



VEE LINE

NUMBER 65

MARCH 1970

DIRECTOR'S CORNER

Ballots are still coming in (I neglected to set a deadline) so the final count will be included in the next issue. You know who our new officers are, anyhow, no doubt.

It's surprising, and gratifying, that there are so many "Against" votes on the proposal to eliminate ballots if only one candidate has been nominated for each office. From the apparent lack of interest in nominating candidates, I assumed (wrongly, I'm happy to find out) that there was somewhat the same interest in voting for them.

OK, so there will be ballots again next year, regardless. (The proposal said "may"—not "shall.") But how about you people who want to vote finding someone to vote for, in the meantime? Write-in candidates can be fun, but they don't have much chance of carrying an election.

DOWN UNDER

Australia finally has a National organization for Formula Vee. Ever since they adopted the class (very soon after we did), they have had organizations in the three populous eastern States, but were unable to come to any agreement on a National organization.

At first the Confederation of Australian Motor Sport (their "SCCA") was also cool to the idea, but recently, with the encouragement of Volkswagen Australasia, they rather forced the issue, telling the various State Clubs, "There will be a meeting for the formation of a Formula Vee Association of Australia. Send a delegate."

The original idea was to have the three delegates decide all Formula Vee matters, with CAMS adopting such decisions and making them official Australian rules. However one State absolutely refused to go along with this (as we no doubt would have), so the present system is to present any rules proposals to all the members, with a 75% favorable vote being required before any such changes are adopted. Which seems like a very good idea. I believe we'd settle for that kind of an arrangement with SCCA, wouldn't we?

They had some interesting proposals on their first ballot:

1. All measurements are to be converted to metric. (Australia is committed to a switch to the metric system by 1980.)
2. Only radial tires can be used. (Sports car type, to prevent hassles such as we have had (have?) over some drivers being able to obtain tires not available to all.)
3. Minimum weight of car and driver, without fuel, to be 1000 lbs. (New Zealand has already adopted them. Do you suppose we ever will?)
4. Only standard VW brake shoes can be used.
5. Firewall (not "body") width to be 34" (to eliminate the customary inclusion of fins and other projections as "body" width).
6. Use of "Mahle" pistons and cylinders, as well as VW. (That company makes most of the VW cylinders and pistons, but also markets the same thing at a lower price under their own brand.)

Those are only ballot proposals, remember—not new rules. Their ballot didn't close until 6-3-70 (which means Mar. 6, everywhere but in the U.S.), so no results have yet been

AS OTHERS SEE US

(From *Autosport*, a British magazine)

"... The practice sessions gave the Europeans their first view of a technique evolved by the Americans for getting low-powered cars round a high-speed oval course. It's called "pushing," and, like slipstreaming, works on the principle that if two cars can go through the hole in the air created by one of them, an increase in speed will result for the second car. But if the second car's nose is actually hard up against the front car's gear-box and is literally pushing it, the front car will go faster too. It has the frontal area of one car but is in effect an eight-wheeled, 2400cc machine. Once their cars were off the twisting road sections and on the banked oval part of the circuit, the top Zink drivers gave impressive demonstrations of this dicey ruse at around 115 mph, which is what the little Vees were reaching on the back straight. As a result there was a Zink on pole position for each of the three heats of the SCCA race..."

(Apparently this practice was noted by everyone except our safety-minded insurance-conscious officials. don)

DOUBTING THOMAS

Was asked the other day how much of the dope on the Ackermann steering system was factual. Well, of course very early accounts of the development of the steering gear are somewhat sketchy and not entirely reliable, so I wouldn't guarantee that portion of the story. However the basic facts concerning Rudolph Ackermann can be found in the Encyclopedia Britannica. According to that, it's rather amazing that his name is remembered in connection with automobiles, at all. After some discussion of his activities in the printing industry the account ends, "Also invented an improved steering system for carriages." Mr. Jeantend was also real, and did solve the "scrubbing" problem.

announced.

Australia has already adopted a few variations from the U.S. rules, although they have retained the spirit of them, in most respects. In some areas their version is better—more specific—than ours. In some others, they have accepted deviations that we have turned down.

REBUTTAL

Dear Mr. Cheesman: One of our customers has passed on to us the most recent issue of the VeeLine. In number 64 edition there is an article entitled "What Makes Those Vees So Fast?" and we here at Competition Research take exceptions to your comments and undisclosed source of information. You say, "If they're all that fast, how come it never shows up at the ARRC runoffs, where they meet cars from all over the rest of the U.S.?" Does "never shows up" refer to only this year? After all, Mr. Cheesman, most people feel that the word "never" means that something has not ever happened. Consider the results of the last two year's runoffs and big money races at Daytona.

In 1968 the ARRC, as we all know, was held at Riverside. The first three positions were all taken by Northeast drivers. . . . On to this year. Jim Killion, the winner of the ARRC, was listed as being from the Central Division. Did your informant from the NE forget to tell you that the people who are competing for the top spots in this area know that he is from White Plains, N.Y.? We modified a set of heads for Mr. Killion, which he used on his engine to win both the ARRC and the SCCA pro race at Daytona in January. The heads and the bottom end were built and assembled in the heart of the suspect Northeast. Next finisher in the ARRC was another NE driver and engine builder, Bill Scott. We know that Mr. Killion used the same engine in the ARRC this year that he used all season. . . .

As to people using different engines during the season than at the runoffs, we can only speak for the racers that we do business with—Jim Killion and Tom Davey—and both of them used the same power plants that they had run all year. And, furthermore, when we rebuilt Mr. Davey's engine for the Pro race at Daytona, he picked up a very substantial amount of horsepower.

When the Daytona money races come up for evidence, your inferences are again questionable. Last year. . . Steve Pieper won the race with a NE engine. This year it was Jim Killion, who, as you may have read, entered himself as being from White Plains, N.Y. Second went to Buddy Cox, whose regional affiliation I do not know (*SE-don*); but from there we have third, fourth and sixth place finishes from the scourge of SCCA, the infamous Northeast. So, Mr. Cheesman, it seems that point systems and ratings from FVI aside, your point is without foundation. I find it hard to believe that a man with as much experience and knowledge in Formula Vee as you have would have enough confidence in a phone call from one NE driver to write an article in a paper as important to Vee racers as the VeeLine. I believe that the drivers in the NE that you have spoken about deserve an apology or at least a further investigation into

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MEMBERS' SOAPBOX

Dear Don—We are in the process of building a Vee. I want to use as much aluminum as possible in the body shell but I notice in the rules that the belly pan can be the only sheet metal or fiberglass which can be attached by rivets or some other permanent device to the frame. Is it legal to rivet aluminum to a skeleton superstructure attached to the frame if it has no bearing on the rigidity of the frame itself?

Bruce Townsend, Bloomington, Ill.

The key words are "if it has no bearing on the rigidity of the frame," rather than "riveted" or "permanently attached." The wording of the rule outlawed the original Zink cars, which had the center section of the body shell in one piece, wrapped from an upper frame rail on one side, down and around the lower rails, and back up to the other top one, and closely rivetted to all four of them. Ed Zink made the mistake of calling it a "semi-monocoque," and gave the design a lot of the credit for the Zink's performance. Since there was no other obvious explanation, the competition claimed that it was in violation of the rule, which specified that the frame must be of tubular steel construction. This would not permit "semi-monocoques", with the skin being, in effect, an integral part of the frame.

SO—I wouldn't worry about the method of attachment, provided the rivets, screws, Dzus fasteners, or what have you, are spaced far enough apart to demonstrate that no stiffness is being imparted by the body section, and that the sides are separate pieces, and not an extension of the undertray. If the sides are actually attached to clips or brackets, rather than directly to the frame rail, I'm sure no objection would ever be made.

Dear Don—About 2 months ago I joined FVI as an Associate Member. Well, I did it—I just bought a Formula Vee kit! I haven't joined SCCA yet, but plan to do so soon. Am I eligible to go "Active" now, or do I have to join SCCA first? Any extra charge?

I need all the room I can get for the seat, so it looks like I'll have to extend the tank back through the firewall. Does the firewall have to be between the tank and the engine compartment? Does it have to have a bladder in it? Is there a material it should be coated with?

Some of these questions may seem stupid; but being new to the sport I find everybody is willing to help, but no one seems to really know much more about this than I do.

Doug Thorne, Findlay, Ohio

You're an "Active Member" now, Doug. (It may take a couple of weeks before you get the new card and stuff, though.) You have to join SCCA (in most localities) in order to race a Vee, but not to own one, which is all we require. There's no extra charge, either, except you'll be expected to vote at every possible opportunity.

I can't find anything in the SCCA rules which specifically prohibits cohabitation of the engine and the fuel tank; but if I were a tech inspector, I'd find some basis for prohibiting it. (OK, you purists, it is specifically illegal for the Sports Racing Class.) Aside from legality, look at it from a safety viewpoint. Do you really want to drive a car built like that? Probably under normal conditions, with a tight cap and a long vent line, you could get

away with nothing worse than vapor-lock (things get unbelievably hot in the engine room), but imagine that tank of hot gas coming unmoored in a roll-over!

Surely there's some other space available—you'll only need a 3 gallon tank for the 30-minute SCCA races. If you have room like that behind the seat you could use it to better advantage for a more lay-down driving position. "Safety" tanks are not required in Vees—yet.

I saw one of those humorous postcards the other day—"Don't be afraid to ask stupid questions. It's much better than making stupid mistakes."

Dear Don—I am in the throes of building a Vee from the ground up. One thing I have never seen mentioned in the VeeLine (mine start with No. 46) is a question on sway bars. I know the principle on which a sway bar works, but I do not know—

A. How to determine the diameter and length of the bar.

B. If I should make it in the shape of a "Z" or a shallow "U"? Or does it matter?

C. For the front suspension, should I run it along the top or bottom of my frame? Or does it matter?

Marcis Esmits, Montreal, Quebec

This is another of those subjects on which there are so many opinions that no matter what you're told, you can find someone who will disagree with it. There are a few basic facts that are pretty well accepted, but I'm not going to tell you how to build a Vee, or set up the suspension. If it were that easy, every one of the builders would be doing it the same way. OK?

To get rid of the front end first, it is standard Vee practice to remove one of the VW torsion bars (from inside the front suspension cross tubes) and replace it with a sway bar (or "anti-sway bar"—same thing). Instead of being square, and thus being restrained by the square cross section in the center of the cross tube, it is of round material, squared only at the ends where they fit inside the torsion arms. The length, and the dimension of the square section, is made identical with the torsion bar which was removed. It should be made of alloy steel, which will stand a good deal of twist without taking a permanent "set." Because the bar is not anchored in the center, and will not resist side thrust as the original torsion bar did, the rubber seals around the torsion arms are replaced with brass washers to take the thrust. Diameters vary from 1/2" to 3/4". Ours is 5/8" and seems to be OK, although we have never done any experimenting on it to see if it could be improved. You might start with a light one, and then add the original VW sway bar, which is fastened to the lower torsion arms with clips to get some idea of whether you could go heavier. You might also substitute a heavy-duty stock-type sway bar for the original VW one. They're available from a number of the firms selling goodies for VWs. (For more details on building a bar, see VL No. 4.)

So now let's all move back to the rear of the car. It's a fairly well accepted theory that understeer and oversteer can be controlled (to some extent) by delegating the resistance to rolling to one end of the car or the other. If the front end has most of the "roll stiffness" (heavy sway bar), it will be more susceptible

to plowing (understeer) than it would if the rear end were doing the job. Way back there when, before we learned what to do about the rear end suddenly jumping into positive camber in large doses, and swapping places with the front, we had "oversteer" you wouldn't believe until it happened to you! Then "camber straps" were legalized, which allowed the axles to be restrained in their downward movement, but tended to pick up the inside wheel, transferring a lot of the roll to the outside one, which still gave oversteer. Then someone invented the "cable," which you see in use a good deal even now, which eliminated the tucking under of the rear wheels in a hard turn, but didn't restrain the rolling effect. There was still resistance from the springs when the outer one was compressed more than the inside one, but with a stiff sway bar in front, there really wasn't much roll anyhow. Next on the scene was the "Z" bar, which seems to be the way to go at this time. (Note that "seems.")

The "Z" bar runs across the frame usually directly above the rear axle, and is held to the frame by some kind of bearings which locate the bar endwise, but permit it to turn freely. One arm of the "Z" points forward, the other to the rear, and both line up fore-and-aft directly above the bearing housings on the axle. They are attached to the bearing housings by means of adjustable links with flexible joints on each end, and usually with some kind of adjustment whereby the attachment at the arm of the "Z" can be moved forward or back in order to vary the effective length of the arm (stiffness).

If the load on the car is increased, so that it settles on the springs, the links on each side push upward on their respective arms, causing the center part of the bar to twist—and to resist that twist. If, in a hard turn, the wheels tend to "tuck-in," thereby raising the chassis, the links pull both arms downward, again twisting the bar, which also resists that action and thus again limits the amount of travel of the axles. On the other hand, as the chassis tries to roll in a turn, one arm is pushed upward and the other is pushed downward an equal amount, so that there is no resistance, and the "Z" bar has the same effect as the cable running from one axle to the other across the top of the frame. It is assumed at this point that the length of the links is such that under normal conditions there is no twist on the bar in either direction. Used in this manner there is little, if any, advantage in favor of the "Z" bar over the cable.

When "Z" bars were first used, they were often given the additional function of carrying part (or even all) of the weight of the car. The links were adjusted longer so that under normal conditions there was enough twist in the bar to counteract the weight imposed upon them. In some instances the coil springs on the shocks were made of light wire, in token compliance with the rule, but had no weight-carrying ability whatsoever. (Note that the rule now states that the coil springs must "continue to perform functionally" if the "Z" bar is disconnected.) In this configuration there was no resistance to roll provided by the springs, either, so that all the roll resistance was transferred to the front end. Neither was there any resistance to "tucking under," which put things back where they were several years before—use of a chain or cable to limit the tuck-under, which picked

MEMBERS' SOAPBOX

(Continued)

up the inside wheel, and so on.

The latest trend is not only to make the torsion bar ("Z" bar) restrain tucking under, but also to preload it—set the springs higher than the normal ride height, and then pull the chassis down against them with the "Z" bar—so as to limit the travel in both directions. Which is the best way to use it? Oh, no you don't! I'm not going to get into that!

As to the "U" shape you mentioned, that's a pure sway bar. It's connected to the frame and axles in the same manner as the "Z" bar, but with both arms pointed either forward or backward. It's action, then, is just the reverse of the "Z" bar—it resists roll because one arm is pulled downward while the other is pushed upward, but in a bump or rebound (or tuck-under in a corner) both arms are pushed or pulled in the same direction so that there is no resistance, either way. It would, by assuming some of the roll resistance, tend to reduce understeer and/or increase oversteer, but some other method would have to be used in conjunction with it to keep those wheels apart in a hard corner—cable, chains, or even short shocks which would come to the end of their travel at just past neutral camber.

I've seen only one Vee equipped with a true sway bar in the rear—the car of Tony Jeffries, of South Africa, who won the big Vee race at Freeport (Bahamas) two years ago. Interesting, isn't it?

And isn't it interesting that on many tracks the lap record is held by someone driving a GoKart, with no "suspension" at all?

Dear Sir—...How can I bring my rear wheels from about 15 deg. negative camber to about neutral? I have brand new Monroe LL 456's with the black springs. Can I use a transverse-mounted camber compensator? Would lowering the chassis shock mounts a couple of inches do the job? Are 4½" rims and the new brake drums legal this year?

James R. Evenson, St. Paul, Minn.

You have several possibilities available to you. Probably the simplest is to get from an automotive supply store a set of booster springs, made to slip over your present shocks. Throw away the springs and use the clamp which comes with the set (it goes around the barrel of the shock) to raise the bottom seat of the spring. You'll need a spring compressor, described in one of the earlier VL's, as you'll probably have to make several changes before you're satisfied. (After examining the thing, you might tell the salesman you don't think it would fit, and go home and make up a clamp yourself.) Another approach is to slice the upper rubber washer in half, and use only a thin section of it above the chassis mount. This will allow room for a tubular spacer between the body of the shock and the lower rubber washer, which will have the same effect as lowering the mounting point on the chassis. You'll be surprised how much difference half an inch—or even less—will make.

Yes, you could use a transverse camber compensator, too, or a "Z" bar, to assist the coil springs. Just be sure you have some means of limiting the positive camber, as well as the negative.

No, legal wheel width hasn't been changed—it's still the standard 4" 1200 wheel.

However, the "new" (since 1966) ribbed brakedrum is specifically permitted, by part-number in the '70 rules. It was introduced on the '66 1300VW, and has been the stock replacement part for the 1200, too, ever since the stocks of the plain drum were exhausted. It will widen your "track" by about 3/8", which won't help much, but certainly won't hurt anything. (The rules take that into account, too.)

Dear Don—My compliments on your efforts for Formula Vee. I am amazed how you find time to work your job, publish the Vee-Line, race your Vee, and diddle with new ideas and modifications to your car. You can't be married?

Henry Blackburn, New Bedford, Mass.

You bet I'm married! Who do you think really does all the work around here?

Dear Don—...Can't wait to get back to the "world" to become an Active Member in this great sport. Do you still have back issues of the VeeLine available?

Terry Norby, Viet Nam

We'll have a pair of class emblems waiting for you when you're ready for them, and may it be soon! Yes, all the back issues are kept in stock, all the time. (Well, we do have to wait for some of the reprints, once in a while, but we get them eventually.) They're 25 cents each, postpaid to FVI members only. (Non-profit organization rules.) That makes a complete set one of the highest priced "racing books" you can buy (\$16.00 as of this month), but if it's any consolation, our charter members have paid \$40.00 for theirs.

Dear Don... For the record, I will probably try to do a little racing this season. . . . I have not yet sold my car, as I have yet to find a qualified buyer. You are one of the few people to whom I would sell it. I am thinking of having it bronzed and hanging it from the rear-view mirror of my new Porsche 914. Best regards from a delighted Life Member.

Robert Ames, Tigard, Ore.

Bob, of course, is our out-going President. He advertised his mint-condition Formcar in the October issue, with the notation, "Will sell only to the right buyer, due to sentimental attachment." You may not appreciate the compliment implied above, but I do!

FORMULA FORD INNOVATION

To assist in maintaining strict compliance with the Formula Ford rules, the Ford Motor Company has gone a long way. The rules (originally written by them, in England) specify every pertinent dimension and weight for critical parts, and for \$4.00 any interested person or organization can obtain a kit of gauges, etc., for checking those dimensions. Included in the IMSA rules, at least (I haven't yet seen the '70 SCCA version) is the additional provision that "Profile data furnished by FORMULA FORD REGISTER will be used as basis for checking" (camshafts). The "profile data," of course, is a chart, in graph form, of the shape of the cam lobes. It is taken by mounting a dial indicator on the head so that it will show the amount of movement of the valve train, and a degree wheel on the crankshaft which shows the point in rotation at which that lift occurs. Readings of the

dial indicator are taken at regular intervals on the degree wheel as the crankshaft is turned, and are shown as dots on graph paper. When the dots are connected by a continuous line, the cam "profile" is shown. (See VeeLine No. 30 for profiles of the "B" and "D" cams, taken by this method.)

Over a year ago I outlined this same procedure to Joe Hoppp (VWoA) asking for assistance in obtaining official VW specs, and in assembling an inspection kit for Formula Vee. Joe replied that he didn't think the procedure was practical, as it was "too complicated to apply." I also sent a copy to Jim Patterson (SCCA's Director of Club Racing) for comments on the possibility of including such data as part of the Formula Vee rules. Never did get an answer on that.

WHY DIDN'T I THINK OF THAT

Ed Givler (in the phone conversation mentioned last month) described a "new" way to eliminate toe-in change due to bumps and rebound. It's a bit difficult to describe, and to accept, even after you understand it, but it has to be right.

First, you set your front suspension so that the upper torsion arm is level—the center-line of the link pin on a level with that of the torsion bar tube. Then you measure the location of the center of the tie-rod ball-joint in relation to the center-line of the link pin—say it's 4½ inches behind, and one inch above it. Next, you locate the center of the ball-joint on the steering arm of the gear box so that it has exactly the same relationship to the center-line of the torsion bar tube—4½ inches behind it, and one inch above. In this configuration, no matter how the torsion arms move, the tie rod moves in a path which is actually a segment of a cone, with the point at the center tie-rod joint, and the base following the path of the outer one. The distance between them is the same, regardless of the angle of the torsion arms! When you visualize this on your Vee, it occurs to you that, without the steering arm extension (which most Vees have, at least), you'd be back to standard VW steering. (With equal length tie-rods, the offset of the holes in the arm wouldn't quite work out, but you can see why they were used on the Beetle, and why toe-in change has never been a problem on them.)

Now comes the dilemma: Should you omit the extension and settle for slower steering and no change in toe-in, or keep it and live with the results?

There's one possible way of having your cake and eating it too—you could probably mount the gear box ahead of the axle tube, by a distance equal to the length of the extension, which would give the same effect. It might cause some discussion at tech inspection, though, as to whether that was the "central location" permitted in the rules.

A THIRD FORMULA VEE!

Are you ready for one more Formula Vee racing class? "One of the most popular home built airplanes will soon be the Volkswagen powered Formula V class sport/racer. . . . No souping up or expensive engine power boost alterations are permitted. . . ." (From the brochure of a company marketing plans and components for the new class.)

SUPER VEE

Though Gene Beach's world's-first Super Vee (pictured in the last VeeLine) was shown and run at Daytona recently, it will not be put into production until after a few runs in Regional races, to make sure it's completely de-bugged. With its conventional Formula car suspension, flat rear deck and mag wheels, it certainly won't be confused with Formula Vee! On the other hand, with the tires limited to what will go on a six-inch rim, it won't be confused with Formula A, either. It seems safe to predict that race officials will insist that both Formula Super Vee and Formula Ford cars carry their class identification letters.

By the way, what *are* the letters for Super Vee? SV? FSV? FV?

In Ontario the newest Canadian Vee manufacturer, Altona Motors, has announced that they are also building a "Super Vee," with delivery to start in May. They are the first to announce a definite price for the car—\$5250, complete or \$3750 for a "rolling chassis."

No word yet from SCCA as to whether Super Vee front hubs, brakes and spindles can be from "any VW," or must be from "any 1600VW."

The new Dixon Super Vee. Dixon, of Chula Vista, Cal., is new in Formula Vee, but is a well-known builder of Indianapolis cars.



**The VEE LINE of
FORMULA VEE INTERNATIONAL**
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REBUTTAL

(Continued from Page 1)

the questions raised.

Pete Burger, Jack Cowell,
Jim Jenkins, Ted Wenz;
COMPETITION RESEARCH

1. You are absolutely right! I should *never* have said "never!" And I certainly should have checked the previous records. If I had, I'd have noted that, as you pointed out, at the 1968 ARRC the NE drivers did take the first three positions. Then, if I had gone back another year I'd have found that in 1967 there were *none* in the first six spots. If I had gone back a couple of more years, I'd have found that in both 1965 and 1966, NE drivers got 3rd and 6th places. I should have stopped there, though, because in '64 the NE took 1st and 2nd. Taking the entire six-year history of the ARRC into account, the NE *has* shown *some* superiority over the other divisions. So I'll *never* say "never" again!

2. As to Jim Killion's affiliation, my "informant" was "Sports Car" (SCCA's official magazine) where, as you say, he was listed in the Central Division point standings during the season, and also in the results of the ARRC. I trust, therefore, that you will forgive me for not "knowing" that he was actually from White Plains, N.Y. Counting him, also, as a NE driver certainly does change the picture.

3. I assume that when you say your clients "used the same power plants that they had run all year" at the ARRC, you actually meant just that—same bearings, rings, valves, cams, heads, etc., with no teardowns, in which case please accept my congratulations and admiration! Not many of the ARRC drivers, I am sure, trusted their engines *that* far!
4. In Tom Davey's case, at least, you did build a more powerful engine for the Pro race at Daytona than for the ARRC?

5. My mention of "Daytona" was obviously, I believe, in reference to the coming ARRC. As to the "pro" races there, in view of the many critical reports on the "scrutineering" (?) at last year's international race, (haven't heard anything this year on that) and the unorthodox (?) driving this time, I certainly don't feel that the results of those races prove

anything pertinent to this discussion—one way or the other.

6. Not on the basis of that one call, but considering a number of other conversations and letters as well, I certainly agree with you that "the drivers in the NE that I have spoken about deserve an apology or at least a further investigation into the questions raised." But let's put off the apology until after the investigation, shall we? As you must be aware, I have no way of making such an investigation. Only "an entrant or driver taking part in the competition in question" can file a protest and demand a teardown. I can only suggest, as I did in the article, that some such qualified person or persons take the initiative. If you really want an investigation, perhaps you could arrange it. After that, the apology, if it's indicated.

7. Surprisingly, yours is the only negative response to that article. One other letter and a phone call indicated agreement with my "informant," but they didn't seem to be all worked up over the situation, either. Your argument seems to be with the statistics in the article, rather than with the statement of my "informant" upon which it was based—"We cheat." Would you care to comment on that? Just for openers, do your generators (and those of your competitors) "function normally," as they do in Volkswagens?

8. Thanks for the compliment on the VeeLine. I guess you know, if you follow it at all, that any "importance" it may have wasn't earned by trying to avoid controversy.

UNCLASSIFIED ADS

FOR SALE: Zink, with Z-bar, Koni and Armstrong shocks, R-5 Goodyears, seat cover, Mitten car cover. Custom-built trailer available. Dick Patton, 2629 Nottingham Rd., Columbus, Ohio 43221 (614) 488-7501.

FOR SALE Bobsy Vanguard. Very good condition, 5 hrs. on engine. Will discuss delivery. \$875. Gordon Webster, Memphis, Tenn. Home, 324-2946; bus., 278-7533.

FOR SALE: All back issues of the VeeLine. 25 cents each, postpaid. FVI, East Wenatchee, Wash. 98801.



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