



BULLETIN

NUMBER 13

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DIRECTOR'S CORNER

To those who can read the signs of nature, such as the heavier fur on the woolly bear caterpillar, the longer beards on the beatniks, and tighter stretch pants on the pit-popsies, it looks like a long, cold season next year for cheaters in Formula Vee.

In the Southeast, especially, recent events have shown a willingness on the part of race officials to enforce the rules, even when no protest has been filed. This may be a result of the decisions mentioned in the July issue of *Sports Car*, in which, on appeal the letter of the law was upheld and the officials were chided for lax enforcement. At any rate, in that part of the country in recent months there have been several encouraging signs lately. For instance, at the Palm Beach Nationals fuel samples were taken; at Daytona National the 3/16" inspection hole in the roll bar was required; at Osceola Regional it was indicated that a non-VW coil would be declared illegal if anyone cared to protest it; strictly regulation numbers and class designation were required at Daytona; in the Northwest vented backing plates were grounds for disqualification. Straws in the wind, perhaps, but all pointed in the same direction-- better enforcement of the rules.

Speaking of Daytona, I have it on good authority that anyone tapped for that race is going to be making the trip for nothing (including the travel allowance) unless his car is very, very legal.

I am told that cars which have even been suspected of illegalities will be given the full treatment *before* the race at tech inspection, rather than afterward, in case of a protest, as has been done in the past. Engines known to have been prepared by certain professional hop-up firms will be given special attention in those areas known to be subject to illegal modification. Other items to be checked *before* the race will include-- non-1200 carburetors, 28PICT carbs with the venturi enlarged (stock is 21.5mm or .846"), intake manifolds, fans, fan pulleys, fan throttle rings with modified operating means, exhaust systems, camber-limiting "straps" that do more than limit camber, rocker arms, valve springs, car weight, etc.

A very important item in any teardown inspection will be cylinder size. It's been mentioned here a number of times, but will bear repeating again-- only the *smallest* of the three *standard* size cylinders meets the 1192cc requirement (which is still in force until officially changed by SCCA). This is the "blue" size. Even if you took the brand-new engine out of the box yourself, it could just as easily as not have one of the other two sizes of cylinders, so if you-- or a friend-- are planning to hit Daytona, don't fail to check this. This was probably the cause of Tony Belcher's disqualification as described in *Sports Car*, considering the small margin by which he was oversize. However, he was disqualified, and you can bet that because of that, this rule will be very strictly enforced at Daytona.

Another item upheld as illegal in the same appeal was exhaust pipes not ending *exactly* at a "common plane". Better get a board and a file (and a copy of the rules) and do some checking. The odds are about a hundred to one that you could get stuck on that one too.

Chintzy? Perhaps-- but that's the way the present rules read, and having been enforced to the point of disqualification in one case there can be no other interpretation of them in another. So pass the word-- tech inspection at Daytona will make that at Riverside last year look like a parking lot autocross. It's going to be *tough!* Vees will be legal! And with the best drivers in the country all driving legal cars, that should be the race of the year!

WHERE'S THE LIMIT?

It is generally accepted that Vees are faster this year than they were last year-- even the legal ones. Will this trend continue? Probably not. After all, under our rules there comes a point where there is nothing more you can do. As was mentioned last month, there is probably some room for improvement yet, for most of us, in the gearing department, but there probably won't be any spectacular increases in the engine performance.

Comments from a number of owners seem to indicate that at 5,000 rpm, the peak has just about been reached. (This is in fourth gear on a long, level straight, of course, where you have a chance to peak-out.) When this figure was claimed last year it caused some suspicion, but it can be reached-- legally. So if you're not getting it, take heart-- you just haven't done all there is to do yet. If you are getting it, your family can take heart-- you're about due for an evening at home once in a while.

BALLOT

No doubt everyone is tired of hearing about the Rule Ballot, by now, but something has to go in this space--

We finally got 103 ballots returned, but by the deadline for forwarding to SCCA there were exactly 100-- a very nice figure to tabulate, as you can also read the results as "per cent". These are the votes "FOR"-- any items not included were so non-controversial that they carried by 90 or more votes.

Weight without driver 82#	85
Weight with driver 1000#	61
(This is nearly two to one, and could very well be adopted by SCCA. Apparently 15 voters were for no minimum on the bare car.)	
Use of any camber and/or sway controlling devices provided they carry no weight	83
Wheels standard sedan or Transporter	96
Any wheels	36
Dual braking system	15
on cars built after January 1966	98
(but don't be surprised to find this required on all cars)	70
Maximum Bore Standard "green" (23)	86
Second oversize (6)	18
(First figures are for corresponding piston size. Most votes were for both, but only one should be specified.)	
Present exhaust rule	17
Any exhaust system	13
Crossing-over rear pipes only	70
Air ducting	95
1" space between duct and engine	88
Any VW distributor modification of advance mechanism	99
Any VW clutch except diaphragm type	86
(IS there any such clutch?)	54
Oil filter	95
Any valves and springs	29
spring shimming	37
Increasing compression ratio	19
Modifying camshaft	10
Any camshaft	9
Any engine modification	10
Body "must conceal" engine	83
"must extend to the rear of car"	93

So there you have it. Remember, THESE ARE NOT THE RULES FOR 1966! Not yet, anyhow. They are merely the recommendations of this Association to SCCA, and until SCCA announces its decisions the present rules are still in effect. One thing I believe it is safe to predict, though-- the rules won't be relaxed any.

HOW OLD IS "OLD"?

The most frequent question asked by the prospective Vee owners who write this Association is "Which make of car is best?" I'm glad I can't answer that one--not only would it be un-kosher, but impossible. Just take a look at the point standings, or watch any race in which there are several makes.

Despite the claims of the various manufacturers, no one car has shown any evidence of superiority. Most any make can be claimed the winner of a given race, or of a regional championship, but there is none that can honestly claim more than its fair share of such triumphs. There was some fear at the time when SCCA was considering Formula Vee for acceptance that their elimination of the original body measurements, (which would have had every Vee looking like every other one) would lead to aerodynamic advantage for one make over another. Fortunately, however, there is no indication at all that body style has any influence on the outcome of a race.

This is as it should be, and has no doubt had a great deal to do with the success of the Class. The different body styles add to spectator interest, give prospective buyers a choice (and a chance to argue the merits of their choice) and no one is stuck with an obsolete car that just can't keep up any more. '63 cars are still winning their share of races, and no doubt will continue to do so, regardless of their appearance as compared to more recent models.

This is not to say that sex appeal alone should be the basis for choosing a car--if they're different on the outside, they just about have to be different on the inside, too. Like, for instance, how does it fit when you try it on? Can you get in and out without a shoehorn? Can you operate the pedals without barking your shins (or can they be moved easily to a better location)? Can you make a full turn of the steering wheel without scootching over in the seat so your hands will clear your legs? Little things, but if you bark your knuckles or bruise your knee every time you shift gears, you'll start fudging on your shifting, for instance, which leads to a good view of the entire field ahead of you.

Another little item which should be considered, especially by do-it-yourself types, is "How do you work on the engine?" On some makes you can't even change sparkplugs without some dismantling of the body-work, while others merely lift it off, or even hinge it up like the hood on a sedan. Again, for major work the engine must be removed, which is done on one make by merely disconnecting the utilities, removing the nuts from the four mounting bolts, slipping the engine ahead a couple of inches to clear the clutch, and lifting it out. One fortunate owner, who has two engines claims he can make a complete switch in half an hour. On another make, however, there is no room between the engine and the firewall, so you don't take the engine out

NASSAU SPEED WEEK

There is apparently no interest at all in this Association assisting toward making the Nassau Speed Week, which is probably just as well, as further research indicates that any driver getting the nod for this event won't be the type who needs assistance, anyhow.

I've been having some extensive correspondence with Captain Sherman "Red" Crise--Executive Secretary of the Bahamas Automobile Club--who is the man who runs the Nassau Speed Week. While there are still a few questions lacking definite answers, what I do have makes a rather interesting picture, even if you never expect to see it first hand.

This event is, for Formula Vee, at least, the only truly international meet in the world at this time. It is held, of course, at Nassau, in the Bahama Islands, every winter, as part of a week-long event known as the Nassau Speed Week. All types of cars are raced during the week, though racing is almost incidental to the social aspect of the occasion, which includes parties, banquets, receptions, etc., in almost equal proportion to the racing.

One of the traditional racing events has been the Grand Prix of Volkswagens--stock sedans, that is! (Remember last year, when Dan Gurney, driving an EMPI-prepared VW sedan, was disqualified because of those fly-cut heads?)

In 1963, when Vees were not yet even a recognized class, they were included in this race, with a delayed start, and mopped up the sedans. (This is the race shown in our film.) This was repeated last year, with the resulting exposure of a number of cheaters at the very strict post-race inspection. Bruce McLaren, in the third place car, was declared the winner, and even second place was decided by a disqualification. This year all the VW's will be wearing Vee bodies (though you won't recognize them in any pictures you may see) as it seems the Vees have stolen the scene from the sedans to the point where there is not sufficient interest in a sedan race.

Mr. Crise would seem to be a very autocratic type of race promoter, who runs this Vee event, at least, to suit his own whims. I believe that FIA rules are followed in the classes to which they apply, but in the Vee event, (in which FIA has shown no interest, praise be!) he claims there is no other jurisdiction than his own. To give credit where it is due, as mentioned before, the "stock VW" part of the rules is enforced here as it is nowhere else, to the extent of importing a VW engineer to preside over the inspections. However, Mr. Crise emphatically disapproves of the other Vee regulations, especially the body limitations, so in these areas he substitutes his own rules. Acceptable "Vees" are expected to have long-nosed Formula 1-type bodies, tuned exhausts, and this year wide "Indy" wheels. These items are described as an effort to "improve the breed", and the wide mag wheels are also expected to "increase the safety factor, as well as speed".

So don't blame the photographer or the editor if you see a picture of a Formula 1 car described as the winning "Vee" at Nassau. It will be a mistake, all right, but it won't be typographical.

You don't send in an entry for this race--you apply for an invitation, including \$150 for your application (\$200 after October 1). A limited number of applicants are "invited", on the basis of the suitability of their cars, driving record, etc. (No word on how many "Vees" are invited.)

A Class "A" invitation includes free transportation from Miami to Nassau and return, hotel accomodations and meals, with entertainment, parties, tours, etc., being provided by various Nassau groups. (They keep the application fee, though, if you're invited.)

Prize money is fantastic, in the "Vee" class, which seems to be somewhat of a pet. You could come home with \$2,750--\$1,250 for first place, plus \$250 if you are using Firestone or Goodyear tires, plus \$250 if you are using either Champion or KLG spark plugs, plus the new-this-year Brundage Memorial Trophy which includes a \$1,000 award. This trophy and award is donated by the Hubert Brundage Estate. (Mr. Brundage conceived the idea of a VW-bases racing car, which was developed, at his request, by George Smith and Bill Duckworth into the present Formula Vee.)

In view of the fiasco last year, in which it appeared for a while that there might not be enough legal cars for win, place and show, you can expect some extensive pre-race inspection here, too, you betcha! As at Daytona, this too should be a very close race, which theoretically, anyone might win. Theoretically, too, anyone with a good point standing might be invited, but it won't hurt your chances any if you also manufacture a racing car, drive in Formula 1, recently married into royalty, or have some other claim to fame.

Drop us a postcard while you're there?

of the car--you take the car off of the engine, piece by piece, which can spoil your evening if you find out in practice Saturday that you've got to replace a bearing by racetime Sunday.

So ask the man who owns one.

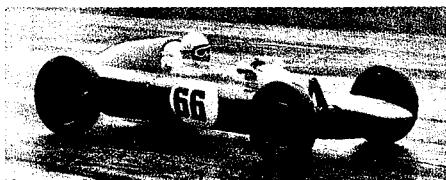
The BULLETIN of the
Formula Vee Association
Don Cheesman, Director
Box 291
Ephrata, Washington

RACE RESULTS

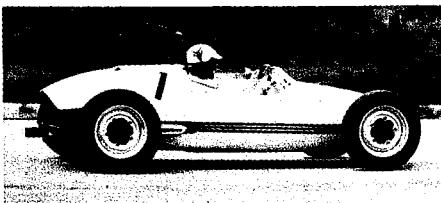
By the time they can get into print here, actual results (winners) of a race are ancient history. However you may find a few details here once in a while that you certainly won't find in *Competition Press*, for instance. Like--

At the August 28 Regional at Lime Rock, 22 of the 32 starters were Vees. The first Vee, Alex Dearborn, was fifth overall, ahead of six of the ten other Formulas. He was followed by a Formula B, and then by second place Vee, driven by Lew Kerr (now in a Bobsy), and two more Vees. Other Formulas took 6, 10, 12, 15 and 21, with Vees in between. (Those damn Vees sure do get in the way!) Six of the Vee drivers (including Chris Paulhus, who contributed this) were Association members (displaying their emblems, I hope).

At the September 5 Daytona National there were 16 entries in the Sunday Vee event. Tony Belcher (Beach) and Bill Duckworth in one of the original '63 Formcars fought it out for 45 minutes, with Belcher finally getting the flag, by about this much. Whit Tharin (who furnished this story) watched this from somewhat farther back, while earning third place from Bill Campbell. Tony Belcher started the season under a cloud of suspicion due to his winning ways, but after two complete teardowns (one of them reported in *Sports Car*) and a consistent display of impeccable driving, has been accepted as one of Formula Vee's shining examples. Watch for him at THE Daytona National Championship race in November.



Here's one not many of you have seen yet--the new Lynx. The roll bar is there, all right--you just don't see it because it's inside the body. (SCCA approved?) The driver is said to be a 230 lb. six-footer. (No mention of how many knee joints he has, but it must be more than two.)



Illustrating the trend to open rear-ends is the latest model of the Formcar--Mk III. Removing the former "scoop" from the tail is said to add to top speed; though not visible in the picture, the fan intake is distinctively tunneled. The roll bar is lowered a bit, and is now braced internally to the rear, giving more freedom in the cockpit.

NOMINATION

We've had one nomination for President of this Association--Whit Tharin--and one for Vice President --Vi Hendrickson--but no one for Secretary. So I'm going to volunteer M. L. (Matt) Mathews, of Gainesville, Georgia.

If you think this is top-heavy toward the Southeast, you're right, but don't say you didn't have a chance. Someone in another area could have been drafted for Secretary, but, as has been mentioned before, the only real duty expected of the Officers is to meet, as a Board, and replace the Director if it should ever become necessary. This would be much simpler if they are from adjacent states. (None, no expense accounts.)

So, unless Matt declines the honor, there will be a ballot next month--I think.

New "FV" emblems (the round ones for class identification) are being ordered. They will be of much better quality --in fact almost indestructible, according to the propaganda. The present ones are pretty chintzy, to be sure--but they were ordered before we even had any members, when the future of the Association was pure conjecture, and price was more important than quality.

Speaking of price, the new ones will run about \$1.20 a pair, so, while they will be furnished "free" (with each Active membership) they will be furnished only on request, as not everyone is using the ones previously sent. It is hoped that everyone will request them--and use them. Even if you're not the type who can actively "sell" the Association, you can help by at least showing your membership. You needn't wait till renewal time--replace your old ones as soon as possible.

RENEWALS

I'm afraid I didn't put enough emphasis on using the application cards which were included in the last Bulletin for getting *new* members. Several of them have been returned as renewals. This is fine--it's reassuring to know people are willing to go along with us for another year. (These renewals will, of course, be extended from the actual renewal date, which in some cases is several months away.) The rest of you, though, needn't worry about renewal--I'll let you know, believe me! Your Bulletin will have it stamped right in the middle --in red. That's the only notice you'll get, though.

So let's be using those cards for signing up some New Members!

EXPERTS

Tech inspection at Daytona will be "assisted" by VW experts furnished by Volkswagen of America. VWoA will also arrange for such assistance at National and Divisional races if it is requested by the proper officials. Have your officials write to--Dept. PR, Volkswagen of America, Englewood Cliffs, New Jersey.

DYNOS

"....Finally, I would like to know if you have any information on the horsepower that a well set-up Vee should be putting out at the rear wheels. I recently had my car tuned on a dyno, and found a maximum of 31HP at 4000 rpm. This seems low to me. Do you have any figures from other Vee drivers' cars?

*Ed Meloni
Hamilton, Mass.**

The only dope I have, Ed, is the VW manual, which shows the power at 4000 is about 32.7, and this is direct, not at the wheels. (Peak is 34, at 3600.) If you're getting 31 at the wheels you're doing real fine!

Actually, there is more to discussing horsepower than this. Right off the bat, any horsepower figure taken directly from any dyno is only approximate, at best. To be of any value it must be corrected by use of a formula which takes into account atmospheric pressure, air temperature, and relative humidity, the result being expressed as horsepower at sea level, at (I believe) 60 degrees F. and 30" of mercury barometric pressure.

In the second place, the general run-of-the-mill tune up dynamometer, on which horsepower is read directly from a dial is of questionable accuracy, to put it politely. Horsepower is a combination of torque and speed, and in combining these two variable factors in one instrument, accuracy suffers. This is not detrimental in the service for which they are designed, as their purpose is to show differences in performance, due to various tune up operations performed, and not accurate horsepower readings.

So, unless two Vees are tested on the same dyno, under identical atmospheric conditions, comparisons are of little value. Even readings on the same car, on different days, may show as much difference due to conditions as is due to changes in tuning.

You can get the most benefit from a session on a dyno, then, by checking changes in performance which are obtained by changes made in distributor and carburetor settings during this one period, and forgetting about horsepower as such. Even comparing these results with those of other sessions will be of little value unless you also keep weather records.

UNCLASSIFIED ADS

WANTED: Trailer to fit a Vee. Bill Maisey, 5001 Seminary Road, Apt. 725, Alexandria, Va.

FOR RENT: Formcar Vee, (second Nationally in 1964). \$150 per weekend, including gas, oil, tires, insurance, etc. Guaranteed to finish (mechanically) or no charge. Also '63 Porsche Super engine, transaxle, etc. for sale. Whit Tharin, Rt. 1, Box 149, Allendale, So. Carolina.

ANOTHER PROPOSAL FOR SCCA

A number of you, I know, also belong to the Formula Racing Association. We exchange publications with them, but can't seem to get much exchange on letters. This is too bad, really, as I note in the latest "Checkered Rag" that their Competition Board has been instructed to "consider" a couple of items for presentation to SCCA in which we too have an interest. These are described as "Anti-sway bar for Formula Vee" (anyone know what the problem is?) and "A more sophisticated rule regarding mixed classes, based on size, weight and speed, rather than fenders."

I don't know what they have in mind here, but whatever it is, I'm sure we're for it. I only wish we could have had time to discuss it with them, and among ourselves, so we could have agreed on a proposal. This is certainly an area in which there is room for improvement.

There is certainly plenty of evidence, in the form of tire marks and cracked fiberglass, to prove that Vees and the faster Formulas don't mix. Or maybe we should say they *do* mix! Such contacts, as far as I have heard, have so far resulted only in damage to body work and feelings, but they are too frequent to be accepted as only annoyances. They indicate a dangerous situation!

These contacts are, of course, always caused by Vees, whether the Vee is the nerfer or the nerfee. Vee drivers are evidently losing their awe of the elite Junior drivers, even going so far as to refuse to give up the line to them going into a corner. This may be perfectly legal, perfectly proper, and even safe, if you're in another Junior, but if you're in a Vee, it's downright disrespectful.

It appears that the drivers of the faster cars haven't yet accepted the fact that they are faster only on the straights. When Vees (and many of their drivers) were new, it is true that cornering was sometimes a rather uncertain maneuver,

but a Vee now, set up and driven by a good driver, is deficient only in acceleration and top speed, and in those departments, too, experience is bringing improvement. (Check those race results again.)

On the positive side, Vees seem to be in the same class as Class C and Formula IV, and at the Westwood Track, in British Columbia, Vees have been running very nicely with H Modified since the middle of last season. This seems to make a very good combination, as top speeds are comparable, as well as cornering ability, so that there is nowhere on the track where dangerous differences exist. The H Mod drivers like this arrangement, too--they get the same thrill when passed by a Ford-powered special that we do when a Lotus 23 goes by.

The time for more proposals is growing short, but talk it over with drivers in the other classes, and your officials, and perhaps something can yet be accomplished through regular SCCA channels. This problem doesn't belong to Formula Vee alone.

THE LATEST AT EMPI

There's probably no connection between the correspondence recently conducted with EMPI through this publication (regarding engine modification) and the fact that they are now racing their Autodynamics in SCCA Class B, with their "stock" VW engine now modified to 1600cc. This is fine, and I wish them luck, but I also wish they wouldn't refer to it as a "Formula Vee Modified"! Let's all make a point of insisting, any time the subject comes up, that there is no such thing as a "modified Vee". If it's modified, it's not a Vee! A "VW Special", perhaps, or a "Porsche Bobsy", or a "Formcar Formula B", but it's either a Vee, or it is *not*!

The final word on the "claiming price" (and this is the final word)--32 for, 35 against.

FORMULA IV

Another possibility for those with twitchy fingers, imagination, frustration due to the limitations of Formula Vee--and MONEY, might be Formula IV. It really has more possibility for "development" and "improving the breed" than Formula S. Either 2- or 4-cycle, or even rotary, engines can be used, the only restrictions being the sizes of the various engines, requirement of dual braking system, and a minimum weight. How about that, geniuses? See the GCR for the very few details.

BMW 2 cylinder engines seem to be favored. To give you an idea, there's a modified BMW engine listed for sale in FRA's "Checkered Rag", with roller cam and other goodies, for only \$650. Anyone who can put \$500 or more into a "stock" VW engine should be able to make a \$1000 mill out of this one.

1300

The "new" VW1300 sedan, though only distinguishable by the "1300" on the rear deck lid and the Porsche-type wheels, has, as usual, most of the changes on the inside. 1300, of course, refers to the displacement, which is actually 1285cc. The extra cc's are due to a longer stroke (same bore) with larger valves and manifold contributing to the 10 extra ponies. The same transmission is used again. No word as to interchange with 1200 parts, though there is a rumor that the heads will fit.

No, there's no indication that FV is going to change to 1300. Not as long as 1200 parts and engines are available, at least, (and you can still get parts for the 36HP with no trouble, though brand new engines are no longer available).

Incidentally, did you know that the first VW was marketed in 1945, with a 31.5HP engine? It must have been a screamer!

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WASH.

