VEE LINE

NUMBER 20 MAY 1966

DIRECTOR'S CORNER

By now I hope that about a hundred of you have renewed faith in your fellow man and this Association, and forgiveness in your hearts for your Director. Everyone who has received one of those little notes with his new membership card, since the first of the year, to the effect that the jacket patches and car emblems would be mailed as soon as they were received, should now have them. (If not for gosh sakes holler – to me, not to your neighbor in the pits.) They will be mailed automatically from now on with all new and renewal memberships, but if you don't want to wait till renewal time, ask, and ye shall receive.

The booklet, too, that you received with your last copy of the VeeLine, was conceived in January, but had a rather overdue birth. By this time you all have it memorized, no doubt, so carry it with you to the races and give it to some good prospect for membership, especially if he doesn't yet have a Vee – and then ask for a couple more of them. We have a lot of them left, for just that purpose. The membership card enclosed this month is to be used in this connection, too. It is *not* an indication that your renewal is due. When that occurs you will find it stamped in red on the front page of your VeeLine, with an application blank just for you.

Let's YOU be selling this organization, too! Get your emblems and patches on display, give away your booklets and applications (sign them first on the "recommended by" line) and tell people about it – if you think it's any good. (If not, tell me.) We sent 100 ballots to SCCA last fall on rules changes, and did some good – let's make it 200 this year, and do a LOT of good!

Okay, so SCCA's final tabulation for 1965 shows Formula Vee second to E Production in total entries, 1850 to 1999, and I've been claiming it was in first place. Well, it was, in the tabulations available at the end of the year; and probably, with some of the "yes, but – " figures used by statisticians to prove something, it could still be shown to be out in front. But being that close, why bother? Anyone want to bet on EP for 1966? By the way, that tabulation showed 10% of *all* the entries were Vees. Vee owners are NOT members of a Minority Group!

FOR ASSOCIATE MEMBERS ONLY

Perhaps this should be in the Unclassyfied Ad section, but it's not exactly an ad. I picked it up from Sports Car Magazine. A firm in Connecticut is selling out a distributor's stock of 1964 Autodynamics kits for $695, which is about a 30% discount. In the right hands, these are as competitive as any of the later cars (*typical of Formula Vee, you know*). If you're in the market for a bargain, write: Racing, P. O. Box 792, New Haven, Conn.

While I'm at it – A VW dealer in Seattle got carried away when Formula Vee was new and ordered 20 kits. They still have one completely assembled car (1963 Formcar) which they will sell (*"insult us with a ridiculous offer"*) or "trade for anything that doesn't eat. Will finance on fantastically liberal terms to anyone with an honest face and the ability to sign his name." Write or call Metro Motors, 2121 8th Ave., Seattle. MU 2-8500.

If you want to get into Formula Vee, either of these cars will do anything the later ones will, so don't let their "ages" hold you back.

One of our "Racing on a Budget" films is back, and ready to go again (16mm, sound and color, ten minutes).

FROM CANADA

Vee news from Canada is almost nonexistent, though we are in communication (one-way) with two Vee Associations there. It appears that their amateur racing is centered in several localities, with little or no communication between them – no overall organization, such as we have here. Here is the best report we've had on Canadian Vees –

"Referring to your *Foreign Car Guide* article on 'Bench Racing a Formula Vee' as I am also a Vee driver, and builder of the H-K Formula Vee, of Montreal, I am very interested in your Formula Vee International, and would like to have all information concerning this. I, too, would like to become a member of your organization.

"For the year 1966 I hold the Formula Vee Provincial Championship in Quebec. We have about ten Formula Vees here in Montreal, and we sure would like to see some Formula Vee drivers from the U.S.A. here at our beautiful track, Le Circuit Mont Tremblant, and would like to bring Formula Vee racing to the same standard here as you describe it in your article, and make it more International.

Hans Krusemer, Montreal, Quebec"

(I've asked him about licensing requirements for foreigners – that isn't too far away for a lot of you Down-Easters.)

WHIT THARIN REPORTS –

The Vee race at the last VIR National was another of those thrillers for which the SW is becoming famous. There were six different leaders in the first five laps, three of which were still in there going down to the wire. The winner was Jim Miller, in an old '63 Formcar, second was Bill Scott, and Whit was third, all within nerfing distance of each other.

Bill Scott protested Jim Miller, whose car was given a microscopic inspection which lasted eight hours, with nothing found out of line. During reassembly a recheck was made on the cylinder-to-top-of-piston measurement, and was found to be .004" short. Both cylinders on the opposite side had been checked during teardown, and were found to be OK. The protest was upheld, of course, but Jim is appealing, on grounds *(among others)* that the discrepancy was found on reassembly, and not during the tear-down.

Inasmuch as the other cylinders checked out okay, the odd-ball is attributed to the fact that the throw and adjacent main on the crank had been reground. There is a moral here – this was a pretty expensive regrind, for unless the appeal is upheld, the cost of the teardown and appeal will have to be added to its original cost. A new crank, even at list price, is less than $40.00.

Another little point of interest – Volkswagen supplied this measurement, and presumably there is a certain amount included for machining tolerance. However, it no doubt includes the standard gasket under the cylinder, which is routinely missing when Vee engines are assembled, in hope of getting an infinitesimal increase in compression. This is a very thin gasket, to begin with, and will compress to probably two or three thousandths, so perhaps the risk isn't worth what benefit it might contribute.

CALIFORNIA, HERE THEY COME!

A couple of years ago "Formula Vee" was a cuss-word in California. The few inquiries from there came in envelopes with no return address on the outside, postmarked from a town different from the residence of the enquirer, and replies were requested to be in plain envelopes. For several months the California section in our card file was about equal to that of South Dakota.

In April over 25% of the inquiries – and new members – came from California. In fact the whole Pacific Coast is showing an interest in Formula Vee lately. The California section in the file is three times as large as New York now.

SPEAKING OF GAS TANKS

There was no question but that the officials were quoting the wrong rules in regard to the gas tanks mentioned on page three in this issue, but perhaps before it is forced upon us we should consider this subject ourselves. Some Vee installations ARE dangerous. So far there has been no report of a Vee catching fire (at least due to this cause) but with the very large number of Vees, and the laws of nature, it will be very possible that it could happen. The combination of spilled gas and sparks from a sliding roll bar will lead to an investigation and a complete revision of *all* Vee installations.

The worst condition I have seen was a fiberglass tank, of the type which fits outside the frame, just lying there, with no fastening device whatsoever. It was originally equipped with a couple of little clips which would hold it in place against rattling but apparently there was no problem without them, so they were not in use. This tank would have come adrift in the mildest (?) type of a roll over.

Nearly all Vees are refueled from inside the car, and are vented inside (if at all) either through a separate vent or through the cap. Early Formcars were equipped with a pressure cap, similar to a radiator cap, which was a good safety measure; but it was found that in hot weather the pressure build-up inside the tank raised heck with the operation of the carburetor, so most have been discarded or altered.

Take a good look at your installation. Try to visualize just what would happen if your car were turned upside down – with you in it. Consider that, with impact, the fastenings would have to support several times the weight of the tank full of gas. Don't think of it in terms of trying to get by "tech", but in terms of your own safety.

COUNT ME IN

"Dear Don –

I would like to join FVI. Illness kept me from having my new D – modified finished in time for this racing season, so to keep from being a spectator, I purchased a Crusader Vee and drove it for the first time at Contra Costa GP this past weekend. The little car was very pleasant to drive, and my only complaint is that I am down on power compared to three or four of the fastest Vees. I would appreciate any back issues of your newsletter which deal with getting more power from the VW engine. To this end I am enclosing an extra $5 for those issues that you feel are pertinent to my absolute void of VW experience.

Mac Cox, Santa Clara, Cal."

Almost sounds like this kid is hooked already, doesn't it? Want to run your "D" in our ad section, Mac?

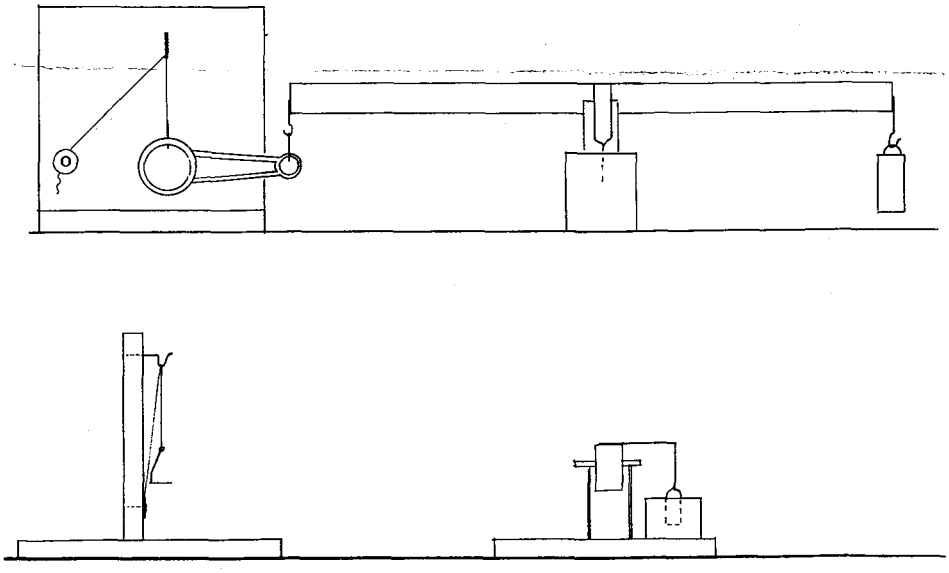
(In the "Recommended by –" line on his application for membership – "Well, my wife, Joanne, gives me a conditional recommendation.")

MORE BALANCING

Pete Reidy, who wrote an excellent article on engine balancing for the #7 Bulletin, has some additional contributions for the do-it-yourself members.

"Well, you sure know how to get me out of hibernation – just print BALANCING in big black letters *(#17 VeeLine don)*. Please permit me to make a small correction in an otherwise excellent article. The small ends of the rods are *usually* so nearly identical that any error will be negligible. But you will never know unless you check. Most balancing shops specify a ½-gram tolerance, and if you want to get closer than that there is nothing to stop you except time and patience. Here's how –

Nail two pieces of wood (2x4's, 1x12's, or anything else that's handy) together to make a "T". Invert the "T" and screw in a hook so that the low point of the hook is about 1½" from the upright and at least 12" above the base. Now nail a small flat washer to the upright about 3 or 4 inches from the base and close to one edge of the upright. Don't drive the nail all the way in – just to the point where the washer has about 1/16" of movement. Now take some of the heavy wire that you used for making the scale and make two hooks with flat bottoms. One of these hangs from the balance scale; to the other one tie about two feet of string. Hang the string from this hook over the hook on the upright and take a couple of turns around the nail-and-washer with the other end.



You now have an excellent rod-weighing attachment for your scale. To set it up, place it on the bench or table where it is to be used, so that the hook on the string is about 5" from the one on the beam of the scale. Hang some weight on the string hook so that the string can be used as a plumbline. Make a mark on the upright, directly behind the string and extend a line from this mark to the hook from which the string is hanging. This is now your plumb line, and takes care of everything at this end of the scale. At the other end you will need an adjustable weight; the easiest way is to make a small pail out of some more of that heavy wire and an empty (beer?) can with the top cut out. Sand poured into the can or removed from it will allow very fine adjustments. If you find that your scale is too sensitive, and refuses to stop rocking back and forth every time you breathe, you may build a simple dampener in the following way. Cut a strip of sheet metal about 1" x 6" (another beer can?) and nail one end of it to the scale over the pivot point. Then bend it over the side of the scale, twist the end 90 degrees, and immerse it in a can of water or oil.

Now that your equipment is ready, it's time to start balancing. Hang the small end of the rod on the string-and-hook and the large end on the scale hook. By moving the rod attachment closer or farther from the scale, and by making the string shorter or longer, get the rod into a horizontal position with the string hanging parallel to the plumb line. Next step, pour sand into the can on the other end of the scale until the scale arm is approximately level, and then go back and readjust the rod attachment until it is back in line. Find the lightest and heaviest rod ends and pistons, and then check the differences between them.

It is important to know this difference. The maximum weight removable from the piston is about 5 grams, from the small end of the rod about 5 grams, and from the big end about 12 grams. If your rods or pistons are farther out of balance than that, try to get replacements from your dealer, or take the whole mess to the balance shop!

It should be possible to borrow from your wife the following set of weights – a quarter, which weighs approximately 8 grams, a nickle - 5 grams, a dime - 2.5 grams, all pre-1965 coins. For closer work reach into your own wallet for your 1966 FVI membership card, which weighs approximately 1 gram. Put the lightest rod (or piston) on the scale, balance with sand, then put the heaviest one on and add the weights to the sand can. Pistons should be weighed with wrist pin, circlips and rings. Put the parts inside the piston (hang the rings over the skirt if they haven't been installed).

After you have found the lightest component, grind the others to match. It is perfectly safe to grind on the ribs on the rod caps, if necessary. After finishing the big ends, reverse the rods and repeat the procedure, grinding evenly around the pin boss. When filing on the pistons, don't round off the outer edge of the skirt, as this will adversely affect the piston's oil scraping ability.

Well, Don, I believe that should do a pretty good job on that part of the balancing, and if I can be of any further help, just holler!

My own car has come to a creaking halt. If you would print the following ad, it will explain my problems and perhaps help me to find a cure. *(See last month's "Unclassyfied" don)*

Pete"

This is not a hobby with Pete—it's serious business. He works for Automotive Balancing Service, 11019 Atlantic Avenue, Lynwood, California. Yes, they balance VW engines, for $24.50, and last year, at least, they had a special offer for FVI members.

MILESTONE

Well, I went and did it! If you people somehow got the idea that I'm an old pro at Vee (or any other racing) read your bulletins again. I've been tinkering with cars for about a hundred years; but last fall, in an Autocross on an airport circuit, was the first time I ever drove *anything* over ninety miles an hour. I suppose that's when the bug bit me. Anyhow, whether it's a reason or an excuse, apparently I should learn more about the driving end of Formula Vee, being somewhat closely associated with it; so this Spring I signed up for Driver's School.

Driving home from Seattle (180 miles away) at 2:00 AM, after the initial chalk-talk session, I wondered if I really wanted to learn to drive. Driving to Pacific Raceways (160 miles away) at 4:00 AM for the first track session, I wondered even more. And driving home, with Petunia setting on the trailer with two bent wheels and a bent spindle, I was ready to admit it wasn't worth the trouble. But driving home from Shelton (250 miles away) I knew I wouldn't have missed it for anything.

At my first session, at PRI, my Novice Log Book was marked with a "5" for "attitude" but the rest were 4's and 3's, and the comment was "Needs more concentration on turns". This could have been because of the 360 degree turn I made in the esses (though I caught it and kept going), but was probably because I really lost it on the long, downhill Turn 8(we were running the track backward) sliding sideways through the sand and gravel for a couple of hours, and bending the car. (How are you *supposed* to slow up in a downhill turn, anyhow?) It was raining all day, but somehow it didn't seem to affect the other cars like it did mine.

Shelton, though, was different. The weather was good, the car was good, everything I did was right (except for one spin, and even that was done right—I'll tell you about it sometime) I won the Novice race for Formula Cars (one Junior that DNF'd, one Formula 4 which spun and had trouble restarting, and another Vee) I got all 5's on my "report card", and the comment "Very Good!" A lovely present for my fiftieth birthday!

One of the recent inquiries about Formula Vee included the question, "Do you think 53 is too old to start racing?" Gad! I *hope* not!

KNOW YOUR GCR

All you people who drive in SCCA have presumably received the General Competition Rules, and have no doubt memorized the section on Formula Vee. There is a lot of the rest of it that affects you too, so it's a good idea to familiarize yourself with all of it.

Even the section on "Sports Racing Cars" may be thrown at you sometime. This has come up twice, already—

The last time was a couple of weeks ago, when I received a call from a Texas member (who would probably just as soon not be mentioned by name), to the effect that at the first session of Driver's School ten new Vee drivers had been ordered to have their gas tanks bulkheaded, or otherwise separated from the driver's compartment, before the next session or they wouldn't be allowed to participate. They were reprimanded for showing up with cars not complying with the rules, but were allowed to continue with the first session.

If this should happen to you, point out to the officials that this requirement (Appendix A, Sec. 2.9g) applies *only* to the "Sports Racing Category". These particular officials have the word, by now, but the whole thing could have been settled on the spot if anyone present had known where to look for the answer.

CRUSADER'S PRIZE MONEY

There was no "catch" in the announcement in the March VeeLine that Crusader Cars would reward winning Crusader drivers. Here are the details—

1. The car must have a Crusader body or frame (or both).
2. The car must be entered as a "Crusader" on the official program.
3. Send proof of win (official results, newspaper clipping, etc.) within 48 hours of win to: "Crusader Cars, 2060 Portola, Stockton, California. Check will be sent by return mail. $25.00 for Regional, $50.00 for National."

They have promised to keep us posted on the winners.

(Special note to Californians—Jerry Demele is a member of the firm, so he's ineligible. Second place pays off if he is in first.)

How about this, the rest of you builders?

CHEAPER THAN VEES?

Formula IV has been extolled as being even cheaper than a Vee to build, and to race, and most of the 4's seen so far tend to bear this out. "You just strip down an old BMW, and change a few little things and wrap some fiberglass around it, and you have a race car!"

Man, that was LAST year! At the driver's school I just completed there was a FORMULA FOUR! It was built from a kit; but according to the two builders, the kit consisted mainly of aluminum castings and the beautiful fiberglass body. The frame, fittings, etc., were hand-made by the builders, according to the directions, which they said were very good. The engine has been extremely modified, and turns up to nearly 10,000. The suspension is strictly Formula Junior, disc brakes all around, and altogether it's a beautiful racing car. It's performance was about halfway between a Vee and a very good Junior. By doing all the work themselves they were able to hold the cost down to $3500! A firm in California is said to be getting 90HP from a 750cc BMW engine now.

Don't you wish you'd gone Formula IV? By the way *(they said this with a straight face)*, they got into full size racing because the slot car racing they had been doing was too expensive! Tires 75¢ apiece, which would not even last one evening, trips to other towns several times a week, etc. They got the blueprint for the F-4 intending to scale it down to a slot-racing model, but found it would be so small that no available motor would fit it. By that time they were hooked, so built the full size model instead.

SHOW 'EM YOU CARE

Volkswagen's dealer magazine *Weathervane* devotes a whole page to Formula Vee. Among suggested ways in which dealers can assist ("which would not be contrary to VW's no-racing policy") are offering to assist in tech inspections and protest tear-downs, and attending the races with a truckful of VW parts which might be in demand (such as wheels and spindles, for instance). You might let your dealer know that you know that he knows he is encouraged to assist Formula Vee.

CARAVAN

This may be history rather than news by the time you get it, but anyhow—

Harriet Gittings (also known as Mrs. F. V. Gittings around the San Francisco Bay Area) is promoting an invasion of Northern California Vees on Oregon International Raceway, at Eugene, Ore., for May 28-29. All Oregon and Washington Vee owners, please note. This could be an EVENT if they all made it to the same race on the same date.

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

RACER, NOT MECHANIC

"Dear Don—

Kudos for your "Director's Corner" in the March VeeLine. I can sympathize with the sentiment expressed in the excerpt from the letter. I am basically disinterested in the mechanical end of racing. Neither am I one of the wealthy. However, other than a sponsored ride, I can't think of another class where guys like myself can race and be competitive to some degree. I may never earn a trophy (Heaven knows I'd like one) but at least I can have fun.

Without too much displeasure I mention that, as yet, I haven't sold my Vee. Until I do, I'm going to campaign, even if on a severely limited basis.

Please run the enclosed ad again. Thanks,

Peter Tulli,
Philadelphia, Pa."

(OK, Peter, but I'll join you in hoping no one buys it. By the way, Peter's car is "BRG", and if that doesn't ring a bell—well, I had to ask, too: British Racing Green. don)

BARGAIN DAY

Although the new emblems have only been out a few days, there have already been several requests for "seconds". I'm sorry, kids, but it just won't be possible to give out additional emblems for free. If you got the 7" FV emblems, too, you have already received half of your membership fee back.

There is good advertising for FVI in the use of these emblems, but we just can't afford much of that kind of advertising. SO—*additional* emblems will have to be for money. It doesn't quite cover the cost, but to avoid messing around with change, let's say 50¢ apiece for each emblem—any style. Shop around, and if you can do better let us know. We will NOT be undersold!

HALF BROTHER?

".....Still don't have a car, but plan to build one as soon as the Aztec we have under way is done. The local Sports Car Clubs have almost all announced a Vee Class in this Summer's sprints, gymkhanas and hill-climbs. This is the route I intend to follow.

A. H. Merritt,
Norristown, Pa.

P.S. HOLD THE LINE ON MODIFICATIONS."

(Hey! Slip us a picture and a couple of paragraphs on the Aztec when you get it done, will you? So it isn't Vee! It's related, isn't it? I've only seen one—passed me on the highway at night, at that—but I drool every time I remember it!)

SAFETY HINT

Harriet Gittings, in her Vee newsletter mentions that at a recent race several of the "Formula SCCA" cars had bright orange noses. She suggests that it would be a lot safer if they *all* had them, so Vee drivers could tell at a glance in their mirror whether that car a hundred yards behind was a Vee, or a menace. How about it, Mr. Westport?

UNCLASSYFIED ADS

WANTED—Any type of Vee, in running condition or basket case. George O. Eickhoff, 12861 Martha Ann Dr., Los Alamitos, California.

'66 BOBSY VANGUARD Professionally built and maintained. Fast, legal, good handling. BRG. Goodyear R-2's. Work forces sale. Peter T. Tulli, 6329 Summer St., Philadelphia, Penn. (215) SH 7-0364.

THE LESSON FOR TODAY

".....How do you pronounce 'Ephrata'?"

Bill Robinson,
Lincoln, Neb.

Glad you asked, Bill—it puzzles most people. It's "Ee-fray'-tah". I understand that the people in Ephrata, Pennsylvania, wouldn't agree, but that's the way we say it here.

JIGSAW PUZZLES

"Dear Don—

The trucking company delivered my kit yesterday, a (Brand X). Although it's still in a thousand pieces, I believe I'm now entitled to be transferred from associate to active membership....

The kit is just great—especially the body. It comes with Dzus fasteners already attached. The three sections fit together like a tailor-made suit.

Keep up the good work on those "How to" articles in the VeeLine.

Before closing I feel I should say a word in seconding Roy Whitaker's comment about the installation instructions being far from complete (March, 1966). Mine were so incomplete I called the factory for more information and clarification of conflicting instructions when they were compared with suspension pictures. I was sure some of the assembly direction sheets had been left out of my kit. However I was assured that everything will "fall into place" as building progresses. I sure hope so. For those poor unfortunates who will follow, do you think some very gentle persuasion from FVI might convince the manufacturers to bring the the quality of their instructions up to that of their kit?

Sincerely hope VP Vi Hendrickson fools us all, and mends faster than the Vee.

Don Williams
Silver Spring, Md."

Okay, Manufacturers: Unless you are sure your wife could assemble one of your kits with no assistance other than the directions you put out, ask yourself, "Is he referring to one of MY kits?" I'll give you a clue—it's the same make Roy Whitaker had trouble with. don

GRANDPA WAS RIGHT!

According to *Road and Track,* it appears that the automobile is finally about to supplant the horse. Available statistics show that auto racing drew as many spectators in 1965 as did horse racing.

BOX 291
EPHRATA,
WASH. 98823