



# VEE LINE

NUMBER 61

OCTOBER 1969

## DIRECTOR'S CORNER

I didn't exactly plan it that way, but this will be the first time in FV1 history that you got the results of our balloting and the decisions of the Car Classification Committee in response to it in the same issue. Hope that makes up for it being so late. (Again.)

I almost hesitate to announce the results of the vote on the increase in dues—I'm afraid no one will believe it! I hardly do, myself! An incredible 92 percent of you voted "Yes!" Compliments are great, but that's really putting your money where your mouth is! Thanks so much for the vote of approval!

Note that the increase doesn't take effect until Jan. 1, 1970, especially if your renewal comes up in the meantime. Any \$7.50 checks between now and then will be considered donations.

28% of the present Vee owners switching to the new class means something like 600 used Vees going on the market—many of them, no doubt, from the front ranks. Start saving your nickles and dimes, you Associates! There should be some real bargains!

## ON THE BALLOT

Ballots will continue to dribble in for the next month or so, but only those received here by Monday, Oct. 20, could be included in the count sent to SCCA. With only Active Members allowed to vote this time, we sent out only 469 ballots, of which 281, or 60%, were returned. I had hoped for more, but apparently even that percentage is somewhat phenomenal when compared to other mail-order balloting.

I'm sorry the ballot was so late in getting to you, but apparently there was still enough time for those who really tried—we even got three ballots back from servicemen in Europe. Next time, if you don't want to vote, won't you please return the stamp?

There were a few surprises—apparently we Vee folk are mellowing somewhat. There seems to be much less concern for sections of the rules which have no effect on speed than there used to be. For instance, body dimensions, at one time, were a frequent subject for protests; but this year, even though it would benefit only builders (and owners) of new cars, there was better than a 50% vote to allow them a few extra inches of length. And almost a three-to-one vote to abolish the height and width dimensions!

The vote on the establishment of a new class of "Vee" was almost identical with that of last year—lots of no enthusiasm for it. However, SCCA evidently decided that if even 28% of the present Vee owners would switch, that represents a lot of new cars—a lot more than Formula Ford started with.

My personal pet, "weight with driver," again carried, but certainly not overwhelmingly (56%). Those who are with me can take heart, though—in 1967 it was 51%, and in 1968 52%. We'll make it yet! Incidentally, anyone who suspects that the ballot count just might be biased a bit in favor of the items I favor can think that over for a minute. (Or can ask SCCA for a recount—the ballots are forwarded to them in case anyone there harbors similar suspicions.)

## 1600 FOR 1970

Of greater interest than the '70 rules, even, is the fact that SCCA will establish still another Formula Class for 1970—a class based on the 1970 1600cc Volkswagen! How's *that* for news?

VWoA, apparently caught somewhat by surprise since last summer, switched their support from the 1500 to the new 1600 as the now "current production" VW. Negotiations are under way with European interests to coordinate this new class as a truly international one, with universal rules. Definite specs, therefore, are not yet firmed up, but it is expected that there will be "some" modification not permitted in Formula Vee. The name of the new class hasn't been determined yet, either, as this is written.

SCCA agreed to the establishment of this new class upon two conditions laid down to VWoA. First, there will be no effort made to phase out Formula Vee; and second, VW support of the new class will not be at the expense of the present one. In other words, VWoA has pledged to continue its support of Formula Vee at not less than the '69 level. It is the feeling of SCCA that a class as popular and successful as Formula Vee deserves its wholehearted support. As Jim Patterson said, the only problem they have with Formula Vee now is that there are too many of them.

This is one of the reasons for the decision to establish another Formula class. It is hoped that adding another race to the schedule, in some areas, at least, will solve the problem of the currently oversubscribed Vee events.

The 28% of you who indicated that you would run in such a class if it were available should consider that it is *not* going to follow the Formula Vee concept of a low-cost, no-change class. In the first place, it will be impractical to try to update a present Vee to the new specs, so an entirely new car will be required. In the second place, at least *some* modification will be required. In the third place, there are no 1970 VWs at the wrecking yards, so only new components will be avail-

## SO WHAT ELSE IS NEW?

Well, you can mark 1970 as a banner year for Formula Vee! In the second place (you've no doubt read about "in the first place" already) with one glaring exception, the Car Classification Committee, in my opinion, did a bang-up job on the Vee rules. And I say this even though in many cases my vote (as yours) didn't agree with their decisions. They weighed the facts and the possibilities, and the alternatives, and came to conclusions which are pretty well justified. Even in a couple of cases where the vote was pretty one sided, I have to agree that their decision was probably in FV's best interest. For instance, changes in the basic dimensions were all approved by a slight margin, and the elimination of the body measurements was favored by a three-to-one majority. However, they felt that such basic changes would obsolete a couple of thousand cars, so they declined to make them. (They were amazed—as I was—at the percentage favoring the body change. In fact, I got the impression that they didn't entirely trust the figures.)

To take the glaring exception first, the generator rule, after six years, is still the same double-talk. You still can't—legally—do anything to put it out of commission, but if it fails to operate, for any reason whatsoever, nothing says you have to fix it. The possibilities, of course, are obvious.

Going down the list of our ballot items:

1. Fairing of the front suspension is prohibited for 1970.
2. The torsion bar (but not the tubes) may be modified.
3. No ground clearance specs.
- 4,5,6,7. No change in basic dimensions or weight.
8. The carburetor may be rotated on the manifold, but no blanket approval of "non-stock" assemblies.
9. No approval of "blueprinting" specifically, but specs for undersized cranks, oversize main bearing shells, cam bearing inserts, etc., will be added to the list in Sec. 5.5p.
10. No change in the ducting rule, except that a velocity stack may be attached directly to the carburetor.
11. (This one will grab you!) To eliminate hassles over venturis (like, can you machine the one in the 28PICT carb?) NO machining of the venturi will be allowed. Not only that, the venturi must be "stock VW"! That's right—the 21.5mm venturi that came with the Beetle.
- 12,13. No change in the generator rule.
14. No comment on the ballasting question.
- 15,16. A big disappointment to VW accessory dealers—an additional oil sump will be allowed, but only a small cup-type extension on the present oil strainer cover, such as is used in Europe. Capacity probably 250cc, or about half a pint. It's supposed to do the job.

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## MEMBERS' SOAPBOX

Dear Don—Please check me out on the following items. Is it legal to:

1. Rebore 40hp cases to accept oversize main bearings and cam bearings?
2. I can find no good information on "installed length" of valve springs. The figures I have, 34.3mm (Elfrink's VW Technical Manual) agrees with the shop foreman at the local VW agency, but appears to be too short to me!
3. Can standard replacement parts from other than VW agencies be used in Vee engines, specifically cams, piston & cylinder kits, coils, etc?
4. Can a crank be used that is ground .010 undersize?
5. What do you know about installing the cam gear out of position on the crank to change the valve timing?

I don't agree that all the speed tricks are known, nor do I buy the thinking that Vee engines cannot have more speed tricks found. I believe, though, that the cream has been skimmed off, and that further improvement in Vee engines is much tougher.

Keep up the good job with the VeeLine. The fellows that don't need it are pretty danged smart, and I sure hope to meet one of them someday!

Racing is Fun!

Bill Watson, Tulsa, Okla.

Your questions No. 1 and No. 4 are answered elsewhere on these pages, Bill.

The valve spring length in the rules was specified as "not less than the standard dimension" because by the time it was necessary to print the General Competition Rules for 1966, no one at SCCA had been able to come up with the actual "standard dimension." And no one ever has! Actually, there is none! (Which has been called to their attention every year since then.) The figure you mention is the figure used in the VW manual for testing used valve springs, and you evidently have an old manual, as that figure

applies to the older valve springs. The current progressively-wound springs (with the coils closer together at one end than at the other) should take from 90 to 113 lb. of pressure to compress them to 33.4mm in length. (Note the difference in the figure.) If less than that pressure is required, they should be replaced. (VW shops are supposed to have a little machine for this test.) So if you think it will help, go ahead and shim all you want to, and if you're ever protested on it, make them show you the book! Just be sure that when the valve is open there is still space between the coils of the spring, and hope that the increased tension won't pull the red-hot valve head off the stem.

The rules are pretty plain about use of non-VW parts. Those you can use are listed in Sec. 5.10, and there are a few elsewhere in the rules. Other than that, they cannot be "of other than VW manufacture." I think most of us would agree that any extra cost for genuine VW parts is offset by the fact that they can be trusted to be standardized. Probably some of the other suppliers of parts for VW have precisely the same product, perhaps made even by the same manufacturer; but on the other hand, unless those, too, were listed by brand name and number, the door would be opened for almost anything sold to fit a VW. Would you trust your competitor if he assured you his J.C. Whitney cam was just the same as a standard VW?

Back in the early days of Formula Vee history, we assembled our engine with the

## FROM THE RUMOR MILL

Hey, have you heard that SCCA is considering moving from Westport to Dallas? Partly because they're also considering holding all the ARRC races at the Dallas International Motor Speedway, instead of alternating each year between Riverside and Daytona.

The VEE LINE of  
FORMULA VEE INTERNATIONAL  
Don Cheesman, Director  
1347 Fairmont Ave.  
East Wenatchee, Wash. 98801

## UNCLASSIFIED ADS

FOR SALE: Last & cleanest Formcar built ('66). Never crashed. Fresh engine (dyno'd), extra wheels & tires, custom trailer and many spares. Will sell only to "right" buyer, due to sentimental attachment. \$1200 (Might take vintage sports car in trade.) Robert Ames, 12235 SW Bull Mountain Rd., Tigard, Ore. 225-2637 (days).

FOR SALE: Ex-Formcar, many modifications. Rebodyed, safest roll-bar and chassis available. Engine by a top pro builder. With excellent trailer, \$900. (Photos available.) Walter J. Striedieck, Route 1, Port Matilda, Pa. 16870 (814) 692-5526.

FOR SALE: '64 Formcar. Good frame, transmission and tires, but some body and engine damage. Will dicker or trade. Bruce Moffitt, 620 Santa Fe SE, Albuquerque, N.M. 87102.

FOR SALE: Bobsy Vanguard. Engine balanced, light flywheel, all new parts— one race and driver's school. \$975. Gordon Webster, 3543 Clayphil Ave., Memphis, Tenn. (901) 324-2946 (home) or 278-7533 (bus.).

FOR SALE: 1966 Beach, with new paint, brakes and clutch. \$1400. Bob Ostergard, Box 883, Squamish, B.C. (604) 892-5133.

FOR SALE: Zink, fresh engine, two sets of Goodyears, professionally maintained. With custom trailer, \$1995. J. Robert Young, 3130 Wright St., Denver, Colo. (303) 233-5518.

FOR SALE: Autodynamics. Konis, Z-bar, improved roll-bar and shifter, transporter third Firestones, Cassius Engine. \$1150, or \$700 without engine. Peter Pires, 86 Rustic Lane, East Hartford, Conn. 06118 (203) 568-2682.

FOR SALE: Beach MK5. Adjustable suspension, new throughout. \$1500. Good trailer, \$200. '65 International Travall, with air, positrac, power brakes, \$1500. Gene Ellis, 5250 Wonder Drive, Apt. 126, Ft. Worth, Tex. (817) AX 2-5948.

FOR SALE: Beach MK5C, brand new, being assembled. With either 48hp dyno'd engine or stock, with or without fuel cell and trailer. Sale includes track rental and practice session at Sears Point and accompanying new owner to driver's school. Guy L. Rosebrook, Jr., 2939 Almaden Road (No. 15), San Jose, Cal. 95125, (408) 264-5685 (266-5623 evs.).

cam advanced by one tooth, as an experiment. The engine ran fine, but we thought (not having a dyno) that while the top end was slightly better, we had less acceleration. We then tried retarding it one tooth (would you believe you can do it without removing the heads or cylinders?) and thought we had more acceleration, but couldn't quite get the same top speed. Ed Zink has since then confirmed this suspicion, and Iskenderian's book on cams gives the same information. Briefly, changing the relationship of the cam to the crankshaft will move the torque and horsepower curves on the scale, but it won't increase either one. If you had gears close enough together so that you could keep the engine in a very narrow rpm band, this fact could be of some advantage; but in a Vee, the rpm range is so wide that if you gain top speed, you would sacrifice acceleration at the low end in each gear, and vice versa. (Please don't bother to correct my description of which way gave which result—I'll admit I don't remember. All I do recall is that we decided VW knew best.)

Dear Don—... Vee racing is still booming over here, but F/Ford is not yet off the ground... We have a National Association now—we in NSW have mixed feelings about its usefulness, but we are prepared to wait and see.

Our own Association (NSW) has about 60 members now, and we have some 50 sealed Vees running in our points series. This year it is sponsored by STP, who came good with \$850, God bless them!

I still correspond with Fred Stout, of St. Louis, whom I met while there last year. . . .

John Moxon, Hornsby, NSW, Australia

In NSW, the several tracks and the population are centered around Sydney, so it is possible to have a team of "scrutineers" preside at the assembly of each engine, and seal it at several points when it is completed. There is no question of legality in regard to an engine on which the seals are still intact.

FOR SALE: "Vee Warrior." Konis, Goodyears, two extra wheels & tires, custom trailer and spares. Front suspension reinforced. Nick Trombeta, 2728 Terry St., Bakersfield, Cal. 93304.

FOR SALE: Autodynamics, with strong balanced engine. Tuned exhausts, chrome suspension & Z-bar, all legal mods. Immaculate. With trailer and spares, \$1600. Al Henning, 1105½ High St., Williamsport, Pa. 17701, (717) 323-9520 after 5:30.

FOR SALE: Crusader. Bruce recaps, splitcase transmission. Less engine, \$1050. Jerry Gress, 216 E. Blain Ave., Stockton, Cal. 95204, (209) 464-6069.

FOR SALE: Autodynamics MK5. Transporter third gear, Konis, aluminum mounts. \$1800. Trailer also available. Can deliver. Frank Schafer, 5 Melrose St., Boston, Mass. (617) 594-7331 (days).

FOR SALE: '68 "Asp," built by Wayne Purdy. One race on dyno'd engine. New Konis and paint. \$2000, delivered in Fla. '68 VW pickup hauler available, too. Glen H Marcus, 450 11th Ave. S., Naples, Fla. 33940, (813) 649-9555.

FORMULA VEE INTERNATIONAL

1970 RULES BALLOT

%	YES	NO	%	
76	<u>209</u>	<u>66</u>		1. "Fairing" or front suspension (except for central portion of tubes) should be forbidden.
67	<u>181</u>	<u>90</u>		2. Modification of front torsion bar and/or tube should be permitted in order to alter torsion arm angle, provided the tube remains in one continuous piece, and no other springing is used.
67	<u>180</u>	<u>92</u>		3. Minimum ground clearance of 100mm (3.94") should be maintained. (European specs.)
53	<u>145</u>	<u>128</u>		4. Maximum overall length should be increased, from 123" to 140".
56	<u>153</u>	<u>119</u>		5. Maximum wheelbase should be increased from 83.5" to 86".
75	<u>204</u>	<u>68</u>		6. Body width and height dimensions should be dictated by present requirements for covering the engine, rather than by specific dimensions.
56	<u>153</u>	<u>121</u>		7. Minimum weight should be, "...without fuel or driver, 825 lb., with driver, 1000 lb."
63	<u>174</u>	<u>103</u>		8. Assembly of VW parts in non-stock configuration (reversing engine, manifold, carburetor, etc.) should be permitted.
83	<u>228</u>	<u>45</u>		9. Modification of VW parts within the limits of the VW specifications (including standard undersizes for cranks) or to dimensions specified in these rules should be specifically permitted.
76	<u>210</u>	<u>66</u>		10. Any ducting should be permitted which does not provide communication between the fan and the carburetor, without limitation on method of attachment.
82	<u>224</u>	<u>50</u>		11. Use of any venturi, or of no venturi, should be permitted.
68	<u>185</u>	<u>88</u>		12. "Normal" operation of the generator should be indicated by "normal" operation of an indicator light or ammeter.
	<u>63</u>	<u>212</u>	77	13. An inoperative generator (including removal of internal components) should be permitted.
62	<u>167</u>	<u>103</u>		14. Sec. 5.7 ("Ballasting") should be deleted from the rules.
	<u>105</u>	<u>168</u>	61	15. An additional oil sump should be permitted on the bottom of the crankcase.
54	<u>148</u>	<u>124</u>		16. Any oil pump pickup means should be permitted in the crankcase.
57	<u>158</u>	<u>119</u>		17. Any oil cooler which will fit in the normal location should be permitted.
74	<u>208</u>	<u>72</u>		18. Any oil filter should be permitted, if fitted within the engine compartment.
78	<u>211</u>	<u>57</u>		19. Replacement of permanent plugs in engine oil passages with threaded plugs should be permitted.
63	<u>172</u>	<u>105</u>		20. Fins, spoilers, etc., which are, in effect, a fixed part of the body should be permitted.
	<u>34</u>	<u>242</u>	88	21. Wings, airfoils, movable spoilers, etc., mounted away from the body, should be permitted.
	<u>102</u>	<u>172</u>	63	22. Exhaust pipes should continue to terminate "1 inch to 3 inches behind the body."
63	<u>172</u>	<u>100</u>		23. Exhaust pipes should terminate not more than 3 inches behind the body.
	<u>131</u>	<u>145</u>	52	24. Exhaust pipe length should be unrestricted.
	<u>65</u>	<u>209</u>	76	25. "Microsealing" (depositing of chrome or other material) on engine and/or transmission components should be permitted.
77	<u>212</u>	<u>63</u>		26. Reverse gear should be operable upon demand, but may be locked out for racing.
58	<u>157</u>	<u>115</u>		27. Nerf bars should be permitted for transmission and rear wheels only.
	<u>78</u>	<u>195</u>	71	28. Any nerf bars should be permitted.
	<u>38</u>	<u>236</u>	86	29. Nerf bars should be required.
	<u>130</u>	<u>150</u>	54	30. Definite specifications for tire compound hardness should be established.
91	<u>252</u>	<u>25</u>		31. Actual gear ratios for all legal gearing should be included in the rules.
92	<u>258</u>	<u>22</u>		32. Specifications for the cam(s) should be included in the rules.

FOR 1971

	<u>69</u>	<u>190</u>	73	33. An additional Volkswagen class, using the 1500cc engine, but based on the present rules, should be established.
	<u>71</u>	<u>187</u>	72	34. An additional Volkswagen class, using the 1500cc engine and permitting more extensive modification, should be established.
	<u>57</u>	<u>196</u>	77	35. An additional Volkswagen class, based completely on 1970 1500cc VW components, should be established.
	<u>71</u>	<u>180</u>	72	36. Would you switch to such a class? If "yes," indicate which one(s).

I prefer rolling 151 59% starts for Formula Vee races. (Circle or underline One)  
standing 107

92 225 21

ARTICLE II, Sec. 1, of the Bylaws shall be amended to read, "...Annual dues...shall be:  
(a) For Active members - \$7.50. (b) For Associate members - \$7.50..." this amendment to take effect on Jan. 1, 1970.

SO WHAT ELSE IS NEW?

(Continued from Page 1)

An extension of the oil pickup pipe will also be permitted, but no swing-types.

- 17. No non-stock oil coolers.
- 18. No filters. (Too many problems arise from an enforcement standpoint. Is a filter with fins and coils of copper tubing a filter or a cooler?)
- 19. OK to install threaded plugs in the oil passages.
- 20,21. No actual approval for body-type fins and spoilers (presently considered legal), but air foils, wings, etc. are out.
- 22,23,24. No change in the exhaust pipe rule. (No minimum length could lead to as many problems as no maximum.)
- 25. No approval for microsealing. Technically it's illegal (if detected); but from a practical standpoint, it would be impossible—in a rule—to distinguish it from use of "moly" in the oil, for instance, which also deposits a metallic film on the surface of parts.

- 26. Reverse gear must be not only in its proper place in the transmission, but actually operable by the driver, as well.
- 27,28,29. No action on nerf bars. They can extend as far as the centerline of the tires under the present rules.
- 30. No action on tire compound measurement.
- 31. Legal gear ratios will be incorporated into the rules.
- 32. Cam specs are harder to pin down, but they are working on it. It is expected that they will be added later in the season by means of the "Drivers' Meeting" page in "Sports Car."

In addition to the items on our Ballot, the following were decided:

- 1. No modification of fans is permitted, and the number of blades in a legal fan will be specified.
- 2. Vee engines must be "midship" mounted.
- 3. Ball-joint front suspension will *not* be allowed. (I forgot to ask about roll-bar specs, but look for some changes here, too. Not just for Formula Vee, of course, but for all classes.)

So that's Formula Vee for 1970 (assuming, of course, that the Competition Board and the Board of Governors will, as usual, put

1600 FOR 1970

(Continued from Page 1)

able. And in the fourth place (and most significant), this class is specifically intended to demonstrate "current VW production," which means that updating can be expected whenever VW makes any significant changes.

I'm tickled pink about this, myself. It should take some of the pressure off Formula Vee in several areas. First, of course, it should provide a solution for those who have been clamoring for more power and speed for Formula Vee. Second, it should help solve the problem of too many Vees; and third, it should answer the question which has been asked for several years, "When is Formula Vee going to go to the 1300 engine (or 1500)?" This possibility has bothered more prospective owners than present ones, judging from our mail. Many have hesitated to get into Vee racing for fear that the class would be obsolete before they got really started.

As this goes to press, there is no definite word from VWoA on the subject, but it appears likely that much of their support for the new class will be in races to be held in conjunction with other pro events—CanAm, TransAm, NASCAR events, etc. (IMSA has tentatively announced a continuation of the present Vee rules for 1970, but you can bet they'll get aboard this bandwagon in a hurry. Looks like SCCA beat them to the punch!)

What part will FVI play in this next act? None, probably. I wouldn't slam the door on it, but neither John nor I have the time and money necessary to start afresh in what will certainly be a more expensive class. By getting in on the ground floor with FV, we've pretty well managed to keep up with it; but this new one is going to be something else—strictly professionally oriented, from the builder to the winner's circle. It will be no place for a couple of weekend warriors like us. I would predict that VWoA will establish a pretty close relationship with it, probably something similar to the "Formula Ford Register." So for the present, at least, don't look to FVI for "how to do it's" for the new class.

their stamp of approval on it without change.) Except for that \$%&' generator thing, I can't find a thing to work up a real mad about. How about you?

WHAT IS A "CROSS SECTION"?

There has been in the past some tendency to downgrade the FVI ballot on the ground that it does not represent a cross section of "all" Vee owners. There have been polite comments to the effect that, after all, FVI is composed mostly of Novices and others who aren't really "with" Formula Vee, that it's membership is primarily centered around the Pacific Northwest, and that those members are pretty likely to vote as a group, as suggested by the Director.

Certainly it's flattering to be considered a moulder of public opinion, but when I can't get even 60% of you to vote for "weight-with-driver," that one falls pretty flat. As to voting as a group, the vote ranges anywhere from a 50-50 split, to 90-10 on the various questions, which doesn't exactly fit the picture of a bunch of sheep following the leader.

As to the composition of FVI, I got to wondering about that a bit, myself. That's why the questions on licenses was included. The following statistics apply not to the membership as a whole, not even to the entire Active Membership, but only to those who voted:

- SCCA National license (or equal) 160 (57%)
- SCCA Regional license (or equal) 51 (18%)
- SCCA Novice license (or equal) 37 (13%)
- FIA license 37 (13%)

(Yes, that adds up to 285, but FIA drivers also have a National-type license.)

Geographical coverage is pretty cross-section, too:

Ariz.	6	Mass.	13	Pa.	15
Cal.	41	Mich.	9	Tenn.	9
Conn.	8	Minn.	8	Tex.	13
Fla.	18	Mo.	4	Va.	3
Ga.	5	N.C.	4	Wash.	14
Ill.	9	N.H.	3	Wisc.	5
Ind.	4	N.J.	4	B.C.	4
Iowa	4	N.Y.	19	AP0	3
Ky.	5	Ore.	9	Other	27
Md.	4	Ohio	14		

Breaking this down into geographical areas, there were 125 ballots from the East, 78 from the West, and 78 from the Central U.S. No, I'm not going to name the states, and get into any arguments about the North and South, or Where the West Begins!

So how cross-section can we get?



Formula Vee International

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Van D. Durrett, Jr. 1508 S. Jennings Bartlesville, Okla. 74003

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