

SPITFIRE & GT6

for enthusiasts, by enthusiasts

M A G A Z I N E

- TECH TIPS
- READERS' CARS
- READERS' SURVEY
- MINIATURE SPITFIRES
- SPITCAT: PART 5
- ON THE TRACK

Spitfire & GT6

at



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The Roadster Factory

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The Roadster Factory stocks a full range of new mechanical, hydraulic, and electrical components for Triumph Spitfire and GT6 models. Many parts have become hard to find, but we scour England to maintain availability. TRF is a major manufacturer of replica parts, and we are one of the few companies worldwide which actively manufactures Spitfire and GT6 Components...

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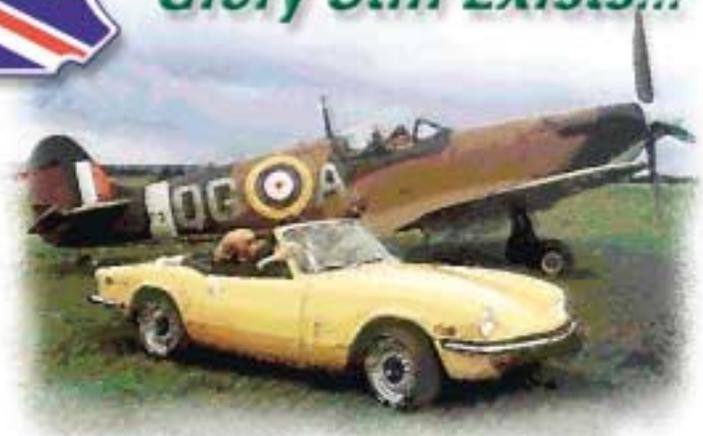
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Spring has Sprung!



It is finally top-down weather! Birds are chirping, flowers blooming and the sound of "free flow" exhaust is in the air. Unfortunately it is Tom's

exhaust I am hearing. My Spit is anxiously waiting in the garage for the next sunny weekend so I can finish the complete hydraulic overhaul. I was getting tired of the constantly leaking master cylinder and now left rear cylinder. And with the new baby I am now more safety conscious than ever! Even if it will be years before he gets a ride it would not be good to pre-pay his college tuition with my life insurance payout.

Oh yes, I said new baby! I had many good guesses on his name; Austin, Morris, Morgan, Riley, and heaven help us... Lucas, to name a few. We named him Cooper (my mother's maiden name). Naming after a family name is a very common practice here in the "good ole South".

If the wife and Cooper will allow, we plan on visiting may shows this year. The highlight will probably be the 2nd Annual NASS "Spit-Together" in June. This is one not to miss. I have always had a fascination for racing Spitfires (and GT6's) especially Group 44 cars and this years event will feature a more than one! And not just sitting pretty in a row... racing! Although I will probably not take my car I am sure I could bum a ride with a fellow Spit owner around the track for a parade lap or two. The weekend promises to be a once in a lifetime experience as it is also the 40th anniversary of Triumph sportscars with many other Triumph related events. However possible, do your best to attend.

Thank you everyone for all the articles and photos and hope to see you at the an event near you!

John Goethert
editor



For everyone wondering about safety of the baby... the seat is tightly bungy corded onto the luggage rack! ;-)

SPITFIRE & GT6

Volume 2, Issue 4

MAGAZINE

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Correspondents wanted for Spitfire & GT6 Magazine!

email Tom@TriumphSpitfire.com
for more information



To send anything Spitfire or GT6 related to
info@triumphspitfire.com

or

P.O. Box 30806,
Knoxville, TN USA 37930-0806



Photo by Greg Hertel



I found a comment you made in the letter from the editor to be very funny. You mentioned how you've heard many stories of people selling their Spitfires the day they find out about their upcoming addition (baby). Just the opposite happened to me. A week after my wife and I found out we were expecting, my neighbors were relocating to another state and decided not to take their '77 Spitfire with them. Knowing that I had previously owned a Spitfire and that I had been admiring theirs for many years, they made me an offer I couldn't refuse. That was almost two years ago. The car sits in the back of my garage waiting to be rebuilt. I've been slowly tinkering with it and collecting new parts, but at this rate, it'll be back on the road just about the time my (baby) daughter gets her license.

The magazine is great!
Cheers,
Dennis Fitzpatrick
Franklin, MA

Hi John

Just received latest issue of the your mag. Good as ever and on real paper too, marvelous. Received it on 31st December, delivery times have improved dramatically too.

I promised a report some time ago on my attempts at keeping the heat at bay in my GT6. The radiator insulation I

used certainly helped, but after two years exposure to heat along with the lousy weather we have over here in winter has led to it disintegrating. I had to remove the gear box tunnel last weekend to fix the overdrive again (wiring fault) and spent a couple of hours scrapping off the remainder of the foil and the adhesive. I am now definitely not going to bother with that approach again but am going to try the heat reflective bandage approach to the manifold and exhaust. I was wondering if another idea would work, MK3 GT6's have pipes attached to the air filter which are routed next to the radiator. I am thinking of trying this with longer pipes feeding cool air into the gap between gearbox and tunnel. What do you think?

regards,
Terry Collins
East Yorks, England

Hi John.

I just received the latest issue this morning. WOW! Glossy stock no less - The magazine looks great! I don't know if this change in stock will have an effect upon subscription rates, but I for one don't mind paying more. What a difference it makes to have the the magazine printed on glossy paper. The photographs are so much clearer. Bravo!

As well, thanks so much for using Dick and Val's car on the front cover of this issue. (I'm truly flattered and I know that Dick and Val will be too.) It's a very attractive image and I really like the layout you used. The images you selected for the story also work very well as does the layout. You've got a good eye for this.

Bye for now!
Greg

Hi,

I finally received the latest issue (Volume 2, Issue #3) and can now I can understand why it took so long - the USPS totally destroyed it!

Can I get a replacement copy? If so, to whom should I send my request and payment? By the way, have there been any other complaints about this problem? This is the second time I've received a torn and damaged copy. I know it's not the fault of the magazine, but have you ever considered sending it in an envelope or plastic protector? I'd be willing to pay a higher subscription rate for

this if it meant I'd get the issues in good shape.

Thanks,
Sue Snyder

John,

I've received the recent magazine--WOW--very nicely done! I like the improved printing.

When is the next deadline? With lots of luck, my (RX7 engine) swap could be done by then, and you can print my whole story, start to finish. It will include lots of blood, sweat and tears (and cash). I'll start composing the story, but I'm not sure exactly how to tell it. Your advice is greatly appreciated: I don't want it to be too awfully boring. There should be reader interest in (1) the finished project, and how it got there, engineering-wise, (2) the first attempt that was scratched, (3) the problems I had with shops that started but never completed the project, and (4) the legal issues I'm still learning from. Choosing the shop and legal issues could be an entire article in itself. What format is best for you—I have MS Word, this Outlook word processor, Word Pad, plain text, and everything in the MS XP Office Suite Professional.

Honestly, I'm not disappointed that my story was delayed, now that you have such a gorgeous magazine to show it off. We're still setting up the front half of the chassis, I'm about to pick out wheels and tires, and the body work needs to be done (radical fender flares). We're putting height adjustable Koni Sports all around, and a racing cage. I still have to get it to the engine shop, and this may delay getting it into the next issue. I talked yesterday with the guy who will complete and tune the engine. We will go with a complete engine management system, by Wolf (www.wolfems.com), that will allow complete control over every engine function. He will supply me with two engine maps: the main map programmed on the dyno, the other on emission equipment, I have to pass Colorado smog.

You may want my story in two parts, the first being the problems with auto shops and legal stuff, and the second being the actual car engineering. You let me know how you want.

See ya,
Ric Gibson

Hi John,

Yep, my Spitfire is as much fun to drive as a barrel of monkeys. We have about 4,000 (monkeys) here and actually a lot of their "playthings" include large, swinging polyethylene barrels with holes in them. So we have real barrels of monkeys. I have a 76 with original paint and I believe all the options (hardtop, overdrive, California model) (also, it is COMPLETELY stock except it has aluminum wheels). I have put in a great rebuilt transmission but I still have not wired up or tried the overdrive. I am almost afraid I will blow the overdrive up!

Take care,
Tim Duvall
Toxicologist
Ca. Regional Primate
Research Center
University of California

John,

Just got my Magazine yesterday! It was great to see my baby in there. It is now a very classy looking magazine with the glossy pages throughout. The Magazine continues to improve, and I'm hoping your subscription numbers do as well.

I took about 24 photos of the GT6 and will send them. It would be neat if we could do a series of articles on this car, from finding it in the dealer's lot to its final restoration. I will NOT be the one doing the resto work however. I want to continue to focus on my Spitfire, and I can't afford the time or the money or the space it will take to do a GT6 right now. I hope to find a buyer that really wants to restore and drive the car.

I purchased the car to rescue it. The dealership was going to let a salvage yard take it. It was too nice to let someone strip the valuable parts and crush the rest. Let me know if you hear of anyone interested in a good restorable GT6!

Sincerely yours,
Joseph L. Guinan
President
North American Spitfire
Squadron

Dear Sirs:

I enjoy your magazine and the new layout is great... I like the picture of the dog in the GT6 on page 12 and it reminded me of a picture I took while in the process of restoring my Spit (see page 16).

Doug Pratt

Story Requests

"What about adding a section that was dedicated to racing Spitfires in SCCA and HSR? This could really be helpful for people to use who are trying to race prep a stock car and let them know what modifications are allowed etc. I'm sure that there are racers who would be willing to contribute."

—Keith May

"I would like read about how to stiffen up the rear suspension. Shocks and spring are OK, but when my wife and I get in it, the wheels deflect up almost as far as they can. Hitting certain bumps sometimes causes it to "bottom out". Plus, I think it simply looks better without the rear camber. Any suggestions?"

—Greg McMillan

"Is it possible to supercharge a 1300 MK3?"

What supercharger will fit, and how much more power would it give me?"

—Martin Verity

"How about a story that details floor/rocker replacement?"

—Steve Reilly

Hi John,

I intended to write you re-the latest Spit & GT6. I was excited again to receive my latest copy, early in the new year. (mail's slow up here in Canada!) Magazine is getting nicer all the time. You can consider this a letter to the editor if you wish. I certainly hope you don't try to go to monthly. I don't think there will be sufficient material of diverse interest if you do. I suspect the magazine would become simply a vehicle for adverts, like most other special car mags, in my opinion. (I know adverts are what pays your salary.)

As it stands, I wonder about the balance between the "see my car, isn't it beautiful" type of articles, and the real technical, historical, restoration work. I found one article particularly long and not so interesting, mentioning house moves, career changes etc. I also suspect the "Dating" article got slightly chopped to fit the page.

I do have another article ready if you want it. This time its a step-by-step Horn Rebuild article, with a lot of closeup JPG files. They probably aren't all necessary, but I'd let you decide. If you want it, I'll mail it on disk - there are too many JPG files to email.

Keep up the work.
Cheers,
Fred Griffiths

Dear John

Thank you for the latest edition of the magazine. I showed it around when we had the last meeting a week ago and everybody said how much better it looked now! The photographs come out much better and it is a pleasure to read the magazine.

All the best for your baby! I also have two little girls and it is (mostly) a lot of fun.

Best regards,
Stephan Sieburg
Swiss Spitfire Club

Hi John,

First of all, let me congratulate you on the current Spitfire magazine. As a "bookworm", not so much a magazine fan, I must admit that this magazine is the nicest I've come across in a long time. The quality and subject matter is outstanding. It will find a permanent place on my bookshelf for sure. I will also order all the back issues that are available.

You have one of my little essays, "the belated wedding present", there for your consideration, and I have also sent you some pictures via snail mail. I hope everything got there OK. I'm always writing essays, and here is one that I think is quiet nice. If you like to use it, feel free to do so.

Good luck with the birth of the baby.

Cheers,
Liv, *Spitting into the snow in cold Ottawa.*

Hallo

My name is nik,30, i'm from croatia, europe, and i have a triumph spitfire mk3, witch was total mess before i took it from some looser, anyway, now it's finish in red color, and what i want to ask you, i'd like to do interior in beige color leather, seats, doors, actually everything, sorry for my poor knowledge of english terms for parts...so, what i'm interested in, can i put dashboard and centre radio console in beige leather too, to look a like austin healey dashboard, was it before an option, 'because it will look nice, but is it original????...don't want to see some other spit drivers to have fun with me, or it is all something personal... anyway, i'm most grateful for your time and understanding...

Nik Orosi
Zagreb, Croatia

I am writing you to thank you-all for showing the pic of the Rumble-B Express in the last issue I will try to send more info. soon and some more pictures and may be a story, lov the mag. and read it straight through from cover to cover.

Thanks again,
Otto & Toto
Rumble-B Garage

John and Tom,

On page 11 of the current issue you show an unusual Spitfire bonnet from Switzerland. I found pictures of other cars with this bonnet on the French Spitfire club's website, Amicale Spitfire (www.amicale.com). You can use the Altavista translation site to convert the text to readable-enough English.

They have a page of alternate hardtops that cover the trunk as well making it look like a GT6 fastback-type. Some are called "Apal" and "Ashley" and others. On the "Apal" the picture of that hard-

top had a link next to it for bonnets also. I have never seen hardtops like this before.

I don't care much for the Apal bonnet, but the hardtop would be cool. I wonder if any of these ever made it to the US market? I don't like the other variation on page 11 either, but that's my opinion.

Thanks for a great magazine!

Mike A. Japp
Pensacola, FL

Dear Enthusiasts,

Hear me! If you own a GT6, hold on to it. I have had a plethora of sports cars in my life, but became particularly fond of British coachmanship and that special Grrrrr... only British cars seem to possess.

A friend of mine convinced me to buy a poor, beat up GT6+ so I could join the Triumph Club of San Diego with him. WE subsequently spent the next two 2 years, painfully but joyously restoring her. The car and I became inseparable. I drove it everywhere, to road rallies, to shows even round trip across the USA. I also drove her while dating. Well "Maisy", as I affectionately named her, was a better judge of character than I, as she always seemed to have problems when my now ex-wife would come along for a ride. Honestly, I never had even a Lucas blackout when I was alone with Maisy.

Well 6 years later I obtained custody of my 4 children and fool that I am, traded her for a (uhhhgggg, yes I know!) minivan. I truly needed the space, so I convinced myself that parting with my mechanical better half was the responsible thing to do.

Now, however, I rarely see a GT6 and when I do, I reminisce up to the point where the pain of the loss, overwhelms me. There was something so special, so unique about the GT6. A masterpiece in artistic design, the roadster feel and the constant inquiries. I always felt like I was driving a "Renoir". Because of the rarity of the model here in the US, most people would ask me admiringly... "what type of car is that?"

If fate permits, one day I'll own another!

Sincerely,
Joseph Drew
Inverness, Florida

Hello,

My name is Drew Brown of Danbury, CT. I noticed the last photo (on the website on the Racing Engine Photos page), titled, *Another Highly modified GT6 engine*. The picture is of my race car I purchased from the

Widow of the Late John Lehman of Ohio. The car is a 1968

GT 6 SCCA race car, racing since 1972 and now lives in CT. John passed away suddenly in 2000 and I was lucky enough to purchase it. The Engine is a 2.0, forged pistons, 11:1 comp, custom cam, msd with crane ignition, custom crank fluid damper, custom headers and a lot more. The car is a blast. I also own a 1971 GT 6 and a 1972 GT 6 project car ready for paint. I love the web sight, thanks a lot.

Best regards
Drew Brown

Hi

Just thought I would write to you and say hi.

I have owned a Spitfire 1978 for 3 years now and it has been endless fun. Unfortunately I am a bit of an attention seeker and have changed it some what. I have installed a Bore exhaust system/Kenwood stereo and alarm that talks to you if you get to close!!

The car is now very well known around North London - the kids seem to get a lot of joy from it ... and the ladies :)

The only incident I have had (where my stomach was in my mouth) was when the right front suspension broke at 60 mph - the car swerved all over the place, narrowly missed a van and ended upside down in a ditch. That was NOT fun. They had to crane it away - but I am still driving it - and now that I have taken the hard top off I shall enjoy it even more.

James Cooper
London



Send us anything
Spitfire or GT6 related!
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Dave Hale, Ohio, USA, 1975 1500



George Brown, Nevada, USA, 1979 1500



Y. Race, Wisconsin, USA 1979 1500



Chuck Dommer, Colorado, USA, 1968 GT6+



Ree Gurley, Maryland, 1978 1500



Rachel Dixon, England, 1965 Mk2



James Davis, Wisconsin, USA 1970 Mk3



Randy Cardoso, North Carolina, USA, 1979 1500



Scott Nevin, South Carolina, USA, 1976 1500
 I've just got this car on the road after a years worth of renovation. Frame off (replacement), fully deseamed hood and rear quarters/trunk/rear fascia and painted it in PPG Indigo Blue. Twin HIF 4's with 10:1 cr, fast road cam and much porting work. Removed all electrics to under dash, Removed heater/wipers/door glass.



Joe Guinan, Nebraska, USA, 1972 Mk3 GT6



Steve Hauser, Florida, USA, 1972 MkIV



Robert Corbishley, Alaska, USA, 1977 1500



Paul Geithner, Maryland, USA, 1978 1500
 AE 9:1 flat-top pistons, twin HS-4s using ABD needles and "red" piston springs, Lucas 45DM4 distributor with Crane Cams amplifier and Lucas sport coil, UK/euro spec intake manifold and 4 into 1 "Monza" type header, 1 3/4 inch I.D. GT-6 intermediate exhaust pipe and 4x8 inch oval twin outlet muffler-straight back.



Vincent Eweb, Paris, France, 1977 1500



Jerome Azuara, Chaville, France, 1978 1500



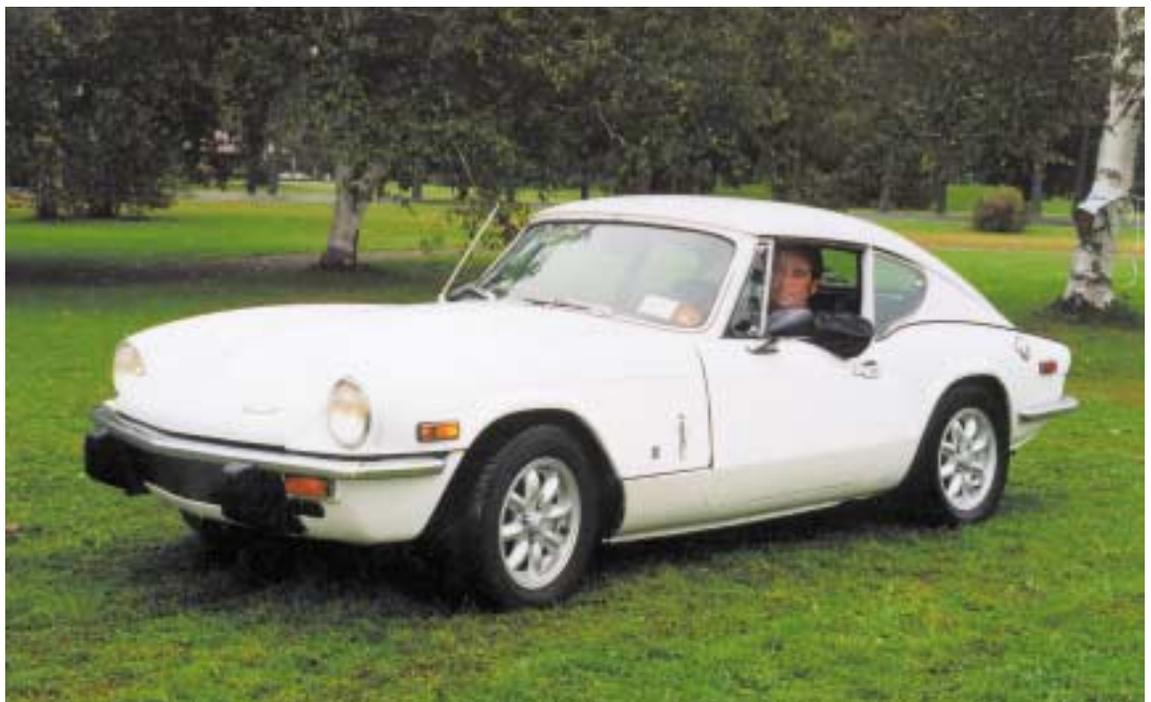
James Robbins, Solihull, England, 1968 MkIII



Roger Thomas, Iowa, USA, 1971 MkIV



Jim Rogers, New Hampshire, USA, 1972 Mk4
"Quit smoking a year ago and when off the pipe for 4 months; bought the wire wheels with the money I saved"



Tim Burton, New York, USA, 1973 Mk3 GT6



Doug Pratt, New York, USA, 1976 1500



Jim Willems, British Columbia, Canada, 1976 1500



Louis DiPasquale, Ohio, USA 1980 1500



Chris Campbell, Virginia, 1971 Mk3 GT6



Gary Roberts, Ohio, USA 1980 1500



John-Paul Keohane, England, 1972 MKIV
"The wheels are made by a company called Avon (not sure if that is the same company that makes tyres) and they are known as Safety wheels as they have a metal insert that goes around the wheel (under the tyre) that apparently prevents the tyre from coming off in the event of a blowout!"



Dan Parrott, Georgia, USA, 1980 1500

To have your car featured in next issue and on the TriumphSpitfire.com website, e-mail us at info@triumphspitfire.com or mail to: P.O. Box 30806 Knoxville, TN 37930



Thor Svaboe and members of TSSC Norway recreate a LeMans Paddock



John Higgins, New York, USA, 1980 1500



Jim Lawrence, Nebraska, USA, 1970 Mk3
"I rescued her from a farmer who was using her tub as a garbage can. When I inquired about the car he told me he would sell it for \$300. What a deal! She started up right away but the body was rough."



Greg McMillan, North Carolina, USA, 1975 1500



Todd Luchette, California, USA, 1979 1500



Jack Hamilton, Michigan, USA, 1976 1500



To have your car featured in next issue and on the TriumphSpitfire.com website, e-mail us at info@triumphspitfire.com or mail to: P.O. Box 30806 Knoxville, TN 37930



James & Michelle Gerritson, Washington, USA, 1977 1500

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acceleration you would ever thought possible!
Stock Weight: 16.5 lbs. Lightened: 9.5 lbs.

Spitfire Spotters

A STITCH IN TIME

While surfing the web recently, Tom Broberg found this British site offering Spitfire cross-stitch patterns. They are available as a kit for £19 or pattern for £7. Visit www.crafts-unlimited.co.uk for more information.



IT'S A BOMB!

At this years British Wings and Wheels Laura Gharazeddine showed how seriously she takes the Spitfire mystique. "All the markings on Nigel are static cling decals that I (painstakingly) made myself for the event! I arrived at the airport dressed in flight jacket, helmet and goggles!"

TOPLESS SPENDING

Jeanne Bushchbach recently re-subscribed to Spitfire & GT6 Magazine with one of these cool checks. To get you Spit on your checks visit call Real Life Products at (800) 386-2432 or visit www.FunChecks.com. The first box of 200 checks is \$30 with additional boxes \$20 each.



WHAT A DRAG

Joel Yeagle has been tearing up the drag racing strips in his highly modified 78 Spitfire. Joel has won class titles in the IDRC Import Drag Racing Circuit's B&M Challenge. How quick is he and his Spitfire? An example of one of Joe's winning quarter mile times was 12.390 seconds at 104.07mph.

SOLD! TO THE GUY IN THE FLAT HAT

January this year a Triumph Spitfire was auctioned off at the Barrett-Jackson Auction... but not just any old Spitfire, a brand new one! The Barrett-Jackson program called it "a remarkable example of 'Time warp'".

From the "Max of Switzerland" Collection this flawless 1980 Triumph Spitfire (VIN-TFVDW6AT009157) was never sold at a dealership or driven with the odometer reading only 19 miles. It still has a copy of the original window sticker showing that it has an optional overdrive and had a retail price of \$8,506 (plus tax and license).



So how much is a "new" Spitfire worth? When the gavel dropped the going price was \$13,500.



.....▶
SHOULDN'T IT BE TITLED "BRITISH BLISS"?

Nick Vass was flipping through a copy of the January issue of *Night & Day Magazine* when a photo caught his eye. An early 70's Spitfire is clearly shown buzzing through French countryside "on the wrong side of the road" as Nick was quick to point out (Nick lives in England). The article entitled "French Bliss" welcomes readers to romantic chateaus available for weekend get-aways.



◀.....
CHAMPION ENDORSEMENT

Observant Nick Vass also spotted this article in an insert to his weekend paper, *the Daily Mail*. Alexandra Bastedo, the star of the 70's TV show "The Champions", tells of the cars she owned throughout her life.

She states that of all the cars she has owned, her baby blue, two-toned Spitfire was her pride and joy. "I absolutely adored that car!" She mentions that her Spitfire was much more reliable than the next car she owned; a Capri. Imagine, a Triumph more reliable than a Ford!

.....
TV STAR SPIT FOR SALE

The following classified ad was added to the "Spitfires & GT6s Only" Classifieds on TriumphSpitfire.com recently.

"Cars for sale: 1974 British Racing Green. For sale due to lack of space. Mk4 spitty. Mot August, 5 months tax. Car has just been used in TV series "Bad Girls" for the 2nd time (nice earner) and may possibly be needed again in the future. It had a body off restoration a couple of years ago (photos & loads of paperwork to prove) however, she now needs a few bits and bobs done to her. She looks quite nice and will make a smashing car when these bits have been done. Drive away for £1500 ovno."

For more information contact Dave at Daveyboy27uk@yahoo.co.uk

.....
ANOTHER MAGAZINE CALLS THE SPITFIRE A CLASSIC

"I just picked up a copy of the January 2002 edition of *Classic & Sports Car Magazine* and there is an informative, four-page article on the Spitfire 1500. The article is worth checking out. Your web address, www.triumphspitfire.com, is also mentioned in the article - Bravo!

—Greg Hertel

.....
WANTED DEAD OF ALIVE

Jeff Webster of Buyer Services International LLC named the Triumph Spitfire #7 on his list of The Top 10 Most Desired Cars in America. "This was a surprise! It's nice to see these cars beginning to be appreciated, in production for almost two decades, the Triumph range of cars won some of the greatest motor sports events in the world. In America it's 'TR' range that folks are most familiar with, but it seems that even on this side of the pond American are realizing what Europeans have known all along, and that is that these Spitfires equal cheap top-down fun motoring!"

Spitfires' ranked second only to MGB's (ranked #6) in the import category.

.....▶
AT LEAST THEY KNOW WHAT A SPITFIRE IS!

In a recent issue of *Truck World Magazine* a reader, when discussing a trip in his International Scout says "This Scout is shown going down a trail which has lots of body-squashing ruts and high-centering rocks the size of Triumph Spitfires."



Other Friends



"Finnbar" - John-Paul Keohane, England, 1972 MKIV



"Skyler" - Doug Pratt, New York, USA, 1976 1500



"Cessy" - Michael Dutzi, Enzesfeld, Austria, 1977 1500



Cooper ready for his first ride in Daddy's Spitfire

Next Issue...

Bob Spruck and I were recently discussing my new son's name and realized we both knew many other people whose children were named after British Car companies.

For next issue, send us your "British Car" kids photos.

Man's Best Friend



Last issue I asked readers to suggest a caption to the photo sent by John Gray showing his dog "Growler" in his half restored GT6. John states "given the opportunity, an open door, and a dog's innate ability to see the forrest through the trees, Skyler let us know he's not getting left behind on the maiden run. Gotta love a dogs' blind faith in his owners. You can bet he'll be on that ride too!"

Below are a few of the suggestions.

- "Dad, How come you never take me for a ride in *this* car?"
- "Where does a 100lb dog sit.....?"
- "Dog-car-restorers often become confused as to how to proceed after the teardown stage."
- "Never give a concours GT6 to a dog as a chew toy."
- "But, you promised me a ride!"
- "Now just put your foot on the middle peddle and then we'll be done bleeding the brakes."
- "Dad, ya done yet?"
- "Your laughing now, it'll be complete soon!!"
- "I'll go to the Vet but only in this car!"
- "I tried, but there were all these extra parts."
- "Ooops, I did it again!"
- "My dog loves his new kennel, I think not!"
- "And he says I make a mess!!"
- "After 2 years, let go man"
- "So after she found out how much he's spent on the rebuild, he sleeps in the doghouse and I get to bed down in here."
- "Man, when me and 20 of my buds hit the Iditerod in this baby, we are gonna be the team from hell!!"
- "Come on dad you said I could drive it today"
- "This is proof that the world has gone to the dogs!"
- "Luckily, Bob was a small man, so when it came time to set up his suspension his dog filled the driver's seat perfectly!"
- "Your only saying I can't drive this 'cause I'm a dog aren't ya?"
- "Man, after 3 years or 21 dog years, lets go!"
- "Dedicated Triumph Fan ready for the open road, if only he could make his owner hurry up with that small modification of the light switch that he started 5 years ago."
- "Some guard dog."
- "Not yet triumphed"
- "Some dogs are born with fleas, others are destined to acquire them!"
- "What a strange way to test the strength of floorboards!"
- "Will it ever be finished?"
- "My name is Revere and it looks like my ride will be a little late."
- "Are we there yet?"
- "Just look at that-MAN'S BEST FRIEND FIXED IT AGAIN!!!"
- "Are we ever gonna get to go for a ride?"
- "Anyone seen my bone?"
- "Where will we be going today then?"
- "Hurry up and finish this thing so I can pick up the poodle down the street!"
- "No horses just dog power for now"
- "DOGGY STYLE"
- "Spitfire wiv a woof!!"
- "Look! What can possibly take this long?? I want to go for a ride NOW!!"
- "A new meaning to mans best friend."
- "Junkyard dog school didn't cover reassembly"
- "My owner said he was coming back to take me for a ride"
- "Welcome to my PAD"
- "After many failed attempts using the "Self-Brake-Bleed" kit, Harold recruits the help of a willing paw."
- "I didn't do it"
- "You don't drive it, so I thought I would!"
- "And you said if I ate that brake hose you where gonna take me to the vet."
- "I knew we shouldn't have parked in Liverpool"
- "One dog will always be a dog. The other could become a tiger one day"
- "He usually just chews my slippers!!"
- "When the little car heard itself being described as a 'baby E-type', it just fell to pieces laughing!!!"
- "Some dogs like to fetch a ball or chase cars, this one likes to restore Triumphs!!!"
- "Crikey, I piss on his tire ONCE and this is what he does???"
- "I'm sorry... I know you told me to guard the car, but I only fell asleep for a second..."
- "I was just a pup when he started on this thing"

New Navigator

BY TIM BURTON, NEW YORK, USA

In August of 1999, I regretfully put my 1968 Olds Cutlass on the front lawn with a for sale sign on it. I had her for fourteen years and put a lot of blood, sweat and new parts in her. She was my pride and joy. I had purchased a house three years earlier and it only had a one bay garage. Well, the plan was to sell the Olds because it was wearing out it's winter welcome, as the only occupant in our one bay garage. My 1989 Bronco II was more than happy to spend the winter months in the driveway. Unfortunately, my girl friend's Grand Prix wasn't so use to the cold winters of upstate New York and was eyeballing the Old's hanger. The Grand Prix won. Or so it thought.

The Olds was looking inviting with it's maroon paint and black racing stripe sitting with the for sale sign on the front lawn.



It wasn't there 20 minutes before prospective buyers were interrupting my house painting! Darn! (Anyone who has done exterior house painting teetering on a ladder in 80-degree weather knows they don't like to be interrupted). Sure....

By the end of the day I had a deposit and had to move her off the front lawn to keep prospective buyers from slowing down the painting progress.

Yeah right!

The Cutlass had fetched a nice little purse. I was planning on putting a new garage door on the lonely garage bay as discussed with my girlfriend Jamie, the owner of the Grand Prix, with a good portion of the loot that was getting warmer by the second in the depths of my tattered wallet.

If the readers of this magazine have the same sick sense of reasoning when it comes to cars, as I do, maybe they can sympathize with my next process of thought.

Something a good friend of mine, Derek, had said to me many times over the years regarding my Olds was, "Why don't you sell that beast and get a real sports car like mine." He was the proud owner of a Lotus Europa, which I had ridden in many of times and had to admit there was something to those LBC's.

Later that evening, I had to run down to the local convenience store. While cashing out, I grabbed a local want ad digest. What the heck, it can't hurt to look... A friend on my block had a Triumph TR6 when we were in high school and I thought I would look at the Triumph section to see what was available "just for the heck of it"!

Wow!, was I surprised at the price a running example was fetching. \$6,000 to \$10,000 was way more than the money I had for the new garage door. Just when I was thinking that it



was probably best that they were all out of my price range, I noticed under the miscellaneous sports cars column, a Triumph GT6 for \$3,900.00. Strange, I had never heard of one of those. Well, you know what curiosity does...

The owner had explained over the phone that he had totally restored the car and rebuilt the motor 8 years ago. He had given it to his daughter for a high school graduation present. She had clocked only 2,000 miles on the rebuild and had since lost interest. He also informed me it was a six cylinder. Ah ha!

I had to take a peek. Going from an eight to a four cylinder would have been too much of a shock to the right foot!

I had driven Spitfires before, but the owner had said this one was a hardtop. I found the owner's home after an hour drive and pulled into the driveway. There it was, sleek, white and already set up with Mini Lite wheels and new Cooper Cobra tires. That was it; hook line and sinker, before I even heard it run. When he fired it up, the SU carburetor conversion and Monza exhaust just set

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TRIUMPH SPITFIRE

Spitfire & GT6 'A Collector's Guide' by Graham Robson. In-depth information about Spit/GT6 models, racing history, and tech specs. 128 pgs. hardcover \$ 28

Guide to Originality by John Thomason. This book is a concours Spitfire owner's/restorer's must have book.; 160 pgs, hardcover \$ 35

Triumph Spitfire by Michael Cook. Covering Triumph Spitfire & GT6 history; 144 pgs, \$ 22

62-80 Spitfire Gold Portfolio by Brooklands Books. Almost every magazine review of the Spitfire from Oct. 1966 to 1973, 180 pages \$ 24

Mk3 Owners Handbook glovebox sized reprint \$ 11

Mk4 Owners Handbook glovebox sized reprint \$ 13

1500 Maintenance Handbook glovebox, reprint \$ 38

62-81 Spitfire Haynes Manual \$ 17

69-80 Spitfire Workshop Manual glovebox sized owners workshop manual 185 pgs. \$ 15

Spitfire 1500 75-80 Official Repair Operation Manual step by step repair/troubleshooting 216 pgs. \$ 38

Mk4 Official Repair Operation Manual \$ 38

Competition Preparation Manual by Triumph for all Spitfires MK1-1500; 64 pgs. \$ 11

Mk1-3 Official Workshop Manual, reprint of factory manual, incl Herald 1200, 12/50, 13/60 Vitesse 272 pgs \$ 40

Mk1 & 2 Spare Parts Catalog \$ 50

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TRIUMPH GT6

66-74 GT6 Gold Portfolio, 172 pgs of old magazine articles, compiled by Brooklands \$ 25

71-74 GT6 Parts Catalogue official Triumph \$ 28

GT6 Mk1-3 Shop Manual, Factory Official, \$ 48

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the frosting on the cake with a silky smooth sound that was better than the last CD I had purchased.

The next thing I knew, I was heading home with a receipt and a lot of explaining to do.

When I brought her home, things went a little better than expected, due in part to the irresistible charm and spell that a GT6 can weave upon an innocent spectator.

Here is where I can get to the point of the story. Three years have passed since I bought the GT6 and have clocked around 7000 very enjoyable miles. Oh yeah, did I mention that the GT6 found the Old's ex-stable quite comfortable during the winter months. The Grand Prix was losing patience!

The one thing that was missing was my navigator. I had a very faithful one when I owned the Olds. Jake was a great Airedale Terrier (British breed) that loved to cruise with me and was always ready for any adventure and then some. I lost Jake after 14 wonderful years and hadn't thought much of looking for another navigator.

This past September I was out for a country cruise in the GT6 and stopped in a local diner for a bite. While indulging in some (real food) diner cuisine, I began chatting with an old farmer who shared some stories that had me in stitches.

One of which started with a question, "you'll never guess what my son is doing today"?

I knew there was suppose to be an Airedale Terrier breeder in the area he promptly directed me to a farm a few miles outside of town.

What the heck, it can't hurt to look...

The next thing I knew I was hurling down the highway with a ball of fur in the navigation seat and some more explaining to do.

Nigel enjoyed his first ever automobile ride in the GT6 and has become quite the navigator into the twisty roads of the Adirondack Mountains of New York. Nothing like a wiry British pal to enjoy the ride with!

It is now January and the GT6 is in it's winter hibernation in the new garage bay that was added this past summer. Nigel and Jamie have become best buddies. The Grand Prix has claimed the Old's-ex stable and life is good.

Nigel is now 6 months old and has gained 35 pounds, several inches in height and shows no signs of leveling off since these photos were taken last fall.

My only question is this: Will my navigator fit in the GT6 when spring arrives? ■





Janet's GT6

BY MIKE ROE, INDIANA, USA

FALL 2001

This is a story on the history of Triumph GT6 MKI, commission number KC8849, which is currently undergoing restoration by yours truly.

The car came into my wife Janet's possession in 1981 when it was purchased by her father, Ron, as her high-school transportation. I won't say whether she was a sophomore, junior, or senior to keep myself out of trouble. Janet drove her GT6 for about 8 months, until Ron got tired of rescuing her and fixing the '6, at which point it was relegated to his garage.

It remained in her dad's garage for the next 10 years, until I met Janet in 1991. Upon learning that I had a TR6 she told me of her long-neglected Triumph, and we decided to get it out of her dad's garage. When we pulled it out of Ron's garage it was rough, to say the least: a previous owner had cut out most of the roof and covered it with a snap-fit top, the dash had been cut to accept a cheap digital clock, three differ-

ent wheels were fitted, and Bondo showed through cracking paint on most body panels. On the plus side it was mostly complete, straight, and relatively rust-free.

For the next 4 years it accompanied us through 2 houses, once throwing a wheel while being flat-towed from house #1 to house #2 (amazingly, the wheel spun off and did not hit any other vehicles as it rolled to a stop 300 yards later in the center median). House #3 had insufficient garage space, so I managed to drive it the 30 miles from our house to her brother's farm. There it sat for another four years, during which time it was moved to a local auto repair shop to pay off a bill on my in-law's truck.

With my own TR6 in pretty good shape, I decided recently that there might be room in our life for another Triumph, so with Janet's blessing I set off one Sunday morning with a buddy and his trailer to fetch the GT6. After buying my own GT6 back for the price of the

repair bill we proceeded to load it onto the trailer. During the loading process, both my buddy and I learned why car is much easier to push onto a trailer if it's not in gear, but that's for another issue.

After spending the first few evenings staring at it in disbelief, I have begun the restoration process and I hope to have Janet's GT6 ready for next summer's show season. Any advice, parts, prayers, etc. are greatly appreciated.

THE STORY CONTINUES - WINTER 2001

It's been a busy winter in my garage: since rescuing Janet's GT6 from the auto shop I've completed the following:

- Rebuilt Front Suspension (re-built my TR6's front suspension this winter as well, and can attest to the fact that the hood configuration of the GT6 is a godsend compared to the TR6's layout!)
- Recovered Dash Pad
- Cut-out, Stained, Sealed and Installed a Solid Black Walnut

Dash (gorgeous!) (Only attempt this if you have a pretty straight original to use as a template, and have access to a scroll saw, drill press, circle cutters and boring bits).

- Replaced lower windshield seal.
- Replaced windshield rubber (I've also done this on my TR6, and can now say that the TR6 is much easier in this regard).
- Pulled transmission, made and installed new bushings for the remote control (having a lathe and scrap aluminum rod available at work helped greatly here).
- Replaced transmission mounts (which were MISSING).
- Rebuilt Clutch Master and Slave Cylinders (tried to hone them myself, but probably just boogered them up enough so I'll probably have to invest in re-sleeving anyway).
- Replaced all hoses.
- Changed oil, anti-freeze, oil & air filters, temperature sending unit, and oil pressure sending unit.
- Started the engine! Killed all rust on the floorboards and body (at least for now)
- Reinforced floorboards with fiberglass, which did a great job of filling the holes and strengthening the wafer-thin metal that was left after 34 years.
- Added heat shield material and aluminum sheeting above these to further reinforce the floors.
- Rebuilt rear suspension (if the lower trunnion bolts are seized inside of their metal sleeves, you'll probably have to resort to using a Bridgeport Mill to cut them out). Fortunately I was able to do this without damag-

ing the trunnions or vertical links.

- Replaced driveshaft and half-shaft u-joints.
- Replaced steering column, steering wheel, turn signal switch, and horn contacts.
- Disassembled, sandblasted, and painted heater box, motor and heater core.
- Replaced rear brake pads.
- Cleaned and sealed gas tank.
- Obtained MK3 wheels and center caps on e-Bay.
- Got a bunch of obscure parts from Mark Pelham in Charleston, IL.
- Got a hood badge from Tom Beaver (thanks Tom!)
- Selected the color, with help from my 4-year-old daughters (no, not Barney Purple). It's going to be New Beetle Yellow, because they like yellow cars.

I'm just about to the point where I can drive it (SLOWLY, in my neighborhood) to see what expensive sounds emanate from the hub bearings, differential, transmission, brakes, or engine. If all goes well, I'll start filling in all of the dents and rust holes with Bondo, then hopefully have it painted in time for the 2001 TRF summer party.

PAINT! - JUNE 2001

In late May I was driving through Whitestown with the girls when I happened to see a GT6 with new paint sitting behind a house. I pulled up in the driveway and discovered that the owner of the house had just painted the GT6 for a customer. Sensing an opportunity I asked him if he'd be interested in painting MY GT6, to which he said yes.

So the next day I drove Janet's GT6 up to his place so he could look it over and give me a price. We agreed on a price, so two weeks later (June 11) I dropped the GT6, now devoid of any trim, off at his house. Less than 4 days later he calls me to say the paint's done! It looks like we might be able to make the 2001 TRF Summer Party after all! The color is for an '81 Toyota, but it looks awfully close to New Beetle Yellow!

The next month or so consists of re-assembling the car and hooking up all of the lights, now made a little more challenging since all of the wires are now yellow!

On July 4th I tried to fire it up for some friends, and nothing happened. Turns out the coil had gone bad (one of those Lucas things) so I get a new coil, then drive it to work the next day. On the way home the ignition light comes on, while at the same time a new noise started coming from under the hood. This time the generator has decided to shed a couple of commutator segments, so the now very lumpy commutator quickly shredded the brushes. Time for another call to SpitBits (Nigel and I are now on a first-name basis) to see if I can get a generator in time for TRF. The generator shows up shortly, but it turns out Triumph put two different kinds of generators on MK1 GT6's and I've got the "wrong" one. It can be made to fit, just not tonight. Running to the auto parts store (where else?) the next week, I lose the throttle linkage vertical link as I try to pull out into oncoming traffic. Amazingly, I don't get



hit, and upon inspection learn that the original GT6 linkage, which has plastic ends, has cracked. Imagine 30-year-old plastic cracking? Fortunately I had a spare TR6 vertical link, which is metal.

With the generator in place, it's time to install seat belts for the driver and passenger. With seat belts in place, Janet drives the GT6, with one daughter and our dog, out to the lake house

(about 50 miles). I follow with our other daughter in the TR6. Amazingly the GT6 made it out there and back without incident, though it still need some "fine tuning".

It's now August 8 and we leave for The Roadster Factory Summer Party tomorrow morning. Through the magic of eBay I have found a MK1 front bumper and overriders, which are in transit from Athens, GA

via my little brother (University of Georgia undergrad) to Evansville, then via my Mom from Evansville to Terre Haute. At 6pm Wednesday night, I meet my mom in Terre Haute, give her my two kids to baby-sit, and pick up the bumper (pretty fair trade, I think). The bumper goes on that night, then it's off to Armagh the next morning. Both Sixes (TR and GT) made it out to Armagh and back with NO problems, which is especially amazing for the GT6 after sitting idle for nearly 20 years! Since the GT6 is mostly complete, this might be the last installment for awhile. I have placed a bid on a Stag, though, so stay tuned! ■

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How Hard Could it Be?

BY GARY PANAROTTO, NEW YORK, USA

It was said to me a number of times, but I never gave it much thought. "You can't just

own one British car." I heard that said somewhere around 1993 or 94. Certainly this did not apply to me. After all I had my hands full doing a full frame-off restoration on my newly acquired TR6. Of course I did not intend for it to be a full frame-off restoration, in fact I did not even know what frame-off meant back then. I was just going to fix some of those little ugly looking rust spots and be quickly on my way to enjoying the pleasures of open top motoring.

ingly the rust spots were gone! Incidentally this took approximately four years. A full engine rebuild was thrown in just for fun. Never ever, let me repeat that, never ever say the words "how hard could it be?" For that matter never ever say these as well "how much could it cost?" Don't forget now, never ever!

Finally everything was finished and I was actually able to drive my practically brand new BRG TR6. Was it worth it? Of course you know the answer. What a great feeling driving that open top roadster. All the more satisfying knowing that I was responsible for much of the work myself. I don't know precisely how long it took but it wasn't very long before I was asking the question, "now what?"

To make a very long story at least somewhat shorter, a 78 Spitfire 1500 soon made it's way into my possession along with a Morris Minor 1000, a



Stripping begins on the Spit with TR6 frame in the foreground



I had my fingers crossed on this one. The body tub hangs suspended from the garage rafters after loosing its frame.

Well, after purchasing four new fenders, two new floors, two new sills (right and left), new front valance, new rear valance, new B post repair, new wiring harness, sandblasting and painting the frame, and hiring a local fellow to come in and weld everything together with the Mig welder I purchased but didn't know how to use, amaz-

TR7, and most recently a GT6. All these more recent acquisitions are of course somewhat short of concours and have had or will require complete restorations. The Spit was a frame-off and I couldn't resist doing a Rover V8 conversion to the TR7. All cars have had or will get new paint, interiors, and just about anything necessary to make them very presentable if not concours.

Oh, by the way, one interesting note, when I started work on my original TR6 project I quickly realized that my garage just wasn't up to the task. What to do? Simple, build another one. So a new two bay garage was added to the back of my house. I decided to build it myself, after all I had built the deck on the back of the house so "how hard could it be?" What did I say about saying those words? This was done of course in between the work on the cars. I'm not sure when I was initially inflicted with this sickness but I think it just grew from adolescence at about sixteen or seventeen years of age and is obviously incurable. It is a sickness that manifests itself in the adoration of automobiles. At age 53 it shows no signs of letting up.

Back to my newest acquisition the 73 GT6. I had known about this car for over a year but continuously tried to put it out of my mind, all be it unsuccessfully. It was for sale and was almost sold a number

of times but each time for whatever reason the deal fell through and there it sat. Most recently there seemed to be a real interested potential buyer who looked at the car at least two or three times and I thought for sure it was finally going to be out of my sight. However, it was not to be and I finally succumbed to the desire that I attempted to suppress for over a year. The GT6 was all mine with all that it entailed. The sickness obviously persists.

I must say this has been a tremendous learning experience. Since I did not have any prior auto repair experience at all, just a love of cars and a lot of desire. I cannot end this little story without thanking and acknowledging Nick, of Nick's Auto Repair in Saddle Brook. Without Nick's help and expertise I certainly would not have made the progress that I have. Nick seems to always be able to diagnose problems that arise and find the cure. He has always been willing to literally go the extra mile in order to help. For example, Nick took it upon himself to drive up to my house to diagnose the Rover V8 I was going to transplant into my TR7. After some initial checks he gave it a clean bill of health and I was able to proceed. Mind you I live in New York State and it was on a



The 73 GT6 as found at the local garage.



The Strip-down begins back in Gary's garage.



The GT6 now sports a nice, burlwood dash.

weekend. That's just the way Nick is, and only part of the reason Nick has a very appreciative and loyal group of customers. I can't thank you enough Nick. Well it's on to that GT6, "how hard could it be?" Oops! ■



Cruising...

BY TONY & DIANE ADAMS, SOUTH ISLAND, NEW ZEALAND

“Enclosed are photos of our pride and joy. This is a 1974 Mk IV 1300cc manual with overdrive. We have had ownership for the past 5 1/2 years and over this time I have fiddled and made various improvements in various areas. The car was purchased in Christchurch (about 1 hour drive north from where I live) and it had been there since

new. In this country we keep an ownership list while in possession of a vehicle and the one that came with the Spitfire is handy in enabling one to contact previous owners.



The main purpose of owning such a car is that our children have left home so Diane and myself have been able to enjoy just getting out and about with other like minded people. The trouble is that most other people own TR's. It does keep me busy keeping up.

I look forward to establishing contact with other Spitfire owners and learning more about such a fun vehicle.” ■

Arrival

She Came to Me on a Cold and Rainy November Evening

BY LIVIA I. HAASPER, OTTAWA, CANADA

I had been lounging in my pajamas, watching the “telly”, when the truck arrived, pulling a trailer with the precious load of a 1967 Triumph Spitfire. I had been waiting for this day for a very long time. At first, never in my wildest dreams, would I have thought that I would have the opportunity of owning a little British sports car. Then, one day, it happened, out of the blue. Someone offered the little beauty for sale. This day was going to make my dreams come true. It was destiny.

Now, there she sat, on a trailer, while the heavens were opening up to a grand deluge, flooding the earth below, and pouring it's wet gift of life upon the old car's once flaming red body. The beautifully designed little automobile had seen better days. The first owner had given up on her, and had passed her on to a kind Italian Gentleman, who had found love for the little car, and had started to restore her lovely body. His work, unfortunately, had never been completed. Mario passed away leaving behind his little beauty.

She was left abandoned in a garage corner, and the reason for this is, I know this now, she was really meant for me. Over the years dust and grime slowly settled on the little car, as the years passed by ever so slowly. The once shiny paint faded and dulled. Her heart and the mechanical parts had been



removed. The engine sat abandoned by her side, and most of the other components were packed somewhere in boxes. There was nothing but emptiness under her bonnet.

When the Spitfire arrived, the gloomy fall evening instantaneously and miraculously reverted itself into a wonderful happy occasion, a festivity, a reason to celebrate. I do believe, even the rain subsided just a little bit as I ran for a flashlight. There she stood in the dark, waiting for me, and I only had eyes for her. It was love at first sight. I let the rays of light glide over her glistening body where rivulets of water were trickling down, creating streaks of dark mud. I climbed onto the trailer to take a look at her interior. Her darling old fashioned

wooden dashboard and the instruments reminded me of days gone by, when I learned how to drive in an rattely old VW bug. This little car had the same charming look and the quiet elegance and grace. Two black vinyl seats had been carelessly thrown onto the car's floor and were now floating in puddles of water. Some people would have probably not given the car a second look, but for me, this meeting was meant to be. The great master in the sky had arranged this get together of two spirited souls.

My loving husband, who had driven the car home for me, was waiting for his supper and wanted me to join him in the house. “Honey, get of the trailer, don't hurt yourself on that thing. You're in your pajamas,



count. The ray of light moved across the delicate rounded fenders, a tiny strip of chrome accentuated the perfect design. The cute grill

for goodness sake, put some clothes on"... Now, with that pleading tone of voice "Where is my supper?" Who wants to hear of food when one has to attend to more important things. "In the microwave, press number one..." I yelled back. Now, more desperately, and yes, he knows all the tricks, "You're hair will get wet!" This comment usually results in a dash for cover by the author, for the reason that unnecessary curls will appear when my hair gets damp. A conditions to be avoided at all costs. "Today I am going to tough this out " I replied, as my head disappeared under the bonnet. Well, I thought, if I have to drive this car today, I'll go like Fred Flintstone, as there was a gaping hole in the floor where the engine and transmission used to be, never mind all the other missing mechanical parts. The boot was the next object of my explorations. I noticed right away that there wasn't even enough space for two grocery bags, considering all the tools and spare parts plus the spare wheel, I am planing to carry on board on my outings. All forgiven, who needs groceries... The next thing that caught my attention was the location of the fuel cap. Strange location, I had

never seen a set up like this. "I guess it will be self serve from now on, no more laziness here" I mumbled to myself. Can you trust a dopey teenage attendant to aim carefully when dropping the petrol into that hole. With my luck, it would spill all over the soft top and into the rest of the car.

Admiringly I gazed at my new little friend while my imagination took me to summery outings in the country, drives along shady lane ways, picnics by a stream, romantic drives to the lake. I never felt the rain that now had soaked my pajamas, and had glued my thin clothing to my skin. My hair, a wet mess of curls, black mascara dissolving around my eyes, rain running down my forehead, and now little rivulets of water had started dripping annoyingly from my nose. But these little distractions were swiftly eliminated with an unladylike wipe of a finger and a good dose of determination. I wasn't paying much attentions to unimportant things, I was absorbed into another world. The beam of my small light found it's way to the cute little chrome bumpers which seemed to have come alive, shining brightly and happily in the reflection, millions of small diamonds, too many to

under the bonnet seemed to smile at me saying" Yes, I've made it, I'm finally home", and the headlights seem to nod in agreement.

Her name "Firely" came to me then, an unspoken pact was agreed upon. I'm going to bring her back to life, she is going to be free, I'll breath the spirit back into her, I'll take her to new places, higher grounds. And yes, both of us are not the youngest anymore. We will both have our struggles, we will fail, but we will also prevail. There will be times when we will both of us want to give up. We will be patient with each another, but in the end we will get up, go again, try again. But, hey, there is a whole big world out there to explore. Let's get going...

And this is where the story of the restoration begins. This is why I'm totally, out of my element, out of my comfort zone, an artist learning mechanics, body work and painting. I will learn, with the help of my partner, to put the Firefly back together again. She will be on the road this summer, come hell or high water. She will be red as fire and, I will make her fly. ■



Keep the Hands Off the Hand Brake

BY KEITH SMITH, NELSON, NEW ZEALAND

It's subscription renewal time so what better than to include a letter.

My Triumph connection goes back to the sixties riding a Triumph motorcycle, and the interest carries on to the present-day, I still have a 1968

offered a Spitfire!! I went to have a look, it had been standing for several months after developing brake problems. It started easily with no smoke or nasty noises. There was some rust in the boot lid, sill, wheel arches and passenger floor. The gear change was like stirring soup, some lights, tacho, locks did not work....but a deal was struck.

As I went to drive away the previous owner called "mind the hand brake it may come off in your hand, and don't wind the window right up or it will fall out." It turns out that there were many minor faults which were mainly bad earths, rotten rubbers, or worn out brushes. I started by replacing all brake seals and shoes and checked all wiring connections, renewed all suspensions and steering rubbers. The hand brake just had a part missing, and gear change was cured



Bonneville 650 and a recent model 955: Daytona. It was a painless transition to Triumph cars. I acquired a Triumph Herald from my father when he became ill twenty years ago, and it's still going strong. So a couple of years ago I was looking for a project and was

with a brush kit for the remote control. These jobs were all done while enjoyed summer driving, then last winter (June) the Spitfire went to the experts for the rust to be removed, and a nice spray paint.

Now its all back together and legal on the road. It drives without rattles and bangs. All the locks have keys and everything works. The major job left is the hood, soft top, for which I need to get some prices. ■

Dating My Spitfire

BY LAURA GHARAZEDDINE, CALIFORNIA



I was looking through the last issue of this publication the other day, just flipping through the pages and the title of an article caught my eye: "Dating Your Spitfire". And for an instant, I thought it was a humour piece about dating your Spitfire. Courting it. Offering it little tibits and morsels to seduce it into going out with you and coming home with you and not with the AAA tow truck!

And it occurred to me that Nigel and I have enjoyed a particularly smooth period of time together, since last August! Last August being the last time I had to call AAA. I remember that day—the day after the Ventura British Car Day; a gorgeous day on a green, grassy field next to the harbor with all the little boats bobbing in the water. Sunny, balmy—the essence of a Southern California summers day.

Usually, when I take Nigel to Ventura, we do come home with problems. It's like a "Ventura Curse" and I must admit that day, being just a wee bit worried about getting the lad home under his own power. Not to worry, though there were some strange rear noises, we made it home. But the next day—POW! Just after pulling

out of the drive way, the rear end broke and I had to call AAA. Turned out to be a simple fix—the drive flange had fallen apart. (Quite amazing actually.) And since then, we've lived under a sort of truce, a cease fire as it were. I court him, "date" him, coddle him and coo to him above and beyond the call of normal car owning duties. And he gets me there and back.

On our latest "date" the starter motor was changed, the cap on the "new" rebuilt distributor was changed and new spark wires, new thermostat and radiator cap, tune up and valve adjustment, and an oil change. Nigel is not a cheap or easy date.

So, "dating" your Spitfire means something a little different to me.

As is usual for Southern California this time of year (Jan-Feb-Mar)—the British Car social calendar sadly lacks; there's just not much going on. A few scattered events, here and there. But otherwise, a nice, quiet time to just enjoy driving the Spitfire. And a good time to go out of town and not worry about missing an event. Which is what I'm getting ready to do—go to Texas to participate in the Great Race Texas. Looking over the entry

list, I see there's 85 entries—but not one Spitfire! In fact, the only British cars are a '53 MG, a '54 MG, an MG *Midget*(!) and the only Triumph—Team Scrappy's 1957 TR3. When I rally on Friday nights, there's never Spitfires. When I'm out driving around, doing errands, a Spitfire sighting is almost as rare as, if not rarer than a Ferrari sighting. I know there's lots of Spittys out there. There's all the ones listed in the club registers. And there's all the times people stop me on the street and tell me about knowing someone with a Spitfire.

So, where are they all hiding? I wonder...

I did see on the street the other day, in Long Beach, a forlorn 1500. It was white and it's paint had seen better days. The boot lid was off an Inca yellow car. But it was parked there.

I want to make an appeal—not just to all the Spitfire Girls out there, but to anyone and everyone with an LBC—don't wait for British Car Week to drive and promote your hobby—make every week a "British Car Week"—or maybe every Monday? Twice a month? They want to be driven—honestly! So, come on everyone—let's see more LBCs on the road!

The challenge has been made. ;-)

A few days ago, a gentle Spring-like shower sweetly

arrived in Southern California. Last night was beautiful-the lights of the city reflecting off the clouds. But for the rain slickened streets, it was a perfect night to be out, driving along Pacific Coast Highway. Fellow gearhead and generous soul, my friend Craig came over and handed me the keys to his brand new BMW M5. (Told you he was generous!) Now, you all know by now that I am a sportscar purist. I don't even approve of engine swaps. To me a new car is a car built while Carter was still in office. Well, I have been corrupted. I take back everything I previously felt about so-called "sports sedans". (How can a sedan possible be a sportscar!?) This car was so seductive in it's handling, so smooth in it's response and yet, it still felt like a sports car! (It has a feature that changed the character of the transmission so that instead of smooth, wimpy sort of shifting, you get a true sportscar sort of kicky shift!) The highlight of the evening? Being told, "Wow, you drive like a guy! Cool!" Hey, I try.

Then, for a little contrast, we took my Spitfire out. It was a very damp night. Soft rain falling. Top down, engine revving. A man who owns a BMW M5 was impressed and delighted. So, maybe I wasn't the only one who was corrupted? I went a little to the "Dark Side", but maybe I brought someone, one person back, even a little, to The Light!

We drove up to Long Beach. Now, this is the beginning of March, but when we got to Long Beach, and I turned down Shoreline Drive, what a wonderful surprise! The barriers and grandstands were set up for the Long Beach Grand Prix which will take place in mid-April. The Spitfire was really humming, the pavement dry. I couldn't resist-acceleration!!! Through the straight, pass the grand stands, ever accelerating, ever faster! "Wave to the fans!" I had my excuse if any police had stopped me: "I was testing the course"?

2AM, in a little open Spitfire, shooting through the famous Long Beach Grand Prix heaven! It doesn't get much better than this! ■

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Another Very Small Spitfire

STORY AND PHOTOGRAPHY BY GREGORY HERTEL

“So, Mr. Hertel, according to my file it’s been about a year since your last visit.”

“Yes doctor. Things have been going quite well actually. The monthly meetings of V.S.S.A. (Very Small Spitfires Anonymous) have helped. Unfortunately, I was walking past Autophile recently, the best store for enthusiasts of fine cars and motor sports in Toronto, and I was drawn in, like a magnet. Autophile’s selection of books, maga-

was another one, a new one, one that I’d never seen before. Another very small Spitfire...”

What a difference a year can make. In Volume 2, Issue 1 of *Spitfire & GT6 Magazine*, I lamented about the fact that so little attention had been paid by die-cast model builders to Spitfires. (The type of die-cast model [or toy] to which I’m referring, is mass-produced, stamped out of a soft metal such as magnesium, spray painted, and then assembled by

hand including the plastic interior and rubber tires.) By sheer coincidence, the British firm Lledo Collectibles, has recently introduced a new model of a Spitfire MkII, and what a beauty it is!

Lledo manufacturers a line of precision die-cast replica British sportscars and saloon cars from the 1950’s and 60’s under the *Vanguards* name. In late 2001, the *Vanguards VA06703*, 1:43rd scale, Wedgewood Blue, Limited Edition, *Triumph Spitfire MkII* was released. The attention to detail on this modestly priced model (Apx. \$20.00 Cdn.) is breathtaking. It’s as if someone managed to shrink a real MkII.

The attention to detail begins with the colour and finish. If you compare the Wedgewood Blue finish of the model with the colour schemes of real Spitfires, as found on page 64 of John Thomason’s book *Triumph Spitfire and GT6 - A Guide to Originality*, and you’ll see an identical match to the Code 26 Wedgewood Blue. As well, the wheels are a creamy white and the hubcaps a gleaming chrome.

All of the brightwork on this model is brilliantly precise. The louvered front grille, the over-riders on the front and rear bumpers, the headlight rings, the bonnet latches, door handles, windscreen wiper arms, fuel filler cap, boot lid hinges, boot handle and rear number plate lamp all shine with confident accuracy.

The front and rear badging on the model is correct with the distinctive *Triumph Shield* badge centered above the *TRIUMPH* letter set which runs along the bottom of the bonnet. On the rear deck, above the boot handle, the other *TRIUMPH* letter set balances above the scrolled *Overdrive* and *Spitfire* badges. The headlights and tail lights are accurate, as are the front side/flasher lenses which are amber and white. The rear flasher lenses are also amber.

zines, and finely crafted die-cast metal cars was too much. I couldn’t resist...”

“Mr. Hertel, please. Just breathe. Remember what happened during your last visit. No more climbing on my desk please. Just tell me what happened when you went into Autophile.”

“In the main display case, right by the cash register, there





The cockpit is commissioned in a dark navy blue molded plastic. The hand-brake, gear selector, dashboard, and large two-spoked steering wheel are all faithfully scaled in black plastic. The only detail missing in the cockpit is the white piping on the low-back seats.

The model also comes with a removable black convertible roof and tonneau cover. You can select the correct top for the weather conditions in your display case...

Enclosed in the attractive red and yellow Vanguards box that the model comes in, is a small certificate noting that this Limited Edition model is one of only 6400 distributed worldwide. On the flipside of the certificate is a round, replica, 12 month licensing tag for a 1965 Triumph Spitfire MkII. Also included in the box is a card with a photograph of the model and the following information: "The Triumph Spitfire MkII was introduced in 1965 and was available until 1967. Production reached 37,409. Main changes from the MkI version were mainly concentrated under the bonnet."

If you're looking to obtain one of these models for your collection it may be a challenge, given the "Limited Edition" status of this model. At press time, all my inquires to Lledo regarding the model and its availability in North

America have gone unanswered.

Therefore, if you don't have a store near you who carries Lledo products, try and find at your local newsstand, a British toy collector magazine, such as Model Collector. Model Collector has numerous advertisements for large toy shops in the U.K. who carry the Vanguards line. They might be able to help you as all of the major shops accept "plastic" and will ship anywhere in the world. You might also try contacting Lledo at the following address:

Lledo Collectibles
Park House
Meridian East
Meridian Business Park
Leicester
LE3 2WZ
Great Britain

With so few 1/43rd die-cast models of Spitfires having been manufactured over the years, and with 2002 being the fortieth anniversary of the Spitfire's introduction, it's very exciting to find another model finally available. Maybe all of us MkIII and 1500 owners will one day find a die-cast model of our Spitfire? (Thus far only MkI's, MkII's and MkIV's have been made into die-cast models) Maybe

other die-cast manufacturers will jump on the bandwagon and finally honour a much ignored marque?? Maybe this is the start of a renaissance of die-cast Spitfires??? Maybe Spitfires will finally be recognized by the British car community for the true classic sportscar it is???? Maybe... Naw, it's just coincidence.

"Your time is up Mr. Hertel. Please see my secretary to arrange your next visit."

"Thank you doctor. Do you think there's any hope?"

"No. None whatsoever. You are a Spitfireaholic Mr. Hertel. You can only hope to manage your condition, not cure it. Just try and limit your exposure to anything that has to do with Spitfires."

"But what about my subscription renewal to Spitfire & GT6 Magazine?"

"Renew it immediately!!! You might be disturbed and obsessed with Spitfires, but you're not crazy. Anyone who doesn't renew their subscription, is definitely crazy! Good day Mr. Hertel."

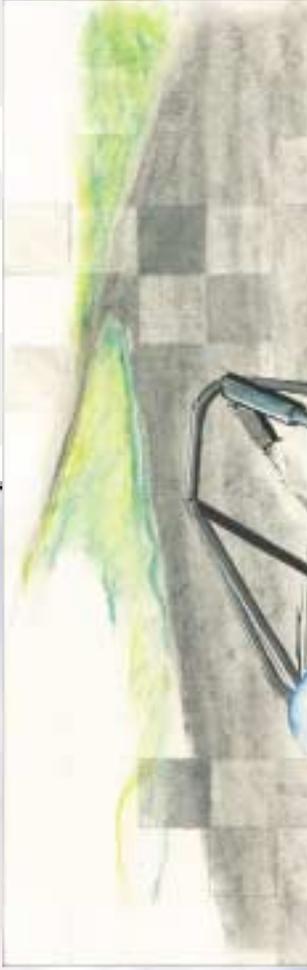
"Good bye doctor." ■



Picture Perfect



Steve Bridge is a Triumph enthusiast and a watercolorist from the Black Hills of South Dakota. He paints from real life subject matter of things he enjoys. This print, as all of his other LBC prints, is on Archival Watercolor Paper using the Giclee process. He also paints on commission. See some of his prints for sale at: www.picturetrail.com/stevebridge or contact him personally at 605-342-8507 or sbridge@hotmail.com

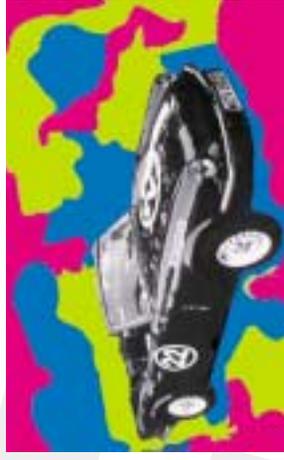


"I discovered this car at an HSR event at Road Atlanta five or six years ago. It is owned by Greg Kimbrough who lives in Georgia and was built and is maintained by Bill Underwood of Blind Hog Racing. When I saw this car I knew I had found one of the best looking, best prepared Spitfires I had ever seen. The paint was very well done as was the fiberglass; the front air-dam was and still is the nicest fiberglass unit I have seen and the way it blends into the front flares is perfect! Mechanically the car was well engineered and well executed. Just a nice, clean machine."

This artwork was done with acrylic inks using a watercolor technique and some colored pencil and pastel thrown in. For more information about other custom artwork contact Lou Byer at cwbinindy@aol.com or by phone at 317-353-6660



C.W. BYER



James Cooper sent us this "groovy" illustration of his 78 1500. James can be contacted at james@dealgroupmedia.com

This 1976 Spitfire, owned by Howard Baugues, was illustrated by Douglas Guenther of Guenther Graphics using colored pencil. Douglas is an artist specializing in commissioned automotive art. For more information about making your car a work of art, call 563-650-3970 or email guenthergraphics@aol.com. To see more samples of Douglas' work visit www.geocities.com/GuentherGraphics/automotive.html



The Making Of A SpitCat Part 5

BY ANDY PREVELIG, FLORIDA, USA

The handbrake: On many cars, converting to rear disk brakes means that you no longer have a handbrake. But using the E-type rear end assembly meant I had rear brakes which included two smaller calipers mounted ahead of the hydraulic ones, and these are operated by mechanical means from a handbrake. The angle-bar rail which mounts the shift mechanism would also hold the handbrake. A Spitfire 1500 hand brake was used here, complete with its ratchet lock and push-button release.

Since the rear end unit and the hand brake were so close to each other, I began designing various lever systems to eliminate the use of a cable, as I had done with the shift mechanism. I tried a bell-crank system and then a series of levers to pull the two caliper levers toward each other, but both of these seemed so much more complicated than the cable system that I opted for that simpler idea.

I used a short unsheathed cable running over a roller on the left-hand lever and attached to the right-hand lever. This

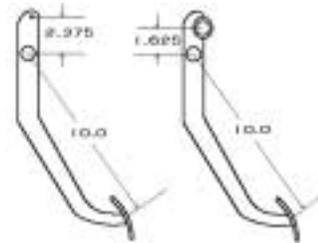
functions to pull the two brake levers toward each other as the handbrake is operated. Eyebolts on the clevises at each end serve for adjusting the cable tension.

Now, for the hydraulic brake systems: I would use the GT-6 brake master cylinder, and one from a Spitfire. Since the front and rear disk brakes were so different, I wanted a mechanism that would alter the bias between front and rear and preserve the option of substituting a different bore cylinder for one or both of the originals.

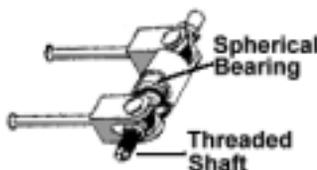
A 'balance bar' is used to couple a single brake pedal to two master cylinders. As in the picture below, the plunger rods from each brake master cylinder are clevised to a shaft which is threaded in its center area. This shaft extends through a threaded hole in a spherical bearing. The bearing, in turn, is housed in a steel tube which is welded to the brake pedal. By turning the threaded shaft, although the ends and rods stay in the same position, the bearing is moved within the tube, changing the amount of pedal leverage, applying more pressure to one cylinder and less to the other. Pretty neat. A simple cable system allows the leverage ratio to be adjusted from the driver's seat.

The pedal ratio determines how hard you have to push on the pedal for any given pressure to the brakes, dependent on the master cylinder bore diameter. This ratio is the distance between the center of the brake pedal foot pad and the pedal pivot center, divided by the distance between that pivot center to the upper pivot center which connects to the master cylinder pushrods.

The standard pedal ratio seems to be about 5.5:1 to 6.5:1, but the Spitfire pedal measured 10" from pedal pad to pivot, and 2.375" from lever pivot to pushrod pivot. This gave a 4.2:1 ratio... not very good. Because I was using a balance bar on my system, the upper pivot is the steel tube that houses the spherical bearing. Since the tube needs to be welded to the brake lever, it would be simple to just weld the tube closer to the lever pivot, thus increasing the pedal ratio.



Lowering the tube center by 0.75" would bring the upper portion distance to 1.625". for a ratio of 6.15:1 ... a much better ratio. Because the upper pivot would be lower, three things would change: First, the brake pedal travel would be increased,



which would be no problem. I would be using the original Spitfire pedal bracket, and as long as the pedal travel distance (as limited by the bracket) allowed the pushrods to move from fully retracted to fully extended within the cylinder bores, the design would be fine. (You must ensure that the pushrods are not preloading the cylinders. At the fully retracted position, the pistons must not block the fluid bleed-back holes, or the brakes will drag and lock up. Even when you released the pedal, the fluid pressure would still remain in the lines, eventually expanding, locking up the system!)

Second, the pedal effort would decrease, which is what I wanted. Third, the pushrods would also be lowered, and therefore would enter the cylinder bores at an angle - not good. Too much of an angle and you get premature piston/cylinder failure. To prevent this, the pedal assembly would have to be raised relative to the master cylinders so that the pushrods were properly aligned.



I thought about using two of the original master cylinder brackets, but they are designed to mount the cylinder at an angle (hence the tilted orientation of the fluid reservoirs), whereas the Tilton cylinders need to be mounted horizontally

if I didn't want to remote the reservoirs. So, while redesigning the alternate bracket for a dual cylinder system, I could provide for a horizontal mounting as well as lowering the cylinder positions to better match the pushrods. This change, plus the raising of the pedal bracket allowed proper alignment of the pushrods. The pedal bracket and the cylinder bracket were joined together into a single unit, as can be seen below.



This unit would sit atop the the footwell box, firmly attached by eight bolts at the top and two at the front. Again, a bit of overkill for safety. The lateral position of the pedal/cylinder assembly was determined by the space needed for the accelerator pedal to the right, and a 'dead pedal' to the left. (A dead pedal provides a foot rest to brace against during driving maneuvers at speed.) The remainder of the braking system would include steel lines, and stainless braided hoses at the front calipers. The rear calipers do not require flexible lines since their inboard

location meant they do not move with the suspension.

Now, for the cold air intake system: Perhaps the term 'cold air intake' system is misleading. Unless you are icing down or otherwise refrigerating the intake system, the best you can achieve is air of the outside temperature. Still, while not always 'cold', the cold air system does provide air to the engine quite a bit cooler than what is under the bonnet, since

that air has come through the hot radiator and is further heated by the engine and its exhaust manifold. Why do you want cooler air? Cooler air is denser, so you can get more oxygen into the cylinders on each intake stroke; more oxygen means more power (Gee... I sound like Tim Allen!).

The obvious way to obtain cooler air is by running the intake ducts forward, right up to the grill. I was still toying with the idea of variable-length plenums for the intake system, but for the present I would install just simple fixed-length ducts.

The intake manifolds on the V-12 are 2 1/4" inside diameter, so ducts of this size would do for now. I bought two conical K & N air filters from Pegasus Auto Racing Supplies. You might think that a company which specializes in racing equipment would be overpriced, but the filters I bought from them were 30 percent less than the identical items at a local auto parts store.

Because the conical filters take in air around their sides, I didn't want to mount them facing straight ahead and have the

incoming air just rush past them.. A 45 degree elbow at the front end of the ducts angles each filter to the grill opening, and a wide semi-circular fiber-

glass collar catches and focuses the maximum amount of air to the filter. The collars were pretty easy to fabri-



cate, using a plastic Cool-Whip container as a mold and then cutting away one half of the side walls from the cured fiber-glass shell and drilling a 2" hole in the bottom.

Although they look like chrome pipes, these are painted lengths of PVC tubing to span the 4+foot run from grill to intake manifold. A flexible coupling links the front and rear

sections of the tubing to allow for any slight movement of the engine, (although I had installed torque limiters between engine and frame, there might still be some minimal movement) and the front sections are held in place by one bracket to the shock towers and one to the front radiator strap bolts.

That should provide for getting cool air into the V-12; now it was time to make the throttle system. The throttle pedal lever is shaped like the number "7" and pivoted in a bracket at the bend, so pressing the pedal forward pulls down on a sheathed cable which is wrapped around a capstan on the V-12.



I had a Spitfire throttle cable and the housing was the right length, but the cable itself was way too short and was terminated by a very small spherical end. I bought a replacement cable from the local bicycle shop which was much longer and featured a 1/4" X 1/4" cylindrical end, at a right angle to the cable. That cylinder would fit perfectly into the throttle capstan on the engine. (The cylinder/end slides down into an opening in the top flange of the capstan and is turned 90 degrees, locking it in,

and the cable now is positioned in the groove around the capstan drum. Pulling on the cable rotates the capstan. As the capstan turns, push-rods extending towards both sides open the butterfly plates in each intake manifold. Although the capstan has its own return spring, I put a second return spring on the throttle pedal mechanism itself for added safety.

Now back to the fuel system: One disadvantage of a fuel cell is that you can't use the standard type of sender unit to hook to your fuel gauge. The standard type uses a pivoted float arm to vary the sender resistance which controls the needle position of the gauge. In

a fuel cell, the foam baffles preclude this type of sender, so the usual alternative is a special electronic sender which can cost over \$100.00.

Since the SpitCat is not the type of car you want to take long trips in, a fuel gauge on the instrument panel is not really that necessary, as

long as there is some way to know the fuel level.

A problem I've had when refueling our Spitfires is trying to avoid spillage of the fuel as the tank nears its capacity. Since the SpitCat fuel cell is filled from inside the boot, avoiding any fuel spillage becomes critical. Shining a light into the cell while fueling, or periodically using a dip-stick during the fueling to gauge how full the cell is getting, seemed impractical. The third option of watching a dash-mounted gauge while refueling meant I'd have

to keep the ignition on to activate it...a bad idea at the petrol pumps.

What I needed was a non-electric gauge which could be mounted right on or near the fuel cell. This would also free up one of the openings in the dash, which could then house a voltmeter as an adjunct to the ammeter, for a truer picture of the condition of the charging system and battery.

Going through my catalogs, I found that the Surplus Center offers a direct-reading gauge for \$8.00. It consists of a screw-down cap housing the face of the gauge. Unlike most fuel sender units, this does not have a float at the end of a long pivot arm, but uses a float which is captive between two parallel guide bars, as in the photo below.

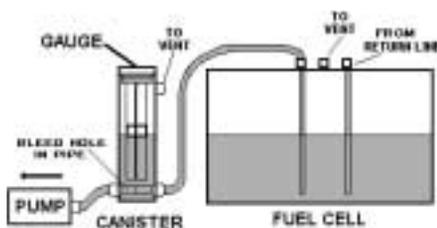


A spiral shaft runs through the float, and as the float moves up or down between the guides, it rotates that shaft, which is directly connected to the gauge needle. Simple but effective!

But... how to install this neat little device? Since the fuel cell consists of foam baffles inside a polyurethane bladder housed in the steel outer container, I didn't want to cut holes in the cell for installing a direct-reading gauge. Fortunately there might be another way.

There is an old truism that 'water seeks its own level', and this of course applies to all liquids, including fuel. Borrowing an idea from the water-level indicator on a coffee maker, I could mount the gauge atop a small, separate tank which was connected to the fuel cell, and read the fuel level from that while refueling. Fortunately this gauge had the same vertical depth as the fuel cell, which would simplify getting accurate empty-to-full readings.

A potential problem with this idea was that, unlike the coffee maker example, the fuel cell outlet was not at the bottom. This means that, while fine for a system incorporating the suction of a fuel pump, the vertical lift required might be too much for the syphon-type system the gauge canister would use. The planned configuration would have the gauge canister between the cell and the fuel pump, avoiding the pressurized section of the system, as shown in the diagram below.



Atmospheric pressure gets to both the cell and the canister through the vent line, and since atmospheric pressure (p.s.i.) is applied evenly to all surfaces, the difference in area size between the canister and the fuel cell would not matter... or would it? Looking at the canister diagram, I couldn't help notice how similar this was to a hydraulic pump system, as used

on jacks. In those systems, the difference in area is what gives the mechanical advantage to let you lift a car with a few pumps on a handle. So, it might be that, in the canister system I designed, the large difference between the canister and fuel cell areas would only permit the flow of fuel in one direction. (I should have taken physics in school.)

Beyond this, I was concerned that, because of the lift required between the canister and the fuel cell, the fuel in the canister might not syphon back into the cell as the cell's fuel level decreased, giving a falsely high reading. Time for a kitchen experiment: Using a 12 oz. glass, a narrow plastic vial and a length of tubing, I put water in the glass, primed the tube and set up a mini version of the cell/canister system. I drew some water out of the glass with a baster syringe, and watched as the water level in the vial decreased until it was again at the same level as in the glass.



Now that the concept had proven itself, I could construct the actual system. Polyester resin has been used in several types of fuel storage tanks, so a fiberglass version would work

fine without being eaten by the fuel or reacting with it. I used sections of two 2-liter plastic soda bottles, slit, rolled and duct-taped into a smaller diameter as a 'buck' or male mold. Several layers of fiberglass cloth and resin were wrapped around the mold and other slit sections of soda bottles were placed around that as a female mold to give smooth inside and outside surfaces.

Once the resin had cured, I peeled away the inside and outside plastic bottle material — to find a problem:

I had used ginger ale bottles for the canister cylinder molds, and apparently that green color of the bottles is not in the bottle itself, but in a very thin layer applied over the clear plastic. What happened was that the heat of the curing resin had loosened this color layer and fused patches of it to my canister wall, on both inside and outside. So much for my getting smooth surfaces! With a bit of #300 sandpaper the offending crud was finally removed.

Now, at least, I had the cylindrical wall of the canister. I would be using A-N fittings for the fuel system connections. ('A-N' stands for the Army-Navy standard developed during WW II and is based on increments of 1/16", so AN-6 is 6/16" or 3/8").

Three AN-6 male fittings were molded into the side of the canister (I used bulkhead type fittings here because they feature a flange that would allow a leak-proof seal when molded into the cylinder wall); one near the top for connecting back to the fuel cell's vent line, and two on opposite sides near the bottom for the in and out lines between fuel cell and pump/filter. Inside the canister, the 'in' and 'out' fittings are

connected by a steel pipe with a 3/16" hole drilled at the center. This hole allows the fuel to bleed into, and out from, the canister level, but offers more resistance than the flow of the straight-through pathway of the pipe. This should prevent the pump from sucking the canister level down instead of drawing fuel from the cell.



I did have one concern about this bleed-hole idea, however: It might be that, if the flow of fuel through the canister pipe were swift enough, a Venturi effect would cause the canister's fuel to be sucked along with the main stream until it eventually began sucking air. I finally decided that if this did happen, I could simply install a valve to close off the canister vent line. This would essentially isolate the canister from the rest of the system until I opened the valve for a gauge reading while refueling.

Once the AN fittings were molded in, I could close the bottom of the canister with several layers of fiberglass mat, cut into disk shape. As luck would have it, (through no planning of my own) when I had cut out the 2" holes in the fiberglass air-filter shrouds, the surplus disks were a perfect fit to the cylinder ends. I cut a circle of fiberglass mat about 1" larger diameter than the surplus disk, for a 1/2" overhang all around and then closely spaced 1/2" deep cut slits in the overhanging areas. After being coated with mixed resin, the cir-

cle was laid over the disk and the overhang areas were folded back to allow fitting the disk into the cylinder bottom. This of course had to be done very quickly before the overhang sections started to unstick from the central area and fold back outward. Most of the overhang sections peeled off the central area to lay against the cylinder side by themselves, and a long 1/4" dowel helped the rest, until the fiberglass overlapped both the inside cylinder wall and the bottom, forming a smooth seal.

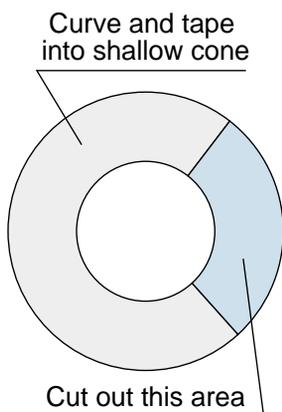
I wanted the gauge to be removable for any future adjustments or repairs, so simply molding the gauge into a top would not do. This gauge features an aluminum collar just below the dial face, and a 1 1/2" diameter threaded portion below that. A coat of mold release on the threads and some fiberglass cloth wrapped around it formed a threaded neck. (Mat was not used here because it would pull apart as it was wrapped tightly around the threaded mold.) This neck was 'glassed into a flange (made from the second surplus disk) which served as the top for the cylinder.



Mounting brackets were added for securing the canister to the fuel cell sub-framing.

Now to assemble the fuel lines: These are Aeroquip's stainless steel braided variety for

safety. I had heard that cutting this type of line to the proper length and affixing the connector ends was pretty tricky business. First, if you try to simply saw or grind through the line, the braid unravels and flares out. This of course will prevent it from fitting into the close-tolerance fitting A-N collar of the connector. The recommended method is to tightly tape the line prior to cutting it, then remove the tape before inserting it into the collar. Well, I taped it and used a cut-off wheel to slice off the proper length. So far so good, but when I removed the tape, the braided sheathing still flared out... not much, but enough to prevent it from entering the collar. What was needed was a 'shoe-horn' or funnel setup that would guide the braided hose into the connector. I cut a 1 1/2" diameter disk of thin aluminum from a soda can, then cut it as shown below and rolled and taped it into a shallow cone shape.



This was held as a cap over the braided hose end and inserted into the connector collar. With the hose end pushed into the collar, guided by the cone, I pulled the cone back out. A bit of twisting and the hose was properly seated.

Once the line has been inserted enough to seat against the threaded area of the collar, you make a mark on the hose. This will tell you if, while screwing on the connector assembly, the hose has been pushed back at all. (If the hose is not flush against the threaded area after the final assembly, the connection may leak - or worse yet - separate under pressure (the Jag fuel injection requires around 35 psi fuel pressure).

As far as the safety of the gauge canister, it only holds about as much fuel as the pump and filter will, and is on the non-pressurized side of the fuel lines.

Before I would install the rest of the fuel lines, I had to find an electric fuel pump capable of the required pressure.

Meanwhile I would finish the front brake lines, design, fabricate an anti-sway bar for the front, and roll the SpitCat out for a few photos, comparing it to our more original sized Spitfires.

Remember, don't try this at home! ■

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Diagnostics 101 (or find the problem and fix it)

BY TED "THE TOOLMAN" SCHUMACHER, OHIO, USA

Diagnostic tools are inexpensive and readily available. If you read my article on tools in the last issue, just buy what was listed - test light, fuel pressure tester, vacuum gauge and compression tester. In addition, a basic understanding of how a system works is needed.

Example, you need to know that hydraulic components operate by a master cylinder moving fluid to a remote cylinder which in turn operates a push rod, moves brake shoes, etc. No need for high tech, just a basic understanding.

If you picture your car as having a few major systems, it becomes easier to visualize. The fuel system involves everything from the gas tank to the device that puts the fuel into the engine - carbs or injection. The hydraulic system involves the master and slave cylinders, caliper, wheel cylinder and lines. The electrical system takes current from a battery, passes it through wires and return it to the battery via the charging system which is an alternator or generator. The ignition system provides spark to fire the fuel that comes from the fuel system. The engine involves all the internal components such as crankshaft, cylinder, block, pistons, etc. The last system is the driveline. This is everything that passes motion from the engine to power the wheels. Related to this is the suspension - steering, axles, springs, shocks, wheel bearings, etc.

OK, now you know the basic systems. Let's go to each system and give you some basic diagnostic tests.

FUEL SYSTEM: First, check the gas, you may be out.

Next, check to see if fuel flows from the tank. Raise the rear of the car and disconnect the

fuel line at the pump. Gravity should let fuel run out of the line. Fuel in tank but not fuel coming out - bingo, the line is blocked (I told you this was basic). If you have fuel and you have a mechanical fuel pump - most Spit/GT6 do - disconnect the fuel line from the carbs.

Have someone crank over the engine and see if fuel comes out of the line. If not, it could be a bad fuel pump. If you have fuel to the carbs, check to make sure the fuel is going into the float chamber. If not, the needle valve is stuck. While you are cranking the engine with the line disconnected, you can check the fuel pressure. It should read about 2 - 3 psi. Anything significantly higher has the potential to overcome the needle and seat and flood the car.

HYDRAULIC SYSTEM: Small system first - the hydraulic clutch. Check to make sure you have fluid in the clutch master cylinder. This is also the first step for the brake system. If there is fluid, is there resistance when you depress the pedal? If not, it could be a bad master or slave cylinder. If there is pressure, raise the car so you can watch the slave cylinder from under the car. Have someone operate the pedal by pumping it slowly while you watch the rod going from the slave cylinder to the transmission. It should move about 1/2" when the pedal is depressed. If not, you may need to bleed the system to get rid of air in the line.

Now the brakes. Use the same approach as the clutch system. Raise the rear of the car and have someone operate the brake pedal. Spin the rear wheel while they are doing this. The wheel should stop and not be able to be turned. If not, you may need to

adjust the rear brakes. Do this then recheck by spinning the wheel. If the wheel still doesn't stop, remove the wheel and brake drum. Have someone GENTLY push on the brake pedal while you hold your finger tips on the face of the brake shoes. You should feel the shoes moving. If not, you may have a stuck wheel cylinder. If there is some movement, try bleeding the cylinder. Start with the cylinder furthest away from the master cylinder.

This same theory works up front. You should see the brake pads move when the pedal is depressed. Be sure to check the front flex hoses for swelling, cuts or even collapsing.

ELECTRICAL SYSTEM: not including the Ignition system. This is the most difficult to diagnose because of all the places that power can go - or not go as the case may be.

Start with the heart of the thing - the battery. Make sure connections are clean and bright. Make sure the battery terminal ends are tight on the battery posts. It is EXTREMELY important that the ground wire has a good connection to the chassis as well as the battery. Is there water in the battery? Charge the battery, then take it out and have it load tested. Any competent service facility can do this. If all is good, continue to the alternator or generator. Is the belt tight? Are the wires firmly attached? If yes, have the alternator/generator tested. You may want to have this done at a service center - just take them the unit. You can test it yourself with a good VOM meter. Just be sure to read the wiring diagram so you know which wires to test. If the battery is good, the ground connections are good and the alternator/gen-

erator is working, the only thing left is to hunt. A battery that "loses charge" over a period of a few days has a current drain, perhaps a brake light switch is not fully releasing or the headlamp dimmer switch, especially the type incorporated in the turn signal switch has a problem. Your only choice is to take your test light, a wiring diagram and start following each circuit. Sometimes you can unplug a circuit and see if the problem goes away. If so, you have at least narrowed it down to a specific area. On this one, good luck. There is no magic fix!!

IGNITION SYSTEM:

This is much easier to diagnose. You should have an old spark plug in your tool box as a diagnostic tool. Attach the old plug to a plug wire. Rest the threaded part of the spark plug against a head stud/nut. You may have to hold it in place with a block of wood (keeps you from getting shocked). Have some one turnover the engine with the key. You should see a nice, sharp blue spark. If the spark is yellow or appears weak, check the points or coil. If the spark is good, you have a problem other than the basic ignition. This could be plug wires installed on the wrong cylinders or wrong ignition timing. If there is no spark, you need to go back to what generates power for the spark - the coil. Test the wire going to the coil to make sure it has power with the key on. If not, why not. If it does, test to make sure power is leaving the coil headed to the

distributor. Both of these tests are done with your test light on the small wires attached to the coil. You can test the spark plug wires and coil wire by using your VOM meter on the ohms setting. If all these are good, use the same setting on the VOM meter to test the rotor and the distributor cap contacts. If you have points, use the test light to make sure the point wire, inside the distributor is getting power. Also make sure the points are opening and closing when the engine is cranked over. Recheck the point gap. If you have an electronic ignition, follow the manufacturer's trouble shooting chart. You should still test the coil, cap, rotor and wires.

THE ENGINE: Now you get to spend the big bucks. Why do you think you need to check it? Is it down on power, hard starting, smokes, has a hole blown in the side (no diagnostics needed on this one)? Pick a category, they all start with the same test. Run a compression check. The cylinder reading should vary 15% max between high and low. If it's good, check the valve adjustment. If the compression is not good, rerun the test as a "wet" check. Squirt 3 or 4 shots of oil into the low cylinder and immediately retest. If the compression comes up, you have worn rings. If it doesn't the valves are probably bad. If you have good compression, then the power loss could be a fuel problem or even an exhaust problem, especially if your car has a catalytic convertor. The

CONTINUED ON PAGE 43



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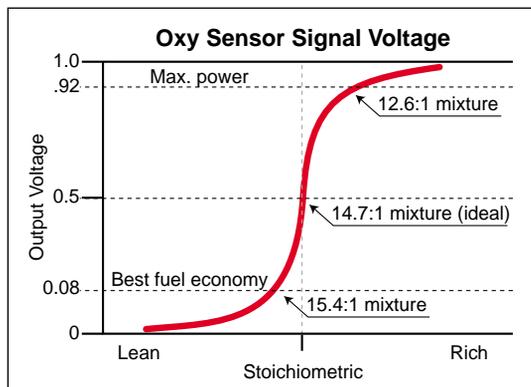
High Tech on a British Car? Installation of An Oxygen Sensor

BY MARK FISHER

An air/fuel ratio meter can be quite useful when tuning your fuel system. It is also easy to install and use. I will cover theory of operation, components, and operation.

THEORY OF OPERATION

Air/Fuel describes the amount of air in the engines combustion stream compared to the amount of fuel (by volume). The theoretical correct ratio of air to fuel is 14.7 parts air to 1 part gasoline by volume. This is known as the stoichiometric



ratio.

The air fuel ratio can be detected by measuring the amount of oxygen left in the exhaust pipe after combustion. To do this we use an oxygen sensor, also known as a lambda sensor. The oxy sensor provides a 1 volt signal if there is very little oxygen left in the exhaust, and a 0 volt signal if there is excessive oxygen in the exhaust.

The oxygen sensor output is not linear. I will attach a signal curve, but it is easiest to think of it as a switch.

- The output is near zero from very lean to near ideal.
- The jumps to near 1 volt from

slightly rich to very rich.

- At stoichiometric (14.7:1) the output is .5 Volts

Components

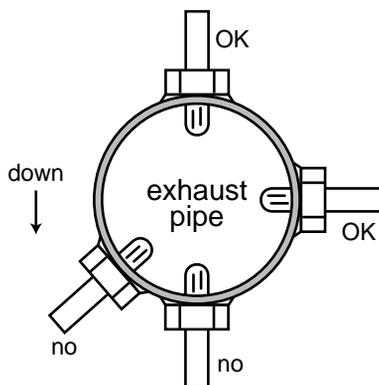
SENSOR MOUNTING NUT

In order to measure air/fuel ratio, you will need to install an oxygen sensor into your exhaust pipe. Typically, this is done 2-4 inches downstream of the collector. An easy spot is in the exhaust pipe just below the exhaust manifold. On V-type engines, you may want to put the sensor after the Y pipe between the banks.

The closer that you can get the sensor to the exhaust manifold, the better, as the output drifts when the sensor gets cold. If you must install it much farther downstream I recommend that you use a heated sensor (see sensor descriptions below).

Standard oxygen sensors use a metric thread, which happens to be the same as a Volkswagen Rabbit Axle nut (18mm x 1.5 if memory serves). You can use one of these nuts as a sensor mounting bung. It also is the same as a large dia. spark plug.

It is important that that if the bung is installed in a horizontal section of exhaust pipe,



that the sensor be located so that any exhaust moisture cannot collect on the sensor. The sensor should be level with the ground or pointed slightly up.

Once the bung is installed, you should clean the threads with a spark plug tap, especially if you hope to remove the oxy sensor later!!

OXYGEN SENSOR

Most standard oxygen sensors have the same signal output. The differences from one sensor to the next are the wiring connections.

The sensor may have 1, 3, or 4 wires. Any of them will work for this application. I recommend the 3 or 4 wire sensors. They are several times as expensive as a 1 wire sensor, but they are heated, and the signal is more reliable, especially at idle.

1 Wire:
sensor signal output (black)

3 Wire:
sensor signal output (black)
heater + (White)
heater - (White)

4 Wire:
sensor signal output (black)
heater + (White)
heater - (White)
sensor signal ground (gray)

With any of these sensors, the signal wire is tied to the air/fuel ratio meter signal input. The heater + wire is tied to key switched 12V+, and the heater - and sensor ground are tied to engine ground.

I do not recommend using anti seize compound on the threads, as it can poison the sensor.

AIR/FUEL RATIO METER

Most of the popular air/fuel ratio meters are of similar design. The air/fuel ratio meter is nothing more than a volt meter. In most cases, it displays from 0 to 1 volt in 8 or 10 equal increments.

- 1 volt represents rich operation
- 0 volt represents lean operation
- .5 Volts represents stoichiometric operation

In fact, a DC Volt meter with a 1 volt scale could be used as a cheap air/fuel ratio meter. However, I find that the LED type air/fuel ratio meters are much easier to use. They are quite compact and can be attached in a viewable location with zip ties or Velcro.

The air/fuel ratio meter + supply is connected to key switched 12V+.

The signal wire is connected to the signal output wire of the oxy sensor.

The ground wire is connected to engine ground.

OPERATION

Once the sensor warms up, it will begin to generate a voltage under rich conditions. This will occur in 15 seconds with a heated sensor, up to a minute for a 1 wire unheated sensor.

Typically, 8-10 lights will be illuminated while the engine is operating rich. As the mixtures are made leaner, a point will be reached where the lights cycle on and off, hovering around the middle. This is stoichiometric operation.

Do not expect the lights to sit exactly in the middle, as the oxy sensor acts more like a switch than a linear output device.

When most or all of the lights remain out, the engine is operating lean.

Under perfect conditions, we would like the engine to be:

- stoichiometric at idle (or slightly lean if the darn think would idle nicely!!)
- lean under light loads and cruising
- Slightly rich under acceleration and load

If you intend to remove the oxy sensor after tuning, you can plug the hole with a spark plug, or an 18mm x 1.5 bolt.

You can purchase oxygen sensors, mounting nuts, and air/fuel ratio meters through your local auto parts store, hot rod catalog, or contact me at info@injcon.com ■

Diagnostics 101 continued from page 41

other problem area could be the ignition system. If the engine has a knock, you can isolate this by using a stethoscope to find the area of the noise. Once you have found the knock area, use a pair of insulated pliers to remove each plug wire while the engine is running. (You can buy special pliers meant for this operation - they are worth it). reattach the plug wire and go to the next. Continue on until the knock stops. You have now found the cylinder. By detaching the plug wire, you have taken the load off the cylinder and the knock stops. Now you know where it is and you can figure out what - lifter, rod bearing, piston, etc. You may not be able to fix it yourself, if it's a serious problem, but at least you know where it is and possibly what. Makes it a lot easier to go to your mechanic.

Engine noise can also come from the alternator or water-pump and fool you into thinking

it's an internal problem. The easy way to check is to unhook the belt and start the engine. If the noise goes away, it's something that is belt driven. Remove the alternator or generator and spin the pulley by hand. If you feel movement, hear noise or it does not spin freely, you have found the problem. If this checks OK, repeat the process for the waterpump or anything else that spins.

DRIVELINE AND SUSPENSION:

This includes the driveshaft, transmission, axles, wheel bearings and everything that moves when the car is in motion.

If you have a noise in the driveline, always supported on stands. Start the car and put it in gear so the wheels are turning. Use your stethoscope and check the differential, outer rear wheel bearings and transmission. Once you have found the noise area make sure you are not getting a false reading. Example, a bad u-

joint might transmit noise into the differential so it sounds like a bad diff. Check the front wheel bearings for movement by grabbing the top and bottom of tire/wheel and trying to move it in and out. There should be a small amount of movement. Spin the front wheel. Sometimes noise in this area is nothing more than some debris wedged between the brake shield and the rotor.

There you have it - some basic DIY diagnostics that can save you a bunch of \$\$\$ in unneeded repairs. ■

BIO: Ted Schumacher has been 30+ years in the British car business. A former Austin-Healey, MG and Triumph dealer, he is now runs TS Imported Automotive, a full-line parts and specialized service business. To contact Ted, call 1-419-384-3022 or visit their web site at www.tsimportedautomotive.com

Those Darn Zenith Strombergs

BY JOHN H. TWIST OF UNIVERSITY MOTORS

INTRODUCTION

The Home model Spitfires & GT6s were not plagued with this imitation SU, we are. Canadian, Federal, and California specification Triumphs were fitted with the Stromberg. Emission specifications were cited as reasons to move to one carb (more easily kept in tune than two carbs). Despite all the assurances of the manufacturer that this single carb could lessen emissions, the Zenith often runs dramatically rich. When it does run extremely rich, and if the emission control system (air pump and catalytic converter) is still in place, then the converter will glow cherry red hot. This carburetor is responsible for hundreds of underbonnet fires! Yet, with a little regular maintenance, this carb will perform correctly and safely, while offering relatively high mileage compared to the twin SUs.

ADJUSTING THE CARBURETOR

To properly tune the Stromberg, one must have the Stromberg mixture adjusting tool (a 1/8" allen wrench within a pinned tube), a 10mm long open end wrench, a small screwdriver, and a medium screwdriver. A tach/dwell is always most helpful.

The engine is started from cold and the choke is on, the spring-loaded idle screw is adjusted until the engine is running at 1800 rpms maximum. Once the engine has fully heated and the engine dropped to its lowest rpm (choke all the way off), then the locknut screw (hence the 10mm wrench) is

adjusted until the engine is idling at about 850-900 rpms. All further adjustments to idle speed will be made again with the spring-loaded screw later.

Now the mixture is adjusted. Lift the air piston ever so slightly and judge the change in rpm. If the idle speed continues to rise as the piston is lifted, the mixture is too rich. Turn the mixture tool anti clockwise to lean it out. If, on the other hand, the idle speed slows or stumbles when the piston is slightly lifted, then the mixture is too lean. Turn the mixture tool clockwise to richen it. A proper idle mixture allows the rpm of the engine to rise and steady, or rise and slowly fall off as the piston is slightly lifted. As the correct mixture is reached, the idle speed will rise, and several adjustments may be necessary to hold the idle at that 850-900 figure. Be certain to rev up the engine, to clear it out, between each adjustment.

RUNNING RICH

The most common complaint is that no matter how many turns anti-clockwise the allen wrench is screwed, the mixture is still far too rich. There are five major areas of concern:

- 1) The air cleaner is filthy and sooted. This is not uncommon, and any leaks in the manifold/exhaust, especially a cracked exhaust manifold, will soot up a new air cleaner in no time. This causes a much higher vacuum in the venture, and more gasoline is drawn into the air stream.
- 2) The ELC (Evaporative Loss Control) system is pressurized.

This is very uncommon, but easily checked. Remove the vapour line, the vent line, the overflow line from the carburetor. There should be NO CHANGE in the idling or operation of the engine. If there is any change, then the ELC system needs to be cleaned, and checked for blockages. It is far more common for this system to develop a vacuum which creates a lean running condition, in fact the primary reason for lean operation!

3) The automatic choke is the most common cause of rich running. These problems are:

- The choke assy has come loose from the body of the carb. The vacuum from the carburetor then draws fuel from the float bowl around the valve which should be closed during warm running. Simply tightening the three slotted copper coloured screws eliminates this as a problem.
- The choke lever and cam have stuck in a partially-open position. A good tune-up requires that the choke assembly be removed from the carb, that it be well cleaned in spray carb cleaner, the pin nut tightened, and the unit well lubricated.
- The bi-metal spring in the heat mass is not correctly calibrated. Simply place the heat mass in a pan of boiling water, and wait for the bi-metal spring to rotate clockwise to its fullest extent. The notch on the bi-metal spring should be in line with the mark on the aluminum housing. If it does not line up, then scribe a new mark with a hacksaw blade. The line on the heat mass, on the black plastic insulator, and the choke body

should all be in line.

- The small passageway from the carb throat (past the butterfly) to the top of the auto choke assembly allows vacuum to pull off the spring loaded enrichment plunger. When this passageway fills with soot (as it does after years of running), this plunger remains seated, holding the choke ON. By cleaning this passageway with a small wire, the vacuum can take its proper route.

- The mating flange of the auto choke can become warped and allow petrol to by-pass the choke valve. SURFACE this mating flange on a smooth block with fine grit paper and thoroughly clean after the surface is smooth.

- Only several times have we encountered a choke assembly whose brass choke valve was not fully inserted into the housing, so that even when the choke pin was moved fully downwards, it was not seated in (and therefore not closing off) the choke. This condition can be positively determined by removing the automatic choke and covering the screw holes and fuel passageways with a piece of masking tape, then checking the mixture again.

4) Should the rubber diaphragm in the carburetor tear or perforate, then the engine will run very, very rich, and the maximum speed will be limited, until, at last, it can travel only ten or fifteen miles per hour, all the while spewing forth incredible clouds of black, sooty, uncombusted exhaust. A torn diaphragm is easily found by removing the top of the suction chamber (four phillips screws). While the diaphragm is being inspected, pay attention to the following:

5) Rarely does a needle disassemble itself, but it does happen.

The metering needle is held in a small barrel against spring force by a very small pin. If this pin breaks, the needle pops upwards by 1/8" or so, and no amount of adjusting can correct for such a gross misplacement of the needle. The shoulder of the needle can always be seen on the underside of the air piston. If it has slipped up inside, and the metering needle has a lot of up and down (against the spring) movement, then the pin should be checked and replaced (paperclip works wonderfully).

RUNNING LEAN

A leanness at road speed is often described as a hesitation, as if a wind was blowing against the car. This can be caused by retarded timing or not enough gasoline in the air/fuel mixture. There are several possibilities for a lean running condition:

1) The ELC System is plugged which can place a vacuum above the gasoline in the float bowl. As noted above, remove the vent line from the carb and note any change. A plugged charcoal adsorption canister (from dirt or from a previous overflowing carburetor condition), or a plugged vent line from the bottom of the anti-run on valve are the most common problems.

2) The float height is set far too low.

3) The air cleaner is not fitted to the carburetor. As unusual as this seems, and for reasons that are unclear to this author, the Stromberg carburetted car will not run well with the air cleaner removed (or a vanity air filter to replace the original). Oh, it will get to 2500 rpms or so, but then flattens out — no good for any kind of driving.

CARB WILL NOT IDLE DOWN

Sometimes the carb will not idle at lower than 1000 or 1200

rpm. This is almost always a mechanical problem, but the possibilities include:

1) Throttle cable is stiff or incorrectly adjusted. Leave this cable loose until the carb is completely adjusted, THEN tighten the two nuts with 7/16" wrenches.

2) The cam within the automatic choke is not returning to a "full off" position, sometimes caused by a melted plastic plunger on the bottomside of the unit.

Melted? Remember that cherry red hot catalytic converter? Sometimes the levers are bent. They all work on nice, sharp, 90 degree angles.

3) The overrun valve is floating open at a very low manifold depression. The spring loaded valve on the throttle disc is designed to open only at extreme manifold vacuum — deceleration. If there has been a fire within the carburetor, the spring may have lost its force. The valve is easily soldered shut obviating any further problem (and increasing throttle deceleration response). Heat the valve from the button side with a propane torch and flow solder into the valve from the spring side. The overrun valve can be completely shut off by fully unscrewing the small slotted screw on the triangular shaped device on the right side of the carb.

AIR LEAKS AT IDLE

Any tuning or mixture adjustment is impossible if there are air leaks between the carburetor and the cylinder head. This is a very common occurrence, unfortunately, but the leaks are easily identified. With a can of aerosol carburetor cleaner, spray into areas where leaks are found while the engine is idling. If there is an air leak, the rpms will rise or fall (depending on the size of the leak, the adjustment

of the carb, and the type of aerosol spray). Areas the leaks most commonly occur are:

- 1) Between the cylinder head and the intake manifold, most commonly toward the front of the car.
- 2) The tubing and fittings associated with the smog pump (gulp valve, line from the valve to the 90 degree fitting, and the 90 degree fitting itself).
- 3) The EGR (Exhaust Gas Recirculation) Valve located in various locations of the engine depending on year of car. Any leak **MUST** be corrected before tuning commences.

OTHER COMMON PROBLEMS

Oil in the dashpot is essential for proper operation! If there is no oil the engine will start with difficulty and will not accelerate quickly. Use ENGINE OIL, and do not worry, the dashpot (despite warnings to the contrary)

cannot be overfilled. If the oil disappears too frequently, then the O ring must be changed. A need for oil more than once per fill-up would certainly be aggravating.

The screws holding the heat mass to the choke assy are stripped and the heat mass will not keep a proper alignment. The holes in the choke housing can be tapped out to 10-32.

The screws fixing the top of the suction chamber to the carb body are frozen tight. They can be freed by using Vise-Grips for the first 1/10th turn (then use the screwdriver), or smack the end of the phillips (posi-drive) screwdriver with a hammer to seat the end of the screwdriver and shock the threads loose. Use new 10-32 screws when reassembling.

The carburetor heater is cracked, broken, or not connected. There is no concern here.

Everything works just fine without this piece of emission control.

A last warning. Do not spray carburetor cleaner down the throat of the carb. The aerosol will attack and expand the rubber diaphragm. Be safe — carry an extra diaphragm!

The Zenith Stromberg carburetor will work wonderfully well on your Triumph — if you keep it clean, oiled, and adjusted. Refer to your workshop manual for more details, and work with it **BEFORE** buying some foreign carb to replace it. ■

BIO: John Twist owns and operates University Motors Ltd, a British Motor Heritage® Approved Workshop located in Ada, Michigan (an eastern suburb of Grand Rapids). John can be contacted at (616) 682-0800 or www.universitymotorsltd.com

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Save the Idiot Light....Why?

BY PHILIP FLEISHMAN, OHIO, USA

I've been a fan of Triumphs for 20 years now. It wasn't until recently that an opportunity of a lifetime came about. A 1975 Spitfire, in the Ohio snowbelt, with no rust, and a reasonable price. The main problem was, as with any 25 year old car with the original engine, the small engine had been robbed of horsepower. The solution was simple, rebuild the motor. Can I depend on the idiot light to insure I don't lose the engine after all of the work rebuilding it? Simply put, no. The only thing to do was install an oil pressure gauge. Simply hanging an aftermarket oil pressure gauge under the dash just would not cut it. As a proponent of maintaining a car's originality as much as possible, I searched for a better solution.

Here were the requirements of the "enhancement". All parts had to be Triumph and the flow of the dash could not be changed. The answer came while sorting through a box of old Triumph gauges at a Triumph junkyard. An oil pressure gauge from a 1975 Triumph TR-6 was a perfect match to my original gauges.

The easy part done, now how to install it and not chop up the original flow of the dashboard. Careful measurement and research showed that the area

occupied with the Spitfire headlight switch was the perfect size to accommodate the new gauge. In order to complete the installation, the laminate has to be removed, a circular hole was cut in the dash, new laminate cut and installed, and dropped in the gauge. In order to make the gauge work, an engine tap had to be installed on the side of the engine. British Leyland had already contemplated this modification and the tap hole was on the engine block already. All you need is the oil tap and line from a TR-6 and to run the line through the firewall by the accelerator cable.

So now you have perfectly matched oil pressure gauge installed in line with the fuel and temperature gauges at the expense of the headlight switch.

Given the framework behind the dashboard and the enormous size of the switch, I was unable to find an acceptable new placement of the switch. The answer is yet one more modification. There was no doubt in mind that I would need a push/pull headlight switch. I also knew there was only one place to put it. I had to remove the center warning light from the center dash; it was broken anyway. The only problem is I could not find a Triumph headlight switch that was a

push/pull except the TR2 and TR3. These switches are readily available and relatively inexpensive. From here it is a simple wiring job and I was done.

There you go... the addition



of an oil pressure gauge that is all Triumph without disturbing the original flow of the dash. As an extra bonus, of the parts used on this refit are all 1975 Triumph parts.

The gauge has worked well and has already saved me once. By the way, I left the idiot light attached and when I had my problem with the engine, the light never went off. I guess it was waiting for the engine to seize up.

Oh, one other thing. The several times I've shown my Spitfire at local events, other Triumph and Spitfire owners usually don't realize I've modified the dash. I usually have to point it out to them. ■

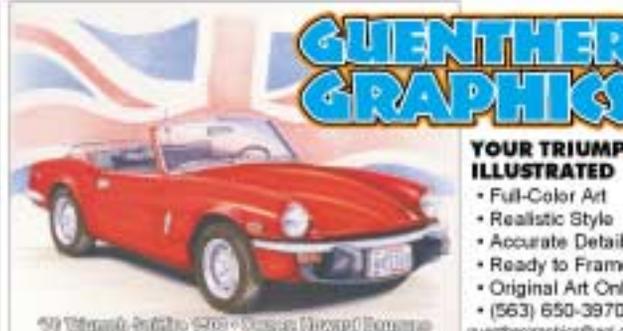
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Securing Your Battery

BY BOB SPRUCK, GEORGIA, USA

Recently, there was a series of messages on one of the Internet Marque Discussion Lists started by a new owner who was complaining about a heavy bumping sound coming from the engine compartment of his car. After a number of messages back and forth that eliminated engine mounts, universal joints, and the flywheel as the cause, it was determined that the battery was not attached to the car in any way, and was moving around as he drove, banging into parts of the car's structure. Although I was truly amazed that this 35 pound potential bomb was not secured properly, I was even more amazed at the suggestions from the Listers about what he could do to remedy this situation. There were many clever solutions, ranging from tying it down with a bungee cord to jamming small blocks of wood between the battery and the body. No one suggested using the features designed into the car by the engineers. Nor did anyone mention the numerous safety reasons for properly attaching this significant weight securely to the car. Even if a loose battery doesn't damage your car, it can destroy itself. Batteries aren't cheap and the money saved by avoiding buying a battery could be better spent on go-fast or look-good items. Here are some ideas for insuring that this time bomb does not leak, explode in flames, or break loose and ruin your day, not to mention your beautiful car.

SAFEGUARDING AGAINST DISASTER

Some nasty things can happen when the battery is not secured as designed and is allowed to slide around with the motions of the car. An unsecured battery might be able to move

fore and aft as well as side to side. It can bang against parts of the car and cause damage to the sheetmetal or at least scratches in the paint. If the battery is untethered and the terminals are not covered as they should be, not only could there be dents and scratches when it hits the bonnet, but sparks will fly. If a battery is able to move around and impact the surrounding sheetmetal, its weight and mass can also cause damage to the case itself. Cracks can develop in the plastic case which could allow battery acid to leak all over that nice paint job or on top your passenger's feet. On some cars, portions of the electrical harness are routed nearby, too. Many times the damage to these items goes undetected until they fail.

To avoid a catastrophe consider these few simple precautions.

PROTECT THE BATTERY

Make sure the battery is securely attached to the car with some sort of strong mechanical arrangement capable of keeping its 35 pound weight where it belongs. Consider the laws of physics as they work in conjunction with the motions of an aggressively driven, firmly sprung sports car. If the original equipment isn't in good shape or is missing, and a store-bought battery bracket doesn't do it for you, use your ingenuity and custom design one. It could be as simple as a 1/2" x 1/2" piece of angle iron long enough to fit the width along the center or edge of the battery plus a little extra to provide holes on both ends for "J" hooks. Try to position the angle of the "J" hooks between the battery bracket and the body so they hold the battery down as well as against something

immovable. If the "J" hooks go through holes on the corner of the homemade angle iron bracket, use large flat washers, a lock washer, and double nuts to provide a secure attachment. Make sure the angle iron or ready-made piece you buy doesn't contact the battery posts. You might even need to cut out one leg of the angle iron to clear the posts. Depending on the design of your bracket and how close it may be to the terminals, you may want to turn the battery around with the posts on the opposite side and the bracket a safe distance from the terminals. Reversing the location of the terminals might require longer or shorter battery cables, however.

All Spitfires and GT6's have a battery "bucket" in the engine compartment located above the passenger side footwell. The battery shelf sits down in preventing the it from moving from side to side and front to rear. There are two angular supports welded to the sides of the box. A pair of standard "J" hooks connect a metal bracket across the top front edge or center of the battery to a hole in each of the tie-down tabs on the body of the car. With this kind of arrangement installed as designed, the battery is securely held back against the firewall and down in to the bucket with some minor clearance on all sides.

AVOID ACID SPILLS

To prevent highly corrosive acid from ruining the paint job (again!) due to seepage from an overcharged battery or a crack in the case, use a marine battery box as an additional precaution. You may need to cut it so it doesn't interfere with the hold down bracket yet still protects the sheet metal. Make sure the cell filler caps are on correctly and tightly

and be neat and careful when refilling with distilled water, or at least wipe up any spills. Try not to tilt the battery too much when you remove it.

Make sure that there are no sharp objects that can puncture the battery case. I have seen many sheet metal screws used to mount things under the dash with complete disregard for where they end up on the engine compartment side. Some have been dangerously close to the harness wires, and the battery case. The sharp end of a screw can scrape or puncture a hole in the plastic case very easily. Never drill a hole until you know what's on the other side.

Telltale white powder and bubbled paint indicates that battery acid has reacted with metal. Neutralize the area with baking soda, wash it thoroughly with water, and repaint it to protect it

from rusting. Determine where the acid came from and why, then fix it. Two of my parts cars are parts cars because of battery problems. The battery in one of the cars exploded, caught fire, and ruined the paint, which allowed the sheetmetal to rust. It also made all the wiring and plastic bits in the engine bay look like a Salvador Dali painting. The other had a major acid leak which ate away battery box, and eventually the passenger floor-board.

PREVENT EXPLOSIONS

Consider one of the rules of most of the vintage racing organizations and cover BOTH battery terminals with plastic or vinyl boots to prevent them from coming in contact with metal and causing sparks. I'm sure you've read the warnings on batteries and chargers about the fumes that

are generated by the battery, which can be ignited by sparks. There is absolutely no sense having a potential source of sparks around explosive battery or gasoline fumes. These covers are also effective in preventing wayward tools from accidentally touching the hot terminal and causing sparks and damage to the car, the battery, or the tool. The safest battery installation should have the terminals facing the direction the factory intended them to face. If you do position the battery with the posts facing the opposite direction, it is doubly important that the battery terminals are covered since they may now be closer to parts of the car they weren't supposed to be close to.

If you wouldn't think of leaving a bowling ball rolling around in your boot, then don't leave your battery loose in the engine bay. Think about it. ■

Move It or Loose It

BY JOE GARRISON, OKLAHOMA, USA

I first got the idea about moving my battery to the trunk from my Daughter. She called from school crying when she left the lights on and drained the battery on our Miata. None of the kids could find the battery!! (Of course, in the trunk!)

There are a few good reasons for relocating the battery to the trunk. Batteries are heavy! Having it that far back helps balance the weight in the car especially if it is placed on the passenger side.

Another good reason, specific to me, is my battery box was rusted out.

It must be attached tightly to the car so I welded up a rectangular frame for the trunk to fit a plastic battery box. It can be purchased from 'Auto Zone' (or numerous other parts stores). I

situated it far to the right hand side of the trunk so that there was plenty of room to clear the spare tire. It is bolted thru the trunk floor, and has little 'legs' to make it sit level. The frame was made from 1/2 inch angle, notched then bent to 90 deg. then welded. The legs were simple. I just propped up the frame and measured it level in two directions, then tack welded the legs, and cut off the extra. There were two plastic guides for the hold down strap. I mounted them on the side of the battery frame by drilling and tapping holes for short machine screws.

The box is vented at the top, and it is a good idea to run a tube to the outside through one of the rubber grommets in the floor.

Connection to the front of the car is made with #2 cable,



600 volt rated, and 150 amps. Wiring was purchased at Lowes Home Improvement. It is incredibly stiff. I used hold downs to keep it from moving. It will go under the carpet. Pretty thick stuff; # 2 wire gauge. It was all black so I marked (+) with red vinyl tape. Really good 3-M tape won't come off. ■

Lug Nuts & TR7 Wheels

BY MIKE NELSON, NEBRASKA, USA

I was recently presented with a problem involving the original steel wheels and tires on my Spitfire. The problem was caused by one tire blowing the sidewall out (impact related). Unfortunately for me, it was a Yokohama A509 tire that is no longer made. Consequently, I was left with three nearly new tires, and no replacement option for the fourth. As always, I saw this as an 'opportunity to make lemonade out of lemons' and started considering my options, all of which are dictated by monetary restraints. I thought about buying two Yokohama AVS Intermediates, and running a pair of them with the A509's, however I was also aware that my stock steel wheels were bent and out of round. How should I proceed?

When discussing this issue at a local LBC club gathering, a TR7 friend offered his older set of alloy wheels for a reasonable price. They would come complete with tires already mounted and bargain priced as well. This would solve my bent wheel problem as well as my need for tires and stay within my affordable money limits. I knew the wheels he was offering, liked the look, and agreed to purchase them. This is where the adventure begins.

I had nothing wrong with my original wheel studs and lugs. However when attempting to bolt on the TR7 wheels, I couldn't use the original Spitfire lug nuts as they didn't match the TR7 wheels. I'll detail this problem more in a minute. The TR7 lug nuts were needed as they are matched with the wheel, and were a 12 mm x 1.5 lug which did not match the

3/8th wheel stud on the Spitfire. The difference between the wheel stud and nut on a TR7 wheel and the Spitfire wheel stud and nut is significant, not only in size, but function.

Let's take a moment to discuss the difference between LUG-centric and HUB-centric wheels. Using lug nuts that are rounded at the inward point centers a lug-centric wheel when the taper mates with the counter-sunk taper of the wheel stud opening. Lug-centric wheel studs and nuts is the configuration the Spitfire uses.

Wheels that are centered by the open center hole on the wheel's hub are hub-centric. This is the method that the TR7 uses to mount and center its wheels. The hub extends, in most cases, into the open hole on the wheel center and matches its opening. Additionally, the lug nuts are also matched with the wheels, as the lug nuts are usually a longer cylinder shape that inserts straight through the matching lug opening.

OK, since I was obviously going to replace the lug nuts, why not consider replacing the wheel studs as well? Better yet, why not make them a more standard, and somewhat stronger 7/16th inch stud with a 20 thread? The end result allows me to use the TR7 wheels and easily find a lug nut that matches as a larger selection exists.

At this time I recalled seeing one Spitfire related website that documented this alteration. I used this information as my starting point, and now that my project is completed, this is what I can share with others.

The wheel studs that closely match the Spitfire, (in my

case, a 1979 Spitfire) are actually counter-referenced with a 1971-1974 Mercury Capri II. Let it be known, the Wheel Tite #28020 part number given on the webpage I referenced was no longer valid. However the young man at my parts store spent a considerable amount of time measuring my Spitfire studs with a micrometer and then looked through his supplier books until we found what we both believed would work well. These studs are made by Dorman, part number 610-175 and are not easily available, but were ordered and received in two days. The lug-centric nuts themselves were hanging on the rack, which is precisely why I elected to replace my wheel studs. Now, I have easily obtainable and sturdier wheel studs in a more common 7/16th X 20 format.

Now before I detail the actual actions used to accomplish this project, let me offer these caveats:

1. I am not a mechanical genius, and my methods certainly fall within "Shadetree Mechanic" standards.
2. I do not hold myself out as an expert, your results may vary, proceed at your own discretion.

After putting my car on jack stands, and removing the old wheels, the first major step in this project is to remove the original wheel studs. I discovered that this could be accomplished without removing any major moving suspension parts. The front studs are easily removed and the new studs installed without dismounting anything. The rear studs can only be removed and reinstalled with the brake drum off. See

your manual for removing the brake drum. After the brake drum is off, then the hub can be rotated so the stud can be positioned into an open area avoiding the brake cylinder and springs. I was able to remove one hub, however, which made this process a bit easier. It is possible, as mentioned above, to complete the conversion without removing the hub.

Removing the studs requires you to use your own judgement here regarding the proper method. My Shadetree method was to put some hardwood against the end of the stud and then proceed to hammer them out after a presoak of WD-40. Keep in mind, WD-40 and brake pads/rotors do NOT co-exist well for obvious reasons, be careful. I had no difficulty removing any of the studs in this manner, however your results may vary as I mentioned before.

Installing the new studs takes patience, and again, the method I used may be questioned by some. I elected to pull the lug through the hub using a washer(s) and a new lug nut. On the front hubs I inserted the new stud to the shoulder where the knurls start to engage. I then positioned a washer over the end of the stud, tightened the lug nut finger tight, and then slowly tightened the lug nut while checking the head in back to ensure it was pulled in straight. Note: you will want the washer to be a matching 7/16th washer to assist with aligning the stud. (see Pic. A and Pic. B) This method worked for me, consistently with all sixteen studs.

The rear studs require a bit of alteration to ensure the stud head does not come in contact with the rubber boot of the brake cylinder. I choose to defeat this problem by inserting the threaded part of the stud

into a junk piece of radiator hose with an inside diameter of 1/2 inch that I had recently discarded. I could then hold the stud while I reduced the height of the stud head on my bench grinder. (The rubber hose also kept me from burning my fingers on the heated up stud as well as giving me some additional distance between my knuckles and the grinding wheel.) The shape of the head resembles a mushroom. The outer edge or dome of the stud is the part to pay attention to. I merely removed some height, and then rounded over the edge a bit to provide the proper clearance. (see Pic. C)

Installation of the rear studs is the same as the front studs. Inserted from the rear, washers added, the lug nuts pulled them in square. Spin the hub and ensure clearance between the stud and rubber boot. Additionally, after the job is completed and the wheels have been mounted, please remember to once again remove the wheel and check clearance once again by removing the brake drum and checking the brake cylinder boot for rubbing.

There are a few items to note with this project. If you are not comfortable grinding on the stud heads and feel the studs will be weakened by doing so, then don't do this project. Also of note, the heads of the studs have a 90-degree angle between threads and base of the head. The originals are tapered at 45 degrees, which fit into the beveled hub in a countersink position more securely. With that understanding, use your own judgement.

Lastly, if you have been told that TR7 wheels are a straight bolt on, you have been misinformed. IF... the wheel has the same backspace or offset as your original, then overcoming the hub-centric vs. lug-

centric obstacle is the only hurdle. After my stud replacement, I mounted my new wheels and promptly discovered the TR7 wheels have a different offset and actually increase the width of track. Not only that, but the 185/70 tires were 'too tall' and with the additional change in



offset I have significant wheel rub. Enough that the car cannot be driven until I resolve that problem, but that is another article altogether.

P.S. The 185/60 size tire seems to work with no rubbing. Even though I have only a few miles since making this conversion, I'm very pleased and personally think the work is worth the effort. ■

Who to Race With

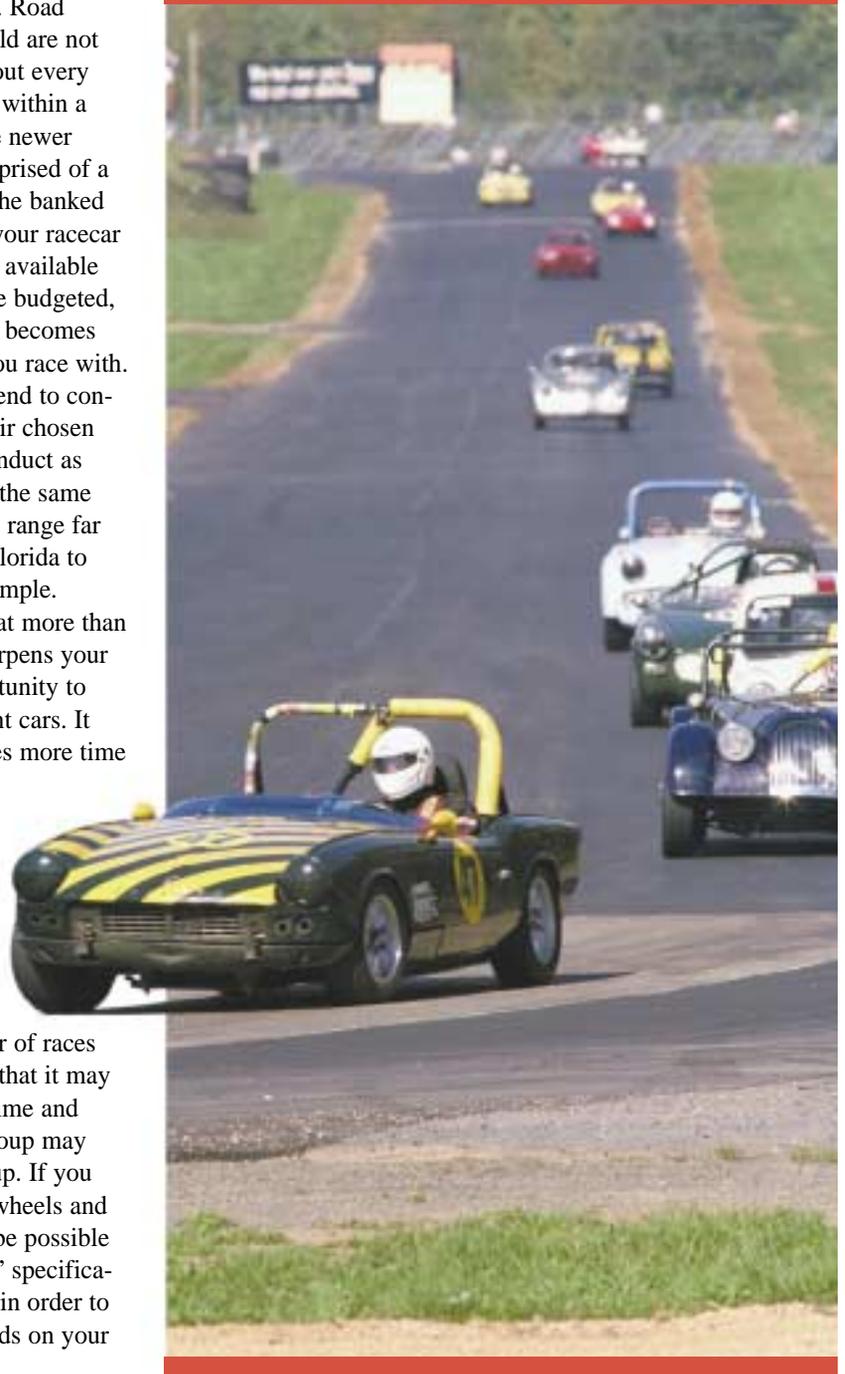
BY BOB SPRUCK, GEORGIA

One of the biggest decisions you will have to make after you've made "The Big One" (to vintage race or not) is who to race with. Actually, the decision may be easier than you think. Which vintage race organization you decide to join is a function of where you live, where the closest tracks are, and which organization conducts races there. Road courses upon which vintage races are held are not located in every community, but just about every large metropolitan area has one or more within a reasonable towing distance. Many of the newer NASCAR tracks have road courses comprised of a twisty section in the infield and part of the banked oval. And don't forget, you have to get your racecar there and back within the time you have available from work and within the costs you have budgeted, so the location of your home track often becomes the overpowering determinant of who you race with.

Most vintage racing organizations tend to conduct races at numerous tracks within their chosen geographical area. Some groups may conduct as many as a dozen events a year and visit the same track more than once. Some groups may range far and wide, holding races from Sebring, Florida to Watkins Glen, NY, to Mid-Ohio, for example. Others may be a bit more local. Racing at more than one track broadens your experience, sharpens your driving skills, and affords you the opportunity to meet other drivers and race with different cars. It also increases your expenses and requires more time away from home and work.

The car you race and how your prospective race organization allows you to prepare it are other significant elements in your decision of who to race with. Some vintage racers are lucky enough to live in an area that is serviced by more than one vintage racing group. This may increase the number of races and tracks you can race at, but consider that it may also result in increased car preparation time and expenses. Setting up your car for one group may make you uncompetitive in another group. If you can relatively easily change things like wheels and tires, carburetors, and rear ends, it may be possible to optimize your car for multiple groups' specifications. Some racers even change engines in order to race with two organizations. It all depends on your car and your race groups' rules.

"ONE OF THE BIGGEST DECISIONS YOU WILL HAVE TO MAKE AFTER YOU'VE DECIDED TO VINTAGE RACE OR NOT IS WHO TO RACE WITH"



Become very familiar with your prospective race organization's car classification process. If you already have a racecar or have decided what you are going to build or buy, make sure you are comfortable with that car's position in the organization. Most racing organizations classify cars into Groups by type, displacement, age, and equipment. Separate groups are usually provided for large and small production based sports cars, such as MGs, Triumphs, Porsches, etc. Open wheel cars, e.g. Formula Vee, Formula A, Formula Ford, are usually all together in one Group, although some organizations will put FVs in with the Small Bore cars, a dangerous combination. Big bore American iron like Mustangs, Camaros, and Cobras, might be in another Group. Historic NASCAR vehicles of all types and years would be in a Group of their own. Pre-War cars are most often all in one Group, regardless of engine size, speed potential, or any other factors. Within each Group there may be numerous classes, again often based on year of manufacture, or equipment. For example, Historic Sportscar Racing (HSR) Race Group 2 includes vintage production sports cars (older than 1959) and historic production sportscars (from 1960 to 1974), all under 1300 cc displacement. Within the vintage classification, Class 1H is for cars under 1000cc and Class 1G is for cars with displacement between 1000cc and 1300cc. Historic production cars up to 1966 fall into Class 2L (under 1000cc) and Class 2K (1000 to 1300cc). Historic production cars between 1967 and 1974 are in Class 3M if they are between 1300 and 1000cc and in Class 3N if they are under 1000cc. The Vintage Drivers Club of America, on the other hand, has a much simpler Class structure. In their Small Displacement (SD) Group, there are eight Classes. SD1 through 5 are for production-based cars up to 1967 with displacements of up to 500cc, 850cc, 1000cc, 1150cc, and 1300cc, respectively. SD6 is for Sports Racers older than 1967 and under 850cc while SD7 includes Sports Racers from 1968 to 1972 under 850cc. SD8 is for Formula Vee open wheel cars under 1192cc displacement. Most other racing groups utilize similar Group/Class structures. Some racing organizations have fine print in their Rules and Regulations that states that the Race Classes are fixed but Race Groups can vary depending on entry level, car mix, and track time availability. They also can reclassify cars in the interest of fairness and safety. This means that you may have a larger car in your group if its speed potential is judged to be similar to the smaller cars, due to the experience level of the driver or the performance potential of the car. This can lead to some strange grids at some events.

Make sure you know how your prospective race

Vintage Racing Groups

HSR

Historic Sportscar Racing, Ltd.
- East Coast, Southeast
257 DeKalb Industrial Way,
Decatur, GA 30030
(888) 477-599
www.hsrrace.com

SVRA

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www.svra.com

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Gavin Ivory
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varac@home.com

VDCA

Vintage Drivers Club of America
- Southeast
Alex Quattlebaum, Jr.
1028 LeGrand Blvd.,
Charleston, SC 29492
(843) 856-0799
www.vintagedrive.com
Amqjr@aol.com,

SCCA (VINTAGE)

Sports Car Club of America
- National (Vintage in only some
Regions)
(303) 694-7222

HSR WEST

Historic Sportscar Racing
-West, West Coast
Ed Swart
2675 Skypark Dr, Suite 104,
Torrance, CA 90505
(310) 530-9731
hsr-west@usa.net
www.hsr-westracing.com

CSRG

Classic Sports Racing Group
- West Coast
P.O. Box 825, Danville, CA 94526
(925) 736-2823
csrg@mindspring.com

VSCDA

Vintage Sports Car Drivers Association
- Mid West
3160 Thornapple River Drive,
Grand Rapids, MI 49546
(616) 949-8281
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organization conducts its race weekends. Some events are two days long while others last three days. Many offer two thirty minute practice sessions per Group on Friday, and then a qualifying session and a Qualifying Race on Saturday. Sunday, often cut short by the track's "Quiet Time" in the morning to appease local residents, is when the final races for each Group take place. Many organizations are now scheduling one or more endurance races during the weekend. Some charge extra for enduros while others include them in the normal registration fee for these typically hour-long events that often include all Groups and Classes, have two mandatory pit stops, and an optional driver change. Many enduros include some type of gimmick, such as handicapping the starting positions, inverted starts, and team scoring in order to offer a different kind of challenge and a little bit of fun. Almost all organizations have sponsored meals and/or parties each evening. These range from chips and beer to wine and cheese, from simple burgers to sumptuous buffets, or from barbecue to shrimp and oysters. Some organizations provide Timing and Scoring services whereby each car's best lap time for each track session is posted. Your best lap time from one session is often the basis for your grid position in the next session. Other organizations feel that keeping track of lap times encourages serious racing instead of serious fun so they don't do it at all. Some organizations hand out medals or trophies to as many as the top three finishers in each Class, while others provide nothing but memories.

Some of the vintage racing organizations are run by volunteers while others are run by professional managers. The former usually charge for race events only and the latter usually charge a membership fee in addition to the fees for the races. Event fees can range from \$100 to almost \$400 per event. Sometimes endurance races are an extra \$100 or so, and track touring and concours are available, also for additional fees. Many organizations offer driving schools or track familiarization sessions before the race weekend, also at additional fees. The evening parties are almost always free, as are newsletters or magazines, and race mementoes (T-shirts, caps, or other nominal trinkets) if they are part of the organization's program.

Whether the organization you plan to join is in business to make money or is run by volunteers and just wants to cover costs is an extremely important issue. Which will you be happy with? What do you want out of vintage racing? The main reason most of us get involved in vintage racing as a hobby is to have this particular kind of fun, given that we can accept the commitment of time, money, and equipment. The rewards are self-satisfaction, pride, camaraderie, and a feeling of continuing the tradition of racing old cars as they were raced in their heyday. It's a great sport, with wonderful people, and, of course, some fantastic cars. ■

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Vintage Drivers Club of America Season Finale at Roebing Road Raceway

DECEMBER 7-9, 2001, ROEBLING ROAD RACEWAY, GEORGIA, USA



Tuck Morse's 1974 Spitfire rests in the shade.



Richard Brown prays(?) for some extra horsepower in the race in which he won the HP Vintage National Championship



Bob Spruck's 1967 MG Midget rests in the paddock before winning the FP Vintage National Championship

All those who found reasons for not attending the season ending races on December 7th- 9th near Savannah, Georgia, missed one of the best race weekends of the year. All their excuses were unfounded. It was warm (in the 70s), not cold; it was dry, not wet (except for a shower during the last half of the enduro); it was well subscribed (over 60 cars all together); it was FUN (lots of close racing with cars covered by the smallest of margins); and, as expected, Alex Quattlebaum's traditionally southern Pig Pickin' and Oyster Roast was great. Did I mention we all had lots of FUN? And, of course, you all know we define fun by the amount of track time we get.

VDCA was founded two years ago by four men who wanted to resurrect the true vintage racing experiences they had many years ago but that somehow had evolved into cars and equipment that were more contemporary and into a style of racing that was unlike the original. The Club was founded on the premise that there is a growing group of drivers who want to prepare their cars to a set of rules from a specific period, race them in the style of that period, and experience the satisfaction and excitement similar to that which they did years ago. Over the past two years and dozen or so races, VDCA has fulfilled those men's (and women's) dreams and has attracted a healthy following of friends and new converts to the racing styles of an earlier and better period in time.

One of the biggest attractions of the VDCA version of vintage racing is the amount of track time you get for your money. For a very reasonable entrance fee of \$300, we got over five and half-hours of track time this weekend! That included two 30-minute practice sessions for each of the five race Groups and one 30 minute open session for the combined Groups on Friday. Saturday's schedule was the same as Friday's plus a one-hour endurance race. Sunday's activities included one 30-minute practice session per Group, a 30-minute handicap race for all Groups, and finally, a 15-lap feature race for each Group. It is not unusual to hear some tongue-in-cheek grumbling about the more than expected amount of race fuel and rubber consumed during the weekend.

Good racing was had by all, with only a few minor and one semi-major shunt ruining the weekend for a few unlucky participants. Fortunately, only sheetmetal and engines suffered, drivers did not. VDCA has been successful in attracting some of the more unusual cars, mostly because of their race and preparation philosophies. People who had not been racing their unique and valuable cars for fear of damage from overaggressive driving, have now brought them out to VDCA events and have put their treasures back on the track where they belong. Some of the models you don't often see at other vintage events are NTM (both Mk II and III), Honda S800, the flathead Ford Dreyer Special,

Mercedes Benz 190 and 230 SLs, Austin Healey 100S, Devin Ermini, Turner, Alfa Duetto, Fiat 124 and 850, Porsche 906, MGA Twin Cam, Ford Falcon, Elva Courier, Elva Porsche, Dodge Colt, Lotus Elite, 20Jr, and 23B, and Camaro. Of course, there were also the ubiquitous Bugeye Sprites, Minis, and Formula Vees.

GROUP RACES

The lone Spitfire belonged to Tucker Morse of Charleston, SC. It was a 1964 model with the 1147cc engine and was very well prepared. Despite some mechanical problems throughout the weekend, he managed to win his class (G Production) in the Handicap Race with very respectable lap times and an 11th overall.

ENDURANCE RACE

The one-hour endurance race was scheduled for the last session on Saturday and was the only race effected by rain. About half way through the 30 plus laps, a heavy storm came through the area. Only four cars out of the 25 in the race came in for shelter and these were all either special cars that warrant not getting too wet or chancing damage, or new drivers not

comfortable in the wet conditions.

HANDICAP RACE

Vintage Drivers Club of America always tries to have a gimmick race at each of its events. One time starting positions were based on bobbing for apples with numbers on them. Another time winners at the "gaming" tables at the party were able to pick the starting position of one of their "buddies". This weekend, we had a fairly normal handicap race where the grid positions were determined by the times in a practice session and each entrant started with a time offset calculated to have all the cars finish at the same time, theoretically. The time offsets and the mix of cars with significant speed differentials enabled cars to race with others not usually encountered. The safe conduct of this kind of race was a testament to the gentlemanly race manners and vintage attitudes of the racers.

VINTAGE NATIONAL CHAMPIONSHIPS

A new promotional idea to generate interest and participation was initiated at this event and was called the Vintage Open

National Championships. The idea was to highlight the period correct cars that compete in the feature races. Only entries strictly prepared to the 1972 General Competition Rules and Production Car Specifications were eligible and the Class winners were crowned "Vintage National Champion". The championship classes are based on the traditional SCCA classes for production cars, sedans, sportsracers, and formula cars. In Group 1 for small displacement production cars, winners were Richard Brown in his 1960 Bugeye Sprite (H Production), Mike Jackson in his Shadowfax (FV), and Bob Spruck in his 1967 MG Midget (F Production). Championship titles in the other Group 1 classes were left vacant due to DNFs and DNSs.

As we left the paddock to begin our long trips home and said our good byes and Happy Holidays to our racing friends, the common thread was "had a great time, see you next race". That's precisely the attitude the founders wanted to foster when they started the group two years ago. We all intend to continue that attitude. Come join us next time and experience some vintage fun! ■

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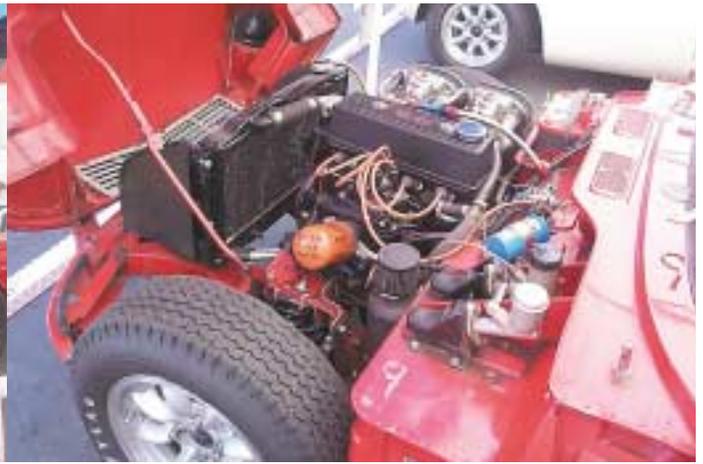
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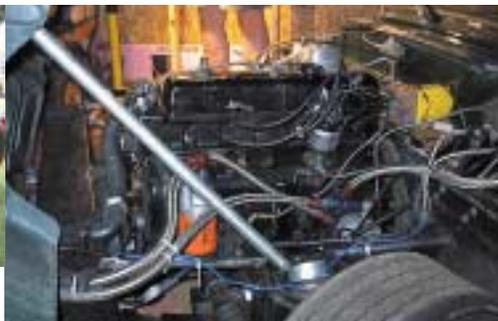


Beth Phillion, California, 1965 Mk2



Rocky Entriken, Kansas, 1964 Spitfire "Li'l Blue"
This car has competed in more SCCA Solo II National Championship events than any other single car of any class or category (28)!

"Li'l Blue is powered by an Able Co. engine built by Mid-Michigan Imports and GT6 gearbox West Michigan Imports. It has an Able rear suspension, Hoosier cantilever slicks on Revolution wheels, fiberglass bonnet and rear deck lid, ATL fuel cell, oil cooler, Kirkey seat, Autopower rollbar with a Kirk cage extension."



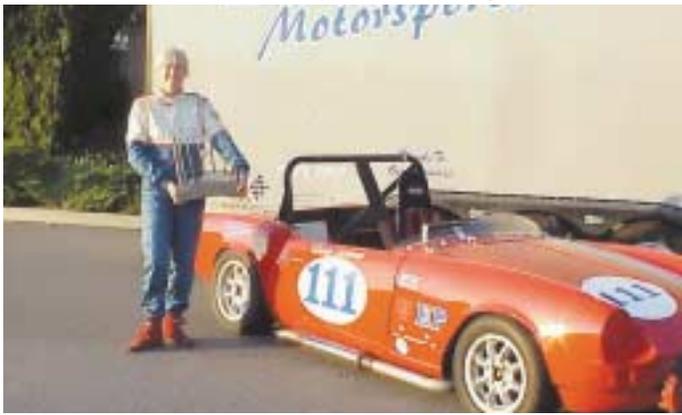
Drew Brown, Connecticut, 1968 GT6
2.0 liter, forged pistons, 11:1 comp, custom cam, MSD with Crane ignition, custom crank fluid damper, custom headers, etc.

To have your car featured in next issue and on the TriumphSpitfire.com website, e-mail us at info@triumphspitfire.com or mail to: P.O. Box 30806 Knoxville, TN 37930



Doug Buchanan, Nebraska, 1971 Mk3 GT6
"We have had to modify, for safety reasons, the rear suspension using 280 ZX constant velocity joints and half shafts. We have used the original transverse leaf spring, pumpkin and all the original pickup points to remain vintage legal. The car is still a 2 liter but I have gone to a TR6 gearbox due to the horsepower."

Secrest Motorsport's Spitfire Racing stable



Lanie Secrest (2000 VARA Woman Driver of the Year), 1965 Mk 2, 1300cc



Jim Secrest (1999 VARA F Production Champ & Driver of the Year), 1965 Mk 2, 1147cc



Daniel Martinez (2001 F Production Champ), 1965 Mk2, 1147cc



All British Car Show

SOUTHERN BRITISH CAR CLUB OF GREATER CHATTANOOGA

CHATTANOOGA TENNESSEE, NOVEMBER 2-4, 2001

PHOTOS BY BRETT BROBERG



Shane Hunt of Marietta Georgia brought his 1974 1500.



Mike Flood's 1969 Mk3 had a nice patina from much use.



Paul Logue proudly displayed that his Spit now has an overdrive

Triumphest 2001

TRIUMPH REGISTER OF SOUTHERN CALIFORNIA

VENTURA CALIFORNIA, OCTOBER 18-21, 2001

PHOTOS BY LAURA GHARAZEDDINE



Triangle British Classic

NORTH CAROLINA MG CAR CLUB

MORRISVILLE NORTH CAROLINA, OCTOBER 13, 2001

PHOTOS BY RALPH JANNELLI



Malvern Classic Car Show

TRIUMPH SPORTS SIX CLUB

MALVERN, WORCS. ENGLAND, OCTOBER 7, 2001

PHOTOS & STORY BY DAVE MACK

The Malvern Classic Car show had an extensive display of cars of all types outside and there was a huge indoor autojumble. As usual our Spitfire was on the Triumph Sports Six Club stand, the "hosts" on this occasion (the Worcester Area of the club). In addition to the Spitfires and GT6's, there was also an appearance by a rarely seen Amphicar - which given the rain that set in at the end of the show was probably the best equipped car on the site to get home! I don't have any details of the cars I'm afraid, so I'll leave the pictures to do the talking. If you're in the area later this year, the next Malvern Show is on 5th & 6th October 2002. It is organized by Greens (UK) Ltd. For more information contact ukcarshows@aol.com



British Car Shows and Events

MAY

California, Solvang, Royal Scandinavian Inn, May 2-5

2002 California Healey Week, rcmto@uia.net

Delaware, Lewes, May 2

Lewes British Motorcar Show, Lewes Chamber of Commerce, 302 645-8073, inquiry@leweschamber.com

Kentucky, Lexington, The Springs Inn, May 3-5

Bluegrass British Bash, Sterling British Motoring Society, mrazor@mis.net

Arkansas, Hot Springs National Park,

Clarion Resort on Lake Hamilton, May 4

2nd Annual Brits by the Shore, British Motoring Club of Arkansas, (501)372-8182, copperheadcables@alltel.net

California, Bakersfield, Buttonwillow Raceway, May 4-5

Moss Motors/VARA British Extravaganza, (800) 235-6954, dodd@k.mossmotors.com

Georgia, Atlanta, May 4

Ragtop to Riches Rally, Numerous British Car Clubs, (770) 804-9380 before 9PM

New Jersey, Succasunna, Horseshoe Lake Park, May 4

M.G. Car Club Central Jersey Centre, Inc., 973-796-8116, ctregidgo@att.net

Ohio, Wadsworth, May 4-5

25th Annual British Swap Meet and Car Show, The Northeast Ohio Austin Healey Club, 800 334-6566, lynn@ahhealey.com

Tennessee, Townsend (Gatlinburg), May 4

15 Annual Gathering, Blount British Cars Ltd., ihenriks@icx.net

Maryland, Baltimore, May 5

14th Annual "Get The Dust Off" Rallye & Winery Tour, MGs of Baltimore, 410 817-6862, RGL2MGBG@aol.com

North Carolina, Charlotte, Mint Museum, May 5

Marques at the Mint, Carolinas Austin-Healey Club, (704)366-9808, fdabney2@perigee.net

Ohio, Dayton, RiverScape, May 10 @ 5 pm

Childhood Cancer Benefit Concert and Car Show, (937)766-2669

South Carolina, Charleston, Brittlebank Park, May 10 - 12

Lowcountry Classic Jaguar Concours de Elegance, Jaguar Society of South Carolina, (843) 552-6555, Britishmechanic@att.net

California, Oakland, May 11

MG's at Jack London Square, MG Owners Club of Northern California, (415)333-9699, MikesMuseum@yahoo.com

California, Fullerton, May 16-19

Muckenthaler Motor Car Festival, Muckenthaler Cultural Center Foundation, (714) 780-8382

Indiana, Corydon (20 miles west of Louisville Kentucky),

Old Capital Inn, May 16-19

Springthing 2002, Bluegrass Austin Healey Club

Maryland, Gaithersburg, May 16

The Original British Car Day (BCD), Chesapeake Chapter of the New England MGT Register, 301-831-5300, tokari@erols.com

British Columbia, Vancouver, May 17-18

2002 Vancouver All British Field Meet, Olde British Car Society

Pennsylvania, Carlisle, May 17-19

Carlisle Import Swap Meet, Carlisle Productions, 717 243-7855

Colorado, Montrose, May 18

Sixth Annual-British Car Week "Wicker Basket Picnic,

(970) 249-0163, sthompson@gwe.net

Georgia, Braselton, Chateau Elan, May 18

British Motorcar Day, British Motorcar Club, 770 804-9380

Kentucky, Louisville, May 18

Concours D'elegance at Churchill Down, JC&A, (502)241-6711,

larryh@unitedconst.com

Maine, Freeport, May 18-24

Annual New England 1000 Vintage Rally

California, Dixon, May 19

Dixon British Car show and Swap Meet, United British Sports Car Club of Sacramento, 916 488-9628, Sawhill@earthlink.net

Ohio, Columbus, May 19

British Car Day XVIII at Easton, Central Ohio British Car Council,

(614) 899-2394, britsateaston@aol.com

Virginia, Richmond May 19

British Classic Car Meet, Richmond Triumph Register,

804 527-1515, kmntr6@aol.com

Illinois, Champaign-Urbana May 24-26

Champagne British Car Festival, Prairie Octagon Club & the CIOA,

309-662-3020, altmgb2@yahoo.com

New York, Sag Harbor, May 24-26

Concours d'Elegance and Auction, Kensington Motor Group,

631-537-1868

California, Orange County, May 25-35

Orange County Scottish Festival, (949) 581-1339

Tennessee, Nashville (Opryland Hotel), May 25

Eurofest Nashville, Nashville British Car Club and others

Virginia, Middlebrook, Wildwood Tree Farm, May 25

Summerdean Tour, Shenandoah Valley British Car Club,

540-885-1757, kbrasfield@earthlink.net

Washington/Oregon, Fife, May 25-26

"Run to the Gorge" Fife WA to Hood River, Puget Sound British

Automotive Society, 425-644-7874

Worldwide, May 25-June 2

6th Annual Drive Your British Car Week

Maryland, Saint Leonard, May 26

Commencement of British Car Week in Maryland,

DC/VA/DEL British Car community, Awgertoo@aol.com

Ohio, Put-In-Bay, May 31-June 2

Shagadelic Island Adventure VIII, Southeastern Michigan Austin

Healey Club- AHCA, (419)797-0027, tuaz@cros.net

JUNE

Florida, Havana, Nicholson Farmhouse Restaurant, June 1

3rd Annual British Car & Bike Day, Big Bend MG's,

(850) 539-1104, conanor@ersnet.com

Kentucky, Louisville June 1

Marques On the Green, British Sports Car Club, 812 923-7349,

dons59tr3a@aol.com

Massachusetts, Sandwich, Heritage Plantation, June 1

British on the Green, Cape Cod British Car Club,

programs@heritageplantation.org, 508-888-3300 ext.122

Pennsylvania, Fort Washington, June 1

The Brits are Back at Hope Lodge, Delaware Valley Triumphs Ltd.,

610 222-0180, Klassicar@aol.com

Quebec, Lac Beauport, June 1 - 2

Rendezvous British Quebec, Rapido@carvq.org

Virginia, Virginia Beach, June 1

Brits on the Bay British Car show, Tidewater Triumph Register,

randbrac@webtv.net, 757-721-6732

Connecticut, Waterford, Harkness Memorial Park, June 2

British Cars by the Sea, Connecticut MG Club, 1-860-693-4249,

mgid52@attbi.com

New Jersey, Clinton, Red Mill Museum Village, June 2

4th Annual Britfest, Moss & MG Driver's Club of North America,

908-713-6251, mgdriversclub.net

New York, Farmington, Finger Lakes Race Track, June 2

Sports Car and Vintage Auto Festival, MG Car Club and Victor Lions

Club, 585-234-0482

Ohio, Perrysburg, Rte. 65, Fort Meigs, June 2

The British Return to Fort Meigs Car Show, Lake Erie British Car

Club, 419-855-8567, lakeeriebritishnews@att.net

Minnesota, Grand Rapids, June 6-8

12th Annual Vintage Sports Car Rendezvous, Minnesota Austin

Healey Club, 651-388-7377

Colorado, Denver, Glenwood Springs June 7 - 9

50th Annual Rallye, MG Car Club Rocky Mountain Center

Ontario, Kingston, June 7-9

GOOF 63, Ontario MG T' Register,

Virginia, Alton, Virginia International Raceway June 7-9

Gold Cup Historic Races, 50th anniversary of Austin-Healey, VIR

Virginia, Luray, June 7-9

Capital Classic 2002, Capital Area AH Club,

hgilson@bigplanet.com

Nevada, Carson City, 1206 North Nevada Street, June 8

Street Meet, Reno MG club, (775)882-9441, Petersmith@aol.com

North Carolina, Clemmons, June 8-9

22nd Annual British Car Days South, The Triad Austin Healey Club

New York, Great River, Bayard Cutting Arboretum, June 9

"The British are Coming!!!", MG Car Club, svslowmg@netzero.net

Ohio, Cincinnati, Ault Park, June 9

25th Annual Concours D'elegance, (513)321-1361,

sheehy_d@brandtretaingroup.com

Pennsylvania, Hellertown, June 9

Ninth Annual British Motorcar Gathering, Keystone MG Club,

610 865-3419

Ohio, Mid Ohio Race Track, June 13-16

50th Anniversary of Triumph, Sports Car Vintage Racing

Association

Ohio, Mid Ohio Race Track, June 14-16

2nd Annual "Spit-Together", NASS, 812-533-1676

Maryland, Gaithersburg, Smokey Glen Farm, June 16

Original British Car Day, New England MGT Register,

301-831-5300, tokari@erols.com

Wisconsin, Sussex, June 16

British Car Field Day, (262) 521-1072, john.stockinger@gte.net

Ohio, Dayton, June 20

The Sunbeam Invasion II, Sunbeam Alpine Owners Club

Nevada, Lake Tahoe, Horizon Inn, June 23-28

OpenRoads 2002 Healey International

South Carolina, Charleston, June 27- 30

Mini Meet East 2002, South Carolina's Ultimate Minis

Canada, Halifax, June 29

8,000 km Canadian Discovery international rally across Canada,

fax +1-416-466-3972, media@norafin.com

JULY

Nova Scotia, Wolfville, July 1-5

Gathering of the Faithful Mk 73, New England MG T' Register,

athomas990@aol.com

Texas, Grapevine, July 3-6

11th Annual International Convention of the North American MGB

Register. NAMGBR, wkube@augustmail.com

Virginia, Staunton, July 3-6, 2002

Annual Morgan Sports Car Gathering, Morgan Car Club of

Washington, DC, 410 828-0818, edherman@concentric.net

British Columbia, Kelowna, July 5-7

Rally in the Valley 2002, Okanagan British Car Club

Prince Edward Island, South Rustico, July 12-14,

British Car Days across the Bridge, British Motoring Association of

Prince Edward Island

Indiana, Indianapolis, July 13

London To Brighton Run, British Boots & Bonnets Car Club,

317 887-3867, mgdr@quiknet.net

Indiana, Poplar Grove, Poplar Grove Airport Museum, July 14

Vintage Wheels and Wings 2002, Indiana British Car Union, (815)

633-2256, vickery98@yahoo.com

Ohio, Cincinnati, Edgewater Sports Park, July 14

16th Annual Greater Cincinnati British Car & Motorcycle Show, The

British Car Club of Greater Cincinnati, 513 752-8138

Ontario, Manchester, July 14

The 6th Annual European Interest Car Show, Britania Sports Car

Centre (Pickering On), info@europeaninterest.com,

1-877-36-BRITS

Minnesota, Redwing, July 16-19

Red Wing 2002, Minnesota Triumphs & Vintage Triumph Register,

715 425-2580, triumph@presenter.com

Virginia, Charlottesville, July 17-21

North American MGA Register GT 27,

The Central Virginia British Car Club

Ontario, Lindsay, July 21

Brits in the Park

Connecticut, Sturbridge, July 26-28

30th Anniversary Concours, Jaguar Association of New England

Indiana, Howe, Howe Military School, July 27

Tea at the Vicarage, Hoosier MGB Club, (260) 665-6476,

TeaAtTheVicarage@aol.com

Maryland, Pasadena, Downs Park, July 27

Brits By The Bay, Triumphs Around the Chesapeake, Ltd.,

tracshow@tracfid.org

Massachusetts, Saugus, July 27

3rd Annual Cruz In, Bearing Burners Car Club of MA,

781-365-1322, bearingburners@hotmail.com

Washington, Bellevue, July 27

14th Annual Western Washington All British Field Meet,

Puget Sound British Automotive Society, 425-644-7874

California, Ventura, Ventura Harbor Village, July 28

The 12th Annual Ventura All-British Car Show, Central Coast

British Car Club, (805) 482-9636, member@cbccc.org

New Jersey, Lavallette, Barnegat Bay, July 28

5th Annual British Car Show, Positive Earth Drivers Club,

732-505-0778, Higgs2n2@prodigy.net

Ontario, Toronto, Glendon College, July 28

Annual Glendon Import Invitational Car & Motorcycle Show,

MG Car Club of Toronto

2nd Annual
"Spit-Together"
June 14-16
and 40th anniversary of the Triumph Sports car

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