



Symbol



Above, Giorgio Neri, the engineer in charge of the quality and reliability control section for all Ferrari cars.

# FERRARI

the Test is on the Road





Left, a Ferrari being tested out on the local roads. Below, each of the various stages laid down in the long check-list are meticulously worked through. Photo, below left, shows another moment of the road test: a "Ferrari" seen coming to grips with a wet road surface.



PHOTOS BY MAURIZIO CAVAZZUTI

**T**he typical roar of a Ferrari engine, accelerating after the last bend leading to the plant's gates, puts the attendant on his guard—the car's sleek front bearing its proud little horse presents itself at the barrier.

"O.K.! It's one of ours!"

As the roar of the engine moves off into the distance, the attendant writes down the time on the driver's personal record. This ceremony is repeated dozens of times every day; although it may seem insignificant, it does, instead, have a very subtle meaning everyone at Ferrari is aware of. As long as the cars continue to come and go on their road tests, a tangible feeling of continuity remains, greater than any other aspect of their production.

"Paolo!", calls Enzo, whose unmistakable figure gets out of the "Mondial" that has just drawn up. Paolo Guidetti, 20 of







Left, the tight Malandrone bends, on the Apennines, constitute one of the most important stages of the "Ferrari" road test. The test is complex. Right, another moment on the Fiorano track and, below, a "Ferrari" facing snow conditions.



whose 37 years have been spent with Ferrari, joins him. They chat for a while on the car's behaviour, their words accompanied by gesticulations typical of anyone explaining how to approach and leave a bend.

Two minutes later, they are once again on the road, this time together in the same car. They have decided to go back to an old testing-venue, reverted to on such occasions—a bend on the no. 12 trunk-road. (Until the early 1970s, this road formed the normal test-run but has since been abandoned due to excessive traffic. This bend—the paralytic bend—receives its curious name from an elderly partially-paralysed man whose habit it was, and still is, to be taken here in fine weather). Every unit produced at Ferrari is road-tested; the test is characterized by fairly uniform standards of measurement geared towards the cars' expected behaviour. The first part is carried out on flat, straight runs and bends and then continues up on a mountaineous stretch on the Modenese Apennines, amongst its typical clay-earth furrows, in springtime spotted with the yellow of broom; the drive down to the Panaro river brings to the Modena-

Sud entrance of the Autostrada del Sole, which is covered for about thirty kilometres before the return back to Maranello. This is the route taken on the first road test, which allows suspensions to be run in, brakes and tyres to be adjusted and driveability to be assessed, as well as aerodynamic and transmission noise and wheel balance to be checked. This is always followed up by a second road test, to a large extent sticking to the previously adopted route.

This total of 170 kilometres, alternated with tuning done by mechanics in the workshops, is usually enough for a car to move on to receive its finishing touches prior to delivery. 170 kilometres each for 2,500 cars add up to a total of 425,000 kilometres a year, rising to 475,000 with the special road tests. Eight drivers are responsible for recording these on their personal files; except when the Po Valley is invaded by fog and those rare days when roads are glazed with ice, these men go out in all environmental conditions.

Every morning, the foreman supervises the cars' first drive out on the road, arranging these in coordination with workshop requirements; he then goes off for half an

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hour to make his daily report to the Quality Control Section. Here, he accounts for work done the previous day—output, mix of the various models, as well as any possible hitches worth mentioning, and receives corresponding instructions for that day. Anyone wandering for some time around the test-runs, could quite easily come across a parked Ferrari with its driver intently leafing through his files; its part of his job. The final technical checklist consists of 96 mechanical items and 163 for bodywork; a further twenty or so regard management-administrative checks. All favourable assessments are carefully and scrupulously ticked-off; when the item in question is, instead, considered unacceptable, a description adequate enough to indicate how it should be set right must be given. “2.83 and 30 kilos! Perfect!”. Put briefly, this is the qualification for a hand-brake test made with a gravity decelerometer: 2.83 m/sec<sup>2</sup> deceleration with a 30 kilo load on the brake. A cross-section of the cars are given this measured test, but every single one of them, after brake adjustment following the first test, must pass the ramp test. With gears in neutral, hand-brake pulled and carrying a full load, they must remain fully immobile on a 25% gradient ramp. Foot-brake braking-capacity is similarly tested on all cars. Any other particular doubts? Oversteering, understeering, adherence, etc...? Not to worry; the Fiorano Track with its carefully-gauged track, steering-pad area and latest testing-equipment is always there available.

**Giorgio Cartasatta**



From top to bottom, a "Ferrari" going through the tough, uneven road surface test; checks for any possible water leaks and the start of the motorway run; hand-brake being tested on a slipway; the dashboard instruments are put through more tests until the "deliberato" is finally given—the car is through.

