

THE RAGTOP



HILL COUNTRY TRIUMPH CLUB

JANUARY 7, 2010

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WELCOME TO THE CLUB

by STEVE JOHNSON, PRESIDENT



It has been a great year for our

Hill Country

Triumph Club. We put on one of the best VTR Regional events ever held this year. Add that to the incredible club events this year, and it's one we will find hard to beat in 2010 (but we're going to try). Thanks to all those who have participated, especially those putting them together.

We celebrated our 20th Anniversary as a club in December, and had a wonderful holiday celebration at County Line on The Lake. Everyone there commented on how good the Cadillac BBQ we selected turned out. For dessert the Kramer's bought a cake with our logo on top. The Country Line had provided parking for our cars, and it's a good thing. We had eleven club cars and thirty-one club members in attendance.



After eating, Bob Kramer gave us an overview of the club's progress over the years. Bob and Barbara were founding members of the club 20 years ago, and therefore have seniority without a doubt. He took us through the early years and up to the present. We all added to his story and reminisced about our own experiences and escapades.

Then it was time for our traditional White Elephant gift exchange. Laughter abounded as we opened some of the most unusual gifts I've seen yet at one of our events. What a HOOT! Champaign and wine seemed to be the most coveted gifts. Barbara Cramer ended up with an exceptional TR6 Poster that many of us

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wanted, but since she wasn't the first to get it, she got to keep it. Maybe next year! I think we were some of the last to leave County Line that evening.

Unfortunately many of us had other engagements and couldn't make the party. If you were one of those, we definitely missed you. I hope we can all make it next year.

Central Texas Museum of Automotive History

January - Central Texas Museum of Automotive History

Put January 16th on your calendar for our first outing in 2010. I'm putting together a run to the Central Texas Museum of Automotive History. Here's the website for more information <http://www.ctmah.org/>.

The museum is located in Smithville Texas. We can start with a leisurely breakfast, and then take a nice Texas Hill Country drive to Smithville to see the cars. Sounds like a nice day and nice drive to me. I'll start working on the details, and get information for our January club meeting.

February and March Events

We are planning the monthly events for February and March too. The Mericas' and Jones' will be leading our efforts. In **February** Dean and Elizabeth will take us on the Backbone Run again. This run lets us experience "real" Texas Hill Country one lane roads and see fantastic views of native Texas. Elizabeth is planning a lunch stop will be in Wimberley, which you know will be special. Then in **March** we'll head for Marble Falls to spend the day with Terry and Jane Jones. They have so many choices of drives and great places to eat that it will definitely be a run you won't want to miss. I'll get back to you with dates and particulars as soon as they are ready.

Club Meeting

January 12th will be our next club meeting and the first club meeting of the New Year. I'm looking forward to seeing each of you there. You know, you don't have to drive your Triumph to join us at the club meetings. Just having you there is enough for us to enjoy your company, and talk about Triumphs.

Triumphantly Yours,

Steve

The Hill Country Triumph Club, the 50th Chapter of the Vintage Triumph Register (VTR), was founded in 1990 to bring together the owners of Triumph automobiles in the Central Texas area surrounding Austin. In 1991, the membership decided to include other British car fans as associates due to lack of other clubs in our area that represent some of the other marques. As owners and lovers of our unique types of cars, we have a special kinship, which draws us together. Membership is open to anyone who is a British car enthusiast, with or without a car.

Annual dues are just \$15.00 per family group or address per year. We have dinner meetings on the 2nd Tuesday of each month and at least one other event each month. We encourage you to join and support us, even if you don't drive your car regularly. We also offer technical assistance if needed. One goal of the club is to help its members keep their cars on the road. Please call one of the club officers listed in the newsletter for more information about club benefits and spread the word about our club to others.

The Hill Country Club is a local chapter of the Vintage Triumph Register (VTR)/Triumph Sports Owners Association, which is open to all drivers of Triumph motorcars; a chapter of the Triumph Register of America, exclusively for TR2 through TR4A sports cars; and a chapter of the 6-PACK, dedicated to the enjoyment, preservation, and restoration of the Triumph TR250 and TR6 sports cars. Membership in these national organizations is encouraged. Visit their websites at www.vtr.org, www.triumphregister.com, and www.6-pack.org.

The RAGTOP is published monthly by the Hill Country Triumph Club. Material within may be freely reproduced providing Ragtop and the authors are credited. Any and all newsletter contributions are welcome. Deadline for submissions is the end of each month. Submissions may be emailed to don@dcphotos.com Car related classified ads are free to members and will run for three months unless otherwise instructed. Contact editor for other ads.

Membership Application



Name : _____
Address : _____
City / State : _____ Zip : _____
Home Phone : _____
Work Phone : _____
E-mail address : _____
Car Make : _____ Model : _____ Year : _____ Color : _____
Car Make : _____ Model : _____ Year : _____ Color : _____
How on earth did you hear about the Hill Country Triumph Club? _____

Please mail application and check payable to HCTC to:
Nel McPhail, 1105 N. Canyonwood Dr., Dripping Springs, TX 78260

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RUBY REPORT



HAPPY
NEW YEAR
to you all.
Not much to
report this
month as
work has kept
me quite busy.

I have yet to even
find the time to

uncover Ruby since I have
been back from Mexico. As winter rushes in
on Central Texas, those projects I put off

doing in the heat of the summer are now
getting put off due to the bitter cold.
I would like to put out another request for
cover photos. Send me a photo and it might
just make the cover of the next RAGTOP.
As I said, work has me very busy and I will
be working in Houston next week so I hope
to see you all at the February meeting... or
maybe March.

Don



TR3-TR6 front hub modification

by Greg Blake

The latest installment of continued improvements to the Blake's TR3 vintage race car. Ever since I installed the sticky race tires on the 3 I have been concerned about the stock cast front hubs being subjected to the extra stresses induced by racing. When I was building the car, it took a total of six front hubs to find a set that were serviceable. Two had bent wheel flanges and two were worn so badly that the inner bearing race would fall out when the hub was flipped over to install the outer race. I have read stories about these hubs failing due to excessive flex caused by the stresses of racing. Ultimately, when the budget allows, I will purchase a set of aluminum front hubs for the car which is a better designed hub. For now...Friends of Triumph to the rescue.



A quick search of the FOT email archives (and call to Bob) shows there is a fix for the stock front hubs. You will need the following:

- 8 - 7/16" x 20 x 1.75" long grade 8 bolts (I used shouldered bolts)
- 8 - 7/16" grade 8 SAE small diameter washers
- Quality spiral point 7/16" x 20 tap with matched drill bit
- Quality 7/16" drill bit

The fix involves removing the front hub and separating the brake rotor from the hub. The existing bolts holding the rotor to the hub are 3/8" x 24 bolts that thread into the inner flange of the hub. If you look at the hub in cross section, you see that there is an inner flange to which the brake rotor attaches and an outer flange that supports the road wheel. The two flanges are separated by about an inch. The key to retrofit is to help that outer flange support the lateral loads imparted by the road wheel. This is accomplished by drilling from the rotor side of the hub,

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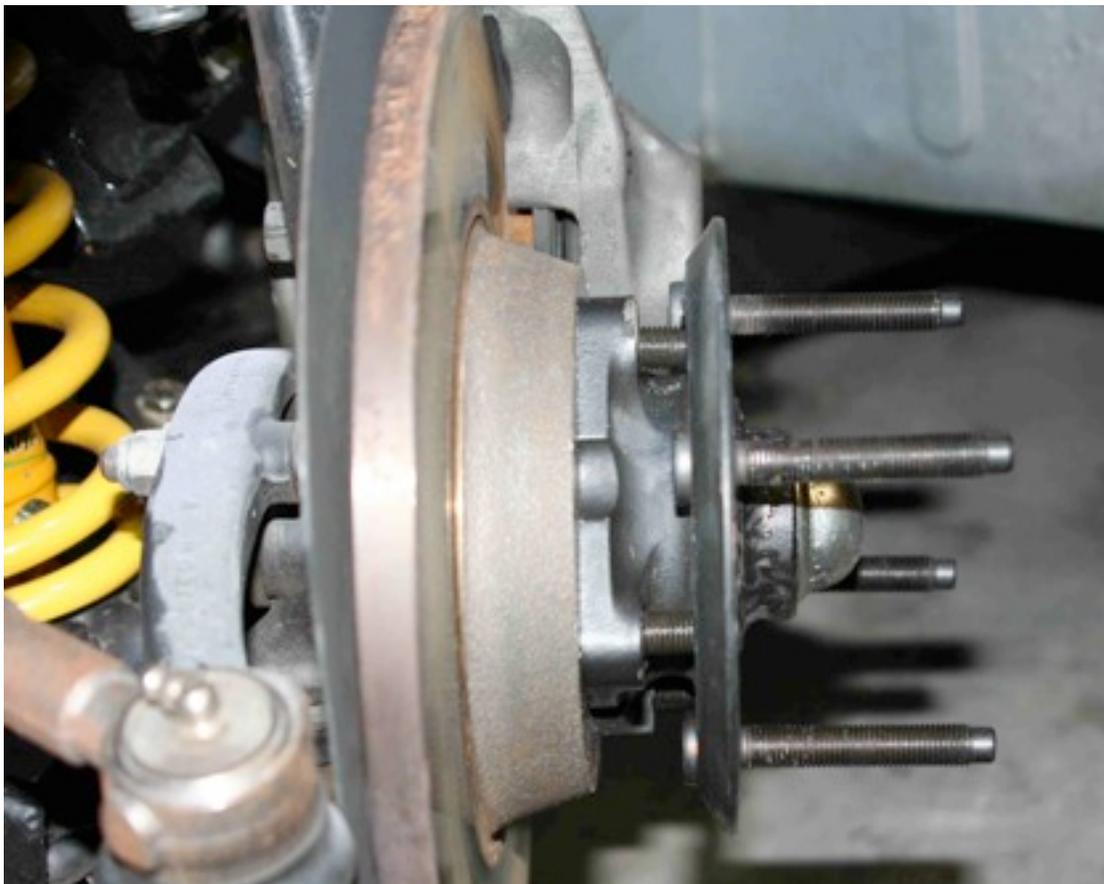
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through the existing rotor attachment bolt holes all the way through the wheel flange. The holes are then tapped to accept 7/16"x20 bolts by tapping the holes from the rotor side. It is important to run the tap from one side only such that the threads of the rotor flange and the wheel flange will be in sync. I used shouldered bolts (bolts with an unthreaded portion for the first 1" of length adjacent to the bolt head) so that, once assembled, bolt threads would not be included in the shear plane between the rotor and the hub. If you use shouldered bolts, you will also need to relieve the newly threaded holes about 3/16" deep with a 7/16" bit on the rotor

flange side so the shoulder of the bolt will not foul into the threads before the head of the bolt clamps the rotor to the hub. Since you have increased the diameter of the rotor bolts, you will also need to drill out the rotors with a 7/16" bit to accept the larger bolts. I ditched the spring (lock) washers and used locktite, grade 8 flat washers, and a torque wrench to reinstall the bolts.

I hope this helps to keep my hubs from cracking...

Greg



AutoCross Update

by Robert MacKenzie

December 10th saw a fitting end to my 2009 autocross season. I had high hopes and reasonable goals this time last year. I was going to enter in every local event, take an Evolution Autocross driving school and really figure out how to drive the car I built the previous year. I was going to win my class in the divisional and not finish last in class at SCCA Solo Nationals.

An issue as simple as a broken wheel stud managed to park

the race car for months while I tried to determine how to repair a 40 year old custom competition axle of unknown origin. Plan B was to dust off the blue car, which blew its cylinder head, soon after the last event at the San Marcos airport.

I chose not to run the '62 Spitfire race car at any of the regional events and passed on Nationals. I focused instead on re-building, repairing and upgrading my Blue Spitfire 1500 which, quite frankly, I had been neglecting over the last few years.

The Austin Spokes Sports Car Club scheduled its year end event at the Harris Hill Road race track and using that event as a target, I spent

the next several weeks fixing all the things on that car which had broken over the past several years.

With the engine tuned, a real 4-wheel performance alignment by SoulSpeed, new Hoosier race tyres on a set of used but new to me alloy wheels I was pretty darned proud of myself when I rolled the car onto the trailer on the Saturday afternoon before the event. Sunday morning was cold, raining and miserable. If it had been just a regular autocross event, not one at a private race track like H2R, I would have just gone back to bed. But no, I had a better idea.



As I drove down the driveway it occurred to me that I should bring my rain tyres but I recalled that two were still on the other car and my low profile jack was leaking again so I figured it was not worth it, it was bound to clear up and get

warmer, right.

The outside temperature gage read 46 deg when I left Cedar Park but had dropped to 38 by the time I had arrived at the track in San Marcos.

I off-loaded the car and took up my spot in the paddock. It occurred to me that racing a, open car, with no heater in the rain was not such a good idea but it was bound to clear up and get warmer, right.

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I was scheduled to run in the 2nd heat and when I was driving to the starting grid I spun the car at about 2 MPH when made the 180 deg turn onto the main straight. I should have parked it then but I thought I would give the parade lap a try and see how much grip there really was.

One of the exciting features of the H2R circuit is a right-hand, downhill turn where the road just seems to drop away in front of you. As I coasted down the hill and tried to turn in at the bottom the car slid sideways right out to the curb in a beautiful 4 wheel drift. There was no grip whatsoever. I contemplated parking the car and begging another driver to let me co-drive but thought to myself that it really can't be that bad.

(Video of the parade lap can be seen at: <http://tinyurl.com/h2hspitfire>)

I took it easy on the first run and posted a time, not the fastest by a long shot but not the slowest either.

On the 2nd run, I pushed a bit harder on the first part with no drama but when exiting the slalom on the back straight the car swapped ends with no warning and I ended up about 20 feet off-course deep in the mud. It took 4 corner workers to extract the car and get me pointing the right direction. I think I either hit a patch of standing water or some mud thrown on-track by another car. (That's my story anyway)

The final result: Two ruined Hoosier tyres (25% of my 2010 tyre stock) and some nasty looking damage to the bonnet and front wheel arches and a car entirely covered in mud, inside and out. As I drove home in a rather foul mood I had to remind myself it was not the destination, but the journey that matters in life.

On that note I am looking forward to the 2010 autocross season.

Spokes has it's full 2010 season schedule set with the first event at San Antonio Raceway on February 7th. Event two will be at the Riverside Annex on March 7th and the first event of the 2010 SCCA South West Divisional Series is scheduled for April 18 at a location to be announced later.



The San Antonio Sports Car Association (SCACA) has found a new home at the Blossom Athletic Center for 2010 an event scheduled on February 21st with more to come all year long.

Information on both of our local autocross clubs and event schedules can be found at www.sasca.org and www.spokes.org or just ask Don Couch or myself what is going on. Come Out And Race!

Robert

Explodo-Pop, The Transition to a new Transmission

by Bob Kramer



One of the things that TR3 and TR4 racers do to upgrade their cars is to use a TR6 transmission. There must have been an aluminum shortage in the 1950's when Standard Triumph designed the TR3 transmission. Line up a TR3 and a TR6 transmission side by side and the differences in heft are quite obvious. Through the model changes Triumph beefed up the case quite a bit, eventually adding extra ribbing where the bell portion of the case meets up with the tranny itself. They also stretched the case a little to fit in the first gear synchro and thickened up the mounting flange. Did you know that early TR2's and TR3's had a dipstick? Look at the cover of a TR6 case and you'll still see a little circular boss cast into the cover. There

must have been a reason for these changes and racing gives us the "testing" necessary to find the weak links.

The addition of synchros for first gear made the cars easier to drive in traffic, and likely the dipstick went away because nobody was using them, but what about the beefier case? I've heard that people who are trying to keep their early TR racers as original as possible weld reinforcements to the case, but in the 14 years I've been racing I hadn't actually heard about a transmission failing in such a manner. I guess the upgrades were working. Enter the Daytona/Sebring TR4, our number 67. The previous owner had blown up his share of engines. The best I can

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it to work properly for the CVAR race weekend. I got the clutch to work fine by substituting a TR6 throw out bearing sleeve but I had trouble with rotational noise. Seems something was hitting the flywheel. After five tranny pulls to change flywheel bolts, clutches, etc, I finally realized that the starter was the problem. I found a couple of thick washers that were unaccounted for and what I had missed was that they were spacing the starter out from the flywheel. They just fell to the floor when I pulled that starter, who knew? I made up some nice wedge shape spacers and it sounded like it should.

figure he blew up in 1992 or so and needed a block. When I picked up the car I also got a disassembled TR6 transmission so it must have been torn up too. As the story goes, he had a well used race prepped TR3 engine and tranny lying about and it became the basis for his rebuild.

The problems we have had with this car can be traced to the previous owner's decision to use those parts. It starts with an interesting flywheel that matched neither the TR4 nor the TR3 dimensionally and had some sintered bronze inserts that must have been hard to beat in the '70's. Somebody had it custom made, probably the guy who raced the TR3, and clutch engagement left a lot to be desired. That same somebody had opened up an almost 3 inch hole in the side of the bell housing for observing the clutch in action. They never did get the clutch sorted properly and I spent an inordinate amount of time trying to get



But, that hole was still in the side of the tranny.

Fast forward to the race weekend; I had patched up my TR4A that had spun a rod bearing at Hallett in October, hoping to get one more weekend before a total rebuild. I registered for

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just the Saturday races, not expecting much. I got less! The car ran like poop. Once the session was over I started looking it over. I checked timing and the mark seemed to be moving around in the timing light. That was odd, but mis-fires can do that. I narrowed down the problem to a mistake I made in the distributor timing gear installation. I was off by more than a tooth. About that time I heard a metallic noise from the engine and decided that I'd pushed my luck far enough. At home, with the engine out I was able to see what that noise was. It was the sound of the new rod bearing spinning on the damaged journal. You don't normally get to hear that sound. Usually you are driving very fast, the

bearing spins and all you get to hear is the engine blowing up!

Luckily the Number 67 was doing well, funky clutch and all. We did have some difficulty with the overdrive wanting to stay engaged, but with some advice from Ed Bernard of the RRTC, I slid under the car to place a well positioned blow to the clutch ring and we got it to release. I had not yet driven the new car so I took it out for the Sunday morning warm-up session, but unfortunately they didn't time it. The car handled surprisingly well even though the front shocks are shot. The oil had leaked out of the



right front Koni on the trailer! It had plenty of power and with some tweaking it'll be a good car. As the weekend progressed Andrew

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complained that it was getting hard to shift but he continued to work on his driving skills and improving lap times. He put down his best lap time yet of a 2:12.9 in the first Sunday race and he was looking forward to getting into the 2:10's during the last race. For reference, I have done just under 2:05 when I raced my hardest and flat spotted tires in my TR4A trying to keep up with a fast BMW 2002. I am happy anytime I am in the 2:06's. It stands to reason that Andrew can get into the 2:08's with this car but who knows. He may end up a better driver than me!

For now the 2:12 will have to stand. At the beginning of the second lap, pretty much right after the start-finish line on the front straight at TWS the transmission separated itself from the bell housing. At 100 plus mph, he didn't know what had happened. He coasted as far as he could, pulled off the track and tried to restart it. He ended up on the back of a flat bed truck. With two dead cars needing to come home to Austin, I was saved by Bob Blake. He worked corners on Sunday and drove in that day with his trailer so that he could bring one car back to Austin for me. He followed me up Volente road in the dark, not knowing what he was getting in to. I can't thank Bob enough so let me say it again; thank you Bob.

When I finally got around to pulling the tranny cover on No. 67 the problem was obvious. I had assumed the transmission had blown up. All I knew was that Andrew had reported that the little dipstick had hit him in the leg and there was lots of oil under the car. I felt very lucky that the transmission hadn't embedded parts into my son. The reality was more unusual but could have been predicted. That "observation" hole weakened the bell housing and a crack developed between it and the vent hole that was cast in to



the side of the tranny. Since this happened rather suddenly, the crack continued fully around the bell housing completely separating the actual transmission from the housing. When this all happened the clutch, flywheel and transmission briefly locked together and the flywheel was twisted off the back of the engine. This all probably happened in a second or less.

Amazingly, once I pulled the transmission and looked inside the cover, the internals look undamaged. The input shaft (fourth gear) lost its tip and the explosion twisted off the tranny front cover. I think I'll be able to put it together in a spare case I happen to have lying about. I have a lot of work to do this winter!

Bob

~~Tool~~ Project of the Month

by Mike McPhail

Well, last year we talked about all the dandy tools the home mechanic might need to keep his Little British Car in fine mettle. Now that you have acquired all these items from your local Harbor Freight tool store it is time to put them to good use!

How about those pesky brakes? Let's start at the back. While the front brakes do most of the work, it is important that the rear brakes are operating properly. The hand brake really needs to be able to prevent the car from rolling, and should be able to stop the car if the hydraulics fail.



Not too many tools are needed to completely overhaul the rear brakes, and the parts are pretty cheap. A six-pack of beer is will be necessary, too. The following description is relevant to Girling systems, which are found on most high end British cars like ours.

Disassembly:

- 1) Raise the rear of the car and place on jack stands. It is important that you

can get up close and personal with the rear brake assembly without it falling in your lap, so be certain that you can do this safely.

- 2) Remove the wheels. This is a great time to clean them up and check the condition of the studs, and/or wire wheel adapters, which will have to come off, too.
- 3) Remove the two screws that hold the drum to the hub. You may have to use your impact screw driver for this job!
- 4) Back the square head adjuster all the way out. Special wrenches are available, or an eight sided socket is even better.
- 5) Remove the drum. The drum should come off easily once the adjuster has been backed off. In the case of terminally frozen brakes, the wheel cylinder, shoe retaining pegs (drill these out), and adjuster mechanism can be released from the back and the drum wrestled off. Avoid hammering on the rim of the drum, as the cast iron chips easily.
- 6) Remove the clips that hold the shoes to the back plate. Just twist the end of the puny little peg 90 degrees with some pliers and the clip will go flying!

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- 7) Remove the shoes and their springs, noting the position of all the pieces. You should be able to pop each end of the shoes off its perch and pull both off together with the springs still attached.
- 8) Disassemble the adjuster mechanism and clean and lube the components. It is held on the backing plate with two ¼ bolts, but you don't really have to take the whole thing off.
- 9) Disconnect the brake line and hand brake linkage at the wheel cylinder. Cap off the line, or better yet drain the master cylinder reservoir first with your Mighty-Vac. A flare nut wrench should be used on the connection to prevent rounding the nut. Work it back and forth taking
- care not to twist off the line, which may have rusted to the nut. A little penetrating oil might help.
- 10) Now the tricky part; remove the wheel cylinder retaining plates by driving them apart with a punch or screwdriver. This is a fiddly job, requiring patience and some strong reading glasses. Swearing is optional. Remove the rubber dust cover and pry the larger plate slightly away from the tabs that keep it in place. Tap the larger plate free. Once that plate is gone, the hand brake lever will slide out past the wheel cylinder and the two smaller plates and cylinder can be removed.

Now, sit back with a beer and wait for next month's installment.

Mike

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www.hillcountrytriumphclub.org/HCTC-news.html

CLASSIFIED

FOR SALE:

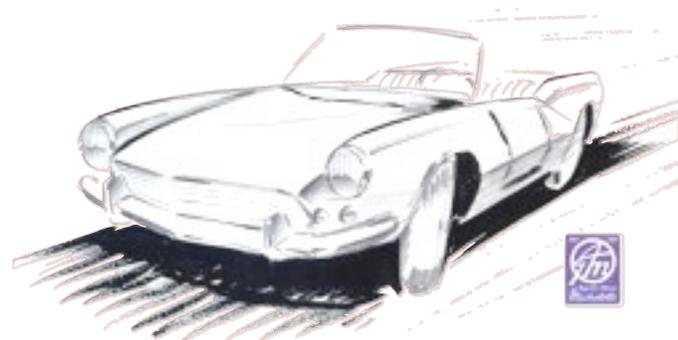
- 1978 SPITFIRE 1500 - fresh paint job - powder blue. ready for reassembly \$2900.00 obo
 - 1969 GT6 needs restoration, paint, interior \$1000.00 obo
 - 1963 TR-4 Restoration in progress, Rebuilt Engine, lots of new parts \$3800.00 obo
- Contact Don Couch for more info (512)-680-3540

2004 HARLEY DAVIDSON FXDI FOR SALE \$10,000 obo :

- BATTERY TENDER, CLYMER REPAIR MANUAL
 - CRASH BAR, EXTRA MUFFLERS
 - HIGHWAY PEGS, RACK, FOOT PEGS, GRIPS
 - DUAL SEAT, SISSY BAR w/ EMBLEM
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SPITFIRE PARTS FOR SALE:

- Have misc. SPITFIRE 1500 parts for sale
 - motors, four speed gearbox, diffs,
 - wiring harness
 - bulbs, bolts and more
- Contact Don Couch for more info (512)-680-3540



THE RAGTOP - JANUARY 2010



Calendar

JAN 12th

HCTC meeting - Pok-e-jo's BBQ

JAN 16th

Club Drive to Central Texas Museum of Automotive History



1105 N. Canyonwood Dr.
Dripping Springs, TX 78620
address change requested



The next HCTC meeting will be held Tuesday, January 12, 7 PM, Pok-e-jo's BBQ in the Brodie Oaks shopping center, Northwest corner of South Lamar and Ben White/Capitol of Texas Highway/Loop 360, Phone 512-440-0447