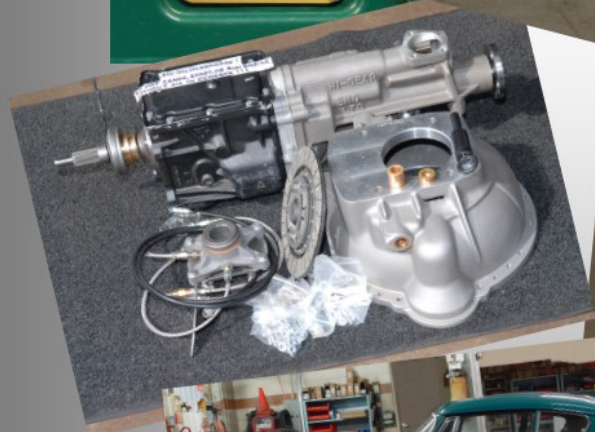
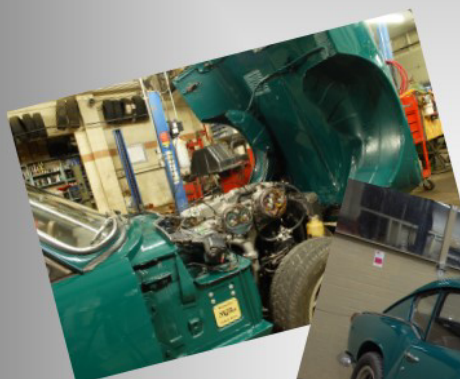


MOTOR WORKS

Motor Works' Triumph GT6 Restoration

2009 to 2012





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1967 GT6 MkI project at ¾ finished. Wicked picture reminds one of a Ferrari. The chassis, drivetrain, and much of the interior are done. The finished color will be emerald green. Hard to see but the interior is already repainted and the insulation and carpeting laid.

This is Motor Work's largest restoration to date. It is the complete ground up rebuild of a rare 1967 Triumph GT6 MkI. What makes this project special is not just the size, scope and attention to detail. This car has an exotic list of modifications enough to make any auto enthusiast drool.

What is a GT6?: or "Vut Iz Zat Krazy Kar?"

The Triumph GT6 is a great concept with less than stellar execution. Most folks have heard of the Triumph Spitfire. It's a well balanced four cylinder convertible that is fun to drive and suitable for racing against cars in a similar club bracket. The Spitfire is exceptionally sleek having been the brainchild of Italian designer Giovanni Michelotti and sold over 300,000 in its lifetime.

Enter the GT6. Power to weight equals acceleration. This became a common understanding back in the caveman days when in any group trying to outrun an Ichthyosaurus the pudgy guy got eaten. (Ha, gotcha! An Ichthyosaurus is a prehistoric fish. I'll bet you didn't think I was that smart. Well, I'm not. I had to look it up. Oh man, I'm starting to ramble. Back to the article post haste and with all dispatch. Or, as the British would say "we will endeavor to persevere").

The GT6 is largely based on the Spitfire chassis and body with certain major exceptions. Foremost, Triumph put a 2.0 liter straight six in the GT6 in place of the Spitfire's 1.3 liter four cylinder. Let's chart what happens.

| | 1967 Spitfire Mark III | 1967 GT6 Mark I |
|-------------------|--------------------------------|---|
| Engine cylinders: | 4 | 6 |
| Engine size: | 1.3 liter | 2.0 liter |
| Horsepower: | 75 HP at 6000 RPM | 95 HP at 5000 RPM |
| Torque: | 75 ft-lbs at 4000 RPM | 117 ft-lbs at 3000 RPM |
| 0-60: | 14.5 seconds | 12.0 seconds |
| Top speed: | 95 MPH | 106 MPH |
| Vehicle Weight: | 1,568 lbs | 1,904 lbs |
| HP to weight: | .048 HP per lb at 6000 RPM | .050 HP per lb at 5000 RPM |
| Torque to weight: | .048 ft-lbs per lb at 4000 RPM | .061 ft-lbs per lb at 3000 RPM (the winner) |

Notice the huge difference in acceleration (0-60 times) between the Spitfire and the GT6. Check out the torque per vehicle pound specs in red. Also notice the torque peak at a very useable 3000 RPM on the GT6. Putting big motors in small cars is classic “hot-rodding” Carroll Shelby style. However there is a cost. The GT6 transmission and differential were slightly modified from the Spitfire units to help handle the extra power. In two words, they don’t! Our customer has been through four transmissions on his original GT6, and he is not a lead foot driver.

The second major exception is the lovely body. Giovanni Michelotti went back to work and replaced the convertible top with a swept back hardtop complete with a large rear hatch. The hood gained an aggressive power bulge to clear the new engine. The newly born GT6 had exquisite lines and was nicknamed the “Poor man’s E-Type” after its resemblance to the famed Jaguar XKE.

A Brief Detour: “What’s the difference between horsepower and torque?”

Zero-60 times (gearing and tires being equal) are a function of power versus weight. Simply put, power is discussed in two ways; horsepower and torque. The dozens of discussions I have read on horsepower versus torque are all over five pages long, filled with equations, and often contradict each other.

My own simplistic explanation follows: Gearing aside (although it is important) I feel horsepower as the wind rushing past my ears when the car approaches top speed. I feel torque as the push against my back when my foot is to the floor. The longer and harder a car pushes the sooner it will reach top speed (good torque curve). Conclusion: lots of wind (horsepower) with a long hard push (torque) in a light aerodynamic vehicle equals acceleration and top end speed.

Also, torque and horsepower must be tuned and balanced to meet every vehicle’s needs. One is no good without the other. Anyone familiar with the BMW 318is (1992 to 1998) will remember their owners having to continually rev the car to get it away from stop signs. Once launched, you had to keep the engine wound up tight to get any reasonable acceleration. That is until about 5000 RPM where it surges ahead with a lovely rush. The BMW318is’ engine produces 138 HP at a stratospheric 6000 RPM. It produces 129 ft-lbs of torque at 4500 RPM. Its top speed is 132 MPH. This car is all about horsepower at the expense of torque and real world drivability.

The other extreme would be a D9 Caterpillar Tractor. It has 385 HP with a whopping 1750 ft-lbs of torque, both at its max RPM of 1200. At a claimed top speed of 12 MPH (remember, gearing aside) this is a dramatic example of the D9’s emphasis on torque as opposed to horsepower.

Chevy provides a great example of balanced horsepower and torque in its C6 Corvette (2008 to present). Its LS3 6.2 liter engine produces 430 HP at 5900 RPM and 424 ft-lbs of torque at 4600 RPM. It weighs 3,208 pounds and will reach 60 MPH in 4.2 seconds. Top speed is a claimed 190 MPH. This is real world drivability to the max, and it’s spelled FUN!

Before I close out on this discussion I can’t help but reflect on another example of carefully balanced horsepower and torque. My 6 HP Toro lawnmower. It has just the right mix of horsepower to mow through tall grass and torque to power the blade and drive wheels. It would have fabulous real world drivability if only the 0 to 60 times were a little higher. Oh, and the Toro’s heater is pretty worthless too. Well, enough of this, “On with the show”!

A Sneak Peak: “The Gonzo Stuff!”

I include here a short review just to whet your appetite for the details to come. Our GT6 has a:

- Modified, strengthened, balanced, high performance TR6 engine up front. (YIKES!)
- European Ford (type 9) 5 speed transmission conversion with a coaxial release bearing kit in the middle. (YIKES x2)
- Rebuilt and strengthened differential in the back with a new ratio. (Oh, just give up now!)
- European interior kit, walnut dash, and extra panels for speakers behind the seats.
- Complete insulation job floor to ceiling to reduce noise.
- Hood relief blister to clear the larger carburetors.
- Racing radiator and electric fan kit.
- Complete electrical rewire with modern fuse box.

I invite you to follow us in this narrative of the rebirth of a car. A very special car. A car which breaks new ground in the extent of its modifications yet remains true to its original Triumph heritage.

History: “Trouble at the Start!”

Classic cars are an affair of the heart and never more so than for our customer. I'll call him Jack for easy reference although Jack is not his real name. Jack brought us a 1967 Triumph GT6 Mk1 which he has owned since 1974. The car had been sitting for 23 years and circumstances now allowed it to escape its prison and head to Motor Works for restoration.

We raised the car on a hoist for inspection and anticipation turned to disappointment. We sadly showed Jack the frame was rusted out as were major portions of the body. The deterioration was so severe the car could not be safely restored. We had a boat anchor.

Badly disappointed but not defeated, Jack was pursuing a dream and wouldn't be stopped. He used the internet to check all over America for a GT6 worthy of restoration. In answer to dogged determination he finally found the perfect car in Missouri. Jack located a 1967 GT6 track racer with a second parts car. The track racer was no longer streetable, but the body had been removed from the frame and both dipped in rustproofing. This would provide the perfect base on which to build.

Enter Max. Max (not her real name) is Jack's lovely daughter. She is also Jack's cheering section. The many disappointments related to the rusted out original car, the long hard search for a replacement and parts delays would sometimes wear Jack down to the point where he wasn't sure the project was worth continuing. Max never had any doubts. Her perpetual enthusiasm for the project would give renewed strength to Jack whenever it was needed. Indeed, Max's support played a big part in the successful completion of this project.

We now had a car, actually three cars, and were ready to get to work.

The Little Things: It's said “take care of the little things and the big things will take care of themselves.” Don't believe it!

I'm intent upon finishing this story before the next lunar eclipse so there will have to be some condensation, and I don't exactly mean water on the side of a cold drink. If you'll allow me I am going to briefly list a lot of the more common details involved in any restoration. I want to be thorough but I also want to get to the gonzo stuff.

Our track racer had no interior carpeting, one racing seat, minimal electrics including a missing heater, a beat up chassis, an engine with low oil pressure, a transmission unworthy of the name, the wrong differential (it was a Spitfire diff, not the stronger GT6 unit) and...well you get it. We had to get all the little stuff right to support the big stuff to come.

We now list the little and maybe not so little stuff. No, I take it back, it is little stuff. Well, maybe not all little. Some might be bigger than little. Some might not. Oh crap, I'm starting to ramble again. Someone push me off a ~~tall building~~ short doghouse, quick.

Now presenting the little things:

- Drain gas tank, flush fuel system and replace filters
- Replace battery, cables, build hold-down.
- Perform complete brake job. This includes: front calipers, rotors, wheel bearings, etc. Rear shoes, wheel cylinders, drums, hardware, etc. A new master cylinder and brake hoses all around. Full brake flush.
- Overhaul worn steering rack and pinion
- Replace thermostat, water pump, and fan belt
- Replace all cooling system hoses
- Modify heater water control valve
- Replace motor mounts
- Install all new tune-up parts
- Rebuild starter and alternator. Relocate alternator.
- Replace all chassis springs
- Replace all shocks
- Perform 4 wheel alignment
- Repair windshield wiper mechanicals and electrics
- Install new windshield washers system and wire as required
- Overhaul used heater from another car and install in place of missing unit
- Replace all heater and choke cables
- Replace and reroute all fuel lines.
- Install electric fuel pump and regulator. Insulate to reduce noise.
- Replace damaged left rear knuckle
- Install all new body, windshield and rear hatch seals
- Redesign and build new throttle linkages
- Install horns and rewire circuit
- And about 10⁹ other things.....



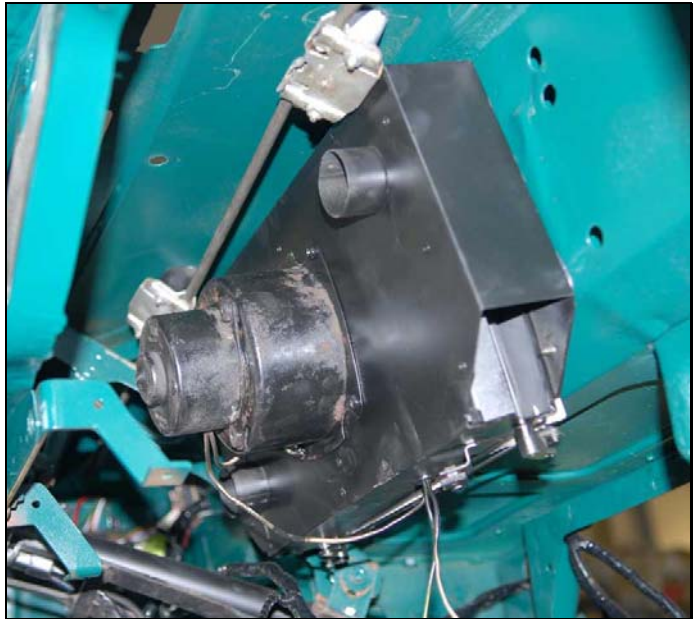
New front shocks, springs and a now dusty rebuilt rack and pinion help our worn track racer track well on the street. New brake hose is the sign of a well done brake job.



New rear shocks and transverse leaf spring shore up our car's ragged rear. Yes, that's a new brake hose.



The car must be loaded to proper ride height before the new suspension components can be torqued. Yes, it was as silly as it looks. But effective!



Heater from another GT6 fully disassembled, repaired, cleaned, lubricated, painted and installed in our "green machine".



Our red racer fully stripped and headed to the paint shop for interior refinishing. The final color will be emerald green inside and out.



The GT6 returns with a lovely change of interior color. Looking at our naked baby gives us some pause as to just how big a project this has become. However, rest assured; when the drivetrain goes back in spirits will return to "holly crap this is unbelievable!"



“Holly crap, this is unbelievable!”

“A quick teaser of the story that is yet to come; I am saving the drivetrain to last. (Yeah, so shoot me. We both know it is good literary form). However, here is a sneak peak. I can’t give away the details this early but I did just get back from breaking in the engine. Yes, I drove the car 25 miles with no doors, hood, rear hatch or seat belts on a 25 degree day. The public response was a real kick. Heads turned, people waved, and kids yelled “I want your car”. I did remember to use hand signals. I also managed to avoid the police. It would really suck having a warning shot fired through your head.

Remember the opening picture of the car with the trick hood clearance blister. You can now see why we needed it. The TR6 engine is substantially bigger than the GT6 engine. More on that soon.

The Players: “Top Flight Craftsmen!”

You and I now have our feet wet on this project, so let’s introduce the players before we head to the big stuff. Many, many thanks to the following individuals without whose help this restoration would not have finished in its current form.

Mark Huff, Head Technician at Motor Works in DeKalb, IL:

First and foremost thanks to our Head Technician at Motor Works, Mark Huff. He spent hundreds of hours on the GT6 project. He did everything from fabricating dozens of perfect little brackets to the huge project of fitting an oversized driveline. He is responsible for over 90% of the construction required. This includes the hood blister, massive interior rework, days of cutting and welding, the electric fuel delivery system, the chassis upgrades, brakes, cooling system modifications, and so much more. Major kudos Mark.

A nice note: For 2012 Mark won the NAPA/ASE Technician of the Year Award for the Chicago Regional Division. This is one of the industry’s highest honors. Mark goes on for possible National Recognition. Another nice note: I (Marty Fay the owner of Motor Works) won this same award in 1985, 1987 and 1988. No other shop we know of has two Technician of the Year winners on staff.

Marty Fay, Owner of Motor Works in DeKalb, IL:

Please forgive the lack of modesty, but I have to stick myself in here somewhere. The parts I played were threefold. First, I was crazy enough to risk taking in a restoration of this size. To be honest, despite a most generous customer, Motor Works lost major money on this project. But we loved the challenge and would still have taken the car in. Second, Mark and I consulted on a huge number of the details. This allowed two top technicians to form the absolutely best single plan based on vast but differing experience. Third, I've been tuning multicarb engines since the early eighties. Factory specs no longer applied to this engine. The critical setting of timing and carburetion had to be creatively determined by other means. More later.

Tom Spadafora at the Roadster Factory in Armagh, Pennsylvania:

Let's talk about these two separately. First Tom Spadafora. Tom is the brilliant machinist running The Roadster Factory's own rebuilding company; C.A.R. Components. These folks can rebuild almost anything on a Triumph; engines, transmissions, overdrives, differentials, steering racks and gearboxes, calipers, etc. It felt odd but we actually sent the calipers, steering rack and carburetors to C.A.R. Components for rebuilding. These parts are traditionally rebuilt in house at Motor Works, but the time savings and convenience was too great to pass up. The work quality was impeccable.

Tom was at his most impressive building a modified TR6 engine for our "Green Dream Machine".

"Interesting. Green Dream Machine. I'll bet you can't say that ten times fast. Then again, maybe you can; that, that, that, that, that, that, that, that, that, that. Hey, that was only nine times. Oh God, guess whose starting to ramble again? Back to business!" There is much more to come on Tom's engine.

The Roadster Factory (TRF): I have found no more exhaustive collection of fine vintage parts for Triumphs and MGB's in the United States. With the influx of Chinese parts into the classic car market it has become frighteningly easy to receive substandard parts from some mass suppliers. Not so TRF. They sell the same quality parts (many English) they would want on their own cars. The vast majority of parts we used on our GT6 came from the Roadster Factory.

Sad Note: We have recently learned Tom Spadafora is no longer with C.A.R. Components at the Roadster Factory. We will miss Tom greatly. We consider him a friend. If anyone has a line on where he's at, please let us know. It must be said however, we have every confidence The Roadster Factory will continue with its fine rebuilding program.

John Esposito Owner Quantum Mechanics LTD in Oxford, Connecticut:

John is a veritable walking encyclopedia of the British car drivetrain. And he has world class repair chops to back it up. John put together the proper kits to adapt a slick European Ford type 9 five speed transmission to our TR6 engine. This also required a special coaxial release bearing kit because the release bearing cross shaft on the bell housing will not fit in the GT6.

In addition, John rebuilt, strengthened and changed the ratio in the differential. He also found of the three differentials we sent him only one was for a GT6. The other two including the unit originally in the Red Racer were for the weaker Spitfire.

Jeff Schlemmer Owner Advanced Distributors in Shakopee, MN:

Jeff is a distributor master. He installed a Petronix ignition and carefully rebuilt the distributor recurving it to meet the exact demands of our motor. A distributor set up this way can add tens of horsepower and eliminate all traces of hesitation. Good carburetion is absolutely dependent on good ignition.

Wade Williams Owner Jim's Body Shop in DeKalb, IL:

I have known Wade Williams for over 30 years. In that time nobody other than Wade or his staff has done body work on my vehicles. It is a given that we would only trust Wade with the prep and painting of this big a project. As is usual, our expectations were exceeded. This is no less amazing due to the fact Wade only had a week to finish the car because of unexpected circumstances.

Ryan Hutchinson at Lovell's Discount Tire in DeKalb, IL:

Exhaust Monster Supreme: Ryan hand fabricated and tuned a custom exhaust from the engine exhaust manifold to the exhaust tip at the rear of the car. He tucked the exhaust deep into body crevices I thought were impossible. By using larger diameter pipes, less bends, and a larger muffler he significantly increased flow while maintaining velocity. The exhaust on this car is a work of very functional art.

Ryan practices his exhaust magic full time at Lovell's Discount Tire. He has been at it for **xxxxx** years. Show cars and "hot rods" are his specialty.

John McGinnis at the MARS Corporation in DeKalb, IL:

John is a man of many talents. He is part owner of the MARS Corporation where his full time job is overhauling starters and alternators. We entrusted the GT6 starter and alternator to his careful hands. Motor Works has been using MARS' rebuilds for over 19 years.

John's other skills are custom stereo installations and custom auto interiors. John provided dozens of custom alterations around the modified transmission tunnel, kick panels and elsewhere. But he just flat out saved the day with the complicated work of recovering the seats and the headliner.

A nice note: Motor Works has known the craftsmen above for different lengths of time. Some over thirty years, some just a couple of years. But, Motor Works considers all of them friends (not just business acquaintances). They have enriched our lives professionally and personally. We again say thank you.

The Gonzo Stuff: "Let the Games Begin!"

Ok, I'm going to change my mind and make a deal with you. You've waited patiently and read through the entire article up to this point. We both know the engine-drivetrain story is what everyone's waiting for. I will get right to it if you promise to read the rest of the article that follows the engine. The interior, electrics, and other little touches are really neat, honest! If you bug out after the engine you owe me a check for \$1.00 written on the bonnet of 1965 Jag XKE. (*Thanks for the idea Car Talk Guys. So far I've managed to snag 14½ 1965 XKE's in the last two years. The ½ XKE was a sad circumstance where I had to make change for a dollar.*)

The Engine 1: "Wrenches Flying!"

Eagerly we began the disassembly process. Out came the complete driveline from both cars. These parts were separated, put into like groups and closely inspected. After that came an inventory of the crates full of spares which accompanied our Racer. As excited as kids in a candy store we found extra carbs, manifolds, trim, brackets, an entire differential, tune-up parts, gaskets and more.

We crated up the Red Racer's engine along with two extra heads, carburetors, and manifolds. A few days later they would be unloaded at The Roadster Factory's C.A.R. Components rebuilding company. The entire Motor Works staff settled into an optimistic hurry up and wait frame of mind; a little like a six year old anticipating Christmas.

After much discussion and planning with Tom Spadafora at C.A.R. Components we had a plan. The GT6 engine would get:

- Complete overhaul of the engine with rotating parts balanced.
- Upgraded valves springs
- Upgraded camshaft
- Upgraded valve seals and guides
- Added external oil feed line
- Rebuilt balancer
- Refurbished flywheel
- Carbs rebuilt
- ARP rod bolts
- ARP head studs
- Advance Distributor's custom distributor w Petronix ignition and coil
- Engine run in on test stand. Basic specs all corrected including valve adjustment, timing, and carburetion.



Our engine project starts with three GT6's; two seen here. The car at top is Jack's old GT6. The lower GT6 is the newly obtained Red Racer. The third car is a white GT6 which has been on fire. We are using it as a parts car. Notice how small the transmission is on the front engine. Is it any wonder why they fail so often?



The Racer and White GT6 car came with crates of additional parts. With the engines out we are beginning to inventory all our "treasure". Notice the racing seat and roll bar in the upper left corner. These were among the first pieces we removed from the Red Racer. Whoever built it for the track was serious.

The Engine 2: “The best laid schemes of mice and men go often askew.” (Robert Burns 1785)

It was a lovely plan until we got a call from Tom. In performing his preinspection Tom had found the head had been shaved. The original compression ratio on this motor is 9.5:1. The shave job would push us well past 10:1. Since Jack and Max plan to tour with this car, a 10:1 compression ratio makes hassle free long distance driving impossible on modern fuels.

The other two heads were in the same condition. They too had been shaved. @&*%#\$%:?! (Literally translated: rats, crumb, darn, drat, and jeepers). The odds of finding a new head for a rare 45 year old engine were nearing that of being bitten by a Martian Frazzle Backed Pit Creeper. (By the way, I plan to write an article on the Martian Frazzle Backed Pit Creeper for Boy’s Life later this year. The use of pin cushions and water cannon in their mating ritual is absolutely fascinating.) Ooops, I’m getting off track again.

Out of options, Tom mentioned he had heard of rare instances where enthusiasts had put TR6 engines in a GT6. He had not seen it done himself. He knew the TR6 is a stroked 2.5 liter version of the GT6 2.0 liter engine. This makes the TR6 engine significantly taller than the GT6 engine. Adding to the complexity is the fact that the valves, carburetors, intake and exhaust manifolds are all bigger on the TR6 engine.

I wish I could say installing a TR6 engine in a GT6 had been our inspired intention from the beginning of the project. It was not! Why? Because it doesn’t fit. It takes major modifications to make it fit. And, the increased torque and horsepower will cause the stock transmission and differential to fail in short order.

We had a huge decision to make. The project could be shut down and considered a failure (inconceivable), or we could embark on a huge undertaking with no road map or guarantee of success. Honor and pride dictated the instant response “Tom, build us a top notch TR6 engine”. And so, biting our nails we waited for Tom’s engine.

The TR6 engine would have all the same modifications as were planned for the GT6 engine, except the TR6 engine starts life almost 1.5 times stronger than the GT6 engine. Check out the chart below.

| | 1967 GT6 Mark I | 1969 TR6* (First year) |
|-------------------|--------------------------------|--------------------------------|
| Engine cylinders: | 6 | 6 |
| Engine size: | 2.0 liter | 2.5 liter |
| Horsepower: | 95 HP at 5000 RPM | 150 HP at 5500 RPM |
| Torque: | 117 ft-lbs at 3000 RPM | 164 ft-lbs at 3500 |
| 0-60: | 12.0 seconds | 8.2 seconds |
| Top speed: | 106 MPH | 120 MPH |
| Vehicle Weight: | 1,904 lbs | 2491 lbs |
| HP to weight: | .050 HP per lb at 5000 RPM | .060 HP per lb at 3500 RPM |
| Torque to weight: | .061 ft-lbs per lb at 3000 RPM | .061 ft-lbs per lb at 3500 RPM |
| | | *Fuel injected home market |

The TR6’s bigger valves, carbs, intake and exhaust manifolds are all big plusses. But, its huge advantage is the .5 liter increased stroke. A longer stroke means more air flow at lower RPM. The result is a major improvement in torque. Notice the big difference in 0-60 times between the GT6 and the TR6.

The stock 150 HP TR6 engine is strong and breathes well. This makes performance modifications especially effective. Our TR6 will be upgraded with a mild camshaft, carburetors tuned for performance-not emissions, aggressive timing and hot spark, and a large bore custom tuned exhaust. Due to the tight clearance in the GT6 engine compartment we had to use an OEM TR6 exhaust manifold.

We would love to put this modified TR6 engine on a dyno but time does not permit it. However, seat of the pants and comparison with other known cars makes us believe this engine exceeds 200 HP and 200 ft-lbs of torque. Working through a five speed gear box and a 3.27:1 differential, our car is putting a lot of power to the rear wheels but still has “nice long legs”.

Six weeks later our new power plant arrived solidly crated. We pried the lid off and stood transfixed! Nothing had prepared us for the shining gem now uncovered. Impeccable paint, gorgeous media blasting and painstaking assembly now greeted our eyes. This engine reflected the finest application of the builder's art both inside and out.

Humor: A Sad Story - Our lovely Triumph engine would cause instant pandemonium from the moment the lid came off. A bar fight would have created less damage. The unlucky technician who uncrated the motor fell away in a dead faint after just one look. A second tech running to help him slowed to a stop as he approached the engine. He immediately curled into the fetal position and began to whimper. This was particularly alarming to me as I had not seen him assume the fetal position in years. (The whimpering was a daily phenomenon.) Worst of all, two other technicians had their socks blown off.

The socks made it all the way to the top of our Maple tree 80 yards away. I called the fire department asking them if they could retrieve socks. Their answer was decidedly rude and they questioned my parentage at some length before hanging up. Thinking quickly on my feet (rare for me) I called back and told the fire department they had misunderstood. "Socks" was the shop kitty and she was stuck in the tree.

They responded in minutes with the biggest hook and ladder truck I have ever seen. It was so long it required a rear steersman and a team of 17 to support its operation. As the firemen neared the top of the tree they realized "Socks" was not a kitty after all, but rather four cotton and wool blend Workman's Specials. Mad as hell they grabbed the socks and came down that ladder without touching a rung; sliding on the uprights. I was quickly surrounded by 18 of DeKalb's finest public servants. They began to explain in graphic detail the physical force required to stuff a man into a 3½ inch fire hose.

I pleaded, asking for just 30 seconds time to justify my deception. We made it "*en mass*" to the crate in 30.4 seconds. (Apparently firemen are a forgiving lot or they just can't tell time when they are angry.) Man after man approached the crate and gasped. Then in unison they all exclaimed "*Holy Smokes!*" Knowing some of them were too young to remember the Batman TV series I suddenly understood I had been witness to a secret fireman's invocation. Excited but reverent they all turned on one heel, swung around and began to march out.

My hopes of escaping serious physical damage skyrocketed as the firemen turned. But as if preordained, when the last fireman swung around, the handle of his fire axe clipped me neatly over the right temple. It was artfully subtle. I saw stars for a few seconds but the wound drew no blood. I wasn't even certain it was intentional until he turned to face me, lifted an eyebrow and said "*Holy Crap Batman*". Having proven his point, he walked slowly from the building with a slight smile on his face, softly whistling "Bridge Over the River Kwai" in victory.



Our new TR6 engine is here and what a work of art it is. The engine has been run and the adjustments roughed in at C.A.R. Components. This ensures the best possible quality control on a very expensive project. Notice the external overhead oil feed (the braided hose in the lower left corner). This provides welcome extra oil to a valve train with heavier springs and a more aggressive camshaft.

The Engine 3: “The devil is in the details.” (Architect Ludwig Mies van der Rohe 1886-1969)

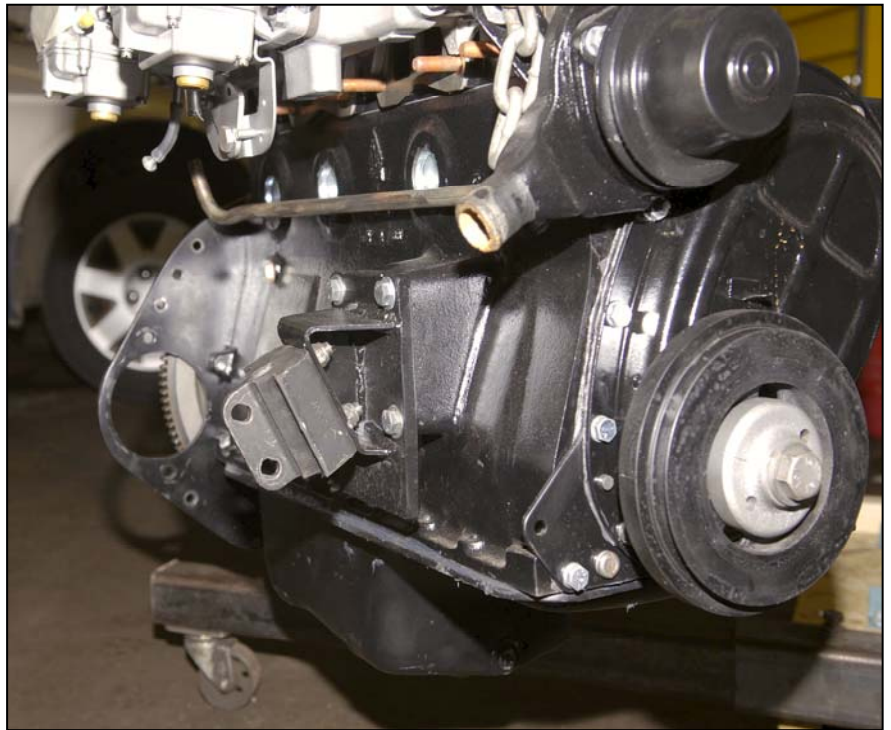
To no one's surprise, the first trial fit of the TR6 engine into the GT6 showed we had a huge job ahead. With the stock motor mounts installed the engine's oil pan rested solidly on the steering rack below. The hood would not close without hitting the carburetors above. And we found the motor needed to go back about an inch for proper gearshift placement. We were actually relieved. With a little creative visualization and a lot of welding, each of our problems could be overcome.

To provide proper engine clearance at the bottom and front to rear, a hand built spacer was installed between the motor mount and the engine block.

The spacer was tack welded together for easy disassembly. Over the course of ½ dozen engine installations and removals, the spacer would be broken down and retacked. Finally the bottom and front to rear clearances were spot on and we could permanently weld the spacer.

With the engine in its new position we found the oil pan drain plug blocked by the steering rack.

This necessitated pulling the engine and the oil pan. The drain plug was closed off at front and a new set of threads welded to the center lower left side of the pan.



C.A.R. Components milled off the traditional TR6 motor's six inch front balancer center shaft. They then installed a compact spacer to take its place. This vital modification would prevent the center shaft from boring a hole straight through the radiator when the engine first started.



We had licked the bottom and front to rear clearance problems, but the last hurdle would take more time than any other single stage of the restoration.

The carburetors and valve cover hit the underside of the hood.

Reforming the front of the valve cover posed little problem and went quickly.

Making room for the carburetors would eventually prove only slightly less challenging than the building of the Panama Canal. The main difference being the lack of malaria carrying

mosquitoes in these northern climates during the cold months. The “skeeters” are all hidden away, warm in their “footie” pajamas, playing with their iPads, and waiting for the temperature to reach 65 degrees. When it does, all bets are off. Farmers must chain their cows to the ground for the first few days after hatching. Swarms of young “thuggy” “skitos” consider it great sport to pick up unchained cows and drop them in the next county. This makes the cows very sad and they tend to act out for the next week and a half. Worst of all, girl cows (sometimes referred to scientifically as girl cows) will only produce butter milk during that time.



In the picture above notice how close the clearance is between the engine and the power steering rack. Look just to the left of the double yellow electrical connector in the center of the picture, about $\frac{3}{4}$ down from the top. Also notice the racing radiator from Wizzard Cooling. It has an electric fan with after run feature so the engine will continue to cool even with the key removed.



So Mark and I attacked our hood problem. We brainstormed for hours. Idea after idea was offered and just as quickly found to be flawed. We investigated raising the entire hood, raising just the front of the hood, performing major modifications to the power bulge in the center of the hood, building different manifolds for the carburetors so we could lower them, etc. etc. etc.

During one of our internet investigations into replacement power bulges we stumbled upon a racing shop selling "blisters". These are aerodynamic, teardrop shaped, metal extrusions mainly used as decorative embellishments on hot rods. The question jelled instantly. Could we use a blister to get clearance for our carburetors? How would it look? Do we use a blister on each side for balance? Fascinating.....

We ordered in a blister from California and thoroughly examined it. By itself it was too small to clear the carbs. After spending hours trying to heat form it into a more suitable size we admitted defeat. One blister would not work. But, what if we cut two blisters in half and added six inches of metal in the middle? It would take a lot of hours and it might not work, but we had little choice.

In from California came more blisters. Mark had a dozen hours carefully fabricating a part that had to be strong, symmetric, smooth, clean, and could be welded to the hood. His final product would be perfection. It was impossible to tell from the outside that the blister was composed of three pieces. Unfortunately our hood job was only half done, and it was the easy half at that.

Next we would have to cut the hood to receive the blister. The hole would have to be exactly the right size so the blister could be inserted from the underside. The hole would also have to align with the curving factory power bulge.

The process was so delicate we practiced on the hood of Jack's original GT6 before running the real exercise on the Red Racer's hood. Practice may or may not make perfect, but the dry run hole cut clued us in on a dozen little complications which would save our ponderous posteriors.



If you look closely at the fabricated blister at the top of the hood you can still see its three component sections. They will soon disappear with further finishing. The hole is cut awaiting blister insertion.



Blister is inserted and welded. Left side of picture shows welded areas carefully being ground away. Right side of picture is the before grinding view. Also notice the three sections of the blister are now gone. Further finishing and painting will make it look like an OEM design. See the first and last pictures in this article.

With the blister welded and ground we could now fit the hood and adjust it properly. After close to 40 hours on this one stage the end was at hand, and we were exhausted. That is until we washed the floor and the car and snapped the picture which opens this article. I will repeat it here so you don't have to flip all the way back to the front.

To say we were reenergized would be an understatement. Everybody who saw this picture including customers and the car's owner would respond with a sharp intake of breath followed by some sort of superlative exclamation. Some of these I can't print, the rest I don't have to! They can be summed up by saying *"Wow To The Max Times 6½!"*



The Transmission 1: “Five speeds, no waiting”

From the start of the restoration one of our customer's key desires had been to add an overdrive transmission. Indeed, a GT6 transmission with overdrive had even come with the spare parts. However, with the switch to a TR6 engine the GT6 trans with OD wouldn't bolt up. This is not necessarily bad news. If the GT6 transmission with OD had bolted up it would also have blown up under the increased power of our new motor. Jack had already gone thru four transmissions in his stock GT6.

And so began another intensive internet search. Several possibilities emerged but each left us feeling uneasy about some aspect of its installation.

1) We could find a used TR6 overdrive transmission.

Pros: keeps car as original as possible, electrical engagement is neat.

Cons: hard to find, will almost certainly have to be overhauled once found, not certain how it will fit in a GT6; the clutch cross shaft is going to be a real problem, internally complicated.

2) Dupont Machining Services makes a Borg Warner / TREMEC T5 conversion kit for the TR6.

Pros: T5 transmission is used extensively in Mustang and other high horsepower applications. It is strong and versatile with many upgrades, technical support and different gearing available.

Cons: conversion kit is for the TR6, it may not work in the GT6 without major modifications. Dupont Machining website is minimal and has NO PHONE NUMBER! This scares me to death.

3) HVDA Triumph Transmission Conversions produces a kit which allows a 1982-85 Celica or Supra, 1984-96 pickup truck 5-speed, or 1992-97 Lexus SC300 to bolt to a TR6. You buy the kit and supply your own transmission.

Pros: kit allows the use of an excellent transmission. Technical support (available by phone) is great. You actually talk with Herman van den Akker, the owner, designer and builder. Their website is well laid out, confidence inspiring and has sources for the transmission. HVDA has many satisfied customers.

Cons: Herman says the kit will not fit a GT6. This means it might if you are willing to do enough work but there is no road map or technical advice available.

4) Conversion Components of New Zealand offers many conversion kits for British cars all the way from Spitfires to V12 Jaguars.

Pros: kits come with transmissions, website is professional and confidence inspiring, kits for dozens of different cars.

Cons: I have no personal experience with them. New Zealand is a might far away if anything goes wrong and something always goes wrong.

5) Frontline Spridget in England produces a superb five speed transmission conversion kit using the European Ford type 9 transmission. These kits fit most MG's, Austin Healey's, Morris Minor's and Triumph's including our GT6. Frontline Spridget also produces dozens of other high performance parts for the cars just named.

Pros: the Ford type 9 transmission is strong, light, has different ratios and other options available. It shifts like butter and was used in the European turbocharged Merkur XR4Ti sport sedan (1985 to 1989). Their website is simple and user friendly. This is the kit we chose for our GT6 project.

Cons: Frontline Spridget is in England making communication, shipping, and technical support difficult, especially when small parts are involved.

Enter John Esposito of Quantum Mechanics LTD

We first met John thru his website. It navigates well and inspires confidence in the business it represents. In addition, John researches various aspects of British car drivetrains and writes scholarly articles on the results. The article on overdrive unit lubrication is especially interesting.

All the above is great, it gets you in the door. But John included something else that MADE US PICK UP THE PHONE! On his home page at left is a navigation bar. Under Vehicle Type is Spitfire/GT6. (Finally a British

drivetrain shop that was interested in GT6's.) One click away is a scrolling page. The third listing that meets you is a rebuilt, strengthened GT6 differential. The seventh listing is the Spitfire/GT6 five speed transmission conversion kit from Frontline Spridget. Wow! Having an American distributor for the transmission should eliminate any problems with communication, shipping and technical support. Quantum Mechanics in one click and a scroll had illuminated a solution that many hours of previous research had failed to provide.

Our first phone call to John was equally impressive. We were building a very special one off car. A car carefully modified to fit a bigger motor. This means neither the GT6 nor the TR6 transmission conversion kits will work as originally supplied. It would require a selective combination of these kits plus a plan to eliminate the clutch release bearing cross shaft and external arm. The arm would not fit in the GT6.

It was lovely to behold John's method over the next hour; studiously visualizing the position and difference of each kit's parts. As he talked thru the process (as much for his computations as for me) John would suggest each part in order, study it in his head, then keep or discard it. Slowly the new drivetrain developed into a cohesive whole with parts from both kits.

This custom drivetrain would require further modifications in several areas. One would be the handbrake; requiring it to be cut off and repositioned six inches rearward. Another would be extensive rebuilding of the transmission tunnel to make allowances for the new position of the gear shift lever. The speedometer cable routing would require yet more cutting, welding and modification of the tunnel. Also, the speedometer head would have to be sent out for recalibration.

A fly in our soup still remained. What to do about the clutch release bearing cross shaft and external arm. As we mentioned earlier, the arm would not fit in the GT6. John again started his internal computer. Strategies were once more contemplated and discarded. Then, with the suddenness of being hit by a snowball, he had it. We would use a coaxial release bearing.

What's a coaxial release bearing? If you're an automotive technician you've had to wrestle with them every time you put a clutch in a Ford Ranger Pickup. If you're not one of the high priests of mechanical intervention (lucky you) it works like this. The bearing rests on a cylinder which fills with brake fluid pressurized by a clutch master cylinder. It has two hoses; one for remote bleeding and one for actuation. It is compact, reliable, can supply tremendous mechanical force from hydraulic advantage, and comes in a kit with the master cylinder and lines included. Indeed, it is so impressive, some days I wish I were a coaxial release bearing. My wife would just love the reliable part.

"Ouch", that was a nasty crack about being unreliable. I think I just hurt my feelings. I might erase that line when I'm not looking.

Finally we had a plan that strengthened everything from the back of the engine to the where the rear half-shafts exited the differential. The components were all top flight. We told John to order everything, sat back, and waited expectantly.

The Transmission 2: "A slow boat from England"

And waited, and waited, and waited. Weeks turned into months; first one, then two, then three.

John kept us informed as the delays mounted; expressing great concern and frustration. He had other orders that were equally delayed. John explained:

- Frontline Spridget (the manufacturer of the transmission conversion) is a small English company. They build each kit to spec when an order is placed. The kits are not on a shelf waiting to be boxed and shipped after an order is received. There is always a several week lead time required for manufacture before the entire finished product is complete.
- Our kit would be a special custom configuration which would add extra lead time.
- John, being in touch with Frontline Spridget, told us that once shipped from England, the kit would be transported through Switzerland on its way here.
- He also explained there was a customs delay in Philadelphia, tying up not just this order but several others.

Meanwhile, we received notice from Jack that he was soon moving out of state due to employment considerations. It was vital the car be finished, including painting, so he could transport it when he relocated. Suddenly the transmission delay escalated from frustrating to critical. We knew there would be weeks of work once the transmission kit came; not to mention the interior restoration which had to wait until all mechanical operations had been finished. As time ticked down we had to face the possibility of getting our transmission conversion from somebody else.

Finally, with the decision to resource the drivetrain just hours away, the new parts arrived. We eagerly unpacked everything and again found the build quality to be beyond our most imaginative expectations.



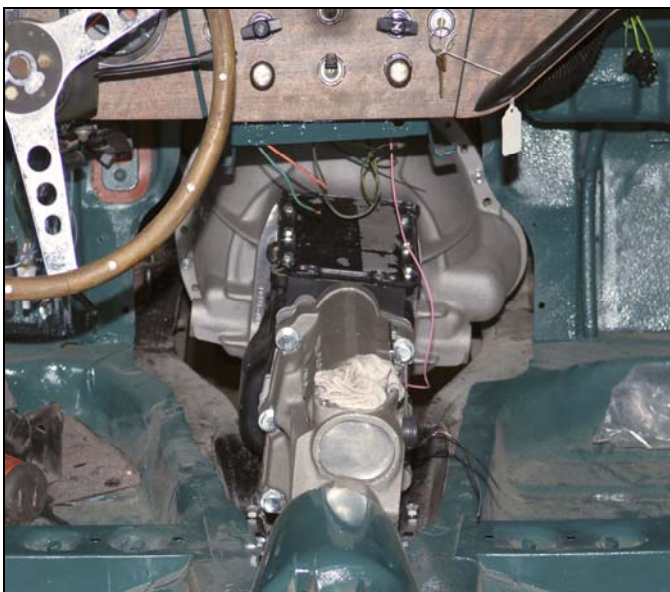
Custom transmission conversion kit built for our GT6 project car. It starts with a strong, butter smooth, close ratio, short throw, 5 speed overdrive transmission. The transmission is based on the English Ford Type 9 used in the European Merkur Scorpio and XR4Ti Turbo. The original flywheel is reused after being surfaced and balanced. A new bell housing mates the TR6 engine to the transmission. The hydraulic coaxial release bearing (commonly used in racing cars) comes with its own special master cylinder (not shown). The bearing takes the place of the release bearing cross shaft which will not fit in a GT6. It also gives fabulous “feel” and control to the clutching process. A new driveshaft (not shown) is also part of the kit.



*Close up of installed coaxial release bearing.
Note: (in right lower corner) upper bleeder fitting
and lower hydraulic connector.*



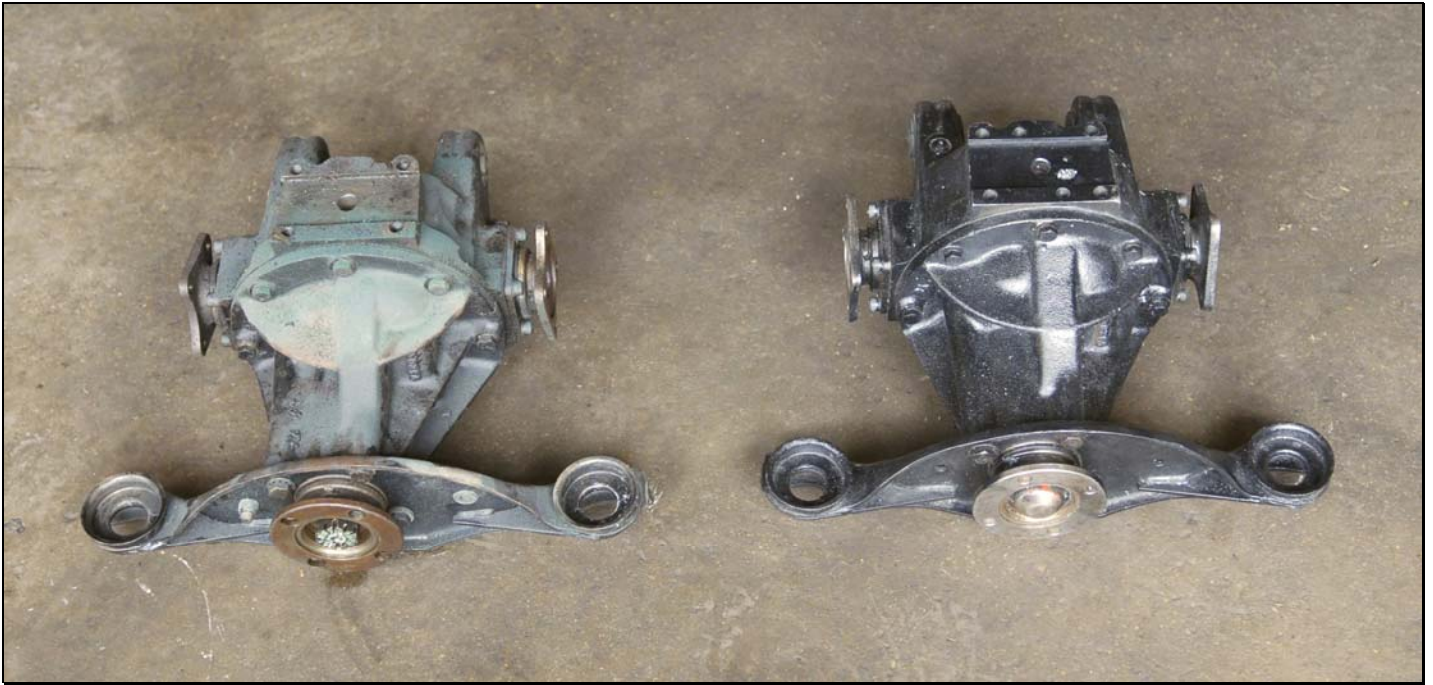
*Sheet metal is removed from tunnel area and a new
transmission rear mount is installed.*



*First rough fitting of the new transmission. It will
come back out and go back in several times as
additional fine tuning will be required to get it to fit
just right.*



*Modifying the tunnel to fit the gearshift takes many hours
of careful fabrication and welding. Mods to the black
plastic transmission cover require more time. Moving the
handbrake lever back requires yet more cutting, grinding
and welding, plus shortening of the cable. At times it
seemed like it would never end, but the final product
justified all the work.*



The differential on the left came out of our GT6 Red Racer. We sent it in for rebuilding, a ratio change and strengthening. John Esposito called us with the bad news that this is a Spitfire differential. “You can tell by the 4 threaded holes in the top, John says.” Luckily we have plenty of spares and promptly send John two more differentials. The unit on the right with 6 threaded holes on top comes back ready to go in short order.



Rebuilt differential back in place. Half shafts are rebuilt and new u-joints installed.



Piped refers to this beautiful hand built 2 inch exhaust complete with center resonator. The exhaust is tucked way up tight to the chassis for maximum ground clearance. It is designed to flow well, have a lovely throaty roar but maintain a politically correct decibel level. Oh, did I mention it was beautiful???

Our Über Car now sports:

- A bigger cammed, carbed and piped TR6 engine with .5 liters of extra stroke.
- A strong, smooth, close ratio, short throw, 5 speed overdrive transmission.
- A coaxial release bearing system
- A strengthened, overhauled differential with a new ratio for “longer legs”.
- Rebuilt rear halfshafts
- A rebuilt suspension and steering system
- A heavy duty racing radiator with electric fan

The Interior: "Jag and Bentley ain't got nothin' on us!" (Marty Fay, the owner of Motor Works, 2012; at his most eloquent)

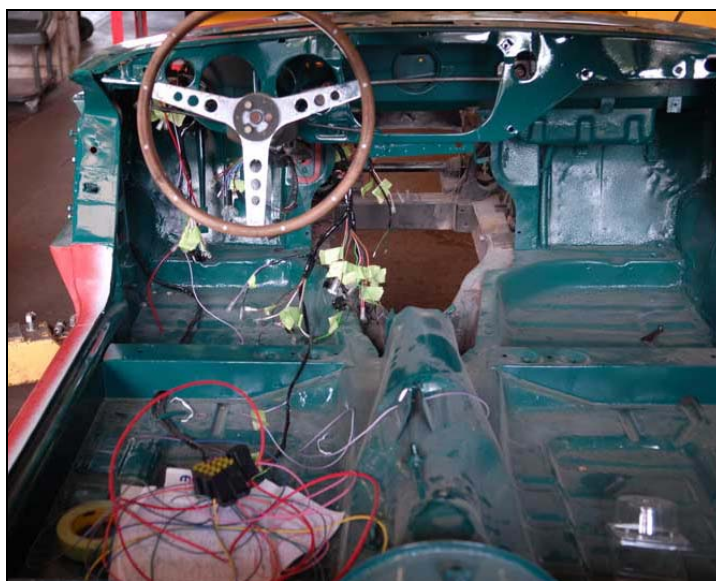


Why do I madly say Jag and Bentley interiors ain't got nothin' on us! Because I can prove it! At right is a 1958 Bentley S1. We are working on it at the same time as the GT6. The GT6 interior is finished and it is gorgeous. I realize the two interiors are as different as apples and oranges, however, you can't deny the utter class with which each one speaks.

New Electrics

(Yup, electrics is a word. I just looked it up. It means electrical wiring installed in a building or electrical network or circuit of any kind.)

Our original race car was almost devoid of electrics. After all, who needs turn signals or a heater on the track? This necessitated a new harness and complete rewire from stem to stern. We also had to rebuild missing light fixtures, add a fuse box, door jamb switches, interior lights, rewire the dash, etc. And speaking of the dash, what could be nicer than $\frac{3}{4}$ inch solid walnut? See the pictures *First rough fitting of the new transmission* and *Modifying the tunnel to fit the gearshift* on page 19 for a view of the roughed in dash. Or view the completed interior above at left.



The electrics being installed. It takes a long time but as the "Brits" are fond of saying "We endeavor to persevere."

Insulation Everywhere

All naked car shells are basically tin cans, and boy do they transmit noise. This effect is so pronounced that it makes a riotous child's toy. You may remember stringing two tin cans together and talking back and forth with your friends.

Unfortunately For Me, friends were often in short supply. I think it had something to do with the nickname they gave me, "Stinky Fay". You see, early in my life I had determined that taking a daily shower was an exercise in futility. I was just going to get dirty again the next day, so why waste my time?

This lack of friends provoked me to compensate in certain ways sometimes seen as amazing. With no friends, I became so fast I could talk at one end of the can, drop it, race to the other end, pick it up, and still get the full ½ hour message.

Over the years, with dedicated practice, I have expanded on this technique. Now, at 58 years old and 250 pounds I can step on a brake pedal, jump out of the car, race to the back, and see the brake lights come on. Occurring so quickly the eye can't follow, my fellow technicians still know it's me by the cooling breeze that follows and the sudden exclamation from the back of a vehicle, "ON!"

Important Final Note: my dubious childhood hygienic habits cured themselves "right quick" the day I discovered girls did not have "cooties". This occurred somewhere around 10 years old. I am still looking to punch somebody out for having cost me several beautiful years where I did not fully appreciate the lovely qualities of the fairer sex. As I see it I could have been dating when I was 7. Rats!!!

And Rats again for I have drifted off course. Back to the article.

Having the inside of our "Green Machine" ring like a bell is not acceptable. So we insulated everything we could. In fact it is shorter to describe what we did not insulate rather than what we did. We did not insulate the doors, glass, or the shifter knob. That's about it. We did insulate the floor, sides, firewall and roof.



You can see the insulation packed around the gas tank. Just below the courtesy light the insulation disappears under the side panel.

The gas tank itself deserves an honorable mention. It was hard packed inside with dirt and sediment that would leech out in small quantities, but totally resist cleaning. With a new tank unavailable, we sent the tank out for the Gas Tank RENU Process. The tank is bead blasted to bare metal, holes are fixed, and a special coating is applied inside and out. The whole tank is then baked. The end result is a tank with a lifetime warranty against leakage. Our Gas Tank RENU Dealer was Buttita Brothers in Rockford, IL. (815) 962-7914

British Interior Kit

The interior kit came from England. The quality was top notch, except for the headliner. Installing that nearly killed us. It required lots of time spent on our backs in various contortions that defied the natural laws of human movement. There always seemed to be some interior “do-dad” poking us in the kidneys.



Interior kit from England and new front springs. Interior fit and finish is lovely and top quality except for the headliner which constantly came apart under installation.

The headliner is supported by metal stays that run through sewn in pockets. With the least provocation, the pockets came unstitched during installation. This required constant mending. With great effort expended the headliner was finally installed. We called up Jack and had him come over to inspect our work. He climbed into the driver's seat and promptly found his head hit one of the stays. Jack towers an impressive six feet plus. With new seats raising the sitting position and a new headliner lowering the overhead clearance, our customer was starting to resemble the unfortunate end product of a grapefruit press. What to do?

Scrap the headliner and start over. OH CRUD!!! This time we cut bulk door panel backer into a maze of complicated shapes and fit them precisely to the ceiling and swept back. The end product was a smooth, seamless, insulated ceiling onto which we would directly glue a custom headliner.

Enter again John McGinnis of the M.A.R.S. Corporation. He ordered in the finest bulk headliner material; then went to work measuring, cutting, and stitching. The final result nearly defied imagination. It looked great, fit like a glove and gave Jack the extra clearance he needed to be comfortable.

John continued his magic recovering both the seats and creating a custom cover for the transmission tunnel. Mark added his skills by finishing the interior. This included:

- Fabricating luggage compartment floor panels.
- Building custom enclosures for speakers behind the seats.
- Laying all the carpet.
- Fitting and laying all the side and door panels.
- Installing the new walnut dash and modifying it for an additional gauge.
- Installing foot-well lights and rear luggage area light.



Seats, tunnel and center console covering by John McGinnis of The M.A.R.S. Corp.

Dash (top, front and underside), door and side panels, courtesy lights, carpeting and everything else you see by Mark Huff of Motor Works.

Jack wanted his old steering wheel installed as a link to his fondly remembered 1st GT6.



Luggage compartment view: Fabricated, removable panels (carpet covered) give access to the spare tire, fuel pump, and speaker area towards the front lip.



Speakers installed in custom made box behind the front seats. Radio installation includes a connection for Jack's iPod.

Approaching the End.....NOT!!!!!!

There is an incubation period to some of the most virulent diseases which afflict mankind. The moment of contagion can be followed by weeks of exuberant health before any symptoms start to show. The same is sometimes true of restoration projects.

We ticked off the last few remaining details on our checklist. Mechanicals, interior and exterior were now complete. A very pleasant 75 mile road test established the car drove beyond our most excited expectations. A last check of fluids, tire pressures, timing, valve adjustment, and carburetor synchronization followed by a thorough cleaning made the car presentation ready.

Jack and Max had patiently waited almost a year for this day to come. Mark conducted a "meet and greet" with their new green friend. I then walked over and handed Jack the keys; "come back in ½ an hour and let me know what you think", I told him.

Upon Jack's return I received the confirmation I was looking for. He had a huge beaming smile on his face as he unwound himself from inside the car. Every anticipation had been met and surpassed. Our GT6 project was leaving the "barn" and headed home with its proud papa.

The Triumph would visit us again shortly for its 500 mile oil change. At that time we cured a new noise (loose u-joint) and started to address a high speed vibration. (These sorts of minor corrections are expected in any initial shakedown period.) The vibration was the old racing tires. The internal belts were shifting causing subtle irregularities in the outer tread. But that wasn't the worst. We found rub marks on the inner fenders and firewall. The fat old skins were actually too big for the car.

Replacing the tires would not be simple. Nothing ever seemed to be simple on this car. Mark spent hours trying to locate 13 inch tires that were skinnier, no taller and that would fit the wide racing wheels. We finally installed four Sumitomo HTR T4 in P165/70R13; perhaps not the perfect tire, but the only non-racing tire we could find.

Expectantly headed out for a brisk road test of heavy braking and cornering, we soon had to radio back "*Motor Works, we have a problem!*" The damn new tires rubbed also. The problem was greatly reduced, but not gone. *Rats, Rats, Rats, Rats.....!*

Back at the shop we studied the front of the car in detail for hours. Suddenly a light went on in Mark's head. All our sources had told us the TR6 engine was the same weight as the GT6 engine. They had also told us the 5 speed replacement transmission weighed nearly the same as the factory 4 speed. Maybe none of this was true.

The TR6 engine was taller than the GT6 engine (we assume extra height for the additional .5 liter stroke). Did it weigh more? How much? Did the transmission and related parts weigh more? The radiator certainly weighed more.

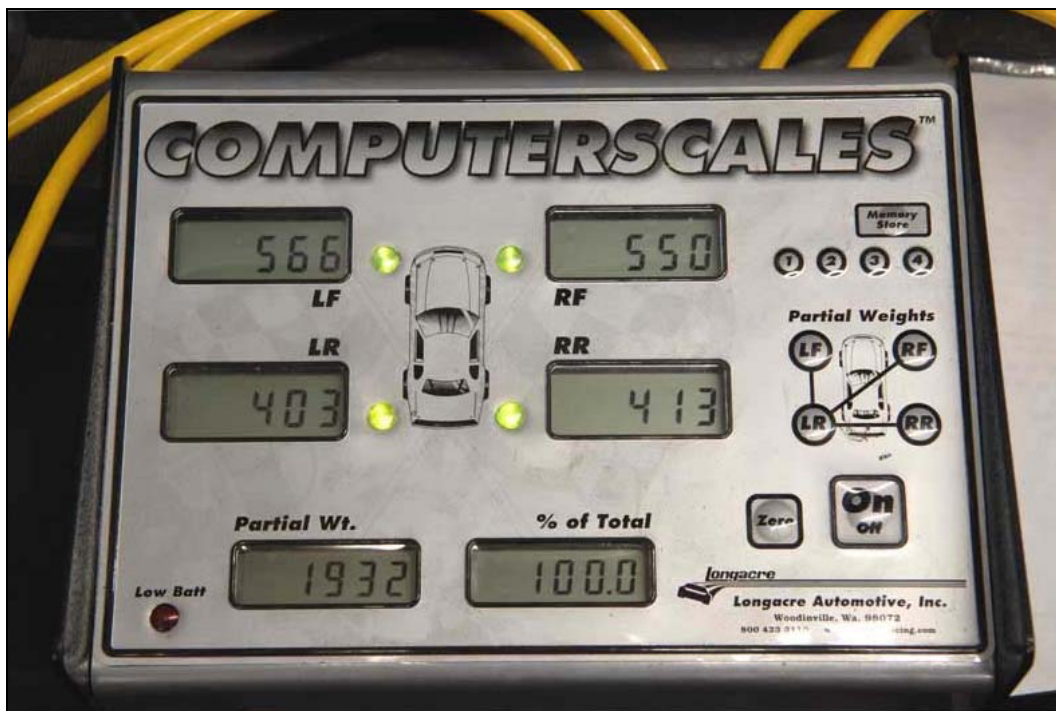
Mark's intuition lamp continued to burn brightly. He went to the internet and studied the ride height of GT6's in photographs. Sure enough, factory cars had a slight increase in ride height at the front. They did not sit level, our car did. The factory springs on our modified GT6 were being preloaded about 1.5 inches.

What to do? Why, more research of course. Mark has many friends with unique talents and toys. One of those toys is a set of racing scales for setting up stock cars. Intuition was about to become rocket science. Mark borrowed the scales and set everything up.

And amazingly our warp drive green monster at 1,932 pounds is only 28 pounds heavier than a stock GT6 at 1,904 pounds unladen. Our car may even be lighter as the gas tank is full. The lack of weight gain is a wonderful plus and a tribute to the builder's art, but it doesn't answer our sag problem on the front end. Could our new springs be wrong? Could they be poorly made? Could they be for a Spitfire instead of a GT6?



Intuition becomes rocket science. Mark Huff, Head Technician at Motor Works borrows racing scales used to set up stock cars. This will give us the definitive answer to our tire rub problem.



Presto! And the answer is.....Not what we had expected. It's better! The tank empty weight of a GT6 is 1,904 lbs. Our scary fast GT6 is 1932 lbs. full of gas. But it doesn't answer the tire rub problem. It has new springs. Could they be wrong?

The “why” was going to be a long hard drag. So what to do? The answer was obvious. We “bailed, quit, gave notice, walked out, vacated the premises, deserted the field, and abandoned all hope. Well...not quite.

What we did was practice the age old craftsman’s oath “When in doubt, build you way out”. We took to the internet for the hundredth time and researched custom spring companies. One company seemed superior to the others. That is Coil Spring Specialties. Reviews on the internet discuss their top notch engineering. They also mention long wait times and difficulty in getting calls returned. We would experience both.

The engineering is top notch because they know their stuff and ask the right questions. We had to supply year, make, model, engine size, transmission type, chassis and weight measurements, tire size, and ride height specs. We even removed a spring and sent it to Coil Spring Specialties.

We spoke with Kevin, their technical representative. After much discussion it was decided to raise the passenger front 1.25 inches and the driver’s front 1.5 inches. This means the car would sit slightly askew when parked but ride perfectly when loaded.

Without putting too much emphasis on the negative, it took over 5 weeks (they said 4-6 weeks) to get our springs. Phone calls to Kevin asking for progress were not returned despite half a dozen promises from the front desk. Finally receiving the carton from Coil Spring Specialties, we opened it to find both springs the same length. In other words, near disaster as we were now up against a time crunch.

I was relentless, calling ever hour to reach Kevin. Always with promises he would call back. My temper started to reach the boiling point of carbon (8,720 degrees Fahrenheit. No wonder Thomas Edison used carbon thread in his early incandescent bulbs). And then a funny thing happened. Just as Kevin came on the line, my temper fled and I was able to speak in a calm but troubled voice.

To make things short, I explained the time bind I was in due to the wrong springs and the utter frustration of not having calls returned. If correcting this problem took even ½ of 5 weeks I had better start looking for a hungry polar bear to wrestle. Not common in these parts I figured I may have to walk north a bit.

Kevin got it and came through like a champ! He apologized for the calls that were not returned. He pushed the unusual springs through engineering and then production. The springs were then overnighted to us from Kansas, all at no additional cost. We had the springs installed the next day and the car safely out on time. The entire process took under a week and saved my hide.

Speaking of hide, I’m told polar bears have very bad breath. Being a little on the delicate side (at 5’ 9” and 250 pounds) I’m worried bear breath might be offensive. So with discretion being the better part of valor I decided to forgo a friendly tussle with one of the world’s truly great ripping and tearing machines. Not to be forgotten, I have placed it 143rd on my “bucket list” right after going over Niagara Falls in a Dixie Cup. We will just have to see what time brings.

Well, Hokey Smokes Batman, while this Krazy Kar will never be totally finished it is now complete for the foreseeable future. Jack has driven it with the new tires and suspension upgrades and says it steers as quick and nimble as his original car did. He is all smiles from ear to ear. This reaction is what makes all the nerve racking decisions about time, money, hard work and impossible to find parts worth it. We have to get paid to keep the shop open but the smile on the customer’s face is our ultimate return on investment.

Thanks to Jack, Max, Mark, Marty, Leslie, Dan D, Joe, Dan K, Tom, The Roadster Factory, John, Jeff, Wade, Ryan, John Mc and Kevin.

To all of our friends, enjoy our photo gallery below.

Photo Gallery









Baby's first public debut at the Sycamore Auto Show 2012. (The Sycamore Auto Show is the largest car show in the state.) Alas, no trophy, but lots of interest. (I'm not certain how the trophies are decided upon, but a lovely Packard and a Jag XKE were also passed up.)

Fairly early in the day, a boy about 8 years old stood on his tippy toes and exclaimed "I'm bigger than this car is!" Sensing an opening, I started greeting the GT6's admirers with a hearty "Welcome to our roller skate!" This raised many a smile, and elicited fond memories of Triumph's and MG's owned in years past. Even those folks not familiar with the Triumph marquee were captivated by the GT6's naked mechanicals exposed by the front hinged hood.



"Grrrrrowl!"