



# VEE LINE

NUMBER 37

OCTOBER 1967

## DIRECTOR'S CORNER

Well, thank goodness *that's* over! I'll give you one clue about next year's ballot already – it *won't* have 41 questions on it! Do you know how many marks there are on 314 ballots, with 41 questions apiece on them? Over 12,000, even considering that many people skipped one or two questions! Never again!

314 ballots represent a vote of only 60%, which isn't too good. However, considering the short time available for their return, it certainly isn't bad. I apologize for the tight schedule – I just didn't get the copy to the printers as soon as I should have; and to top it off, they took five days, by air freight, to get here from Portland, Oregon, which is about 250 miles away as the airplane flies.

There are two or three surprises in the results (for me, at least). First, and greatest, was the almost unanimous approval for requiring better roll bars. ("Please, Doc – make me quit smoking!") Certainly this kind of support should encourage SCCA to take a firmer position – no doubt this feeling is more or less universal in the other classes, too, no matter how much we'll all gripe when we do have to make changes.

The second one was the slight majority in favor of liberalizing exhaust pipes. I doubt that, with the vote being so evenly divided, SCCA will see fit to make any changes, but it is rather surprising that even that many people are in favor of it. I'm glad it didn't get any more support, myself. That would really open a can of worms (bundle of snakes?).

Third was the amount of support for the "car and driver" weight requirement. I'm probably going to do some "brainwashing" on that one – we weighed Petunia, finally, at the last race. 925 lbs! And John can't seem to get below 215! How do you take a hundred pounds off a '63 Formcar?

Altogether, I believe the results reflect quite a change in the general attitude of Vee owners in contrast with two or three years ago. There is, apparently, a much greater tolerance of deviations which don't really matter, and a much better understanding of those which do. There is perhaps even a firmer stand against actually changing Formula Vee, and at the same time more willingness to accept changes which will benefit the class.

With these votes, and the results of a couple of fairly well publicized protests made during the past season, Formula Vee can only be in a better position than ever before.

All ballots received through Sunday, Oct. 15, were counted, as it took that long to catch up with the counting. Three were received from Australia, two from New Zealand, and two were phoned in.

## ANOTHER BALLOT

With the Rules ballot out of the way, it is time, again, to consider the election of officers for 1968. As we explain every year, the only duty of the officers is to preserve this organization by keeping it supplied with a Director. As is stated in the constitution, there are several other things they *could* do, but that is the only requirement. If for any reason the Director must be – or should be – replaced, it is up to the Executive Officers, as the Executive Board, to meet and select a new director. I certainly hope this won't be necessary in the coming year, but there is at least a possibility that it could be.

The State Parks district office, at which I work, is being enlarged and transferred to Wenatchee, which is 50 miles away. In addition, I am slated for a promotion to a job which may very well call for more than the customary 40 hours per week during a portion of the year. I plan to commute from here until school is out, at least, which will require at least two additional hours out of a day which is already fairly well filled. If possible, I intend to hang on to this Director's position – I've never done anything in my life which I've enjoyed more – but it will have to take second place to earning a living.

SO – next year's officers *might* be required to make some official noises.

Nominations are now open for Executive President, Executive Vice President, and Executive Secretary! There are only two requirements – they must be Active Members, and they must be willing to accept the position. (Please check with your candidates before placing them in nomination.) Also, remember that only one officer can be elected from any one state. Any number of candidates from one state can be nominated, but only the one receiving the most votes can be elected to office.

Volunteers are more than welcome, so if you'd like to be an officer, don't wait to be coaxed – just speak up! We have one volunteer, already – Harriet Gittings asked last year, "Could a woman be President of FVI?" Why not? Consider yourself nominated, Harriet! Now, who's next?

## TO BALANCE – OR NOT TO BALANCE?

"Dear Don – I believe I've done my homework on balancing (at least as covered in the few VeeLines I have) but for me the big "scare" is in VeeLine #7. I'm trying to get this car buttoned up for a Dec. 2 Driver's School and I'm contemplating *not* balancing my new clutch or lightened flywheel.

"The Question – Do you think there's a chance I can get away with this and not blow up the engine? Also, isn't there a way I can at least balance clutch and flywheel by finding the heavy side of each and putting them together 180 degrees apart?

"I can't find my #18 VeeLine – would you please send me another? Thanks."  
Bob Adams, Flagstaff, Ariz.

I certainly wouldn't *advise* you to put a chopped flywheel on your engine without balancing it – especially without knowing how it was done. If it was done on an accurate mandrel, as described in #18VL, it will be pretty good, but not perfect, by any means. If it was merely chucked in a lathe – well, it could be anything, depending upon the skill of the machinist.

Putting the heavy sides opposite each other is fine. Volkswagen puts the heavy spots on the crank, clutch, and flywheel 120 degrees apart – their tolerances are close; but rather than try for perfection, they mark the heavy sides when they get them within the tolerance limits and assemble the parts to help reduce their effect further. However, you will *first* have to *find* the heavy spots – and if you go to that trouble, it isn't much more trouble to drill holes for balancing, and complete the job.

If you're just starting, and are pressed for time and/or money, why don't you just use the stock components until you can do the job right? You won't be able to take advantage of that last little fraction of a horsepower for some time; and by the time you get to where you *can* use it, you'll be due for a teardown, anyhow. I don't want to discourage you, or any beginner, but going to your first Driver's school with a race-ready, dyno-tuned engine is purely a waste of time and money. By the time you've learned what to do with it, you'll have hammered out a couple of rod bearings from over-revving, you'll have heard of several more things you can do legally that you didn't know about, and you'll be ready to start over on it. Till you get your Novice races in the book, borrow the mill out of your neighbor's Beetle for weekends, and be working on THE engine during the week, so it will be all nice and fresh when you really need it.

## MATCHED SETS?

"Dear Don - After tearing down the VW engine I purchased, I have decided to replace all pistons and cylinders. I am having a great deal of trouble locating a matched set of 'green' cylinders and 'blue' pistons. The sets that are available around here contain two to four different combinations, and the dealers seem reluctant to do any checking for me. . . ."

Richard Schmer, Ft. Collins, Colo.

We know it, but VW doesn't - that they're making and selling parts for race cars. They don't *intentionally* make three "grades" of pistons and cylinders - they make *one* "standard" size, within pretty close manufacturing tolerances (less than a thousandth of an inch over or under the "standard") and then they check them, putting blue paint marks on the slightly undersized ones, pink on the perfect ones, and green on those which are half a thousandth or so oversize. Theoretically, the same color grade of piston and cylinder should be used together, but in practice this is not always observed. For Formula Vees, if you can find them, the blue pistons in the green cylinders will give half a thousandth or so extra clearance, which still is very small. (Don't try it the other way around, though!)

Dealers don't order - or receive - any special grade; they take what they get. So, unless they have a fairly large stock on hand, it may be impossible to get a "matched set" from one dealer. However, if you have access to several parts rooms, you should be able to assemble your own.

Incidentally, pistons and con-rods are *not* matched for weight. They may be off so far that you can tell the difference just by lifting them. They are to be "matched" as they are assembled. If you're only replacing one, you grind it to match the others. If you are replacing all of them, and have a large enough choice, you can pick out a set where their fairly close, and finish the job yourself on a grinder. Nearly all VW dealers have a special scale for the purpose, or you can make one yourself - for about ten cents - as described in a couple of the past VeeLines.

## ANYWHERE ELSE?

According to our Executive Secretary, Harriet Gittings, broken spindles are almost commonplace in the San Francisco area. Her "Vee Marque" page in the Formula Racing Association's publication "Open Wheels" mentions one or more failures in nearly every issue. A couple have been reported in the Southeast, too, but none have been mentioned anywhere else. Is this a local problem? Are the Californians just driving harder than the rest of us? Is it their climate? Any clues will be gratefully received.

## COMEBACK

Jerry Mong, builder of the "Bobsy Vanguard" was out of the Vee business for several months last Summer. However, he writes that he is coming out with a new model. It will feature safety, as well as performance. Among the safety features will be a roll bar braced from the extreme top, and a "fuel cell" gas tank, located on the floor in front of the driver, and further protected from impact by "energy absorbing foam material."

He says, ". . . I believe also that every effort should be made to encourage owners and manufacturers to incorporate fuel cells into their designs. After considerable amount of soul-searching, we at Bobsy decided to do this. Unfortunately, there is no inexpensive route to follow. However, when weighed against the consequences of fire, the cost of the fuel cell (roughly \$150) becomes rather insignificant."

Referring to the question on the ballot, concerning normal generator operation, he says, "By this I expect that you mean the generator regulator should be adjusted to produce specified voltages within the limits set down by Volkswagen. . . ." No, Jerry - in *my opinion*, at least, if the little "idiot light" goes out at around 1200 rpm, as it "normally" does on a VW, that would be about as "normal" as you could ask for.

## HELMET BARGAIN

Bob Adams, of Flagstaff, Ariz., recently forwarded an item from the J. C. Whitney catalog, describing a racing helmet. While the Snell Foundation wasn't listed among the organizations giving it their approval, Bob had bought one, and found the Snell label inside. He asked if it was legal, and I passed the buck to Jim Patterson, Deputy Competition Director for SCCA. Jim's answer:

"Dear Bob - Don Cheesman forwarded your letter regarding crash helmets to me for comment. Here's the deal:

"The SCCA does not approve or disapprove crash helmets. The only thing that is required is that the helmet be approved by the Snell Memorial Foundation, and that the Snell approval sticker be affixed to the helmet. If the helmet in question does carry the Snell seal, it's OK for SCCA racing."

In a footnote on the copy he sent me, Jim added: "Don, there is one Italian helmet approved by Snell and since the Whitney helmet is made in Italy, and Adams says it has the Snell seal, it looks like it's OK."

The price is around \$20.00, and J. C. Whitney catalogs are on sale at many magazine stands.

## OUTPOST

"Dear Sir - I am a member of the Sports Car Club of Guam, a small but enthusiastic group of individuals who run gymkhanas, autocrosses, and rallies. We have a total of four Vees on the island, and are finding more people interested in getting started every day. All of us plan to race when we return to the States, but for now must be satisfied with practicing here.

"Our major problem is lack of information. We are stranded in the middle of the Pacific in absolute ignorance about even the most basic rules of Formula Vee racing and legal preparation. What we need is every piece of information that you can send us on anything to do with Vees. . . ."

John V. Trefethen

They've got "the word" now, of course. Don't waste too much pity on those poor souls - under the date on his letter he wrote, "Guam is Good."

## CQ CQ CQ CQ CQ CQ!

Calling all Canadians! We're getting increasing numbers of inquiries from Canada, all interested in Canadian-built Vees. The only one I know of (I assume it is still being built) is the "Huron," built by Vilim Inkret in Toronto. For several years I've heard of the "Kelly" - even saw one at Nassau - but have not been able to locate the builder. Please, someone - some information? Names and addresses of any other builders would also be appreciated. Incidentally, the "Dingo," listed in the #29 VL as being built in B.C., never got off the ground.

## FIREPROOF TANKS

There have been numerous requests for more information on the tank fireproofing process described in the #31 VeeLine, and I'm still curious about it, too. Has anyone tried it? Can you get the fuel back out of the sponge? How much of it? Have any tests been made to determine its effectiveness in case of a rupture of the tank shell? Some of you "Steel Cities" people should have some more answers - how about it?



## RULES

## BALLOT

## RESULTS



The VEE LINE OF  
FORMULA VEE INTERNATIONAL  
Don Cheesman, Director  
Box 291 Ephrata, Washington 98823

## FORMULA VEE INTERNATIONAL • 1968 RULES BALLOT

% YES	% NO	YES	NO	
83		243	48	1. Should the body specifications, as defined by the Court of Appeals (VeeLine #34) be permanently incorporated into the Rules?
66		193	101	2. Should minimum width for the rear section be stated?
	64	117	187	3. The body is now required to extend "to a point in line with the rear of the transmission." Is that definition clear to you?
	73	78	217	4. In your opinion, does "overall length" include the 1" to 3" extension of the exhaust pipes behind the "rearmost part of the body"?
74		222	78	5. Should body paneling be permitted to contribute to the strength of the frame (semi-monocoque) provided the frame is of steel tubing, as required?
62		190	115	6. Should air-ducting, velocity stacks, etc., be attachable to the engine assembly, carburetor neck, etc., as well as to the frame or body as now allowed?
88		270	36	7. Should ducting from the fan housing to the carburetor (supercharging) be specifically forbidden?
	81	62	251	8. Should fan blade removal be accepted as "removal of a cooling duct component"?
	82	64	248	9. Should fan modification be specifically permitted?
97		298	11	10. Should legal carburetors be specified (28PCI and 28PICT Solex)?
	65	104	195	11. Should an extension of the carburetor air intake be required as a fire prevention measure?
85		260	44	12. Should modification of the carburetor float be permitted?
63		193	114	13. Should substitution of the carburetor float be permitted?
87		268	41	14. Should <u>normal operation</u> of the generator be <u>required</u> ?
84		251	48	15. Should <u>normal operation</u> of the fan be <u>required</u> ?
93		290	21	16. The fire wall requirements are adequate. Should they be enforced?
82		250	55	17. Should roll bar requirements be upgraded?
97		300	9	18. Should roll bar requirements be more rigidly enforced?
	54	140	162	19. Alteration of rear shock mounts is now permitted. Does that include removal?
	60	120	181	20. Should removal of rear shack mounts be permitted?
	81	56	242	21. Should any other "springing mediums," in addition to the presently specified coil springs, be permitted?
	84	48	253	22. Should other "springing mediums," <u>in place of</u> the presently specified coil springs, be permitted?
72		212	84	23. Should the coil springs be required to surround the shock absorbers?
70		209	89	24. Should legal "camber control devices" be limited to controlling <u>positive</u> camber ("tucking under") only?
	74	78	225	25. Should "camber control devices" be permitted to carry any of the weight of the car?
77		232	69	26. Should rear "anti-sway" bars be permitted?
	78	64	234	27. Should they be permitted to carry any of the weight of the car?
74		224	77	28. Should "blueprinting" (machining to obtain the specified legal limits) be permitted?
	70	89	211	29. Should only stock VW parts, as they come from the factory, be permitted?
94		257	26	30. Should "VW 'standard' size, 'green' grade, plus .008 in." be included in the specified bore diameter, as the <u>maximum</u> dimension for better definition?
92		271	33	31. Should "15 in. x 4J" be included in the wheel specification for better definition?
	71	88	216	32. Should the "15 in. x 4½J" VW1300 slotted wheels be permitted?
53		161	140	33. The SCCA recently added "U.S. Model" to the specifications for legal VW components. As now revised, do you feel this description is adequate?
92		256	34	34. Should the words "standard" and "normal" be underlined in the rules?
	82	53	242	35. Should valves, pistons, and cylinders be added to the "non-standard VW" list of parts (Sec. 4.10)?
51		153	147	36. Should a minimum weight of 1000 lb. for "car, driver, and any fuel remaining at the end of a race" be established?
	50	145	147	37. Should an oil catch tank be required for the engine breather?
	79	59	226	38. Should an oil catch tank be required for the transmission breather?
54		157	134	39. Should a "free" exhaust system be permitted, provided it terminates per the present rule?
94		276	17	40. Should a statement similar to the following be included in the rules: "The wording of these specifications includes no secondary meanings, and no attempt should be made to extract more than the commonly accepted interpretation of them. Attention is directed to the emphasis on 'standard' and 'normal' parts. In this connection, the official VW parts lists shall be the determining authority."
69		202	91	41. Standard VW parts may be installed in other than standard VW configuration, provided no other provision of these rules is violated.

## UNCLASSIFIED ADS

FOR SALE: 1967 Beach MK5B. New throughout - only one race. Transporter 3rd gear, 4 Firestones, 4 Goodyears, 2 Driver suits, helmet with bubble, trailer and lots of spare parts. Will help deliver and finance. J. W. Kinsey, 3720 Augusta Rd., Aiken, S.C. (803)648-0751.

FOR SALE: VW engine, transaxle, front end, and associated parts. All good, except trans. needs shift lever housing. Will sell individual parts or package deal. Make offer. Paul E. Tillotson, Hellwig Rd., Genoa, Ohio.

FOR SALE: Autodynamics, '65 VW components, ready to race. 2 extra wheels, many spares, good trailer. \$1300 for quick sale (getting married in Nov. and need the money). Norman Conley, 931 Waverly Drive, Wichita, Kan. 67218 (316) 682-3800.

FOR SALE: '63 Formcar, rebuilt and repainted. Firestones and Pirellis. New heavy-duty trailer. \$995. Robert Pugh, Millside Manor, Apt. 187, Delran, N.J. 08075 (609) 461-6484.

FOR SALE: Complete Beach MK5B body, with windscreen, \$100. Practically new. (Building new custom body for my car.) Folis Jones, 20 Ophir Drive, Charleston, S.C. 556-3638.

FOR SALE: Bobsy, very fast and legal (yes, it is! don) One race on fresh engine. 8 tires and wheels, trailer. \$1795. Bob Boyd, 3124 Upper Drive, Lake Oswego, Ore. 636-5851.

FOR SALE: Bobsy, engine built and tuned by Bobsy last July. Firestone Indy's (5:00/7:30 x 15) almost new. \$1450, or with 320 lb. custom-built trailer, \$1650. Sunbeam Tiger tow car also available. Leaving for Viet Nam soon. Maj. Donald G. Fitzgerald, USALMC, Box 1530, Fort Lee, Va. (after Nov. 21 write 4765 Horton Rd., Garfield Hts., Ohio.)

FOR SALE: Fastest Formcar in CenDiv. One race on fresh-tuned engine. Good R4's, camber compensator. Immaculate. \$1000, firm. Bob Ruble, 50839 Lilac Rd., South Bend, Ind. 46628.

FOR SALE: Zink, professionally built and maintained. Only four races. Chromed suspension, upholstery, cockpit cover, Good-year safety tank, etc. \$2500. Jim Bell, 1716 River Bluff Rd., Niles, Mich. 49120. (616) 683-8184.

FOR SALE: Complete set of drawings of VW front and rear ends, for those designing their own cars. Drawn to military specs. \$20.00. Stephen Ronsheim, 110 Regal Ct., Indianapolis, Ind. 46227.

FOR SALE: Very special VW engine. LOOKS absolutely legal for Formula Vee racing. 1850 cc, 90hp. Over \$1000 invested. Disassembled for inspection. I won't tell who bought if you won't tell who sold it. . . PS. I'm no longer active in F/V. Too many cheaters.

*(Sorry - that's all I got. Reported to be from the San Francisco Region's "Wheel." If it's bona fide, most West Coasters know who has it. don)*

## IT WORKS!

Several comments were written in on the ballots to the effect that inverting the carburetor float, as described last month, cured "cutting out." From the 85% approval of this "modification" on the ballot, it would appear that a number of others must have tried it, or intend to. With that kind of a vote, I would think it would be safe to assume that SCCA would legalize it for next year.

If you tell your non-member friends about this, be sure to tell them where you got it. Tell them they might even learn something else of some value some time, if they'd join up.

## FROM DOWN UNDER

From "Racing Car News" (Australia's leading racing publication) for September: "On this occasion top races of the day was the final of a series of four races for Formula Vee cars. There were two heats early in the day, and the fastest fourteen cars went into the Final. The remainder battled out an equally spectacular consolation event - about which more later." A full page describing the four races follows.

And from the October issue: "It would sound as though I am biased, but the Vees deserve the nomination for the 'best race of the day' for the third time in as many meetings. . . ."

Aub Revell, who sends this magazine, seems to be in at least half of the Vee races in Australia, fighting it out with his son, Neil, for first or second place. He's also been re-elected President of the Formula Vee Assn. of New South Wales. (If you didn't know that's one of the eight states in Australia, don't feel badly about it - I didn't either, till I got mixed up in this madness. don)

## ONLY FAIR

This is not an endorsement - anything of a similar nature from any of the manufacturers will be gladly printed. Bob Cusick of "Venus Racing Cars" would like it known that, "Our roll hoop is made of 1 1/2" diameter tubing, with .125" wall thickness. . . . Our firewall is made of heavy gauge metal, and meets the body panels at all outer points. . . . Our entire car will pass the most rigid rules examination. . . without further modification.

"Obviously, this rule can't be completely enforced unless every manufacturer provides a car for crash testing. Yet the rule is there. So, I would think that if a factory-installed roll bar has failed in a 'crash test', a tech inspector would have the right to reject other identical installations until he received sufficient proof that Rule A-3 of Appendix Z had been complied with."



**Formula Vee  
International**

BOX 291  
EPHRATA,  
WASH. 98823



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