



PORSCHE 914 2-LITER

Bigger 4-cylinder engine gives the popular 914 a boost



NO READER FAMILIAR with the present trend in engines, i.e. they are all becoming bigger, cleaner and weaker, will be surprised to learn that the Porsche 914 is once again available with a 2-liter engine. Neither will it be news that the 1973 2-liter 914 is no match for the 1970 2-liter 914 with its

6-cyl Porsche engine. But displacement doesn't tell the whole story, any more than being hit with a pound of feathers is like being hit with a pound of lead.

The whole story is more complex. There are three models of 914 being shipped to the U.S. this year. One is mostly carry-over, with 1.7-liter VW engine detuned to 76 net bhp. For California and its slightly stricter emission rules there's a 914 with a further derated 1.7 engine, its compression ratio reduced from 8.2:1 to 7.3:1 and bhp down to 69.

And there's a new 2-liter 914, which is what concerns us here. The 914/2 is offered for several reasons. When R&T tested the original VW-powered 914 we found the performance modest. The price has gone up since then and with less power the performance becomes less than modest and Porsche has a sales problem in California, where Porsche sells a large share of its output. The solution is the 914/2, created by boring and stroking the 4-cyl VW 411 engine. The engine is rated at 91 bhp, an improvement over the original VW version's 80 if well below the 110 bhp of the 914/6, and the performance falls neatly between those two cars:

	914	914/2	914/6
0-60 mph	13.9 sec	10.3 sec	8.7 sec
Standing 1/4-mi.	19.2	17.8	16.3
Top speed	109 mph	119 mph	123 mph
Fuel economy	25.5 mpg	24.5 mpg	21.3 mpg

Isn't that tidy? Even without the pressures for cleaner air, the larger-but-simpler engine would be a good choice on the basis of power for money alone. And the 2-liter engine is better than the figures show. It fired readily when cold and ran well for the first few miles, unlike most of the 1973 models. It's an eager engine as well, so willing to accelerate that the driver must guard against exceeding the redline—a modest 5600 rpm—in the lower three gears of five. The 914/2 is not a quiet car, not with an aircooled engine inches behind the cockpit, but the mechanical noise and the exhaust note somehow seem sportier than one would expect from an engine of such humble antecedents. Perhaps engines, like men, can rise to greatness if circumstances require it.

About those five speeds. The 5-speed transmission is standard equipment in all 914 models. While it may have been a bit pretentious with the smaller engine (that modest performance again) it was needed with the peakier six and it is a definite plus with the larger four. The 2-liter engine does not have a high specific output for its displacement but it is a relatively large engine in a relatively light car, so it is flexible. Each gear can exceed its requirements; that is, you can shift into 3rd long before you must shift out of 2nd, and so on up the gate. There's no reason to be lazy but the car will conform to the driver's demands rather than demanding vice versa. The linkage itself is also improved from earlier models, particularly when compared to the very first 914s. The slop and uncertainty are gone and each gear is just where the driver expects it to be. The factory does impose one requirement in that the pattern is as it was in the first 914s and used to be in the 911s, with first and reverse at the extreme left and protected by a stout spring. No objection to reverse being shielded, but in city driving it can be annoying to have to make such a forceful selection of

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a gear you're going to need every time the traffic stops. This pattern is suited for racing, where 5th is frequently needed in a hurry and 1st is used only to pull onto the track. On the road, it would make more sense to have 5th, purely a cruising gear, the gear that must be engaged at leisure.

But the ratios are nigh perfect. First is a starting gear, easy on the clutch but with a good rush up to traffic speed. Fifth drops the engine speed on the open road to less than that of most sedans and gives a minimum of noise and wear. Acceleration is modest in 5th, but in it the car will come very close to engine redline, so the overdrive characteristic does not deprive the car of any speed.

The engine is not the only change for the 914/2—a model designation that was invented by us. When the model was first announced it bore the title of 914S, which the U.S. branch of Porsche picked to link the most sporting 914 with the most sporting 911S. But the home office didn't like this use of the coattail effect so all the literature now talks about the 2-liter 914 and we coined the 914/2 label for brevity.

Anyway, all the 914s for '73 have changes. One useful item is a shorter rear body panel, the one beneath the rear bumper. The factory learned, either through its own research or through owners who trimmed the panel back on their own, that the longer skirt trapped slush in the winter and heat in the summer.

All the models also get improved air filters, thicker brake pads, sturdier and protruding rubber front bumper guards to meet federal laws, an angled foot support for the passenger, revised ventilation intakes, higher numbers on the speedometer, engine mounts reworked to better isolate noise, additional sound absorbing material, and illuminated controls for emergency flasher and heater/defroster controls, and the handbrake no longer must be folded out of the way for ingress-egress.



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The 914/2 has as standard an "appearance group" that is optional on the regular 914, including chromed bumpers, textured finish on the fiberglass roof panel and some other minor items. The other equipment included when the 914/2 is ordered consists of alloy wheels with wider rims, anti-roll bars front and rear, and a center console containing an oil temperature gauge, a clock, a voltmeter and a storage compartment. The instruments are a long way from the driver's normal field of vision, but it's nice to be able to check on the engine even so.

The extra displacement is all to the good, but the engine itself gave some cause for concern. The test car displayed an annoying reluctance to idle properly, to a slight degree in dry weather and most of the time when it rained. A 914 reported on in our longterm test needed to have its fuel injection computer replaced after showing these same symptoms. Isolated cases, perhaps, but worth thinking about.


The results of the larger engine you know about in general and can learn about in detail from the test results. The wider wheels and anti-roll bars do work, giving a solid gain over our early 914 test car with 165-15 tires on 4½-in. rims (0.723 to 0.742g). The anti-roll bars allow softer torsion bars and thus a softer ride while stiffening the car in roll and permitting the engineers to more nearly "install" the handling characteristics they want. This is also good to a degree only. The ride is still on the firm side, and while it will take a dip without loss of balance the car bobs about more than it should: oversprung and underdamped are the words that come to mind.

The 914 is as nimble as a car of the mid-engine configuration

should be. The steering is quick if not too light and placing the lump in the center makes the car willing to heed the helm. Driven hard and within the 914's intended design, it handles very well and with complete control.

This brings with it a limitation. The engineers evidently have taken this opportunity to eliminate forever the tendency of Porsches and VWs toward terminal oversteer. The relative stiffnesses of the front and rear anti-roll bars seem to have been chosen to provide understeer, at all times and under all conditions. When driven around a curve, the front end slides and the back end sticks. Apply full power and the front end pushes toward the outside of the turn. Let up on the throttle and the front end tucks toward the inside of the turn. At no time do the rear wheels do anything except track. This is very safe, very predictable and not really bad. But the sporting driver may wish sometimes for the freedom of, say, a 911S, in which an occasional "nasty" trait can be provoked and exploited with skill. Perhaps the not-quite-Porsche 914 isn't allowed to provide that sort of test and perhaps that's why the 914/2 isn't allowed to be the 914S.

For the rest, the 914/2 is pretty much like a 914 of any sort. The styling is plain, the cockpit has plenty of room for two people, the seats feel spartan at first but are surprisingly comfortable during a long trip, and the lift-off roof panel makes the 914 more of a pre-fab sunroof than a truly open car.

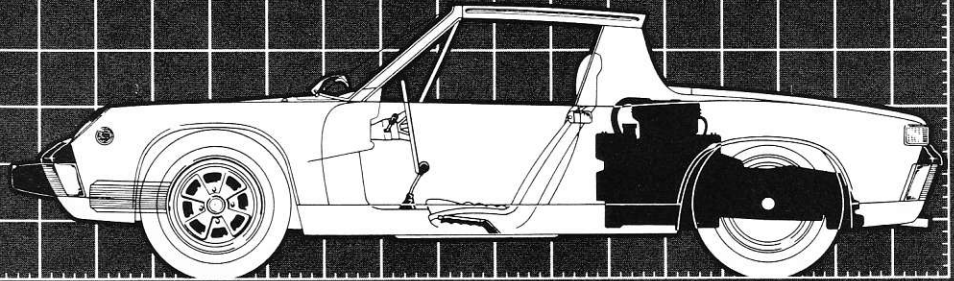
Ever since the 914 was introduced it has been easy, perhaps too easy, to make fun of the confusion over whether the 914 is a Porsche or a VW. The 914/2 is neither. It sounds like a blend of both but it doesn't look or drive like big or little brother. The price will keep the 914/2 from being a sports car for the masses but with the extra torque, the improved gearshift, the handling and the extra quality of the exhaust note, the 914/2 is one of the better sports cars around. 





ROAD TEST

PORSCHE 914 2-LITER



SCALE: 10" DIVISIONS

PRICE

List price, all POE \$5299
 Price as tested \$5645
 Price as tested includes standard equipment (4-wheel disc brakes, black paint (\$187), tinted glass (\$84), dealer prep (\$75))

IMPORTER

Porsche-Audi Div., VW of America
 600 Sylvan Ave
 Englewood Cliffs, N.J. 07631

ENGINE

Type ohv flat 4
 Bore x stroke, mm 94.0 x 71.0
 Equivalent in 3.70 x 2.80
 Displacement, cc/cu in. 1971/120
 Compression ratio 7.6:1
 Bhp @ rpm, net 91 @ 4900
 Equivalent mph 112
 Torque @ rpm, lb-ft. 109 @ 3000
 Equivalent mph 70
 Fuel Injection Bosch electronic
 Fuel requirement regular, 91-oct
 Emissions, gram/mile:
 Hydrocarbons 3.1
 Carbon Monoxide 26.2
 Nitrogen Oxides 2.0

DRIVE TRAIN

Transmission 5-sp manual
 Gear ratios: 5th (0.71) 3.15:1
 4th (0.93) 4.12:1
 3rd (1.26) 5.58:1
 2nd (1.89) 8.37:1
 1st (3.09) 13.69:1
 Final drive ratio 4.43:1

CHASSIS & BODY

Layout midship engine/rear drive
 Body/frame unit steel
 Brake system 11.0-in. solid disc front, 11.1-in. solid disc rear
 Swept area, sq in 470
 Wheels cast alloy, 15 x 5½
 Tires Dunlop SP 57 165HR-15
 Steering type rack & pinion
 Overall ratio 17.8:1
 Turns, lock-to-lock 2.5
 Turning circle, ft 36.0
 Front suspension: lower A-arms, MacPherson struts, torsion bars, tube shocks, anti-roll bar
 Rear suspension: semi-trailing arms, coil springs, tube shocks, anti-roll bar

GENERAL

Curb weight, lb 2145
 Test weight 2460
 Weight distribution (with driver), front/rear, % 47/53
 Wheelbase, in 96.5
 Track, front/rear 52.9/54.4
 Length 159.4
 Width 65.0
 Height 48.4
 Ground clearance 4.7
 Overhand, front/rear 33.3/29.6
 Usable trunk space, cu ft 9.9
 Fuel capacity, U.S. gal 16.4

ACCOMMODATION

Seating capacity, persons 2
 Seat width, front 24.0
 Head room, front 37.5
 Seat back adjustment, degrees 10

MAINTENANCE

Service intervals, mi:
 Oil change 10,000
 Filter change 10,000
 Chassis lube none
 Tuneup 10,000
 Warranty, mo/mi 12/20,000

INSTRUMENTATION

Instruments: 150-mph speedometer, 7000-rpm tach, 99,999 odo, 999.9 trip odo, coolant temp, voltmeter, fuel level, clock
 Warning lights: oil pressure, brake system, alternator, seatbelts, high beam, directionals

CALCULATED DATA

Lb/bhp (test weight) 27.0
 Mph/1000 rpm (5th gear) 23.3
 Engine revs/mi (60 mph) 2580
 Piston travel, ft/mi 1200
 R&T steering index 0.90
 Brake swept area, sq in/ton 382

RELIABILITY

From R&T Owner Surveys the average number of trouble areas for all models surveyed is 11. As owners of earlier-model Porsches reported 8 trouble areas, we expect the reliability of the 914 2-liter to be better than average.

ROAD TEST RESULTS

ACCELERATION

Time to distance, sec:
 0-100 ft 3.4
 0-500 ft 9.7
 0-1320 ft (¼ mi) 17.8
 Speed at end of ¼-mi, mph 78.0
 Time to speed, sec:
 0-30 mph 3.3
 0-40 mph 5.2
 0-50 mph 7.6
 0-60 mph 10.3
 0-70 mph 13.8
 0-80 mph 19.0
 0-100 mph 39.0

BRAKES

Minimum stopping distances, ft:
 From 60 mph 186
 From 80 mph 285
 Control in panic stop very good
 Pedal effort for 0.5g stop, lb 50
 Fade: percent increase in pedal effort to maintain 0.5g deceleration in 6 stops from 60 mph 30
 Parking: hold 30% grade? yes
 Overall brake rating very good

FUEL ECONOMY

Normal driving, mpg 24.5
 Cruising range, mi (1-gal res.) 377

SPEEDS IN GEARS

5th gear (5200 rpm) 119
 4th (5600) 96
 3rd (5600) 71
 2nd (5600) 46
 1st (5600) 29

HANDLING

Speed on 100-ft radius, mph 33.4
 Lateral acceleration, g 0.742

INTERIOR NOISE

All noise readings in dBA:
 Idle in neutral 58
 Maximum, 1st gear 87
 Constant 30 mph 71
 50 mph 75
 70 mph 79
 90 mph 84

SPEEDOMETER ERROR

30 mph indicated is actually 28.0
 60 mph 57.0
 70 mph 67.0
 Odometer, 10.0 mi 9.9

ACCELERATION

