

# The Carrera engines

**In the 1950s, the development of the Carrera engines saw Porsche write the first chapters of an unrivalled success story and establish its international reputation in motor sport.**

Porsche unveiled the 550 Spyder in 1953, which was the company's first car to be designed specifically with motor sport in mind. The development of this car coincided with the design and construction of a completely new high-performance engine. In the concept drawn up by Porsche design engineer Ernst Fuhrmann, the four-cylinder boxer engine type 547 featured four elevated camshafts that were driven via vertical shafts and thus enabled exact adherence to the valve timings. This thoroughbred racing engine boasted dual ignition, dry sump lubrication and 110 horsepower generated from only 1,498 cc. The engine was then upgraded for the 1954 season, subsequently delivering up to 117 horsepower at 7,800 rpm in the 550 Spyder. Hans Herrmann's victory at the Carrera Panamericana, an endurance race across Mexico, led to the coining of the term 'Carrera engine'. The engine underwent continuous improvement, resulting in increased compression and the replacement of the Solex downdraught double carburettors with their Weber counterparts. These upgrades helped generate an additional 18 horsepower and boosted Porsche to a famous triumph in Italy, with Umberto Maglioli's victory in the 550 A Spyder at the 1956 Targa Florio representing the first of Porsche's eleven total wins in this event.

The successor models known as the type 645 and the 718 Spyder were also powered to victory by the Carrera engine in the following years. This delivered up to 142 horsepower with a cubic capacity of 1.5 litres, rising to more than 165 horsepower in the 1.6 and 1.7-litre designs. The special type 719 racing engines generated up to 170 horsepower and the 1.5-litre engine in the 718/2, 787 and 804 racing cars that competed in Formula Two and Formula One even reached 190 horsepower. This complex design underwent further development into the mid-1960s while earning a vast number of race wins and championship titles that established Porsche's international reputation in motor sport. The Carrera engine even made an appearance in the Porsche 356: as the type 692, it was initially deployed with a cubic capacity of 1.5 or 1.6 litres and 100 or 105 horsepower. The final Carrera engine was the two-litre type 587, which was also deployed in various 356 models as well as the 904 Carrera GTS. Whereas the road-approved variant of this engine delivered 155 horsepower, the racing variant offered as much as 185 horsepower.