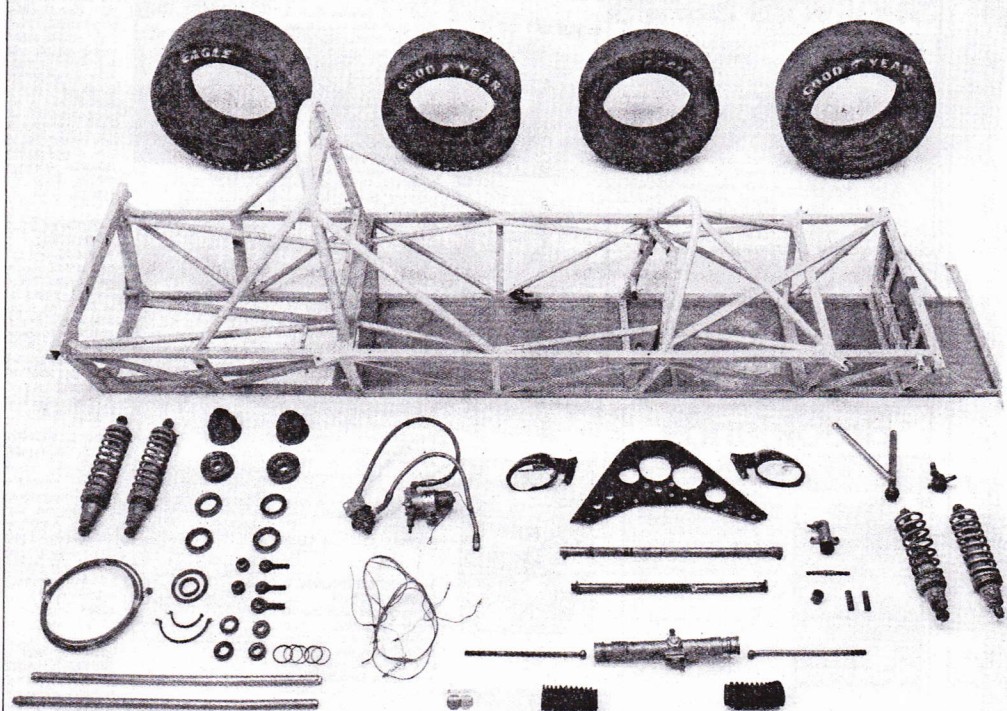


# GETTING OUT THERE

*What does it cost to go road racing? Oh, just about everything...*

BY PETER EGAN

PHOTO BY BRIAN BLADES



*No, this is not a kit. When a racing car is worn out, it's really worn out. Pictured here, a few of the parts replaced on the way to the starting grid.*

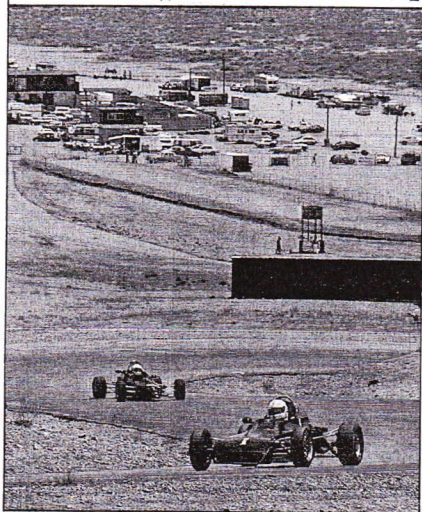


PHOTO BY DOUG LUEBBE

*First time out, drivers school at Willow Springs. Amazingly, nothing fell off, broke, leaked or blew up. And, thanks to careful suspension setup at Crosslé Pacific, the car was a delight to drive, right off the trailer.*

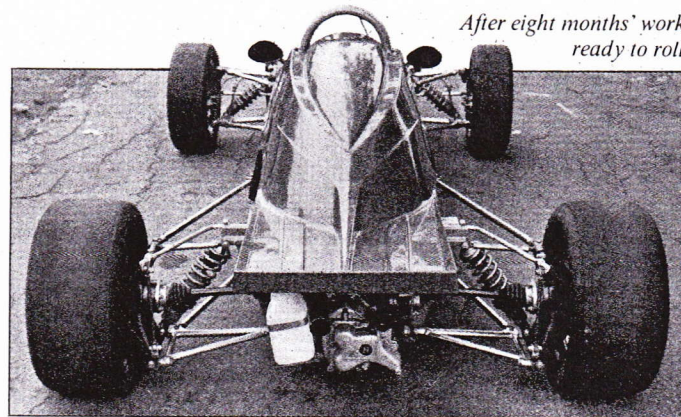


PHOTO BY THE AUTHOR

*After eight months' work, ready to roll.*

**H**AD SOME ASTUTE, slightly peculiar person taken a micrometer to the Sunday paper about a year ago, he might have noticed that the classified section was a little thicker than usual. The reason for this extra bulk, of course, was that I was Selling Everything to Go Racing.

Lost in the various want ad columns were a 1962 Lotus Super Seven, a Ducati motorcycle and a vintage Fender electric guitar, among other things. One or two calls came flooding in almost immediately, and in less than two months of dickering my garage was suitably bare

and ready to accept a racing car. By happily taking a whopping loss on everything, I was able to raise exactly \$10,000. My 1984 racing budget.

The decision to go racing again came just over a year ago, after four very enjoyable days at Laguna Seca behind the wheel of a Formula Ford at the Jim Russell School. I hadn't driven a formula car since 1978, when I sold my old Lola 204. I'd almost forgotten how nice it was to drive a pure racing car, a device for pushing a driver and four wheels around the track as quickly as possible with a given engine; no window winders, roofliners, carpets, buzzers, voices or unoccupied seats. The old fire, buried long ago under the ashes of insolvency and fatigue, was magically rekindled, and I decided on the way home from Laguna Seca to start looking for a good used Formula Ford.

For a person who wants to begin (or resume) road racing, there are a lot of interesting ways to get out on the track—Production cars, Sports Racers, Vees, Showroom Stock cars, etc—all with their own particular appeal. After considering several of the alternatives, however, I gravitated back to Formula Ford for a number of reasons.

First, the class always offers plenty of competition, no matter where you fit into the field (i.e., regardless of how slow you or your car may be, there are always four or five other manic individuals in the same boat).

Second, the basic mechanical components of a Formula Ford are relatively durable, crashing aside. All the cars use a Hewland or Webster 4-speed transaxle with good bearings, nice big gears and easily swapped ratios; a nearly bullet-proof gearbox. The engine is a 4-cylin-

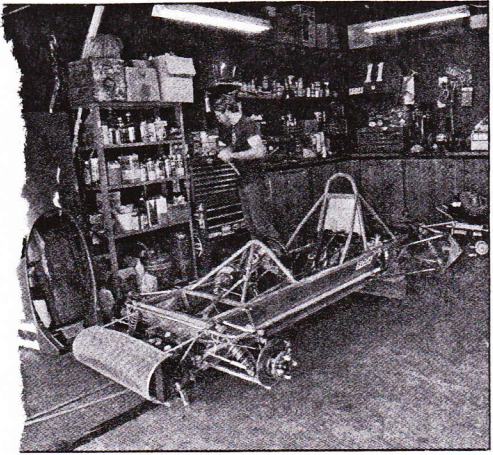


PHOTO BY STEVE KIMBALL

*Crosslé 32F, sans wheels and bodywork.*

der ohv 1600-cc Ford unit from either a Cortina or early Pinto. Porting, polishing and a certain amount of blueprinting are allowed, but the compression ratio and most internal components are stock, limiting horsepower to around 115 bhp on the better race-prepared engines. In other words, they tend not to blow up as often as full-race Production engines.

Third, I like driving open-wheel cars. Though they are often criticized as dangerous and vulnerable because meshing wheels can launch them skyward, those same open wheels also discourage other drivers from intentionally leaning on your car in corners. Open wheels are sort of like the nuclear deterrent; when you tangle, everyone loses.

After convincing myself with this kind of logic that Formula Ford was the best way to go, the great car search began. Used Formula Fords now come in a wide range of prices. You can pay \$20,000 for an almost-new Swift with a Loyning engine and a good chance of winning Nationals, or as little as \$2000 for a driveable but not-so-quick relic of the late Sixties or early Seventies. Generally, cars of recent chassis design with inboard suspension, good aerodynamics and reputable engines fall into the \$10,000 to \$15,000 league. Below that, between \$5000 and \$10,000, most of the used Fords have outboard suspension, pre-streamliner bodywork and more than a few miles of track under their floor pans.

The SCCA has recently made this last batch of cars look more interesting, as several regions have introduced a new class called Club Ford. This allows older cars with outboard suspension to be awarded separate points and trophies within the Formula Ford race, thereby preventing hundreds of dated but perfectly good cars from lying fallow in their garages. This was good news for me, because I had no hope of buying a brand-new up-to-date car.

With a racing budget of \$10,000, in-

tended to include a tow car and spares, I decided to limit the cost of the car to around \$6500. This, I thought should buy a decent used car; not a nationally competitive chassis, but something good enough for drivers schools, getting a Regional license and having some fun in Club Ford. That would leave about \$3500 for a tow vehicle and other random expenses.

In looking over the used Formula Ford market, I decided that the most promising car in my price range was probably a Crosslé 32F, or its slightly updated successor, the 35F. These cars, made in Ireland by John Crosslé, were very successful when new and continued to do relatively well. In fact, a well prepared Crosslé 32F, in the capable hands of R.K. Smith, had won the Cal-Club Divisional Championship as recently as 1983, P.S. (Pre-Swift). A lot of them were sold in southern California, and there was a dealer with a good stock of parts, Crosslé Pacific, in Lawndale, only 40 freeway-close miles from my house. Used 32F prices ranged from \$5000 for a real rat, all the way up to \$9500 for blinding perfection, with spares.

Naturally I headed straight for the rat end of the spectrum. It didn't bother me to buy a car in slightly rough condition because I fully intended to check over or rebuild every last component anyway, and (I reasoned) this was just as easy to do on a cheap car as an expensive one. In fact, a complete racing car restoration project would be just the thing to guarantee familiarity with the car.

The rat of my dreams appeared one weekend when I was visiting Crosslé Pacific. Sitting in the back corner was a 32F that someone had just traded in on a new Crosslé. The radiator and carburetor were gone, but the frame and bodywork were newly painted (gray and dark red, respectively) and it had brand-new Panaspport wheels. Closer inspection revealed that the front springs were mismatched, as were the upper A-arms, one being of a newer style than the other. The steering rack also seemed to have quite a bit of play in it.

I could also see that the left front corner of the frame had all new pieces of tube grafted in, but frame repairs and grafts are a way of life on older Formula Fords; very few have escaped hitting something in their perilous careers. With a temporary carburetor installed, the engine fired up and sounded good, producing good oil pressure. The head was nicely ported and polished, but not much else was known of the engine's origin or history.

After a few more trips to look at the car, then-Crosslé Pacific owner Ken Deeter and I arrived at a price of \$5550, to include a new carburetor, a radiator, new battery and a matching set of front

springs and A-arms. Deeter sold me the car strictly "as is" and warned me it would need a lot of work before it ever got out on the track.

I picked up the car one November evening with the help of Joe Rusz and his Ford van and double-axle trailer. As I went to write out the check, Deeter said, "Let me figure out the sales tax." Ah, yes, sales tax. How could I have forgotten about sales tax. For no logical reason, I had imagined racing cars to be immune from this drab institution. Suddenly I had a \$5883 racing car.

Deeter's prediction that the car would need "a lot of work" was well taken. With the Crosslé back home in my garage, I immediately began an investigative disassembly. As this work progressed over several evenings, it slowly dawned on me that I'd purchased a genuine Trade-In Special. It appeared the previous owner had stripped off most of its relatively sound pieces and replaced them, in anticipation of the trade-in, with what are known in racing circles as "spares." A spare is any part of a racing car that is so worn out it can't be used without endangering the lives of corner workers and the people in the timing and scoring tower.

Hardly a piece in the suspension system was salvageable; rod ends, ball joints, front and rear wheel bearings, all were worn well beyond normal limits. I took the steering rack apart and found the steering gear teeth and rack bushings badly worn, and the rack itself had been straightened at least twice and had large tooth marks running along its entire length. The tie rod ends were badly bent beneath their rubber boots, and even the steering column was bent. There was truly nothing usable between the steering wheel and the steering arms out at the wheels. Several rear trailing links also proved to be markedly banana-shaped on closer inspection. About \$1100 later I had all the new parts I needed and a \$6983 racing car. A little over budget, but at least the car would now steer.

The next step was to remove the springs from the shocks and examine them. One shock absorber had been broken off at the top eye and welded back together, and another two had about as much damping power as a well oiled slide trombone. New adjustable Armstrongs were listed at \$225 each, which meant nearly a thousand dollars' worth of shock absorbers, with tax. A bit much. So I bought a slightly used set from R.K. Smith for \$100 each (though I don't think Smith can be accused of ever having used any Formula Ford component only "slightly").

Gearsets. You need gearsets to race a Ford. To have a decent range to cover the west coast tracks, you need at least

# OUT THERE

10 to 12 Webster or Hewland sets for the gearbox. My car had four gears in the box, but they seemed to have been assembled randomly, for no known track. My gears would get me around admirably if there were any way of connecting Turn 6 at Riverside with Willow Springs' main straight, followed by an immediate left into Laguna's Corkscrew. I bought eight more gears, a mixture of new and used, for another \$304. My future tow car was getting older and cheaper by the day.

There had been a few surprises in all this, but at least the major chassis components were ready to go. Time to pull the aluminum side panels and bulkheads off the frame to check the welds before I bolted everything back together. One evening I began drilling rivets and removing panels. I took the right side panel off and everything looked fine.

When the panel came off the left side, however, I saw to my horror that most of the diagonal frame tubes, which looked fine from the inside of the car, were flattened or kinked on the outside. The lower frame rail had been grafted from three different pieces of tubing, none headed in the same direction. With the bottom panels off, the frame looked like a toboggan going over moguls.

Checking the frame with tape measures and straightedges, I found that it had a 1-in. twist from front to rear and

that the back end was pushed east by nearly an inch, when the nose faced north. There was also an inward kink to one of the rollbar supports.

It was a racing car whose parachute had, at some point, failed to open. Possibly two or three times. The chassis was beyond fixing at any reasonable cost.

The bent frame sat on sawhorses in my dark garage for two months. I refused to look at it.

After a respectable period of moping, I gathered up the remains of my enthusiasm and bought a clean, straight frame from R.K. Smith. He had kept it standing by as a possible spare during his 1983 championship season. He sold the frame for \$1200, with new aluminum side and bottom panels.

With a respectable new frame to buoy my spirits, I finally began work in earnest. I made new aluminum bulkheads, fabricated an instrument panel (some indecisive soul had drilled random holes all over the old one), rebuilt master cylinders and brake calipers, replaced CV joints on the rear axles (the old ones were lubricated with a paste of rainwater and fine gravel), put in new hub bearings (rainwater, gravel, etc), installed all-new grade-8 bolts, hoses and cables and rewired the car, just on principle.

Tackling the engine last, and feeling a little gun-shy, I was pleasantly surprised to find it the best part of the car. It was nicely ported, deburred, had new valves and guides, straight cylinder bores, and the cam and bearings were barely worn. The crankshaft, often the Achilles' heel of Formula Ford engines, showed no cracks when Magna-fluxed. I installed

new bearings and rings, then painted and reassembled it.

What was left? Having neither the knowhow nor the equipment to set up the suspension properly, I had it done at Crosslé Pacific by Ron Giery, the shop's new owner. Cost for a complete suspension setup—bumpsteer, alignment, ride height, etc—was \$207. The last big expense was a set of Goodyear slicks to replace the petrified rubber on the car, which set me back \$451 at Carroll Shelby's tire store.

Sitting on those four new tires, ready to race, the total cost of the car was \$10,750.65. Looking at the list of parts I'd replaced, it was hard to imagine there was anything left of the original Crosslé. On closer scrutiny, however, quite a bit remained—wheels, engine, gearbox, axles, hubs, brakes, dry sump system, bodywork, fuel tank, seat, pedal cluster, A-arms, radiator, steering wheel and a

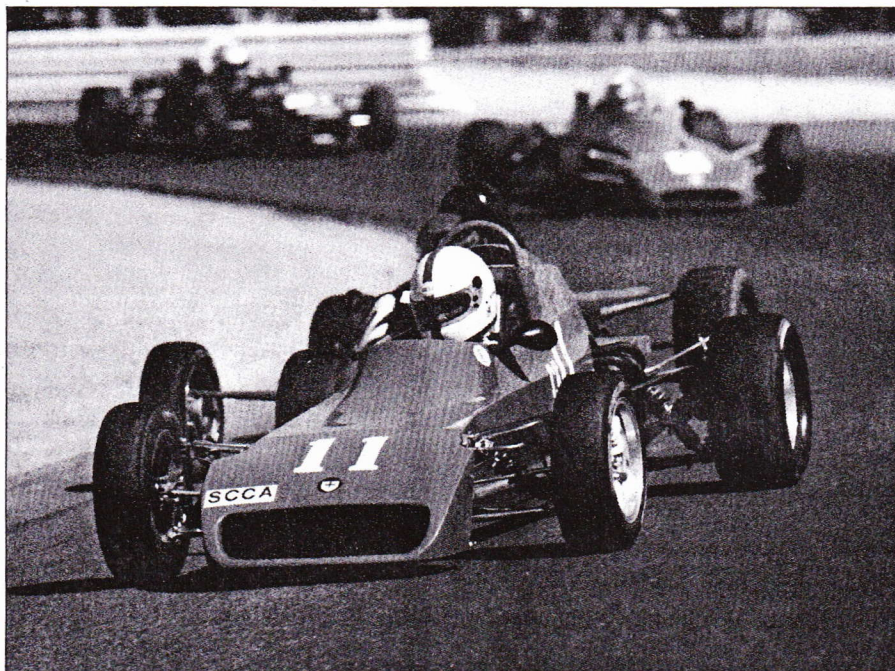


PHOTO BY DAN FITZGERALD

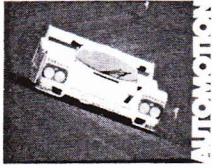
Practice action at Riverside's Turn 6, here about to be passed (very, very quickly) by Cal Club Formula Ford champ Cary Bren and his rapid Swift.

## COST BREAKDOWN

<b>Car &amp; Parts</b>	
1 Crosslé 32F, with sales tax .....	\$5883.00
Replacement frame .....	1200.00
8 gearsets .....	304.07
4 used Armstrong shocks .....	400.00
New steering rack, tie rods, steering column, rod ends & hardware .....	759.48
4 new Goodyear slicks .....	451.00
Suspension setup .....	207.36
3 new trailing links, rear .....	70.80
Jumper battery, cables & cart .....	158.93
Grade-8 bolts, misc hardware, rivets .....	145.95
Paint .....	53.12
Aluminum sheet, metal stock .....	64.45
Mirrors .....	28.90
Electrical fittings & wire .....	30.68
Oil, water & fuel hoses .....	82.86
Hydraulic clutch line & slave cylinder .....	93.77
Brake caliper & master rebuild kits .....	40.39
Engine gaskets & sealers .....	80.12
Engine bearings .....	76.43
Front wheel & rear hub bearings .....	82.68
Fuel pump .....	45.00
Brake balance bar .....	25.70
Rear-axle CV joints, boots & grease .....	84.75
Spring set, used .....	50.00
Tach & throttle cables .....	54.56
Oil, brake fluid, coolant, etc .....	30.46
Brake pads, front & rear .....	49.90
Magna-flux crank .....	10.00
Suspension rod ends .....	140.00
Body springs & brackets .....	46.29
	<b>\$10,750.65</b>
<b>Accessories, Misc Official Stuff</b>	
Trailer .....	550.00
Extra jerry can .....	14.95
Hewland, Ford & Prep manuals .....	61.50
SCCA dues, comp license fee, GCRs .....	82.00
Drivers school entry fee .....	100.00
	<b>\$808.45</b>
<b>Foolish Luxury</b>	
New driver's suit, helmet, shoes, equip. bag .....	552.03
Quick-lift floor jack .....	167.00
Pit canopy .....	30.00
	<b>\$749.03</b>
<b>Total:</b> .....	<b>\$12,308.13</b>

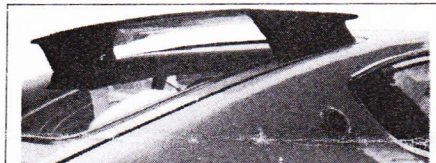
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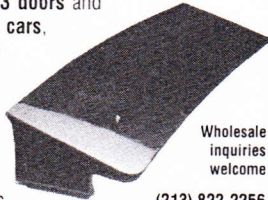
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# OUT THERE

hundred other, smaller parts. Excepting the frame, most of the components replaced were those expendable, self-destructive pieces of a racing car where one surface rubs on another. Still, when they were all replaced, the car was chillingly close to being a brand-new 1978 Crosslé 32F. Not exactly what I'd had in mind when I bought the car, but at least the finished product was nice.

I almost forgot to mention that I bought a trailer (R.K. Smith to the rescue again) for \$550. Other random expenses have included rejoining the SCCA, taking a competition physical exam and treating myself to the luxury of a new driver's suit, helmet and shoes to replace my well worn *pilote ancien* outfit from the early Seventies.


There's no money left for a tow car, of course, but I bought one anyway—a \$100 Ford station wagon, 1970 vintage, that I'm gradually fixing up and grooming for the job. In the meantime, I've been borrowing Steve Kimball's Buick wagon or the Jeep Cherokee that R&T is now putting through its paces as a long-term test car.

Total cost of reentry: \$12,308.13, eight months of working nights and weekends, and a wife who thinks of me as "that person who lives in the garage."

Has it been worth the trouble and expense? That's a tough question, and

there's probably no reasonable answer. I guess if you want to race, as opposed to supporting six or seven other fun hobbies, the sport is always worth whatever it takes to get out there. If you aren't committed to the idea of racing, the effort required is absolutely insane.

So far the mechanical prognosis for the Crosslé is good. The car has made it through a 2-day SCCA drivers school at Willow Springs and its first Regional race at Riverside without problem. Only a few minor mechanical adjustments have been needed, and the 32F is one of the best-handling, most forgiving cars I've driven. While it lacks the straight-line speed of some of the newer and more aerodynamic cars, the Crosslé is extremely neutral and well balanced in corners, without a treacherous bone in its resurrected body. A good car for a novice driver, or anyone else. It finished 2nd in the drivers school race (I'm not sure if we were beaten by horsepower or driving skill; I couldn't get close enough to the winner to find out), and 12th out of a 30-car field at the Regional.

There are still some improvements that could be made in the car; lower ride height with stiffer springs, a longer tail section for a little more rear downforce; a Loyning cylinder head would be nice to try. In the meantime I have a lot to learn and relearn about driving, and that is where most of the extra seconds will have to come from. Luckily, there seem to be plenty of highly motivated teachers on the road ahead of me, and more where those came from, in the rearview mirrors. 

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