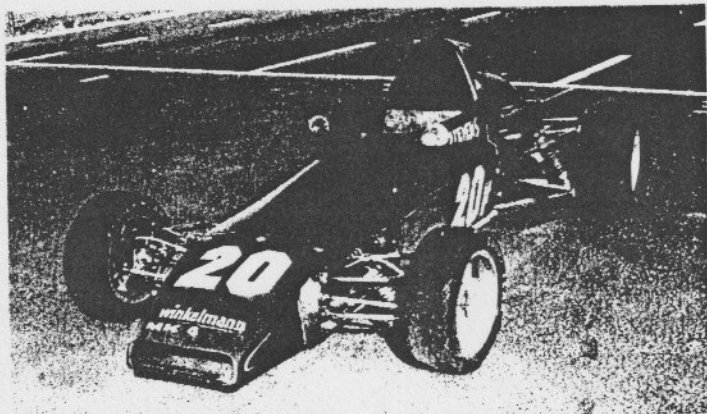


Testing the WINKELMANN Formula Ford



By Gary Witzenburg

This may not be the most definitive test I've ever done but it was certainly the most fun!

For one thing the test track, a twisting 2.1-mile course near Pueblo, Colorado, was nearly as virginal as the desert it was built in and just as sandy. I was actually the second human ever to drive a race car on it, the first being a certain Colorado professional who had attempted to test there a few days earlier.

For another, host Ron Hunter, his assistant Marilyn White, salesman George Gettle and the rest of the Rocky Mountain Winkelmann bunch did their level best to insure that my short stay in Denver was an enjoyable one. It was!

When the test was complete, we stopped at a nearby Hilton Inn for a couple of well-needed *cervezas*, arriving just in time to see some poor sucker remove the top of his motor home air conditioner on the low structure overhanging the front entrance. Later we pulled off again a few miles up the freeway for a bite to eat and a couple more tall ones, only to be greeted by some loud honking and arm-waving from a fellow motorist. Turned out we had lost Ron's racer from the two-car trailer back by the exit ramp.

So we put the ramps on the trailer and walked back to the race car, which was sitting forlornly in the middle of the street. George jumped in it, fired it up and drove it the two blocks back to the trailer. We were all laughing so hard we could barely speak, but the jovial Hunter finally got a few words out between guffaws: "If that had been some other kind of car," he said, "it'd probably have broken in half when it fell off the trailer."

This may or may not be true, but the fact is that its rather remarkable strength is one of the key factors in the quickness of the venerable Winkelmann chassis.

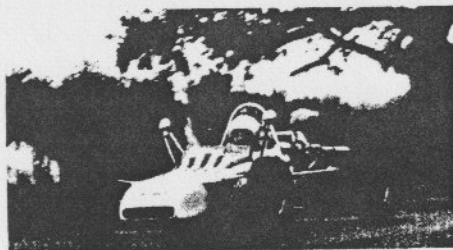
"Winkelmann?" you ask. "When is the last time I heard of some hotshoe winning in a Winkelmann?" Fair question, because the name does tend to get buried beneath the weight of such better-known (and easier to spell) names as Zink, ADF, Lola and the rest. But put a first-rate shoe in a well-prepared Winkelmann, which Hunter likes to do from time to time, and you'll get some pretty surprising results.

Like when Bob Lazier started Ron's car last (37th) at the LaJunta, Colorado

National last Labor Day weekend, spun it once and still finished fifth amid some pretty strong competition. Hunter's friend and customer, airline pilot Dick Stevens, also has surprised a lot of people by taking some pole positions, winning one National and consistently placing his WDF-5 in the top few in his first two years of competition.

You may also remember that it was an old WDF-1 with which Bruce MacInnes terrorized the Northeast Division National circuit, finished third at the run-offs, won the IMSA Formula 100 Championship and almost won the St. Louis driver-to-Europe race back in '72.

My own association with Winkelmann began a year ago when I purchased a hoary old WDF-2 from Tony LaMarca of Specialized Vehicles Company in Warren, Michigan, so I must admit to a small degree of bias as I write this story. My 1970-vintage car was driven with great success in this part of the country by a fellow named Bob Brown when it was



new, then changed hands and was crashed numerous times before LaMarca purchased the remains in a basket.

I was skeptical of LaMarca's claims that the five-year-old car could be competitive, but bought it because it was affordable and had room for my ass in the seat and my big feet on the pedals. While I haven't the time or the money to compete seriously for National points, I did manage to run the car eight times before I ran out of both at the end of June.

I found I could run third to such stalwarts as Muzzin and Evans at nearby Waterford, but barely managed to break into the top ten in spring's Grattan National. Then, armed with a new set of tires for the first time (but also, unfortunately, a set of swiss-cheese piston rings),

I managed to start 39th (of 72) at the Road America June Sprints and moved the Winkelmann up 18 positions in eight laps before leveling off due to a fuel feed problem.

It was not until the thing had been reshod with brand new rubber (Super Vee fronts) that I discovered its fantastic braking ability. Although I had almost no power and had to draft continually just to keep anybody in sight on the straights, I soon found that I could outbrake people almost at will — and with still some margin for error. Such braking was a real revelation to an ex-sedan racer and that was one of the most fun races I have ever driven in spite of the listless engine and the fuel feed business.

The cornering ain't bad either. When I bought the car, I was warned that the Winkelmann had a tendency to get away from people in the oversteer mode, yet the only time it was a handful was during one Waterford event when my well-used rear tires were rapidly going away. Given the proper chassis and tire balance, the old WDF-2 seemed to handle beautifully and quite neutrally for me.

Back around 1970, according to Hunter, the Palliser race car outfit in England was turning out more chassis than Lola, and the few that Bob Winkelmann imported to this country took on his name. The suspension geometry was almost a direct copy of the highly successful Brabham BT-29, which might have had something to do with the fact that Palliser designer Len Wimhurst had come over from the Brabham organization. Many of the Brabham parts are interchangeable with the Palliser/Winkelmann.

Then in '71, Palliser decided to concentrate on the home market and cut off Winkelmann's pipeline, so he dropped the business. But the last chassis imported, originally intended for Bob Earl, arrived after he had already bought a Brand X and it fell instead into Ron Hunter's hands. Meanwhile, Palliser was building and campaigning F3 cars back in Merry Olde and even managed to win an F/Atlantic championship with Vern Schuppan before finally closing up shop.

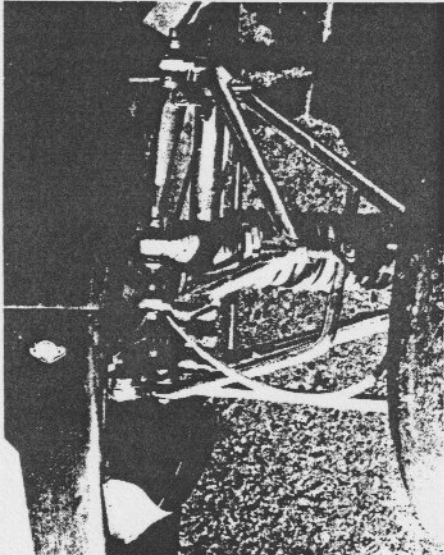
Some time later, a pair of Britishers named Ian Heath and Mark Konig got ahold of the Palliser designs, patterns and molds and began turning out cars to order. So grizzled racer-type Hunter saw

the possibilities of re-establishing the importation of the sturdy chassis and had soon brought nine Konig-Heath-built cars to the States. The first unnumbered chassis was designated a WDF-4, but the next eight cars were updated WDF-5 versions, chassis number one through number eight.

At that point, some other characters entered the picture. An American East Coast driver by the name of Paul Sanford went to England and convinced Konig-Heath to go racing with him over there. He got the number nine car, which was supposed to have gone to Hunter. With some satisfaction, Hunter says that Sanford raced his car only three times and crashed it twice. Then, according to Ron, up popped a fellow named Ed Cunningham declaring himself the West Coast Winkelmann distributor. Cunningham got the number ten and number eleven chassis but called them "Nomads".

If all this is as confusing to you as it is to me — no matter. The newest Winkelmanns are still the same basic design as the oldest — which could be a "no-progress" indictment except that they all seem to work so well. The major difference is that the old WDF-1 had hanging pedals while everything since has come equipped with the standard bottom-pivoted type.

There have been advancements: accessibility (camber, toe and ride height are adjustable without removing anything from the car), brakes (the latest cars get Lockheed units vs. Girlings on previous models) and suspension componentry (inverted, gas-filled Bilsteins); but geometry is still the basic BT29 configuration.



Still with its basic Brabham geometry.

Gary Witzenburg Photo

Hunter and Rodney Green have also designed and built a trick new body sporting a sprint-car-like all-enclosed rear section. Besides greatly improved aerodynamics, the updated body is also supposedly "anti-draft" since air exits from the lower trailing edge. The air scoop is built-in just over the roll bar.

Wheelbase is 91.25 inches, front track is 51 inches and the rear track measures 53 inches. In spite of its nearly indestructible strength, the WDF-6 weighs in at the regulation 880 pounds; and it's only 36 inches high with the chassis set at 3½ inches ride height.

"The qualities we think make the car exceptional are its braking capabilities

and its straight line speed," adds Hunter, "like when Stevens blew by Gordon Smiley at LaJunta." Smiley was in Fred Opert's Titan Mk9 at the time.

Much of the Winkelmann's braking performance is attributed to the stiff chassis — soft spring concept which is shared by manufacturers like Zink and Crossle. Also like Crossle, the Winkelmann has stuck with a front-mounted radiator.

"We built some cars with side radiators," Hunter says, "but they turned out to be a pain in the neck. They just created drag, collected rocks and then leaked in front of the rear tires."

Actually, we didn't get much of a test because there was still a layer of gravel covering most of the new Pueblo course. (They cover new asphalt with gravel to aid the curing process.) Ever try to drive an FF on slicks around a race course hub-deep in gravel? Snow tires might have been better.

But the last two turns and the long (dragstrip) main straight were clear, so I was able to work out the chassis at least through that section every time around. I tried both Hunter's and Stevens' cars and preferred the latter slightly, probably because it was set up a little more like my own. They seemed exceptionally stable and strong, both in the third gear, flat out last corner as well as through the slower turn preceding it.

As expected, braking performance was outstanding. There were two opportunities to brake hard on the clear portions of the track, once at the end of the main straight and again after a fast switch-back leading into the second-gear, second-to-last turn. I tried it both in a straight line and using super-late brake-to-the-apex technique with excellent results and good stability.

It was also stable through the high-speed switch-back in spite of some loose gravel on the course at that point. Trying a slightly different line one time around I lost the back end momentarily and was frankly surprised at how quickly and easily it gathered right up again. If there was a transient oversteer problem at one time in the Winkelmann's history, it has apparently long since been cured.

The brand new Pueblo facility, incidentally, was already shaping up as an exciting development for Midwestern motorsport fans and competitors. Besides the very interesting road course and the NHRA regulation drag strip, there is a quarter-mile dirt oval for midgets, an off-road course and a motocross bike track, plus a half-mile paved oval planned for the near future — all on a 900-acre site leased for \$1 a year from the city of Pueblo!

While I would have much preferred to run the test on a familiar track, not to mention one that was finished, the brief Pueblo experience was useful in proving what a little development can do with an already good design. It certainly reinforced my good feelings about my own well-used Winkelmann.

At \$7200 complete with Hewland Mk9 gearbox and John Barker Performance Development engine, the latest Winkelmann would seem to be a good investment. Hunter expects to have three new WDF-6s ready for sale this spring with more to come if the demand materializes. He also has plenty of parts in stock to support both the new and the older cars, and any model can be updated with the WDF-6 body, shocks, brakes and whatever the individual's budget allows. Old Winkelmann's never die: they just keep going round and round — quickly.



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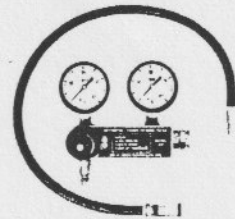
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