Formula One & F-5000 Reviews

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Vol. 3 No. 2 March 1976 One Dollar



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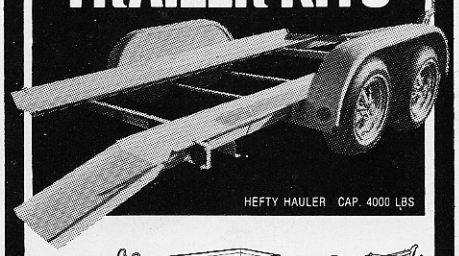
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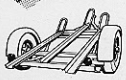
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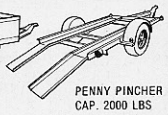
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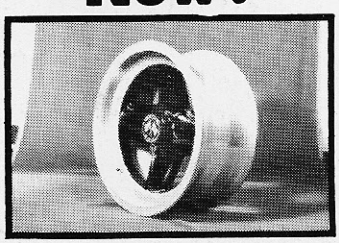
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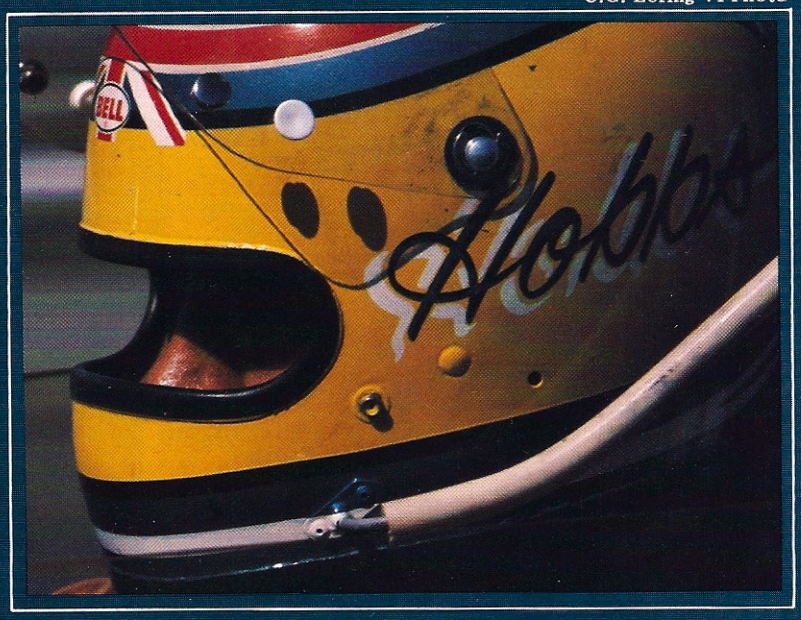
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FORMULA

Vol. 3 No. 2 March 1976

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Cover Photo — Carlos Pace waits for adjustments to be made to the Alfa Romeo power plant of his Brabham BT45 during practice for the recent Brazilian Grand Prix. There will be a full report on this event in the April issue of Formula. Jeff Hutchinson Photo.

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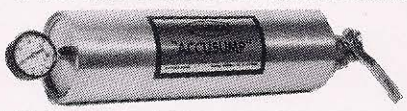
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From The Driver's Seat

by Hugh Mooney

Drivers Association

There is a new organization that has been formed to help iron out some of the many problems amateur and lower level professional drivers normally experience. The Competition Drivers Association, headed by Jeff Marsh, is mainly concerned with the SCCA amateur driver but will be in a position to help the professional as well. If you are a licensed SCCA driver you have probably received a membership application from the CDA. Take a look at it — it could turn out to be worthwhile.

The main mission of the CDA is to give its members a voice in the decisions which affect them. They plan to furnish information about proposed rule and policy changes and analyze exactly what the changes mean from a technical point of view and from a cost standpoint. Members will vote on proposed changes and the CDA will present the results to the SCCA, acting as a kind of clearing house.

Jeff uses the rule change that was implemented for Formula Ford a couple of years ago regarding the use of alloy wheels as an example of what drivers are up against. The steel wheel rule was amended to allow the use of alloy wheels because of reportedly increasing steel rim failures. According to Jeff the first year this rule took effect was 1974 and there was an estimated $400,000 spent on alloy wheels for Formula Fords. All of a sudden the serious FF driver was faced with a new expense. It cost at least $400 to purchase a set of decent wheels and if you wanted spares it really added up. There were other ramifications too. The competitor immediately found his FF didn't handle quite the same way it did before because of the greatly decreased wheel weight and, in many cases, because of wheel offset changes. There have been many problems the FF competitor has experienced, including wheel failures, because of this unnecessary rule change. This is exactly the type of thing the CDA hopes to be able to avoid in the future.

Jeff estimated that at least 88% of SCCA's licensed drivers, of which there are approximately 5600, had not seen or been made aware of rule changes for the 1976 season. "If this is a club for the general membership, then why do we have situations such as this?" asks Jeff. "Amateur drivers are spending in excess of $16,000,000 per year racing their cars. They represent an extremely large spending group and receive little or no recognition, a situation we hope to change."

The goals of the CDA are sound and could, if successful, assist in making some much needed changes in the amateur system. But it all takes money and they need the support of as many drivers as possible. For more information on the CDA, write to Competition Drivers Association, Inc., 2200 Century Parkway, N.E., Suite 200, Atlanta, Georgia 30345 or call (404) 321-3403.

GT Cars in FORMULA

This month's IMSA preview by Gary Witzenburg is a lead-in to our expanded road racing coverage for the 1976 season and marks the first time GT cars — the ones with fenders — have graced the pages of FORMULA MAGAZINE. Our format up till now has been limited to coverage of open wheel racing. This expansion into other types of road racing will broaden FORMULA's appeal and will give our readers a more complete picture of road racing.

Amateur Coverage

I have received several phone calls pertaining to our intended coverage of amateur SCCA events for the 1976 season. We will continue to cover and support amateur racing and hope to devote a special section of each issue strictly to amateur events later in the year. Until that time we will cover those events in the same basic manner we did in 1975. We have no intention of dropping or reducing our amateur coverage; in fact we hope to expand it as the magazine grows.

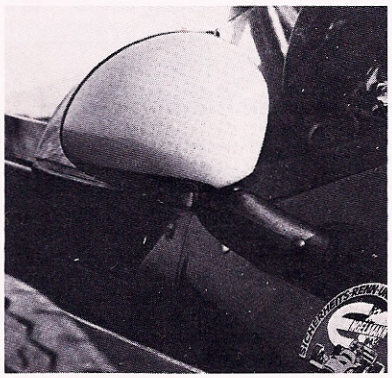


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Briefly...

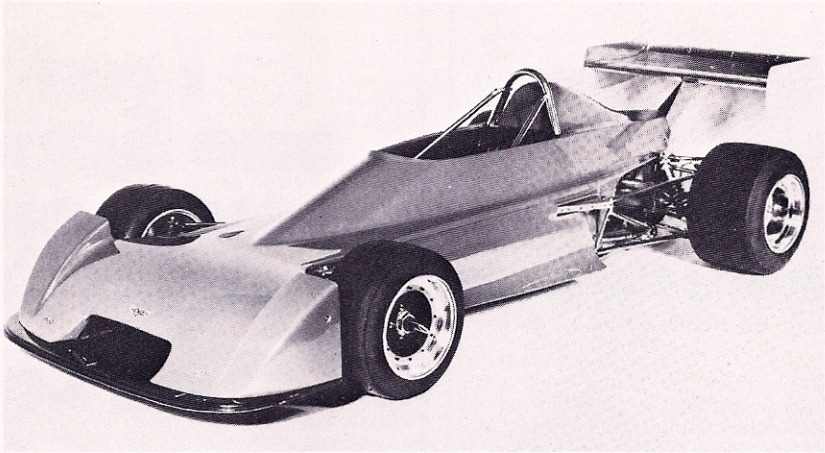
- **Automotive Development,** Orange, California has ordered a new Lola T332C F5000 from Lola importer Carl Haas. Although no drivers or sponsors were mentioned at the time, they plan to enter the car for all the F5000 events. Motors will probably be built at their facilities.

- **Tom Gloy** of Concord, California will carry Stereo Warehouse sponsorship for the Formula Atlantic race at Laguna Seca, California on May 2. The event will run with IMSA's GT and RS show. Gloy competed in a number of Canadian Atlantic races in '75 with a Lola T360.

- **Dave Russell's Race Car Parts** catalog of competition plumbing and hardware is now available. The 28 page two-color catalog covers kits, hose, fittings, hardware, valves, filters, coolers, and safety equipment for nearly every type of competition or street vehicle. Send $3.00 to Race Car Parts, 22628 S. Normandie Avenue, Torrance, CA 90502, phone (213) 320-0332.

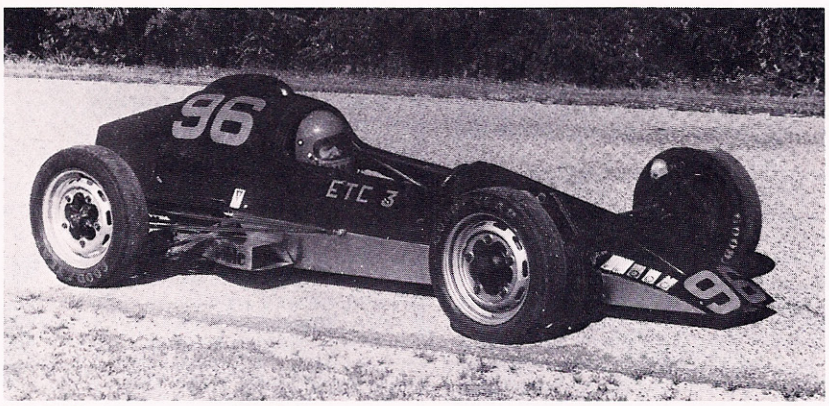
- **Activities for the U.S. Grand Prix West** will start off with a Concours d'Elegance Sunday, March 21 at the Queen Mary parking lot. The event is being presented by Le Cercle Concours d'Elegance and is to benefit the Junior League of Long Beach, the Family Service of Long Beach and the International Community Council. For ticket information contact Grand Prix Concours Ticket Chairman, 5570 Naples Canal, Long Beach, CA 90803.

- **As of our closing date** the Formula Super Vee Series still lacked a firm race date schedule. It is rumored the Super Vees will run with the Trans-Am series for 1976, although there are no published dates for the Trans-Am either.



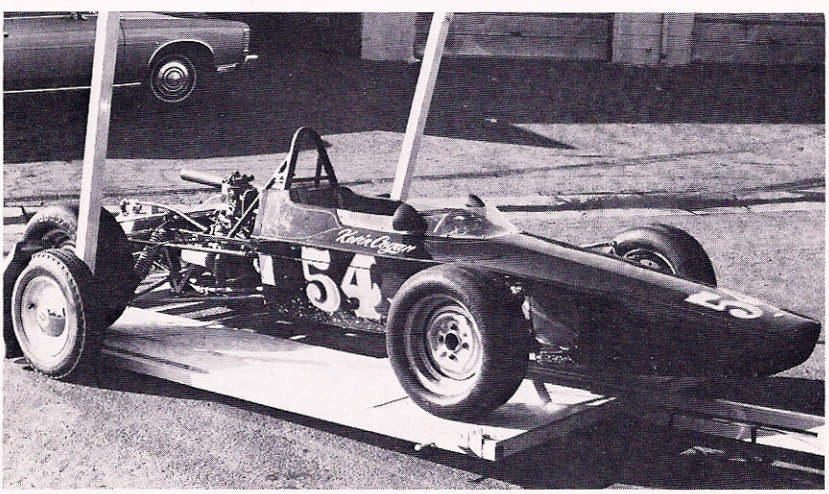
FIRST PHOTO

We finally have a photo of the new Chevron B34 Formula Atlantic car with bodywork. We have been told that the car will have a slightly different nose section than shown, one that will produce more downforce.

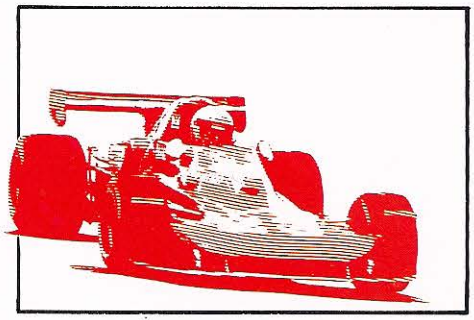


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Rahal's Column

By Bobby Rahal

1976 provides us Americans with, among other things, a plethora of bicentennial celebrations. It is during this time that we see how the good old U.S. of A. has fared from within and without during its long, glorious history. 1976 may also be a time for those of us in the racing fraternity to take a long, hard look at the question of how we aspiring drivers compare to our European counterparts.

Before we get started though, let's make clear that this article is not concerned with the Mario Andrettis et al. For just as 1976 signals an anticipation for our country in the future, we must, as drivers, journalists and fans, look to 1976 for the emergence of young American stars.

As most of you know, I had the privilege to take part in the most competitive series going in North America, the Player's Challenge Series. Each race was marked by close, fast racing, with qualifying grids usually separated by no more than 2-3 seconds. Yet to harp on its competitiveness is to ignore the really important thing that this year's series provided: we were finally able to go up against proven, European competition. You know, if you have all read your FORMULA in a dutiful manner, that this year saw John Nicholson, Damien Magee, Bertil Roos and David Walker trying to gain fame and especially fortune in the "colonies". Unfortunately for Her Majesty's subjects and those of other realms, this was not to be the case. We Yankees fared well this year, thank you. Ok, I'm tooting my horn and others, and we all have to admit that we got blown off at Trois Rivieres, but then who would deny that Messrs. Jarier, Depailler and Brambilla are three of the top ten drivers in the world? The point to all of this is that for the first time young Americans have a series that provides us with a good measuring stick of our abilities.

Ok then, for argument's sake, let's say that we're on equal footing with our European counterparts. Where then do they beat us? First, it must be said that unless a driver in America has unlimited funds, there is little chance that he can race as often. For the racing driver in America, it is cruel luck that he has been blessed with so large a country. For those of us on the Player's Series, a two thousand mile jaunt was something to scoff at. Needless to say, a two thousand mile jaunt for an Englishman is a trip to Enna for an F2 race — something which is considered a major undertaking.

And as all of you know, racing is seen in a considerably different light in Europe than it is here. To the European, it at times either rivals or surpasses soccer as the national sport, which can be seen when 200,000 Germans show up for an F2 race at Hochenheim. Because of this, many current Grand Prix stars owe their status to auto factories who sponsored them heavily in GT races — i.e. Jochen Mass and Hans Stuck. The French are a classic example today as far as developing future stars. Through Elf Oil, the French provide sponsorship not on the basis of who's the best salesman, but on who has the talent. Their up-and-comers are rewarded solely on performance. It is their farm system, so to speak, and because of it we can now understand why there are at least six young Frenchmen on the verge of Formula 1. But there is something more fundamental to all of this than just money. That difference is one of attitude. In Europe, the attitude taken towards the up-and-comer is not one of "Let's wait till he makes it," but rather "Let's help him on his way". Without having to expound on this, we can all see how help has been given — through testing contracts, government involvement, and even automobile clubs. The point is that the Europeans do not rest on the established, but are rather on the constant lookout for emerging talent.

We can only learn from all of this. As 1976 signals a rebirth for the American nation, let it also be a signal for the rebirth of U.S. involvement in International racing. ■

Last season, one Super Vee won seven out of eleven Gold Cup Races.

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Engines? The engine which powered nearly every one of those Lolas to victory was a Bertil/Haas engine. For more details, give us a call.

1975 Gold Cup Results

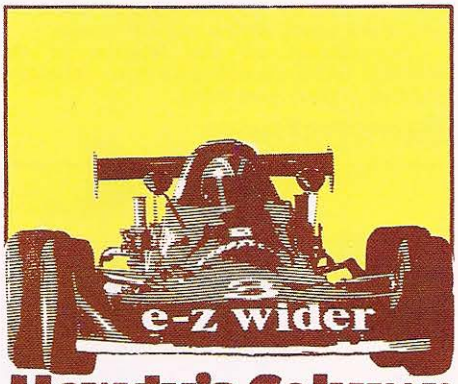
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Howdy's Column

by Howdy Holmes

With the Super Vee Championship sewn up by Eddie Miller, entrant Wilbur Bunce, mechanic Bernie Thomas, the EZ Wider Lola and I all rolled into Daytona to try and wrangle second place away from Tom Bagley in the last race of the Bosch VW Gold Cup series. Our competition would be stiff, for in addition to all of the regular runners, the ATS entry from Germany with the European Gold Cup winners and near-winners would once again try to blow the doors off the Americans.

Wilbur has more ideas than an encyclopedia when it comes to extracting added performance from a race car. For Daytona, Wilbur and I decided to remove the wings in an effort to gain top-line speed for the banking and back-straight which encompasses more than half the circuit's length. We gained several miles an hour on our competitors on the banking, but lost that advantage on the infield portion. The wings and sports car nose proved to be much more of an asset than a liability, as we discovered much to our chagrin during the pre-race warm-up session, because the aerodynamic appendages generate enormous downforce in the infield turns. For all of our experimentation, we finally qualified the EZ Wider Lola seventh. As Wilbur said, "Sometimes you nearly beat yourself before the first turn."

Because Daytona is a horsepower track, a good start is imperative. From my fourth row starting position, I dove into the first turn to move into the group contending for third position. Tom Bagley and Herm Johnson had jumped ahead leaving Eddie Miller, Bill Scott, Eddie Wachs, and myself screaming after them. At the Big D, the outcome of a Super Vee race is usually determined within the first five laps. True to form, the pattern began to evolve as first Eddie Miller and then Bill Scott and Eddie Wachs spun down the standings leaving Bagley, Johnson and the EZ Wider himself in the first three positions.

Having suffered an interminable amount of frustration from finishing just outside the victory circle in the last three races, I seized upon the chance of a season-ending victory. Everything was looking fine, practically to the point of tasting the champagne — then the bubble burst. Going into the lefthand kink in the infield the wing mounting broke and caused a moment or two before I could gain control. With the wing pivoting in an arc four inches from center, my chances for that elusive win literally flew out the window. I moseyed gingerly into third place, after watching Herm Johnson and Tom Bagley battle on the banking and in the infield, with Herm picking off his first victory. The highly vaunted European challenge was held down to fourth place (almost to fifth) by the inspired driving of Jerry Jolly. This was the first time the Americans beat the Europeans at Daytona. What a shame they weren't in contention!

Eddie Miller wrapped up the coveted Gold Cup at Watkins Glen, while Tom Bagley nabbed second, with yours truly in third, these latter standings being merely confirmed by our Daytona placings.

Wilbur and I had our ups and downs throughout the season, starting off well with the win at Sebring, and an assortment of top three placings throughout the other ten Gold Cup races. Next season is coming shortly and you'll see the EZ Wider logo on a different car in the form of an Amos Johnson-prepared Pacer for the Goodrich RS series. In Super Vee I'll be sponsored by Jiffy-Mix foods, though running a limited program due to my Formula Atlantic commitment. I don't know if my fellow competitors will be able to take that — from rolling cigarettes to eating cake in one season! ■

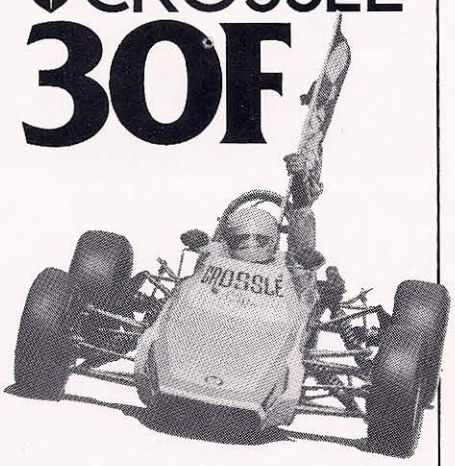
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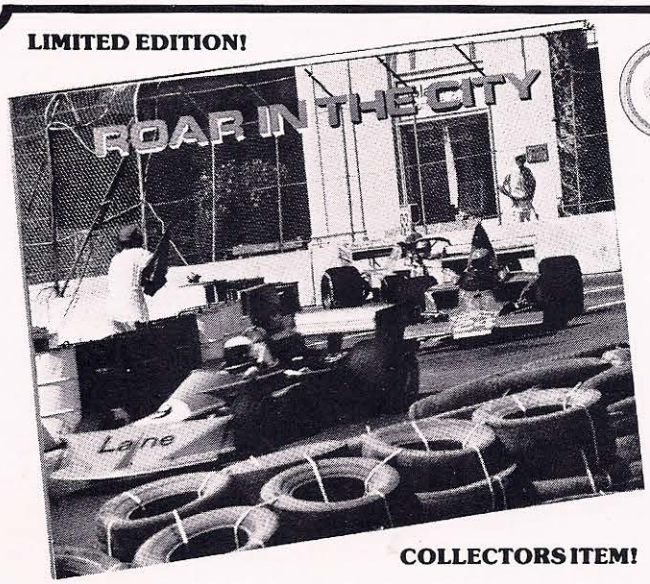


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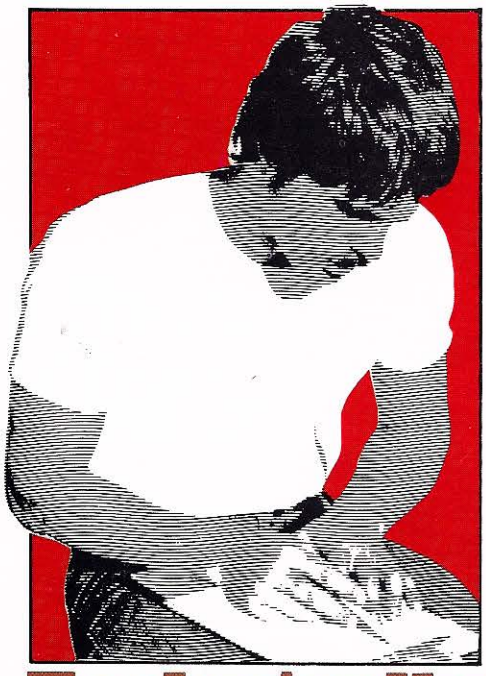
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Technically Speaking

with J. Peter Halsmer

Alignment: How To Do It

A few words of caution are in order before getting into the actual alignment process itself.

Level Reference Surface:

Camber, castor and wheel weight adjustments are made relative to a level surface (i.e., the floor). Check your floor and if it isn't level, use shims like sheet aluminum, vinyl floor tiles, or wood to get the surfaces under the wheels level with each other.

Re-Settling the Car:

After making adjustments, but before measuring the new settings, settle the car. Bounce and roll it enough to allow the entire car to reach equilibrium again (i.e., a small corner weight adjustment may not move the chassis, due to small amounts of normal friction in the system such as rod ends, shocks, ball joints, etc. It could thus give an improper reading of cambers and ride heights unless you re-settle the car.) After putting weight equal to the driver in the seat, either filling the gas tanks or ballasting that area, and ballasting the front of the car if the nose is off, push down on the roll bar — push straight down, not to the side — and let the car come up again. You'll also want to re-settle the car in the same manner each time (i.e., lifting the front end and releasing it slowly may give a ride height 1/2 inch higher than pushing down and releasing slowly).

Re-Zero Your Gauges:

You should keep reasonable track of what condition your gauges and equipment are in. Camber and toe gauges can get out of adjustment with the use and abuse they get, so check their zero settings if there is any doubt. If there's any question on how to do this, check with the manufacturer.

Preparation of the Car for Alignment:

1. Set tire pressures to normal running settings
2. Disconnect sway bars
3. Set shocks to softest settings
4. Add weight to car to simulate track conditions (driver, gas, body, panels, etc., and be sure it is in the proper place on the car)

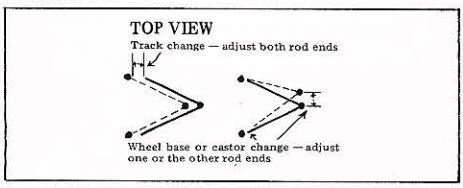
General Order:

There is a general order to alignment procedures that minimizes the problem of one change affecting other settings: track and wheelbase are the first order of business followed by castor, bumpsteer, ride height, wheel weights, camber and toe.

Track and Wheelbase:

These two are pretty easy. By using a tape measure they can be set by adjusting the leading links on the rear of the A-arms at the front. This is done by screwing the rod ends in or out to lengthen or shorten actual link or A-arm length. When measuring, remember to keep the car symmetrical from the centerline of the chassis. I usually set the front lower outboard ball joints in the same position longitudinally and laterally. Again, this is done by adjusting the rod ends. From there measure wheelbase, correcting for distances to axle centerline. Also be aware of centering the steering when measuring from the front axle.

Castor:



Castor is next up. At the front of the car, by steering the front wheels through a 30 degree arc (15 degrees each way from centered) and measuring the camber *change* and multiplying by two, you'll get the castor. A simple 30 degree chalk line on the floor works well. Turning from out to in (either side), a more negative camber change means positive castor, i.e., a change from zero to negative 1 (X 2) equals positive castor of 2 degrees. Zero camber change of course means no castor.

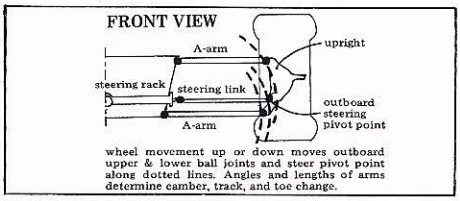
Adjustment is by moving the top or bottom outboard ball joint forward or back (longitudinally). This is accomplished by adjusting the inboard rod-ends (i.e., Merlyn FFs have no front castor adjustment, since inboard attachments are not adjustable).

You may affect the track and wheelbase when doing the castor adjustment — up to 1/8" variation on track and 1/4" on wheelbase is probably OK.

At the rear, as indicated in a previous article, castor is measured on the rear lower A-arm or parallel links at the most outboard point with a camber gauge.

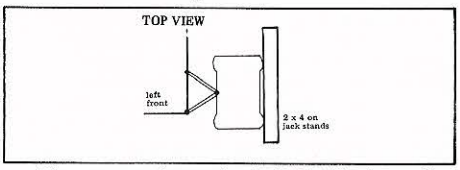
Adjustment of the lengths of the leading links should give you whatever camber setting you want.

Bumpsteer:



By remembering the definition of bumpsteer, you can easily devise many methods for checking it without special equipment, but accuracy can be a problem. I'm going to mention two ways.

The first is quick and easy with no special equipment necessary, but is of limited accuracy. Jack the car up, remove the shock at the corner you want to check and lower it back down to ride height. By sliding a straight edge (a 2 by 4 on a couple of jack stands) up against the wheel longitudinally and then raising the wheel by hand, you'll see significant *changes* in toe as the wheel bumps relative to the 2 by 4.



The second method is to bolt a flat plate in place of the wheel and use two dial indicators in place of the 2 by 4 (one at the front and one at the rear of the plate). As the wheel is raised or lowered, toe change will be indicated as the *difference between the change* on the two indicators (if you don't have dial indicators or don't know how to use them, most race shops can help you out). For example, the track of the car also changes as you move the wheel, so if both indicators start at 0 and go to .050 inch at 1 inch wheel bump, there is no toe change.

Accuracy can be good with this method, given no flexibility in the dial indicator mounting, no loose rod ends, no chassis movement, etc. The indicators also need to be pretty level; otherwise you will measure camber change too!

Bumpsteer and castor interrelate at both ends of the car so you need to keep track of what is happening to one as you adjust the other.

At the front end, several things can be used to minimize bumpsteer. Steering rack vertical positioning, vertical position of the joint at the outer end of the steering arm, and steering arm length are the primary ones. If the car is designed properly and running at the suspension settings it was designed for, steering rack position and arm length should be correct, so we won't go into that. That leaves us with vertical positioning of the outer steering joint, which can be done either physically by spacers, etc. or castor adjustment (with the steering forward of the wheel, more positive castor raises the outer steering joint vertically). Be careful of physically spacing, etc. unless you're competent to evaluate the potential strength needed — you certainly don't need a breakage failure here!

In general, *raising* the outboard steering joint will *usually* give you not only different static settings but also *less*

toe-out change, while lowering it will give you less toe-in change. This is true of cars with forward mounted steering. If the steering is to the rear of the wheel as with the Elden FF, the opposite is true.

You may want to live with slightly different (1 to 2 degrees) castor from that recommended to give you minimal bumpsteer, etc., but be careful in any changes you make to analyze what other effects that change may have.

At the rear, bumpsteer is adjusted by changing the castor; more positive castor generally gives a greater degree of toe-in change (or less toe-out change), etc.

Ride Height:

Ride height adjustment is pretty straightforward. A tape measure works fine; be sure to measure both sides of the car as well as front and rear. It is important to keep the car level when it's running so that the suspension on each side is working at the same angles. Also, you want to be sure to measure the ride height at the correct point on the chassis — the specifications should say where.

Ride height is adjusted by raising or lowering the spring mounting perches or lands on the shocks (the notched ring on the bottom of the shock that the bottom of the spring rests on). If the car is not level side to side, the same amount of adjustment of both front and rear on one side should work. For a rough rule of thumb, adjust the shock perch or land half the amount you want to change the ride height. If the front is low, adjust both fronts the same amount. This will hopefully keep the corner weights from changing too much (adjusting only one corner would affect corner weights).

Corner Weights:

Corner weights were described in the previous article and, as mentioned, are adjusted one corner at a time for equal weights side to side (i.e., two fronts equal and two rears equal).

The normal procedure is to do it just at the front of the car, since to get the *entire* car balanced side to side requires actually moving components on the car. You may want to consider this relatively drastic step if the difference at the rear after balancing the front is over 20 lbs.

A quick, reasonably easy way to adjust corner weights to equal is by picking up first one front wheel, then the other. If you are careful, you can feel variations over the 5 to 10 lb. range. Accuracy within this area is what you are looking for. Of course, if you have scales, it is better.

Be careful of using bathroom scales, although I have used them with success. The best way is to put a block under one wheel while using one scale under the other (the block being the same height as the scale), then switch. This eliminates any variations between scales, and also between height of scale and height of block. You'll probably need a block of wood, etc. on the scale to distribute the load, and lots of bath scales are sensitive to where on the scale the block is put. If you use bath scales, do it back and forth a couple of times to check repeatability — you'll soon get the feel of it.

Remember that if corner weight adjustments are made, they can affect ride heights. As you're doing corner weights, keep track of ride height. To keep the car level when increasing corner weights, adjust the two diagonal corners equally up or down. To carry it one step further, if you adjust the other two diagonal corners in the opposite direction, you'll keep very close to the same ride height as well as levelness. In other words if you need two turns up on one diagonal, give the corners on that diagonal only one turn up and give the other two corners one turn down.

Camber:

Camber adjustment is measured relative to the vertical with a camber gauge placed vertically on the side of the wheel. Accuracy is dependent to a great degree on where it is measured. Be careful if you are using the wheel rim or tire side to check for trueness: measure the camber, then roll the tire 90 degrees and check again to see if there is a change.

Adjustment is accomplished by lengthening or shortening the upper suspension pieces, thus moving the top of the wheel out or in. Camber adjustment can affect track, castor and bumpsteer, but usually to a very minimal degree. Unless the camber was off more than a couple degrees, I wouldn't worry about re-checking these. But ride height and wheel weights are a different story. As you can see from the illustration, camber adjustment can affect ride height and corner weights, so these will need re-checking. Ride height or corner weight changes also affect camber, so . . .

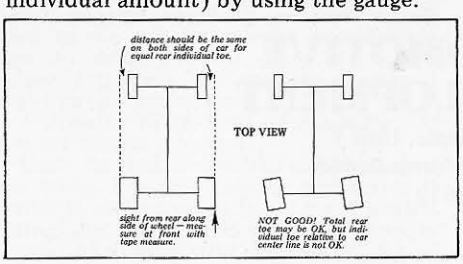
Toe:

This is the final setting. For the front end, center the steering rack and adjust the length of the steering arms for proper toe. At the rear, the adjustment is made either by moving the inboard lower A-arm pivot (i.e. where the rod end fastens to the chassis) forward or aft. For parallel links at the rear, changing their lengths will change toe. Also, changing leading link lengths will change toe by moving the wheel fore or aft, but also can affect wheelbase so be aware of this. Also, try to change leading links top and bottom equally or you'll change castor.

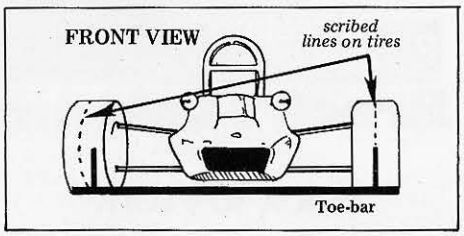
In setting front toe, only the total (both wheels combined) is important as long as the steering rack is reasonably centered when the wheels are pointed straight ahead. If it isn't, you'll simply have more turning ability one way than the other.

At the rear it's a different case. Individual toe per wheel relative to chassis centerline is important to make the rear of the car follow the front down the track in a straight line. I'll give a couple methods of checking toe, one simple and cheap, and one expensive but fast.

The expensive one is use of a Dunlop gauge — it's quick and accurate. However it shows only total toe. You'll need to check individual toe at least on one side. This can be done by laying a string or straight bar down one side of the car parallel to the chassis centerline. Set the individual toe relative to the string or bar by measuring to it, then adjust the other rear toe for correct total toe (double the individual amount) by using the gauge.



Another way of checking rear individual toe that I have found workable is by sight. Center the front wheels, then sight from the rear, as in the illustration. Once you know rear individual toe is equal, even though the total may be incorrect, equal adjustments on each side to get the right total toe should keep individual toe correct, and total toe can easily be checked.



The simple cheap method I like for checking total toe is a toe bar. Any long bar with two movable pointers will work (i.e. a piece of 3/4 inch tube of approximate track dimensions with two welding rods welded onto it, one at each end pointing the same way perpendicular to the tube). By jacking up each wheel individually and spinning it, you can scribe a circular line about the tire on the tread surface with a screwdriver or such (hold the marker steady on something solid like a jack stand so the mark meets itself when it comes around). Use the toe bar at the front of the front tires, bending the pointers to show the distance apart of the scribed lines on the front of the two front tires. Now lay the toe bar at the rear of the front tires. If the scribed lines are the same distance apart at the rear of the tires as at the front, 0 toe exists. Closer at the rear of the tires than at the front means toe out by whatever the difference is. This is good for total toe, front and rear of the car.

Ten inch pointers are recommended since it is good to measure the toe at about axle height on the tire, and most tires are around 20 inches in diameter. Be careful not to bump the pointers while you're moving the bar around.

One last thing — don't forget to re-set the shocks and sway bars. The sway bar link lengths should now be adjusted to connect up with the bar without having to move the bar one way or the other (no preload). Be sure to double check all bolts, nuts, etc. that were involved for tightness.

If you have a new car, or one that may be way out of alignment, you may want to put the car on blocks at ride height with springs removed. This eliminates all the jacking up and down and re-settling for each adjustment. The final step then is re-adjusting corner weights and ride heights with the springs installed.

Wait, you're not through yet! At long last comes the much maligned and often ignored toe stubbing adjustment. This sounds like it could be physically painful, and well it might be. After having seriously followed these recommendations, remove your left shoe and plant a swift kick to the vulnerable underside of your car (doing no damage to the car I hope)!

This adjustment has as least one good purpose. It lets the car know it damn well better go fast after all this mickey-mouseing around with alignment. It can also emphasize how good your right foot feels (there's a moral here somewhere)!

Anyway, have a good time racing this new season; I'll see you next month, on the subjects of track and skid pad testing.



Brack's Column

by Bill Brack

Back To Work

With one season over there is hardly time to catch my breath before it's time to start planning for next year, and this is especially true this year as I prepare for the trip to South Africa for two races in early 1976. Of course I'll be back in the Player's '76 with a new Chevron B34 sponsored again by STP, and the possibility of my leading a two car team hasn't been completely ruled out yet either.

By the time this column gets into print, you will know what the new Chevron looks like and might have heard how it is running in South Africa. As in 1975, it looks like the Player's series will be a three way Chevron-March-Lola battle, but there should be more Chevrons at the front than last year.

Canadians in the '76 Player's series are easiest to name at this point. Gilles Villeneuve will be back with a new March sponsored by Skiroule, the snowmobile people, and run by Ecurie Canada. Another young French Canadian, Richard Spenard, will also be running the series in a 1974 Lola T360. Richard is a graduate of Formula Ford and if he's anything like Villeneuve we'll all have something to look forward to.

Bruce Jensen should be back, perhaps in a new Chevron B34, but Craig Hill is a bit of a question mark. He is trying to put together a two car team with Bertil Roos, presumably sponsored by Gabriel, Goodyear and Castrol. They haven't chosen new cars as yet.

From the States we'll expect to see 1975 superstar Bobby Rahal in a new March run by Doug Shierson Racing. Also on the Shierson team might be Chip Mead and James King but that's not definite yet. Rahal, as well as Villeneuve, will both travel to the races with a race car and a complete spare car sitting in the truck. It's getting to be just like Grand Prix racing.

The Bill Scott team will have Howdy Holmes back in 1976 and it is rumoured that ex-Porsche sports car driver Al Holbert will be joining the team. Apparently they have ordered a pair of new Chevrons; they ran Lolas in 1975.

The Opert Chevron semi-works team from Saddle River, New Jersey will have Jerry Hansen, plus last year's Rookie of the Year Bobby Dennett and maybe Hector Rebaque, although he might run Formula Two instead.

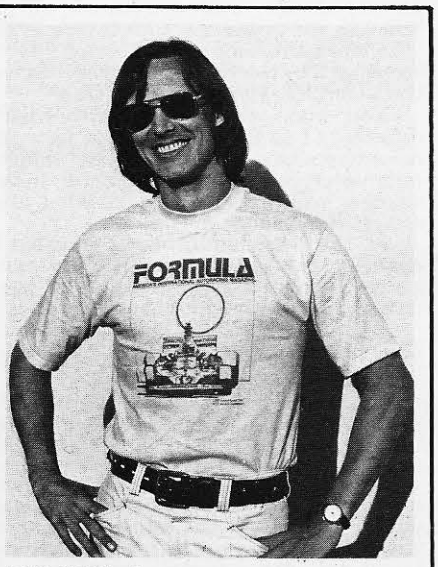
Elliott Forbes-Robinson will presumably be running F5000 this year but you might see him in an Atlantic car as well, as I know how he enjoys this type of racing.

At the moment there doesn't seem to be much coming out of Carl Haas' Lola headquarters in Chicago but presumably Tom Klausler will be back in a new car. I haven't heard of other Lola entries but they were popular last year so there should be several on the grid again in 1976.

Dave Walker, who is now living in Toronto, will be teamed again with South African Robert Joubert in two Van Diemen F/Atlantic cars. With Walker in Canada full time, he should have a good chance of rounding up some sponsorship. Presumably a new Tui will be built as Allan McCall was talking of doing last year, but it's all very much up in the air at this point.

There are likely to be several more people announcing entries as the first race gets closer, so I think I'll wait a bit before announcing my 1976 prophesies.

As a final note, I was disappointed to hear that Player's won't be involved in the series in 1977. I think the decision was due to the current worldwide governmental restrictions on cigarette advertising. Their withdrawal in no way reflects on the viability of this series for any sponsor, particularly one who markets in the U.S. and Canada. Also I'm now in the T-shirt and poster business, and I hope to use the money raised in this venture to help support one or two young FF drivers in the Canadian Bulova Championship. ■



T-Shirt

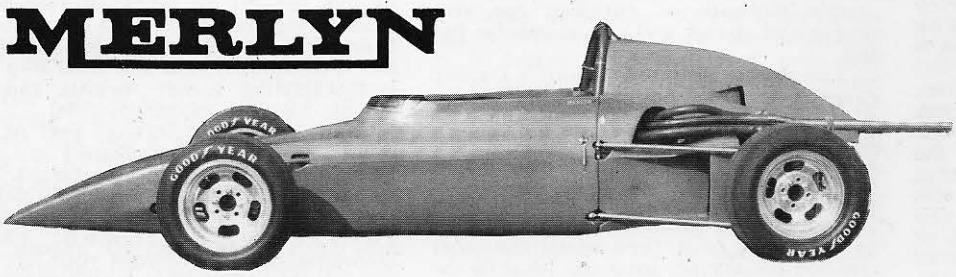
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Steve Mayer Photo



Interview: Bob Earl

By Gordon Kirby

Early last summer former National Formula Ford Champion Bob Earl was plainly becoming another in the long line of typecast American Formula Ford drivers. Even though he had won the National Championship two years before he had been unable to break out of the class into something bigger and at age 26 found himself back in FF for 1975. He was at least not paying for his racing, thanks to Roger and Janet Heyl who were running one of their new MREs for him. But Bob wasn't getting much enjoyment out of racing a Ford and, after a bone-bending shunt at Sears Point, he decided to take a gamble and attempt to race a two year old F5000 Lola T330 which he had bought the winter before with the money from selling off all of his own FF equipment. "I'd stayed in Formula Ford two years too long," Earl says of that desicion. "I'd lost the edge I'd gained and after that crash at Sears Point I realized that FF wasn't getting me anywhere."

Earl told the Heyls of his decision to quit FF and race his F5000 Lola and to his surprise they offered to help him run the car. With the Heyls' financial support Bob began to prepare the car for his F5000 debut and by the end of August he was ready to make the trip from San Francisco to Atlanta for the sixth round of the SCCA/USAC F5000 series. He realized immediately that he had an immense amount to learn but despite not doing well on paper he impressed with a sensible, smooth approach.

Persistence brought him a good eighth place finish at Long Beach; then at Laguna Seca, he began to show some real form by qualifying sixteenth ahead of both Danny Ongais and John Cannon. Unfortunately Earl got caught up in a first lap shunt in his heat which left him with nothing but a badly damaged car. He rebuilt the Lola for Riverside where he again showed promise despite incurable engine troubles which eventually eliminated him in the early laps of the final. It's of interest that he spent $5,200 to run the car in those races which had served, if not to rocket him to fame, to establish him as one of three or four young American drivers who have shown real potential in Formula 5000.

We thought it would be of particular interest to *Formula Magazine* readers to talk to Bob about his shoestring transition to F5000 and we managed to catch him for a few hours in the hectic days before Riverside.

Formula: How did you approach your first F5000 races?

Earl: I have to admit that when I went to Atlanta I said to myself, "Hey, this is going to be easy because B.J. and everybody did it." But what I didn't know was that B.J. had a lot of testing time behind him before he ever went to a race. Atlanta was the first time I'd sat in the car and I was completely blown away. I said to myself, "Jeesuz! This is awful."

So I went to a National at Sears Point just to get myself in shape for Long Beach, because all of a sudden I realized this was a lot harder a project than I thought. And I found that after three laps I had cramps in my hands so bad that I couldn't hold the wheel any more. So I had to stop. . .

Then we went to Long Beach and the straights were non-existent except for one. It was all twisty-turney stuff; it was cut and dry; there were walls and you couldn't experiment at all.

I hit the wall three times, once in practice and twice in the race, just by making a little mistake — while trying to clip the apex I hit the wall, touching it with the front wheel.

My hands began to hurt about the twentieth lap and I was ready to quit. I could hardly hold onto the wheel because of the cramps in my hands. But then somebody went by me, and that fired me up so for the next fifteen laps I drove harder than I did for the first twenty. I stopped thinking about my cramps and I really wasn't tired for the rest of the race.

Formula: Was there anything in particular which made Atlanta so bad for you?

Earl: Well, I knew the track and I drove it just the way I would a Ford . . . I didn't use the throttle. I found out right away I was pretty slow and I couldn't watch the other people.

The main thing I was concerned about was to stay out of everyone's way. I didn't want to get a bad name for being one of the backmarkers that put somebody out.

So I didn't set the car up at all. I didn't change anything because it felt good to me and I figured I should learn how to drive the car, slide it around before I made some changes because I might go the wrong way.

Formula: What kind of messages did that car transmit to you?

Earl: At first it felt like it oversteered but when I got to Laguna and drove it harder it understeered like a pig. I started sliding the car around with the throttle instead of driving with the steering wheel and just hanging on. It got to the point where I could watch the gauges and examine other people's techniques.

Formula: So driving with the throttle was the main difference from driving a Ford?

Earl: Yes, that's the main difference because in a Ford the only time you get to drive on the throttle is in the rain. There aren't many Ford drivers who are quick in the rain, mainly for this reason. In a Ford you're more or less pushing a car through a corner, trying to keep the speed up, getting through as smoothly as possible, using the steering wheel totally because there is no throttle — you stand on the gas and nothing happens.

Then all of a sudden you get into a car where you're supposed to accelerate out of the corner with the throttle on and when you do this you need to have the car at a different attitude. A 5000 car has got to be truly drifting out of the corner and a Ford usually drifts into a corner, but coming out it's usually just tracking along. In a 5000 car you've got to be sliding when you're coming out so you've got a lot of car control that you never had to use before.

Formula: What do you reckon are the main differences in the cars themselves?

Earl: Well, there are a few more variables you didn't have in a Ford. There are the wings, the power and the speed itself which did not exist — you know a Ford doesn't scare you; this thing does.

Formula: How does the overall impression of driving a 5000 car differ from a Ford?

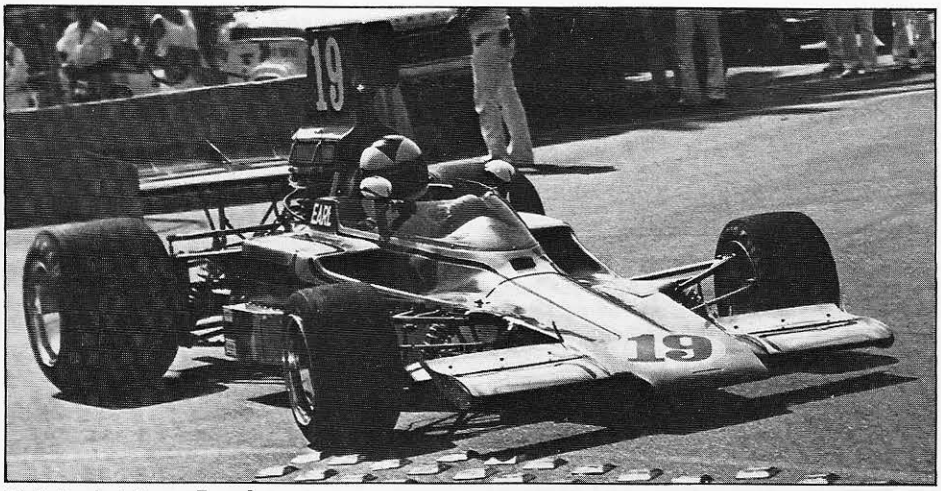
Earl: Mostly there are a lot of corners that weren't there before! And you have a lot less time to think about things and you've got to get more of a rhythm, particularly at a place like Laguna. Of course at a place like Long Beach it's hard to get a rhythm going. You chop it here, you chop another corner there. You can't time yourself.

Formula: Could you describe the principal differences in technique with a 5000 car?

Earl: In a Ford the car tends to stop a lot quicker than it will accelerate, so you don't use the brakes very much because the thing isn't going very fast, and when you do use the brakes you use them going into the corners more than you do in a straight line. In a 5000 car you use them a lot more in a straight line because the car will accelerate quicker than it will stop — it may not in reality but it feels that way. So you must use the brakes a lot more in a straight line, because if you get the car crossed up going into the corner you're in a helluva lot of trouble. In a Ford it doesn't hurt you if that happens because it's usually the way you use the car to slow it down — you pitch it sideways to scrub off speed which means you've gone into the corner quicker and you're pointed in the right direction on the way out.

You don't do that in a 5000 car. Instead you use a lot more brakes to the rear because the car will tend to understeer a lot more with the throttle than it would in a Ford, so you have to use the brakes to get the tail out at the beginning of a turn and use the throttle to keep it there. In a Ford if you go into a corner and pitch the back of the car with the brakes, then stand on the throttle, it will usually go back to an understeering condition before you get all the way through the corner because you don't have the power to keep it out.

Now a 5000 car has got too much ➤



Bob Earl at Long Beach. Phillip Salazar Photo

power so the chassis always reacts to the throttle. If you get off it too much then it's going to start understeering again; then you've gotta jump on and off the gas. As you get into the corner and you start feeding the power on you want to get the tail end out. So you're accelerating all the time on the way out of the corner but in a Ford you're not because your fastest point in the corner is from the entry to about two-thirds way through it. From there you can start slowing down until you get the car straightened out and start accelerating again. In a 5000 car it's the opposite; it's the last two-thirds of the corner that's the quickest.

Because of all this you must take a much later apex with a 5000 car except in high speed turns where you tend to go in a little earlier to scrub off speed.

Formula: Do you think you'll have to modify some of this thinking as you go faster in Formula 5000?

Earl: Well I do know that right now I have to learn what makes the car go fast instead of what makes it just feel good. Some of the cars I've driven in Ford were very fast but they felt awful. When they felt good it was a second slower, and I guess that's the difference between nine-tenths and ten-tenths. I think I've only been going eight-tenths in 5000 so far.

Formula: Was all of this a great revolution to you? Was there a big change in approach from your years of FF?

Earl: In a Ford you get to a point where I did (and there are a lot of guys who are there) where there's nothing else you can do with the pocketbook you've got and the rules you've got so that you're just racing from race to race on motors, on who's got the draft or who's got his head together that weekend. You get bored and it shows in performance and it happened to me.

But when I got into this my whole attitude changed. I was ready to quit before that.

Formula: How much more of a work load have you found racing in F5000?

Earl: In a Ford you can be driver and mechanic and tow truck driver and it doesn't tire you out. But in this thing you can't be all three. It's a lot harder to work on the car and then go out and concentrate. You can do that in a Ford because it's an easy car to drive. In testing, our sessions have been very slow because I have to get out of the car and think about it, then make changes. Our first practice sessions were a disaster. Then there were things . . . like I wanted to run the car first of all with a 'mule' motor but I found out that was a mistake because the car works different when you put a race motor in. It's not a one man job. You can't do a 5000 car yourself — you need a team.

Formula: Is the actual approach in preparing the car that different from a Ford?

Earl: Yeah it is, because in a Ford you worry more about performance than reliability. You know the car doesn't break so that you can wait for every third or fourth race before taking it apart and going through it. It's not a defensive game — it's an offensive game. But in 5000 it's more of a defensive game because you've got to check everything all the time. When you put a trick on a Ford you know it's not going to break the car but with a 5000 car you don't know that at all. You have to be very careful that way. A 5000 car is full time. You have to work on it 12 hours a day, every day.

Formula: After all this, what do you think Formula Ford does or does not teach you?

Earl: Formula Fords teach you a lot about competition and the attitude you must portray to be a racing driver or a racing mechanic. You have to have your act together or you won't even place. It teaches you about basic chassis set-up and gearing.

But Ford doesn't teach you about throttle control because the cars have become overengineered for the power available. They stick too well. Otherwise it is the best training ground available anywhere at any price.

I think they could make Fords better if they put 'em back on radials. You learn much more than you do on slicks because you have to use the throttle. I've driven Fords on radials a few times and really had a lot of fun and I had to concentrate more to go quick.

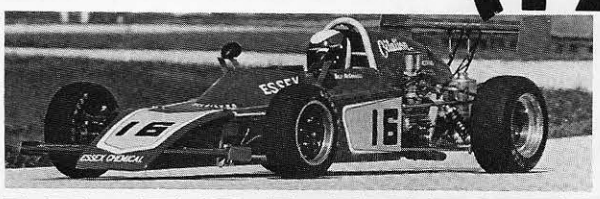
The only advice I can give to Ford drivers is that when it rains get out and drive because that's the only time you can drive on the throttle. And that's when I learned the most. ■

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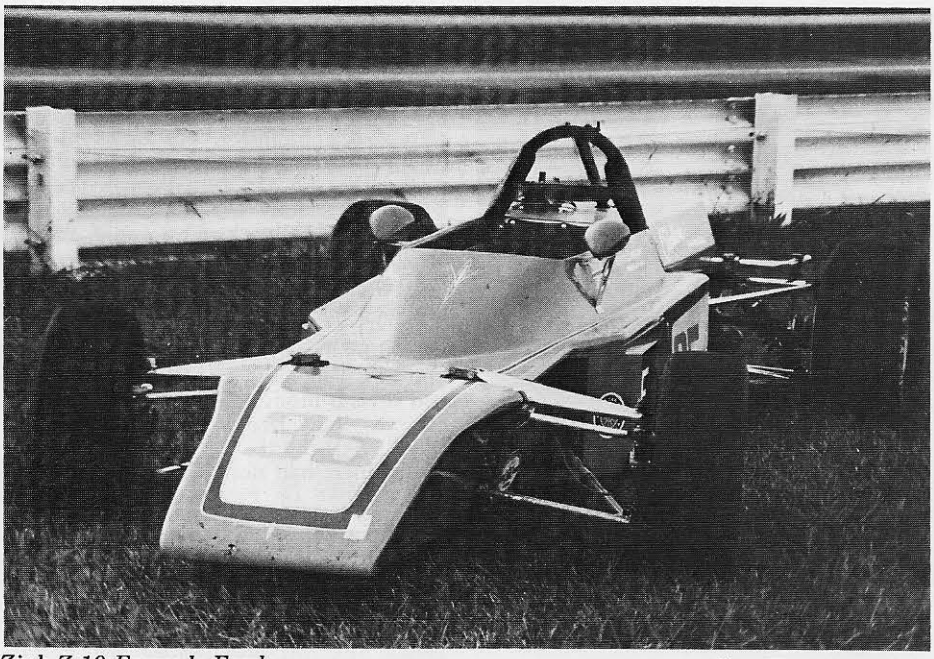
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Zink Z-10 Formula Ford. Gary Witzenburg Photo

Zink Track Test

By Gary Witzenburg

Steve Lathrop and his crew had worked straight through lunch and were still at it, making last-minute adjustments to his prototype Formula Vee. The shiny blue Formula Ford I was to test (Steve's own car) was more or less ready and waiting and so was I.

Meanwhile, Tom Bagley and his bunch were frantically working on his freshly-built Super Vee, trying to complete the job in time to take advantage of our test session at nearby Indianapolis Raceway Park. Bags' Kent Oil Zink had been written off at Mosport the week before, but a new car was nearly ready for the trip to Watkins Glen just a couple of days away. (It won at the Glen, then started from the pole and finished second at Daytona.)

Finally the Vee was ready and we loaded up and headed for the track. We had lost our track privileges to the local Sheriff's Department a week before, then had been rained out of our next date. On this, our third try, it was already past 2:00 and I was due to depart for a month-long West Coast trip the following day. It was really getting down to the wire. Bagley had given up on getting his SV finished in time; he was asleep in the racer when we left.

We arrived at IRP with just over an hour before they would close up and throw us out. Engine builder Richard Hudgins took the first couple of laps in the FF while Steve was checking out the Vee. Hudgins was working with Lathrop on a Cortina engine development program, the latest example of which had been bolted into this car, and he wanted a first-hand check on how the engine felt. Apparently satisfied, he brought the car in and I climbed into it.

The Zink is built to accommodate large people, and I had no trouble sliding my six foot frame into it. The pedals were fine except that the clutch was much stiffer than my own, and the gear lever was a bit too close for comfort. I guess I must have longer arms than most people. I couldn't see out of the mirrors very well, which made me a little nervous since there was also a Formula Atlantic car being tested — the new Ralt.

I moved out on the course and decided to take a fairly slow lap to familiarize myself with it and the car. Completing the first go-around, I put my foot in it down the main straight (which doubles as a drag strip) and wound the Cortina up through the gears. It felt surprisingly strong, but then it suddenly lost power in fourth. I backed off and it came back as usddenly, so I drove on around the fast right-hand first turn, through the next pair of right-handers and the left-hand sweeper and onto the back straight. Then the same thing happened again so I backed down and cruised around the rest of the lap.

Coasting down the pit lane, I met Steve and complained about the motor cutting out at high revs in fourth. He clapped his hand over his eyes, looked skyward and grinned sheepishly "Gas," he murmured. Well you can't remember everything.

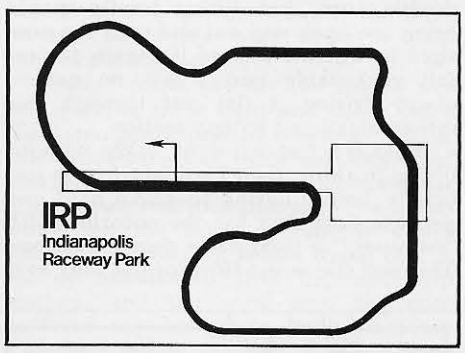
With more fuel in the car it ran just fine, and I proceeded to take a bunch of laps, going, I think, a little quicker each time. I say "I think" because no one was timing me. Steve had wedged Turner Woodard into the Vee to take a few laps, then was busy entertaining a prospective FF customer who had flown in to take a look at the car.

The laps went something like this: the first turn after the long straight is of the men-from-the-boys variety. Lathrop had spun off trying to take it flat out during practice for the National, so I declined to try it. I'm not about to drive ten-tenths in someone else's car and with no corner workers to pull me out of the wreckage if I blow it. Turn two is equally flat, but I was bothered by a big concrete post very close to the outside, so I backed off going in there as well. Still, the car seemed very stable in these fast turns, tending toward understeer but going exactly where I pointed it.

The third turn, another right-hander, is slightly slower and I elected to downshift with a stab at the brakes going in. The Zink behaved quite well here also, picking up speed nicely in third as I moved it back to about mid-track to tackle the still-tighter left-hand fourth turn. I grabbed second here just momentarily, although it should be a third-gear turn with more practice.

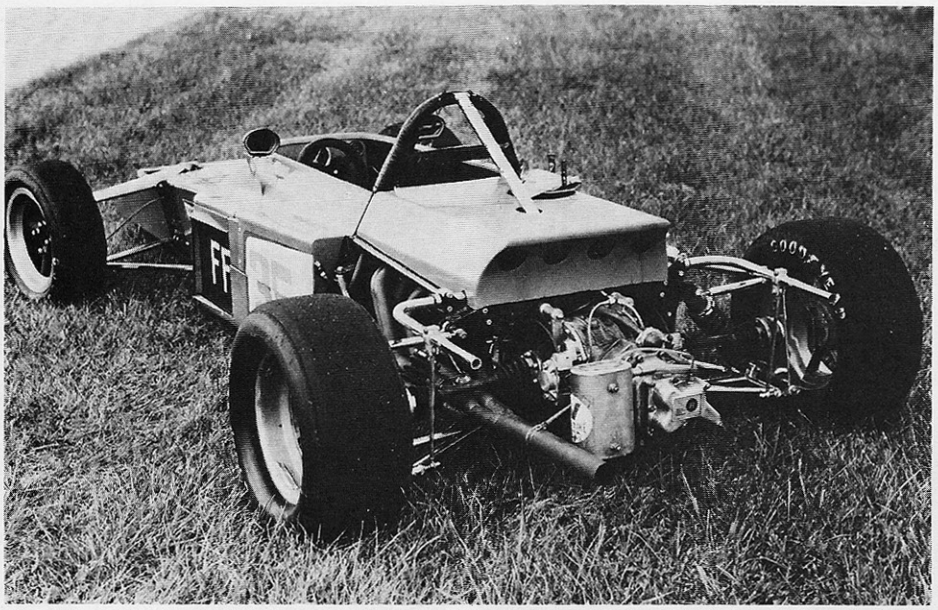
Back in third, I exited the left-hander and kept my foot on the floor heading for the apex of the right-hand jog onto the back straight. This line takes the car wide coming out, but there is extra room on the outside and the left-rear would just catch a puff of dirt as I gathered it up and accelerated down the straight. Third was quickly used up here and fourth had ample time to wind before the hard brake and downshift for the right-hander at the end.

This turn is deceptive in that it looks quicker than it is and continues to tighten long after you expect it should open into the following left-hand jog. The trick here is to cut the left-hander tightly enough that you don't drift too far to the outside coming out, because you'll lose the fast



line for the next right if you do. Keeping a tight exit out of the left gives you a straight shot to the apex of the right-hander; you can keep the hammer down and improve your lap time considerably if you hold it in. But the feat is complicated by some rough pavement which wants to toss the car off line.

This particular maneuver proved to be the Z-10's strong suit. In my B sedan, I used to solve the problem by merely cutting about a foot and a half inside the apex of the left-hander, but there's a bit of a bump there and I didn't want to subject Lathrop's FF to that treatment. So the answer was to grab second gear, toss the car sideways and just use the power to gather it up and around and off toward the next turn. The rough track didn't ►



Rear view of the Zink Z-10 Formula Ford. Gary Witzenburg Photo

Zink Test continued

seem to bother the car at all, and it never got loose or threatened to get away from me.

The outside of the next right is normally marked with pylons (it's the staging area for the drag strip and the whole thing is paved), but the pylons were not there and I just used all the track I needed through there and the next right with my foot buried in third gear. It did seem to understeer away from the apex as I approached the second part of this double turn, but lifting briefly would bring the back end out and tuck the nose right in where I wanted it. Again, the car felt rock-stable and I felt no qualms about driving it flat out through this rather tricky and bumpy section.

Next is a fast left-right, taken without lifting in third, then I got into fourth just briefly before having to brake hard and get into first gear for the notorious IRP "carousel," a tight 180+ degree sweeper. This was the worst turn for the Zink as it wanted to understeer badly going in and coming out, and I could find no way to do it quickly and smoothly. The next left jog under acceleration was no problem, but the first gear left-hander leading back to the main straight was also understeer city. For some reason, however, I could control the understeer better on this turn by coaxing the rear out with the throttle. Once set up in a tail-out attitude, I found it would stay that way and drift around quite nicely.

After a bunch of laps getting used to the course and the way the car handled, I decided to come in. Steve asked how it felt, and I replied that it was great except for the understeer, especially in that damn carousel turn. He said he could adjust some of that out for me, but we soon discovered the problem: the bolt attaching the right rear sway bar strut to the chassis had worked its way out. So all that time I had had no help from the flat rear bar at all!

That fixed, I went back out for a few laps. First time around, I came up on Woodard in the Vee in turn four and had to back it down and go off-line to pass; then the next lap I had to pass the Ralt, which was circulating fairly slowly for some reason. Then on the third try, the car started to run out of gas again. But it did feel quite different with the rear bar working properly. The back end was much looser, which bothered me at first until I realized that it was still stable and easy to collect once it got into a tail-out attitude. And the gross understeer in the slow turns was almost completely cured.

It turned out that someone had timed those last three laps and I was doing 1:44s — which would have landed me around 17th on the 40-car National grid the week before. The earlier laps without the rear bar but with no interruptions were probably faster, but I had no way of knowing for sure. Steve had told me earlier that he can turn laps in the 40's here but usually tests around 44, so I was in the ballpark. The top four cars at the National had qualified between 1:40 and 1:41.

We discussed the development of the Z-10. The first example was the car now owned by Tim Evans, the one that carried him to a walk-away CenDiv championship and several money-race wins in '75. That car was built late in '73 and driven by Dave Wietzenhof that year at Atlanta. Harry Ingle had done the original testing at Savannah on Firestone tires, and the combination of stiff-sidewall Firestone and the fairly fast Savannah track did not show up the understeering tendencies on the slower turns. But the problem did become a factor in turn five at Atlanta, according to Lathrop.

The initial spring rates were quite soft at 130 lb/in front and rear. Later it was found that stiffer springs helped and 170 lb/in units were used; Steve's car is now using 180 lb/in springs. Another factor that brings out the understeer, said Lathrop, is driving style. The car is well suited to hard-charging driving, like the styles of Evans, Weitzenhof and NorthEast Div. champ Bruce MacInnes, but if you brake a little early or light coming into a slow turn, then try to drive it through with throttle (exactly what I had been doing), the nose tends to lift and you get a vague feeling in the steering.

Another early problem with the soft springs was that the front suspension "rocker arms" tended to bend when the shocks bottomed out. "But we changed the design of the rockers and went to harder springs, and that problem was solved," Lathrop assured me.

The Z-10/Z-11 nad been in production for about 16 months as of December and 40 of them had been sold, mostly in CenDiv and NorthEast Div. A very comfortable output capacity would be 25 to 30 copies a year, but the Charlotte, North Carolina factory could build 50 kits and complete cars a year in addition to 50 FVs if the demand materialized. According to Lathrop, Zink has turned out more than 900 cars since the first "H-Mod" was built some 14 years ago. History buffs may remember Bill Greer driving that one to a National Championship shortly thereafter.

Asked what he thought were the best points of the car, Steve mentioned a number of things. For one, he said, the car benefits from simplicity of construction and has a low maintenance cost factor. Parts are readily available in the U.S. and most are low-cost items compared to other makes. "Actually," he added, "those front suspension rockers are about the only expensive parts on the car." There are some options, like fabricated front uprights, but those and any update pieces are always bolt-on additions.

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continuous development program and Lathrop, who handles the development as well as the distribution end of the business, seems to know what he's doing in making Ed Zink's creations perform. He feels the Zink is "probably one of the most aerodynamic FFs around. It makes a smaller hole in the air and it keeps a tight boundary layer." The latter claim is substantiated by the oil and dirt tracings over and around the body of Woodard's FF after the National race. The air apparently flows cleanly over the nose and to both sides, sticking close through the unobstructed front suspension all the way into the side radiator openings.

Also important to large drivers is the car's ability to handle their bulk. "Some big guys have a hard time driving anything else," said Steve. "And the chassis is really quite overbuilt in terms of strength." In fact, the SV is identical to the FF except for a two-inch shorter wheelbase and a slightly modified engine bay to handle the VW motor. The production FF weighs 900 lbs. and needs ballast to be legal with the lightweight front uprights.

The front suspension features inboard spring shock units and an inboard sway bar, so all the wind sees between the body and tire is the upper rocker and the lower link and trailing arm. The production front uprights, discs and calipers are VW, while the rear uprights are fabricated. A Hewland Mk 9 transaxle is used with the standard inboard brakes, and the rear geometry uses twin trailing arms, lower A-arms, top links and an anti-roll bar. Bilstein shocks with chrome vanadium springs are used front and rear. Twin AeroTec fuel cells with a combined capacity of 8 gallons are also part of the standard package.

The three-piece body (plus external radiator surrounds) is hand laid fiberglass "to insure uniform thickness, maximum strength and minimum weight", according to the info sheet. Both FFs and SVs can be purchased as kits, rollers or complete, the complete FF costing just under $9,000 — but prospective buyers had better check with Lathrop at Citation Engineering, Route 2, Zionsville, IN 46077, (317) 372-3385 for '76 prices. Additional specs are in the accompanying table. Also, a special kit can be bought for as little as $2,400 to make a Zink using pieces from an existing older car of any make. This sounds like a great idea!

The SCCA runoffs have come and gone since I tested the car, and I should add a few words about Zinks' showing there. MacInnes had the pole and finished a very close second to the ADF of Tom Wiechmann after a first-class race — and he might have won except for a badly bent tailpipe supposedly due to a love tap from Marty Loft.

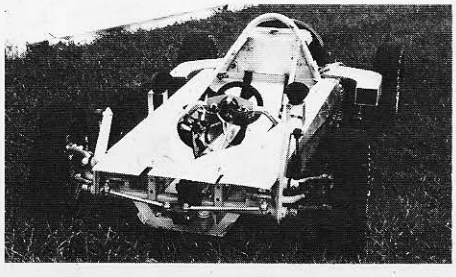
Weitzenhof crashed and tore the right-front off of his car during practice — then drove it in on three wheels! He heated-and-beat the pieces back into shape and aligned the chassis well enough to qualify 11th, then came up (setting a new race lap record at 1:31.5) to finally lead the last lap, only to find himself off course in Turn 11 in an altercation with Wiechmann. He recovered to finish fifth and promptly protested Wiechmann's driving, but the protest was disallowed.

Meanwhile, Gordon Smiley had wrecked his Brand X in the warm-up session the morning of the race and borrowed Lathrop's car (the same one I tested, Cortina engine, IRP chassis setup and all, brought as a spare for the Zink drivers). He started dead last and came up to lead the second pack (about tenth), almost immediately going faster by more than a second than he had ever gone at Atlanta (1:31.9). Tim Evans, struggling along with a very tired engine, ran with Smiley until Smiley spun off due to a split rear tire. Evans finally finished tenth and Rollin Butler in the fifth Zink was ninth.

So there were two Zinks in the top five, both of which narrowly missed winning, and two more in the second five. Out of five Zink starters only Smiley DNF'd, and that was through no fault of the car. Lathrop had this to say after the race: "I think as a make of car we made a better showing than anybody there and our support was matched only by ADF. The Californians may have run stronger as a group, but we surprised the hell out of them." ■

F/Ford Specifcations

Wheelbase	90 inches
Track Front & Rear	56 inches
Overall Length (Excluding Tailpipe)	135 inches
Height (Top of rollbar)	33 inches
Height (Top of windscreen)	24 inches
Width (Body)	32 inches
Width Overall	66 inches
Ground Clearance	3 inches
Fuel Capacity	Twin outboard tanks, 8 gallon
Cooling	Twin side mounted Serck radiators
Rear Suspension	Twin trailing arms, lower A-arm w/top link and anti-roll bar
Front Suspension	Lower link w/trailing arm, upper rocker w/inboard coil shocks
Brakes	Front: outboard disc VW type 3 Rear: inboard Girling
Transmission	Hewland Mk 9
Instrumentation	Tach; Smiths mechanical. Oil temp., oil pressure, water temp.; all Stewart-Warner mechanical



New Zink Vee

Steve wanted me to take a few laps in the new FV he was developing, even though it was far from ready for a full-scale test. So after jumping out of the FF and before being bodily ejected from the IRP grounds, I squeezed into the strange-looking little Vee for a quick three-lap drive.

I have to watch my words carefully when discussing FVs, since I have never yet raced one and have driven the species only twice, the first time being the Lynx test for this magazine — in which I apparently managed to offend everyone connected with the class. My apologies herewith to the Lynx people, to Jerry Baker (the owner of the test car) and to FV drivers everywhere for the way my words may have been interpreted. I was only trying to say that Vees are difficult to drive and that Baker's car was not at its best on the morning of the test.

Anyway, back to the new Zink. I was impressed with the fact that forward facing roll-bar braces were designed into the structure to protect the driver from under-the-guardrail excursions, except that the bars were so close together that getting in and out was a real problem. The car is also super-low, putting the driver in a sort of knees-up go-cart driving position. But it was really quite comfortable once I was in. A lot of attention has also been paid to aerodynamics, with twin "troughs" formed into the lower body to direct the air cleanly underneath. "The idea," said Lathrop, "is to leave as little wake behind the car as possible so that a following driver will not be able to draft by."

The most radical thing about the car is the rear suspension design, which mounts the swing axles to large L-shaped trailing arms intended to minimize camber change and eliminate toe steer altogether. With the system working properly, the bottom of the "L", which is pivoted at the frame section just behind the driver's seat, will move exactly parallel to the axle, giving zero toe change throughout the travel. A spring/shock unit was at the corner of each "L" link, and additional springs between the links on the under-side were there to help control the camber.

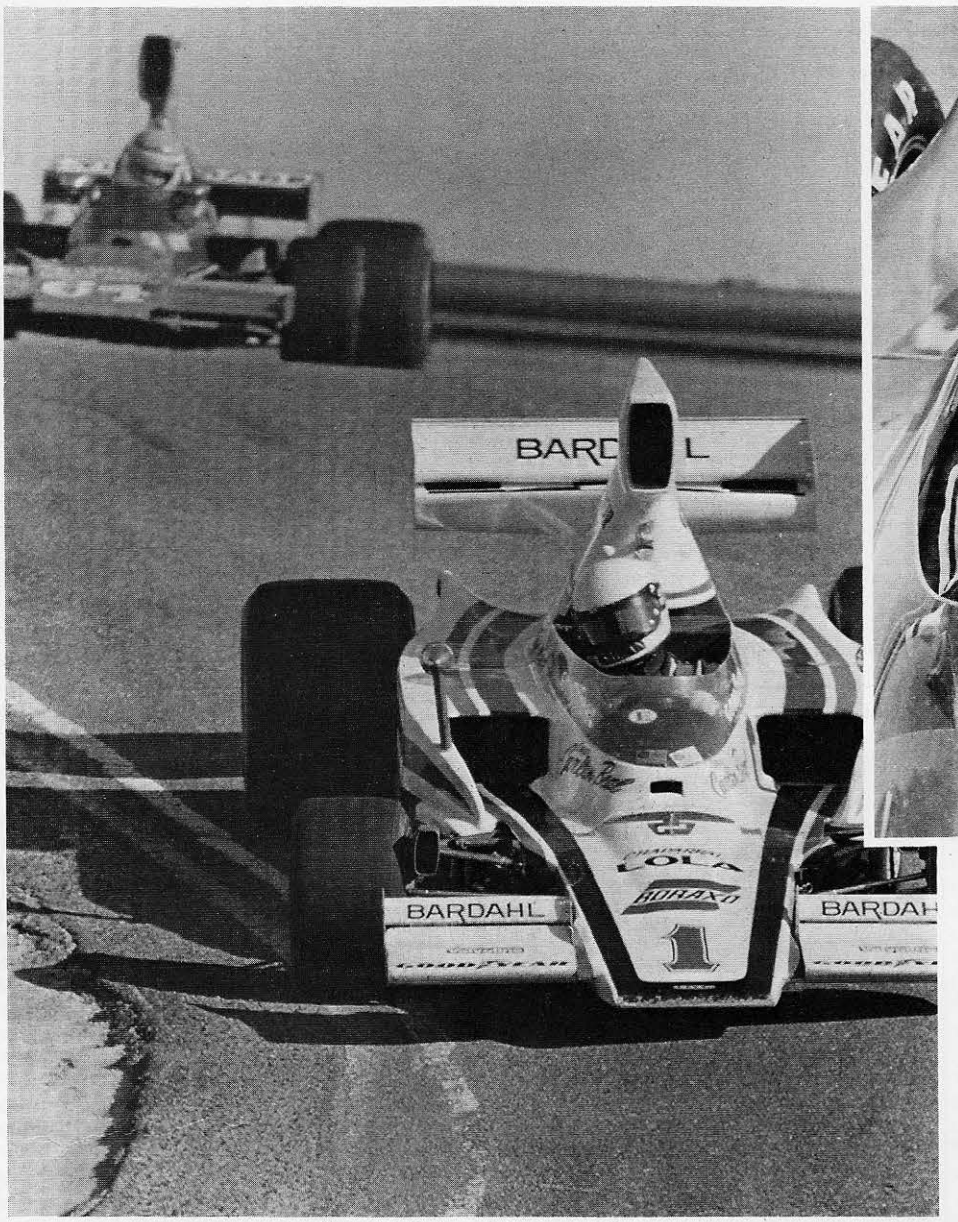
When I drove the car the system was not working quite right and there was a slight tendency toward oversteer, but it still seemed to stick quite well. My chief complaint at the time was that there was not enough rear-axle damping — a bump would set the thing off and it would vibrate considerably before dying out. A set of unbalanced tires did not help matters, and the wind over the nose buffeted my helmet so badly that my eyeballs rattled at high speeds. Since then the design has been improved considerably and the latest cowling shape now sends the airstream over the driver's head instead of against it.

The mighty Lynxes dominated the Atlanta meet again this year, except that Kip Laughlin came from eighth on the grid to the lead in a single lap with the new Zink, much improved since my test drive, but then fell back due to his motor (borrowed from Tom Pomeroy) going off. Said Lathrop after the race: "We never had the horsepower the other leaders had, but the aerodynamics more than made up for it. And right now I think the new car will handle better than any other Vee. We've proven that it's competitive and perhaps superior in certain areas, and it is still undeveloped." ■

Bill Jennaro Photo



Brian Redman, Champion again.



A winning combination: the Haas/Hall Lola & Brian Redman. Don Larsen Photo

Season Review: F-5000 1975

By Gordon Kirby

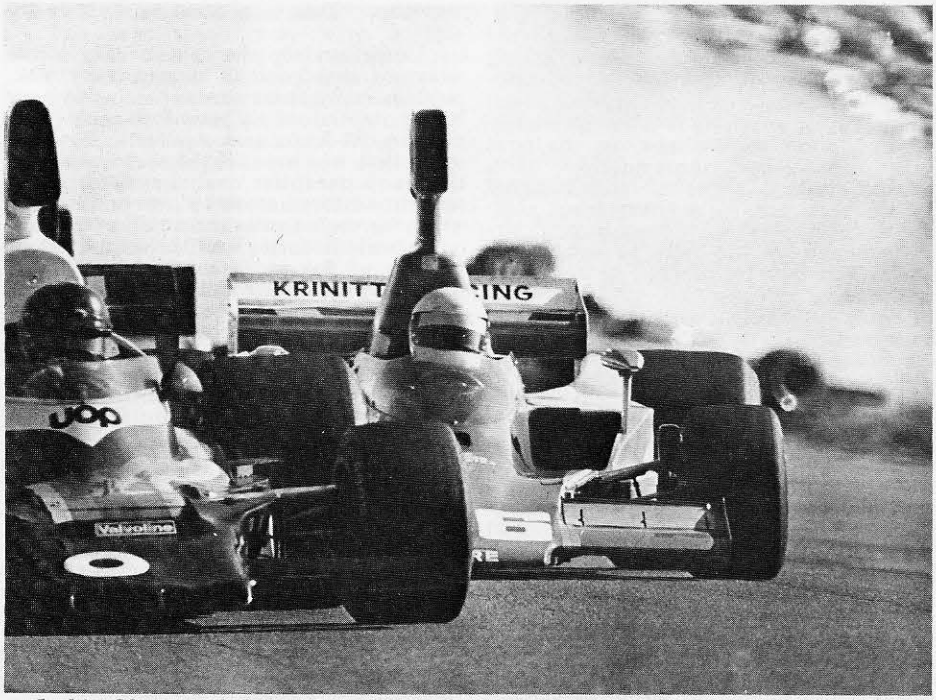
Road racing has never been much of a business in America. It has always been superseded by the brawny lure of speedways and by the instant adrenaline explosion of drag racing, and while the pragmatism of business brought its influence to bear on those other forms of American automobile racing, the world of 'sports cars' has remained in the realm of amateurs. For years the "gentlemen" of the game debated among themselves about facing the agony of striking a compromise with the open market. Yet at the same time they were spending huge amounts of their own money exploring the romantic notion of "unlimited sports cars" — CanAm racing, as it came to be known — and before they knew it they had a full-blown series of their own with a promotion platform in the form of series sponsor Johnson's Wax, the right kind of promotable names from both USAC and Grand Prix racing and an impossible financial equation which grew steadily worse and which finally, thanks to the bad management of all concerned, choked the series to death. The CanAm, good show biz that it was, lay dead by the time the gentlemen realized they had a business on their hands.

They turned rather begrudgingly to Formula 5000, a racing class that was essentially the antithesis of CanAm, based as it was on the stock-block engine rules and firm chassis specifications. But those regulations were the very ones which allowed the F5000 series, although hamstrung by the same poor organization which blighted the CanAm, to continue on and even show signs of prospering. At the same time Mario Andretti, one of the biggest names of American auto racing, began to enact a change in his own career from the ovals to full-time Grand Prix. Naturally enough he chose Formula 5000 to play himself in and with the appearance of Andretti, Vel's Parnelli Racing and their sponsor Viceroy, F5000 found itself a reputable series for any self-respecting American racer to engage in.

As Andretti and his team turned to F5000 the United States Auto Club fell into an agreement with the SCCA for co-promotion of the series while Dan Gurney, supported by Jorgensen Steel, brought a brightly-colored speedway-style team into the series and soon other stars from Indianapolis and even drag racing entered the new game. By the middle of last summer Formula 5000 had become a very saleable motor racing series, yet the gentlemen who directed the game didn't make the sale. They remained unable to expand the series' coverage in any or all aspects of the media, unable also to increase attendances to marketable numbers and unable even to maintain proper communication between themselves, the competitors and the circuit owners. It was plain that another point of crisis, much like that of the CanAm in fact, might be waiting down the road.

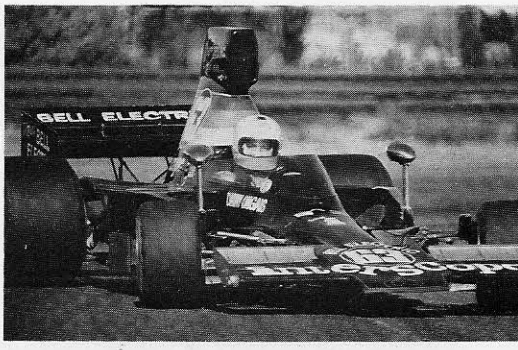
Almost at this very point came two unusual and exciting races which had the effect of at least partially getting rid of the inertia which was settling across the series. The first of these was at Road Atlanta, the sixth race of the season. It

Jim Nobel Photo

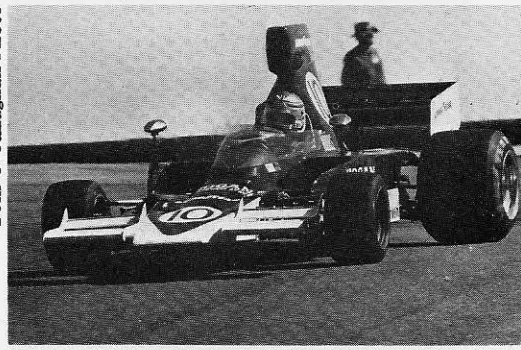


Jackie Oliver and John Morton dive into turn nine at Laguna Seca as Bob Allen spins in the background.

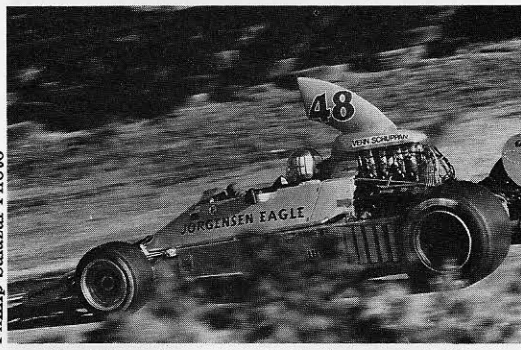
Toni Cortes Photo



Tom O'Callaghan Photo



Phillip Salazar Photo



Familiar faces in '75 were (TOP) Danny Ongais, Bell Electric/Interscope Lola; (MIDDLE) David Hobbs, Hogan Lola; (BOTTOM) Vern Schuppan, Jorgensen Eagle.

was promoted by a group with their roots in the business of rock concerts. Under the name of "Rockin' Road Productions" they planned a combined rock concert/motor race for the Georgia circuit. This was not a new idea but it was the first time it was put into practice by people from the music business, and if the experiment was a success the stated intentions of Rockin' Road were to develop a complete series along the same lines and attract a series' sponsor from that point of view. As it was the Atlanta event was only a contained success for, despite drawing more people than any other race in the circuit's history, the costs of staging and promoting the weekend upset the balance so that Rockin' Road found themselves reassessing, although by no means withdrawing, their initial enthusiasm.

The second noteworthy event was the next race of the series, run a month later through the streets of Long Beach, California. It was an event which had been talked about publicly for as many as eighteen months beforehand. An ambitious project requiring huge financial expenditures, the Long Beach F5000 race was intended as a test case for the establishment of a second United States Grand Prix. To the surprise of many the first Long Beach race was completely successful. It attracted easily the finest field of F5000 cars ever assembled, it drew 65,000 people — an unqualified record for F5000 — and for the first time the formula found itself televised nationally and written about internationally. It was almost incidental that the race itself was the finest of the year and that Brian Redman should come through to victory and thereby secure for himself and the Haas/Hall team their second consecutive SCCA/USAC Championship.

The success of the race catapulted its founder Chris Pook to a position of prominence not only in American motor racing as a whole but also in the rather loosely organized Formula 5000 Entrants Association. For some time the entrants had been trying to establish themselves as a combined front which would be able to offer itself to promoters and sponsors as a packaged unit much like the F1CA, but the leadership was weak and each of the members had been busy enough maintaining their own teams within the framework of the disorganized forum that they remained too disparate to coalesce into a single-minded group. Pook meanwhile, as well as establishing his own event, had been well aware of the entrants' situation and had been keeping a close eye on it. The success of his race went a long way toward confirming the entrants' faith in him and as the F5000 season ran to a good finish at the historically strong events of Laguna Seca and Riverside, Pook and the entrants began to work together.

By the beginning of December Pook had struck a basic accord with the entrants and, in conjunction with establishing the promotion platform for his March 28 U.S. West Grand Prix, he was ready to announce the official formation of a revised F5000 Entrants Association under his leadership. Effectively the marketing and promotion arm of the Entrants Association, Pook's "LBGP Advertising and Marketing", is to be operated by Pete Biro, a well-known photographer who has worked extensively for both Goodyear and All American Racers and is the current President of the American Racing Press Association, the primary road racing oriented organization of American motor racing journalists and photographers. The entrants are represented by a steering committee consisting of Vel's Parnelli Racing's PR chief Alan Bodeau, All American Racers financial man Don Markland and Carl Haas and Jim Hall, while other members include Mike Hillman of Phoenix Racing (as the previously UOP-sponsored team is known), Joan Clayton (team manager and ➤

Bill Jennaro Photo



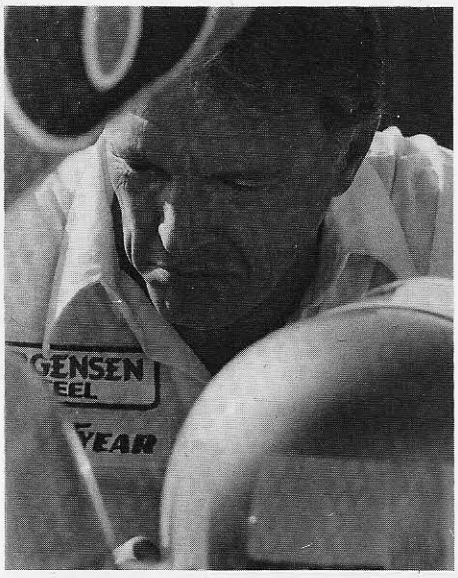
(LEFT) Mario Andretti had another disappointing year.

owner of Eppie Wietzes' team) and Carl Hogan, doyen of Hogan Racing.

In reaction to this the SCCA have made some changes in their organization. Wally Reese, formerly the unpaid chief SCCA steward, and Burdie Martin, who filled the same role at various times for the CanAm, Trans-Am and Super Vee series, have been appointed as full-time liaison men between promoters, entrants and sponsors. Quite how these positions will work in practice is not yet known nor can the effect of giving the club's executive director Cameron Argetsinger full power to make decisions regarding professional racing be ascertained at this time. It is obvious that while the SCCA's stance remains rather vague the aims of the Entrants Association are clear. In this way the blunt edge of business seems finally to have come to rest on the doorstep of the SCCA.

The similarities of this situation with that of the F1CA versus the CSI are obvious. Chris Pook is particularly mindful of that when he says, "We are not

Don Larsen Photo



Dan Gurney had a very bad year in F5000.

going to go to the promoters and ask for prize monies to be shot up into the air because we know we have to increase attendances first". Drawing on the experiences from his first event and the development of a television contract for next March's Grand Prix at Long Beach, Pook has been able, he says, to elicit considerable interest in televising at least six of next season's F5000 races. "Mind you," he adds, "we have to talk to the promoters yet about TV but as it's a profit-sharing plan it should be attractive to them."

Pook talks quietly and matter-of-factly as he discusses his plans, and in a field which has seen so many failed pretenders it is perhaps promising that he manages to generate confidence on the part of every one of the major F5000 entrants. Now 34, Pook emigrated to Southern California from his native Somerset in 1967. He settled in Long Beach and soon developed his own thriving travel agency. But his old days of being an amateur racing driver — he raced Juniors in the early '60s — kept him daydreaming at his desk, and by early 1974 Pook had conjured up a vision of a race through the streets of his adopted city. By soliciting the help of Dan Gurney the idea, originally looked upon as a joke (if Long Beach is known for anything it is for its conservatism), soon took shape. In the next year Pook raised three-quarters of a million dollars, appeased and beguiled all the local and state government committees and worked his way through the bureaucracy of the FIA to establish a Grand Prix date for him for his imaginary racetrack!

Pook obviously has the background and credentials to bring America's most sophisticated road racing series to a position of financial balance and profit. There is still however a great deal of what you might call professional maturation yet to come to the constituents of Formula 5000 and Pook portrays that situation perfectly when he says, "One of the problems we're having is to make some of the authorities in the sport realize they are in the entertainment business and competing with football, golf, baseball, hockey, tennis and so forth. Motor racing is not yet a major league sport in this country."

On December 11 Pook and Cameron Argetsinger met at the SCCA's Denver office and reached a verbal agreement regarding their respective interests in F5000. Del Owens, PR Director for the SCCA, said the following day, "It's a positive proposal, one that's going to do a lot for the sport. It's what we've been wanting to do but have never been able to afford."

It seems then as if this winter will be a very important one for F5000 in America. Already it is competing for the available media exposure from IMSA's well-established and expanding Camel GT Championship and also from the CASC's fully-televised Player's Formula Atlantic Championship. Perhaps even more there are the strong and traditional competitors represented by NASCAR's eminently successful Winston Cup Grand National Championship and USAC's apparently-reviving Championship Trail, based as it is on that great bulwark . . . the Indianapolis 500. With that kind of competition it is probable that if Chris Pook is unsuccessful in procuring a sponsor, or TV coverage, or generally enlarged media coverage, then both Formula 5000 and the SCCA will not get another chance for a long time to come.

The Season Itself

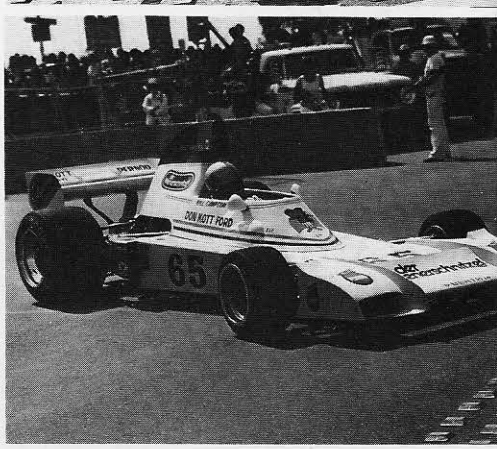
The product which Chris Pook must sell is one of steadily improving sheen. It has been so throughout the past three or four years but in the latter stages of the past season the quality of the field took on a depth and breadth unmatched even by the most halcyon days of the CanAm. There were as many as a dozen and a half good car and driver combinations, including a handful of both Grand Prix drivers and USAC speedway aces as well as more American comingmen than we've ever seen before.

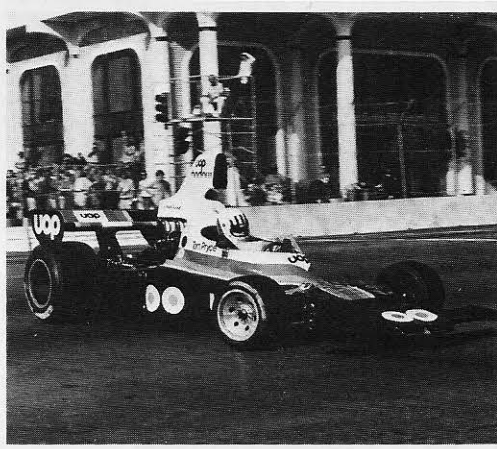
The races, though not classics in the Grand Prix tradition, were notable for hard, sustained chases. Marked by the explosive resonance of those big stockblocks and by comparatively slow, torquey slides, a hard-driven F5000 car can provide some fine spectating. And well I remember the rangy beaming face of FORMULA Grand Prix correspondent Jeff Hutchinson turning away from his camera for a moment at Long Beach to exclaim, "This is a good race. It really is!"

Unfortunately the season as a whole was not that good. It started fairly well, with as many as six cars appearing to have the potential of at least harassing pacemakers Redman and Andretti. But perhaps that was because the race was run at Pocono's deceptive oval cum road course which featured an awkward combination of more than a mile and a half of flat-out speedway motoring and three-quarters of a mile of flat pavement which included two hairpins among its half a dozen turns. The form at the second race, run at Mosport (a real road course) was certainly very different from Pocono as Andretti and Redman sprang away on their own and lapped every other car in the slim field of eighteen. Only the ferocity of

New car and driver combinations at Long Beach: (TOP) George Follmer in the Lance (MIDDLE) Bill Simpson in the Berta (BOTTOM) Tom Pryce in the second Shadow.







C.G. Loring VII Photo

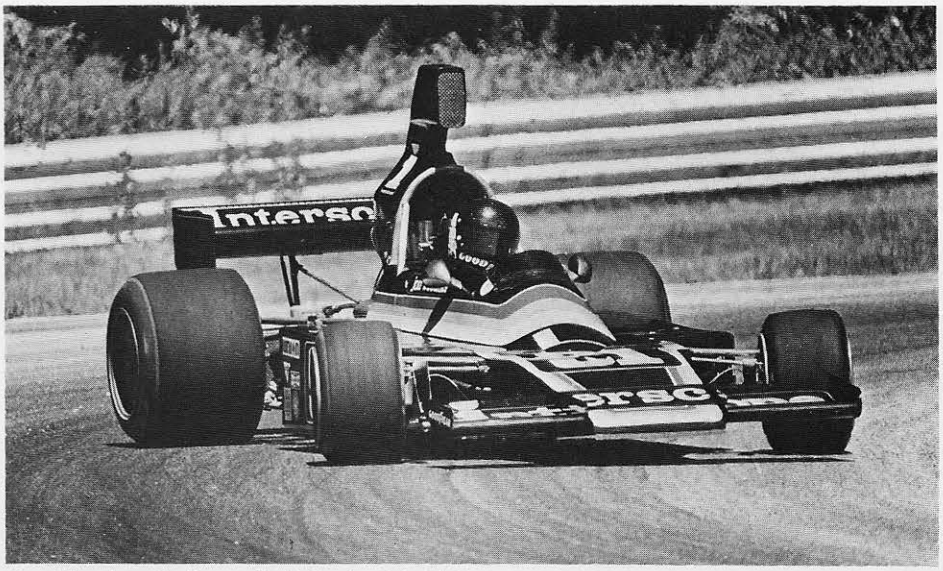
Brian and Mario's personal battle saved that race from total ignominy.

The next three races were a little better as a few more good cars appeared and a number of teams began to make progress towards offering a realistic challenge. Even so Watkins Glen, round three was all too much like Mosport in its lack of style and even at that early stage of the summer, as Redman earned his second win of the year, it had begun to look as if the Champion would easily retain his title. The field at Elkhart Lake was a good bit stronger and denser and Redman even contrived to finish a lowly eighth because of a flat tire so that Andretti's win brought the hope that he just might be able to wrest the Championship away from the Englishman. Mid-Ohio was much like Elkhart but a first lap accident mortally injured B.J. Swanson, a very talented young driver who had appeared from nowhere at the beginning of the season and suddenly began to look like the strongest challenger to Redman and Andretti. The race itself, an almost forgotten affair, was won by Redman when Andretti dropped from the lead because of a failed gearbox.

It was both ironic and unfortunate that Road Atlanta should have been the last race on the eastern side of the country as well as preceding Long Beach in the schedule; a number of teams went home to California after Mid-Ohio to regroup and prepare themselves for what they knew was going to be an important race. In that way the southern circuit and the Rockin' Road group were robbed of a legitimate representation of Formula 5000. What they did get to see though was a historic first as Al Unser displayed his growing road racing finesse in a graphic manner by coming through from third place in a confused wet/dry race to pass first Andretti and then Redman and score his first major road course victory.

Unser confirmed his Atlanta form by starting from the pole at Long Beach, but it was the late Tony Brise, making his very first appearance in America, who stole the show. Not long into the race he snatched the lead and then with Andretti and Unser beginning a heavy chase he . . . pulled away! It was a remarkable display which became even more so after he finally did make a mistake, spun, then came back to pass both of the Vel's Parnelli men and pull away yet again! Then suddenly Brise was out of it when his Theodore Racing Lola broke a driveshaft and with Andretti's gearbox having broken a few laps earlier and Unser hitting a wall and breaking his suspension before that, Redman, whose practice had been troubled with failing differentials, came through to win both the race and the Championship. A good race in every respect.

The final two races were a bit of an anticlimax after that. They did allow Andretti and Unser to regain their demeanors after Brise's handling of them at Long Beach as they scored convincing one-two finishes in both races. Brise showed more of his memorable talents, scoring a fourth at Laguna Seca and at Riverside running third, even second, ahead of Unser for a few laps, until dropping to sixth on the last lap when his car ran dry of fuel. Redman and the Haas/Hall team showed the kind of mettle and resilience which had brought them their second SCCA/USAC Championship when they recovered from a very extensive practice shunt to finish third at Laguna and had to resort to their unsorted T400 Lola to rebound from a similar problem at Riverside and again came home third.



Jon Woodner had very little luck with his Interscope Racing Talon. Bill Jennaro Photo

The rest of the field really seemed to come alive in those final races and at Riverside in particular there was more racing and improving form than we have ever seen in F5000. It was the kind of finish to a season which would normally leave one enthusiastic and content about the summer to follow.

Yet this hasn't been the case. The announced schedule for this year consists of only seven firm dates and one tentative date — one less event than in the 1975 season. The SCCA have suggested that another race would be held at a new road course at Charlotte Motor Speedway but a representative for Charlotte said last week, "We did talk to the SCCA about a race a few months ago but we're no longer interested". Harvey Hudes, GM of Mosport whose date is not yet firm, said the reason for that was "specifically because we haven't been told who will be in the field". He recalled that last year there were only eighteen cars at his race and that as the situation looked to him to be the same as it was a year ago he could well find himself in the same position again come next June. Hudes emphasized the old maxim that a promoter needs 'names' and asked rhetorically, "Who do you know of who will definitely be there other than Redman and Unser, who will sell me a ticket?".

And that is precisely the problem. By the middle of December Champion Redman was the only confirmed 'name' for the '76 SCCA/USAC Championship. The Parnelli team is on the verge of completing a major sponsorship deal which will probably confirm Unser's F5000 season (Andretti hopes to leave the formula behind and concentrate solely on F1), while Phoenix Racing, although apparently well on the way to securing a Formula One sponsor, are being reticent about their future in F5000. Carl Hogan, although not definitely withdrawing, has allowed his driver David Hobbs to confirm a NASCAR drive and is saying he would not run his cars if he cannot find a sponsor. Eppie Wietzes' team is in a similar situation.

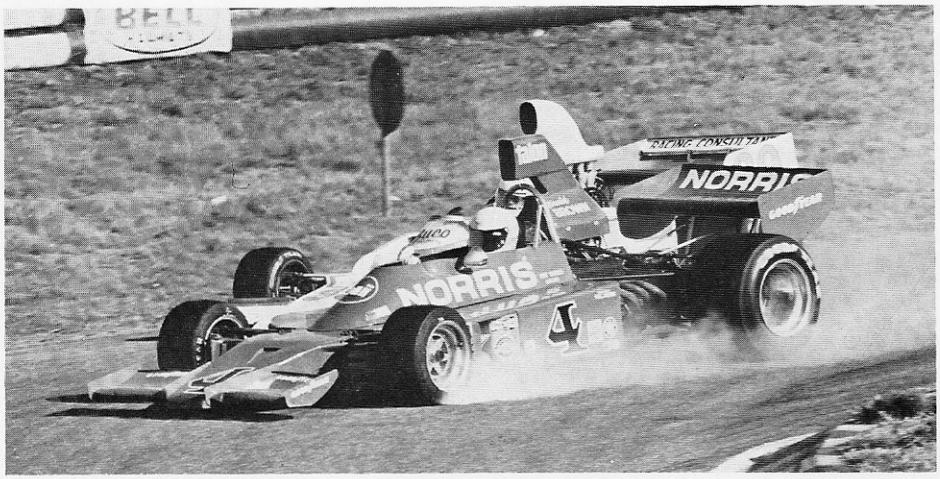
The crux of the matter is that it's obviously difficult to sell a sponsor on a series consisting of only seven or eight races which have thus far been largely ignored by the national press and almost totally snubbed by television. Prize money, which remains at a per race total of $50,000 as it has for the past two years, is hopelessly inadequate, particularly when there was more money three and four years ago when L&M sponsored the series and that as long as six years ago the CanAm had purses of $75,000.

It will certainly be a sad thing if the American F5000 series fails to gain a sound footing in 1976. The state of competitiveness has improved so much in recent years that last summer the faster cars were able to lap both Mosport and Watkins Glen as quickly as F1 cars while the quality of preparation and finish among the bulk of the field is something which always brings surprised smiles to the faces of visiting European journalists or the odd Grand Prix driver who occasionally shows up.

As has been noted the Championship was won for the second successive year by the Haas/Hall team and Brian Redman. The key to their success was again based in the remarkable reliability record which the team has continued to maintain through three seasons of F5000. In that time Redman has started a total of 46 races (23 each of heats and finals) and has failed to finish only twice, once because of a contretemps with a slower car at the Mosport final in 1974 and the other time because a rear upright failed in a heat at Elkhart Lake this past year. Of the 23 finals Redman has started in Haas/Hall Lolas he has won twelve, finished second seven times, third twice and eighth once. In the nine races of 1975 he won four times, took two seconds, two thirds and one eighth. Quite an achievement.

The team started the season with a T400 Lola which Jim Hall had modified previous to Redman driving it for the first time in practice for Pocono. It became immediately obvious that the car was going to be difficult to sort and when that opening race was postponed for a month because heavy overnight rain had flooded the infield portion of the track, the Haas/Hall team took the opportunity to replace their T400. For that purpose they bought a crashed version of the previous year's T332 and it was this car which Redman campaigned throughout the year, his driving as usual displaying a fine combination of bravado and simpatico.

Reasoning that the end of the straight had become the only realistic passing



Warwick Brown and the Talon didn't live up to expectations. Tom O'Callaghan Photo

F/5000 continued

point on most courses, the team tried to obtain as much straightline speed as possible and to this end the car most often appeared with a distinct 'rake' to the chassis, the nose very low to the ground and the wings trimmed as flat as possible. Perhaps as a result of this the team often had trouble with differentials which upset their practice at Mid-Ohio and Long Beach in particular. But on these and other occasions their problems were solved by yeoman work from the mechanics and similar application by their relentless though very human driver.

Once again the Viceroy-sponsored Vel's Parnelli team offered the only real challenge to Haas/Hall although this time they had two cars instead of one, Al Unser joining Mario Andretti on the team. They retained their T332s from the previous year and it was these cars which they used at every race, although Unser was forced to run the spare T400 in the heat at Mosport after his T332 was written-off in a practice shunt. Both cars enjoyed good reliability but unfortunately neither was quite as dependable as Redman's machine and they ended up second and third in the Championship, Andretti beating Unser by a mere four points. In conjunction with Redman they dominated the winner's circle with Andretti equaling the Champion's four wins and Unser winning once. Unser also scored five seconds and it is of interest to note that between him and Mario and Brian they took nineteen of the twenty-seven first three positions available in the nine races. Some domination!

It was generally conceded that Vel's Parnelli's Falconer engines were consistently the most powerful motors of all. The two cars were almost always the fastest machines in a straight line even though they usually carried more front wing than Redman's car. The engines proved reliable as well with Andretti failing to finish only once because of engine travails and Unser losing an engine in a heat at Elkhart.

Andretti was certainly the fastest man in the formula, qualifying quickest eight of nine times (Redman was fastest at the Glen) and leading seven races. But twice he went out with gearbox breakages, once his engine stopped on the pace lap and in the rain at Atlanta he cooked his tires in a charge from the back of the grid after experiencing another gearbox failure in his heat. It was usually a case of win or bust for Mario.

Unser meanwhile methodically improved his speed so that by the end of the year he was as fast if not faster than all save his teammate. Al will be a very serious threat next year.

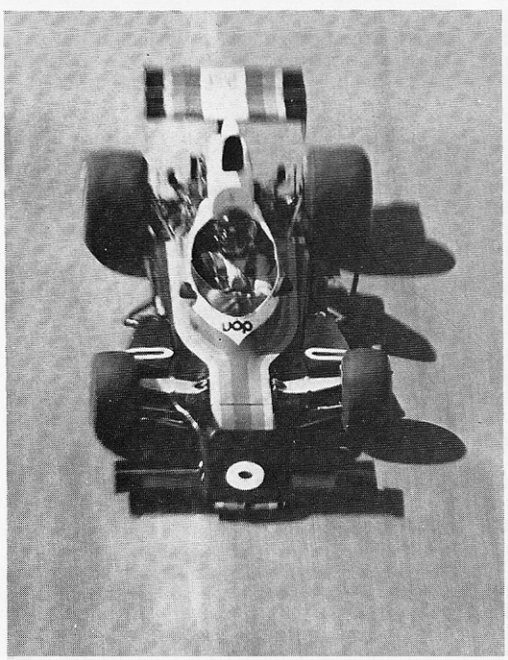
The Shadow had a rather busy and unsuccessful first year of F5000 but they succeeded in laying the groundwork for a first-rate 1976 season. The chassis, nameplated the DN6, was almost identical to the team's F1 car and if anything hindered their progress it was perhaps their insistence that the car should work just like a Grand Prix machine. As it was the Shadow suffered a shortage of traction and control exiting corners and when the team turned to the heavier (by 72 pounds) Dodge engine it only served to compound the problem. The Dodge did however produce very nearly as much power as the best Chevrolets and its future looks good. It is certainly a very good thing for the formula which has always been thoroughly dominated by Chevrolets.

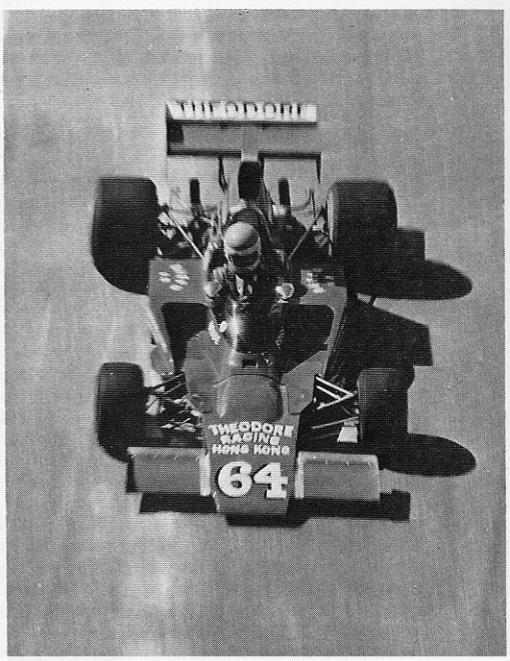
Jackie Oliver drove the lone Shadow throughout the season, scoring a second, a third and a couple of fourths and although the veteran Englishman wasn't blindingly fast he could be counted on to provide some fine displays of sideways motoring. Jean-Pierre Jarier, Tom Pryce and Jody Scheckter each raced a second Shadow once, with Scheckter qualifying the Dodge-engined car third at Riverside although his race was ruined by engine troubles.

It was a big surprise for the team to lose their UOP sponsorship just after the end of the season but they had been looking hard for a replacement and still hope to run both Oliver and Scheckter in all of next year's races. As the main Lola-challenger the Shadows are badly needed.

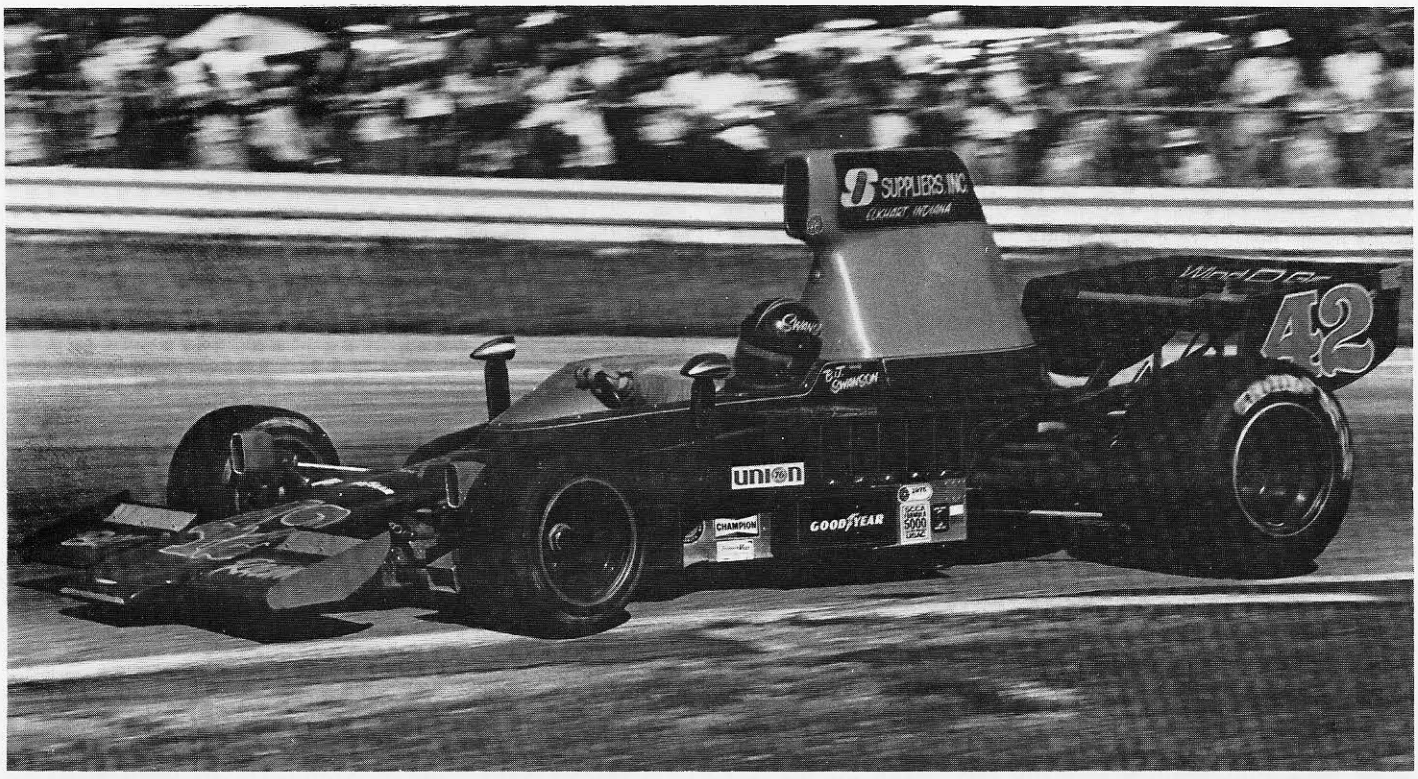
Finishing fifth in the Championship behind Oliver was Canadian veteran Eppie Wietzes. Starting the year with a brand new T400 Lola, the privateer was the only runner to persevere with the design and slowly and at considerable expense he and his mechanics developed the car into a very useful weapon. Toward the end of the season Wietzes really began

Toni Cortes Photos









B.J. Swanson was the sensation of the 1975 season. Jim Drago Photo

to get the measure of the car which early in the year had been fitted with T332 rear suspension, new bodywork and modified front suspension which retained rising rate springing. At Riverside he qualified fifth and was running fourth behind Brise and Unser before engine problems intervened. Wietzes failed to finish only twice and earned two thirds, a fourth and a pair of fifths.

Sixth in the Championship was David Hobbs who again drove for Carl Hogan. Running on a tight budget the team was never able to offer Hobbs a really competitive example of a T332 and though he scored a third, a fourth and two fifths he was reasonably competitive on only one or two occasions. When Jody Scheckter was drafted into the team at Long Beach (he actually drove Hobbs' regular car while David was given an updated T330 Lola) and could run no higher than sixth in the race it was a relief to Hobbs to see that even an established hero could not make one of the Hogan Lolas approach Andretti's and Redman's pace.

The Talon team, which had consisted of three cars the year before, trimmed itself to a one-car effort for most of the season with 1975 Tasman Champion Warwick Brown doing the driving. Brown started the season well, running a good third at stages of both of the first two races, but thereafter his performance tailed off. By the middle of the season the team seemed to have become confused and even a change of mechanics and the re-introduction of Norris Industries' sponsorship for the three concluding rounds did not result in much improvement. Chris Amon joined the team at Long Beach, finishing a very creditable fourth after missing most of practice, but he was involved in a road accident the day after that race and the damage his foot received kept him out of the Talon for the remaining races. F3 man Dick Parsons took over Amon's car for Riverside but engine and gearbox problems kept him out of the race.

Bobby Unser started the season in the Jorgensen Eagle which he had tested extensively over the winter, but it was immediately obvious that the car was a long way from being competitive and just before Watkins Glen the displeased Unser was replaced by Vern Schuppan. It took a couple of races for Vern to adjust the car to his liking but at the same time the team's engines were failing regularly and little progress was made. The suspension was revised for the final races, the new system dispensing with rising rate at the front, but other than a well-earned second place at Long Beach the results were not at all encouraging. A whole new car is planned for next year.

One of the brightest aspects of the early part of the season was the arrival on the scene of B.J. Swanson. An unknown 25 year-old with a couple of years of FF under his belt, Swanson was brought into F5000 by a new team financed by Bob Bay and run by Jerry Eisert. The ex-Redman Lola T332 was purchased and Swanson was able to test the car in Texas before the start of the season. He impressed everyone with some strong efforts at the first race which brought him seventh place, and then at Mosport he held off David Hobbs for sixth until a driveshaft broke. In the next two races Swanson suddenly arrived, coming home a fine third at Watkins Glen and an equally impressive fourth at Elkhart Lake. But at the next race, Mid-Ohio, Swanson crashed at the first turn, his Lola uprooting a guardrail which struck his helmet squarely. He died three days later, never having regained consciousness.

In the few short months of his professional career B.J. Swanson had sparked a lot of excitement. He was the first American racing driver in a long time to offer a challenge to the established stars and it was tragic that he had only just become the Golden Boy at the time of his death.

At the other end of the season Tony Brise leaped onto the American racing scene in an unprecedented manner by leading at Long Beach with the Theodore Racing Lola T332 in what was his first American appearance. He failed to finish that race because a driveshaft broke but at Laguna he hounded Redman all the way to a fourth place finish and at Riverside he looked to have third place sewn up before running out of fuel on the last lap. In those three races Brise showed every ounce of the skill, intelligence and youth for which he will always be remembered.

It was of course Lolas which always formed the bulk of the field and those that stood out from the rest included versions driven by John Morton, Elliott Forbes-Robinson, Graham McRae and Danny Ongais. Morton showed up at the fifth round with a shoestring-run T400 with which he acquitted himself well. He had "kitted" the car into a T332 by Long Beach and struck good form in the last two races, finishing fifth at Riverside.

EFR began his F5000 season at Elkhart, signing on with Francisco Mir's Evel Knievel-backed team. In fact that first race was his best of the year as he brought the T332 into fifth place. He ran well in all the remaining races but only finished one of them. Nevertheless it was a good teething exercise for the team who should be back next year in precisely the same trim.

McRae ran five races during the year with a tightly-budgeted T332. He showed all of his old mettle in the west coast rounds, qualifying fourth and running fifth before spinning at Laguna. With a consistent program McRae could still be ➤

◄ *Looking down on Oliver's Shadow (LEFT), Brise's Lola (CENTER), and Unser's Lola (RIGHT) at Laguna Seca.*

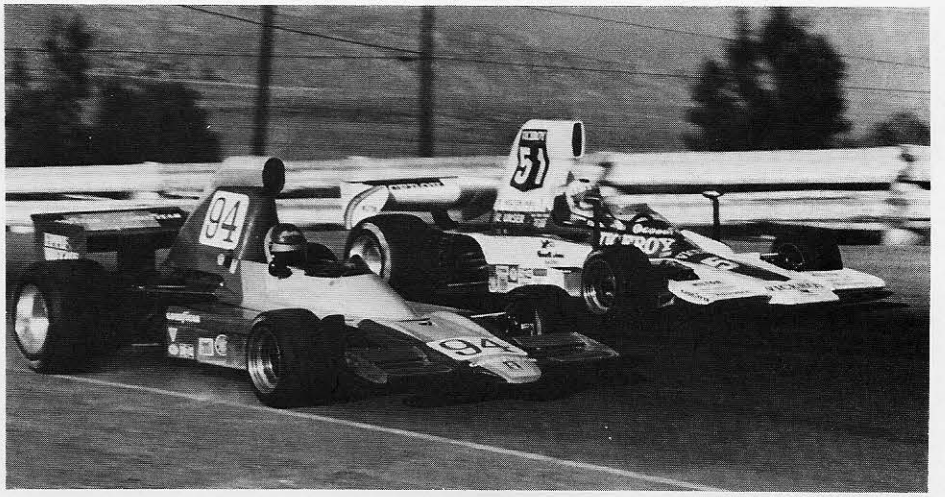
a leading contender. Danny Ongais started the season well, running as high as sixth with the Bell Electric Lola T332 in the first race, but at Mosport he crashed badly in practice, breaking a leg and writing off the car. He spent the next four races in Interscope Racing's Lola T400 with which he had little success. For the final races however Ongais had a T332 at his disposal and at Riverside he showed his best form of the year as he pushed his way into fifth place, not far behind Redman, only to have a backmarker knock him off the road on the last lap! For next season Ongais will have two Interscope T332s solely for his use. USAC star Gordon Johncock ran six of the races with the Patrick Racing Team's T332 prepared by George Bignotti. Johncock had a difficult time however and though he showed improvement with each race it was never enough to make him at all competitive.

John Cannon ran every race, save Atlanta, with a March 73A which was steadily developed and updated with the finance and encouragement of John Lane. For a while the project showed little sign of progress but with the addition of Ray Wardell and a pair of North American March mechanics the car really began to come right both in appearance and performance. At Riverside Cannon qualified ninth and came home an excellent fourth, the narrow-track, sports car-nosed machine showing itself to be very fast 'through the air'. It was nice to see a project such as this finally achieve some success as well as giving Cannon and Wardell confidence for the future.

In addition to the works-run Talons there were a further three cars which appeared during the year, but only Jon Woodner's Interscope entry managed to score any notable results. Woodner had started the season in a T400 Lola but he and his team soon decided to revert to a Talon which they had raced the previous year. Unfortunately Woodner had little luck with the car and his only trouble-free run was at Riverside where he finished eighth. Ironically his best finish of the year was a fifth with the T400 at Pocono.

Others who did reasonably well included ex-F3 man Randy Lewis and 1973 American FF Champion Bob Earl. Lewis ran a T332 in Wrangler Jeans colors at the last four races while Earl raced his own T330. Both did well considering their severe financial and equipment disadvantages. George Follmer debuted Lance Smith's tidy, narrow Lance LSR1 at Long Beach but the car was thoroughly untested and did not do well. He crashed the car in practice for Laguna but at Riverside he finally managed to put in some time with the car which at least saved his and Smith's seasons from total disaster. Oreste Berta's neat F5000 design also appeared in those final three races but with Bill Simpson and Luis de Palma doing the driving the car was unable to show any of the potential which its workmanlike chassis might have harbored.

A total of 61 drivers contested the 1975 SCCA/USAC Formula 5000 Championship and of them 36 drove Lolas. Of them all only five drivers — Brian Redman, Mario Andretti, Eppie Wietzes, David Hobbs and John Gunn — started every race. Perhaps that fact alone tells the story of the inconsistency which still bedevils the series.



Wietzes and Unser together during practice at Riverside. Tom O'Callaghan Photo

F/5000 Cost

Eppie Wietzes has raced Formula 5000 cars in Canada and the United States every year since 1969. In that time he has acquired a reputation for being fast, consistent and practical in his approach. Wietzes is one of those people who is almost invariably around at the finish and the record of his placing in the Championship over those years is graphic proof of the effectiveness of his methods. Since 1970 he has finished fourth three times, fifth twice, and sixth once.

In all that time Wietzes has been supported both organizationally and financially by Joan Clayton, a bright, energetic, independently wealthy woman who is a technical librarian by profession. She takes meticulous care of Formula Racing's books and allows Eppie to concentrate on overseeing the preparation of his cars and driving them. The combination of Wietzes and Clayton has been an integral part of American F5000 over the course of the formula's maturation and yet they are currently faced with the prospect of not competing next year because the financial proposition of the F5000 series has become an impossible one for them.

A cost breakdown of Wietzes' season is included which plainly shows what an F5000 team is up against. Applied against the total figure expended is a prize money sum which amounted to about $30,000, resulting from a fairly consistent season and an overall fifth place in the Championship. Also the sale of the car will further defray costs but it is obvious that a net loss of nearly $100,000 is an inevitability for a serious, well-run team — and Formula Racing is far from having the biggest budget in F5000.

It should be noted that some extra costs were incurred from having to develop their T400 and from using McLaren engines which were new to the formula. "We feel like we've paid for their development program," said Joan, although she added quickly, "Mind you, they've solved everything and if we were to race next year I would definitely use their engines." She felt that a total for engines should be closer to $30,000.

Clayton insured her car while it was being transported from race to race but she did not purchase any on-track insurance "because Eppie doesn't drive into things". Shop expenses include rental and electricity as well as fabrication and fiberglass work done both within and outside the team's shop. The figure for travel costs includes all gasoline, rental cars, motels and air fares, the latter usually covering Eppie, his wife and Joan both to and from each race.

By the end of the year mechanic Dennis Swan and Eppie's oldest son Mike put about 25,000 miles on their Chevy truck and trailer combination and, in addition to a saleable racing car, they had in assets three engines which they reckoned had depreciated about $2,000 in value.

Bear in mind that Formula Racing is an amateur team — only the mechanics are paid — and that they have been at the same business for six years from the same fairly centrally-located home base in Toronto, so must be true that most teams would spend a good bit more than they.

F/5000 COST BRAKEDOWN

Cost of car	$24,000
Basic spares bought in January	5,000
Spares over the season (includes mods for T400 to T332 as well as aerodynamic testing and bodywork development)	11,000
Engines ($9,500 each complete, $5,700 per short block)	45,000
Air freight & brokerage	10,000
Insurance (truck, towing and shop)	1,300
Salaries (mechanic, helper and consultants)	15,700
Entry fees (9 races)	1,800
Truck & trailer maintenance	1,300
Shop expenses	11,000
Travel	15,000
Miscellaneous (magazine subscriptions, press kits, paint, etc.)	3,200
Tires	supplied by Goodyear
	$144,300

Plainly, American F5000 has become a highly professional business requiring large expenditures in order to achieve even minimal success. A solid core of entirely competent drivers and teams gave the races some considerable substance in the latter part of the past season while a small handful of 'stars' gave the series credibility and saleability. On the other hand the series as it stands is patently unable to sustain the kind of growth which brought F5000 to its zenith at Long Beach.

The crossroads seem finally to have forced themselves upon the SCCA and their major professional racing league. At the very least it has come time for them to either muster the abilities to complete their strange boho dance with the open market or retreat into some other, lesser form of motor racing. ■

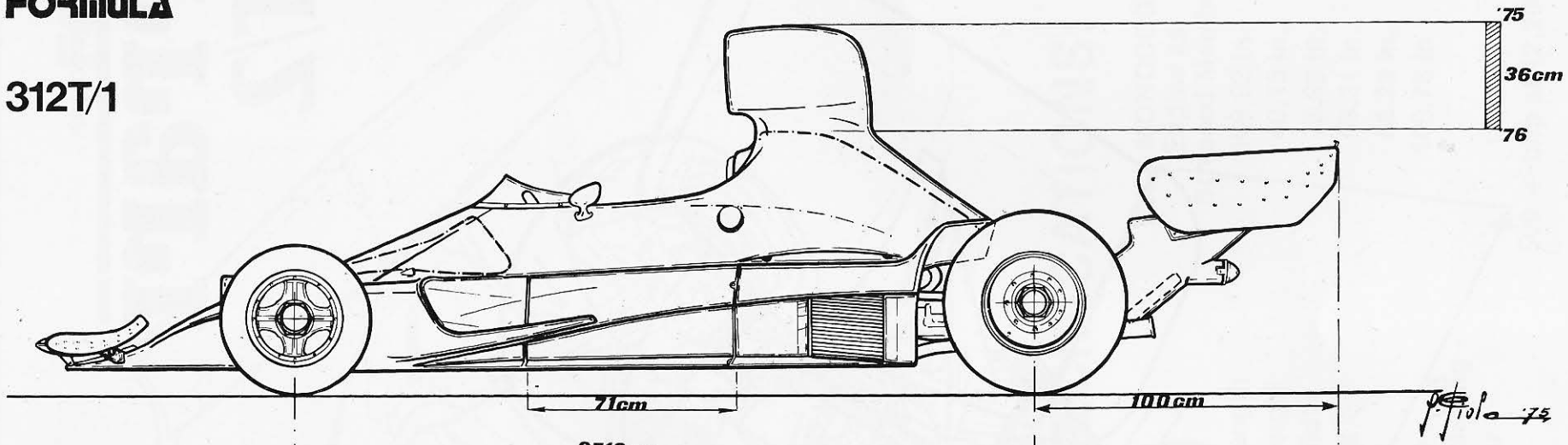
Ferrari

312T/1 & 312T/2 COMPARISON

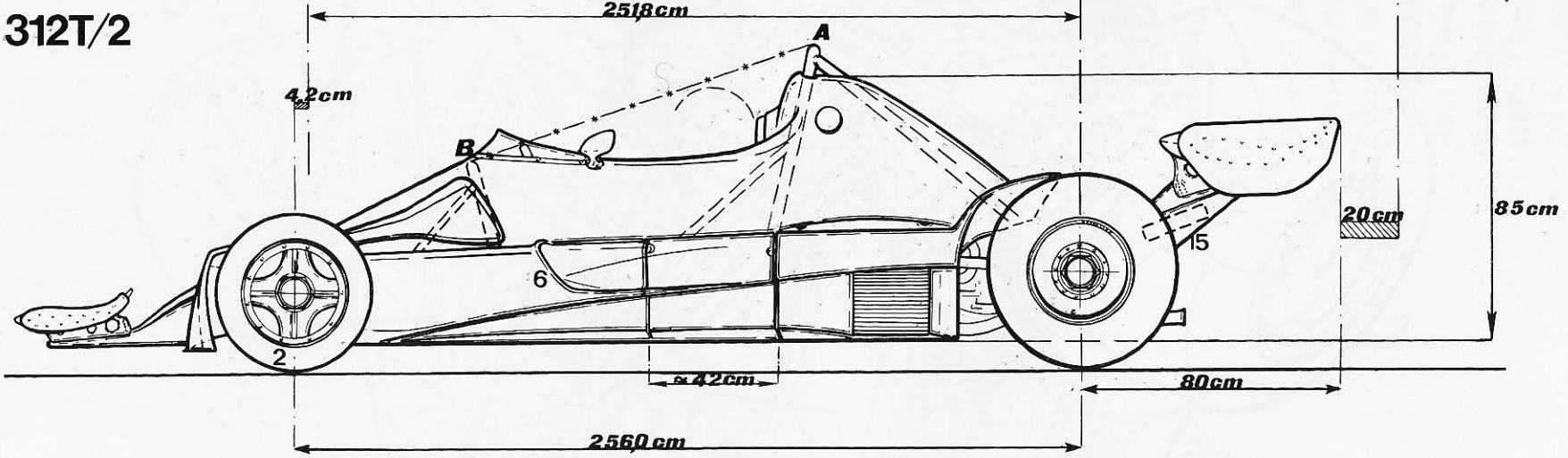
LEGEND: (A & B) Newly required FIA front & rear roll over bars (1) New front brake scoops fare front of tyres (2) 11 cm narrower front track (3) New fiberglass side panel (4) Radiators are now larger and angled more steeply (5) The new tub is more compact (6) Radiator exit is further back alongside of car (7) Side of tub is now 29 cm shorter (8) Different fuel cells and filler placements (9) Tub is now 4.2 cm longer behind driver to increase wheelbase (10) Rear fuel cell is now much shorter (11) Oil cooler placement is now almost flat (12) Coolant pipes no longer run on top of tub (13) Revised header layout (14) Rear track is now 10 cm narrower (15) Different rear wing strut & trans oil cooler placement (16) New rear wing now conforms to recent FIA rule and is inboard 20 cm.

FORMULA

312T/1

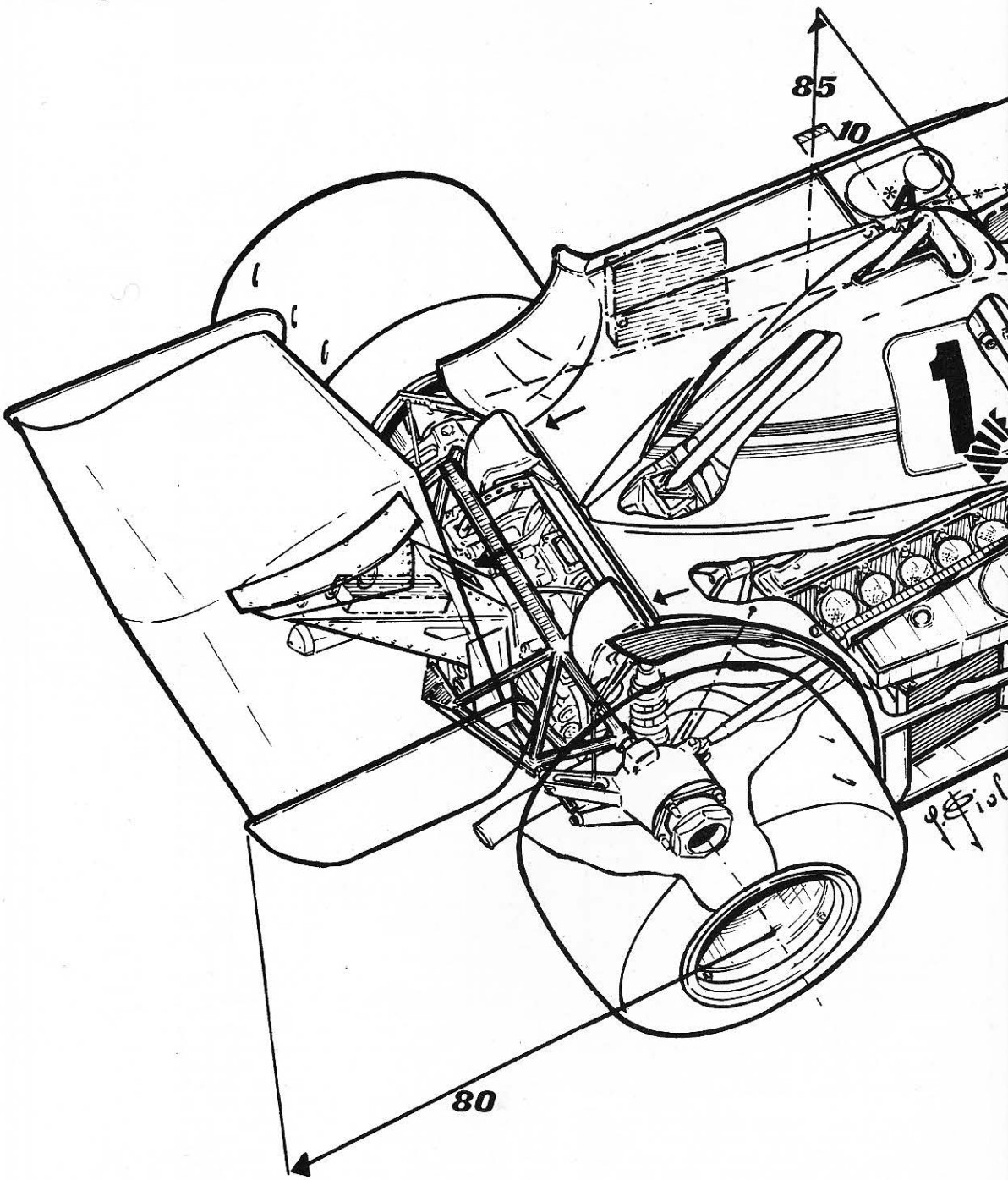


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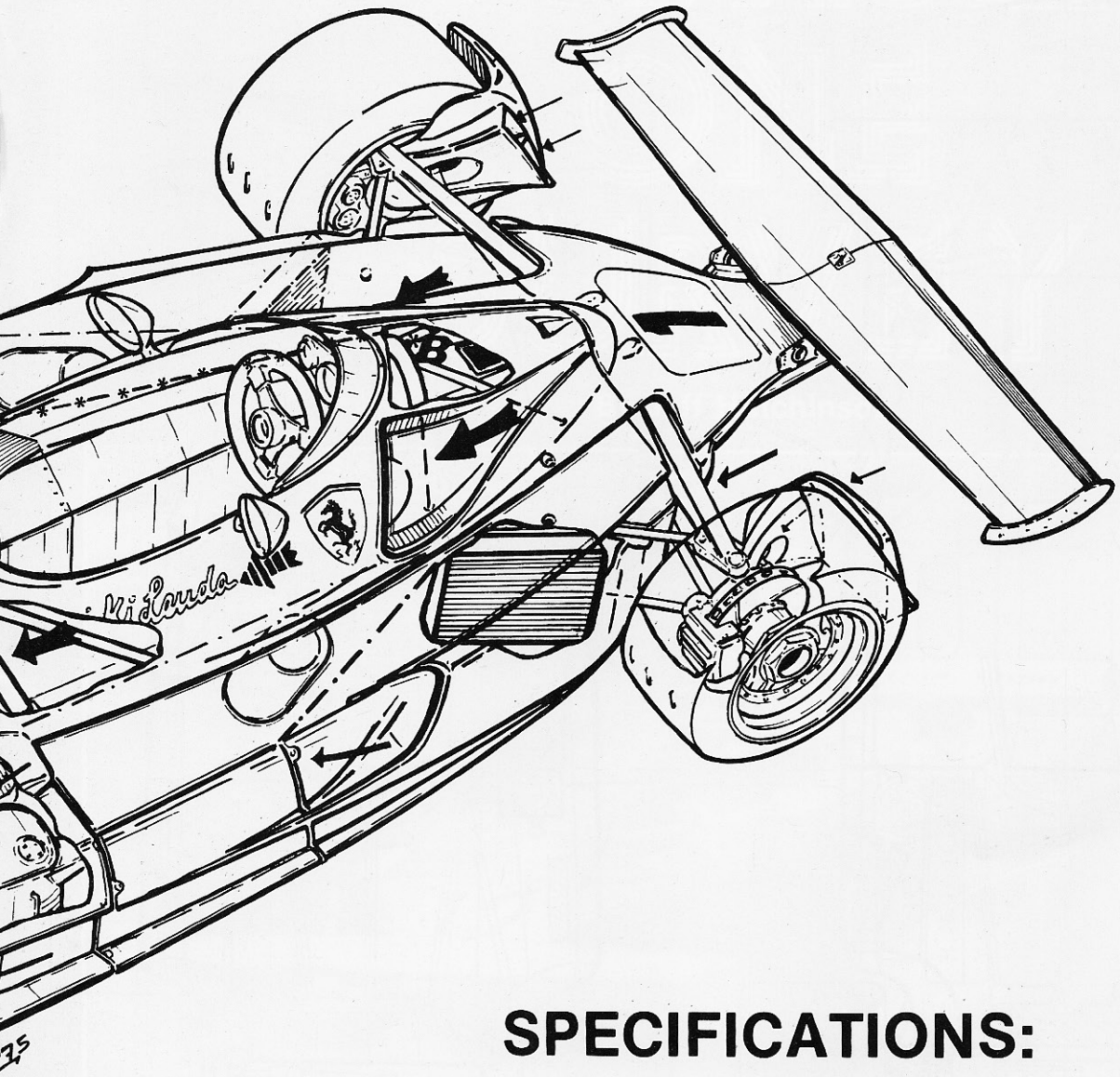
A FORMULA PULLOUT POSTER

Ferrari 312T/2



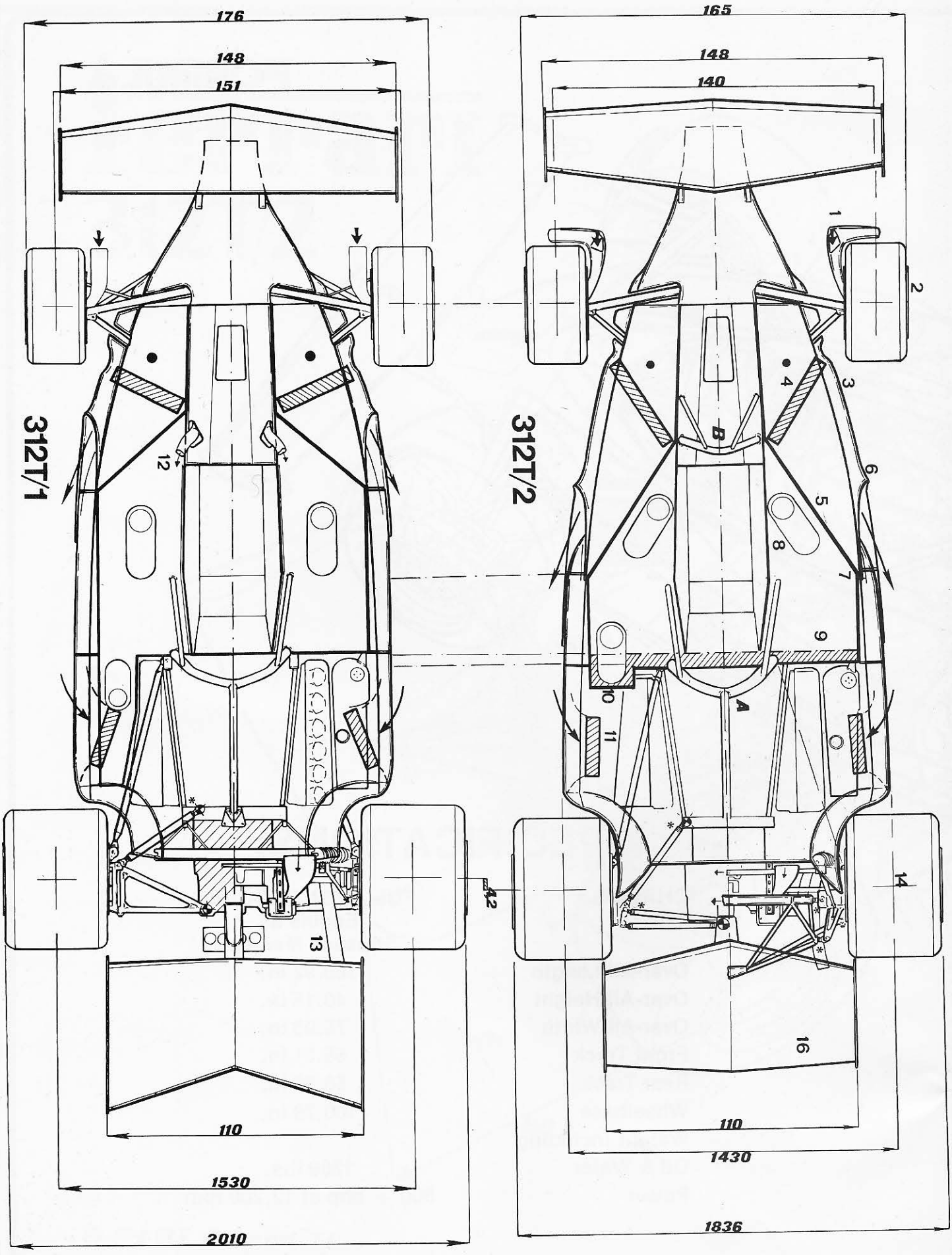
G.PIOLA. rcd.71

FORMULA



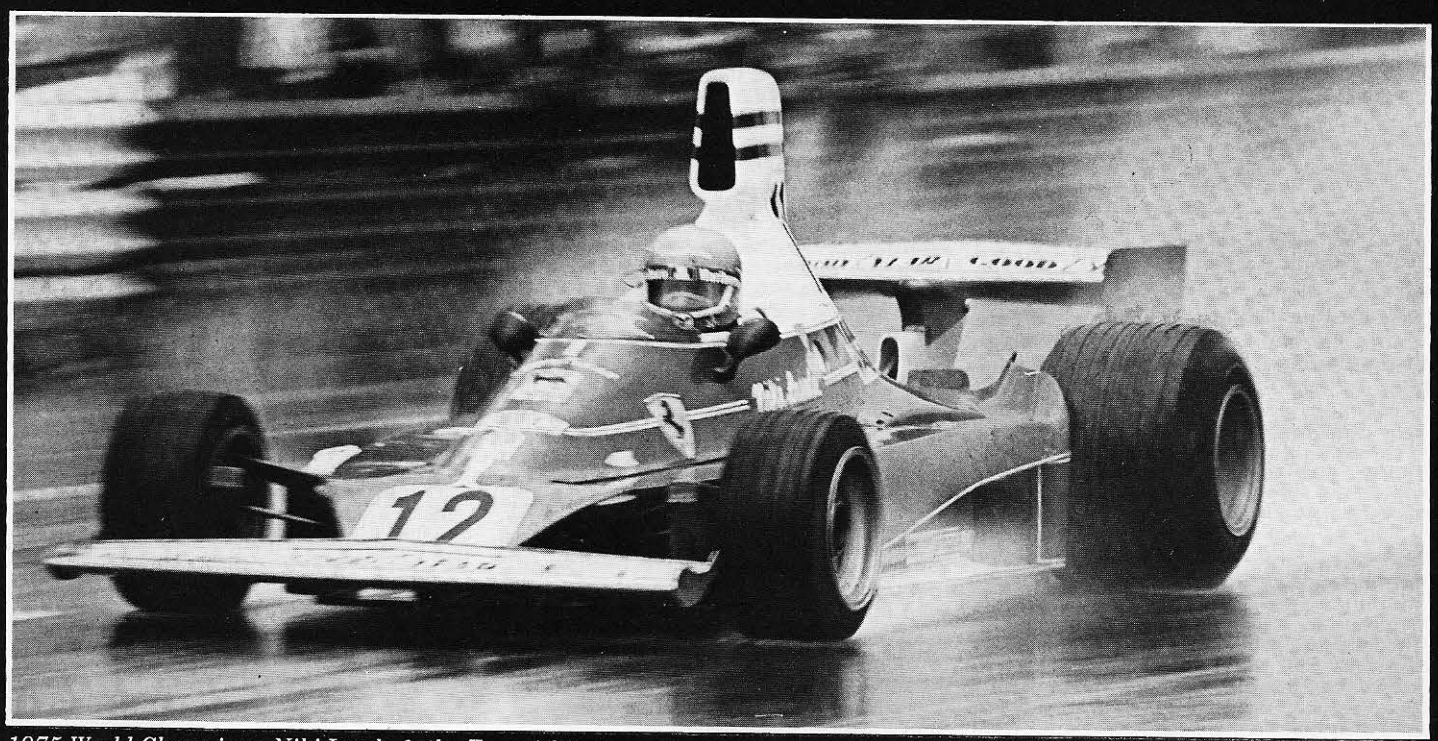
SPECIFICATIONS:

CHASSIS	**FULL MONOCOQUE; Engine as Stressed Member**
Over-All Length	**169.92 in.**
Over-All Height	**40.15 in.**
Over-All Width	**75.98 in.**
Front Track	**55.31 in.**
Rear Track	**56.29 in.**
Wheelbase	**100.78 in.**
Weight including Oil & Water	**1269 lbs.**
Power	**500 + bhp at 12,200 rpm**


312T/1
176
148
151
12
13
110
1530
2010
312T/2
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FORMULA ONE SURVEY

By Jeff Hutchinson



1975 World Champions, Niki Lauda & the Ferrari 312T.

PHOTOGRAPHY BY JEFF HUTCHINSON

If a Hollywood film-writer had written the script for the 1975 Grand Prix season, he would probably have lost his job for having an over-avid, unrealistic imagination.

The story started in glamourous South America. A relatively new car called the UOP-Shadow driven by the young Jean-Pierre Jarier suddenly and for no apparent reason jumped way ahead of its rivals. It was first on the grid after setting fastest time in practice in Argentina, but it never got to race as the gearbox broke on the warmup lap.

Two weeks later, still in South America at Brazil's Interlagos raceway, that same car and driver had again set fastest lap in practice and this time managed to start the race. By half distance he was way ahead of the rest, pulling out more than a second a lap on the established 'aces', but then a faulty metering unit brought the car to a halt before the finish. His retirement set the stage for another storybook finish when Brazil's own Carlos Pace scored his first GP win only seconds ahead of fellow countryman and reigning World Champion Emerson Fittipaldi.

By March the scenery switched to South Africa where once again the local boy made good. After stepping unhurt from a frightening 130 mph crash at exactly the same place which had claimed the life of American Peter Revson one year earlier, Jody Scheckter's chances of winning his home race were looking slim. The Tyrrell team worked all night to build up a spare car out of the wrecked remains of his chassis. It was ready just in time for a pre-race tryout but then disaster struck again when after a few laps the engine blew up. The tired, grease-stained mechanics set about the almost impossible task of fitting a fresh engine in the two hours before the race. With minutes to spare they got the car onto the track and against all odds Jody went on to win his home race, fighting the whole distance with the Martini-Brabham of Carlos Reutemann, who was never more than a car's length away for lap after lap under the blazing sun.

Then to Spain, the first of the European Grands Prix, where there was drama even before a wheel had turned or an engine had echoed around the walls of the huge stadium in Barcelona's Montjuich Park. Once it had been a football stadium but now the high red brick walls and two enormous iron gates became a prison around the Formula One paddock when the drivers refused to race. "The circuit is too dangerous," said the GPDA, but after threats and counterthreats and ➤



Cooling off the Brazilian race crowd.

G.P SURVEY

only one hour's practice instead of the usual six, the teams were blackmailed by the organisers into putting their cars on the track for the race. They were told that if they didn't race all their cars, equipment and transporters would be impounded. All gave in but World Champion Emerson Fittipaldi. Despite his points lead after the first three races he was not going to race on what he knew was an unsafe track, and when the flag fell to start the race he was already high above the city in a plane on his way back to his Swiss home. Before he touched down he was to learn of the horror he had left behind which might have been prevented had his fellow drivers backed him up.

German Rolf Stommelen, leading his first Grand Prix after the two favourite Ferraris had already eliminated themselves by crashing together before the first corner, and after several other cars had also crashed, was to suffer the worst crash of them all.

The rear wing mounting of his Embassy-Hill suddenly snapped off half way through a high speed corner and the car took control of its driver. In less time than it takes to utter a cry of warning the car had bounced off the barriers on one side of the track and flown high into the air and over the barriers on the other side, killing four people standing in its path and badly injuring several more.

For Stommelen it was the end of a promising Formula One career, for although he was to recover from leg injuries and race again before the end of the year, he was not the same driver as before. When the gravity of the crash was realised the race was immediately stopped. Ironically it was another German driver and Fittipaldi's teammate, Jochen Mass, who was declared the 'winner', for him a sad first Grand Prix victory.

Belgium saw the beginning of the Ferrari domination of the Grand Prix season. Their new transverse gearbox type 312T chassis, which had made an only moderately encouraging debut in South Africa, was to start setting the pace. Niki Lauda and Clay Regazzoni had effectively finished each other off before the first corner in Spain, but in Belgium Lauda drove to a comfortable win despite a sick sounding engine caused by a broken exhaust pipe.

In Monaco Lauda repeated his Belgian win with a perfectly judged race in slippery conditions which had seen a 'suicide' first lap by Jarier in the Shadow, who was still trying to score his first Grand Prix victory. He chased Lauda away at the start and then proceeded to have three separate crashes on the first lap until his car was too badly bent and broken to carry on.

Lauda made it a lucky hat-trick in Sweden when after starting back in fifth place each of the cars in front of him gradually ran into trouble — including the luckless Jarier.

Lauda's fourth consecutive win was stopped by James Hunt and the Hesketh team — one of the most publicised and glamourous of the Grand Prix teams who, until the Dutch Grand Prix, were still waiting for their first Grand Prix victory. After a Monaco-like wet/dry beginning, which saw Hunt stop early for dry tyres, the remainder of the race turned out to be a thrilling battle between Hunt and Lauda. The superior Ferrari snapped at the Hesketh's wheels all the way to the flag, but Hunt's brilliant driving saw him take the win. Then the crowd was treated to another memorable sight when the portly Lord Hesketh danced on the track with joy.

In France Lauda took his revenge and his fourth win of the year and this time it was Hunt's turn to do the chasing, the race running to an end just as it looked as though the Hesketh might take the lead from the Ferrari.

By now the Austrian had amassed almost twice the number of points as his nearest rival, and after the hectic start to the season things were becoming a little monotonous. But that all changed at Silverstone, where a sudden rain shower eliminated the Ferrari of Clay Regazzoni and the two Shadows of Tom Pryce and Jean-Pierre Jarier as they spun off the track while leading. Later they were joined by virtually the entire grid of cars as a second, heavier rain shower saw one car after another skate off the track on their useless slick tyres and end up in a $100,000 scrap heap. When the race was stopped, only one car was still on the track to take the chequered flag and that belonged to Emerson Fittipaldi, the first driver (besides Lauda) to score a second victory of the season.

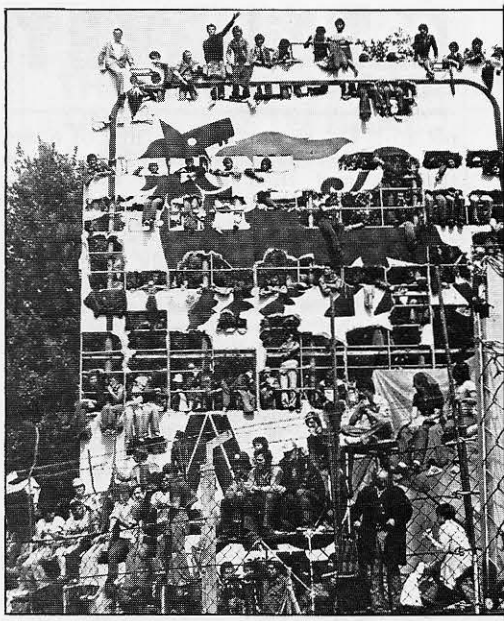
In Germany tyres hit the headlines again, only this time it was punctures. The newly built run-off areas around the Nurburgring had not been cleaned up and were littered with small stone chips, and the problem was made worse by untidy driving on the part of some well known aces.

The race turned out to be a grim litany of cars wrecked or slowed because of punctured tyres, the rubber too thin and soft to withstand even the smallest of sharp stones or other objects lying on the track. The puncture problem and the

Wilson Fittipaldi tending to the injured Rolf Stommelen in Spain.







(ABOVE) One of the high points of the year was James Hunt's Dutch GP win for Lord Hesketh. (RIGHT) An enthusiastic crowd at Monza.

Nurburgring's usual car wrecking qualities saw a very sparse and battered looking group of cars limp home to the finish, led by Carlos Reutemann for the first time in 1975.

It seemed that nothing worse could follow England and Germany, but once again the unexpected proved to be the normal. Practice saw a series of horrifying crashes. Wilson Fittipaldi was one of the first and luckiest when he escaped with only a broken finger. During the pre-race warmup on the morning of the race Mark Donohue's Penske-March went out of control when a tyre deflated, resulting in an accident which took his life and the life of a course worker.

By the time the race had started, the crowd's spirit was further dampened by a downpour of rain which had stopped long enough to start the race, but then returned with vengeance and forced the organisers to stop the race before another Silverstone catastrophe exploded. Leading by a healthy margin at the time was the March of Vittorio Brambilla, but in a final dramatic twist to a weekend full of suspense the Italian relaxed his concentration just a fraction too soon in the excitement of winning and crashed his March as he crossed the finish line! Fortunately he was able to limp slowly around and finish the rest of the lap to get his trophy, unlike the second and third place drivers at Silverstone . . .

Because the race had been stopped early in Austria and only half points had been awarded, Niki Lauda, who came in sixth, was still just half a point away from being the confirmed 1975 World Champion when the two Ferraris lined up on the front row of the grid for their home Italian Grand Prix, the last Grand Prix of the European season.

Another multi-car accident, which occurred on the first lap at the controversial Monza chicane, saw several of the leading runners either slowed or eliminated but fortunately there were no injuries. Clay Regazzoni went on to score a comfortable victory, aided by an extra-powerful experimental engine, while Lauda played it safe and was content to let Emerson pass him and take second place. For third was all he needed to clinch the World Title. It was an emotional day for the Italian crowd, who swamped the pits and paddock directly after the race to the extent that even the police could do little to control the thousands of fans hoping to catch a glimpse of their heroes or at least get a free bumper sticker.

The Canadian Grand Prix should have come next but it never did. This time it was not the weather, or strikes, or accidents which stopped it — it was politics. Politics is a newcomer to Grand Prix racing but it grew more and more important as the season progressed. This side of Grand Prix racing has been nursed into fruition by the more business minded members of the Formula One Constructors' Association led by Bernie Ecclestone.

The motivation was money and the constructors did not feel they were getting their fair share. The Canadian organisers tried to squeeze them for the least possible amount, expecting the American organisers to back them up.

The constructors tried to get the maximum possible amount, but when the arguments had finally ended and the Canadians eventually gave in to the F1CA's demands, it was too late. The constructors had got themselves into a position where to give in, even on their terms, would have reduced their bargaining power with the other organisers. They had decided that the money they would lose over boycotting Canada would more than be made up by the extra money they would be able to negotiate from organisers of future races.

So there was no Canada, but none the less Watkins Glen provided a fittingly dramatic end to the 1975 story.

Last year's World Champion Emerson Fittipaldi was locked in a desperate battle with Lauda, his successor. The race was between these two cars but then along came villain Clay Regazzoni in the second Ferrari. Clay was two laps down after a ➤

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pit stop but he was still capable of altering the race. He let his teammate Lauda through and then held up Fittipaldi's McLaren for so many laps that he, Emerson, lost any chance he might have had to challenge for the lead.

Regazzoni was eventually black flagged and pulled off to the jeers of the crowd; at this point the fight shifted to the pits between Ferrari's suave young team manager, Luca Montezemolo, and the Clerk of the Course.

Lauda went on to his fifth win of the year, while Montezemolo and the organisers managed to settle their differences.

Like all good Hollywood stories, everybody lived happily ever after — until 1976 that is.

From the beginning to the end, the plot could easily have been written for the movies. But it had all really happened; some won, others died violently. It was all real life — as far as the esoteric world of Grand Prix racing can be called real life. Things like that just don't happen in most people's lives and it's the chance to actually open the door on this unreal world and take a glimpse at the people on the other side that is making Grand Prix racing more and more appealing to the record crowds that packed the grandstands at every race this year.



The Ferrari team brunches in Brazil.

The Drivers

It is normal at the end of the year for a review of the F1 season to carry a list of the top ten drivers. To list the top ten by the points they scored is hardly a just way, for in that case Ronnie Peterson would be a lowly twelfth equal with Jacques Laffite, when even the most ill-informed onlooker knows that the Swede spent the year struggling with an outdated, uncompetitive car.

On the other hand, there are few who would dispute the fact that Niki Lauda, with five wins and some nine pole positions to his credit throughout the season, was not a worthy World Champion, but does that make him the best? His car was by far the best all-round chassis for the varying types of circuits and in addition to being the quickest, it was also the most reliable. Lauda failed to finish only one of the 14 Grands Prix and that was as a result of the accident in Spain. He finished in the top six in twelve of the races, a record which no other driver even came close to matching.

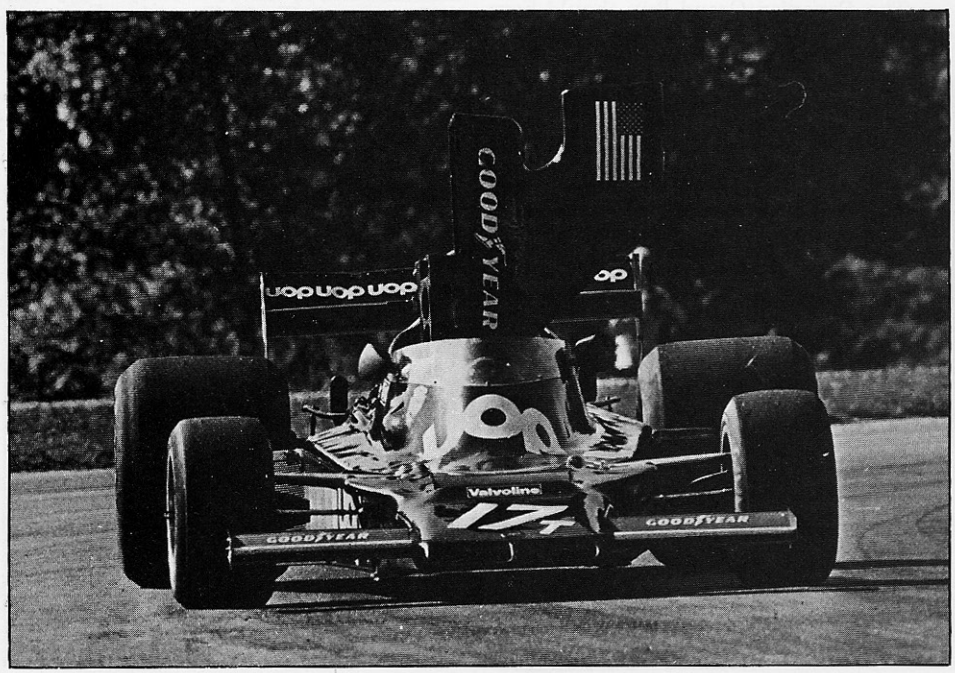
But what would have happened if Fittipaldi had been driving the Ferrari instead of his McLaren, a chassis which featured a different suspension layout at just about every race in a bid to make it competitive? Emerson managed two wins and four second places, three of these right behind a Ferrari. Driving the same machinery, would he have been better than Lauda? Therefore to give an opinion on the top ten or more drivers of the season is of somewhat limited validity.

What follows is a series of sketches of the leading names and cars with the order in which they appear acting as a rough guide to their degree of ability.

Niki Lauda — has very definitely joined the ranks of motor racing's top "businessmen" both on and off the track. In 1975 he finally smoothed off the rough edges of his driving and mental approach and became a precision-controlled machine that could be switched on and off to suit the current program needed. His driving has become polished and his mistakes a rarity. He now has that relaxed self-confidence about his 'job' that only regular winning can bring. Perhaps the best gauge of his improvements is the points gap at the end of the season between himself and his teammate Clay Regazzoni. Lauda scored well over double his teammates points, but a year ago the situation between the two drivers was almost the opposite. Same cars, same drivers, but a much improved Lauda who looks like he's heading for more World Championship titles in the future along with his strong Ferrari team.

Emerson Fittipaldi — won his second World Championship last season by virtue of sheer effort and the fact that he had more experience and skill than his main opponents, notably the Ferrari team. This year Lauda developed his own skills against which, combined with the superior Ferrari chassis, even Fittipaldi was no match. His McLaren M23 had been developed just about as far as it was going to go by the end of last year and the constant revision of this year's car showed just how desperate the McLaren men were to try and match the Ferrari.

Emerson was criticised by some as having lost his fighting spirit once he had become a father at the end of last year. Although this almost prompted his retirement (he changed his mind four days later) anybody who saw his heroic chase of Lauda at Monaco and Watkins Glen, and of Regazzoni at Monza, saw Emerson at his best ever. In fact, his whole season



It was this sort of a year for Shadow.

was much harder work than when he won the title last year, his McLaren seemingly always riding the curbs or at the very limit of adhesion.

Now with a second child due, his retirement at the end of 1976 seems even more likely and his move from McLaren to his brother's Copersucar-backed team is almost certainly a financially motivated one to boost his earnings in his final year.

Whatever he drives, one thing is certain; if there is any chance of winning, Emerson's competitive spirit and love of the 'sport' of motor racing will see him give his all to win.

James Hunt — scored his first and long overdue Grand Prix victory at Zandvoort. A win had been eluding him since the beginning of the season. At the first race he threw victory away when he spun under pressure from Fittipaldi, but in Holland he more than made up for that mistake with a brilliant drive despite Lauda breathing hard down his neck for the last 20 laps. With his Hesketh team forced to withdraw from racing for financial reasons, Hunt's career looked like being cut off in its prime. Fortunately, he will be getting Fittipaldi's McLaren seat and from there he should develop into a complete World Championship driver.

Jody Scheckter — ended up a disappointing joint seventh overall in the Championship after a bright start with the Elf-Tyrrell team in 1974. The high spot of his season was a brilliant victory at his home South African Grand Prix but after that his year faded.

Undoubtedly the Tyrrell chassis was struggling to stay up with the best of the other Ford-powered cars, but one wonders if Scheckter was capable of getting the most from it given his limited experience.

Often his brow would be deeply furrowed between practice sessions as he tried to work out why his lap times were not as fast as they should have been. He had more than his fair share of accidents too, some his fault and some not. He showed that he has the ability to be Champion someday but it remains to be seen whether he will get the chance to prove it.

Carlos Reutemann and Carlos Pace — each scored one victory. They both drive for the Martini-Brabham team and have other similarities as well. They are both quiet and it is hard to say which one is the better driver. Reutemann's greater experience perhaps gives him a slight edge over his teammate, but both drivers are regular front runners and with their new Alfa-Romeo powered Brabham next year, they could be even closer to the World title.

Jochen Mass — his first proper season in Formula One was perhaps not the easiest, joining a team like McLaren as he did with the reigning World Champion overshadowing his every move. Right from the start he proved a keen pupil however, and in his fourth race of the season he scored his first Grand Prix win, although it was spoiled because the occasion was the shortened Spanish GP. His seven placings in the top six out of a total of eight finishes showed that he was always a force to be reckoned with, and on several occasions he proved faster than Emerson at circuits he knew well. If the McLaren proves a good enough car to win the World Championship next year, Jochen Mass is certainly good enough to take it there.

Ronnie Peterson — is in danger of becoming another Sterling Moss — one of the most talented drivers, winning all the major races, but never getting everything together at the same time to win the Championship. His talent has been proven for a long time, but he must wait for a car capable of letting him use it to the full. Another season like 1975 could ruin his chances forever.

Vittorio Brambilla — suddenly made a big impression this year when he burst to the front with the new March 751, based on their winning F2 car. Vittorio carried on driving it just like an F2 and as a result was often a front runner where the circuit suited the car; in Sweden he managed to take pole position for the race. Unfortunately his car's reliability record was not good, and his results didn't do justice to his driving although in the wet Austrian race everything came right and he drove a brilliant race in terrible conditions to give the works March team their first ever Grand Prix victory after five years of trying. Brambilla is unlikely to ever make it as high as World Champion, but without his lively driving style touched with flashes of brilliance F1 racing would be a lot less interesting.

Jean-Pierre Jarier — like Brambilla, as a graduate of F2, suddenly surprised everybody at the opening two races of the season by taking pole position at both races, but his efforts were to come to nothing when his new UOP-Shadow DN5A broke before the start of the first race and half-

continued ➤

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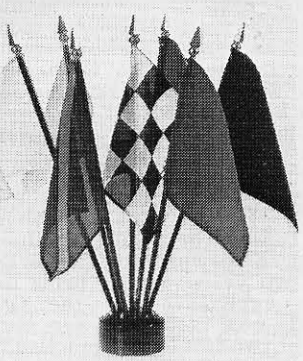
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way through the second, which he was well on the way to winning.

The rest of his season was much the same. He was usually well placed and sometimes even leading the race when his car gave out. His eighteenth place in the Championship certainly does not reflect his ability and his frustrating season almost drove him to split with the Shadow team. His desperation to prove something this season came to a head at Monaco where after a good practice time he drove like a wild man at the start and destroyed his car before he had finished the first lap.

With a couple of wins behind him to round off his rough edges and some better luck next year, Jarier could well be fighting for the title.

Tom Pryce — shared the same bad luck as Jarier although he did give the Shadow team its first F1 victory at the non-Championship race at Brands Hatch. That was the high spot of his season and showed that he has the talent. He took pole position at the British Grand Prix and was leading before he crashed in the slippery conditions. He also demonstrated that he has real determination when he took a brave fourth, his best Championship placing of the year, at the Nurburgring after driving the last three laps painfully soaked in petrol from a leaking fuel tank.

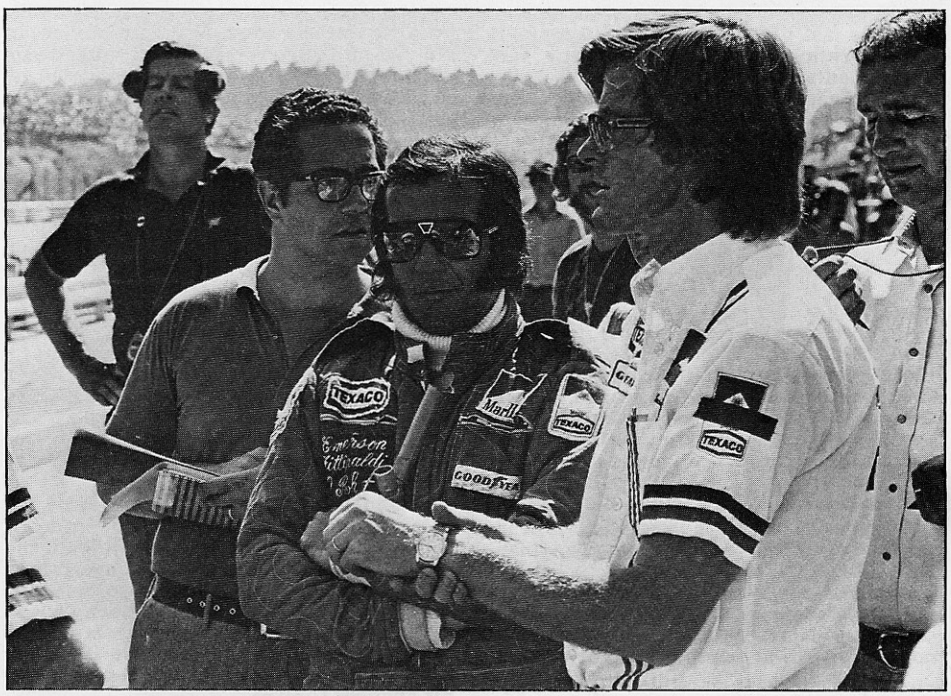
Like Jarier, Pryce will develop into a regular winner with more experience and a bit more luck.

John Watson — is another driver who deserves a lot more than he gets. Driving the uncompetitive Surtees for most of the 1975 season, the bearded Irishman was able to show everybody that all he needed was the right car to become a winner, even though he did not score a point all year. After the sad death of Mark Donohue, Watson was offered a place in the Penske team for Watkins Glen and 1976. It remains to be seen what he will do with it.

Clay Regazzoni — is a driver who has been very lucky throughout his F1 career. He has nearly always driven competitive machinery, especially in the last two years. He is always somewhere around the top six in a race but he has only managed to win two Grands Prix in the last two years, despite being one of the most experienced of the Grand Prix drivers now racing. He can put together one or two fast laps in practice for a good grid position, but in a race he has not shown the consistency which would make him a regular winner. As a back-up driver to Lauda he is ideal.

Tony Brise — of the newcomers to Grand Prix racing in 1975 the young F/Atlantic graduate Tony Brise was without doubt the most talented and likely candidate to climb to the top. In Sweden he scored the first ever and only point for his Embassy-Hill team, but that was in his second ever GP race, with a damaged car which also had a partially broken gearbox in the closing stages of the race. He drove an F1 car like his F/Atlantic, his aggressive style a joy to watch.

Throughout the rest of the season his performances in a car that was plainly not the best were more than could be expected from a driver in his first half-season of Grand Prix racing. As well as his driving skill he also had an abundance of self-confidence, a good knowledge of mechanical engineering, and could get the most from his car at varying circuits with apparently little effort. He had all the qualities of a superstar and would quite probably have become the next "Emerson" of the Grand Prix world. His death in Graham Hill's plane deprived F1 of one of its most promising newcomers in a long time.



1975 was a bit of a disappointment for Team McLaren.

Hans Stuck — made a return to Grand Prix racing at the British Grand Prix, but he has yet to show the talent of his contemporaries or even of teammate Brambilla.

The Teams

The final points standings of the Constructors' Championship is a fair gauge of their real position in F1 racing.

Well out ahead are Ferrari, their success a just reward for an exceptional effort which has finally come together to form the strongest Grand Prix team in racing at present.

Their flat-12 cylinder, 500 BHP "Boxer" engine is the most powerful and flexible engine in Grand Prix at present and its reliability was equal to its power in 1975. The T2 chassis, which made its debut in South Africa, has also proved to be good on all types of circuits and the new transverse transmission worked perfectly throughout the season, its only failure being at the non-Championship race at Dijon during practice . But Regazzoni made up for that one by winning the race.

A continuous development program with Goodyear and thousands of miles of testing at the Fiorano test track paid off handsomely, although in terms of "value for money" the Ferrari World Championship effort was undoubtedly the most expensive of all the teams.

No team can be successful without proper organisation and credit for this goes to the young Roman lawyer Luca Montezemolo, who joined the Ferrari team "on loan" from Fiat at the beginning of last year, having just finished his studies in America.

A fresh approach was all the Ferrari team needed. Everything was already there and only needed putting together properly. Montezemolo got everybody facing in the right direction, and with all sides of the team pulling the same way winning the Championship actually proved easier than the frustrating years of blind effort before. Next year Montezemolo returns to Fiat management and it will be interesting to see if his replacement, Lancia competitions manager Daniel Andretto, can maintain the Ferrari advantage over the opposition.

Second place in the Championship went to the Brabham team owned by Bernie Ecclestone, but his time was taken up more with the work of the Constructors' Association, of which he is Chairman, than his own team. The day-to-day running of the team was left to brilliant young South African Brabham BT44



(RIGHT) The Brabham BT44 was probably the best Ford-powered chassis in '75.

designer Gordon Murray, to whom a great deal of the credit for the team's recent successes must go. The attractive looking BT44B chassis were simply "tidied-up" versions of the team's 1974 cars, but it was still the best "all-round" Ford-powered chassis throughout the year. Thanks to the backing of Martini & Rossi the team was able to run a spare car at every race and there was no shortage of engines.

Texaco-Marlboro-McLaren — were beaten out of second place in the Championship by just one point by Brabham. Their season proved a much harder one than that of the Brabham team, for between races the mechanics were kept busy constantly modifying the Gordon Coppuck chassis in a bid to make the two year-old design more competitive. At almost every race it appeared with modified front or rear suspension geometry and at one stage it even sported a driver-adjustable front roll-bar, the McLaren team having suffered the same setback with the 1975 generation of Goodyear tyres as Lotus, only not such a serious one. Without the choice of tyres of the previous year, the mechanics were always hard at work adjusting suspension settings in practice until the best compromise was found for each circuit. Sometimes it was never found and in general it was a difficult year for the red and white team, their good placing being a result of hard work and their professional approach.

Fourth place went to the single-car Hesketh team, although towards the end of the year they were forced to run second cars on a rent-a-drive basis for Torsten Palm and Brett Lunger to help the team out with its worsening financial situation.

The 1974 Hesketh 308 chassis designed by 'Doc' Harvey Postlethwaite proved to be the backbone of the team's 1975 effort which saw them take their first Grand Prix victory at Zandvoort. This private team, which received a lot of "playboy" type publicity because of the extravagant habits of its owner Lord Alexander Hesketh, was in fact one of the most dedicated of them all. Jointly run by Postlethwaite and "Bubbles" Horsley, they built up a highly efficient unit as their results proved. Just after mid-season, Postlethwaite was the first to announce the team's 1976 challenger with his attractive Hesketh 308C chassis. It was beginning to show considerable promise in its first few races towards the end of the season, but unfortunately the team was broken up since Lord Hesketh has announced that he doesn't have the finances to continue in 1976. Hopefully we'll see the car in somebody else's hands and more cars come off Postlewaite's drawing board.

Hunt scored all the points for the Hesketh team; their fourth place was particularly good considering the fact that they only had one car and half the chances of scoring points compared with the other two-car teams.

Fifth place went to the Elf-Tyrrell team, whose final placing was a fair indication of their troubled year. Like McLaren they were suffering from the tyre situation and were further troubled by two relatively inexperienced drivers who were not able to offer much advice about how to improve matters. Certainly things would have been better with a driver like Jackie Stewart at the wheel.

Ken Tyrrell ran his usual efficient organisation backed by Elf, with Derek Gardner's Tyrrell 007 chassis featuring a modified, simpler rear suspension from South Africa onwards in hopes of making the job of sorting the car at each race easier. The front brakes were also moved this year as a safety measure after the retaining strap failures of the previous year.

Perhaps with Derek Gardner on hand at every race the team might have done better, but the Tyrrell designer spent most of the later races back at the team's headquarters where he was designing and building the revolutionary Project 34, which might bring a change of fortune to the Tyrrell team in 1976.

Sixth place went to the UOP-Shadow team, which in a recent surprise move by UOP lost its sponsorship, although that was after the season had finished. Their Tony Southgate designed DN5A, developed from the 1974 DN3, worked right from the word go mainly because of the fact that it was one of the few cars used in 1975 designed around the latest generation of Goodyear tyres. All season long the car performed well but reliability was elusive. Despite being a relatively young team, team manager Alan Rees, owner Don Nichols and designer Tony Southgate are all old hands at the racing game and it was somewhat disappointing that their reliability record was no better at the end of the season that it was when they started.

Accidents involving their young drivers did not help matters when it came to being ready for the next race, but then McLaren had as many bent chassis and their reliability record remained as high as ever. Constant rumours of driver-swapping with Lotus in the early part of the season took up more of the team's time and efforts than they could afford, while later on an aborted project using the Matra engine in a new DN7 chassis wasted still more time and effort. To stay at the top a team has to be thinking one jump ahead, but with the Shadow team it was more a case of thinking one jump ahead before they had landed from the first.

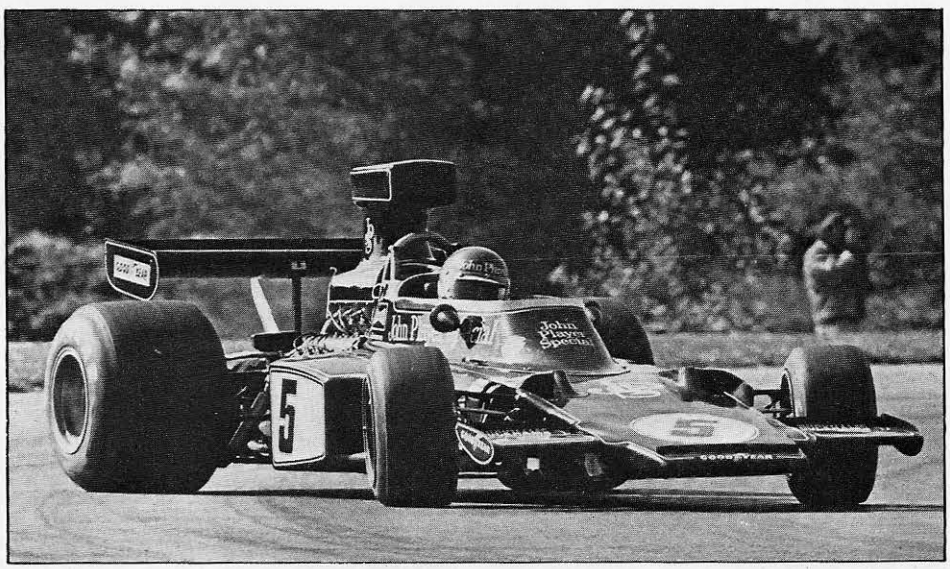
With presumably less money next year without the UOP deal the team will have to run a much tighter operation which, in the long run, may be a boon.

One of the most disappointing teams of the year was the JPS Team Lotus effort, for after the failure of their type 76 chassis they were forced to go back to their five year-old Maurice Phillippe-designed Lotus 72 chassis.

Chief Lotus designer Ralph Bellamy tried just about everything to make the old car competitive, but the car was still no match for the opposition or the talents of number one driver Ronnie Peterson.

Jackie Ickx got fed up with trying soon after the start of the season and left the team mid-way through the year. He was replaced by several other drivers throughout the rest of the year — Brian Henton, Jim Crawford and John Watson — but none of them did any better than Peterson, who must be given full points for trying his hardest when success was almost an impossibility.

A new JPS-Lotus 77 was hoped for before the end of the season, but it was not until after the U.S. Grand Prix that serious testing began. Peterson has already begun to lap the new car faster than his Lotus 72 and hopefully it will be a car worthy of his talents for the coming season.



Not even the talents of Ronnie Peterson could make the five year-old Lotus 72 design competitive.

The works March team came next in the points but their low position is not really reflective of the capabilities of Robin Herd's latest 751 chassis, based on his successful and compact F2 car.

For a team that almost closed its doors on Formula One at the end of 1974 the March team did extremely well but a lean financial position prevented them from being competitive, even though drivers Vittorio Brambilla, Lella Lombardi and Hans Stuck were all paying instead of being paid for their drives through their sponsorship arrangements with Beta tools for Brambilla and Lavazza coffee for the other two. It seems that the simpler the car, the better things seem to work with the Goodyear tyres available, and Robin Herd's design was about the simplest of them all. But it was also one of the best chassis of the season and thanks to Brambilla it brought the works team their first ever Grand Prix win. With the backing for a well run two car team for two good drivers there is no reason why March could not be in the top three of the Constructors' Championship next season.

A second place at the Nurburgring by Jacques Laffite gave Frank Williams' Williams F1 car its best ever placing and only championship points of the year. The financial juggling of Frank Williams ➤

G.P SURVEY

somehow manages to keep his team running, but always on the very edge of collapse, which is a situation hardly compatible with success. The fact that Frank always manages to get a car on the grid at every race and managed a second place in Germany is a good enough recommendation for his capabilities and those of the talented Jacques Laffite. Williams' second driver, Arturo Merzario, quit the team after Monaco when he complained that Williams' new FW4 chassis was not comfortable and Frank would do nothing about it, although the main reason for his departure was a financial one — Merzario was not prepared to drive on an "expenses only" basis like Laffite. With Merzario out of the team, Williams ran several other drivers in hopes of finding a young ace to change his fortunes. Jody Scheckter's brother Ian drove in Sweden and Holland, while at the other races Renzo Zorzi, Lella Lombardi, Jo Vonlanthen, Ian Ashley and Francois Migault each tried the car. After so many seasons of struggling with finances it would be nice to see what Williams could do with a big sponsor and the money to develop a competitive car.

There was no shortage of money with the new American Parnelli team, which looked like making a big impact in 1975 after their Maurice Phillipe-designed Parnelli F1 car had made such an impressive debut at the end of the 1974 season.

Unfortunately the whole thing turned sour as soon as the team moved to Europe. Internal politics saw designer Phillipe and his ex-Lotus buddy Andrew Ferguson leave the team early on in the season and then they were followed by Team Manager Dick Scammell who did a good job of keeping the team going most of the season, despite the lack of a designer and the uncertainty of what the next week might hold as the financial squeeze was draining the Parnelli organisation. Driver Mario Andretti also spent too much time rushing between F5000 races in America and Grand Prix events in Europe for most of the season, which naturally cut into the necessary testing time. The switch from Firestone to Goodyear tyres did not help the team's position much either, and all these factors reduced them from potential front runners to one of the "struggling" teams.

Graham Hill's Embassy Racing team made slow but sure improvement over the year, developing their original Lola chassis and re-naming it a Hill. Despite the obvious setback of Stommelen's accident in Spain, the addition of Tony Brise put the team quickly back on its feet. With Brise the team also ran Alan Jones and Vern Schuppan, while Stommelen returned for the Austrian Grand Prix but was still not fully recovered and did not run in America.

The team had planned to concentrate all their efforts on a single car for Brise in 1976 but with his and Graham Hill's tragic deaths it looks as if the team will be disbanded.

The Penske team could not have had a worse year than 1975. After half a year of trying to develop their own Penske PC1 chassis, which had made its debut at the end of 1974, they reluctantly came to the conclusion that it was simply not competitive. Their First National City Bank sponsors bought Mark Donohue a March 751 chassis instead and he immediately showed a big improvement.

By that time however, the team's morale was low and the equally difficult task of building the team back into a working unit lay ahead of Penske and Donohue. In practice for the Austrian GP, a flat tyre caused the March to leave the road at one of the fastest points on the track which resulted in Donohue's death. It is sad that he didn't have the chance to work longer with the Penske team and build up the sort of winning combination in F1 that they had in every other class of racing that they had tried.

Now the responsibility has evolved upon John Watson who, with a new Penske chassis based on the March, made his debut for the team at the American Grand Prix. A last minute problem saw him forced to start from the back of the grid with the old PC1 chassis but after a fighting effort he managed to finish ninth. He should be a suitable replacement for Donohue.

The only other team to score points this year was Mo Nunn's Ensign team, which scored its first ever World Championship point when Dutch driver Gijs van Lennep took the Ensign to sixth place at the German Grand Prix.

Mo Nunn started Grand Prix racing seriously in 1974 and since then his team has improved race by race, lately aided by the sponsorship of HB Alarm Systems. Half way through the 1975 season Nunn's second F1 car, the Ensign N175/04, made its first public appearance. Unlike the first car, it was an advanced and well made car which in the hands of Gijs van Lennep, HB driver Roloef Wunderink and more recently Chris Amon, started to show great promise. Unfortunately Amon's bad luck continued off the track and he was unable to race the car at Watkins Glen after breaking his foot in a road accident, but next year should see the Ensign project going even stronger, hopefully with Amon back at the wheel.

In addition to those drivers and teams several other teams competed in the 1975 World Championship, but without much success.

One of the oldest and best known of these was the Stanley-BRM team, renamed Stanley-BRM after he and his wife saved the team from the economic axe of their Rubery Owen holding company. Unfortunately the team has been in a state of steady decline during the past few years and 1975 showed nothing that looked like stopping it.

The main problem is their V12 BRM engine which is simply just not powerful enough. Despite constant claims from Stanley that the necessary 30 horsepower was just around the corner, it never showed up and the team spent a grim year struggling to qualify and hoping for miracles. Mike Wilds started off sharing the driving with Bob Evans, but after a disappointing showing in South America Stanley used him as a scapegoat and sacked him.

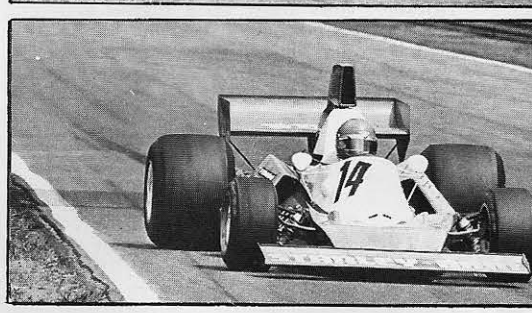
Bob Evans took over the seat for the rest of the year and showed himself and the chassis to be as good as the rest when it came to a section of tight corners, but as soon as power became more important the BRM was left miles behind.

Perhaps one day that extra power will arrive and once again the BRM will be a name to be reckoned with, but at the moment it does not look very likely.

Another team with a disappointing season like BRM was Surtees. After losing his Bang & Olufson sponsorship, Surtees was faced with the choice of either dropping out of F1 or carrying on with minimum sponsorship and his own money. He took the second course and wisely chose John Watson to help him, but with an uncompetitive car and the lack of money for all the necessary

A team on the way up and a team on the way down, that was the situation in 1975 with Ensign and BRM. The Ensign team introduced a new car, found a major sponsor and acquired the services of Chris Amon whilst BRM did nothing but look bad.



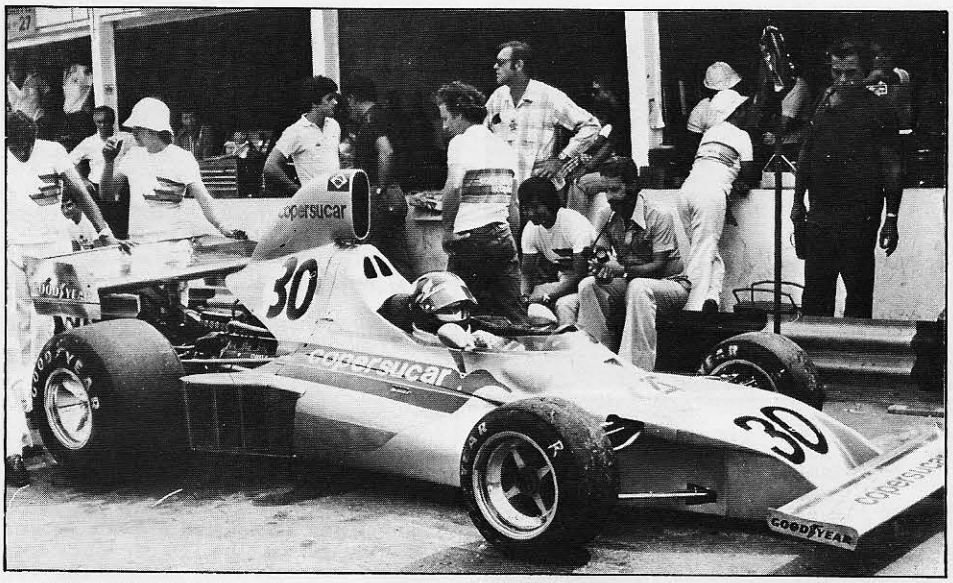


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Wilson Fittipaldi's Copersucar team had a difficult first year.

'extras' that make the difference between success and failure, the Surtees team made little impression on its opposition. Watson put up some good showings but as the season went on the situation got worse and worse. Surtees was finally forced to pull out after the British Grand Prix when both his cars were damaged in the big accident in the wet.

Watson moved on to Penske, while Surtees re-grouped his forces and set about the task of building a new car and organising a new effort for 1976 which we can only hope works out for him.

With generous backing from their sponsors Wilson Fittipaldi's Copersucar-Fittipaldi team had no financial worries, but the one thing they did not have and could not buy was experience. The car, designed by Wilson's former F3 and F2 mechanic Ricardo Divilia, was never very competitive despite many changes throughout the season to aerodynamics, chassis and suspension. It never even looked like being very competitive, and with Wilson driving it was not very likely to be anyway.

By the end of the season they were no nearer success than they had been at the beginning of the year. It has just been announced that Emerson intends to drive for his brother's team next year; however, hopefully this will put the team at the front of the grid instead of the back.

A team which had an even worse time than the Copersucar group was Maki Engineering, returning with their 1974 car modified to take the latest tyre sizes. After its brief appearance and rather sad demise at the Nurburgring race last year, the team was resurrected by its band of devoted Japanese engineers and given fresh life for a few races, thanks to some financial help from Citizen watches.

It was more by luck than judgement that their 1975 season did not end like the first, for the basic car is simply unsafe to be driven at F1 speeds. Tony Trimmer did most of the driving this year and deserved a medal for driving the Maki as fast as he did, as parts broke and fell off at regular intervals. He never managed to qualify the car for a Grand Prix event, although the car did eventually get to race when he qualified for the non-Championship Swiss Grand Prix at Dijon and actually finished.

The one impressive feature about the Maki project is the sincerity of its members. One day they may have learned to make a serious attempt at building and running their own Formula 1 car, but until then they should buy and run a proven car or find sufficient sponsorship to be able to hire established F1 designers and re-learn the business from step one.

One other driver/team which deserves special mention is Austrian Harald Ertl, who mid-way through the season borrowed every bit of money he could find to buy and run a Hesketh 308 for the German Grand Prix, backed by his Warsteiner beer sponsors. It was his first ever attempt at Formula One and with his friends acting as team manager and mechanics he put up such an impressive performance that his sponsorship was continued to include the Austrian and Italian Grands Prix. At both of these Ertl also showed that he could drive competitively and put up a much better performance than Brett Lunger, who was paying a great deal more money to run in a second works car. Hopefully Ertl will get the chance to run again, for his three drives in F1 showed that he has the ability to go a lot further.

Politics

A sure sign that any sport is growing is when the politics of the men behind it start to take as much of the publicity as the sport itself. This season that has almost been the case and at times the 'sport' has taken a back seat to business.

The problems arose a couple of years ago when the Formula One Constructors' Association began to realise the potential big business that Grand Prix 'circus' provided. They got themselves organised and like any 'show' signed contracts with the interested parties for a minimum price for each "performance". They made sure things ran smoothly, that everybody concerned had what they needed and, in short, got things working as they should have been years before.

Suddenly the governing body of motor sports, the Commission Sportive International (CSI), realised that in reality they had less control over the World Championships for drivers and constructors than the F1CA. But what could they do about it?

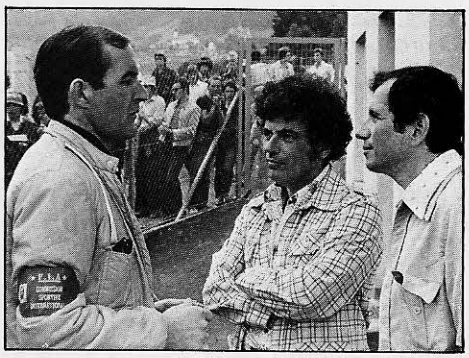
Things came to a head when the constructors boycotted the Canadian Grand Prix as an example to organisers who were not willing to agree to their financial terms. The Canadians eventually agreed to the figure demanded but by that time the F1CA said that their deadline had not been met and despite the Canadian organisers appealing via the CSI to force their race to take place, the constructors remained adamant and the Canadian Grand Prix did not take place.

Having shown they meant business, the F1CA then went around to the other organisers handing out contracts for future races at a much increased price from previous years.

Finally the CSI acted. They gathered the organisers together and issued an ultimatum: We declare the contracts already signed worthless unless countersigned by us, but we won't sign any contracts unless the figure per race is lowered. If a race goes ahead without our approval, then the race will not count as a World Championship event.

The F1CA countered that attack with a slightly lower price and the CSI responded with a slightly higher price, but still lower than that demanded by the F1CA.

Then it was a deadlock. The CSI demanded a reply by the first of November or they would look to another formula for the World Driver's Championship. The F1CA did not even bother to reply to that one, for with or without official sanction F1 was what the public wanted to see and the CSI would have cut their own throat by trying to give the public second best.



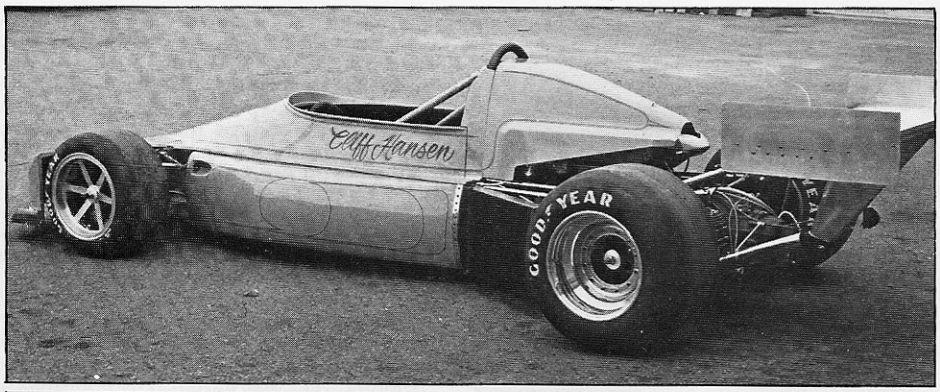
Canadian organizer Bernie Kamin (RIGHT) and Harvey Hudes plead their case to the FIA man.

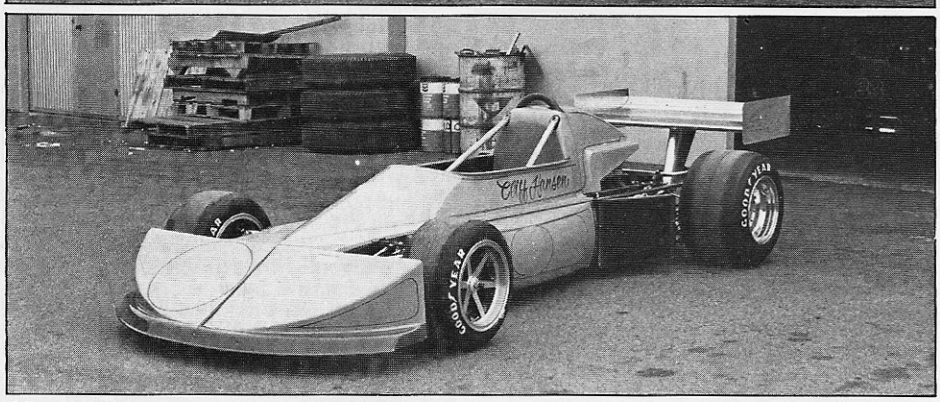
Eventually all parties managed to sit down and discuss the matter as they should have done in the first place, and a first stage agreement was reached with a view to further discussions in the near future to revise the price and agreements in favour of the constructors next year if they can show by increased crowd attendance figures that their efforts at planned promotional activities are increasing the sport's popularity.

Hopefully the political wrangling will die down for a time now, until the next time that the F1CA are forced to take some action that the CSI should have taken on their behalf, that is.

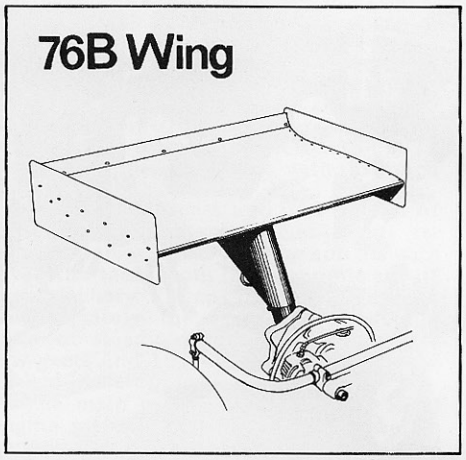
The F1CA put the show together, do all the hard work of keeping it running and take most of the risks. Why shouldn't they get the biggest slice of the pie? After all, with world economics the way they are at present it might not last too much longer!

Even at the end of the best film the screen goes blank — and that's life! ■





March 76B. RPM Photos



March 76B

Text By J. Peter Halsmer & Drawings By Jorge Parodi

As I drive an FB — F/Atlantic myself, it is interesting to me to keep up with recent changes manufacturers have made in the state of the art. Cliff Hansen of Cliff Hansen Racing in Costa Mesa, California has a '75 and a '76 F/Atlantic March in his shop, and was kind enough to offer his equipment for a short article on comparing the two cars.

The fact that F/Atlantic is becoming a very popular class is making the manufacturers more serious about testing and development and I think March is one of the best in this area anyway, what with their involvement in Formulas 1 and 2. A look at their changes for this season should give us some idea of current design in F/Atlantic, at least as far as aerodynamics and suspension are concerned.

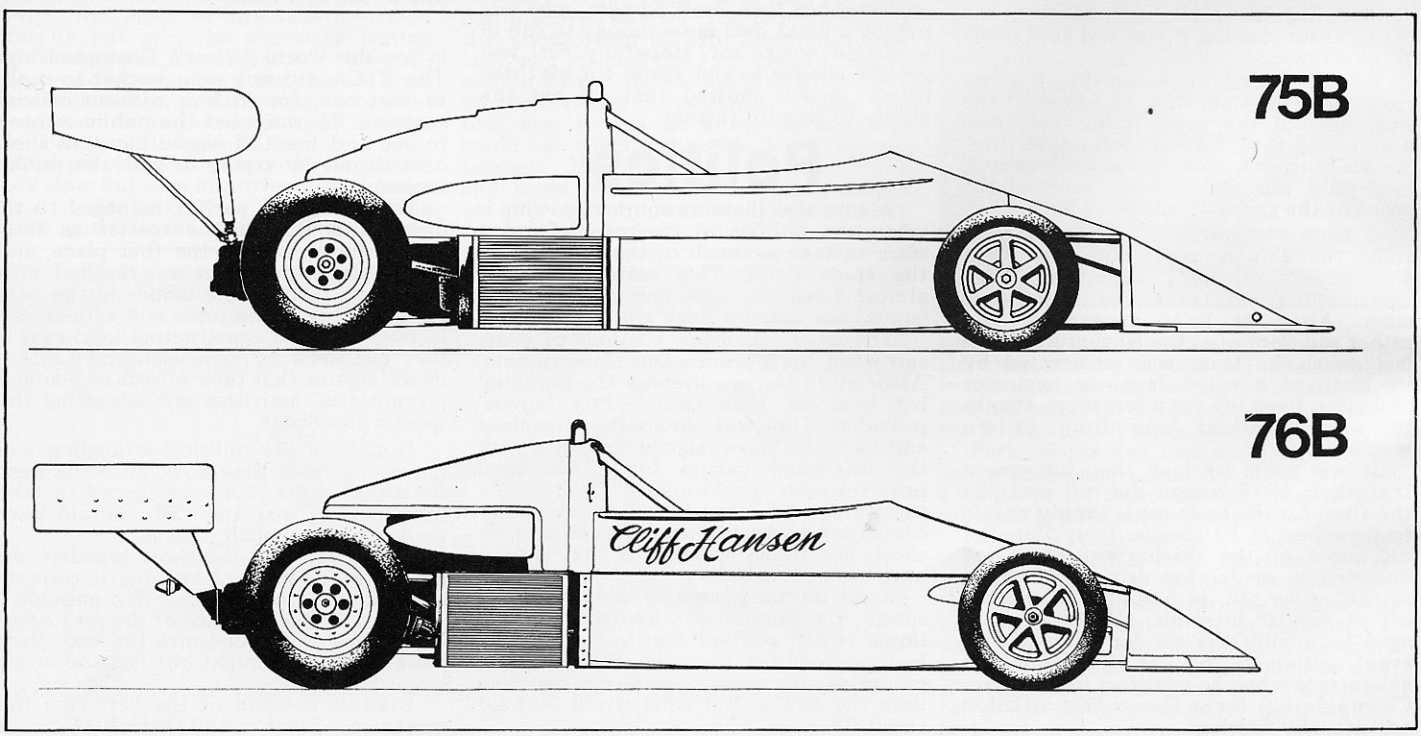
At first glance, the '76 car looks cosmetically very much the same as the '75. March's approach seems to be to keep what they know is good about their current car and try to improve on it.

On closer examination, the aerodynamics do look to be improved, what with a narrower track (3 inches at the front and 2 at the rear), a cleaner transmission area (no oil tank and battery hanging out as on the '75 car), and a modified nose and deformable structures.

The nose is moved back closer to the front wheels than on the '75 car, and has a slightly different shape. It appears it should be somewhat quicker down the straight, but doesn't look to me to be able to generate the downforce the '75 nose could.

On the other hand the rear wing has been moved lower, thus causing less pitching moment and in turn making whatever force is generated by the new nose more effective.

The rear wings themselves appear identical, but the '76 one is not adjustable except for the small flap on it — the '75 rear wing had an adjustment for



changing the angle of the entire wing, as well as the flap adjustment.

The deformable structures have also been slightly changed, getting a smoother shape than the '75 ones.

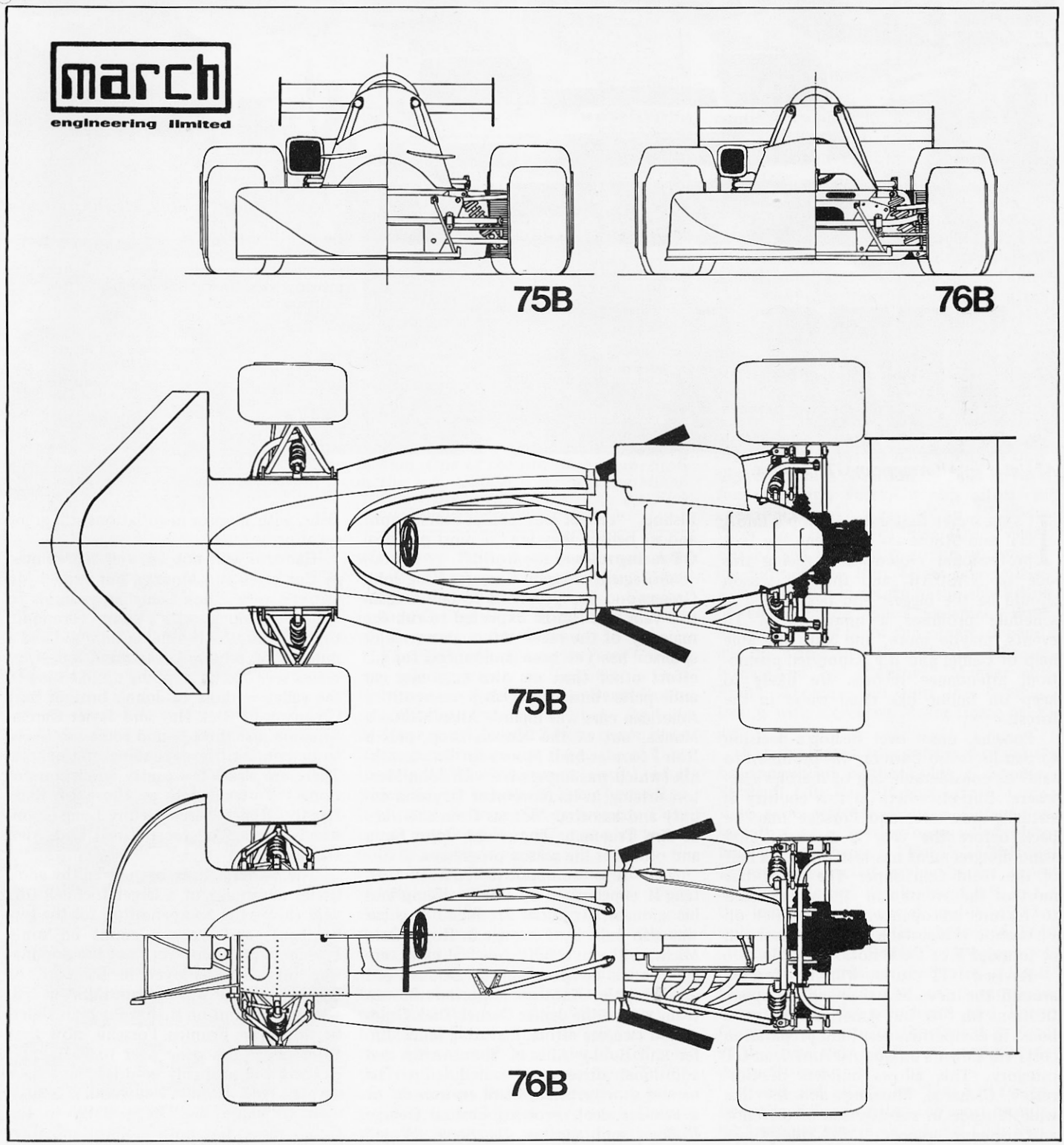
The suspension on the '76 car has taken on a new look. The pickup points are apparently unchanged from '75 to '76, but the suspension pieces are shorter now, to obtain the smaller tracks front and rear.

The front castor is now adjusted with rod-ends; these replace the nylon bushings on the front upper A-arms where they attach to the chassis.

The new car appears to be able to live with softer springs if you want, what with the new nose now almost 15 inches shorter than the old (measured from the front wheels). This will allow more suspension movement at the front end without the nose bottoming under braking or cornering.

Overall, more attention appears to have been paid to the small details. The '76 car comes with an external battery jack and space for another battery cell if you want to add one. The nose body panel is much easier to remove for access to brake fluids, etc.; the seat is better (although it rubs on the shifting linkage); alloy front roll bar braces take the place of steel; and a new Smiths tach has been added at half the normal size of the Smiths chronometric but has much smoother action than the chronometric.

In general, I like the approach taken in trying to improve the breed. I would guess the new car is quicker by a significant amount on the higher speed tracks. It does appear it might give a little away in the corners, although this depends on how the shorter-tracked suspension works and whether the overall weight of the car is lower (lower center of gravity). The only thing remaining is performance on the track, and we'll know that by the middle of the summer. ■





IMSA '76

By Gary Witzenburg

Al Unser's "All American GT" Monza. Mark Yeager Photo

It's no secret that John Bishop's IMSA GT and RS series represent the best professional closed-wheel racing this side of NASCAR, and the '76 season should be the biggest and best yet. The schedule promises a minimum of 15 events, maybe more, and with the able help of Camel and B.F. Goodrich promotion, attendance records are likely to keep on falling like dead wood in the forest.

Porsche, upset over Bishop's decision to ban its turbo Carrera, has promised to take its considerable bag of marbles elsewhere. But elsewhere in this country is virtually nowhere, and Porsche may be back before the year is through. That same disagreement has lost IMSA its half of the Gold Cup Super Vee series, but most of the events can still be expected to feature an open-wheel race. Bet on F/Atlantic if a suitable series sponsor can be found, FF or FV if not.

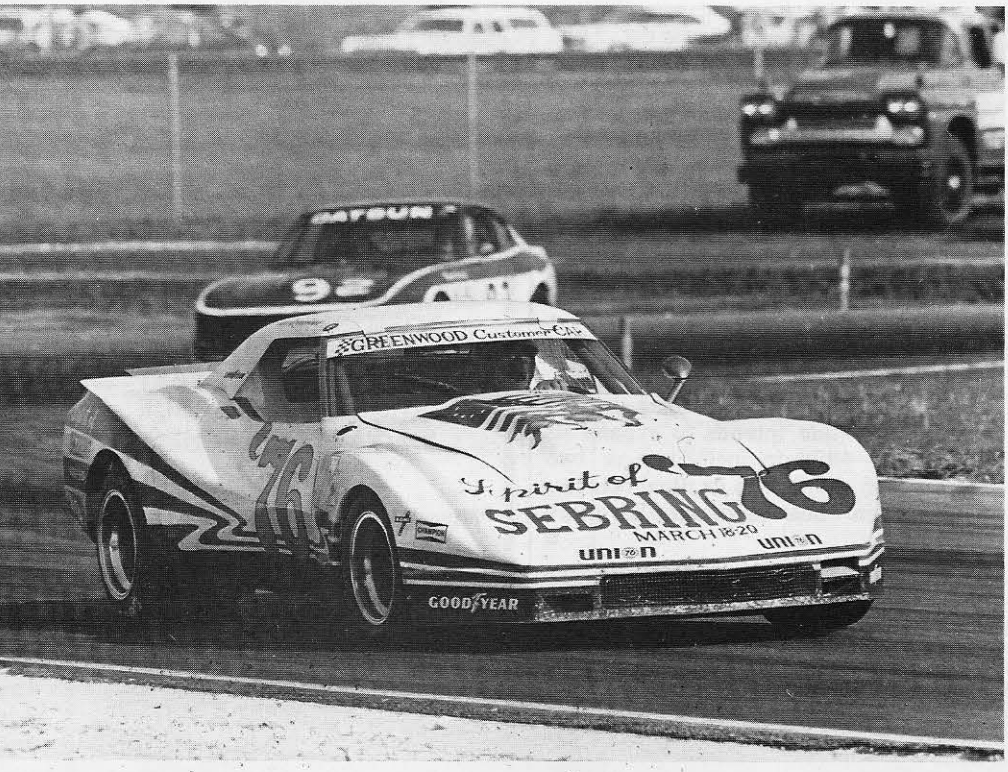
Revised GT rules will be formed around the new FIA Appendix J specifications for '76, but American cars get a boost in competitiveness (and preparation cost) via IMSA's unique All American GT category. This allows builders of Corvettes, Camaros, Mustangs and the like wide latitude in substitution of driveline and suspension pieces. "IMSA rules," says Bishop, "reflect our competitors' input and we believe they are the most practical GT racing rules in the world."

Off-again, on-again Corvette King John Greenwood has promised to be on again this year and can be expected to run the majority of the races, although no major sponsor has yet been announced for his effort other than his own customer car and parts business. Other competitive American cars wili include Allan Moffat's Monza, out of the Kwech shop, plus a Ron Fournier-built Monza for Bob Lazebnik (which was impressive with John Morton driving in its November Daytona debut) and assorted Monzas from the likes of Jim Trueman, Tom Nehl, John Emig and others as the season progresses.

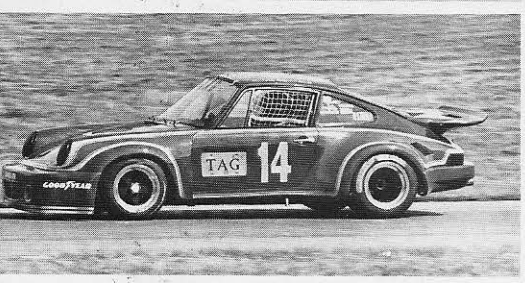
The first competitive AAGT Mustang II is promised by Charlie Kemp and his sponsor, Armorall Products. This car was also built by Fournier in Royal Oak, Mich., will run a 500+ hp, 351 cu.in. engine and is co-sponsored by Dobbs Ford in Memphis. Another important Monza team will be the James Garner/Dick Guldstrand two-car effort, featuring Mint Minter and Bobby Allison. Sponsorship and additional drivers are scheduled to be named shortly. Also, there are rumors of a two-car deal revolving around George Follmer and another for Steve "Yogi" Behr, with sponsor negotiations still going on at press time.

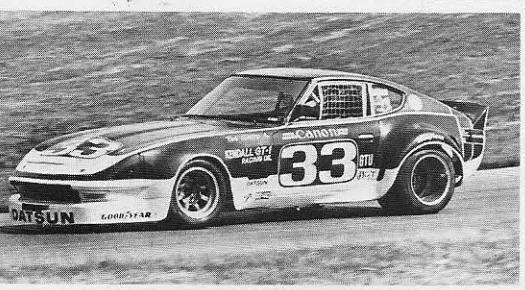
Camaros will not be well represented as Corvettes and Monzas, but expect Mo Carter's very quick Canadian example to reappear, along with Vince Gimondo, Craig Carter, the brothers Chitwood and a number of others. Greenwood-type Corvettes seem to be popping up like lilies in the valley — those of John's brother Burt Greenwood, Rick Hay and Javier Garcia, to name just three — and some are likely to be competitive depending on finances. There are also a few pretty quick conventional 'Vettes, such as those of Babe Headly, Roger Pierce, Denny Long (sponsored by Bandag recap tires) and Alex Davidson.

The Carreras have been given the additional advantage of a larger fuel cell this year (in partial compensation for the turbo ban), and we can count on some Porsche wins again — but not the domination they have enjoyed in the past. Al Holbert says he will not run IMSA in '76, but don't count on it. Jim Busby is slated to drive the Brumos Porsche, now that Peter Gregg has gone over to BMW, and Holbert will probably co-drive the longer events. And Hurley Haywood is scheduled to share the Gregg BMW in the longer races, but both Holbert and Hay-











Photos from top to bottom: John Greenwood's fantastic plastic Corvette (Mark Yeager Photo). Sam Posey in one of the works-backed BMWs (Jim Drago Photo). Al Holbert and his TAG Beer Carrerra earned the most money in 1975. Datsun stalwart Bob Sharp took his factory backed 280Z to the under two liter Championship in overwhelming fashion. One of the strongest competitors in the B.F. Goodrich series is the Miller-Norburn prepared BMW driven by Nick Craw. (Bill Jennaro Photos)

wood may field their own whale tails whenever the spirit moves them. Other stalwarts expected to be back in Carreras include George Dyer, Bob Hagestad, Ludwig Heimrath and Bob Beasley.

The BMW effort, besides Peter Gregg's car, will apparently be limited to a Coca Cola-sponsored machine for David Hobbs and Benny Parsons at the Daytona 24-Hour and Sebring 12-Hour races. Brian Redman will share the Gregg car at Daytona (a BMW Motorsports entry), after which the car belongs to Peter Gregg Racing. After Sebring, Gregg gets the Coke car as a back-up, but does not plan to run both in any given event.

Under 2.5-litre competition should intensify this year as well, with series champ Bob Sharp running more events than ever and strong challenges coming from Brad Frisselle's Datsun and George Drolsom's Porsche 911. Datsun has indicated that they're very interested in this series and will take care of their competitors even better than before, meaning that there should be a selection of relatively quick Z-cars to chose from. Different Drummer Racing's Greg Sorrentino, for one, is building a very trick Datsun that he hopes to complete early this season. And don't be surprised to see a Quaker State-sponsored Triumph TR7 for Bob Tullius, assuming he can make the car competitive enough to be worth the effort.

Of course, it's no secret that IMSA's B.F. Goodrich RS sedan series — reasonably affordable racing with excellent financial support — offers some of the closest, hardest-fought competition in the U.S. of A. With literally dozens of marques battling for the top few positions and 70-plus-car starting fields wherever they go, the Goodrich circuit has become sort of a closed-wheel Formula Ford. And many of its better drivers, Carson Baird and Nick Craw among them, are ex-open-wheel pilots as well.

BMW has posted a formidable $60,000 contingency purse for its drivers, and Datsun is expected to spend a few dollars too, so watch for some extra-strong efforts from these marques. Craw's BMW, for one, is a fair bet to repeat as series champ, and George Alderman's Datsun should grow a bit more muscle this year. Also look out for Ray Korman's BMW and Carson Baird's very impressive Dodge Colt, although Baird may not have the Armorall contract he enjoyed in '75.

American Motors claims publicly that it is out of racing, yet the Pacer, Hornet and Gremlin army is expected to swell again in both numbers and competitiveness. IMSA rules require restrictor plates on the six-cylinder AMC engines, but their speed seems to have been cut only slightly. Amos Johnson is talking of a four-car Levis Pacer/Gremlin effort, in addition to taking care of an EZ Wider Pacer for Howdy Holmes (the "Wider Racer," get it?), but may end up spreading himself too thin. Other competitive AMC cars should return in the able hands of Gene Felton, Steve Coleman, Buzz Marcus, Dennis Shaw and others, depending on who's tied in with the Johnson team. And Lee "Mother" Mueller and Frank Thomas will join the Gremlin troops with Executive Motor Home backing.

But the biggest sponsorship deal yet to be announced is the Bolus & Snopes/St. Pauli Girl Beer Bobcat effort. Longtime series-watcher Maurice Garapedian says that he is betting on the Bobcat to take the title because "Ford's 2300 is the largest unrestricted engine in the series and has a lot of development left in it, the team is well-financed, and it has two smooth and competitive drivers in Bob Mitchell and Pat Bedard". A couple of other quick Fords are the Pintos of Scott Hoerr (very impressive at Daytona in November, *if* it was legal) and Larry Campbell, in spite of the fact that Ford still foolishly refuses to help its competitors.

Good GM efforts are few and far between in RS racing, but the most promising last year was Herb Adams' Olds Star- ►

IMSA continued

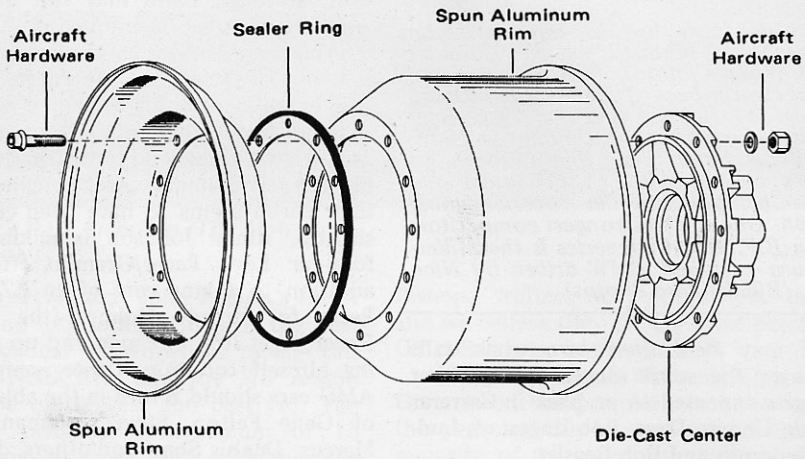
fire, often co-driven by Bob Tullius. There also may be a very serious Vega from Bob Schnieder in Detroit (possibly driven by this reporter) if backing can be found. And there is a Chevette (that's right, a Chevette) in Ron Founier's shop being fastidiously prepared for the son of a local car dealer.

And there are plenty of other cars capable of winning, depending on who sold their cars to whom and who can afford to compete properly this year, but there's no way to name them all here. Among them are Toyotas, Alfas, Mazdas . . . you name it. And who knows who's preparing what that we don't know about.

Both GT and RS cars, according to IMSA representative Dic van der Feen, will normally run a pair of 50-mile qualifying heats, followed by a 100-mile feature. This represents a 50-mile total race length decrease for GT and a 50-mile increase for RS compared to the average '75 event. The RS sedans have always offered exciting competition, and van der Feen says that there are four potential winning nameplates (Corvette, Porsche, BMW and Monza) for the first time ever in the Camel GT.

Recognizing that IMSA offers the most consistently outstanding closed-wheel professional road racing in the country, *Formula* intends to expand its coverage in 1976 to include these two fine series in addition to its usual comprehensive open-wheel reportage. We think you'll like it. ■

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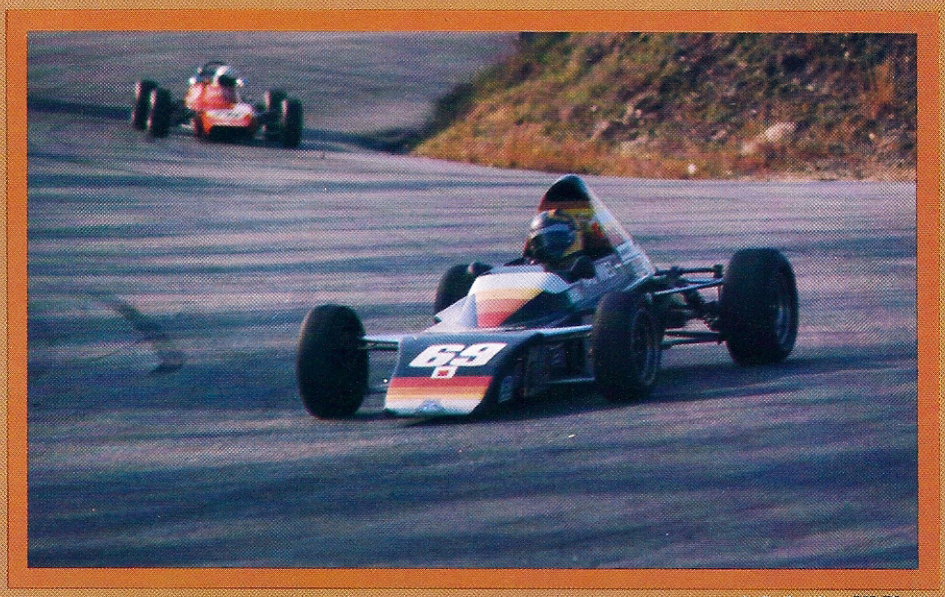
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Formula Ford winner Bruce MacInnes. C.G. Loring VI Photo

Skip Barber Pro Races

By Gordon Kirby

There were only three drivers who ever had a real hope of winning the Skip Barber School of Performance Driving Pro Formula Ford race at Thompson, Connecticut. Bruce MacInnes, David Loring and Tom Davey dominated the event, each of them showing the abilities which have brought them wins in Formula Ford and other lesser classes throughout the past five years. The rest of the field was left well behind, to the point that all but four cars were lapped. Thompson was the kind of FF race which told us that instead of the class being a springboard to professionalism it can, for some drivers, become the very bane of their existence.

entry & qualifying

Bruce MacInnes won the Thompson race, driving his Zink with polish and showing all the thought and skill which made him the hero of the Road Atlanta runoffs. MacInnes was closely pursued in the early stages by David Loring, who even managed to push his Lola ahead for a couple of brief moments before dropping back in traffic to a good second place finish. Running third from start to finish, never quite able to challenge the other two but easily outrunning the rest of the field, was none other than former Super Vee ace Tom Davey in his Durasurf Lola.

The entry for Thompson was rather disappointing since a lot of people who would have thickened up the midfield decided not to come. This was partially because the season had finished some weeks before and partially because of the appearance of MacInnes, Loring and Davey. Then there was another trio of 'old pros' who failed to arrive as promised (Gary Magwood, Gordon Smiley and Vince Muzzin), so there were just thirty cars looking for places in the 25 lap final.

Skip Barber, himself a former national FF champion, was the man who had put together the event (one of just three pro FF races run in the northeast this year) as an experiment toward running a five or six race series next season. In order to bring some kind of financial viability to the race Barber had attracted an impressive list of contingency monies, not only from the usual chassis and engine manufacturers but also from commercial equipment suppliers like Kendall Oils and Champion Spark Plugs. The figure that could be taken home by the winner amounted to as much as $1800. A pretty reasonable number.

Practice served only to confirm what everyone suspected: MacInnes, having driven straight up from Atlanta, was in an eager frame of mind and was comfortably fastest with his well-developed, Joe Stimola-powered Zink. He broke the four year old Thompson FF record by nearly two seconds, lapping in 1:07.3, while Loring was the only other man to get below 1:08. Loring, a former Canadian and IMSA FF Champion, was starting only his fifth race of the year. This time he was driving the third car he had scrounged a drive in this year, a Lola T340 entered by Fast Company and prepared by their chief mechanic Chris Wallach. Neither MacInnes nor Loring had much experience with Thompson's tight, bumpy 1.7 miles (both had driven a few laps there in the earliest days of their careers) while Davey had never seen the place before; yet he was still fourth fastest, about a second slower than Loring. Rick Bell (Crossle 30F) was comfortably faster than all the others. He qualified third just a hair quicker than Davey. A pair of ten lap qualifying heats were run to determine grid positions for the final and, in conventional manner, the field was split into two by odd-numbered qualifiers filling the first heat and even-numbered runners the second heat.

MacInnes won the first qualifier easily, moving off just ahead of Bell and allowing the latter to stay in range for a few laps. But in the last half of the race the black Zink broke away on its own, and MacInnes won by five seconds over a smooth Bell. Paul Tavilla tried hard in his Lola T340 and pushed himself up to third place ahead of an equally aggressive Mike Field (Titan Mk 6C). The rest of the field trailed around slowly and raggedly to the finish.

The second heat was much better as Davey and Loring sprinted away together and engaged in a good dice. Davey led initially, but then Loring came back and retook the lead. The two Lolas began to pass and repass at the most unlikely places. At the very last corner Davey dove hard inside Loring under braking so that the latter had to give way, and Tom swept under the flag in first place. "It sure is nice to race with somebody you can trust," a beaming Davey said as he climbed from his car. Brian Goodwin ➤

C.G. Loring VI Photo



Skip Barber Pro Races continued

broke away from the rest of the field and showed some good style in bringing his Lola T342 into third place.

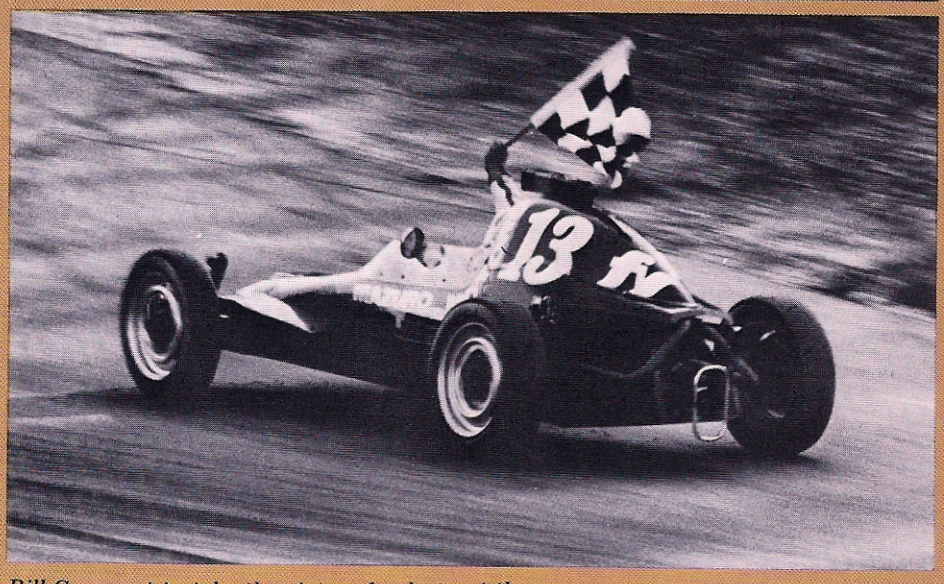
race

From the pole MacInnes led the field into the first turn while Loring, anxious to hang onto the Zink's tow, ran wide from the outside of the second row and worked his way into second place as the leaders shot away from the corner. Almost immediately the first three — MacInnes, Loring and Davey — broke away from the long train which was headed initially by Goodwin from Bell.

Before the end of the first lap Loring was trying to get by the leader and on the second lap he managed to nose ahead. But it didn't last long for MacInnes soon snapped back into the lead and from then on he controlled the race. Loring tried to tow by MacInnes at least twice more, but his car just didn't have the power and though the Lola remained hard in the Zink's slipstream, it could manage nothing more.

For some time Davey kept himself close and big in Loring's mirrors, but he lost contact around the seventh lap when the three leaders began to work through the backmarkers. A few laps later Loring too lost contact with MacInnes as they ran through the clots of slow cars, and within another couple of laps the Zink managed to pull out two seconds on the Lola. Loring was able to hold the gap for a few laps, but in his effort to close the margin he had a couple of moments ("When Bruce got away, I got a little upset and started getting sloppy"), and soon MacInnes was a comfortable leader.

So it was that the Zink pushed on alone to the flag, its driver showing his experience and finesse to very good effect. Loring came home some half a dozen seconds later while Davey drove cleanly to third another eight seconds behind. Bell got by Goodwin early and went away on his own in fourth while the Lola driver found a hard challenge coming from Tavilla. The latter managed to get by, but just as he was pulling away, he spun so that Goodwin was left again with fifth place. Tavilla recovered for sixth while Mike Fields brought his Titan into seventh. A good drive was put in by Lanny Drevitch. Running only his second FF race with a Caldwell he looked as if he would finish among the top ten but spun his way down to thirteenth. ■



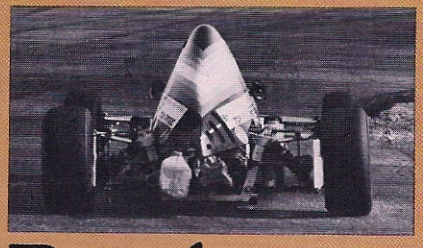
Bill Cruse got to take the victory lap but not the money. Maureen Fennelli Photo

Formula Vee

A 20 lap Formula Vee race supported the FF event, and as is often the case with the smallest of all single-seaters, this was a race which was fought closely and flat-out all the way. It was won ultimately by Avrum Belzer, a 23 year old in his second season of racing, who worked his way calmly and thoughtfully from sixth on the grid to the lead. Belzer fought out the final laps with the Mazuro Motors Lynx of Bill Cruse with the latter towing by on the very last lap to win by a car length from Belzer's Caldwell D13. But Cruse's camshaft was later found to be illegal and he was disqualified.

A good fight for third (which became second) was won by the experienced Bob Cunningham (Zink) from Steve Christian's similar car and the Caldwell of Pete Morrison which had been driven neatly from ninth on the grid. Paul Lawless kept his Caldwell in the middle of this dice until spinning to a stop through the very last corner! The Caldwells of Jon Van DeCar and Jim Havell also showed well with Havell setting the race's fastest lap, but both retired. ■

Maureen Fennelli Photo



Results

Skip Barber School of Performance Driving & New England Region SCCA Pro Formula Ford Thompson, Connecticut November 9, 1975

Formula Ford Results

1. Bruce MacInnes, Zink, 25 laps; 2. David Loring, Lola T340, 25 laps; 3. Tom Davey, Lola, 25 laps; 4. Rick Bell, Crossle, 25 laps; 5. Brian Goodwin, Lola, 25 laps; 6. Paul Tavilla, Lola, 25 laps; 7. Mike Field, Titan, 25 laps; 8. Tom Gaffney, Lola, 25 laps; 9. Paul MacDonald, Lola, 24 laps; 10. Bob Goeldner, Crossle, 24 laps; 11. Dan Griffin, Zink, 24 laps; 12. John Downing, Lola, 24 laps; 13. Lanny Drevitch, D-15, 24 laps; 14. Steve Stenzi, Titan, 24 laps; 15. Holgea Ahz, Titan, 24 laps; 16. Joe Sandorf, Titan, 24 laps; 17. Rick Murray, Crossle, 24 laps; 18. Harold Purchace, Vespuch, 24 laps; 19. Dick Cook, 24 laps; 20. Areed Berbaoz, Lola, 23 laps; 21. Alfred Sanzari, Eldon, 23 laps; 22. Vic Demers, Royale, 23 laps; 23. Bob Kawash, Tecno, 17 laps; 24. Dick Scott, Royale, 17 laps; 25. Bill Prout, Crossle, 17 laps; 26. Ray Gorski, Dulon, 17 laps; 27. Eri Symonds, Caldwell, 14 laps; 28. Andrew Thomas, Caldwell, 13 laps.

Did Not Finish:

Bob Ryan, Caldwell, 11 laps; Nick Kozlov, Royale, 4 laps; Doug Fisher, Lotus, 2 laps; Tom Hessert, 1 lap.

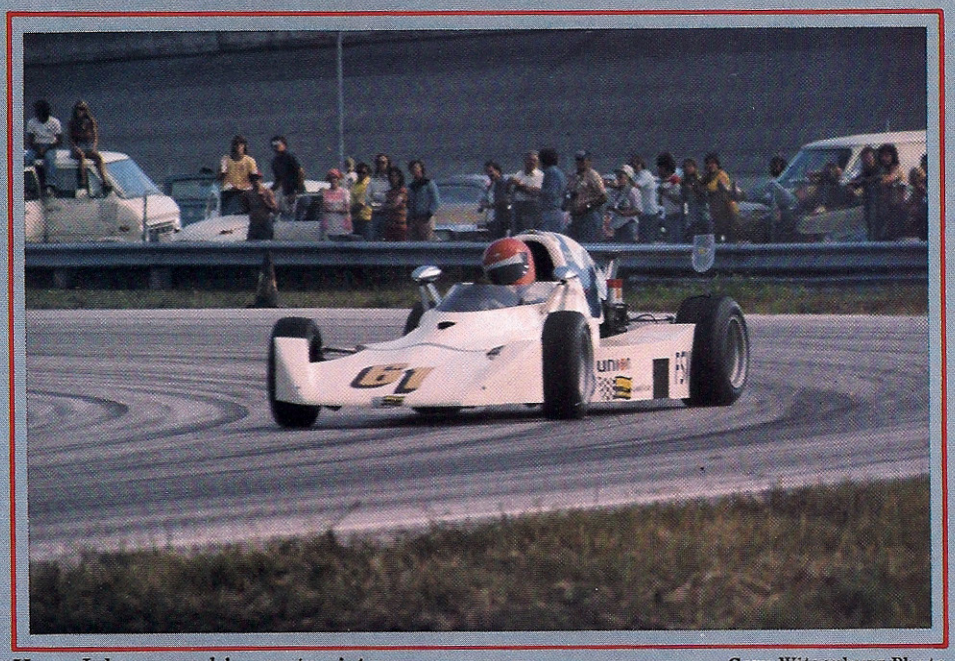
Formula Vee Results

1.* Bill Cruse, Lynx, 20 laps; 2. Avrum Belzer, F-Auto, 20 laps; 3. Bob Cunningham, Zink, 20 laps; 4. Steve Christian, Zink, 20 laps; 5. Peter Morrison, 20 laps; 6. Don Maguire, 74-C, 20 laps; 7. Wallace Reetz, Auto-D, 20 laps; 8. Robert Graham, Caldwell, 20 laps; 9. Ian MacKay, Barr-Car, 20 laps; 10. Peter Mazmuck, TSVee, 20 laps; 11. Ernie Stalper, 20 laps; 12. John Lewicke, Rude Bugger, 20 laps; 13. Kevin Folley, Zeitler, 20 laps; 14. Ray Caggiano, CBR, 20 laps; 15. Paul Lawless, F-Auto, 19 laps; 16. Ralph Till Jr., Zink, 19 laps; 17. Bill Kerrigan, F-Auto, 18 laps; 18. Art Becker, Caldwell, 18 laps; 19. Alan Hine, Oxford, 18 laps; 20. Nancy Margalian, Caldwell, 18 laps; 21. Tom Dickman, Zeitler, 17 laps; 22. Rick Bye, Caldwell, 15 laps.

Did Not Finish:

Jim Havell, Caldwell, 11 laps; Rick Northam, 9 laps; Jon VanDeCar, Auto-D, 9 laps; Perry Buzzell, Zink, 7 laps; Ronnie Lavanduski, Lynx, 6 laps; Ken Higgins, Lynx, 5 laps.

* Disqualified by Stewards — all other finishers move up one place.



Herm Johnson on his way to victory. Gary Witzenburg Photo

DAYTONA

Round 11 of the Robert Bosch VW Gold Cup

By Bruce Czaja

The final Robert Bosch Gold Cup race at Daytona turned out to be one of the most relaxing and enjoyable races of the season. The first early hints of winter were beginning to touch the Northern areas of the country, so a race in warm and sunny Daytona would serve as a reminder of how relatively nice the weather usually is at races. With the bulk of the Super Vee competitors coming from the North, Daytona would be more of a holiday than a race.

Indeed, for a race, there was very little pressure involved. The championship had already been decided in Eddie Miller's favor at Watkins Glen. There still was some question of the final order concerning the remaining top ten positions, but in a series like the Gold Cup, winning is most important. There is, however unfortunately, not a lot of importance attached to coming in fifth in the series.

entry & practice

The 46 car entry for Daytona was a good one, made more so by the addition of the four car ATS team from Germany. Leading the team would be the European SV Champ Mikko Kozarowitzky of Finland. Others driving the ATS Lolas would be Jochen Engel, Manfred Trint and Helmut Bross, all from Germany. Bross's car carried additional backing from Scuderia Lang-Verpackungen.

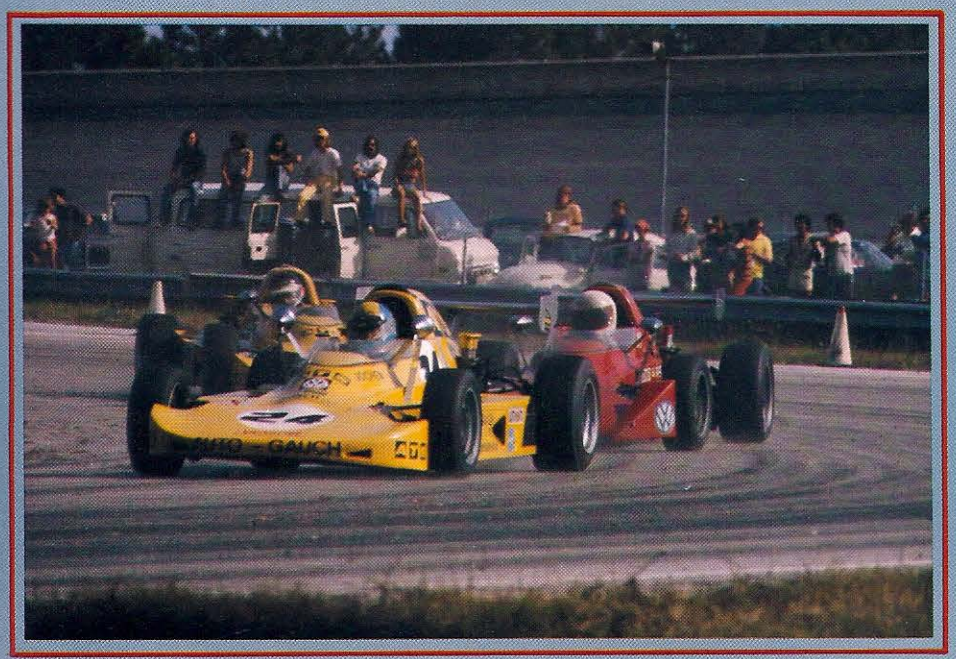
The balance of the entry was much the same as it had been all year. Tom Bagley, second in the standings, would have his Kent Oil Zink on hand — looking to repeat his victory at the track earlier in the year. Another Zink was entered for Billy McConnell under the Essex Chemical banner. Howdy Holmes, third in the standings, had his Wilbur Bunce-prepared EZ Wider Lola on hand. Howdy was looking for a win to move him past Bagley in the final standings. Peter Moodie, normally in a Bunce car, decided to pass up the race.

Bill Scott had four cars entered: Bill Neuhoff and John Barringer would have the normal Royale RP19's on hand; Walt Grady would make his Gold Cup debut driving Neuhoff's old RP18 which BSR prepared; Harry MacDonald passed on the race, concentrating his efforts on next season; and in a late move Bill Scott himself entered the fray, driving the new RP19A which Bobby Rahal had taken to second and third place finishes at Watkins Glen and Mosport.

Zeitler Racing had three cars on hand, ➤

DAYTONA SUPER VEE continued

the show car being the new Modus driven by Bill Alsup. The car had done very well in Europe, being used in both Super Vee and Formula Three configurations. It had a lot of potential although both Bill and John Alsup expected to do more sorting of the car during the weekend than strictly concentrating on the race — more on that later. Ken Cobb was in the Zeitler Lola, with Benny Scott in his Viceroy Lola for the final time. Benny and the rest of the crew at Black American Racers were a rather down group, still reeling from the recent announcement of Viceroy's withdrawal.



Jerry Jolly's race-long duel with the ATS team. Gary Witzenburg Photo

Series champ Eddie Miller would again be in the Haas/Deutsch Lola. Richard Melville had his choice of two cars entered by Ray Heppenstall in his bid to try and move up from fourth in the standings. Additional Lolas were entered independently by Herm Johnson, Ed Wachs, Jerry Jolly, Bob DeMarco, Jon Batchelor, John Helming, Joe Molin, Mike Yoder, Scott Ovel, Clint Dalton, Jim George, Jim Grob and William Henderson. With the number of Lolas in the field, it was obvious why Lola importer Carl Haas had a big smile for most of the weekend.

Other entries came from Fred Opert, with Juan Cochesa, Marcel Talbot, Elliott Forbes-Robinson and James Crawley handling Supernova Tuis. Bruce Eshak also had a Tui, as did Stuart Moore and Andrew Gantt. John Frana had resurrected the Lynn which EFR used in winning the championship last year for the race.

Friday was given over to open practice, with no qualifying until Saturday. No official times were taken on the cars and the day went smoothly except for Bill Alsup. He had made only a few laps with the new Modus when he was cut off by another car on the infield hairpin. He spun into the grass and slid along the rail. The car was just about under control when suddenly it caught a patch of dirt or something and spun, the rear end striking the barrier heavily. Bill was unhurt but the car was extensively damaged. The tub was bent, which meant that he and Zeitler Racing would have to wait awhile before testing the car under fire. Bill noted that the car handled well and from the times recorded by his crew and a couple of others, Bill would have been tenth on the grid after only six laps in the car. Once they get fully sorted, the car could be a threat next season.

Qualifying on Saturday was almost as exciting as the race itself. The drivers know the importance of drafting on Daytona's high banking, and they know the value of running in a two or three car bunch rather than alone. So what you had were several groups of cars knotting together in a pack, running wheel to wheel around the 3.84 mile course. The cars would come out of the fourth turn onto the tri-oval portion and burst into a three and four car spread racing for the first turn and the timing building, each trying to gain that slight fraction of a second to give them a good lap.

As expected, Tom Bagley took the pole position in the aerodynamically slippery Kent Oil Zink. Tom posted a time of 2:03.394. Second was a bit of a surprise as Herm Johnson, running strong after his good showing at Atlanta in the Champion Classic, turned a 2:03.543 lap; his Lola was sporting some changes in bodywork which seemed to help. Third was Bill Scott, returning to the scene of some of his biggest wins. He pushed the Royale to a time of 2:04.209. The Europeans adapted quickly to the oval, Manfred Trint turning the fourth best time at 2:04.220. Eddie Miller claimed the next spot at 2:04.293. Less than .09 seconds separated the three cars! Sixth was Eddie Wachs, giving his Lola a wild ride and scaring hell out of several competitors. Helmut Bross was next at 2:04.876, followed by Howdy Holmes in the EZ Wider Lola at 2:04.971. Howdy had qualified the car without the rear wing and discovered that it was a mistake. It helped a slight bit as far as his top speed was concerned on the banking, but it was too much of a handicap on the infield portion of the track. He would go back to the wing for the race. Of the top ten qualifiers only Bill Scott would run the race without a wing.

Ninth fastest on the grid was Jochen Engel, followed by Kozarowitzky. Benny Scott had numerous problems but was still able to get the 11th spot just ahead of Jim Crawley. Jerry Jolly, who did not show up at the track until a few minutes before qualifying, showed he's not one who needs a lot of practice by posting 13th fastest time. Kirk Stowers came next in the Royale. Bob DeMarco, Ken Cobb, Richard Melville, Clint Dalton, Walt Grady and Bill Neuhoff rounded out the top 20.

Billy McConnell was unable to match the sucess Bagley was having in his Zink as he and his crew were having problems sorting the Essex car. All sorts of little things (such as the tach breaking) kept going wrong which relegated Billy to 29th.

The fight for the second three positions in the final point standings was partially resolved before the green flag was dropped. Richard Melville, unhappy with his car, had a parting of the ways with Ray Heppenstall and packed himself off to his home in Jamaica. Heppenstall thereupon decided to drive the car himself!

race

The weather was ideal for the race on Sunday, with a final field of 39 cars making the start. But for those who had been on hand last year there was quite a bit of apprehension concerning the start and the race. It was hard to forget the vision of Walter Wilkens flying over the starter's stand or the three car pile-up on the back straight, both of which stopped the race.

The start was clean, Bagley getting a clear jump from his pole position. Herm Johnson held his grid position and put a slight space between himself and the slavering hordes knotted up behind him. The American drivers made much better starts than the Europeans; Howdy Holmes, Eddie Miller and Bill Scott took the next spots. Jerry Jolly jumped from his 13th grid spot to insert himself in the midst of the ATS team, a position of dubious distinction he would hold for the balance of the 13 lap race.

When the field came around again Bagley held a one-second margin over Johnson who still had a small gap to Eddie Miller and Howdy Holmes. Bill

Scott had the first of two quick spins as his tires weren't heating properly without the extra pressure from a rear wing and he dropped back a bit. The pack of Trint, Jolly, Bross and Kozarowitzky was a sight to see as they fought for position on every inch of the track. Further back in the field a good run at the lead was being put on by Elliott Forbes-Robinson in Opert's Tui. EFR had qualified dead last, only doing a couple of laps because of mechanical problems. But he was charging and was knocking on the door of the top ten by the second lap.

The field came around on the third lap with about the same spacing. Bagley in front, Johnson second. Miller was just in front of Holmes when the two entered the horseshoe turn in the infield. Apparently, Eddie's engine chose that time to let go as he did two quick spins, one to the outside and the second to the inside. Howdy stood on the binders for all they were worth to avoid t-boning Eddie, which he did. This let Johnson and Bagley increase their lead, and allowed Bill Scott and the rest of the field to close up on the race for third. Miller joined Ken Cobb, Ed Wachs, Juan Cochesa, Jim Crawley, Billy McConnell and Manfred Trint on the sidelines, all of them out with various and sundry mechanicals ills.

The next two times around Johnson was noticeably closing on Bagley, as Tom didn't seem to be driving with his usual flair. There was a lot of oil on the track which was giving him problems and which helped to make Johnson's effort a little easier. On the fifth lap, Herm had caught Bagley on the banking and slipped in front going into the first turn to take the lead, his first ever in a Gold Cup race. Howdy and Bill Scott were a little more than two seconds behind and were trying to work together to move themselves back into contention. There was then a slight gap to the ATS/Jolly pack.

Bagley and Johnson were locked in a classic fight for the lead for the next couple of laps, with Herm able to open a slight gap. Bagley again hit some oil, which sent him off course briefly and allowed Herm to open a two-second margin. For all intents and purposes, the race was over.

Howdy lost his helpful tow from Bill Scott on the sixth lap — when Bill had his second spin — which dropped him several positions back. Forging on by himself, Howdy started to make up the gap between himself and the leaders. He was doing well, setting the fastest lap of the race at 2:02.276, better than a second faster than Bagley's qualifying time, when suddenly the support on the rear wing broke. Luckily, it did not break completely and the wing stayed with the car, although it could move back and forth some four inches. After a slight bobble when the part broke, Howdy was able to soldier on, losing some time on the leaders but able to maintain his spacing on the cars behind.

Johnson continued a flawless drive to record his first win in the Gold Cup series by 4.99 seconds over Bagley. Tom's second place finish kept him in front of Holmes for second place in the final point standings. Howdy held on for a well-earned third. Behind, the race for fourth went down to the wire. The three German drivers showed no inclination to help Jerry Jolly and did what they could to help each other and impede the Denver resident. Jerry drove an excellent race, never once making an error despite the constant pressure. He probably learned as much about driving in this one race as he had in all of his previous ones. In spite of his best efforts, Kozarowitzky and Engle crossed the line fourth and fifth. Had it been in almost any other circumstance Jerry would have had the fourth spot. Helmut Bross rounded out the pack in seventh place.

A slight distance back came Bill Scott, who had a good race with Elliott Forbes-Robinson in the closing laps. EFR was ninth and Walt Grady took tenth in his first start. At the finish 27 of the starters were still running, with 24 of them on the same lap as the leaders.

Johnson collected $2,500 for the win, averaging 109.641 miles per hour for the 49 mile race. The victory was enough to move Herm into the top ten in the final point standings for the series, as he took the 8th spot with 38 points. Behind Miller (118), Bagley (110) and Holmes (97), the balance of the top ten in points were Melville (82), Bob Lazier (64), Fred Phillips (53), Benny Scott (51), Johnson, Billy McConnell (37) and Bill Alsup (34).

With reports of snowstorms and cold sweeping the North portions of the country, there was, needless to say, widespread reluctance to leave Daytona. But the parting was made a little easier to take by the announcement at the IMSA banquet that Bosch would continue their involvement in the Gold Cup series for next year, thus ensuring the continuation of the series. Although exact details were not given, Ben Bendixen, National Sales Manager for Robert Bosch, did say that there would be more money involved in the races and increased product and tech support by Bosch. The schedule will closely follow the one run this season with IMSA handling some of the races and the SCCA running the others. The tentative schedule has races at Daytona, Sebring, Road Atlanta, Laguna Seca, Ontario, Lime Rock, Watkins Glen (probably with the Six Hour in the summer and the GP in the fall), Elkhart Lake, Mosport, Charlotte, and back to Daytona. So leaving wasn't so bad, when you knew that you would be back in sunny Daytona in less than two months for a whole new season. ■

DAYTONA SUPER VEE GRID

Tom Bagley Kent Oil Zink 2:03.394	**Herm Johnson** Ozone Lola T324 2:03.543
Bill Scott Bill Scott Racing Royale RP19A 2:04.209	**Manfred Trint** ATS Lola T324 2:04.220
Eddie Miller Haas Racing Lola T324 2:04.293	**Ed Wachs** Prototype Engineering Lola T320M 2:04.446
Helmut Bross ATS Lola T320 2:04.876	**Howdy Holmes** EZ Wider/Bunce Racing Lola T324 2:04.971
Jochen Engle ATS Lola T324 2:05.060	**Mikko Kozarowitzky** ATS Lola T324 2:06.359
Benny Scott BAR Lola T324 2:06.428	**James Crawley** Opert Racing Supernova BH5 2:06.754
Jerry Jolly Lola T324 2:06.771	**Kirk Stowers** Royale RP19 2:07.198
Ron DeMarco Royale RP18 2:07.332	**Ken Cobb** Zeitler Lola 2:07.385
Richard Melville Heppenstall Lola T324 2:07.607	**Clint Dalton** Dalton Roofing Lola T252 2:07.656
Walter Grady BSR Royale RP18 2:08.378	**Bill Neuhoff** BSR Royale RP19 2:08.553
Andrew Gantt Tui BH3 2:08.657	**Francisco Romero** Opert Racing Supernova BH5 2:08.430
Juan Cochesa Opert Racing Supernova BH5 2:08.456	**Scott Ovel** Iowa Pipe&Supply Lola T324 2:08.588
Jim Grob Grob Racing Lola T320 2:08.753	**Mike Yoder** Lola T320M 2:08.771
John Barringer BSR Royale RP19 2:08.830	**Billy McConnell** WMR Enterp. Zink Z10 2:09.010
Stuart Moore Brian Stewart Racing Tui AM29 2:09.365	**John Stokely** Stokely Royale RP9 2:09.507
Jack Broomall Royale RP9 2:09.558	**Jon Batchelor** Int'l Air Leases Lola T320 2:10.466
Marcel Talbot Opert Racing Supernova BH5 2:10.577	**John Kalagian** Heppenstall Royale RP18 2:10.740
Gary Mesnick Kirk Stowers Royale RP9 2:11.876	**John Frana** Jarl Pettersen Lynn 001 2:13.178
Bob Rodamer Lola T320 2:13.875	**Bob DeMarco** Lola 2:14.188
Jim George Hermes Racing Lola T324 2:17.089	**John Heiming** Lola T252 2:17.678
Bruce Eshak Tui 2:23.354	**Christian Skoppe** Skoppe Racing Elden 2:28.815
Elliott Forbes-Robinson Opert Racing Supernova BH5 2:41.318	**Joseph Molin** Lola T252 No Time
Bill Alsup Zeitler Racing Modus No Time	

Bruce Czaja Photos

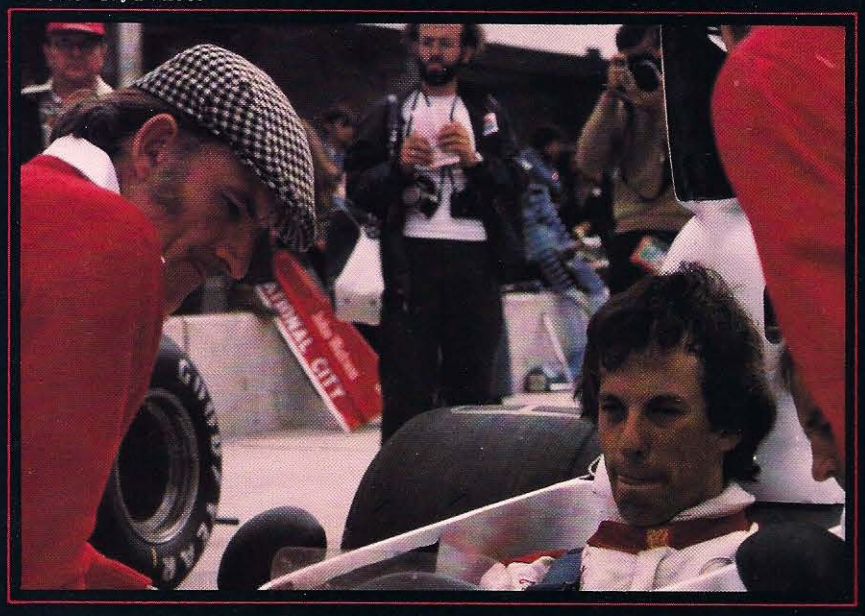


Results

Robert Bosch Gold Cup
Daytona Beach, Florida
November 30, 1975
13 Laps

1. Herm Johnson, Johnson/Ozone Lola T324, 27 min 19.098 sec, 109.641 mph average, $2500, 13 laps; **2. Tom Bagley**, Kent Oil Zink, $1500, 13 laps; **3. Howdy Holmes**, EZ Wider/Bunce Racing Lola T324, $1000, 13 laps; 4. Mikko Kozarowitzky, ATS Lola T324, $800, 13 laps; 5. Jochen Engle, ATS Lola T324, $600, 13 laps; 6. Jerry Jolly, Lola T324, $500, 13 laps; 7. Helmut Bross, Lang-Verpackungen/ATS Lola T324, $400, 13 laps; 8. Bill Scott, Scott Racing Royale RP19, $350, 13 laps; 9. Elliott Forbes-Robinson, Opert Racing Supernova BH5, $300, 13 laps; 10. Walter Grady, Bill Scott Racing Royale RP18, $200, 13 laps; 11. Ron DeMarco, DeMarco Royale RP18, $200 13 laps; 12. Clint Dalton, Dalton Roofing Lola T252, $150, 13 laps; 13. Scott Ovel, Iowa Pipe & Supply Lola T324, $150, 13 laps; 14. Francisco Romero, Opert Racing Supernova BH5, $150, 13 laps; 15. Andrew Gantt, Gantt Tui BH3, $100, 13 laps; 16. Kirk Stowers, Stowers Royale RP19, $100, 13 laps; 17. Jim Grob, Grob Lola T320, $100, 13 laps; 18. Jon Batchelor, Int'l Air Leases Lola T320, $100, 13 laps; 19. Mike Yoder, D.C. Yoder Lola T320M, $100, 13 laps; 20. Jack Broomall, Broomall Royale RP9, $100, 13 laps; 21. Bob Rodamer, Lola T320, $100, 13 laps; 22. Jim George, Hermes Lola T324, $100, 13 laps; 23. Gary Mesnick, Kirk Stowers Royale RP9, $100, 13 laps; 24. John Frana, Jarl Pettersen Lynn 001, $100, 13 laps; 25. John Heiming, Heiming Lola T252, $100, 12 laps; 26. Marcel Talbot, Opert Supernova BH5, 12 laps; 27. Bruce Eshak, Eshak Tui, 12 laps; 28. Richard Melville, Heppenstall Lola T324, 11 laps; 29. Benny Scott, Black American Racers Lola T324, 10 laps; 30. Bill Neuhoff, Bill Scott Racing Royale RP19, 6 laps; 31. John Kalagian, Heppenstall Royale RP18, 3 laps; 32. Stuart Moore, Brian Stewart Tui AM29, 4 laps; 33. Eddie Miller, Carl Haas Lola T324, 4 laps; 34. Manfred Trint, ATS Lola T324, 3 laps; 35. Billy McConnell, WMR Enterprises Zink Z10, 3 laps; 36. James Crawley, Fred Opert Racing Supernova BH5, 2 laps; 37. Juan Cochesa, Fred Opert Racing Supernova BH5, 2laps; 38. Eddie Wachs, Prototype Engineering Lola T320M, 1 lap.

Robert Lloyd Photo



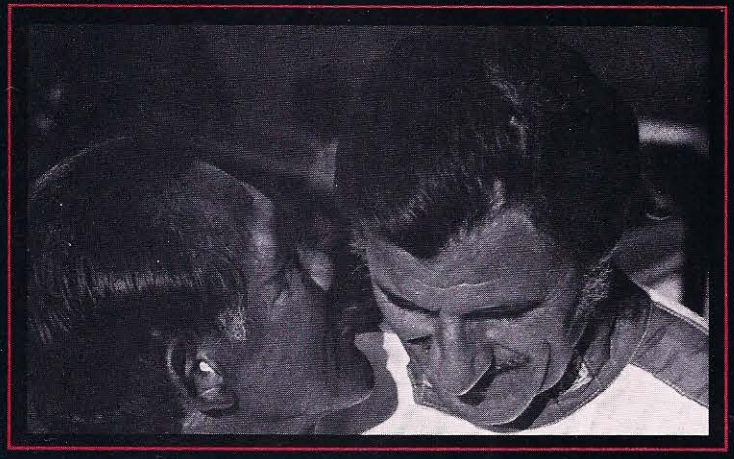
Graham Hill Tony Brise

Graham Hill's remarkable motor racing career ended tragically on November 29, 1975. Hill and almost every member of his Embassy-Hill Grand Prix team were killed in the crash of the 44 year-old Englishman's Piper Aztec which slammed into a stand of trees while the six men were groping their way through thick fog on the approach to Elstree Airport just north of London. Killed with Hill were his young protege Tony Brise, team manager Ray Brimble, designer Andy Smallman and mechanics Terry Richards and Tony Alcock.

The crash brought a premature end to a new stage in Graham Hill's romance with motor racing. He had retired in July of 1975 at almost the very moment that Brise joined the team. The sudden loss of the immense potential of that combination brought a doubly sad end to the life of the only man to ever win the World Championship, the Indianapolis 500 and the Le Mans 24 Hours. The mark he made on motor racing will stick — not as a memory, but as a legend.

World Champion 1962 & 1968
World Championship runner-up 1963, 1964 & 1965
Indianapolis 500 winner 1966
Le Mans 24 Hour winner 1972
14 Grand Prix victories
5 wins Monaco Grand Prix
3 wins United States Grand Prix

Michael Hewitt Photo



Tony Brise was an exceptionally talented young racing driver. At age 23 he suddenly "arrived" early last summer, finally making the jump into Formula One after three outstanding years in Formula Three and Atlantic. He was easily the youngest man in Grand Prix, yet he progressed smoothly and methodically, never incurring a single syllable of censure as is usually the case in that kind of situation. Instead he displayed the calm of an "old hand" and of the four untroubled runs he experienced in his ten Grand Prix starts he scored one sixth and three seventh place finishes.

Brise made his Grand Prix debut in one of Frank Williams' cars at the Spanish G.P., qualifying in the middle of the field in spite of the restricted practice for that troubled event. His performance in Spain brought offers from many of the major Grand Prix teams but Brise avoided the tempestuous atmosphere which might have greeted him in some of those outfits and instead threw in his lot with Graham Hill's Embassy team. As the season wore on Brise's stature grew steadily, and the association of Hill's experience and Tony's potential began to mature into one of the most solid relationships in contemporary motorsports.

Brise made his American debut in Theodore Racing's F5000 Lola at the inaugural Long Beach race where he achieved instant fame by leading the race under hard pressure from Andretti and Al Unser before his car failed him. He also competed in the last two American F5000 rounds, finishing fourth at Laguna Seca and holding a strong third at Riverside before his car ran out of fuel on the last lap.

Always encouraged by his family, particularly his father who had been very successful at racing stock cars in England and had subsequently developed a thriving garage and accessories business just south of London, Tony raced karts for ten years before turning to Formula Ford in 1971. He was immediately successful in FF, winning the British Championship in his first year and moving on to Formula 3 the next season. Although he was always a front runner in F3, challenging the 1972 Formula 3 Champion Roger Williamson on many occasions, Brise's expected leap into F1 faltered briefly while he completed his education at Birmingham University. That done by the spring of 1974, he turned his full attention to racing and in the Formula Atlantic race at Silverstone's International Trophy meeting in April of that year he scored a memorable victory, coming from near the back of the grid to win his first race in the class. It was the beginning of his firm establishment as a Man to Watch, and in the next twelve months he scored numerous wins and slowly threw off the reputation for inconsistency which he had rather unjustly earned during his two years as a student/racer in the harsh world of Formula 3. Later that year he married Janet Allen, a lady who had followed him from race to race for years, and by early 1975 Brise was ready to graduate to Grand Prix racing.

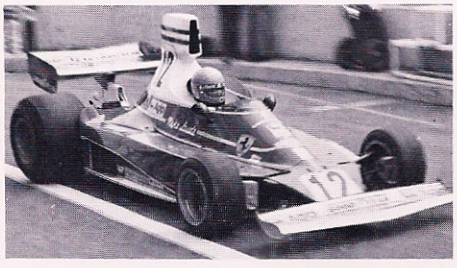
When his chance came he took advantage of it in as accomplished a manner as any man ever had. For that he will always be remembered.

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(714) 836-5200

Automobiles International
8117 46th Street
Tulsa, OK 74145
(918) 622-3270

The Book
330 East Ninth Street
St. Paul, MN 55101
(612) 224-3000

British American Transfer (B.A.T.)
124 W. Wayne Avenue
Wayne, PA 19087
(215) 687-6387

Cahill Racing
139 Blackbird Street
N. Fond Du Lac, WI 54935
(414) 921-6819

Cavanaugh Racing
911 East Butler Pike
Ambler, PA 19002
(215) 643-6607

Caracci Motorsport Specialties
1345 N.W. 124th Street
Miami, FL 33167
(308) 681-6467

Continental Crossle
P.O. Box 197
Parker, CO 80134
(303) 751-6467

Crossle Cars Pacific
2816 May Avenue
Redondo Beach, CA 90278
(213) 370-2641

Fast Company
208 Beacon Street
Marblehead, MA 01945
(617) 631-8850

Formula First, Inc.
930 Charleston National Plaza
Charleston, WV 24301
(304) 344-8688

Carl A. Haas Automobile Imports, Inc.
1732 1st Street
Highland Park, IL 60035
(312) 433-1150

LeGrand Race Cars
1104 Arroyo
San Fernando, CA 91340
(213) 365-4318

Lotus Racing East, Inc.
Route 44
Millertown, NY 12546
(914) 789-4425

Lynx Cars, Inc.
6455 LeGrand Street
Detroit, MI 48211
(313) 925-0977

Mason Engineering
Prototype design/fabrication
15838 Arminta
Van Nuys, CA 91406
(213) 780-2642

Mini Sport
1540 N. Saddle Creek Road
Omaha, NB 68104
(402) 558-6060

North American Racing Werks
6117 Reseda Blvd, Unit R
Reseda, CA 91335
(213) 881-1222

Fred Opert Racing
17 Industrial Road
Upper Saddle River,
NJ 07458
(201) 825-4525

Performance Marketing
3199-A Airport Loop Drive
Costa Mesa, CA 92626
(714) 556-6730

Pierre's Motors Racing
11802 S.E. Stark
Portland, OR 97216
(503) 255-4110
Telex 360-766

Race America
P.O. Box 20373
Dallas, TX 75229
(214) 243-5293

Race Research, Inc.
338 B E. Carson Street
Carson, CA 90745
(213) 830-6733

Razovich Enterprises
180 Atlantic Avenue
San Bruno, CA 94066
(415) 589-8695

Red-Line Racing
Wilkins Avenue at
Beechwood Blvd.
Pittsburg, PA 15217
(412) 521-8435

Renson Automotive
805 McGlincey Lane
Campbell, CA 95008
(408) 377-8113

Stimola Race Preparation
57 Birch Hill Road
Locust Valley, LI, NY 11560
(516) 671-9715

WREP Industries
2965 Landwehr
Northbrook, IL 60062
(312) 498-0670

Rod Ends

Baker Precision Bearings
2901 Cedar Avenue
Long Beach, CA 90806
(213) 427-2375

Troutman Ltd.
Fabroids
3198-L Airport Loop Drive
Costa Mesa, CA 92626
(714) 979-3295

Heim
Incom International Inc.
60 Round Hill Road
Fairfield, CT 06430
(203) 255-1511

Wheels

Euram Imports
Cromodora Wheels
P.O. Box 2
Berkeley, CA 94701
(415) 527-0182
Telex 33 7796

Fast Company
208 Beacon Street
Marblehead, MA. 01945
(617) 631-8850

Intermag
BBS Modular Racing Wheels
P.O. Box 99674
San Francisco, CA 94109
(415) 527-1808

Revolution Wheels
4641 N. Greenview
Chicago, IL 60640
(312) 334-6657

Parts, Trailers and Accessories

Jack Cotten Ignition
701 Oriole Lane
Pasadena, TX 77502
(713) 472-8874

IRD Trailers
904 So. Nogales
Industry, CA 91748
(213) 965-3337

Pierre's Motors Racing
11802 S.E. Stark
Portland, OR 97216
(503) 255-4110
Telex 360-766

RaceQuip
4760 Haydon Run Road
Amlin, OH 43002
(614) 889-9527

Scheel North American, Ltd.
P.O. Box 3
Sheboygan, WI 53081
(414) 458-0402

Shankle Automotive
15451-F Cabrito Road
Van Nuys, CA 91406
(213) 988-5190

Engine Builders

Advanced Design Engineering Company
1481 Jackson Street
Columbus, IN 47201
Sales: (812) 379-9535
Parts: (812) 379-9536

Armstrong Race Engineering
2552 Albatros Way
Sacramento, CA 95815
(916) 929-0470

C.E.C. America
FF Engines
4121 Water Oak Lane
Jacksonville, FL 32210
(904) 389-1728

Huffaker Engineering
22 Mark
San Rafael, CA 94903
(415) 479-6705

Pierre's Motors Racing
Cosworth Engine Parts
11802 S.E. Stark
Portland, OR 97216
(503) 255-4110

Quicksilver Race Engines
1101 Gude Drive
Rockville, MD 20850
(301) 340-2700

Shankle Automotive
15451-F Cabrito Road
Van Nuys, CA 91406
(213) 988-5190