



Living after midnight

WORDS AND PHOTOGRAPHY BY DAVID TRAVER ADOLPHUS

What Carl Swebilus really wanted for his first new car in 1965 was an Austin-Healey. No dice, but a friend turned him on to another English sports roadster. On December 31, 1965, with \$2,115 in trade for his '63 Volvo P1800, he drove out of Crooks' Motors in New Haven, Connecticut (Crooks? Yep—it turns out they were, and lasted only another six months), the proud owner of a blue 1966 Elva T Type (independent rear suspension) Courier Mark IV, with optional heater and safety belts. It also came from the dealer without the stock Spitfire steering wheel; Carl paid a little extra for the aftermarket wood Fred Opert Racing wheel (Crooks found the car at Opert's in New Jersey). He actually drove it through that first New

England winter, with "freezer burn on my ankles," but confined the Elva to summer and track duties after that.

During the summer of 1966, a local Yale student launched his new MGB over a set of gas pumps and through the wall of the station, destroying it. He had no use for that vehicle, or any other, afterwards, and Carl replaced his stock three-bearing M.G. engine with the five-main-bearing, 1,798cc four from the B, along with its overdrive transmission. "I still look at it and think, I have the engine that made that building be rebuilt."

Word on the street at the time was that the transmission wouldn't fit, and he did have to take a small notch out of the frame to make it a solenoid fit. It's also slightly taller, and he constructed a new wooden console

to fit the top of the transmission hump.

Elvas have deep competition roots, and while Carl never raced the car in door-to-door competition, he did autocross it intensively, and competed in time trials, which is what he was doing at Lime Rock in November 1973.

By late 1973, Carl had the Elva in white livery, with alloy wheels and a roll bar. He came down the hill from West Bend into a high-speed right-hand sweeper into the main straight, and just kept going, ending up on a berm by the woods with crushed front bodywork. He started repairs at the time, gluing the broken bodywork back into place so it wouldn't get lost, and straightening and strengthening a bent front frame member. The effort petered out after a while, and it



As the car went into storage in 1973, and as it came out 20 years later, in racing configuration, literally duct-taped together



The front and rear fiberglass body sections are joined only by a fiberglass rocker section and Triumph-derived doors

spent the next 20 years in a barn. "It wasn't really bad, but it was beyond my scope at that point," he said.

Like most small-volume independents, Elva used existing components wherever practical. The Mark IV Courier is almost an assembled car, using an MG engine and transmission, and Triumph Spitfire suspension. Having major components from two of the most popular British sports cars of all time is a huge help when restoring one, as you can go to a number of large, reputable suppliers for high-quality parts. The Elva-specific items are another story.

The largest of those, the fiberglass body, is bonded and riveted to a steel pan with a central frame, much like a Lotus. While Carl felt confident in his ability to tackle the machinery, good fiberglass work is a specialized endeavor, and he enlisted Ted Olenski in Ansonia, Connecticut.

Back when Carl put it into storage, he had made quite a bit of headway in stripping it of paint, which Ted said was of benefit to him when he received it years later. Normally, he says he spot-strips cars in locations that he knows are trouble spots, but thanks to Carl, he was able to evaluate the Elva more easily. In addition to the front end damage, he found it full of "lightning" cracks, which he thinks were the result of a too-hard resin in the fiberglass from earlier repair. "The big thing in glass is, you need to undo any previous repairs," he says, paying special attention to removing any metal—screws, rivets, and other fasteners—drilling them out with a rotary file on an air tool. "My theory is that even a little rivet will catch more heat when baking," causing it to expand at a different rate than fiberglass, which can lead to cracking or chipping.

He also makes sure to remove any old



As it looked in the summer of 1966, left; and at the end of "that day in November 1973," after a shunt on the Diving Turn at Lime Rock. Frame as well as bodywork was damaged

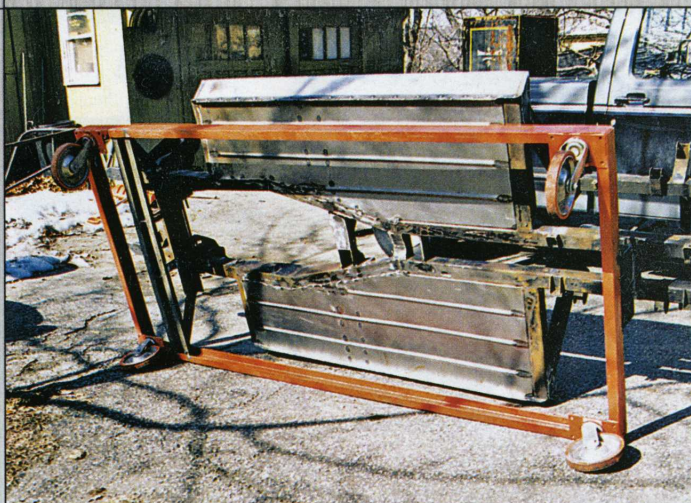




Early in the restoration, Ted tacked a lightweight transport dolly onto the frame. "It's light and easy to move, and stays out of the way"



Because the front end bodywork was shattered, it was necessary to reassemble it before finish work could begin



One of the rocker boxes to which the body is affixed, visible at the top. Ted fabricated new, relatively simple floorpans



The front end of the frame, which should look familiar to Spitfire owners. The left hand rail was bent at about 15 degrees

resin from those repairs, scraping with a v-gouge and a Roloc wheel, in an aggressive 50- or even 36-grade. As opposed to a metal body, a very rough surface in fiberglass repair is vital for proper mechanical adhesion of the later gel coat.

Ted sent the prepared shell, now in separate front and rear pieces, to American Dry Stripping in Milford, Connecticut, for paint preparation. "The great thing about them is that it comes back however you want, and unlike some places, they've never destroyed anything I've sent them."

Now freed of fiberglass, the steel frame and floorpans were tolerable, but with numerous holes from roll bar installation and the effects of 20 years of dry but unheated storage. Ted and Carl decided to make new ones, as well as the perimeter square-section sills or rocker boxes. The

only problem was the originals took all the little holes and marks that indicated where the body should go with them. Fortunately, the floor pans were relatively simple, flat pieces, with a few ribs for stiffening.

When the body came back from American Dry Stripping, Ted got going on the fiberglass. He says Nor'Easter Yachts in Milford provided invaluable advice (and supplies), and recommends finding a local boat specialist to anyone who really wants to learn what to do. "A lot of people say they hate doing fiberglass, but if you control it and don't let it control you, it can come out great," he said. When he went into Nor'Easter, they told him that even for the large parts he had to fabricate, such as wheel arches, he could lay them up to thickness using many layers of fiberglass cloth. Ted built paperboard forms for these

parts, and hand-laid the cloth to shape. He says that there are two common mistakes when building up pieces: Over-catalyzed resin, and too much of it. As with most processes, Ted likes an alternating, even, crosshatching for his fabric, and Nor'Easter provided a fiberglass roller, a 1/2-inch wide tool that he uses to remove extra resin and any air bubbles, leaving a very dense, strong piece when complete.

For patches where there's the possibility of sagging, Ted did his layup on ScotchbloK Gold masking paper, which is a solvent-proof paper that he says "lets me defy gravity for that moment." This allowed him to place his patches carefully, and correct catalyzation meant there was some wiggle room—he was able to make small adjustments with a body filler scraper or squeegee. He rough-sanded the existing



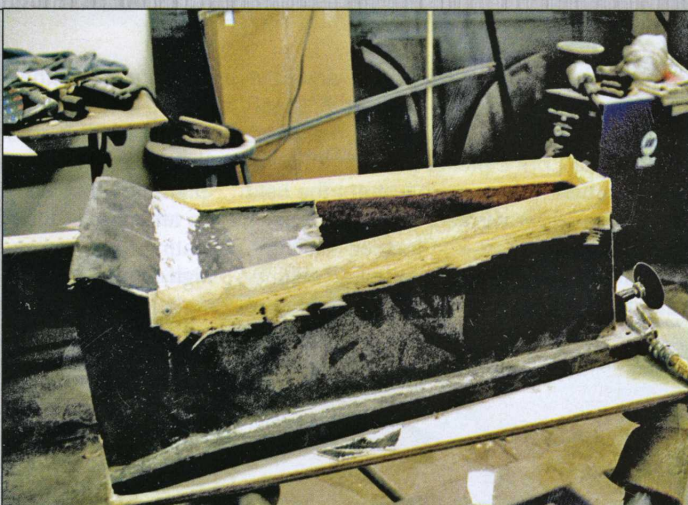
The extent of lower body fiberglass repair is visible in the blue sections. The factory bonded and riveted it to the chassis



Closeup of fiberglass repair. A patch like this is glazed at the edges and feathered in with Evercoat Vette Adhesive before the gel coat



Recreating the correct wheel arches was challenging; laying up fiberglass on Scotchblok Gold paper allowed careful positioning



For the first time since 1966, the Elva got a center console, with the original built up slightly to accept the taller transmission

bodywork for maximum adhesion.

He used a similar process to refit the body to the frame, letting the (Triumph Spitfire-derived) steel doors dictate the lineup of the two halves. He roughed up the steel with 16-grade paper, "A real nasty abrasion," to give the resin something to stick to. Here, too, he used no metal fasteners, nor did he follow the practice of drilling ooze holes for the fiberglass, saying he's seen that lead to trouble down the line.

After application, he glazed any seams and went straight to an application of Evercoat Vette Adhesive, a heavy body filler, to feather out the edges, still leaving everything very rough. He then applied fiberglass gel coat, which he says he can easily prime over. When dry, it forms a waxy coating, which can be removed with acetone or lacquer thinner, allowing him to get a good

look at the panel finish. He took off orange peel with 80-grade paper, did minor touch-up, and went to four coats of Glasurit high-build urethane primer. He finished the car (including chassis and running gear, which Carl had sandblasted) with Glasurit 21-line urethane (since replaced with their 22-line high solids finishes), finish-sanding down to 2000-grade.

Carl had the drivetrain ready when the body returned. For the second time, he rebuilt the engine, this time sending it to Harvey Thompson at Vintage Racing Services in Stratford, Connecticut. When it came back with a .040 overbore, he reassembled it with an MGB 290 T Sig Ericson racing cam, and performed some polishing and compression of the cylinder heads for compression. He also took the opportunity to upgrade the car's brakes, which he said





Another sight familiar to Triumph owners, the doors are the only steel in the body. A repair strip is being tacked on here



The fiberglass sections are assembled on the frame, still attached to the transport dolly. Thorough paint masking is evident

were atrocious when new, by downsizing the master cylinder bore to 5/8-inch from 3/4-inch, "a huge improvement. It's the Bernoulli principle: X p.s.i on this end comes out the other end. I just got the next size down, and it worked."

Carl found the cast-iron header, which he had saved from the car's original engine, was in rough shape. While matching a

new one up to the M.G. exhaust ports was no big deal, the Elva chassis demanded a custom bend. Chassis Dynamics in Oxford, Connecticut (famous for building the U.S. Olympic bobsled team's rides), modified an aftermarket tube header, essentially recreating the Elva setup, and gave it a Jet-Hot high-temperature coating. When the time came to put the car back on the trailer,

they enlisted five-time Olympic bobsled-der Brian Shimer (then captain of the U.S. team). "I figured that's what he did, push hard on things," said Carl.

He also discovered that a reproduction wiring harness didn't exist, so he went to Rhode Island Wiring Service, and started connecting point A to point B, until he assembled his own. "I used the color coding

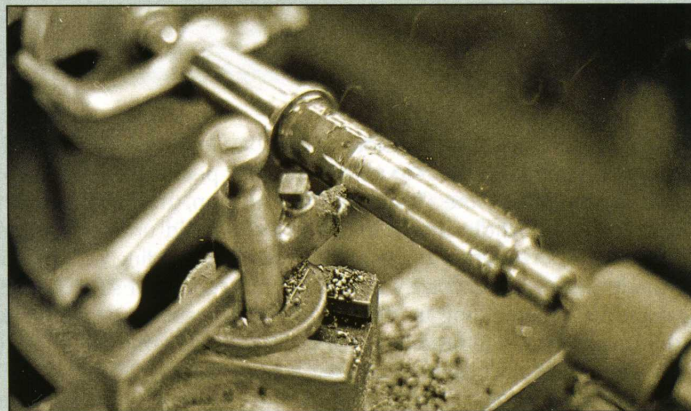
Can't find it? Make it.

Carl couldn't locate a number of bits and pieces when he restored his car, and rather than tearing his hair out and scouring the ends of the earth for things that might or might not exist, he decided to cut out the middleman, and make them.

Six lamps decorate the front end of a Mark IV: two headlamps; two amber directionals; and a pair of little parking lamps. It was these (and their rubber housings), tucked in next to the grille opening, that weren't reproduced and, with only 64 cars built in this configuration (many of which were raced), were impossible to find used or NOS. Neither could he locate the correct "Elva" badge for the trunk, nor the funky plastic covers over the shock mounts in the trunk. So he made them all. Of these castings, only Carl's shock covers are on the car, as he scrounged up replacements for most of his homemade parts.

Underneath, the Elva's TVR Griffith-derived halfshafts or stub axles have a reputation for unreliability, and when Carl looked at them in disassembly, "They were starting to make themselves into corkscrews from autocrossing." So he did what any self-respecting machine shop owner would do, and made his own.

Carl also discovered that the side glass was unique to the Elva (the front screen is MGB, with a unique frame and posts), and had a local glass shop cut it. "I learned you can temper glass, and if you need to, de-temper it, cut or drill it, and retemper it."



They're equal-size halfshafts, which he made with grade 4130, high tensile strength, heat-treatable chromium-molybdenum steel. Carl made rough blanks and had them heat-treated for the correct balance of strength and flexibility. Grinding them on the lathe might be within the range of a serious home shop, but Carl warns that milling in the splines is not a hobbyist operation, requiring the use of an indexing machine. Because of the extreme precision required, he sent them out to a specialist to grind the tapers for the bearings.



Constructing the new fuel tank. Ted Olenski leaves the steel free of rubberized coatings, and sprays with epoxy primer



Test fitting the new gas tank, in a new location. One of Carl's reproduction silicone shock mount covers is visible just behind it

shown in the M.G. and Spitfire manuals to order the correct color wire," and he says it wasn't as difficult as he expected. He completed his bundles with Rhode Island Wiring's automotive-specific non-sticky tape. With the winter of 1966 in mind, he didn't bother with the heater this time.

When we photographed "Elvira," we were disappointed not to be able to drive her. Not

because she wasn't running, but because when Carl put the seats in, he screwed the tracks down where he wanted them for his inseam. It was like being a kid in your parents' car—we couldn't get the clutch to the floor, and we had to settle for a long blast in the passenger's seat.

And it is a blast, with a nice raspy exhaust note and plenty of power for a car that

was listed at 1,512 pounds when new. Carl admits it's a better screwed-together car now than it was in the 1960s, and you could forget you were in a fiberglass car, as it felt very stiff and well-controlled.

Even though a relatively high percentage of Elvas have survived, with only 64 T Type Mk IVs built, it's incredibly rare today. "I believe Elvira has come of age," said Carl.

After some research with local mold companies, Tool Chemical provided a silicone mold compound, two-part



casting resin and release agent. The mold he constructed included a tube for injecting the resin, squeezed up from below to take bubbles out the top. After about eight hours of curing, the part emerged completely finished, needing only the removal of casting flash—Carl says you'll duplicate a careless fingerprint.

"The gas cap was missing and I wasn't able to find one," said Carl. "Since it was very odd and unattractive, I eliminated it." Ted Olenski wasn't able to save the old tank, either, but eventually determined it matched one from a Triumph Herald.

He cut off the bottom and fabricated a new angle for the vertical trunk mounting. He had American Dry Stripping media blast it, then he washed it with a DuPont acid wash and welded it, leaving the inner surface bare and priming the outside. Here, Carl is constructing a paper model to get the fit correct.

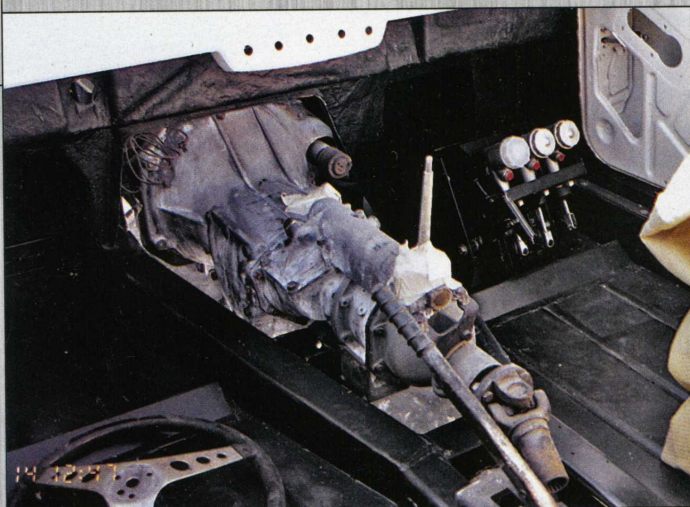


Only one original lens and housing was salvageable, the black one. This first white copy was too soft, and Carl planned to experiment with silicone resin with a harder durometer. Fortunately, Roger Dunbar of Elva Racing found a reproduction, which, while not an exact replacement, convinced Carl to abandon the effort. The reproduction lens "has been kicking around in my toolbox for 11 years...when the copy was new, you could not tell the difference."

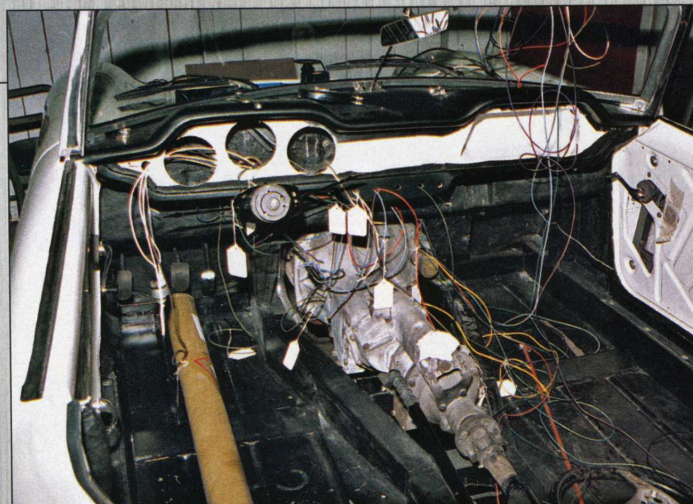


The original Elva badge is a chromed stamping, and Carl used the same resin casting process to make a new one. That copy ended up in the hands of a collector, while he soldered a break in the original and had it polished and rechromed. Elva Racing now reproduces them.



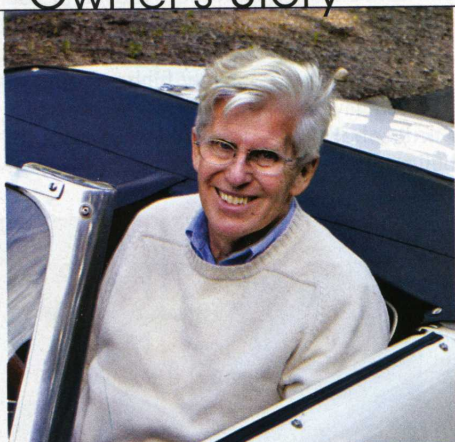


Overdrive M.G. transmission and five-main engine installed in 1966; the suspension and steering is Triumph Spitfire, TVR Grantura rearend



Building a wiring harness from scratch. "I just ran wires until everything was working," said the owner

Elva Courier Mark IV Owner's Story



"The project took a long time and cost a lot more than the car is worth, but it's an emotional thing with the Elva. It's the first new car I ever bought. A Spitfire and a Ferrari can both eat up thousands of dollars in a restoration. When done, the Spitfire will still only be worth a small amount compared to the Ferrari. I knew this going into the restoration.

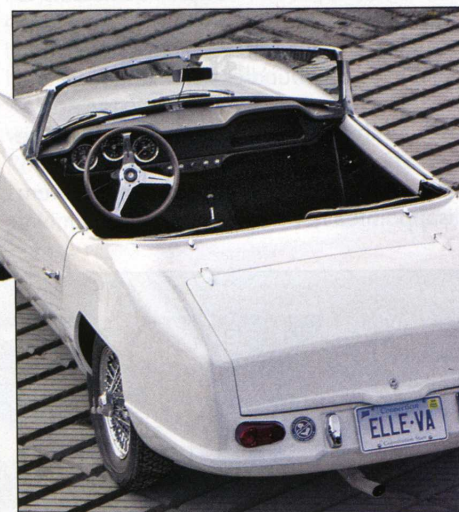
"While the car is not as widely known as a Ferrari, the company does represent an important page in automotive history. It was very fast for its time, and relatively inexpensive. Elva was in hot competition with Lotus, so whoever won on Sunday would sell on Monday. Elva is the car Mark Donohue started out in, because it was light and fast, and this is the company Bruce McClaren had build his first Can Am car.

"I almost bought a big Healey instead of this car. I know I would not own the Healey now, after 40 years."

—Carl Swabilius

"In a car show today, most of the people are too young to remember the Spitfires and MGBs. Now, when all the cars are well done, I get equal time for questions from the crowd. Of course, the Ferraris get the crowds, but the Elva styling is still strong."

If Carl has any regrets, it's that he's succumbed to the fear of driving a too-nice car. "Now, I hate to drive it and get the suspension dirty. I dislike trailer queens, but I plead guilty." Judging by the grin plastered on his face during a crisp fall afternoon of driving, he wasn't having any regrets that day. "Time has not been on my side the last few years," he said. "But next year, after I finish my house, I plan to drive it!" 🌐



What does it cost?

We always ask car owners what their restorations cost, but we seldom get an answer. Carl was immediately forthcoming with a figure: \$34,571.95. "That's not cast in stone, but it's not far off," he said. Here are some highlights from his five-inch-thick binder of receipts:

An all-new interior by itinerant upholsterer Quid Blankley cost \$1,941, with a new dash and fascia an additional \$225.

A customer of Carl's machine shop made him a pair of new grilles, punched out of 3/32 sheet aluminum, for \$175.

Long Motors provided a Torsen limited-

slip differential for \$1,000, as well as five wire wheels at \$300 per wheel.

All the wire for Carl's homemade harness was \$200.

In a startlingly good deal, he got his windows cut, tempered and mounted in their channels for \$65 apiece.

And on December 31, 1965, his trade-in and cash added up to \$3,946.78:

- \$3,765 base price;
- \$115 for the heater, seatbelts and prep
- \$61.78 tax;
- \$5 for the title.