



**P**ORSCHEs are indeed a different breed of sports car with their rear engine and air cooling. And the Carrera GT with its four overhead camshafts and dual ignition is a rather special sort of Porsche. Fitted with the same 128 hp engine once used in the factory's racing Spyderys, we expected it to be the least road-usable of the many dual-purpose cars we'd been intending to sample for this issue. At first we'd planned to drive it to Lime Rock from its home at Frank's Auto Sales in Montgomery, N.Y., just to see how tractable it would be. Scheduling problems prohibited this but we were pleasantly surprised to see Frank Wagenhofer had caught the spirit of our adventure and brought it under its own steam himself. Usually it rides in serene splendor on a two-wheel trailer behind a shiny Mercedes-Benz 220S. A veritable Scuderia Stuttgart.

Frank confessed that most of the trip was done in second cog, with villages and towns along the route being traversed at 4000 rpm in first. Noise problems were cared for by an ingeniously mounted muffler once intended for a '42 Chevy. Aware that some Lime Rock locals were making as much noise as the cars themselves in protesting same, we made our post-prandial warm-up laps with the "thing" still in place. The green area begins at 4000 and that is more or less where we held it as we cruised the 1½ mile circuit. About the only noise we heard was the scream of gears from behind us whenever we backed off the gas. When Porsche went in for weight-saving, quietness went out of style!

Smoothness, too, though not for quite the same reason. As soon as we toured across the unpaved pit area, we noticed every little ridge and corrugation. The recently added Koni shock absorbers, though not adjusted to full tightness, make this car seem as rigid as a TC. Well, almost.

After several laps, the oil temperature needle had stirred itself off the peg enough to justify a little action. We'd already observed the extreme flatness of cornering and wondered why it seems to be that you feel the cornering side loads so much more strongly when a car does not roll much. It may be that the flatness so increases your security that you immediately commence more strenuous tactics. Or it may be that with firm bucket seats such as these, allied with tilt-free turns, it is possible to corner sharply without making extravagant efforts to brace oneself by arm or leg. Whichever the case, the Carrera seems to lead a strictly two-dimensional life, quite ignorant of the possibilities of motion about its longitudinal axis.

We did eventually press through these bends more rapidly, but even when we tried our utmost (see photograph) roll was minute. What gave us a clue that we were reaching some sort of limit was the feel of the steering. There seemed to be a gradual reduction in the force required to hold the wheels pointed in a given direction, although there was little if any actual change in the position of the wheel. This



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DUAL-PURPOSE  
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does not describe the difference in taking a corner two separate times but rather the experience involved in taking a single turn. It may be that we cased off a hair on the steering just as this reduction reached what we subconsciously classified as "minimum" but when you're that busy driving, it's hard to keep track of each and every action and its motivation.

Not to be neglected is the use of the throttle in cornering. As in any drifting machine, the engine's torque may be used to maintain or increase speed while aiding to hold the car into the turn. Backing off on the gas not only slows the Carrera, it starts the tail end moving out quite quickly. Briskly, you might even say. A light, sensitive foot is the thing to have and what it must be taught is to feather that accelerator pedal.

Once the oil was warm, we stopped to remove the muffler and ran from then on with that interesting Carrera option, the Spyder exhaust system. It certainly transformed the car as far as the bystanders were concerned, they could hear us all the way around the course. To the driver, the change not only provided considerably added push (before the engine felt to be dying at 7000 while it now took care to avoid exceeding the seven-five red line), it also proved to be a great morale-booster. As well, it became an aural tachometer and an indicator of wheelspin. If you corner too hard and get sideways, then it's all too easy to achieve the latter, if that can be considered any sort of achievement. That featherfoot technique is a must.

How to make a pushrod Porsche corner as well? A cynic might say trade it in on a Carrera, which is not a bad idea. For those of us who can't afford such a rash

step, there are ways and means of modifying in the right direction. The first step is to have really firm shock absorbers. The Konis on Frank's GT certainly impressed us and so does the fact that they are now available in the USA. A good shock absorber shop with racing experience is a good bet, too.

The next step is de-cambering of the rear wheels. As readers of the VW or Porsche Workshop Manuals know, the rear torsion bars are splined on both inboard and outboard ends. The number of splines differs so that a vernierlike adjustment in increments of 50' (3/8 of a degree) may be made in the setting of the trailing arm. This in turn controls the static camber angle of the rear wheel. The factory setting for Carreras puts both rear wheels at zero camber when the driver is in his seat. This is about as extreme as anyone should go for a car used on the roads; even then ground clearance can be a problem at times. Frank, however, has seen fit to further lower his suspension to get 1° of negative camber (wheels tilting inboard at the top). This step contributes towards more understeer or less oversteer, as does an increase in rear tire pressure. The Continental "Super Record" 5.90 x 15 tires were set at 28 and 32 psi, front and rear, incidentally.

The engine in the Wagenhofer Carrera is not the very newest. It still has its Bosch distributors mounted on the rear ends of the intake camshafts. Not only are they awkward to get at and adjust (they rotate in opposite directions, a point to remember when setting spark advance), they don't ease access to the eight 240T21 spark plugs. On the newer Carreras, the two distributors are mounted in a narrow Vee

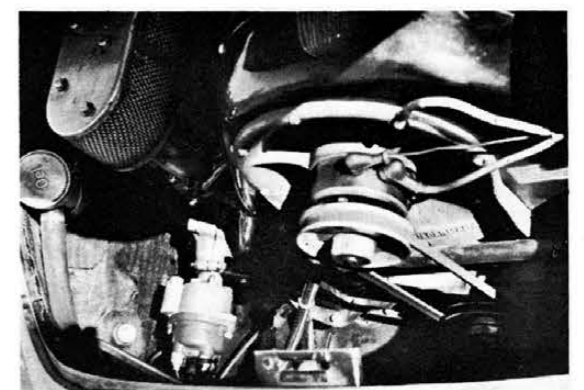
Red-lined by the factory at 7500 rpm, the Carrera's engine is fitted with two dual-choke Solexes. There's no progressive linkage here though, it's strictly one choke tube per cylinder. As tested, it carried 34 mm venturis, 102.5 main jets and 180 air correction jets. Before you rush out to re-jet your own Carrera, remember individual engines may be different enough to require slightly different jets, even on the same day at the same place. The only sign that road use had bothered this car was a slight misfire above 7000 that got worse as our testing went on. We were glad we didn't have to change the plugs.

The Carrera's clutch gets changed after every third race or so as it gets glazed quite quickly and then loses that positive bite needed when making fast shifts. This car has done seven races and about one-third of its 2100 miles have been covered on tracks, either racing or practicing. Other than clutches, the only difficulty was a broken second gear synchro-ring. Fortunately it happened at the SCCA National at Montgomery when all the necessary spare parts were in Frank's shop just a few miles away. A little night work and he was ready to go the next day. Go he did, too, getting a second to the unbeatable Pupildy.

The joy of an all-indirect transmission is that individual gear sets may be changed without altering all of them. As well as having two ring and pinion choices (7/31 and 6/31, the 7/34 having been recently discontinued), there are three ratios available in each gear. Except for first gear, this Carrera has the lowest available ones: 3.09, 1.94, 1.23, and 0.96. With its 6/31 final drive and 5.90 x 15 tires, it reaches the 7500 red line at only 113 mph. It may not



*It's not pretty but it does quiet the Spyder-like roar.*



*Spark plug changes are just plain difficult.*

*A prime example of flat cornering.*



directly astern of the belt drive to the generator and cooling fan. This simplifies their adjustment and, to a small extent, the changing of spark plugs. Just reaching the furthest forward plug requires considerable dexterity, while changing all eight takes a good man at least forty minutes.

As Frank pointed out, this engine really requires talented maintenance by someone who's thoroughly interested. Fortunately, he has just such a man in his VW service department, one who has been to the Carrera school.

go fast, but it sure gets up there in a hurry.

Rumors for next year are quite firm that plain bearing cranks will be used in the Carrera Deluxes, not so sure is that there may be a 1600 cc alternative. There's even a whisper of a two liter version! But in Class F Production racing, it's as true today as it was in '53, the only thing that will beat a well-prepared, well-driven Porsche is another well-prepared, well-driven Porsche.

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# PORSCHE Carrera GT