

CARROZZERIA

NUMBER TWO

\$4.00



FIAT ABARTH MONOMILLE

MIDNIGHT AUTO.

By Mahlon F. Craft,

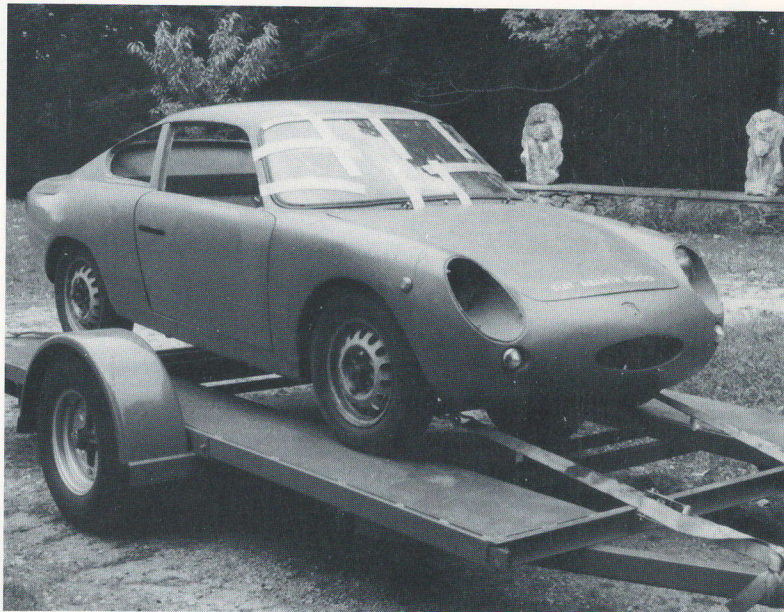
It was about noon on a placid, late September day when I got to my mail box on the way back from the local landfill. Casually looking thru the mail, I found my latest copy of Autoweek. I wasn't in the habit of immediately looking at the classified section where most Vintage race cars are advertised, but for some reason, on that day I did. The page fell open to the collectors section. I was looking for Abarths, which are seldom found for sale, especially true for the faster more interesting cars. As if drawn by magnetic force, my eye fell immediately on an ad which read:

"1963 FIAT ABARTH MONOMILLE. ex-SCCA GP. excellent small bore vintage racer. Many spares, including 1300cc DOHC hemi engine. Needs complete restoration, call after 6PM EST."

I swallowed hard. The price was more than reasonable and the extra 1300 engine, if Abarth, was nearly worth the price of the car. I wondered how many others had seen the ad. My thoughts and I raced down to an old, fellow vintage racer friend that had a trailer, Keith Goring of Alfa's Unlimited. My first thought was to buy the car and turn a profit on it to restore another which had been languishing (and rusting) in my garage for some years.

I blurted out to my friend what I knew and cajoled him into bringing the car back for me, if it was still for sale and not too far away.

My mind still raced. What time did the bank close? Where was the car? I tried the listed phone number with no result. I checked my phone directory and found that the car was in New York, and the phone company pinned it down to Rochester. It was only about 200 miles away.



I phoned again. Who cares if it is before 6PM anyway? A woman answered. Was the car still for sale, I inquired. Yes was the reply. Could I speak to the owner? Yes again, along with a work phone number.

By this time it was about 2PM nervously, I dialed the numbers I had been given. The switchboard answered and connected me to the proper extension.

"Hi", I said, trying to sound more or less normal. "Is your Abarth still for sale?"

I was lucky! "What kind of shape is it in?" I asked, hoping to ask what would sound like casual questions. "Oh, it's mostly there, but all apart in boxes." "How about the glass?", I queried (every Abarth owner's next question.) "OK." "And the 1300 engine, it's Abarth?" "Yes, but blown up and not entirely complete."

I was reduced to silly putty. My brain was overloading. "I will be on your doorstep with your asking price in cash at eleven o'clock tonight. Is that ok?", I asked. Again an affirmative answer.

I sped off to the bank, stopping at my friend's shop to agree on a price for the all night task that lay ahead. By 6PM, we were on our way. Running thru my head, was my one fear. How many others would see the ad in the next 5 hours?



Following the owner's directions, we arrived at the indicated address only 5 minutes late. After a few brief get acquainted sentences, we were led into the garage, the cover was pulled off, and there stood, beyond my wildest dreams, the car of my dreams. It was a short nose, "duck-tail" competition coupe, not the less pretty round-tail I had expected. All around the car on shelves were its innards and spares. All thoughts of re-selling the car instantly evaporated.

The next sentence out of my mouth was the question I had been dreading to ask. "Have you had any other calls?"

"Yes, I have had quite a few."

Trying to ask, but not ask the next obvious question, I said "If you will quickly make up a bill of sale, and a list of parts included, we will get busy and load up." And that is just what happened.

All of the other callers, who were either friends or familiar names had been gentlemen enough not to try to take the car out from under me. And the owner was, probably to his financial detriment, a man of his word.

We arrived back at home, exhausted and sleepy, with a van full of parts and the treasure in tow at about 7AM the next morning.

The club to which I belong, the Abarth Register, had been planning a national meeting at Sebring during the Kendall Vintage Grand Prix, held in conjunction with the Sebring 12 hour endurance races at the end of March.

It was fortunate that I had already reserved restoration time for my other car at a Vermont restoration shop familiar with aluminum bodied race cars, Tivy's Autocraft in Richmond. I substituted my new acquisition as it was more complete and easier to restore given the short time available for restoration. The body and chassis restoration would be finished in early

February. I would be left with just 8 short weeks to fully prepare and install all of the mechanical parts on the bare painted body/chassis.

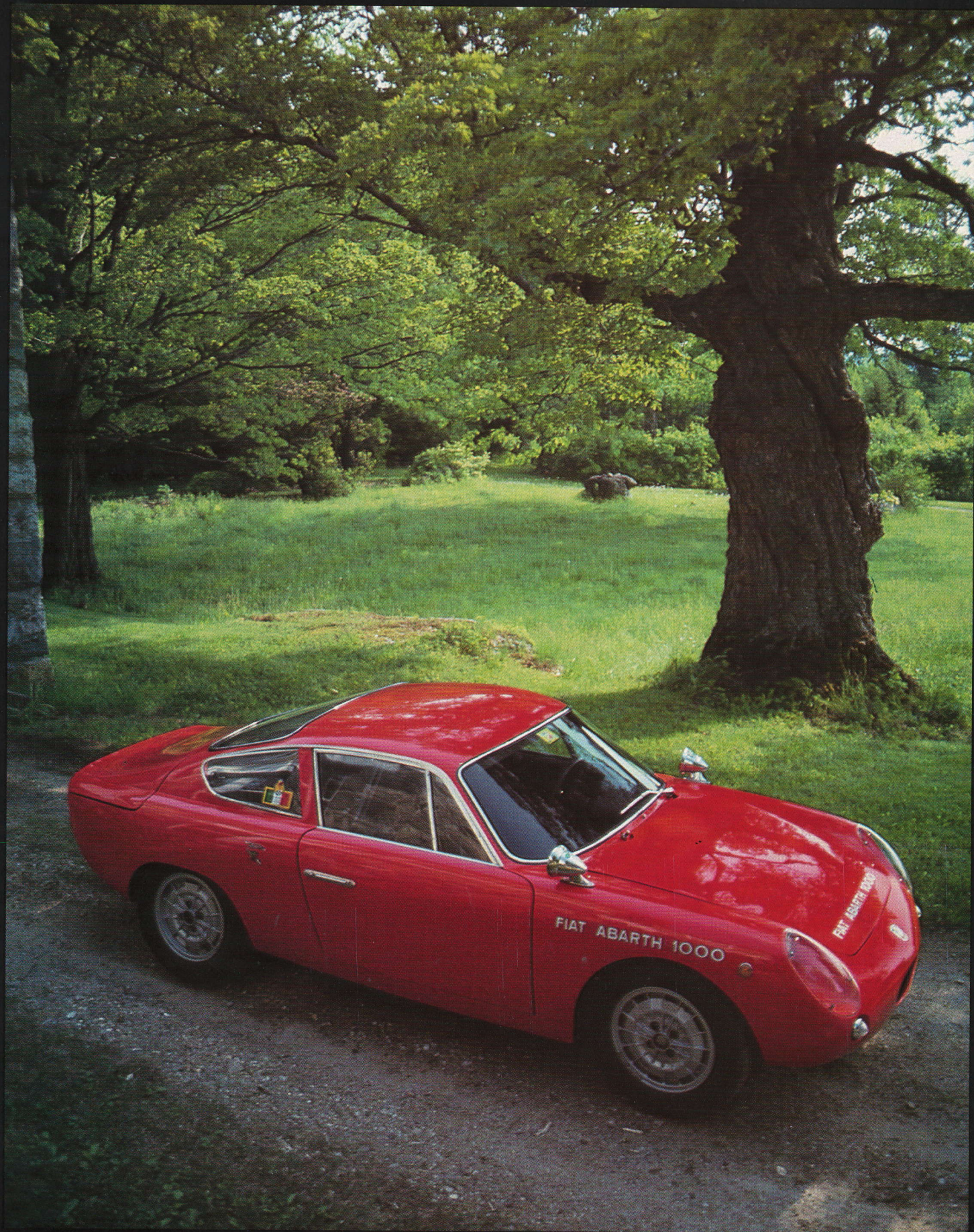
The depths of my obsession are revealed by the fact that I readily committed myself to doing something most would consider slightly demented. Spending most of two months in a garage heated only by a glowing wood stove, and lighted by 12 volt car batteries, during winter's most brutal months when temperatures can and did fall well below zero.

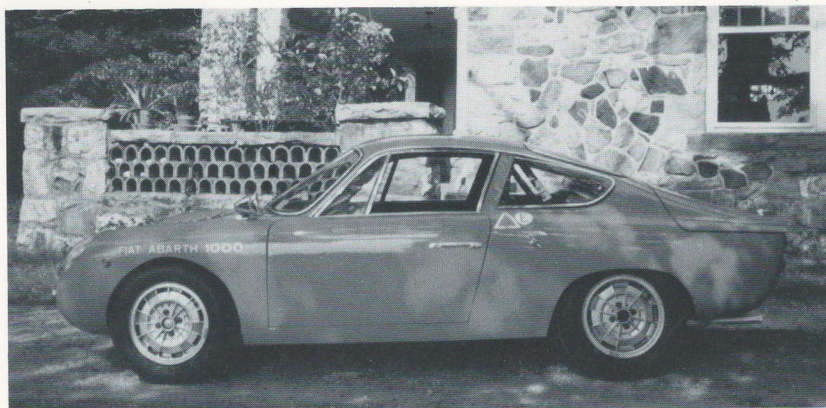
The pushrod engined Abarth 1000 Monomille I had purchased, was nearly identical to its twin-cammed 1000cc sibling, known as the 1000 Bialbero. The cars, during their racing years, won virtually every event they were entered in. The cars were so fast that the European 1000cc GT class races became virtually single marque events. Rather than cope with this, the class was abolished after a few years. These days, a German friend of mine uses his to frighten Ferrari SWB's at the Nurburgring during Vintage events run on the new 2.5 mile short course. His average lap times are only a few seconds slower...

Tivy Shenton, the owner of the restoration shop I had chosen, stripped the aluminum body to bare metal inside and out. It was discovered that the nose had seen much better days. After removing plastic filler nearly an inch thick, he yanked, pulled, pounded and beat the nose back into shape, adding a non original brace for strength. Deck lid and rear quarter panel splits were repaired, and portions of the rocker panels were replaced.

Next a coat of etching primer was used and then filler, and primer-surfacer.

(Abarth built the cars by hand, using the chassis of the Fiat 600D. After shaping and attaching the skin, a heavy coat of Italian filler-





surfacers was applied over the primer, and used to block out irregularities on the body. Some may cry foul in using filler for restoration, but I didn't see any point in making the car any better than it's original condition when it left the factory.)

About the end of January, the car was ready to be brought home for final restoration and installation of the mechanical parts.

I picked a clear day and left early in the morning for the 180 mile drive to Vermont with the front and rear glass in the car to be installed at Tivy's shop. This had been worrying me for some time. We would have to re-use 25 year old glass rubber to reinstall an irreplaceable windshield. There were a few tense moments when the rubber tore in a number of places, but luck and skill won out and the glass went back into place perfectly.

The Monomille made its voyage home completely wrapped in blankets and plastic tarps to keep road salt off the car. By the time I arrived a heavy, wet snow had begun to fall. I was just in time. The car slid off the trailer into the garage with only a light dusting. By the next morning, twelve inches of fresh snow lay on the ground.

Over the next 8 weeks I completely reassembled the car in my snow bound garage. Several ice storms needlessly put terrifying visions of a collapsed garage dancing in my head.

I fell into a routine. Charge the battery at night for use the next day, hauling it back and forth the 500 feet to and from the garage. Start a fire in the wood stove, and gradually shed clothing as the space warmed. Inevitably the tools I needed most were either in the basement when I was in the garage, or in the garage when I was in the basement, the phone always rang in the house just as I closed the garage door.

Most of the major sub assemblies such as the engine, transaxle, hubs, brakes, etc., were assembled in the basement, then towed to the garage on my 35 year old American Flyer sled.

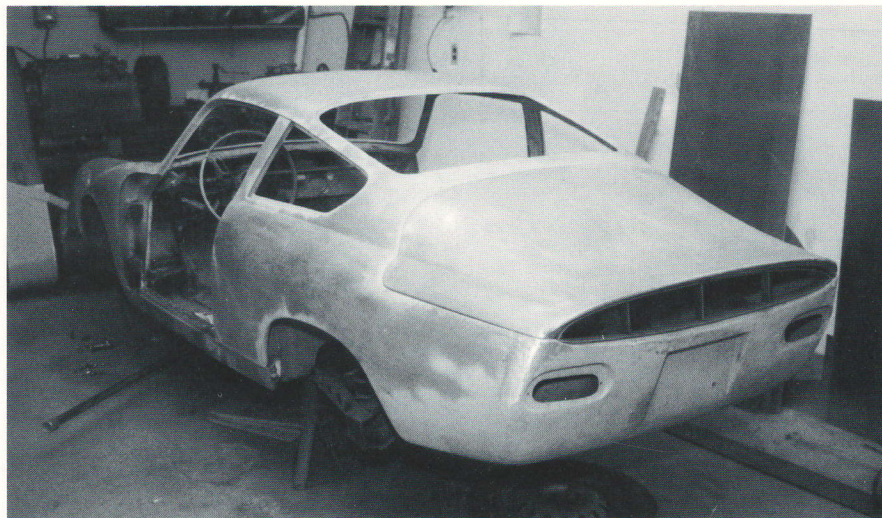
A number of parts were specially made. One of the rear stub axles would not pass magnaflux testing. A good friend of mine, Glenn Sipe who runs a company specializing in custom made gears and shafts for vintage race cars: Big River Restorations, offered to make replacements for the special axles Abarth used on this car. Headlamp covers and a new left quarter glass were made using old partially complete parts by an excellent company in Los Alamitos, CA: the Aircraft Windshield Co. Unobtainable brake pads turned up at the last moment and the car was ready for it's re-entry into racing after nearly 15 years in storage.

The engine fired up on the third try. Then mud season began. For those of you not familiar with this wonderful March-April New England event, mud season is the time of year when the sun warms the ground enough to defrost the water accumulated and frozen in the ground, turning gravel driveways into seas of car swallowing mushy mud. Getting the car out of the garage and out to the highway for it's first outing at the SVRA Kendall Vintage Grand Prix at Sebring, Florida, required snow chains and luck.

Since that time, I have acquired all of the correct pieces to convert the car to 1000 Bialbero (twin-cam), circa 1963, using all period, correct parts. It's first outing with the twin-cam will be the Lime Rock Park BMW Vintage Fall Festival in September.

Good friends, good planning, a responsible restoration shop and a thorough knowledge of the vintage racing machinery you intend to restore are prerequisites for a safe, lasting restoration. Good luck helps too, sometimes. I was fortunate enough to have all.

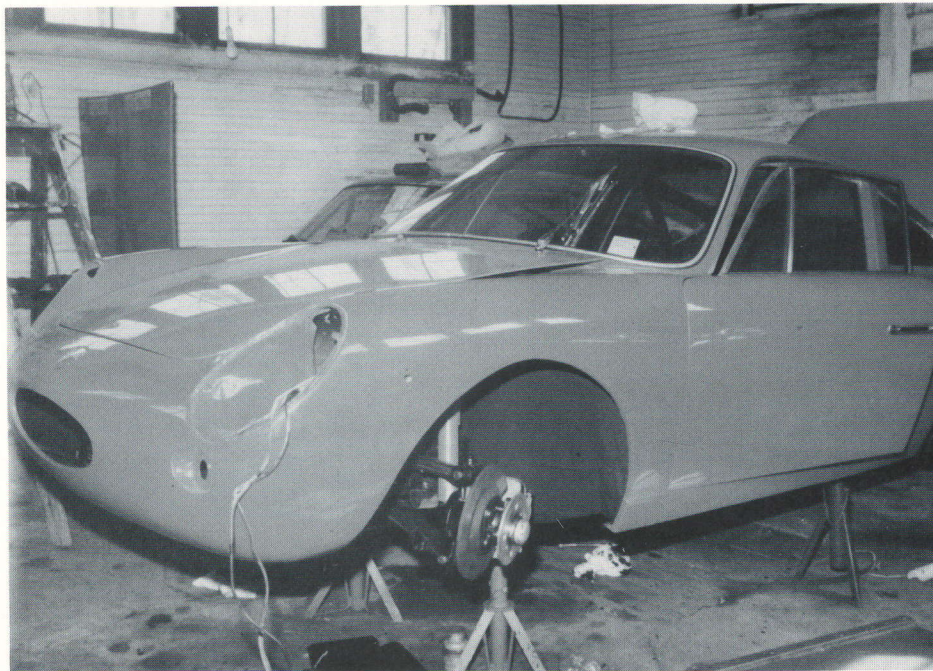
The Restoration



With the knowledge of Mahlon's impending date at Sebring, Tivy and his crew quickly commenced working on the Abarth soon after it's arrival. First all removable panels; doors, engine lid and front cover were unbolted from the main body. Using a paint remover specifically designed to remove all types of industrial finishes from all metal surfaces, the existing paint was carefully stripped away taking special care not to gouge the soft aluminum below. Once the shell was exposed, all localized corrosion was repaired with the use of gas welding, with special attention being paid to the lower left side, where parts of the existing steel rocker panel had rotted and were removed and replaced with new fabricated sections.

Although the overall condition of the aluminum was good, the body looked untidy and was out of alignment, especially the nose section which was curled down under several inches. The aluminum paneling was carefully beaten back into shape by employing the use of body hammers and dollies. Once reworked and adjusted into it's proper position, all the body panels were refitted for correct alignment. It was at this time that the door gaps were adjusted. The drivers side door had to be cut down 1/4" off the top in order to be properly aligned with the front and rear body sections. After all the adjustments and fittings were done, the body panels were once again removed and placed off to the side where each panel was individually primed, sanded and prepped, then separately sprayed it's final color coats.

But before the painting process begins, the bare aluminum is scrupulously cleaned making sure the caustic residue of the paint stripper has been completely removed. A light coating of body plastic was used to cover all weld joints and panel seams. Everything was then sprayed with a coat of vinyl etching primer. This special purpose primer is essential when painting aluminum as it provides excellent adhesion for the subsequent primer coats. Several coats of light grey primer surfacer were applied, which was followed by a liberal application of filler putty. This all important step is used to fill in whatever grinding and sanding marks remain along with the low points in the metal that were overlooked during the body repair stage. Sufficient time was allowed for the putty to dry, after which the entire body was then sprayed with a coat of primer-sealer. This ready to spray, non-sanding sealer provides good adhesion for the finish coats, holds down whatever sand scratches still exist and gives excellent top-coat color holdout along with a higher gloss.



As specified by Mahlon, the color was to be a combination of two very different types of red. This custom mixture, 3 parts BMW Henna red to 1 part Porsche Guards red, is very close to the color that was originally provided by the Abarth factory. With vintage racing in mind, it was decided, from a practical viewpoint, that acrylic enamel would be the most appropriate choice for paint as its durability and ease of maintenance are far superior to lacquer. Ditzler's acrylic enamel was used, to which a hardening agent was added for additional durability and higher gloss.

First a light dust coat was sprayed to allow for good keying of the following coats. A total of four wet coats were applied, then left to air dry for about 3 weeks. At that time the entire body was wet sanded with 1200 paper, which was then hand polished using Brasso, a brass cleaner, on a light grade nylon cloth. Tivy clearly pointed out that he carefully avoids using cloths with glass fibers in its construction as this tends to scratch the newly painted surface. The body was then carefully reassembled taking extra care not to chip or scratch the new finish.

In addition to the exterior, the complete interior, front well and engine compartment were also stripped and repainted using Ditzler's flat black enamel. A complete interior rollcage was fabricated, sprayed flat black and installed prior to the exterior's refinishing.

Total time spent restoring the body was about two and a half months, during which Mahlon was busy at home preparing the engine, gear-box, suspension, instrumentation and trim items for installation.

I first viewed the Abarth in the paddock at Lime Rock's 86 Vintage Fall Festival, and was immediately impressed. Its restoration was superb. Possessing that authentic factory appearance, which is usually lost during today's overkill restorations, is quite an achievement, especially when one considers that the full rebuild was completed in less than four months.

The restoration shop responsible for the body and paint is; Tivy's Autocraft, RD #1 Box 53, Richmond, Vermont 05477, (802) 434-2721, Tivy Shenton; proprietor.