



# VEE LINE

NUMBER 52

JANUARY 1969

## DIRECTOR'S CORNER

## ONE FOR OUR SIDE

You probably will not be surprised to learn that the three listed candidates for the Offices of this organization were elected. However none of them made it without some opposition in the form of write-ins.

### FOR PRESIDENT

### VICE PRESIDENT

Robert Ames	.....140
Alfred Newman	.....1
Bill Scott	.....1
Jim Geiger	.....1

John Beck	.....142
Ed Zink	.....1

### FOR SECRETARY

Harriet Gittings	.....144
*Snoopy	.....1

Not much of a return, percentage-wise, but if the rest of you are content to let a few take care of things, that's probably OK, too. You may be confident that the continuity of this association is assured for another year, at least. These are all good responsible people!

\*Ineligible - doesn't have a Vee yet.

## WEIGHT WITH DRIVER

The proposition to change the rules to include a minimum weight of 1000 lb. for car and driver has been on our ballots for the past four years, carrying each time by a small but inconsiderable margin. We've trimmed Petunia to within a very few pounds of the minimum, but it's impractical to use the same methods on a driver built to minimum specifications of 6'3" and 210 lbs. (225 max.), so, as I have mentioned before, I have somewhat of a personal interest in this proposal—and so do you!

There's only *one* driver in the United States who should be against it—the lightest one. Actually, to be more practical about it, the lightest National driver in each Division, and even the lightest driver in each Region, might also ask to be excused from this lecture, but the rest of you should find it interesting.

Regardless of *your* weight, assuming that your car is at its minimum, you're giving away *some* weight advantage to the lightest driver on the grid—in fact to *all* the drivers lighter than you are. Ten pounds? Twenty-five? Fifty? If you're racing seriously, you'd spend a lot of time and money to prune ten pounds off your car, if you found it to be that much overweight, wouldn't you? Well, from the standpoint of acceleration, ten pounds is ten pounds, no matter where it's located. Weight has little, if any, effect on top speed, but it has a direct relation to the time it takes to get up to top speed.

It is unfortunate, perhaps, that the "175-pound driver" has been used as an example a number of times. This may have given the impression that any one lighter than that would have something to lose, and nothing to gain. True, with a minimum car weight of 825 pounds, he would have to ballast—to *some extent*. However, that extent would vary. Would you quibble about adding ten pounds to your car if you knew of someone else who was adding fifty?

Also, the term "ballast" seems to have some kind of negative implication. It means, of course, added weight, but it doesn't necessarily specify chunks of lead or iron. How about a bigger, more reliable battery? More roll-bar bracing? Heavier side rails along the cockpit? Extra diagonal bracing for more chassis rigidity? Steel reinforcing in the nose section? A nerf bar to protect your transmission? Nerf bars in front of the rear wheels? Or even Italian air horns? The simplest way, of course, would be to bolt a steel plate of the proper weight to the frame, just in front of the seat. The weight of steel plates is almost exactly five pounds per square foot, per one-eighth of an inch of thickness.

There have been only a couple of suggestions that a minimum weight for the bare car should be completely deleted from the rules; on the contrary, it has been generally accepted that it, too, would be retained to prevent the heavyweights from going to extremes in order to make the 1000 lb. total. However 800 pounds has been suggested a number of times to permit more of those drivers to make the weight. This change would have no effect on lightweights with cars at the presently legal 825 pounds—they would still ballast the additional amount needed to make 1000 pound total weight, car and driver. However, those between 175 and 200 could prune up to 25 more pounds from their cars. Those over 200 would just have to live with that much handicap—it wouldn't be feasible to adapt this to absolutely everyone.

My first reaction to the 800 pound minimum was that it might be too light—that a safe Vee couldn't make it. However, that was before we trimmed Petunia down to that point a year ago before we got around to weighing her. It took a lot of aluminum (steering shaft, gas tank, trailing arms, shock mounts, etc.) and a Honda battery (which had to be traded back for the big one to make the legal weight) but if it can be done to a Formcar, it can be done with *any* Vee!

(Continued on Page 4)

Oh, goody! Transporter clutches are finally legal! (We first recommended it in 1965.) I'm really not all that excited about it, but it *is* a good move, for several reasons.

For one thing, there is evidence indicating that some people are using them already, unwittingly. One of our most gung-ho officers was severely shocked a couple of years ago when she found that her spare engine was equipped with one. (Weren't you, Harriet?) For another, it has been reported that at some dealerships, at least, this is the only type now being stocked for 1200's. And last, but definitely not least, it indicates some recognition of our ballot!

The distinguishing feature of the transporter clutch is the use of two concentric springs in each of the six (not nine) spring pockets in place of the single ones used in the sedan clutches. It is not obvious why this was done—the engines were the same, putting the same strain on the clutch, regardless of the weight of the vehicle or the gear ratios used; but that's beside the point—there *are* two legal clutch pressure plates available, and one of them puts much more squeeze on the driven disc than does the other.

Shall we all dash down to the VW emporium and buy new clutches now? Well, Petunia is going to wear the old one for another season, and probably many more. She's sported it for five full seasons already, since it was salvaged from the '62 Beetle which provided her vital organs. She's complained only twice, and with good reason both times.

As Whit Tharin said in one of his "Vee and Me" articles (VL No. 30), "One beautiful piece of luck with Formula Vee is that the VW sedan clutch is just about perfect for a start. It has just the right amount of natural inherent slippage. It need not be engaged carefully or skillfully, but it is still plenty strong enough to spin the wheels and deliver all the power to the transmission. Just dump it—let it out all at once!"

You don't have enough power in a Vee to spin the wheels more than a couple of turns, so with a stronger clutch you will have to either "feather" it, to keep your revs up, or risk killing your engine on the starting line. This is rather embarrassing, right out there in front of everyone, besides being somewhat annoying to the drivers behind. The ability of the sedan clutch to slip slightly under a shock load is also of benefit in making the "full-power shifts" that Whit describes. The VW drive train is apparently indestructible, but the rubber transmission mounts are not and the shock imposed by instantly locking in the high-revving flywheel has to be terrific!

As was mentioned, we *have* had clutch slippage a couple of times—once when the clutch cable was set a bit too tight, and once when torn engine mounts created the same effect. Under full load the engine moved enough to take all the slack out of the cable.

## AN ANSWER

Whether or not you agree with him, you'll have to give Jim Patterson (Director of Club Racing for SCCA) credit for trying:

"Dear Don: The November VeeLine has just arrived, and there were several items that I'd like to comment on.

"First, you include a rumor that Daytona doesn't want the ARRC in '69. Not true. Both Riverside and Daytona would like the ARRC on a yearly rather than an every other year basis....

"Also, while on the subject of the ARRC, Scott's winning Zink was *not* a stressed skin car.

"The Vee race was fantastic. The Cal Club electric-eye timing equipment verified that the fourth place car finished .9 second behind the first place car! Short of a four car dead heat, you can't get much closer than that.

"Now, about exhaust systems. First, I think you will admit that a poll of any group of people is only an indication of the thinking of those who responded to the poll. In fairness to *all* Vee owners, therefore, the FVI poll must be treated as reflection of the desires of 410 Vee owners. Since there are an estimated 1200 to 1500 Vee owners, and 261 voted against free exhaust systems (164 voted for it, remember) the Committee can't be in the position of letting a segment of that size dictate the specifics of the rules. Believe it or not, the Committee does attach significant value to the FVI poll, but other aspects must be considered. Spectator appeal, assessment of *all* Vee owners' opinions, practicality, etc., are among these.

"So—we have free exhaust systems for '69 and some people are mad, others are happy. Within a short time, optimum tube size, primary lengths, megaphone size, etc., will be common knowledge among Vee owners and nobody will have an edge.

"Have a good year, Don, and keep up the good work with FVI."

Thanks, Jim, for several interesting items. A few comments in return, if I may—

1. Should I have said that Daytona doesn't want the ARRC unless they can have it every year? The point was, what happens if they don't *both* get it, which seems somewhat unlikely?

2. The "stressed skin" evidently isn't the "secret" of the Zink's winning ways, then, which proves that the FVI membership wasn't far off base in indicating (62% to 38%) that they considered it to be of insignificant importance.

3. Ain't it the truth! That race will go down in history, among those who took the trouble to watch it! It was certainly too bad that there wasn't enough noise to hold the interest of the spectators, though. Next year it will be different, won't it?

4. No, Jim, I don't admit any such thing about polls, nor do I believe that anyone who took any interest at all in the recent National elections would agree with your evaluation of them. (I believe the Harris and Roper polls are based on samples of around 1200 to 1500 people.) True, our 410 Vee owners represent only around 25% of "all" Vee owners, to use your figures, and your dedication to the right of the others to be heard too can only be commended. Certainly we would not want to be in a position of opposing a *true* majority opinion—our contention has been only that in

the absence of any other, our poll probably is the best available indication of that opinion. However you have obviously conducted your own research among the 800 to 1000 non-FVI-members, and have thereby come up with diametrically opposite results on several items, at least. Would you mind disclosing the statistics, as we have done? How many of these 1000-odd non-members were contacted to obtain a *truly* representative cross-section of "all" Vee owners? What items were covered? How did they reply? For instance, 352 members (approximately 25% of "all" Vee owners) indicated that they wanted the rule changed to definitely require normal operation of the generator. Among the 1000-odd non-members, did you actually find 750 who were against it? (You may count our 64 "no" votes too.)

Incidentally, lest it be assumed that FVI represents only the Regional Novices, our representation among the drivers listed in *Sports Car* under "National Points Standings" is considerably higher than our overall coverage. Of the 125 drivers listed, 53, or slightly over 42%, are FVI members.

5. When "optimum tube sizes, primary lengths, megaphone sizes, etc." become available, will you please let me know? You could probably cut in half the time that it would normally take for this to filter down to the troops.

Not to be laying it all on you, personally, Jim (though you did stick your neck out), this space will still be available to any more of "us" who would like to make further comments along this line.

## MORE STATISTICS

While checking the rolls for National driver-members, I compiled a few other statistics of perhaps some interest. If you have had the impression that the other Formulas are more numerous lately, it isn't an optical illusion—since a low in the "Formula Junior" days (around 1964), they have been steadily on the increase, among National drivers, anyhow. On the other hand, Formula Vee, which had many more such entrants in 1965, has almost stood still in the "National" category.

	'65	'66	'67	'68
Formula Vee	87	120	111	125
Other Formulas	63	123	154	210

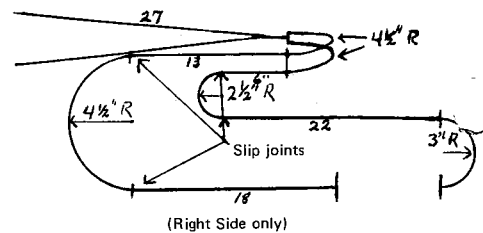
If this proves anything, it is probably that Formula Vee has been instead admirably fulfilling its mission of providing low cost racing for those who can't afford the "big time." This is further borne out by Jim Patterson's page, "Drivers' Meeting" in the November *Sports Car*. He says that in '68 there were about 1400 Regional and 3500 National licenses issued. (Can that be right? Seems it should be the other way around.) Assuming that all the 1200 to 1500 Vee drivers he mentions are in SCCA, and deducting the 125 listed National points contenders, this would seem to indicate that of those 1400 Regional licenses, somewhere between 1100 and 1400 of them are held by Vee drivers! Or did I miss something somewhere? You may also have deduced that the National drivers in Formula Vee comprise only about 10% of the total Vee population.

## HOW'S YOUR EXHAUST SYSTEM COMING ALONG?

Outside of some sketches and an order for some bits and pieces sent to the J.C. Whitney Co., we haven't made much progress. Winter finally struck here, too, just before Christmas, and we don't have a race until April 12, so we won't start getting really excited about it until about April 1. However, if you Formcar owners, particularly, want to wait for progress reports, and follow along, you're welcome.

There is no doubt some valid reason for retaining the requirement in the rules that the pipes must terminate 1 to 3 inches behind the body, but it doesn't do anything for the pipe builder. With the location of both ends specified, the only area for variation is in the middle, which makes experimenting rather challenging. We're going to do what we can along this line by building a "trombone" section into each pipe. Both ends of one of the "U" bends will terminate in a slip connector about 10" long, which will allow some variation. The pipes will be made in identical lengths to the megaphone, with all the bends slipped to their shortest position, so that when they are moved outward identical amounts the overall length of each pipe will still be equal to that of the others.

Tentatively, what we're planning will look something like this:



The pipes are 1 1/2" OD, the bends are 4 1/2" radius for the large ones, 2 1/2" radius for the small ones, and the ones from the front cylinders are the original Formcar, with a radius of 3". The straight sections will be salvaged from what we have, with any extra being bought locally, due to the cost of freight for a 10 ft. section of new stuff from Whitney.

The Whitney Co. also has "collectors" which are built to receive 4 individual pipes. They can be had in either 24" or 36" lengths, but they are *not* tapered. However, in the absence of any other definite information, this might be the way to go. We're planning to make a megaphone-collector; but it isn't going to be easy, and we have absolutely no data to base it on.

It may be that when we get down to the actual installation we will have to relocate the starter or the rear axles or the fan housing, but at this point it looks like everything *might* fit. This setup will be fairly flexible as far as locating is concerned. The number of bends makes possible raising or lowering the collector, and aligning the front pipes with the rear ones without too much difficulty—it says here.

By the way, if you're considering buying a book titled "Scientific Design of Exhaust and Intake Systems," don't bother. It is chock full of lovely diagrams, formulas, and pictures, but there isn't a solid definite conclusion in the entire book.

FOLLOW THROUGH

OK, so you protest someone for "illegal gearing," and show your tech people the dope in the last VeeLine on how to check it, and your Chief Inspector says, "Great! Now do you just happen to have a degree wheel that will fit a Volkswagen to go with this?" and you say, "Yes, I just happen to have one in my tool box."

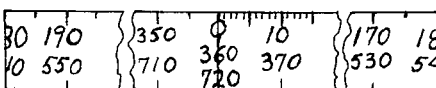
For a dollar or so, and about an hour's work, you can be telling the truth.

First, go to your neighborhood sheet metal shop and get a strip of sheet aluminum an inch wide and two feet long. Get the nice man to "flange up 90 degrees" an eighth of an inch along one edge of the strip, and then ask him to roll it (without damaging the flange) to a diameter of about seven inches, with the flanged edge on the outside. He needn't go clear to the ends of the strip—there's excess material allowed for that, but you'll need about 19" rolled nicely. Pay the man, and that takes care of the expense.

When you get your dealer home, take your tin snips and cut off the straight ends, and you'll find that you can hook the flanged edge inside the rolled bead on your crankshaft pulley, making a nice smooth "wheel." Cut and try until you can just get it in place with the ends butting together.

Now for the fun part. Get a strip of white paper a bit longer than your band and at least an inch or two wide (the back of a calendar, the margin of a road map, or even two sheets of typing paper Scotch-taped together) and draw a line on it the exact length of your aluminum band. Next, with a ruler, find the exact center of the line and mark it. Then mark the center of each half, and repeat this process until you have eight equal sections around, but not exactly, 2 1/4" long. Now divide each of these sections into nine equal parts, each about, but not exactly, 1/4" in length. Now you have five-degree graduations, which you can subdivide again into single degrees with a fine pen and patience. Except in the area of zero to 15 or 20 degrees, you will have little use for this fine a calibration, however. You can "interpolate" or guess closely enough for most purposes.

Now, using your original line and another close and parallel to it, draw a strip about 5/8" wide, and start numbering your degrees on it with a very fine pen. Since most of your critical measurements will be made in the area of "top dead center," use your center mark for "zero" and start numbering to the right from there. (Both ends of the strip will be "180.") Due to variations in crankshaft pulleys, your wheel may fit some of them with either a slight gap, or a slight overlap; but the actual discrepancy at that point will be equal to only half the amount of the gap or overlap (perhaps a degree or two) and will decrease to zero as you approach the TDC mark. For a simple wheel, just number every other mark in ten-degree increments. However, some time we're going to come up with a system for checking cams, also based on degree wheels. If you want to be prepared for that, too, mark your strip like this:



Preferably using rubber cement (to avoid shrinkage or wrinkles), glue the paper strip to your wheel. When it is thoroughly dry, cover the paper with Scotch tape for protection against greasy finger prints, and you're in business.

For checking gearing, with the reference mark on the tire lined up with that on the ground, the degree wheel can easily be slipped around to "zero" when lined up with the crack between the crankcase halves, regardless of the actual position of the crank. However for timing, camshaft checking, etc., you will want the "zero" at TDC.

Drive the porcelain out of an old spark-plug, and insert a length of 5/16" "Redi-bolt," or even a long 1/4" stove bolt, with a nut and washer bearing on each end of the spark-plug shell, and about an inch of the bolt projecting from the threaded end. When this is inserted in the spark-plug hole and the engine is turned over slowly, the piston will hit the end of the bolt and prevent further motion. Turn the engine in the opposite direction and it will be stopped again. Half way between these points (as determined by your wheel) is, of course, top dead center. Adjust the length of the bolt to get about 20 degrees of "dead space" each side of center. With a center-punch or cold-chisel, mark the "zero" point on your pulley so you won't have to do this again. Now, with a static timing light, you can make your timing experiments accurately. (Ed Zink says to start at around 10 degrees before TDC, and then work both ways from there.)

CAUTION: While the original wheel has been used with a strobe-light, with the engine running, this is definitely not recommended. Centrifugal force at high speed might rip it loose from the pulley, causing all kinds of nasty complications.

SLIPPERY!

If you have deduced from the frequent mention of STP on these pages that I like the stuff, you're right. There's a division of opinion on our "team" as to its effect in the engine, but no doubt at all that it is great for assembling certain parts. We use it anywhere we put something together which may be hard to take apart, such as wrist pins, rear wheel hubs on axles, timing gears and crank pulley on the crankshaft, front wheel inner races on the spindles, etc. We use a liquid "assembly moly" on rod and main bearings, cam shaft and followers, and such; but this is a mixture of solid flakes of material, which take a certain amount of space, and when you have a tight fit already, a few flakes, even of a lubricant like moly, can make it even tighter. However a film of STP seems to have no thickness whatsoever. Many times I have seen it make the difference on a hydraulic press between a job beyond the capacity of the press and an easy push.

WELL, THAT'S ONE WAY

Our Executive Secretary, Dr. Ed Shantz, won an unexpected victory at Phoenix last fall. He thought he came in fourth, but by the time the first three drivers finished protesting each other and got themselves disqualified for rule infractions, Ed was left at the head of the list.

THAT OTHER FORMULA

Now I know why SCCA has been reluctant to spell out the Vee rules in more detail. (It has been mentioned already that they take up too much room in the GCR as they are.) They ("we") have been saving the space for the rules for Formula Ford!

They take up five closely typed sheets. Probably some of the loop-hole artists will be able to find something to argue about here, too, but it certainly isn't obviously apparent. Seemingly, everything is covered! While a good many items are left "free," those that aren't are thoroughly defined. Weights of all moving parts are given; tolerances for "balancing and polishing" are specified both by dimension and by weight; dimensions are given for all critical parts. Permitted modifications—if not "free"—are specifically defined, and there are a lot of "shalt nots," as well as "mays." If it can continue to follow the concept of Formula Vee in retaining these rules without change, this should be a very successful class, too.

The only section which appears at first glance to be ambiguous and difficult to enforce is that regarding initial cost. It is not to exceed \$3500 "retail" in "ready-to-race" condition, which may be somewhat different than "capable of winning races" condition, even with all the restrictions. Also, the "cost" of a homebuilt special might be rather difficult to determine.

It's impossible to predict the impact it may have on Formula Vee. It will no doubt be considerably faster (more "spectator appeal"), but it will also be more expensive. Until—if ever—it attains the growth of Formula Vee, it will be raced in conjunction with Formulas B and C, where it fits in very nicely, but where it will be difficult to establish its own identity as Formula Vee has done. In view of the generally increasing interest in Formula racing, it should flourish, probably on the National level more than on the Regional. It may tend to siphon off a certain segment of current Vee drivers (hopefully those who would like to see Vees liberalized), which wouldn't necessarily be all bad. On the other hand, it may well do its bit to popularize Formula racing generally, and actually increase interest in Formula Vee at the same time among those who have neither the money nor the inclination to go quite that fast. It won't replace Formula Vee.

NO COMMENTS!

About a year ago SCCA members were asked to return a questionnaire covering three dozen aspects of their mode of living. The results were published recently by SCCA, with the following comment: "Of some 15,000 members who received the survey, 1505 returned completed forms were tabulated, a 10% sample. We believe the results are an accurate description of the membership of the Sports Car Club of America."

The VEE LINE of  
 Formula Vee International  
 Don Cheesman, Director  
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 Ephrata, Washington 98823

## WEIGHT WITH DRIVER

(Continued from Page 1)

There have been a number of negative comments received with the past ballots on this question, but 95 percent of them boil down to these two:

First, "It wouldn't be legal! The rules prohibit ballasting!" I think it can be safely assumed that if this were adopted, Sec. 5.7 would be ammended at the same time not only to permit ballasting, but perhaps also to spell out how it would be accomplished.

Second, "It would be impossible to enforce! It would be too difficult to determine the weight of the car and the driver." To both statements, "Why?" Is it impossible to enforce the present rule? (OK, so not too many races are provided with weighing facilities.) If it is possible to weigh the car "without fuel or driver," why couldn't it be weighed with the driver aboard, just as easily? What's the problem?

A couple of owners have mentioned a more valid objection—that of two drivers using the same car. While it is doubtful that this would involve very many cars (there are a good many driver-mechanic teams, but share-the-car partnerships seem to have a high mortality rate), the solution shouldn't be too difficult. The car could be ballasted (either by structural additions or by steel plates) to the heavier driver, and the lighter one could install an additional steel plate to suit his weight when it's needed.

There have been a few other objections, too, but I am sure solutions could be found for even such complex problems as these, posed by one of our officials at Westport, who probably would just as soon not be directly quoted again. "A driver," he said, "can sweat off ten pounds during a race. What would you do if he came up slightly underweight at the end of a race?" Well, in the first place, I would think that anyone who fails to allow a couple of pounds for variations in humidity and barometric pressure, scale accuracy, and trips to the bathroom, is a born gambler and should be prepared to lose a few. If this driver *habitually* sweats that much, he should take it into account when ballasting. However even if it were a special occasion (heat wave, all night beer bust, Colin Chapman watching him), there is still a solution. Let's see — ten pounds would be somewhere around a gallon and a quarter, allowing for the higher specific gravity of sweat. I'd think that by wringing out his Nomex into the puddle remaining in the seat, and including the intravenous dextrose he'll receive at the hospital to combat dehydration, he should total out about normal. He could even be allowed five minutes at a drinking fountain before weigh-in and I doubt that anyone would holler "Foul." If such drivers are common, perhaps this procedure should be written into the rules.

He also asked, "How about the guy who loads his pockets with rocks on the way to the weigh-in?" Well, again, he's gambling on getting away with a cheat, so show him no mercy! "Stand-back-legs-apart-hands-on-the-wall-do-you-understand-your-rights-under-the-law—" and frisk him! If he's bulging suspiciously in odd places, that is. Otherwise, I'd say that the amount of weight a driver could successfully conceal on — or in — his person wouldn't count for much in a race (compared to the 100 pound differences we now have) and could safely be included in the total weight. If the car and driver weigh 1000 pounds, even including a bottle of Coke, that should be good enough.

You think "we" would never adopt such a rule? Well, you read what the man said about that four-car photo finish at Riverside, didn't you? Anything which would tend to produce more racing like that should be acceptable on the basis of "spectator appeal" alone, if nothing else!

So think it over, between now and the time for the next ballot. With slightly over half the drivers (in FVI, that is) in favor of it, it's bound to come up again. Figure out just where you fit into the picture—and where those do who are lighter than you are. If you still don't think this would benefit you, too, let's hear from you.

## UNCLASSIFIED ADS

FOR SALE: McPeak Crusader Special, multi-tube chassis, modified Crusader body. Blue-streaks with McCoy caps. With two-piece Nomex suit and many spares, \$1325. Fritz Dueming, 1710 Magnolia, Walnut Creek, Cal. 94529.

FOR SALE: '68 Beach Mk 5C. Latest round tube frame, immaculate condition. 8 wheels, with wet and dry tires, good trailer. Photos available. John Dixce, 19802 S. White Cloud Circle, West Linn, Ore. 97068 (503) 656-0552.

FOR SALE: Autodynamics Mk4 "Nassau" model, with fresh Cassis engine and sticky Goodyears. Set up for 6.2" driver. Spare tires, Nomex suit, helmet, trailer and tow car included for \$1995. Corbin, 2229 4th St., Berkeley, Cal. 94710 (415)841-9274.

FOR SALE: '67 Sardini with Cassis engine, Konis, dyno-tuned pipes. Concours condition, with spares and lo-bed trailer, \$1995. John Beck, 435 20th Place SW, Mason City, Iowa 50401 (515) 423-5654 or 424-5358.

FOR SALE: Modified Formcar. Many frame mods, new restyled body, no hours on new fully prepared engine. With fine trailer, \$1150. Jerry Petersen, 309 N. Hambden St., Chardon, Ohio 44024 286-7145.

## DAYTONA

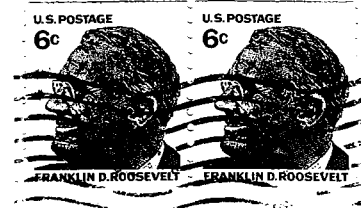
By the time you read this, the international Vee race at Daytona will be history, but I'll predict, two weeks in advance, that there will be nowhere near the 200 entries they are hoping for. It doesn't take a crystal ball—the clues are right here in this issue of the VeeLine.

With FIA licenses required, and with only 125 Vee drivers—throughout the Nation—holding National licenses, how many FIA licenses would you expect to find among them? "Red" Crise had the same problem in trying to assemble an impressive number of Vees in the Bahamas.



**Formula Vee  
International**

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A  
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