

**ROAD TESTS: NEW 1750 ALFA SQUARETAIL VELOCE  
VOLVO 142E, SUPER BEETLE, LOTUS EUROPA UPDATE**

# ROAD & TRACK <sup>ICD</sup>

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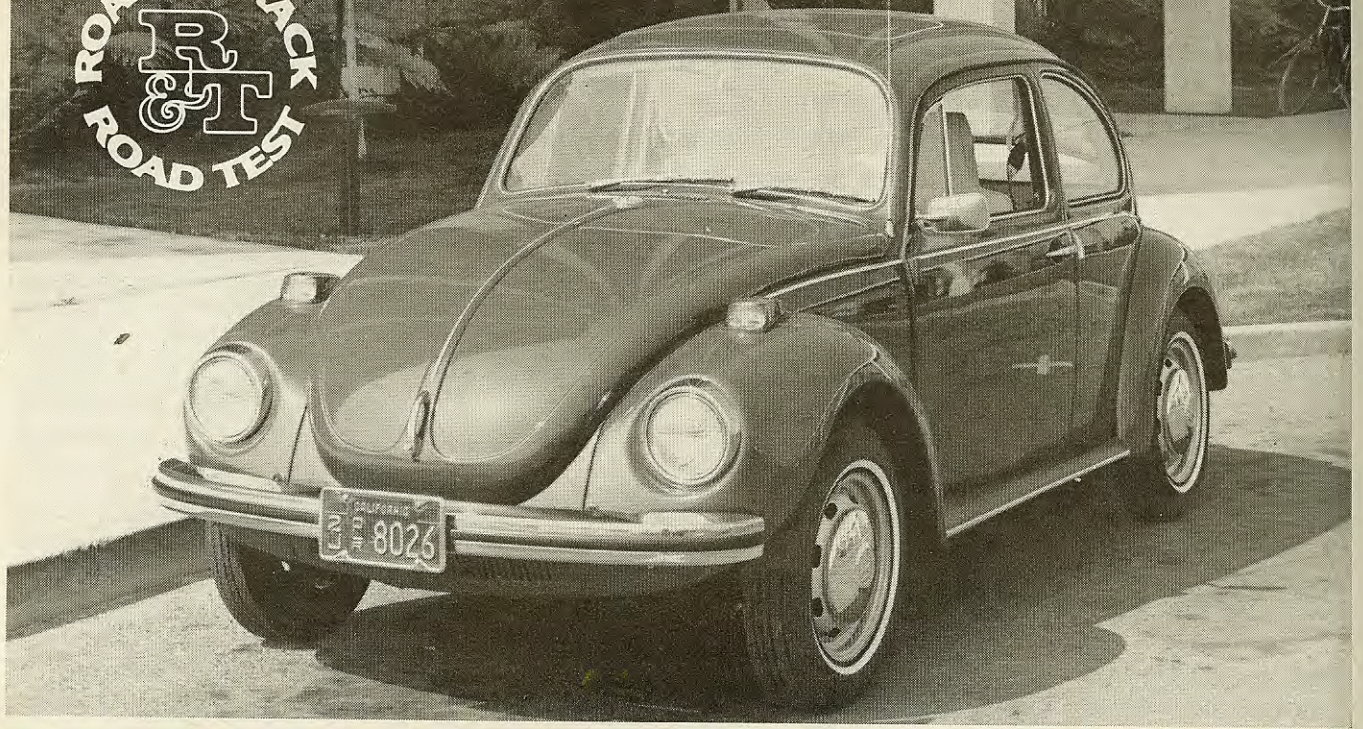


*Variations on the  
PORSCHÉ 914  
by Giugiaro*

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# VW SUPER BEETLE

*The best Beetle yet, but still not as good as the competition*



VOLKSWAGENWERK of West Germany is in the unique position of having one of the most successful products of all time, the VW Beetle. No matter how successful in its time, though, in the world of technological goods a product is eventually outdated by progress. The problem is, how does VW replace the Beetle? Fortunately for VW, the Beetle has built up such a following, has established such a legend, that there's still time to find the answer. To that end VW is expanding its product line and decreasing its dependence upon the Beetle. The Type 3 line, known to Americans as Fastback and Squareback, was the first attempt to branch out and continues to be popular. Last month we tested the 411, VW's new "large" car embodying the classic rear-engine layout. After taking over NSU and Audi, VW latched onto the excellent new NSU K70, a front-drive sedan one price class above the 411, and gave it the VW name. Next step will be the introduction of a radical mid-engine sedan in the 1200-cc class just below the Beetle. Finally, it is entirely possible that NSU's luxurious Wankel-powered Ro80 will take the VW name too, to give the marque a range from very small to large and expensive.

Meanwhile, new capital has been pumped into the Beetle

to keep it alive a few more years. The result is a Super Beetle, with its wheelbase stretched 0.8 in., 3.2 in. more length in its front end, new front suspension, a flow-through ventilation system and a less austere interior. The old Beetle continues, and for the American market it is now offered in a version plainer than the Deluxe sold before so that VW can continue to have a price leader. Both models got the 1584-cc engine for 1971: this is the same unit as in the Type 3 but with carburetors instead of fuel injection. It produces 60 bhp, up from the 57-bhp output of last year's 1493-cc unit. The Super Beetle, at \$1985 POE after the latest round of increases, is \$140 more than the new "stripped" model.

In performance Volkswagens have grown steadily better over the years, but other economy cars have been getting faster too so that VW's performance remains leisurely by comparison with most of them. Fuel economy, however, remains exceptionally good and with only a 7.5:1 compression ratio the Beetle will run on any gasoline available in America. Too, it is as true as ever that all the Beetle's performance can be extracted habitually, including cruising at its 79-mph top speed, without risking premature engine failure. But using the VW's potential entails a lot of noise; the air-cooled engine makes a big racket going up through the gears,

GORDON CHITTENDEN PHOTOS





and only in 4th gear does it settle down to a reasonable noise level. As always, 4th is relatively "tall," giving great economy and a feeling of a relaxed, though not really quiet, engine. On our test car the engine did not idle consistently, but otherwise it ran smoothly and cleanly.

Shifting is a perennial problem in rear-engine cars and the Super Beetle breaks no new ground here. Perhaps further break-in use will improve it (the test car had just over 1000 miles on its odometer) but the shift lever was stiff and sticky in action. First gear is a stump-puller—that's why VWs seem to always race off from stoplights—but the other three are generally useful ratios.

Having redone the rear suspension two years ago to get rid of the notorious swing axles, and now having gone to MacPherson-strut front suspension on the Super Beetle, VW people have done about everything possible to make the car a good handler. (A cynic might say all that remains to be done now is to design an all-new body and get rid of the rear engine.) The tall body and big rearward weight bias mean that the Beetle, Super or not, is sensitive to sidewinds and still quite prone to oversteer at highway speeds. Could this be why one finds *Seitenwind* (sidewind) signs on super-highways in Germany?

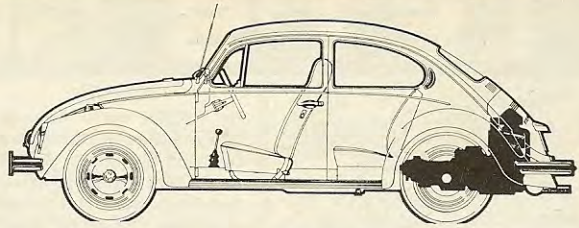
In around-town driving, though, the Beetle still can boast maneuverability, simply because it's light and small. Its steering is quick, which makes it slightly heavy, and while re-designing the front end for the Super the engineers have reduced the car's turning circle to a handy 31.5 ft. And up to about 50 mph the Super Beetle's handling characteristics are quite decent. It's above that speed that the problems become evident and each increase in the VW's performance capability accentuates them.

The ride is not good either. It's bouncy and harsh, and despite the car's great height there appears to be a dearth of suspension travel; even gentle freeway undulations sometimes seem to bottom out the rear suspension with only the driver aboard. The body is as staunch as ever, which helps on rough roads, but at speed there are wind leaks around the doors and with the generous supply of road noise (and the aforementioned engine) highway driving becomes a veritable cacophony.

For the American market VW sticks with drum brakes all around. They're fairly big and have good fade resistance, but they take a bundle of pedal effort and are not capable of stopping the car in short distances from highway speeds. We also found in the test car a trace of the lumpiness that has been characteristic of VW brakes for so many years.

The Super Beetle configuration adds 3 cu ft of luggage space, all of it up front despite the smaller turning circle, and in addition this model comes with a fold-down rear seat that turns the rear passenger compartment into a large luggage area for the traveling couple. It's just as well, because there is next to no space for people in the rear seat: despite the tall body headroom is extremely limited there, and leg-room is nothing to brag about either. The Super Beetle is jazzed up with carpeting (the stark but durable Teutonic kind) and adjustable seatbacks, the 3-point seatbelts go into place with one simple operation, and the materials are of good quality and well fitted. After that there's little else to say about the Super Beetle's interior; it's minimum, it's narrow and it's old-fashioned. Getting into it and out of it is awkward, again in spite of an expected advantage from a tall car. The new ventilation system—previous VWs really didn't have a ventilation system—is appreciated, but one has to open a window to get a fair flow of air through it and even at that it isn't up to today's standards of ventilation.

The Beetle, whether in standard or Super form, has three main points to recommend it: fuel economy, workmanship and its reputation for long life and good service. If you value those three virtues above all others, then the Beetle is for you. Otherwise it is hopelessly outdated and outdone by both Japanese and American economy cars.



## ROAD TEST RESULTS

### PRICE

List price.....\$1985  
Price as tested.....\$2349

### ENGINE & DRIVE TRAIN

Engine.....ohv H4  
Bore x stroke, mm... 85.5 x 69.0  
Displacement, cc/cu in. 1584/96.7  
Compression ratio..... 7.5:1  
Bhp @ rpm..... 60 @ 4400  
Equivalent mph..... 88  
Torque @ rpm, lb-ft. . 82 @ 3000  
Equivalent mph..... 59  
Transmission..... 4-speed manual  
Gear ratios: 4th (0.89)..... 3.67:1  
3rd (1.26)..... 5.19:1  
2nd (2.06)..... 8.49:1  
1st (3.80)..... 15.65:1  
Final drive ratio..... 4.12:1

### GENERAL

Curb weight, lb..... 1970  
Weight distribution (with driver), front/rear, %... 44/56  
Wheelbase, in..... 95.3  
Track, front/rear..... 54.3/53.3  
Overall length..... 161.8  
Width..... 62.4  
Height..... 59.1  
Steering..... worm & roller  
Turns, lock to lock..... 2.7  
Brakes. 9.6 x 1.7-in. drum front, 9.09 x 1.7-in. drum rear

### ACCOMMODATION

Seating capacity, persons..... 4  
Seat width, front/rear 2 x 20.0/52.0  
Head room, front/rear... 38.5/34.0

### HANDLING

Speed on 100-ft radius, mph. 30.4  
Lateral acceleration, % g... 0.617

### PERFORMANCE

Top speed, 4th gear, mph..... 79  
Acceleration, time to distance, sec:  
0-100 ft..... 3.6  
0-250 ft..... 6.9  
0-500 ft..... 11.0  
0-750 ft..... 14.5  
0-1000 ft..... 17.5  
0-1320 ft (¼ mile)..... 21.1  
Speed at end, mph..... 63  
Time to speed, sec:  
0-30 mph..... 5.6  
0-40 mph..... 8.1  
0-50 mph..... 12.2  
0-60 mph..... 18.4  
0-70 mph..... 31.0  
0-80 mph..... 47.5

### BRAKE TESTS

Panic stop from 80 mph (projected):  
Max deceleration rate, % g..... 75  
Stopping distance, ft..... 353  
Control..... very good  
Fade test: percent increase in pedal effort to maintain 50% g deceleration rate in six stops from 60 mph..... 12  
Overall brake rating..... good

### SPEEDOMETER ERROR

30 mph indicated is actually... 27.0  
40 mph..... 36.5  
60 mph..... 55.0

### CALCULATED DATA

Lb/hp (test weight)..... 39.5  
Mph/1000 rpm (high gear)..... 19.6  
Engine revs/mi..... 3050  
Piston travel, ft/mi..... 1381  
R&T steering index..... 0.85  
Brake swept area, sq in/ton... 173

### FUEL

Type fuel required..... regular  
Fuel tank capacity, U.S. gal... 11.1  
Normal consumption, mpg.... 28.7

### ACCELERATION

