



VEE LINE

NUMBER 38

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DIRECTOR'S CORNER

The first year of Formula Vee's existence was marked by so many protests that it became almost a joke — except it really wasn't funny. Protests were made on the basis of mere suspicion, when one car proved to be faster than another, and usually the suspicions were proved to be groundless. During that period, there was a lot to learn, and some learned it before the rest of the drivers did. A few of the faster cars were torn down several times during the season. As time passed, most of the others began to catch up, and those who didn't accepted the fact that they still had more to learn, in either the mechanical or the driving department. The pendulum swung the other way, to the point where even obvious exterior infractions (body dimensions, suspension, etc.) were being ignored. We made such a big thing of being one big happy family of Vee owners that it seemed shameful, somehow, to even suspect a neighbor in the pits of cheating.

There are indications that another swing of the pendulum is due for next season. It's hard to believe, but there *are* still some cheaters in Formula Vee, and not just the kind who interpret the rules to justify their deviations, either — I mean the kind who definitely, intentionally, deliberately *break* the rules.

I've advised numerous times in this corner, "Don't suspect the other guy of cheating until you know that *your* car is at the limit" or words to that effect. But the reverse is true, too! In this stage of the game there aren't many secrets left — legal ones, that is — so there are good grounds for suspecting a car which seems to be doing better than its driver. It's the kind of thing one hates to do, but a protest is the final answer for keeping *everyone* honest. And if you *do* make a protest, *follow through!* There will be a car at Daytona which won most of its National points while equipped with 1300 heads. It was protested more than once, but it seems that at first no one was willing to declare them illegal; and when they were finally outlawed, no penalties were assessed. The proper procedure (I have been informed by Westport) would have been to appeal the decision, even though the protest was upheld, and request that the points previously earned be declared void. According to the GCR, the Stewards of the Meeting can go as far as disqualification for a particular event, or even suspension for a period of time, but *only* a Court of Appeal can revoke accrued points. Incidentally, this same driver was later protested again — and was found to have installed 1500 rocker arms on the heads he replaced!

There is one better course, even, than a protest, but it calls for a possible sacrifice on the part of the legal owners. This is the informal agreement among the Vee owners at a race to tear down one of the first three cars. The first three toss a coin for the honor. In practice, this either discloses the guy who refuses to go along with the game as a probable cheater, or induces a cheater to "sandbag" during the race so he won't be among the first three. Of course, there's nothing to stop everyone else from sandbagging, too, but even then, he has a two-to-one chance of being left out on the toss.

If you are going to protest, plan ahead, and prepare for it. Have a Volkswagen parts man or other employee on hand with his parts book — and be sure he knows how to use it. Be sure he knows the difference between the 40 *brake* horsepower engine (1300cc) and the 40 *SAE* horsepower engine (1200cc). Tell him what you could expect to find, and have him bring some samples, like a cam, rocker arms, valves, springs, a head, etc. The officials probably won't accept *your* word, as an expert, and they probably aren't familiar with VWs either, so have an authority on hand whose word they *will* accept. Then, if you're not satisfied with their decision, and feel that you have the facts on your side, appeal the decision! The appeal fee is \$50.00, but it will be returned if the decision is in your favor, and it *probably* will, anyhow, if your appeal is obviously in good faith.

Let's make cheating unprofitable!

I've no idea when you'll get the next issue of this thing. At that time of the month when I normally grind out this tripe, I'll be savoring the better things in life in the Bahamas. If I can find a vacant breadfruit tree and a good fishing hole, I might not even come back, so don't look for the December copy till you see it. If I do get one out, I'll let you in on what you missed out on.

WHO TURNED THE TRACK AROUND?

Let's see — we were just starting on tires, weren't we? This is a rather touchy subject, as there are so many theories, opinions, and facts regarding tires that no matter what is said, someone is bound to take exception, to it. On the other hand, there will

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THE OTHER GRAND PRIX OF FORMULA VEE

No direct news from the promoters of this event, which was held at Warren, Ohio, last month. It was won by John Magee, in an Autodynamics, after Bill Campbell (Zink) had led for the first three hours and 45 minutes, but lost power and settled for second place.

Jerry Mong, builder of the "Bobsy" Vee, reports on some other aspects of the race:

"... This was our first outing for our new car, and it was very well received by all, which made me feel quite good. We ran it on Saturday in one of the qualifying races and were able to finish second. . . . I chose not to run the car on Sunday, as the oil pressure was getting rather low for some reason or another, and we acquired a bent front axle beam due to a very minor shunt in practice earlier in the day. We'll see how we get along at Freeport.

"I was rather depressed with some aspects of Formula Vee racing and of this particular meet. It was stated that at the inspection cars would be checked for legality in regard to body and standard VW components that were used. It was my observation during one brief trip through the paddock that very, very few of the Vees running today are legal. I noted such things as 1300 wheels, 1300 rear brake drums, bodies that were obviously illegal. Many of the bodies were narrower than the rules permit, many of the entrants cut the rear decks off completely. There were cars running without engines being covered at all. After observing all the external items that were illegal, it makes one wonder just how far a few of the people have gone with things that could not be seen inside in the engine.

"It is my feeling that if Formula Vee is going to continue to survive and grow, there must be some tightening up, not particularly of the rules as they are now, but the rules must be enforced. Particularly in regard to external visual things that are wrong with these cars. One pleasant aspect of the thing was the fact that the really good, fast cars were right in all respects. It seems as though the great majority of back runners are the ones who seem to do all the things that are not permitted by the rules.

"It was somewhat depressing, to say the least, and makes me wonder about the future of this whole thing."

Well, Jerry, this is the sort of thing I had in mind while writing the Director's Corner. The Supplementary Regulations

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WHO TURNED THE TRACK AROUND (Continued from Page 1)

be those who will accept it as gospel truth, too, SO - let's set the mood with a very profound statement.

The wheel would never have gotten off the ground if rubber tires hadn't been invented. (How's that?) Ever since the first hard rubber tire was wrapped around a buggy wheel people have been trying to improve upon it. Dozens of patents have been issued on springmounted hubs, flexible tires of metal or other material, even wheels encircled by a series of spring mounted "feet." The only really successful improvement, however, was made by Mr. Goodrich when he found out how to make a tire hollow, with the chamber inside filled with air under pressure. There have been improvements in materials and construction methods, of course, but basically today's tires are the same as those used fifty or sixty years ago. And they'll probably be around for a long time before someone invents something better.

Until around 1930, pneumatic tires had one big advantage over steel wheels - they were quieter. They had relatively small cross sections (3½" to as much as 6" on a large, heavy car) and carried around 60 lb. of air. If run soft enough to absorb shocks, internal friction would ruin them, or they'd "rim-out." Then the "Sports Car Set" (Model "A" rumbleseat roadsters, mostly) discovered that tires could be included as part of the suspension.

Goodyear had just made a big splash in aircraft circles with the "doughnut" tire for aircraft landing gear, which is still in use. At first, Ford owners cobbled up wheels to fit, and used them on their roadsters - real "doughnuts," with no tread or "sidewalls." They became so popular that Goodyear brought out special wheels, and added a tread to them for automotive use, and one model, at least, of Chrysler cars was factory equipped with them. They had some drawbacks - road friction cut gas mileage and top speed to beat heck - but they were great for eluding cops. You could drive across railroad tracks with them and hardly notice it. The popular size, as I recall, was 11" x 11". There was a return to sanity in a year or so, but the trend had been established - from then on, tires were expected to absorb shocks. (Keep that in mind - we'll come back to it later.)

Speaking of Model "A's" (you don't mind if we ramble a bit?), those one-piece wire wheels drove 3,724 service station employees to the nuthouse, and countless thousands took up other work. Previously there were two types of rims. The "clincher" rims took a tire with a bead which fit under a rolled-over "hook" around the rim. The bead had no wire in it - it was built up of fabric and rubber, and the tire was actually stretched over the rim in mounting. Air pressure held the bead in place in the "hook." The "straight-side" rims were of the two-piece type still used on large trucks, or else were "demountable" - a separate rim which bolted to the wheel after the tire was mounted. It was cut at some point so it could be collapsed slightly and inserted in the tire. The Ford wheels, however, had no separate locking ring, no way to collapse the rim, and the wire tire beads just wouldn't stretch! The rumor spread that Ford put the tires on the wheels during the manufacturing process, rolling the rim after the tire was in place, and many owners were told that they would have to replace the tire and wheel as a unit. It took some time before the "secret" of the drop-center rim became well known.

All this ancient history doesn't have anything to do with Formula Vee, really, but it's free. To get a little closer to today's problems, let's consider the most recent development in tires - the "radial ply" tire.

This isn't really new, either. It's been known and used in Europe for a number of years and in this country, too, for that matter, though until very recently it was used almost exclusively on sports cars, for racing or other high-speed driving. Only recently has it been making a big splash with the general public, probably due to the general "sportscar" emphasis in passenger cars in the last couple of years, rather than to any great superiority over conventional tires. They're just not all that much better. (That should get a rise out of someone!)

They lay the tread on the pavement and pick it up again with very little distortion, somewhat like a caterpillar tractor laying down its tracks. On the plus side, then, there is less road friction, and less internal friction. Less heat is generated, there is less wear, and better gas mileage is obtained. Because the tread remains flat on the pavement, even while cornering, they "corner" faster before the tread breaks loose and starts to slide. On the other hand, they ride harder, cause a car to sway more than conventional tires (rock a Pirelli-equipped Vee sideways and compare with one equipped with conventional tires), and when they do break loose, they break loose completely - all at once - with little warning. Recovery is more difficult, as the tire must regain its normal shape before the traction increases again, whereas with a conventional tire the loss - or gain - of traction is progressive, varying according to the degree of distortion.

Which type is better for racing? Oh, no you don't! I've probably stuck my neck out too far already! I think it is safe to say, though, that there aren't nearly as many Vees on Pirellis as there were a couple of years ago - even in the rain. Considering the tire, alone, probably the rubber compound used in the tread has more effect on "holding power" than does the method of construction. We had our last set of Pirellis recapped last spring for use as rain tires only. We put them on in the dry to scuff them in, and the darned things were positively greasy! On a wet track though, they're even better than the original tread.

Oops! Looks like I've run out of space. Hope no one is in a hurry for the rest of this - after all, it's a long time till spring.

COMING ALONG

A note from Bob Adams, who asked about flywheel balancing last month-

". . . I used a 13/16 socket wrench and a band of sheet metal. The sheet metal fitted just around the socket, and they both fit just nice and snug inside the hole in the flywheel. This setup was then put on the metal plates.

". . . The engine is presently using the newer carb and has standard jets. I hope to have the older carb and larger main jets before my first Drivers School, Dec. 2. At any rpm below 2800, cylinders 3 and 4 are hardly firing. Above this and the engine comes on like gangbusters...."

Bob, if you got a good balance job out of that setup, you've got a great racing career ahead of you - you're just plain lucky. The "hole in the center of the flywheel" isn't necessarily in the center of the flywheel. When I lightened ours, I found it was nearly a sixteenth off center. That's why a second mandrel was made, to fit the crankshaft recess, which is in the center.

Assuming that your engine has good compression, it sounds like you have an air leak where the manifold bolts to the head. It is very easy to draw one bolt tighter than the other, lifting the matching face of the manifold away from the head on the opposite side. This is especially true if you try to save a nickel or so by reusing old gasket rings. Try setting the manifold in place, rocking it till you find the spot where it's contacting all around, and holding it in that position while you run the nuts down finger tight. Then tighten them equally - and alternately - one turn at a time.

The appearance of your exhaust pipes will give you a good indication of an air leak. It's almost impossible to get them all to look exactly alike; but if those from one bank are a lot darker than those on the other side, it's obvious that one side is getting a leaner mixture. In your passenger car, grey pipes indicate a nice economical mixture, but a bit on the rich side will give you better performance. This check should be made right after you get off the track - not after you've idled your way to the pits.

NEW TIRES

I haven't checked it out, but it is reported that Goodyear has two new tires which might be good on Vees. They are of the wide-oval type, 500/830 x 15 and 425/700 x 15, and are made with the "R-4" tread compound.

UNCLASSIFIED ADS

FOR SALE: Formcar, lovingly cared for, driven only by lady journalist on weekends. Now have Crusader, too - only need one. Harriet Gittings, 37158 Blacow Road, Fremont, Cal. (415) 793-2514.

FOR SALE: Formula Vee - for details contact Austin Davis, Wharon Warren Road, Brookfield, Ohio 44403.

"GRAND BAHAMAS GRAND PRIX OF FORMULA VEE"

This may not be the longest Vee race in the world — or even have the most cars (78 were entered in the Grand Prix for Formula Vee at Warren, Ohio, for a four-hour race), but it has to be the most colorful! Racing is almost incidental, really, during the ten-day bash — plenty of time is allotted to socializing, sight-seeing, shopping, swimming, and other tourist-style activities. Most of the highlights have been pretty well publicized—the prize money which entices such drivers as A. J. Foyt, Joachin Rindt, Jacky Ickx, Chris Amon, and other top names into Formula Vees; the free transportation from Miami to the Islands for cars and drivers, and the free accommodations in the luxury hotels; even the Vees themselves are fabulous!

This event is to the Vee builders what the New York Auto Show is to Detroit. Here is where the "Nassau" models make their debut. A couple of them, last year, were declared illegal for SCCA competition later, but they had no difficulty at Nassau. The "Crise Rules" encourage deviation in some areas, and even require it in others. Wide wheels, longer bodies and exotic exhaust systems are encouraged; and some kind of exhaust megaphone is required. Twelve volt batteries are permitted (they keep the generator from genning) and *any* VW carburetor is allowed. Minimum weight is 800 lb. and disc brakes are permitted. Altogether, it will be the largest collection of non-Formula Vees ever assembled in one spot. Which leads to a word of caution—anyone seriously considering buying a "Freeport" model Vee after this is over would do well to examine it closely, or get some written assurance from the manufacturer, to insure that it is — or has been converted to — a legal Vee.

The "Crise Rules" do include one innovation which might well be considered for all Vees. A "nerf bar" in front of the rear wheels is mandatory. It's still possible to lock wheels or for one wheel to climb over another, but it at least increases the chances that it will flip the guy who's at fault — the one in the rear — rather than the one in front, who has the right-of-way. Last year's event was run in a generally gentlemanly manner; but in previous events, all that prize money dangling just in front of the windshield ahead caused a few drivers to forget their manners. It may very well be that the effectiveness of the nerf bar will be well tested by the time the winner is determined.

While the emphasis at these events is on the "big names," the majority of the entrants are people you may have run against. There's A. J. Foyt, and Whit Tharin, and Jacky Ickx (from France) and Harvey Templeton, and Jochen Rindt (from France) and Glen H Marcus and Gunther Huber, (from Austria) and Stener Svart-erud (from Norway) and Glen Sullivan and Bill Campbell, and Bill Scott, and Jeff Carlin and Lee Cutler, and there could just as well as not be you. Well, how about next year, then? If you can get to

Miami on your own, and scrape up a couple of hundred clams for spending money, you can have the rest of a fabulous 10-day vacation on the house.

THAT WHIT!

If you didn't read the November issue of "Road and Track" you missed one of the best articles on Formula Vee which has ever been written. The author was our ex-Pres, Whit Tharin. He certainly said the right things to intrigue the non-Vee public — he gave this address as a source of further information, and things have been in an uproar around here ever since! As this is being written over 1400 people have accepted his invitation to write for more details — and letters are still coming at the rate of 30 to 50 a day! Our supply of "All About Formula Vee" booklets (which should have lasted till the end of the year) was exhausted, an order of 1000 reprints is gone, and I'm two weeks behind in my other work. If even half of the people get Vees who have said that they're going to, there's going to be a parking problem in the pits next season! And you can blame Whit!

PUPPY LOVE



Arlene Emond, of Phoenix, Arizona, has been driving a Vee for three years, working at the telephone company between races. She took up Formula Vee, she says, because she "couldn't afford to maintain the TR." She didn't introduce her pit crew.

RECORD

Alaska has the highest percentage of FVI membership in any state in the U.S. — or any country in the world — 100%! Roger Harrison for a time had the only Vee, but now he has *one* of them; Sgt. Hugh Myers of Fairbanks has the other, and has just joined this organization. He writes —

"Our air strip race track was damaged by the recent floods, so it hasn't seen any races as yet, but next year watch out! . . . We both agree that ours must be the farthest north Vees in the world." Any argument?

BEDTIME STORY

Once upon a time there was a Man who decided to build a Formula Vee Racing Car. He would make it the Fastest, most Beautiful Vee in the World! And he Did! He spared no Expense on the Engine. He Worked and Sweated and Spent Money, and was Rewarded by obtaining 90 Horse Power from the Engine! He spared no Expense on the Rest of the Car. He polished the Welds and Bought Goodies, and had Everything Chrome Plated. And he was Rewarded by having the Most Beautiful Vee in The World! It Really Was! There was Only One Thing wrong with it — there were so Many Things wrong with it that it was No Longer a Formula Vee!

The Man took it to a Race, but the Other Men wouldn't let him Play with them. "No," They Said, "You can not Play with Us. Your Car is not like Our Cars! It does not Even have the Right kind of Wheels!" The Man Argued, but the other Men said "No! And if you try to Play with Us we will also Tear your Engine Apart to see What makes it Tick!" So the Man took his Beautiful Car and went Home.

Then he Took it to another Race, in a different Country, but the Men There said "No, you cannot Play with Us. Your Car does not Have the Right Kind of Wheels." So the Man said, "OK, so my Car is not a Formula Vee. It is a Formula Libre. I will go and Play by Myself." And he Did. And he Took home his Beautiful Car *and* a Trophy, because his was the Only Formula Libre Car at the Race.

"Aha!" he Said. "This is the Way to Go! I will Fill my Shelves with Trophies, after All! And no One can lay their Dirty Hands on my Beautiful Expensive Engine!"

So the Man took his Beautiful Car to another Race. He found that the People there did not Know about Formula Libre. However they had a class called Formula A, which they Never Used. "Aha!" the Man said, "My Car is a Formula A!" And The People said, "OK, if you Say so. It certainly isn't a Formula Vee!"

But the Word spread throughout the Land, and two Men who had Formula Vees said, "Let Us, too, call our Cars Formula A's. This Car goes like SCAT on the Straights, but it Gets In The Way on the Corners. We are Too Slow to win the Vee Race, but we Might just Beat this Cat!" So they did. And they Both beat him, because his Car was not Only too Fast on the Straights, but in the Corners, as Well!

So the Man took his Car and went Home, and was never Seen at a Race again! "I will have nothing More to Do with those People," he said. "There are too many cheaters among them!"

Which was a Shame, really! Because his Car was so Beautiful! Most of the Men would have been Proud to drive it, Even if it was so Slow it came in Last Every Time!

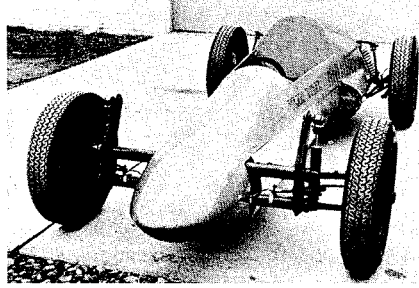
THE OTHER GRAND PRIX
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for this event stated that protests would be processed according to the SCCA procedures, so *someone* should have protested. It's the only answer. If the Vee owners themselves indicate that they are willing to overlook obvious deviations, why should the officials stick their necks out and be stinkers and make a fuss about them? Often just the moral support of two or three Vee people at tech inspection will encourage the officials to turn down an *obviously* illegal car without a protest. If they need further encouragement, the *threat* of a protest will usually do the trick. (After all, if they're going to be forced to make a decision anyhow, they might as well do it without all the red tape.) Non-visual deviations are, of course, something else again. You can't expect an official to disqualify a car just because you're sure that something must be wrong with it.

Speaking of 1300 brake drums, in my opinion this is one "1300" item we're going to have to accept as legal. It is the *only* one, as far as I know, but it *is* listed in the VW parts book as a replacement for *both* the 1300 and 1200 Volkswagens. And it is the *only* rear brake drum that is listed for them. The alternative, then, would be to restrict Vees to used brake drums. Personally, I'd rather have the old style ones. Without the ribs, the drum will bend before the axle will, and it's a heck of a lot easier to replace. (Voice of experience!) On the same general subject, the slotted 1300 wheels are *not* listed as replacements for the 1200. There are three wheels listed—and one of them is the standard "Formula Vee" wheel, specifically for the 1200 VW. The slotted wheel is listed for the 1300 only. And, of course, there's the wider wheel for the later cars.

The VEE LINE of
Formula Vee International
Don Cheesman, Director
Box 291
Ephrata, Washington 98823

SECOND GENERATION



Here's the new Bobsy Vega, which is certain to have some imitators. And will no doubt cause some controversy. It's expensive, as Vees go — \$1,600 for the kit, or \$3,050 for the complete car — but there's a reason. Jerry Mong says, "Our philosophy in designing this car was to offer the very best and safest car we could, regardless of cost." Everything is top quality, hardware is cadmium plated, pedals are fabricated aluminum, etc. The address of the new plant is 'Vanguard Automotive Enterprises, P.O. Box 405, Medina, Ohio 44256.

FOR CANADIANS ONLY

Thanks to two new Canadian members, I can now give you the address of the builder of the "Kelly Vee." Both Dave Watson of Don Mills, Ontario, and Gord Munn of Willowdale, Ontario, wrote that Wayne Kelly's address is 2103 Saunderson Drive, Ottawa 8, Ont. Thanks, to both of you! Gord Munn also adds that a new Vee is being built by Fejer's Garage, 192 Brunswick Ave., Toronto, and that the "Huron" is no longer on the market.

SO — you people who have been held back by the high duty charges on U.S. Vees now have another argument to give your wives. Having seen one of the "Kelly's," I'd say you won't have to feel that you're settling for something that is second-best, either. It's strictly top-drawer.

1500, ANYONE?

It has been reported that several of the drivers who have been preparing 1500cc engines for the Nassau — FREEPORT, darn it! — Vee Grand Prix in December have been a bit disappointed at the performance they've been getting out of it. An ad in the British magazine "Safer Motoring" might contain a clue. It pictures three Beetles, identical except for the name plates on the rear deck lid which designate them as 1200, 1300, and 1500. (It appears you can get them with any engine.) Plugging the 1500, the ad states, "It's 15 seconds faster from 0-70 mph than the next Beetle down. And it develops full power at much lower revs, so it takes life even easier than our 1200 and 1300 engines." Does that sound like a racing engine?

If I were going to use one, I'd install a straight transporter transmission with it, for the highest possible gearing, and the best top speed, relying on the torque at lower speeds for acceleration.

The performance of the 1500's will probably be the biggest news at this event. So far very little has been known of its possibilities. A few have been installed, experimentally; but there seems to be very little data available on how they perform. Indications, so far, are that they aren't going to be as spectacular as might be expected, in stock condition. If this class is repeated at the Bahamas race next year, look for extensive modification to be permitted, in order to provide a contrast to the 1200's.

ANONYMOUS LETTER

"Dear Sirs: Regarding the ad which was printed in the VeeLine #37 about the 'very special' VW engine. This is a bona fide ad, and interested parties can get further information by calling (415) 222-0121 after 8 pm weekdays, and weekends. I would appreciate your putting this in the next VeeLine since you saw fit to print the ad in this past issue."
(No signature)



**Formula Vee
International**
BOX 291
EPHRATA,
WASH. 98823



Warren A. Roberts
1208 Swab Drive
Bartlesville, Okla. 74003