Action from Spa, 1967.

The S stood for Super, and this was probably a fair description of the vehicle.

In line with the hike in performance, the suspension and braking system was uprated, with adjustable Koni shocks, a rear anti-roll bar to go with the beefier one at the front, and ventilated discs. Fuchs forged aluminium alloys also came as part of the package.

The trim was slightly different on the S - inside and out - although all cars were subject to numerous changes for the 1967 season. The most obvious changes included new badging, revised dashboard trim, the adoption of an Ebonite steering wheel (leather covered on the S), and gauge revisions. On the mechanical front, the driveshaft design was changed to incorporate Rzeppa joints, the 130bhp engine was given milder cams, and the heat exchangers were modified to improve exhaust flow and longevity.

The 911S brought back the three-tier Porsche line-up of the past, with the 912 providing an entry level model, the strict 911 in the middle, and the 911S taking care the sector once covered by the Carrera. And, of course, the Targa gave the buyer the alternative of open car motoring.

Progress of the 911 series

The 1968 model year saw the introduction of the A-Serie 911s (earlier cars were known by the O-Serie designation). For Europe, the 911T (T standing for Touring) was introduced, with 110bhp coming from its less exotic two-litre six. At the same time, the standard 911 became the 911L (Luxus), whilst the 911S and 912 continued unchanged.

Compared to the other six-cylinder models, the 911T was quite basic, but did inherit the wider wheel rims and dual-circuit brakes introduced that year. It was also available with the new Sportomatic transmission option,

Porsche production in 1967.

World Championship of Makes, due for inauguration in 1975, but ultimately delayed until the following year.

A turbocharged future

In 1975 revised gearing was introduced to reduce engine revs, plus a new three-speed Sportomatic transmission for the majority of models (adopted across the board for 1976). But the big news was the Turbo. As Ferry Porsche explained: "The exhaust gas turbocharger is capable not only of achieving considerable increases in performance, but also of improving the efficiency of the engine and thus saving fuel. The technology involved was nothing new to us when we came to use it in competition cars, since we had already used it during the war in our air-cooled diesel engines for tanks. Having been subjected to rigorous tests in our competition cars, the turbocharger then found its way into our production cars."

A prototype Turbo had been shown at Frankfurt in 1973, but the 1974 Paris Salon saw the debut of the real thing. Not only was this the quickest road car to come from the Stuttgart factory during this period, it was also the most expensive; at DM 65,800, the 2993cc machine was literally twice the price of a 911 coupé (then listed at DM 32,350 in March 1975). However, despite a hefty price tag and the relentless rise in fuel costs, within 18 months of its launch, Porsche had sold twice the number originally expected.

With bulging wheelarches, a massive whaletail spoiler, luxury trim, and stunning performance, the 260bhp Porsche Turbo stole sales from the Italian exotics, with deliveries beginning in earnest after the 1975 Geneva Show.

End of the 914

Changes to the 914 for 1975 were headed by a different bumper design to meet the latest US regulations, and a modified two-litre engine for the States to satisfy even stricter emissions laws, including a catalytic converter and extra anti-pollution equipment for California, making the cars costlier to produce.

In Germany, the price was held on standard models, but in America, the exchange rate and additional costs involved in meeting emissions regulations pushed even the basic 914-1.8 to $6300. Add options to this, and it became a very expensive car.

Action from the 1974 Safari Rally. This gruelling African event was one of the few that eluded the Stuttgart marque.

The two-litre 914 was priced at $7250, compared with $10,845 for the 912E - a fuel injected revamp on the old 912 theme to keep American dealers happy until the 924 arrived on US shores. While the latter could hardly be classed as cheap, it should be borne in mind that the 911S coupé was $13,845 at the time, and the Targa-bodied version no less than $14,795.

On 10 February 1975, Toni Schmucker, an ex-Ford man, took over from Rudolf Leiding at Volkswagen. Carrying on from where Leiding left off, the 1795cc VW engine was stopped for the 1976 MY in the VW range when the Transporter series (the only model other than the 914 to still use it) went to two litres, using basically the same engine as that in the larger of the two 914s. For this reason, only the 914-2.0 was offered for 1976.

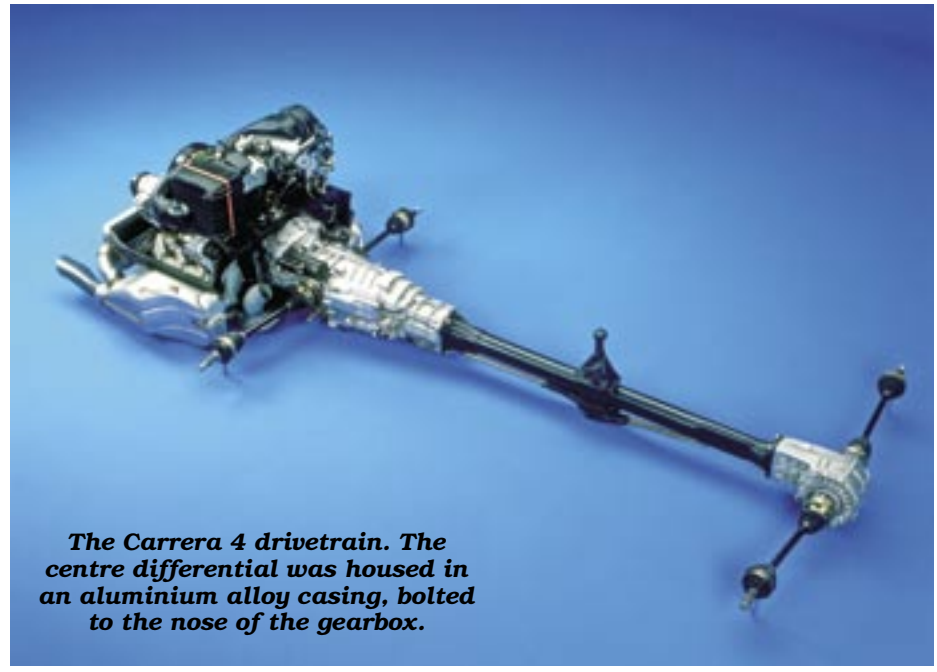
Markets were either shrinking, disappearing, or becoming increasingly difficult to satisfy legally. Because of this, the decision was taken to run down production to an absolute

switch moved up from the console to take the place of the old warning light cluster above the radio. An automatic heating and air conditioning system was available by specifying option M573.

The familiar bank of five meters was still very much in evidence, with fuel and oil level, plus warning lights on the left, oil temperature and pressure, plus the main set of warning lights next to it, a central 7600rpm tachometer (red-lined at 6800rpm), a speedometer to its right (calibrated to either 300kph or 180mph, depending on the market), and an analogue clock on the far right, its face containing even more warning lights. These latest instruments were back-lit, with white on black markings and red needles.

The Carrera 4 came with a switch to lock the centre and rear differentials on the low centre console. This was for pulling away on snow and ice, and automatically disengaged at 25mph (40kph). Above this were three rocker switches, including hazard lights on left, central locking in the middle, and one to cancel a warning light after it had been spotted by the driver.

Compared with the majority of contemporary cars, the ergonomics were quite poor, with the scattered switches at odds with the otherwise excellent layout of the main gauges. As Larry Griffin said at the time: "Porsche rarely upgrades secondary controls, tacking on new odds and ends wherever they'll fit, relative logic be damned. Nowhere is Stuttgart's dedication to excellence less apparent."



The Carrera 4 drivetrain. The centre differential was housed in an aluminium alloy casing, bolted to the nose of the gearbox.

Below: The base engine of the 964 models - the M64/01 unit. It featured a very broad power band, with more than 70 per cent of maximum torque available between 1700 and 6600rpm. Note the twin ignition; the two distributors were driven from a common shaft.

Mechanical details

Development work on the 964 project began in March 1984 under the direction of Friedrich Bezner. One of the main features of the Carrera 4 was its full-time four-wheel drive system, developed directly from the 959 programme.

Drive was taken through a five-speed gearbox (based on the G50 unit) to the rear wheels, in the usual 911 fashion, but also to a front differential via a central propshaft running in a rigid tube, bolted at each end to form a solid drivetrain. The idea was not new to Porsche, as the regular FR models (the 924, 928 and 944) had employed something similar when taking drive from the front-mounted engine to the

The Carrera Cup at Zeltweg, 1990. Note the proper five-spoke wheels used for the series.

Gemballa advertising from early 1990. The company offered a full range of tuning parts and body kits for Porsche, as well as the full conversions seen here.

Arno Bohn, Porsche's new Chairman, following the retirement of Heinz Branitzki. Taking the helm at Porsche in spring 1990, Bohn joined the company from the Nixdorf computer concern.

The 993 was built in a far more efficient manner than its predecessors. These pictures show engines being put together, and front suspension units for the rear-wheel drive Carreras on the production lines in the background.

the press in Italy in January, but made its public debut in March. A silver example with a brown leather interior took centre stage at the Geneva Show, sporting a redesigned top that was stiffer and - thanks to new screen seals - more watertight than before, with a luxurious lining that reduced noise, and a new rear window. Although the latter was a touch smaller than before, the flexible backlight was now bonded in place rather than sewn for quicker and easier replacement. With the engine running and handbrake on, it took 13 seconds to drop the hood from the closed position to fully open.

Another new feature for the cabriolet was the windblocker, made available as an option. Invented by Mazda for the FC-type RX-7 cabriolet, in the raised position it dramatically reduced buffeting in the cockpit caused by backflow. In the Porsche application, it automatically stood up once the hood was dropped, but could also be folded down independently, or removed completely, to allow use of the rear seats when the top was closed.

Reinforcements were minimal, with only extra metal at the bottom of the A-posts and slightly thicker gauge steel in the sills. This allowed the convertible 911 to weigh in at 1370kg (3014lb) - exactly the same as the new coupé. Yet, as Paul Frere observed at the time of the press launch: "There was never the slightest hint of scuttle shake or the faintest body rattle."

This view was echoed in *Motor Trend* and *Complete Car*. The latter magazine said: "This car surely has the stiffest shell of all convertibles. On any surface it feels as rigid and shake-free as the coupé. Nor does it suffer a weight penalty; Porsche says this is because the coupé is a cabrio with a top, not vice versa, so the stiffness is integrated into the design."

The taut monocoque combined with shattering performance and the latest chassis modifications to produce a very desirable machine. As Brian Laban said after driving the car: "With soft-top versatility and a (vaguely) real-world price tag, it puts other supercars into unflattering perspective."

The US scene

The 993 coupé went on sale in the States in January 1994 as an early 1995 model, with the cabriolet following in April. Powered by the M64/07 engine (or M64/08 for the Tiptronic cars), the coupé was priced at $59,900, while the drophead was introduced at $68,200; the semi-automatic transmission added $3150 in both cases.

Whereas European cars had amber indicators with fog or driving lights next to them, and sidelights nearest the number plate, American cars had a rubber buffer splitting the indicator/running light and driving light. Around the back, the amber turn signal lens became all red, and, again, it had the dual purpose of