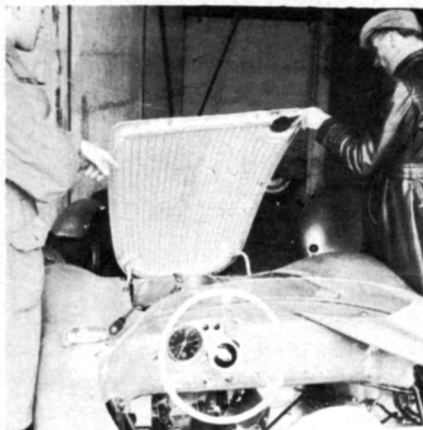
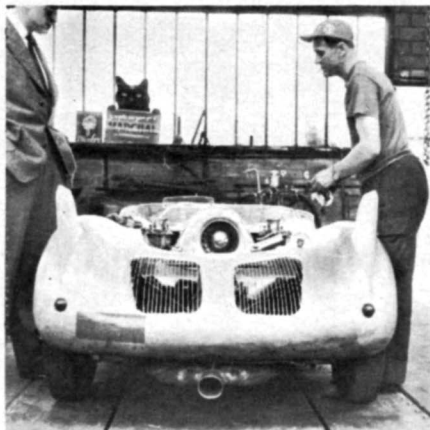


under the hood



PORSCHE TYPE 718

Perhaps after reading Roger Huntington's article on page 40, this practical application of his go-fast principles will be of interest. First unveiled at the Nürburgring 1000 kilometer *Rennfest* in June, Porsche's newest Spyder RS2 is 26 pounds lighter and, shades of Detroit, nearly five inches lower than before, a 10% reduction in frontal area. The "trunk lid" is a surface type oil-cooler on hinges, which is about as ingenious as one can get, and a 5% improvement in penetration is achieved by eliminating the nose slot and cleaning up the neighboring sheet metal and plexiglas. Air resistance, therefore, is down to 0.855 (0.90 x 0.95) of its previous value.

German sources indicate that at its top speed of 149 mph (240 kph), the previous 1500RS, which commanded 135 PS (DIN, not SAE), had a ratio of air- to rolling-resistance of 6.5/1, splitting the 135 PS into 117 for air drag and 18 for rolling. Now, if the new body were installed around the old power unit, we would find the air drag reduced to 100 PS (0.855 x 117) and the total drag down to 118 PS at 149 mph. Since power required is proportional to the speed cubed, and assuming that suitable changes are made in the gear ratios, we can find the new top speed.

$$\left(\frac{V}{149}\right)^3 = \frac{135}{118} = 1.14 \text{ or } V = 149 \times 1.045 = 156 \text{ mph.}$$

This same seven mph increase would have cost 17 hard-to-find PS in the old body.

As a matter of fact, Engineer Hild and his talented team have managed to find about half that much. The cooling fan, pumping 1300 liters of air per second at 7300 rpm, consumes 8.8 PS, all of which will be available for go instead of blow when they perfect the exhaust-induced cooling-air flow installation. (This was pioneered by Fletcher Aviation in Pasadena on a Porsche-engined jeep in 1952-3.) For now, the unsightly bulge behind the cockpit (the world's largest headrest?) covers the usual Porsche shroud. Even more unsightly were the fins added for Le Mans' long "Muldoon" straight, but they didn't prevent Barth from spinning eight times in one go.

Now that the low-pivot point rear suspension is an accepted part of the racing Porsches, the factory is making changes to the front end, which Jesse Alexander details in his Le Mans report on p. 28. Stuttgart-Zuffenhausen is evidently profiting from the proximity of Stuttgart-Unterturkheim as the air is thick with fuel injection rumors, but nothing official has been said by the factory except "Go away."

