inspired look.

TECHNICAL SPECIFICATIONS

DIMENSIONS AND WEIGHT

Overall length 183.7 in
Overall width 77.2 in
Height 52.6 in
Wheelbase 108.3 in
Front track 66.5 in
Rear track 63.7 in
Dry weight* 3482 lb
Kerb weight* 3722 lb
Boot (trunk) capacity 11.3 cu ft
Fuel tank capacity 27.7 US gal
23.1 UK gal
Weight distribution 47% ant./53% post.

BRAKES

Front 13.9 x 1.3 in Rear 12.9 x 1.1 in

MOTORE/ENGINE

Type 12V 65°/65° V12
Bore/stroke 3.62 x 2.96 in
Unit displacement 30.51 cu in
Total displacement 366.08 cu in
Compression ratio 11.2:1
Maximum power** 456 kW (620 CV)
at 7600 rpm
Maximum torque 608 Nm (448 lbft)
at 5600 rpm
Maximum revs per minute 8400 rpm (with limiter)
Specific output 103 CV/l

TRANSMISSION

Gearbox Manual or F1; 6-gears + Reverse



ELECTRONICS CONTROLS

Tyres pressure and Temperature Monitoring System TPTMS Control for Stability and Traction with F1-Trac

TYRES

Front 245/40 19" Rear 305/35 20"

SUSPENSIONS

Magnetoreological damping Control SCM

PERFORMANCE

Maximum speed over 205 mph 0-100 km/h (0-62 mph) 3.7 s 0-200 km/h (0-124 mph) 11 s

FUEL CONSUMPTION

Combined (ECE+EUDC)* 17.9 l/100 km

C02 EMISSION

Combined (ECE+EUDC)* 401 g/km European market version manual garbo

** 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