

EXCLUSIVE: Tech Report--300SLR

# SPORTS CARS ILLUSTRATED

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Why Moss Chose Maserati • Special Section: Sports Car Fashions

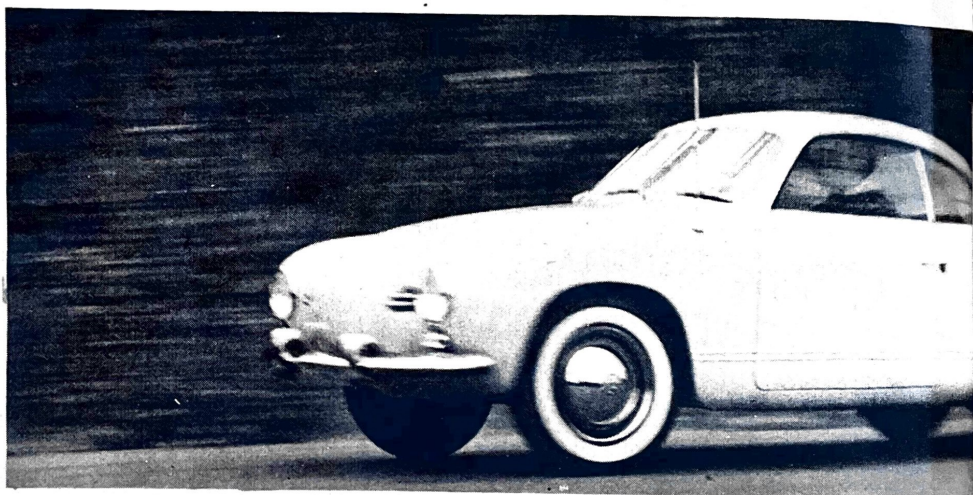
# SCI tests the new Karmann Ghia Volkswagen

By KARL LUDVIGSEN



*Interior is luxurious and roomy compared to the standard model.*

*New VW has the looks and handling qualities of a sports car but not the speed nor the acceleration characteristics. Top speed: 69 mph.*



THE "word" on the Volkswagen has long been: "It's a great car, if you don't mind the way it looks." Even the most devoted salesman will admit that the standard car doesn't exactly appeal to the womenfolk. No one has been more aware of this, of course, than the manufacturer, and a calculated step is being taken to relieve the situation. Surprisingly, the proposed solution only seems to have made matters more critical.

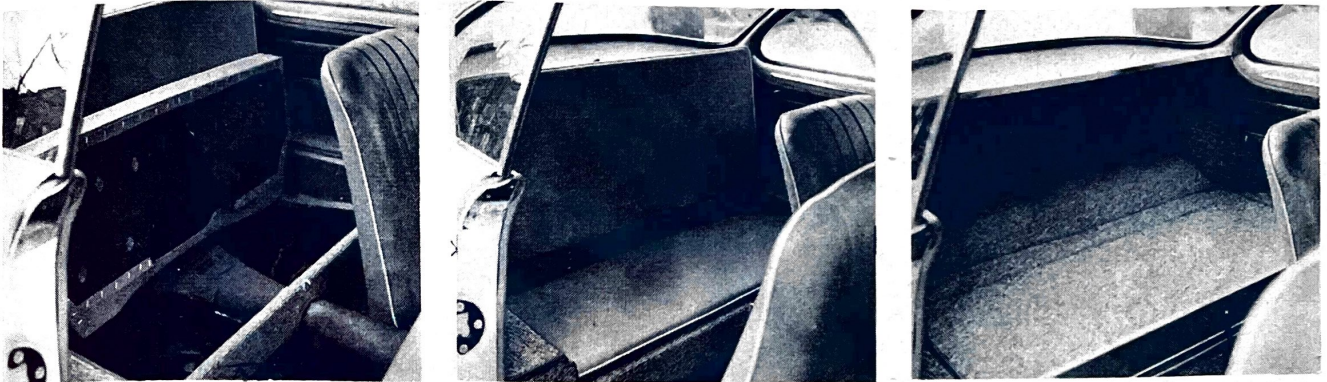
Wolfsburg executives felt that the demands of the minor element of aesthetically-minded customers could be satisfied by a specially-built body on the standard VW chassis, so the firm of Ghia was engaged to design an appropriate new shell, which would then be executed by the Wilhelm Karmann G.m.b.H. of Osnabruck. Karmann has long been responsible for the excellent VW convertible body, and it must be emphasized that their much smaller firm has nothing like the facilities of the Wolfsburg plant, there being no intention of flooding the market with Ghia-designed coupes.

In those areas where the Karmann-Ghia cars have been exhibited, they have caused much consternation among the

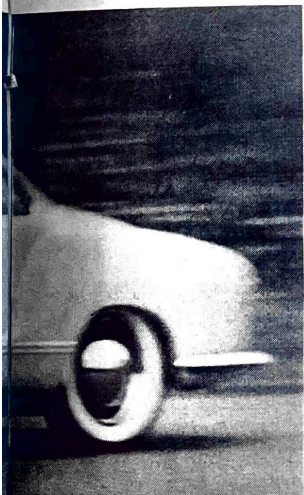
dealers. It seems that it is difficult to interest a customer in a standard VW while the coupe is standing nearby, and unfortunately production plans are not at this writing sufficiently finalized to allow any delivery dates to be set. Many frustrated retailers have removed the cars from their windows, to avoid the issue entirely. What is the reason for this fantastic demand? Has the sports car clan taken to this new model, or have VWs succeeded in appealing to a broader market? After driving the car and querying dealers, I think VWs have exactly achieved their target. Most of the advance orders now on the books were placed by non-enthusiasts, simply interested in travelling in Turin style as well as with Volkswagen economy and durability. This is, in fact, what they get; no more, no less.

Acquiring this style is not necessarily cheap, the coupe listing in New York for \$870 more than the \$1525 of the standard sedan. Virtually all come through with a radio and whitewalls, which brings the tab up \$100 to \$2495, \$500 more than similarly equipped VW convertible. For these big pennies the sports car fan can buy an MGA or a stripped Triumph TR2, but a more comparable car might be the

Photographs by Don Typond



The rear seat of the new car is versatile. Room is available underneath for carrying tools and other small items. The seat itself is large enough for adults on short trips. Folded flat as in a station wagon, room is provided for luggage or sleeping children.



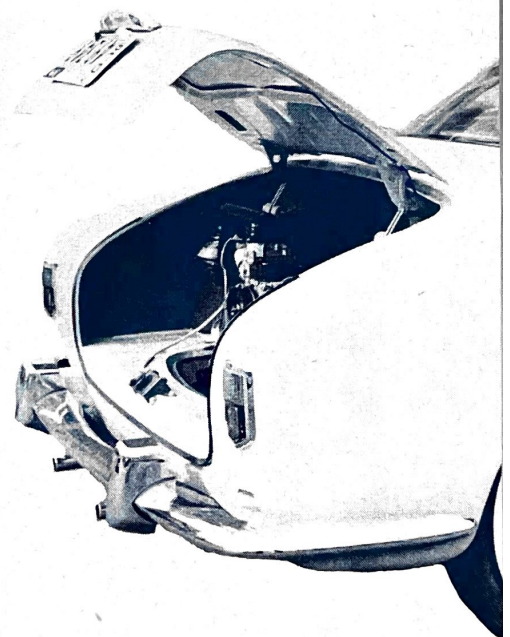
new Sunbeam Rapier, which is expected to retail, with overdrive, for \$2435 in New York. There are few, if any, cars right on the Karmann-Ghia spot, and it seems to be unique in conception.

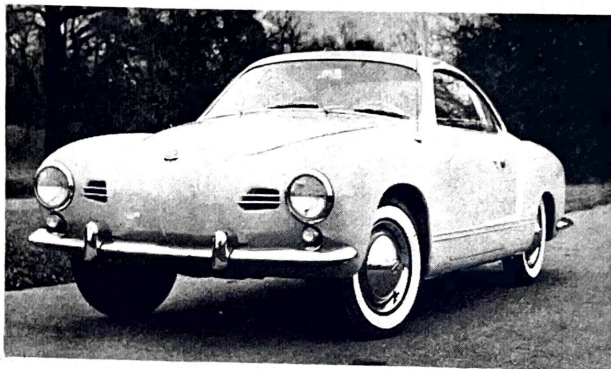
The preceding paragraphs have in part answered the "sport car?" question, but it might be interesting to leave the matter open while we look over this svelte version of our old friend. Whether or not it is a good thing, the Karmann-Ghia looks like a sports car. Its clean lines need no chrome emphasis, and the slim top is very well done. Construction is all-steel, with the fenders firmly welded to the main body. The Karmann shell is bolted to a slightly wider than standard Volkswagen backbone-reinforced platform frame. The front and rear deck lids fit neatly, and, when opened by interior pull-knobs, they are supported by counterbalancing springs. One middle-sized suitcase would go in the front "trunk," and there is additional room in the nose bulge forward of the vertically-placed spare tire. Accessory makers will probably soon supply a lining to make this space usable without interfering with the horns placed there.

The engine compartment lid is wide and deep, but as a result the dropped rear portion of the lid gets in the way during routine checks. This was aggravated by weak balance springs on this car. Neatly trimmed walls surround the otherwise accessible engine, and the battery has been moved from beneath the rear seat to a quick-release mounting on the right of the rear compartment. The bumpers are handsome and seemingly sturdy, with nicely finished overriders, but as usual they are much too low for U. S. use.

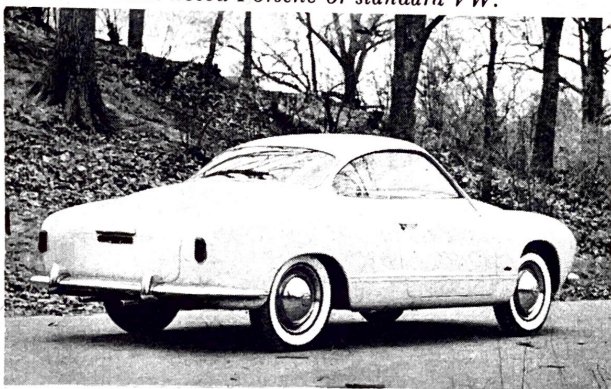
Sports car handling seems to have been another objective of the coupe designers, as evidenced by a couple of significant chassis changes. First, and most obvious, a torsion anti-roll bar half an inch in diameter connects the lower trailing arms through rubber mountings. Such a bar increases the resistance to roll of the front suspension, and thus decreases the cornering power at that end in relation to the rear. Similar tactics, carried to extremes, have been successfully used on English Formula III and sports cars to produce understeer in vehicles with swing axle rear suspension, and they should have a similar, though lesser, effect on the Karmann-Ghia. Secondly, and more subtle, the

Abrupt drop in rear deck lid interferes slightly with routine checks but not overly so. Lid is held open by tension hinges.

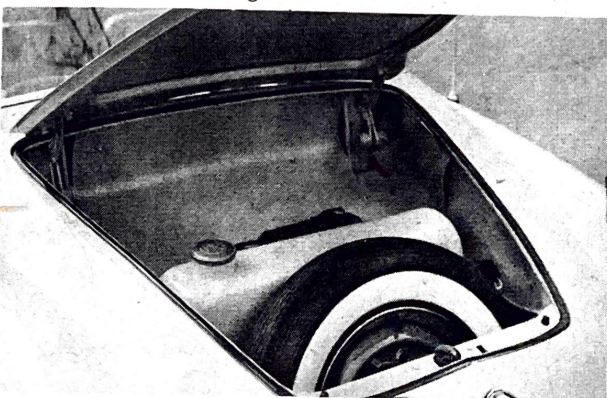




High "hood" line make for slightly less forward visibility than is the case with slant-nosed Porsche or standard VW.



Clean lines of the car indicate the Ghia design influence on otherwise strictly Teutonic Volkswagen.



As in both VW and Porsche, the forward compartment houses spare tire and fuel tank with little spare room.

recommended rear tire pressure is up three pounds from standard VW to 24 psi, while the front remains stock at 17 psi. Increase in tire pressure almost invariably brings an increase in cornering power, so this counts as another measure to make the notorious VW back end stick in a turn as long as the front end. Purely an added dividend is the much lower center of gravity of the new car, which, with the same suspension, should reduce the roll moment and thus, the resulting roll angle.

Keeping these changes in mind, I was keen to see how the coupe would corner, so I headed out to the first test area with Shelly Spindel, the enthusiastic head man of progressive Volkswagen of Brooklyn, Inc. Testing was done in a cold, stiff, wind, which severely tested the car's tracking ability, and found it wanting. On a straightaway under these conditions the Karmann-Ghia is very jumpy, and requires a lot of driver attention. The steering itself is not quite free of

#### PERFORMANCE

##### Test Conditions:

30° F, strong side wind, dry concrete surface at sea level.

##### Speeds in Gears:

true (car) mph

1st .....19 (17)

2nd .....38 (37)

3rd .....57 (59)

4th .....69 (72)

Best run: 69

##### Acceleration:

0-30..... 8.8 sec

0-50.....22.7 sec

0-60.....35.5 sec

0-60.....36.6 sec

40-60.....26.1 sec

Standing ¼ mile .23.8 sec

Speed at end of quarter.....53 mph

##### Gears used:

1st, 2nd

1st, 2nd, 3rd

1st, 2nd, 3rd

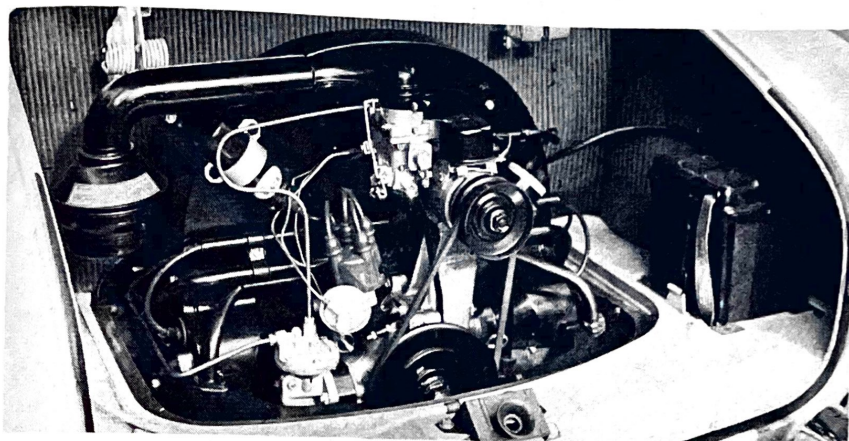
1st, 2nd, 3rd, 4th

4th

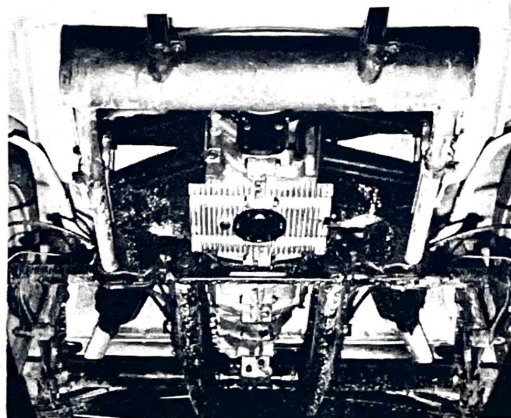
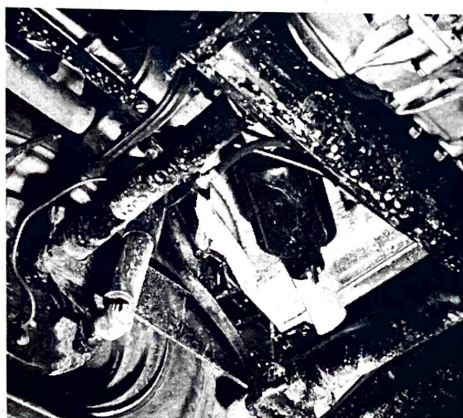
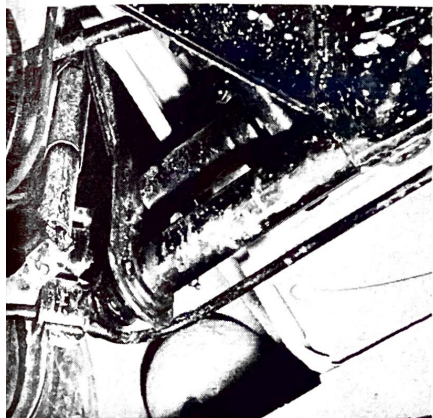
1st, 2nd, 3rd

play, and a moderate caster action and freedom from road reactions give it a rather "dead" feeling. Once turned, though, it responds quickly, with two and three quarters turns from lock to lock, and it is agreeably light at all times.

When the coupe is being cornered fairly hard, with recommended tire pressures, the initial turn of the wheel produces a marked sideways lurch, indicative of tire roll not unfamiliar to VW owners. After the lurch, matters stabilize, and the coupe vindicates its design by being a perfect neutral steerer. There is some car roll and tire noise, but it will track nicely through a bend at increasing speeds until the rear end finally begins to pop out and demand steering



Only change in the engine is the use of the Transporter air cleaner layout and a #195 air correction jet. Battery has been moved from rear seat to engine compartment.



Suspension improvements have been made to increase the road holding. The main change is the use of a torsion anti-roll bar to connect the front trailing arms (left). The rear suspension (center) is similar to standard VW. Frame is beefed up (right).

correction.

As usual, I then tried the car with pressures increased all around by six pounds. With this help, it handled very well indeed. Roll was reduced and the tires were dead quiet, the Karmann-Ghia slicing neatly around on a neutral line. Rather higher speeds were also obtainable before the antics at the back required attention, and there was an additional gain in straight line stability. Unexpectedly, the higher pressures didn't seem to affect the ride much, the all-independent Volkswagen chassis seeming to depend more on suspension than tires. The short wheelbase produces a certain amount of pitch, and some bumps can be felt, but the ride is still better than that of any comparable car, except, perhaps, the Porsche.

Yes, the Karmann-Ghia VW looks and handles like a sports car, and like a very expensive one at that. But how about the rest of the story; i.e., does it go? First, let's see if it should. Ready for shipping, the standard Volkswagen weighs in at 1565 pounds, while the coupe is more than 200 pounds heavier at 1786. As tested, with two up and fuel aboard, the total would come to about 2150 pounds. No skimping there! Wisely, I think, VW have been adamant in their refusal to risk reliability by hopping up the engine in this car. The only modifications for the coupe have been the hanging oil bath air cleaner and elbow pipe as long

(Continued on page 62)

#### SPECIFICATIONS Karmann-Ghia Volkswagen Coupe

##### ENGINE:

Cylinders	4, flat-opposed
Bore & Stroke	77 mm x 64 mm (3.03 in x 2.52 in)
Displacement	1192 cc (72.74 cu in)
Compression ratio	6.6
Max. Horsepower	36 bhp @ 3700 rpm
Max. Torque	45 lb ft @ 2000 rpm
Max. b.m.e.p.	74 psi

##### CHASSIS:

Wheelbase	94.5 in
Front track	51 in
Rear track	49.2 in
Dry weight	1786 lbs
Test weight	2150 lbs
Turns lock to lock	2.75
Turning circle	36 ft
Overall ratios	
4th	3.61
3rd	5.42
2nd	8.27
1st	15.85
Rev.	20.35
Tire size	5.60 x 15
Brake lining area	80.6 sq in
Fuel capacity	10.5 gal

# Karman Ghia VW

(Continued from page 43)

used on the Transporter series, plus an air correction jet in the Solex carburetor of 195 instead of 180, to compensate for the new air cleaner. Power remains as standard, then, so we can expect somewhat poorer acceleration than the standard model. There remains some hope for the top end of the range, where the lower frontal area of the coupe may help out. This is not a wind tunnel job, though, and the regular VW is pretty clean, so miracles are not likely.

Getting into action, the flat four starts quickly from cold and similarly when warm if an understanding throttle foot is used. Idling is regular enough but not smooth in a mechanical sense, the engine already showing its desire to run fast. Low speed response to the throttle is sluggish, probably due in part to the long inlet pipes. Again, it jumps much more quickly at higher speeds, where the engine smooths out and feels at home. When accelerating it emits a purposeful rumble, and seems to make less thrashing noise than the standard car. The only marked flat spot in the speed range comes just after a leisurely shift from second to third.

Actual acceleration figures are about what could be expected of a brand new car, ranging as they do from a little slower than standard at low speeds to better than par at the top end. Terminal velocity is three or four miles higher than the VW, and half a second is lopped off the standing quarter. In spite of these improvements, the data are not outstanding on an absolute basis, and the Karmann-Ghia has revealed itself as a car that makes searching demands on its gearbox ratios. These, fortunately, are well spaced, second and third being very useful in reaching a speed which the overdrive top gear can maintain.

The spindly shift lever has a long longitudinal and short lateral travel, a push-down latch-out being provided for reverse. Shifting "feel" is adequate but not direct. The Borg-Warner synchromesh on the top three speeds is foolproof, the lightness of the gears helping to make shifts nearly instantaneously. If this is done under full throttle, though, the clutch will slip rather than grab. This is to be expected of an otherwise perfectly smooth touring unit, which heated up and tended to judder slightly after the acceleration runs.

Stopping was always accomplished with nose up, in a straight line and without grabbing, but with pedal pressure on the heavy side. Some rumbling was picked up by the underpan when braking hard from higher speeds. I didn't drive it hard enough to fade the brakes, but in view of the limited lining area, this should not be too difficult.

If there was any doubt before, it should be dispersed by now. The Karmann-Ghia coupe is, as the factory will reiterate, designed to beautify an economical concept, and not to walk off with Class G trophies. It is not a sports, gran turismo, or fast touring machine, but rather a semi-custom body on a Volkswagen chassis, with all the limitations that that implies.

Some initial annoyance may be caused by a lock on the driver's side only, to free the push-button latch. The doors open wide, though they will not always stay there, and provide very easy access to the two bucket-type seats. These are more or less equivalent to normal VW seats placed directly on the adjusting mechanism, which provides sufficient range for the tallest of drivers, and also raises the seat as it moves forward. The seat backs are nicely raked in the Italian manner to begin with, and further adjustment can be made with a knurled knob at one back pivot. Cushions are on the firm side, and the contoured seat and high back give excellent lateral support. The smallish wheel sits at a

nice angle well forward and clear of the thighs. It is worth saying that my elbows, arms, and hands never banged on anything, this being rare in a compact car. One contributing factor is the use of a pull-strap for the driver's door, while the passenger has a solid arm rest.

There's plenty of shoulder and hip room, but in my case (six feet even) none for the head. Just driving along casually it was all right, but if I sat well up and back for faster action, my head brushed against the top lining. Space has been stolen from two places to cut seven inches from the standard height: from beneath the seat, and above the head. It looks good, but you have to pay somewhere. The left foot rests naturally on the dimmer switch, and the intruding wheel wells effectively restrict it to this area. "Heel and toe-ing" is possible with the big roller accelerator, which sometimes seems to tire because of its height from the floor. A good pull-up handbrake is located between the seats.

Instruments are large and clearly marked, that job on the right being a very accurate electric clock and not a 12,000 rpm tachometer. The speedometer, reading to 90 instead of the standard 80, is festooned with warning lights for oil pressure, charging rate, bright headlights, and the self-cancelling directional signals. Both dials are readily visible through the wheel, and are flanked on one side by the choke and twist-to-start ignition, and by the light control and switch for the self-parking windshield wiper on the other. Very good instrument light is supplied, but cannot be used because it is reflected on the windshield directly in the line of vision — another opportunity for a suitable accessory. The glove box is wide and deep, with an awkward push-to-open catch, and it is supplemented by map pockets in the doors.

Forward visibility is not so good as that of the Porsche or VW, but still better than most cars. To the rear, the slim pillars allow an unobstructed sweep, but for the tall driver the top of the mirror view is cut off. Mention must also be made of the very clever rear seat arrangement. This bench seat is more than adequate for children, and does not even cramp an adult for short distances. It is much better than the similar Porsche in this respect. Most useful, when the seat back is folded down, a truly cavernous, well-trimmed luggage compartment is formed. This is one of the most impressive and attractive features of the Karmann-Ghia design. The back is now held in either position by a rubber strap, replacing the earlier spring counterbalance.

The coupe also offers some heating refinements, which actually make use of the two small grilles in the front. The main floor heater control supplies warm air to the floor vents and defrosters, and separate under-dash knobs allow the defroster supply to be mixed with cool fresh air from outside. You can go from fresh air only to full heat only. This neat system is fought to some extent by a noisy leakage of air around the tops of the frameless door windows. Apart from that, the coupe is pleasingly quiet at its comfortable cruising speed of 60 or 65.

Overall, the Karmann-Ghia VW coupe is potentially an economical touring and town car for a man and woman of middle height and refined taste. It is not now, and was never intended to be a sports car, but who is to say what might happen if a Porsche engine were to appear in that broad tail? That would make a difference, but the brakes would also have to be enlarged. As it now stands, the car's capabilities are well balanced, and any changes risk upsetting that balance. Most important, it is much fun to drive, and I must thank Volkswagen of Brooklyn again for making available a most desirable and thus elusive motor car. #