



CAR and DRIVER ROAD TEST

RENAULT 10 VOLKSWAGEN 1500

Obviously, when a guy goes out to buy an economy car he isn't looking for dragster acceleration, race-car handling, or arrestor-cable braking. What he wants is the reasonable minimum of transportation. And not only in the car, but in the whole process of owning a car. Minimum initial cost, maintenance, and operating costs. Maximum reliability, service facilities, resale value.

A bicycle would fill the bill if it wasn't for its lack of convenience—and convenience is becoming a more important factor in an economy car's success than fulfilling basic necessities. So a modern economy car is attractively styled, has a dash of luxury here and there, is comfortable, and—yes—has enough acceleration to keep up with modern traffic, handling characteristics that make its owners think it's fun to drive, and braking ability to keep the safety critics off its back.

At first glance, this would describe a Renault, and be the antithesis of a Volkswagen. But Renault, with their bright, perky, modern R-10, is foundering, and Volkswagen, with their archaic, obsolete, 1930s Beetle, is prospering—at least in this market. There is obviously more to capturing America's heart than just building good cars, and it's obvious why Volkswagen is doing so well at Renault's expense.

Only a few years ago, Renault was Number Two in the imported car market. Their Dauphine wasn't all that bad a car, certainly not much worse than the contemporary VW. But while Volkswagen carefully built up a solid base of steady customers and respectable dealers, Renault was feasting like Henry VIII on a binge. And when the boom came down in 1961, Renault had only a bad reputation to fall back

on. The Dauphines left a bad taste in many people's mouths, as Renault's current advertising campaign proves ("The Renault for people who swore they would never buy another one").

Renault, in hitting the comeback trail, decided to improve their basic product—the car—first, and the dealers, service, image, etc., second. The R-8, introduced in 1962, was the first step in that direction, and the new R-10 is an improved version of that model.

All the while, Volkswagen's Beetle seems hardly to have changed. True, there is a bigger VW, the 1600. It hardly looks like a VW, and besides, it's in an altogether different price class. (Renault has a bigger car too, the R-16, but it isn't sold over here—yet.)

Oh, sleeping Beetle, have you changed inside, or are you the same dreary old draft horse? Can the brassy French newcomer give you a run for your money this time around? Is Volkswagen too cautious to phase out an old model once it has become an anachronism? Is Renault too hasty in abandoning old models, covering their tracks with a profusion of new models? The answers are here, in a comparison of the Renault R-10 and the Volkswagen 1500 (as the Beetle is properly named), car for car, with no punches pulled.

The only difference between the Renault R-8 (C/D, July '64) and the R-10 is the longer nose of the '67 car. Its appearance is changed for the better, and there's a generous increase in luggage space. The VW 1500 differs from the VW 1300 (C/D December '65) mainly in having a larger, slightly more powerful engine. There are also some new safety features, like a dual master brake cylinder and inertia-reel seatbelts,

plus the host of minor annual refinements that have become Volkswagen's hidden trademark.

The new and old Renaults and Volkswagens have had certain similarities, primarily the fact that they are rear-engined, rear-wheel-drive cars. And dissimilarities. Renault has always favored four narrow doors to the VW's two wider ones. To the public, the most striking difference is in the styling.

The Beetle's immortal lines have hardly changed since Dr. Porsche committed them to his sketch pad nearly a third of a century ago. In those days, aerodynamics—or "streamlining," as it was then known—was the overriding passion (remember the '36 Chrysler Airflow?), and all the far-out designs had well-rounded figures. Cars nowadays are more box-like because aerodynamics, real or imagined, are less a consideration than efficient use of the car's overall volume. The fact that both the R-10 and the 1500 have nearly identical top speeds with nearly identical horsepower ratings shows that the Renault's shape is no less aerodynamically efficient than the VW's. Most of the VW's faults are connected with its old-fashioned body, but who knows how much of its success can be attributed to the charm of that ugly old shape?

Both the VW and the Renault have swing axle rear suspensions which, in conjunction with their 40/60% front-to-rear weight distributions, results in handling that would turn Ralph Nader's hair white ("Quick, Mother! the 'Great Day!"). Typically, VW's solution was to make subtle changes to their swing axle, while Renault's was to throw out the old system and start all over again.

The Renault's greatest strength is its comfort, and the Volkswagen's is its workmanship. The Renault is the most commodious small car in the world, and the VW is the best made. These characteristics are unfortunately not interchangeable.



Visibility from the VW is like looking at the world out of the mouth of a cave. The Renault, by comparison, is a glass cage.

Technically, the Renault's swing axle eliminates toe-in and toe-out as the wheels go up and down by a modification that makes their geometry resemble that of a link-type rear suspension. The VW's geometry is still that of a pure swing axle (making the rear wheels steer the car when they go up and down), but their adhesion is increased by transferring some weight forward when the car leans over in a turn. This gives the lightly loaded front wheels more work to do, and eases the rear wheels' burden of combating centrifugal force.

The Renault's greatest strength is its comfort, and the Volkswagen's is its workmanship. The Renault is the most commodious small car in the world, and the VW is the best made. These characteristics seem to be expressions of their respective national ethic, and unfortunately, are not interchangeable. The R-10, while put together with a care and precision wholly unexpected from Gaullist France, can't touch the Volkswagen for mechanical quality—particularly after 10,000 or more miles. Conversely, the VW is wanting in two major areas of creature comfort—its ride is choppy and its seats are miserable. The Renault has an exceptionally smooth ride for a

car of so short a wheelbase, and the roomy, soft, fully-adjustable seats would do credit to a luxury car.

Both cars use 15-inch wheels, unusually large for cars of this class. Big tires last longer, but take up more room: in these two cars, the front wheel wells poke into the passenger area, stealing footroom.

The VW's organic shape imposes severe limitations on vision. Most of the car's sheet metal "face lifts" have been concerned with improving the driver's view (a larger rear window in 1958, and a curved windshield and thinner windshield posts in 1965), to little avail. It's still like trying to see the world out of the mouth of a cave. The Renault, by comparison, is like a glass cage, with good vision virtually everywhere.

The VW's sharply sloping nose minutely improves vision directly in front of the car at a giant sacrifice in luggage space. Most VW owners prefer to fold the rear seat-back over and put their suitcases behind the front seats, leaving the trunk for odds and ends. The Renault R-8's luggage capacity exceeded the Beetle's, and the R-10's is even larger, but the Renault's rear seat-backs are fixed. On the whole, the Renault is so far ahead of the VW on comfort, vision, and luggage capacity

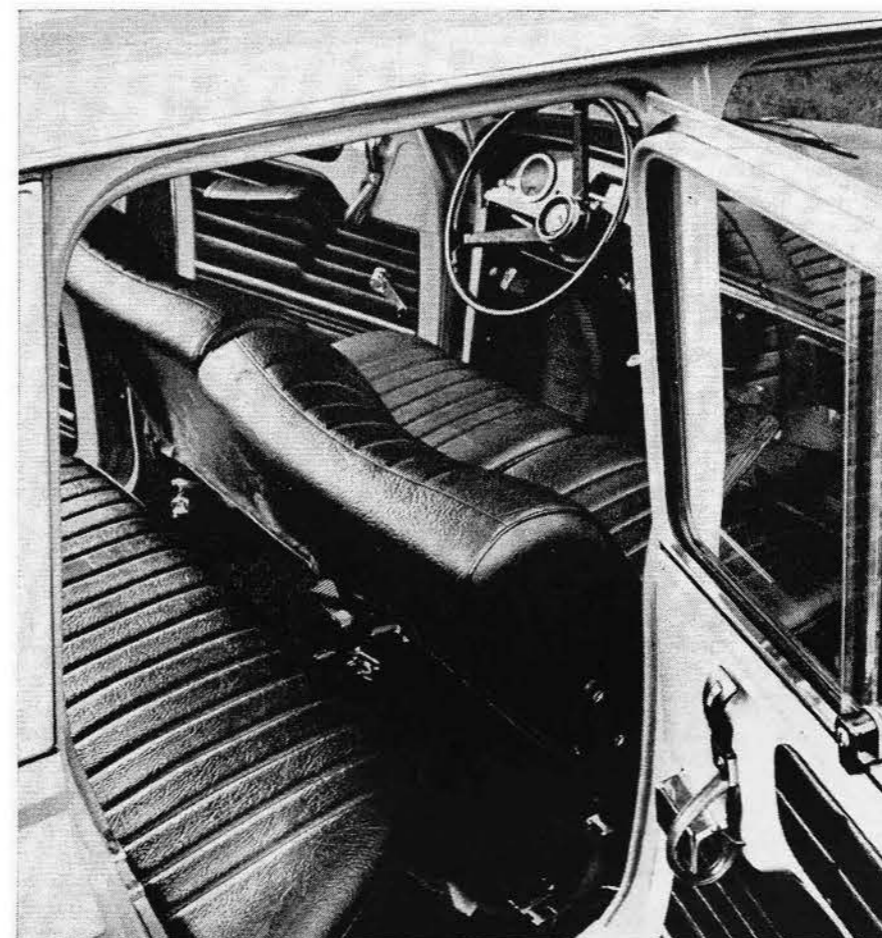
that Volkswagen would have to start from scratch to be even half-way competitive.

Both cars have good driving positions and relatively small pedals placed close together—the Renault's slightly less so. The Renault's shift lever is awkwardly placed, and the shift linkage is annoyingly vague. The two cars are short on instrumentation, with a speedometer/odometer, a gas gauge, and warning lights. The Renault also has a water temperature gauge which the air-cooled VW doesn't need.

Air cooling has no absolutely clear-cut advantages. The claim that the VW needs only the water you wash it with has been countered by Renault's sealed-for-life water cooling system. Both engines are rugged and dependable, but Volkswagen's real secret in the engine compartment has nothing to do with air cooling. The little "pancake" powerplant has been choked down to about half its potential. This detuned condition acts not only like a governor on performance but also makes it so lightly stressed that it should last almost forever. The Renault engine, operating at higher, more efficient speeds, extracts a few more miles per gallon of gas.

As in top speed, there is little to

Emotionally, the R-10 turns us on. For all its French-housewife personality, it is fun to drive. The stern VW is a no-nonsense chunk of Teutonic machinery; no fun, but dead reliable.



choose between the two cars' acceleration. In a drag race, the car that had the most recent tune-up, set of points and plugs, would probably win. The VW engine is 36% larger in piston displacement, and there's no substitute for cubic inches, not even in economy cars. In our test, the VW was nearly two seconds faster from rest to 60 mph, but it doesn't feel appreciably peppier than the R-10.

Both cars oversteer when driven at unreasonable speeds—an acceptable characteristic for expert drivers, but a dubious one in the unsure hands of the general public. The improvements in the cars' rear suspensions have pushed the point where they start to skid well outside the periphery of normal driving habits, and there is little to choose between the Renault and the VW here.

In braking, however, the Renault has a demonstrable superiority, being able to stop from 70 mph in a 25% shorter distance. The R-10 has 4-wheel disc brakes, the best braking system yet devised. In Europe, the VW 1500 is delivered with disc brakes on the front wheels and drum brakes on the rear wheels, a compromise system at best. In the U.S., however, not even front discs are available, and the Beetle screeches to an uneven stop with drums.

Totalling all the factors in our Check List, the Renault scores well ahead of the Volkswagen, and the R-10 is probably the car we would buy, if we had to choose between the two, just because, emotionally, the R-10 turns us on. For all its French-housewife practicality, the Renault is fun to drive. The stern VW is a no-nonsense, solid chunk of Teutonic machinery. Before they refined it, the VW's faults were endearing. Now it's a much improved car, but it's lost a lot of its original personality. More objectively, the VW is the sensible choice for the average economy car buyer because of its superior dealer network, higher resale value, and a lot of other dull reasons like that—reasons connected not with driving a car, but with owning it. The Renault is a more enjoyable car, but service and resale ills stunt its growth. **clp**



VOLKSWAGEN 1500

Importer: Volkswagen of America, Inc.
818 Sylvan Ave.
Englewood Cliffs, N.J.

Number of dealers in U.S.: 950

Vehicle type: Rear-engine, rear-wheel-drive, 4-passenger economy sedan

Price as tested: \$1728.00 (Manufacturer's suggested retail price, plus Federal excise tax, dealer preparation and delivery charges; does not include state and local taxes, license or freight charges)

Options on test car: Leatherette upholstery (\$30.00), opening rear side windows (\$24.00), whitewall tires (\$35.00)

ENGINE

Type: Air-cooled opposed 4-cylinder, aluminum-magnesium block and heads, 4 main bearings
Bore x stroke.....3.27 x 2.72 in, 83 x 69 mm
Displacement.....91.09 cu in, 1493 cc
Compression ratio.....7.5 to one
Carburetion.....1 x 1-bbl Solex PICT
Valve gear.....Pushrod-operated overhead valves
Power (SAE).....53 bhp @ 4200 rpm
Torque (SAE).....78 lbs/ft @ 2600 rpm
Specific power output.....0.58 bhp/cu in, 39 bhp/liter
Max. recommended engine speed...4200 rpm

DRIVE TRAIN

Transmission.....4-speed manual, all-synchromesh
Clutch diameter.....7.87 in
Final drive ratio.....4.12 to one

Gear	Ratio	Mph/1000 rpm	Max. test speed
I	3.80	5.2	25 mph (4800 rpm)
II	2.06	9.6	45 mph (4700 rpm)
III	1.26	15.6	65 mph (4200 rpm)
IV	0.89	19.7	84 mph (4300 rpm)
R	3.88		N.A.

DIMENSIONS AND CAPACITIES

Wheelbase.....94.5 in
Track.....F:51.4 in, R:53.4 in
Length.....160.2 in
Width.....60.6 in
Height.....59.1 in
Ground clearance.....6.0 in
Curb weight.....1770 lbs
Test weight.....1900 lbs
Weight distribution, F/R.....39.0/61.0%
Lbs/bhp (test weight).....36.0
Battery capacity.....12 volts, 36 amp/hr
Generator capacity.....280 watts
Fuel capacity.....10.6 gal
Oil capacity.....2.6 qts

SUSPENSION

F: Ind., trailing arms, torsion bars, anti-sway bar
R: Ind., swing axles, torsion bars with compensating spring, trailing links

STEERING

Type.....Worm and roller
Turns lock-to-lock.....3.0
Turning circle.....35 ft

BRAKES

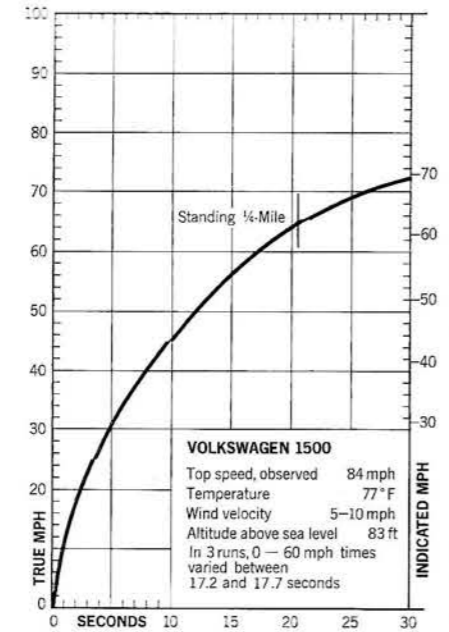
F: 9.0 x 1.57-in. cast iron drums
R: 9.0 x 1.18-in. cast iron drums
Swept area.....155.5 sq in

WHEELS AND TIRES

Wheel size and type.....4.0J x 15-in, pressed steel disc, 4-bolt
Tire make, size and type.....Continental 5.60-15, two-ply nylon, tubeless
Test inflation pressures.....F: 22 psi, R: 28 psi
Tire load rating.....825 lbs per tire @ 26 psi

PERFORMANCE

Zero to	Seconds
30 mph	4.6
40 mph	7.8
50 mph	12.2
60 mph	17.4
70 mph	26.8
Standing 1/4-mile	20.4 sec @ 65 mph
70-0 mph	252 ft (.65 G)
Fuel mileage	24-28 mpg on regular fuel
Cruising range	254-298 mi



CHECK LIST

ENGINE

Starting.....Very Good
Response.....Fair
Vibration.....Very Good
Noise.....Poor

DRIVE TRAIN

Shift linkage.....Very Good
Synchro action.....Excellent
Clutch smoothness.....Very Good
Drive train noise.....Very Good

STEERING

Effort.....Good
Response.....Very Good
Road feel.....Good
Kickback.....Fair

SUSPENSION

Ride comfort.....Fair
Roll resistance.....Fair
Pitch control.....Poor
Harshness control.....Fair

HANDLING

Directional control.....Good
Predictability.....Good
Evasive maneuverability.....Good
Resistance to sidewinds.....Fair

BRAKES

Pedal pressure.....Good
Response.....Good
Fade resistance.....Poor
Directional stability.....Good

CONTROLS

Wheel position.....Good
Pedal position.....Fair
Gearshift position.....Fair
Relationship.....Fair
Small controls.....Good

INTERIOR

Ease of entry/exit.....Good
Noise level (cruising).....Fair
Front seating comfort.....Fair
Front leg room.....Fair
Front head room.....Good
Front hip/shoulder room.....Fair
Rear seating comfort.....Poor
Rear leg room.....Poor
Rear head room.....Poor
Rear hip/shoulder room.....Poor
Instrument comprehensiveness.....Poor
Instrument legibility.....Very Good

VISION

Forward.....Good
Front quarter.....Fair
Side.....Good
Rear quarter.....Fair
Rear.....Fair

WEATHER PROTECTION

Heater/defroster.....Fair
Ventilation.....Poor
Weather sealing.....Excellent

CONSTRUCTION QUALITY

Sheet metal.....Excellent
Paint.....Excellent
Chrome.....Very Good
Upholstery.....Very Good
Padding.....Good
Hardware.....Excellent

GENERAL

Headlight illumination.....Good
Parking and signal lights.....Very Good
Wiper effectiveness.....Good
Service accessibility.....Poor
Trunk space.....Poor
Interior storage space.....Fair
Bumper protection.....Poor

RENAULT 10

Importer: Renault, Inc.
950 Third Ave.
New York, N.Y. 10017

Number of dealers in U.S.: 350

Vehicle type: Rear-engine, rear-wheel-drive, 5-passenger economy sedan

Price as tested: \$1831.00 (Manufacturer's suggested retail price, plus Federal excise tax, dealer preparation and delivery charges; does not include state and local taxes, license or freight charges)

Options on test car: Whitewall tires (\$25.00), leatherette upholstery (\$38.00), AM radio (\$55.00), seat belts (\$16.00)

ENGINE

Type: Water-cooled 4-in-line, cast iron block and head, 5 main bearings
Bore x stroke.....2.75 x 2.83 in, 69.85 x 71.78 mm
Displacement.....67.6 cu in, 1108 cc
Compression ratio.....8.5 to one
Carburetion.....1 x 1-bbl. Solex
Valve gear.....Pushrod-operated overhead valves, solid lifters
Power (SAE).....50 bhp @ 4900 rpm
Torque (SAE).....65 lbs/ft @ 2800 rpm
Specific power output.....0.74 bhp/cu in, 45 bhp/liter
Max. recommended engine speed...5400 rpm

DRIVE TRAIN

Transmission.....4-speed manual, all-synchromesh
Clutch diameter.....6.25 in
Final drive ratio.....4.12 to one

Gear	Ratio	Mph/1000 rpm	Max. test speed
I	3.61	4.8	24 mph (5000 rpm)
II	2.25	7.5	37 mph (4950 rpm)
III	1.48	11.4	57 mph (5000 rpm)
IV	1.03	16.4	82 mph (5000 rpm)
R	3.08		N.A.

DIMENSIONS AND CAPACITIES

Wheelbase.....89.0 in
Track.....F:49.0 in, R:48.0 in
Length.....167.5 in
Width.....58.2 in
Height.....55.5 in
Ground clearance.....5.0 in
Curb weight.....1720 lbs
Test weight.....2135 lbs
Weight distribution, F/R.....39.4/60.6%
Lbs/bhp (test weight).....46.0
Battery capacity.....12 volts, 40 amp/hr
Generator capacity.....360 watts
Fuel capacity.....10 gal
Oil capacity.....3.0 qts
Water capacity.....7.2 qts

SUSPENSION

F: Ind., unequal-length wishbones, coil springs, anti-sway bar
R: Ind., swing axles, trailing radius rods, coil springs

STEERING

Type.....Rack and pinion
Turns lock-to-lock.....3.75
Turning circle.....30 ft

BRAKES

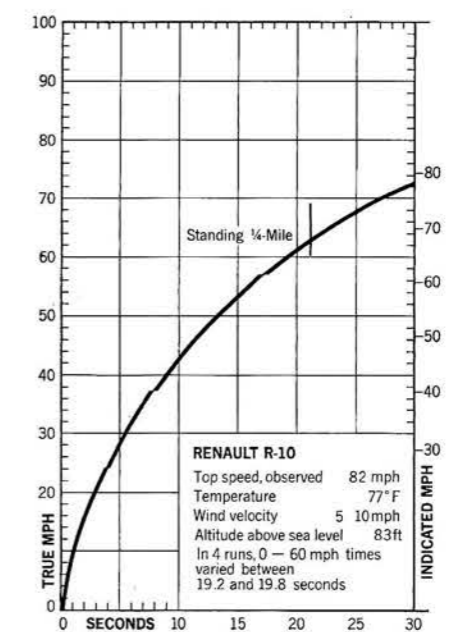
F: 10.3-in. discs
R: 10.3-in. discs
Swept area.....343.0 sq in

WHEELS AND TIRES

Wheel size and type.....4.5J x 15-in, pressed steel disc, 3-bolt
Tire make, size and type.....Michelin "X" 135 x 380, steel cord radial
Test inflation pressures.....F: 26 psi, R: 30 psi
Tire load rating.....860 lbs per tire @ 26 psi

PERFORMANCE

Zero to	Seconds
30 mph	5.4
40 mph	8.8
50 mph	13.0
60 mph	19.2
70 mph	27.0
Standing 1/4-mile	21.2 sec @ 63 mph
70-0 mph	190 ft (.87 G)
Fuel mileage	32-36 mpg on regular fuel
Cruising range	320-360 mi



CHECK LIST

ENGINE

Starting.....Very Good
Response.....Good
Vibration.....Very Good
Noise.....Fair

DRIVE TRAIN

Shift linkage.....Fair
Synchro action.....Excellent
Clutch smoothness.....Very Good
Drive train noise.....Very Good

STEERING

Effort.....Very Good
Response.....Good
Road feel.....Good
Kickback.....Good

SUSPENSION

Ride comfort.....Very Good
Roll resistance.....Fair
Pitch control.....Fair
Harshness control.....Very Good

HANDLING

Directional control.....Good
Predictability.....Good
Evasive maneuverability.....Good
Resistance to sidewinds.....Good

BRAKES

Pedal pressure.....Excellent
Response.....Excellent
Fade resistance.....Excellent
Directional stability.....Very Good

CONTROLS

Wheel position.....Good
Pedal position.....Good
Gearshift position.....Poor
Relationship.....Good
Small controls.....Poor

INTERIOR

Ease of entry/exit.....Fair
Noise level (cruising).....Good
Front seating comfort.....Very Good
Front leg room.....Fair
Front head room.....Good
Front hip/shoulder room.....Good
Rear seating comfort.....Fair
Rear leg room.....Fair
Rear head room.....Fair
Rear hip/shoulder room.....Fair
Instrument comprehensiveness.....Poor
Instrument legibility.....Fair

VISION

Forward.....Very Good
Front quarter.....Good
Side.....Very Good
Rear quarter.....Fair
Rear.....Good

WEATHER PROTECTION

Heater/defroster.....Good
Ventilation.....Excellent
Weather sealing.....Very Good

CONSTRUCTION QUALITY

Sheet metal.....Very Good
Paint.....Excellent
Chrome.....Very Good
Upholstery.....Excellent
Padding.....Very Good
Hardware.....Very Good

GENERAL

Headlight illumination.....Good
Parking and signal lights.....Good
Wiper effectiveness.....Good
Service accessibility.....Very Good
Trunk space.....Very Good
Interior storage space.....Very Good
Bumper protection.....Fair

