Road testing a production class winner, the . . .

PORSCHE SPEEDSTER

photographs by Poole

THERE IS an automotive saying that "there's no substitute for cubic inches", but the modern Porsche either disproves this completely, or else it is the exception that proves the rule. Actually an abundance of "inches" is very useful in a heavy family car because the average owner uses and appreciates torque, not horsepower.

In a sports car, such as the Porsche, the engine is small, and the torque is proportionate. Yet, as we show in this road test, the latest Porsche 1500S speedster is capable of a very high performance. This result is due to an efficient engine, four useful gear ratios (all synchronized), and low overall weight. Common-sense design, thorough engineering and good workmanship contribute to the overall effect and insure customer satisfaction in terms of reliability.

The Porsche Speedster is available with a choice of engines, the model priced at $2995 having a 1488 cc engine rated by the conservative German D.I.N. method at 55 bhp. By the American S.A.E. rating this model, whose full name is the Porsche Continental 1500 Speedster, develops 66 bhp at 4400 rpm. However, our test was on the "Super" engined model (the 1500S), an alternative which costs $500 extra and which provides 70 D.I.N. bhp, or 84 bhp without accessories or exhaust system. By using a 1500S Speedster, with the more powerful roller-bearing type "Super" engine, it is possible to make accurate comparisons with the Super coupe which we road-tested in September, 1954.

Performance-wise, the Speedster being lighter by 70 lbs and benefitting from a revision of 3rd and 4th speed ratios, gives substantially better acceleration figures than those recorded for the Super coupe. Top speed however is about 4 mph less. (See the comparison table at left.)

The drag factor on the Speedster was taken by Tapley meter at 60 mph, with top down. The drag, with top and side curtains installed was not obtained for the simple reason that when 150 miles from home we discovered that the side-curtains were missing. We tried one high speed timed run with top-up and gave up that idea. It (the top) flaps viciously at anything over 70 mph. The average of two timed runs gave 100.5 mph, top down, with speedo reading 110. The factory gives the top speed as 104 mph and we have yet to find a German manufacturer who is not conservative in performance claims.

The Porsche has always been an exceptionally comfortable and easy-to-drive car. The Speedster is no exception, even with the rather "lumpy" idle of the Super engine. In town driving the engine revolutions can drop to as low as 2000 rpm in any gear, but 2500 rpm is recommended minimum speed. Engine noise is just a trifle more noticeable than in the coupe, at low speeds. The seats are extremely comfortable and the "squirming" room for legs, feet and elbows is especially noteworthy. There has been some comment on the lack of headroom in the Speedster, but the cars now being delivered have the seat frames mounted on 2" spacers which can be removed for tall persons. Unfortunately, over-6-footers will still find the headroom inadequate. The curved glass windshield is very low but nevertheless gives good wind protection with top down.

Any car with as much as 55% of the total curb weight on the rear wheels has a natural tendency to oversteer. We have never felt this characteristic was objectionable on any Porsche, nor have we ever found an owner who disliked this tendency. The 1955 Speedster incorporates, for the first time, a torsion

Performance Comparison

	Speedster	Coupe
0-30 mph	3.6 secs	4.3 secs
0-40 mph	5.6 secs	6.4 secs
0-50 mph	7.4 secs	8.7 secs
0-60 mph	10.3 secs	12.4 secs
0-70 mph	14.0 secs	16.3 secs
0-80 mph	19.9 secs	22.5 secs
0-90 mph	29.5 secs	30.6 secs
ss¼ (best)	17.3 secs	18.4 secs
top speed	104 mph	108 mph
Drag factor, lbs	102	82
High gear perf. factor	39.3	34.7

Unique engine placement allows very low seats and roof line, but high-speed cruising with top up and no side curtains is not comfortable.

Roomy cockpit and neat instrument layout.

type anti-roll bar. The front springs, which consist of laminated torsion bars, have been softened slightly by the removal of one leaf. When both front wheels strike a bump at the same time the resultant shock is slightly reduced as compared to earlier models. But when only one front wheel encounters a bump the anti-roll bar is also twisted. The result is a ride that is substantially the same as before. When the car starts to roll, as in a sharp corner, the bar twists, reducing the roll angle. At the same time the load carried by the outside tire is increased, which gives an understeering force.

The net effect of the new anti-roll or stabilizer bar (often erroneously called a "sway-bar") is that the new Porsche becomes a near neutral-steerer. Under some transient conditions our impression is that there is still a trace of oversteer, and like so-called conventional cars, the rear-end will break-away first when cornering beyond the limits of tire-to-road adhesion. The above applies only when the tires are inflated per factory recommendations with 4 to 5 psi more air in the rear tires than in front. Equal tire pressure front to rear, will convert the neutral-steer to a slight but noticeable oversteer. Adjusting the rear torsion bars to give one or two degrees negative camber is said to give a slight understeer. We did not try it, but can believe it. In short, the steering characteristics of the Porsche can be varied to suit the owner's own desires, a unique and most desirable feature.

The car used for this test was supplied to us by Competition Motors, Porsche distributors for eleven Western states. Just three days before, it had won the 1500 production race at Willow Springs, driven by Erich Bücklers (see page 25).

In conclusion, the Porsche Speedster with either powerplant is a most desirable machine. Its new low price will make it possible for a host of long-time admirers to step-up and buy.

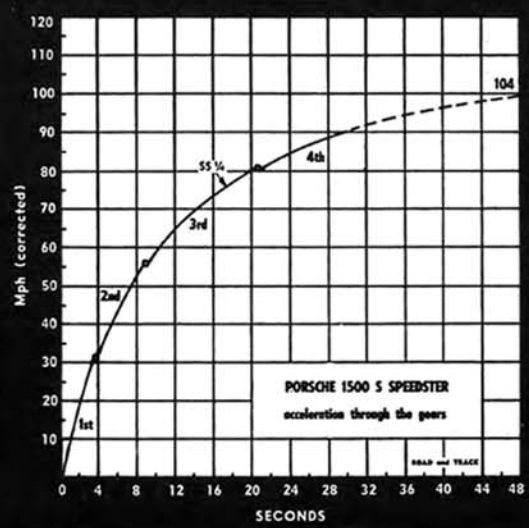
The rear-mounted flat-4 engine is air-cooled.

ROAD AND TRACK ROAD TEST NO. F-4-55

PORSCHE 1500 S SPEEDSTER

SPECIFICATIONS

List price	$3495
Wheelbase	82.7 in.
Tread, front	50.8 in.
rear	49.2 in.
Tire size	5.00-16
Curb weight	1790 lbs.
distribution	45/55
Test weight	2150 lbs.
Engine	flat-four
Valves	pohv
Bore & stroke	3.15 x 2.91 in.
Displacement	90.8 cu in. (1488 cc)
Compression ratio	8.20
Horsepower	84
peaking speed	5000
equivalent mph	96
Torque, ft/lbs.	79
peaking speed	3600
equivalent mph	69
Mph per 1000 rpm	19.2
Mph at 2500 fpm	99
Gear ratios (overall)	
4th	3.87
3rd	5.36
2nd	7.70
1st	13.9
R & T performance factor	39.3



PERFORMANCE

Top speed	104
average (top down)	100.5
Max. speeds in gears—	
3rd (5800)	85
2nd (5800)	59
1st (5500)	31
Shift points from—	
3rd (5500)	80
2nd (5500)	56
1st (5500)	31
Mileage	20/27 mpg

ACCELERATION

0-30 mph	3.6 secs.
0-40 mph	5.6 secs.
0-50 mph	7.4 secs.
0-60 mph	10.3 secs.
0-70 mph	14.0 secs.
0-80 mph	19.9 secs.
0-90 mph	29.5 secs.
Standing ¼ mile-	
average	17.4 secs.
best	17.3 secs.

TAPLEY READINGS

Gear	Lbs/ton	Mph	Grade
1st	off-scale	—	—
2nd	470 at	35	24%
3rd	320 at	50	16%
4th	210 at	65	11%

Total drag at 60 mph, 102 lbs.

SPEEDO ERROR

Indicated	Actual
10	10.6
20	19.2
30	27.7
40	37.0
50	46.6
60	56.0
70	65.0
80	74.4
90	83.5