



Buckeye Triumphs Newsletter

Visit us at: www.nextek.net/BuckeyeTriumphs

Election of Officers! BT Social / Business Event – Tuesday, December 12th

The December Social and Business meeting will be held at DONATO's PIZZA on Brice Rd at Livingston Ave on TUESDAY December 12th for our end of year meeting.

The agenda will focus on selection of our Club Officers for 2001, details for the January Party Extravaganza and our initial plans for 2001 events. We also need to expand our membership campaign and funding activities as we begin the planning for a specific site for the 2002 Six Pack Trials we will sponsor. We must be ready to announce the location by the September, 2001 event.

SO COME ON OUT – JOIN US and remember, you need not be present to be nominated, but you will need to be present to defend yourself from being appointed.

BUCKEYE TRIUMPHS HOLIDAY PARTY - JANUARY 13, 2001 6:00 TO 10:00 PM

Look for a flier in the newsletter!

ANNUAL DUES – MEMBERSHIP RENEWALS

FIRST, Thank You for supporting Buckeye TRIUMPHS in 2000; a Tremendous second year for all of us.

Our sustained growth and expanded activities will again depend upon your continued support, active involvement

and personal creativity. Now, **HEAR YE ** HEAR YE ** The Tax Man Cometh!!

Current member's Calendar Year 2001 Membership Renewal Dues are payable by January 30, 2001.

Please submit your check for \$20.00, payable to Buckeye TRIUMPHS and mail to PO Box 584, Lithopolis, Ohio 43136-0584. Please include any updates for our data base. PLEASE NOTE: IF you joined the club after July 1, 2000 then your Renewal Dues are only \$10.00 for your first renewal.

As an explanation, BT by-laws established Calendar Year dues at \$20.00 per family membership, with full payment at initial membership. The intent was to avoid monthly renewal tracking and bookkeeping efforts. Members who joined after July 1 would be asked to pay only \$10 at their first renewal.

Editor's Corner

Ho Ho Ho! Merry Christmas! Perhaps you remember the parts car that we drug home last summer. As the days of summer grew shorter, Kim kept reminding me about how I promised that it would be "gone". Welllllll.... where it went was in the "bushes" elsewhere on the property "out of sight – out of mind". This worked until "fall" happened. Suddenly "Rusty Rose" has become quite visible again. (oops)

Ryan heard Kim discussing this fact with me one day and heard her say "well I'll just decorate it for Christmas".

Last week Ryan and a few of his friends did just that. Here is the decoration that we now have in our front yard:



Thanks to our good friend Nelson for this picture. It has become quite a hit at Granville High School. So "Un-Granville"

I got quite a belly laugh from it. Thought you might as well. I doubt if this will be up long – but it sure was good for a laugh!

Officers and the Fine Print

The Buckeye Triumph Newsletter is a publication of Buckeye Triumph Club, and the content herein is not officially endorsed by the staff or members of the Buckeye Triumph Club, their families, or lawyers. If you decide to follow the advice of anything inside this newsletter, you do at your own risk. We are all adults here, so if you do something stupid, own up to it and don't sue the club. Heck, we don't have any money anyway...

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General email: buckeyetriumphs@ameritech.net Web Site: www.nextek.net/BuckeyeTriumphs

Our current crop of Buckeye Triumph Officers is:

President: Robert Mains
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ims_mains@ode.state.oh.us

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Jim VanOrder 740-967-2110 vanorderj@cham-cor.com

GT6: Doug Braden 614-878-6373 braden.13@osu.edu ,

Spitfires and TR-7 & 8's: Ron Fowler 614-371-3110 triumph@ameritech.net

Affiliations: 6-Pack Chapter -- Center of Triumph Register of America -- VTR Zone Member

We did not receive any input on the adventure to TS Automotive as promised from last month. Perhaps next newsletter.

Not much more from me this month. I would like to send out a request to anyone that can help to come to the Business meeting and get involved with the planning for the coming year. We also need volunteers for making holiday "centerpieces" for the annual party.

Nelson has suggested a "transmission rebuild" tech session when he swaps the transmission to his 250 in February. He thought we could entice the spouses out to Granville and do some "Granville" things as well.

Hope everyone has a happy holiday. See you on the 12th.

Bruce Miles bmiles@INTInfo.com

Next Newsletter Article Deadline – December 28th , 2000

President's Corner – December, 2000

Blimey, it's December already with the cold damp dense air that our Limey cars love so much. Ever notice how our LBC's seem to roar in reaction to the hint and feel of merry ole England's blustery breath? Perhaps we need one

more Last Open Road run, eh Bruce?? OK, Bob, let's not get too far out there.

November was one of those months we will always remember - for The Election ?? and for the more historically important event, Buckeye TRIUMPHS ' British Invasion of the Corvette Corner in the new automobilia service station at the Quaker Steak and Lube on Polaris at I-71. We had a great turnout of members and we successfully reclaimed some of the rebel territory recently opened to the dining public by those Big Horsepower-Detroit Iron Revolutionists with their plastic bodies. We sure made a dent in their cache of chicken wings and we dropped a bit of our cash there, too. I know we made a lasting impression on the staff – Tuesday is an All the Wings – you can Eat Nite and we kept them busy as we tried all of their spicy sauces. We had no casualties, just a few near misses as the bravehearts in the crowd tempted fate by sampling the ATOMIC wings.

I was near ground zero, but suffered no direct hit as the hot wings flew close by me. I'm glad to say-they only 'winged' me. My teary eyes are on the mend – but looking forward to a return engagement there with more of our car buffs and those gearheads who hung their cars up on the walls and ceilings to make room for us.

We agreed to move the December Social and Business meeting to a more sedate location and date since we have

a 'bunch of stuff' that needs all of our attention and attendance. So, please come on out to the DONATO's PIZZA on Brice Rd at Livingston Ave on TUESDAY December 12th for our end of year meeting. The agenda will focus on selection of our Club Officers for 2001, details for the January Party Extravaganza and our initial plans for 2001 events. We also need to expand our membership campaign and funding activities as we begin the planning for a specific site for the 2002 Six Pack Trials we will sponsor. We must be ready to announce the location by the September, 2001 event.

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How about a new volunteer for Events Coordinator and a new host for the Feb-2001 social and business meeting?? We should be getting ready for a Spring Roll Out by then.

See Ya on the 12th and remember that there will only be 12 more days 'till Christmas. We will have name tags to hand out to those that ordered them and we'll take new orders. Do your parts shopping early and beat the rush. You might consider ordering a Buckeye TRIUMPHS polo shirt or having one of your gifts monogrammed – I need at least six items before I can get any monogramming done for us.

Bob Mains

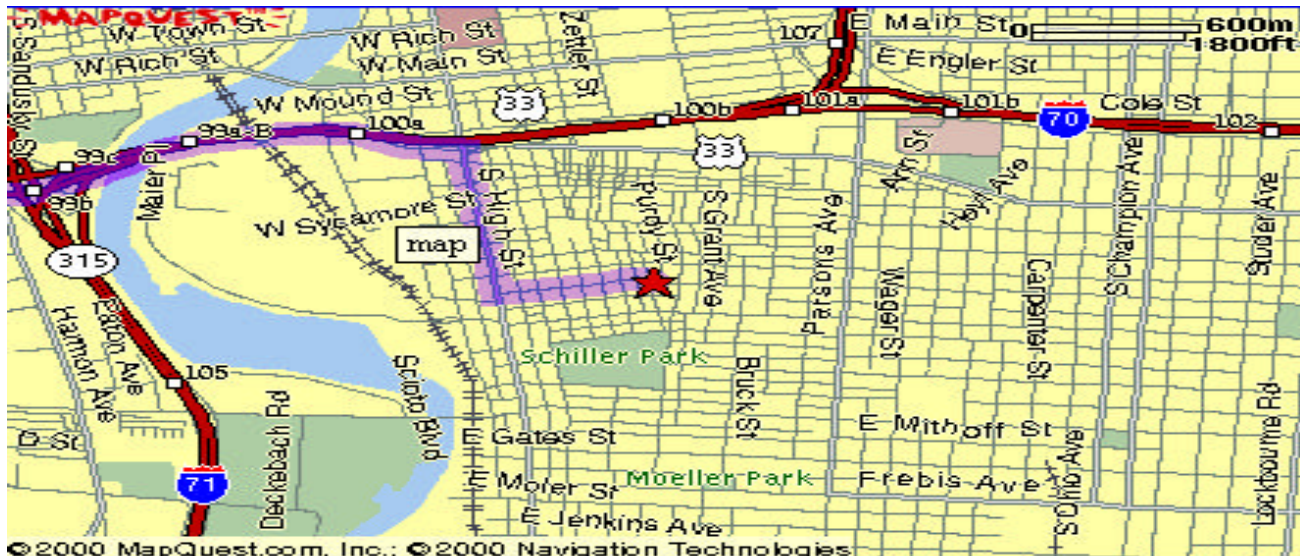
BT Financials

BUCKEYE TRIUMPH FINANCIAL STATEMENT 1999 & 2000 YEAR-TO-DATE

	<u>EXPENSE</u>	<u>INCOME</u>
DUES 1998 & 1999		1,700.00
DUES 2000 YEAR-TO-DATE		1,285.00
50/50 Income		52.50
TOTAL DUES THRU 11/30/2000		3,037.50
MEMBERSHIP, POSTAGE, CLUB STARTUP	578.98	
POSTAGE, NEWSLETTER	647.33	
BANK SERVICE CHARGES	136.07	
CLUB CANOPY	190.34	
CLUB BANNER	132.19	
OTHER MISC. EXPENSES	262.75	
CLUB BADGES	265.00	
SCHMIDTS HOLIDAY 2001 DEPOSIT	100.00	
TOTAL EXPENSE THRU 11/30/2000	2,312.66	
MEMORABALIA AND SHIRT FUND		
SHIRT AND LOGO SALES	1,719.00	
SHIRT AND LOGO EXPENSES	(1,810.84)	
NET INVENTORY ON SHIRTS	(91.84)	(91.84)
NET BALANCE 11/30/2000		633.00

MARK YOUR CALENDARS
BUCKEYE TRIUMPHS HOLIDAY PARTY
SATURDAY, JANUARY 13, 2001 - 6:00 TO 10:00 PM

RSVP!



We have made arrangements and are going to have our Holiday Party at **SCHMIDTS SAUSAGE HOUSE IN GERMAN VILLAGE, 240 E. Kossuth St. Columbus, Ohio.** The time will be 6:00 to 10:00 PM. We will have a Cash Bar and Buffet Dinner with three meat items, salad, vegetables, beverage and Mini-Puffs. The price will be \$20.00 per person, includes tax and tip. This will be an **RSVP** event, we will need your **RSVP by JANUARY 8TH, 2001.** We are required to give Schmidts a headcount no later than the morning of JANUARY 9th, so if you have to cancel please advise or Buckeye Triumphs will have to pay for you anyway. We will collect for the Buffet when you arrive.

Start planning and set the Saturday evening aside and come and celebrate the Holidays and the New Year with your TRIUMPH friends. We will be providing DOOR PRIZES and will have video pictures of this past year events. We will have the upstairs banquet room to ourselves, so come and have a boisterous good time and celebrate the New Year.

To RSVP please either call or Email to Murry Mercier or Jim VanOrder:

Murry Mercier 614-888-0838 or TRsixer@yahoo.com

Jim VanOrder 740-967-2110 or vanorderj@cham-cor.com

Late TR Guy

The Continuing Adventures Of...



Dec 2000: By Bruce Clough (clough@erinet.com)

New Babe In The Woods

I'd like everyone to meet TCW103574UF, 1979 TR7 FHC. We picked it up last month. This is a "sister car" to the green TR7 FHC we bought back in 1997 when Bishop Buick in Norton (near Akron) sold a bunch of cars they had in storage since the early 80's.



Pageant Blue FHC Wedged Between Ladders And Cheapie Lowes Lawnmower

Unlike the lethargic green FHC with the automatic transmission, this has the 5-speed, making it a much sportier car. The original owner has been kind to it, fixing a bunch of items, putting in a decent sound system while keeping it original, and storing it in good garages. It has only 10,000 miles on it and everything works, including the A/C. Now we have two TR's for long trips that offer more protections than the TR4, a goal of mine over the last year. The FHC is nice if you want to be driving all day in the sun, and it's great in the rain (it's also warm, so the

A/C better darn work!) I've liked this car since I first saw it at the TRF Summer Party in 1997 (where I was told to go buy the green FHC by Darrell Floyd. It was the only car to beat me in the Wedge class at the '97 Indy BCD, where we parked side-by-side. I think this is the car I'll save for Bridgett, rather than buying a '70 Newport with a slant-6 in it. Well, maybe...

267 You Say

I hope everyone is a sick of the election as I am. As of this point (10 Nov) I say let's everyone vote over, and vote for Frank Ciboch for President (of the USA). Heck, at least we'd have cars! Oh, I counted, 267 election signs from Wilmington Pike to Washington Mill on OH 725. What a waste...

Wedge Tech Transition

It's been my goal to move some of the "high-tech" found in Wedge TR's to the older, more antiquated Triumphs. There are many choices here, from the multi-function turn signal switches that fail at the drop of a pin, to the pop-up headlamps, to the gas trunk struts (honorable mentions go to the CV joint on the driveshaft and the entire pollution control system). The first system I chose to retrofit was the audio system. This is an actual TR7 AM/FM Cassette I rebuild and put in the TR4:



Advanced Wedge Technology Pressed Into Helping An Older Brother

The radio that was in the TR4 was a period AM/FM tuner (circa 1966) that had terrible FM multi-path problems and very noisy AM reception. Rather than spend \$200 getting it rebuilt by one of those antique radio shops in Hemmings, I made up my mind to put a more modern radio in it. Not just any radio, mind you, but a latter BL radio to keep the pedigree somewhat in-line. I was searching for a TR6 AM/FM radio (or maybe an 8-Track player?) when I came across the cassette unit at this year's TRF Summer Party swap meet. "Wha-la", I cried, "this will fit in the opening directly!" \$10 later I had it in my

hand and headed back to the campsite to put it in. Well, not quite, I had to open up the hole for the center section a bit on both sides, so that meant that I didn't get it in at the Summer Party.

The radio needed a bit of lubrication on the tuning mechanism, and a new cassette drive belt. Fortunately a test tape came with the new TR7 we bought (not actually a test tape, it was a Madonna tape, which means if the cassette player ate it, no big loss) so fixing that was easy. The installation was straightforward after the hole was enlarged. We kept the center speaker console, using the speaker for the difference between L and R channels (basically connecting the speaker to the hot terminals of each channel, a way to get a cheesy ambiance effect). Now all I have to do is find a place to put the tweeters and woofers...

Oh, the Madonna tape? Glad you asked. As soon as I know the cassette unit is working fine I'm going to beat it with a **Thor** Hammer:



Madonna Meet Thor, An Impulse Function You Won't Survive

Reason? Just because I dislike what Madonna stands for (damn I'm getting old, next thing you know I'll be getting rid of my Sex Pistols' albums and voting for Pat Buchannon...). Smashing the tape will feel almost as good as burning a VHS tape of "Three's Company", but not quite. I'll have to work on that one...

From The Net: 6-Pack Has A New Web Site

From: Murry Mercier <trsixer@yahoo.com>

Date: Wednesday, November 01, 2000 3:24 PM

Bruce,

FYI, New 6-Pack web site.... www.6-pack.org... a much improved site.

Murry

Date: Tue, 31 Oct 2000 23:01:02 -0500

From: "Mike Brinker" <mike.brinker@mfasco.com>

Subject: 6-PACK.org Website

The 6-PACK club is pleased to announce our new home on the World Wide Web at www.6-pack.org. Our new website has a visitors area and a Members area. The members area requires a User Name & Password which will be published in our members quarterly Newsletter coming out in a couple of weeks.

Content for the web site is being added each week. For the non-members, a sample newsletter will be posted in about a week in the visitors area of the site.

Spread the word!

Thanks,

Mike Brinker

Tech Tips From *Auto Restorer* Magazine

I've subscribed to *Auto Restorer* magazine for the last few years, and I have to say it's the best small magazine I've ever read on auto restoration and upkeep. They are very good at keeping their articles an integer number of pages, so they reproduce well, say, er, if you were going to put them in a club newsletter! I'm going to start putting some of their shorter articles in here. This month's edition is an article about winterizing your car. How topical!



Well, thanks for sticking with me on this. It's taken me a couple of months to get back to this masterwork on one of the least known objects on the mid-range TR7's, the Solex Fully Automatic Starting Device, or FASD for short. Almost all of the rest of you call it an *automatic choke*, naw baby naw, it's much more than a choke, it's a *gizmo!*

A *choke* physically blocks off airflow through the carb to give a richer fuel/air mix since cold engines don't vaporize fuel well. In our beloved Triumphs only Zenith-Strombergs really have chokes since the SUs pull down the jet pipe to create a richer mixture on start-up (not quite a choke action, but it works). In the ZS carbs (such as the CD175's found on latter TR4s through TR6s) pulling out the choke rotates a bar into the air flow, lifting up the air piston which raises the jet (richer fuel air mixture) while restricting the airflow (lower air pressure across the jet orifice leading to more fuel sucked out which also increases the richness). Both of these actions working together get your car started when it's cold.

As I'll explain in a little bit the FASD is a separate carb in it's own right stuck on the side of a ZU that has no internal choke. But why did BL need to throw away the manual choke anyway? Pollution control would be my bet. You'll get better burn control over the entire engine heat range leading to better emissions figures. Okay, so why the FASD rather than an autochoke so common on other cars since the 1950's? You got me. I think it had to do with trying to modify the ZU carbs to accept either an electric choke or hot air choke, or maybe trying to get the autochokes on two carbs work together? Now, it seems to be that the electric choke is easy enough (such as Weber did), but I probably don't see the "big picture". Anyway it happened, ZU took the chokes off their carbs and modified the internal gas routing such that they could bolt an FASD on the side. This gave them their air pollution numbers, and us something that requires air, cooling fluid, gas, and (get this) an electric heating element to operate!

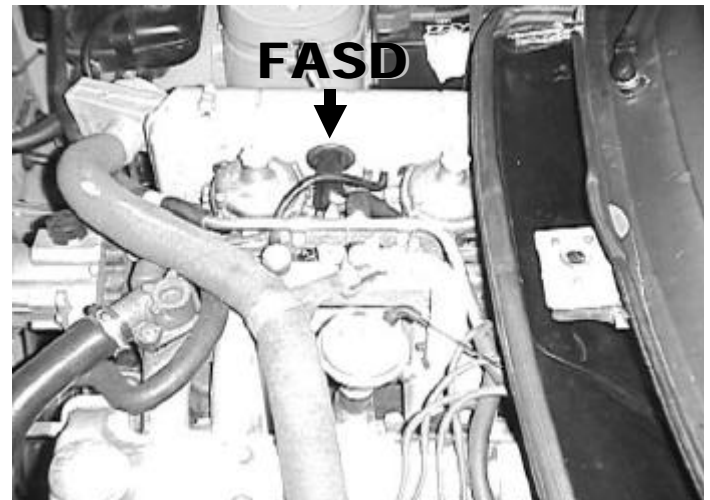
So where is this contraption located?

Bolted to the side of the front carb on your TR7, the left side if you're standing on the side of the car with the carbs and facing them. Still confused? Here:

Picture Of TR7 Engine With FASD Pointed Out

Yes, I know it's hard to pick it out in that pile of tubes, wires, and everything-that-doesn't-look-like-a-TR3. And trust me, getting it off the car is interesting.

Since I had to remove one in the course of writing this article, I thought it would be instructive to write down the



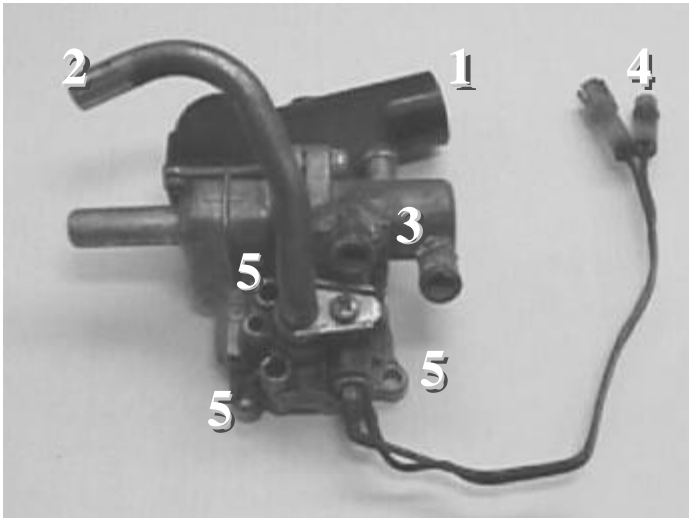
removal steps.

1. Drain the radiator (that's right! The fun starts here.)
2. Take off the air filter box all the way. Heave it to the side.
3. Take off all the carb mounting nuts to both carbs (another fun task since the bottom nuts are a & to get to).
4. Disconnect about every damn tube, wire, hose, and everything else on the right side of the engine.
5. Pull the front carb off, take it to the workbench, calm down, have a beer.
6. As Mrs. Fix-it would say: "It's just that easy."
7. Have another beer.

You will note that none of these steps are in the workshop manual, in fact, the FASD isn't really mentioned. That's why I'm here!

Okay, so what is this thing?

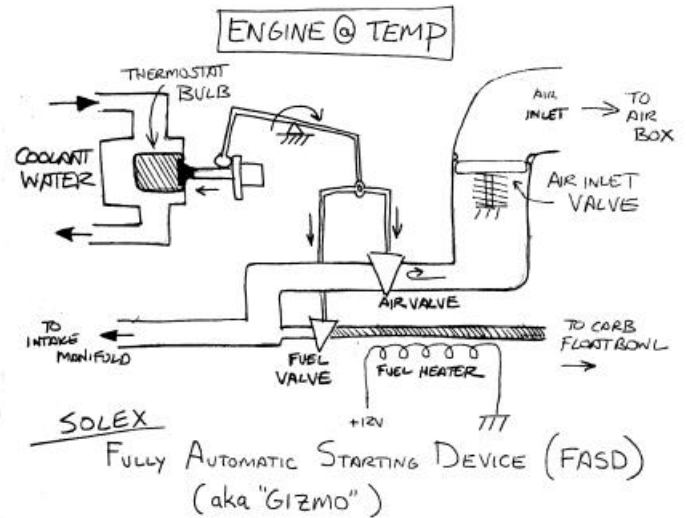
Let's play operation! Once you've completed the religious experience of getting it off, you'll see this sitting on your workbench:



The connections are:

1. Air From The Filter Box
2. FASD Output To Intake Manifold
3. Water Connections For Wax Thermostat
4. Electrical Connections For Fuel Heater
5. Where It Bolts To Front Carb

All the FASD is, is a little carb itself. It only operates when the engine is cold. When the engine is warm the thermostat inside shuts it off. Oh I'm sorry, a cheesy diagram is in order:



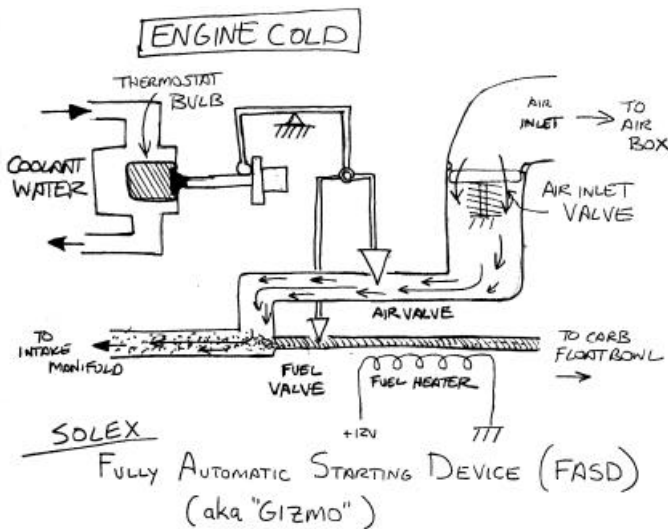
Gotta love hand-drawn diagrams in this era of computer graphics! Anyway, the function is rather simple. The thermostat heats up with the coolant and forces both the fuel and air valves closed, cutting off the "choke" function. That's it. Very simple.

So if it's so simple, what goes wrong?

If you think your FASD isn't working, the symptoms of which are either impossible starting when cold (ain't working), or idles way to fast when hot (ain't shutting off), then the first things to check before yanking it apart are all the fuel, air, water and electrical connections. If those check out, then it's time to check the most probable culprit...

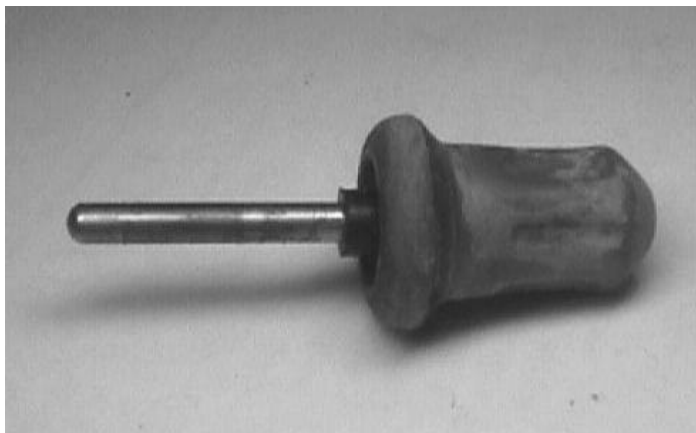
The usual thing that goes wrong with the gizmo is that the thermostat screws up. This either is due to build up in the thermostat chamber keeping water from flowing, or more likely, the wax bulb inside the thermostat is on the fritz. Good news, bad news, the fix is usually replacing just the thermostat, but the bad news is it's no longer stocked. Now you know why I took the carbs off the yellow TR7, I was clairvoyant and knew I needed a back up for the new TR7 FHC.

I suppose I should give the reader an inkling of just what the thermostat looks like:



Okay, so it's not the best artwork, but what do you expect for free?

I suppose you want to know how it works. This is obvious to even the most casual observer! Since both the air and fuel valves are open, air and fuel will be sucked in at startup. This mixture is much richer than what's coming from the carbs and provides the extra fuel to start a cold car. The electric heater (my guess) is to assist the fuel vaporization. When the engine warms up the FASD shifts off like thus:

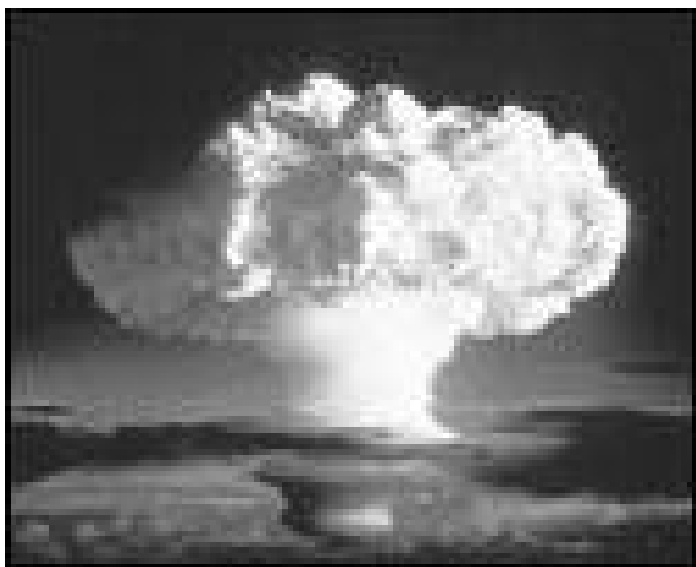


FASD T-Stat

Cute little devil isn't it? memorize this picture in your mind and look for them at swap meets!



Ha, I knew you'd be curious. The above is an exploded parts lay out of the FASD, the below is what most TR7 owners want to do with it!



Clough For Sale Department

Hmm, what do I have around the garage I'm tripping over? These things are for sale or trade. Heck, maybe you have a TR7 gizmo I need!

TR4 Transmission. I bought this from Doug Braden when I thought ours was going south. Now we don't need it and it's taking up space. Good condition, put that synchro first in the TR3! \$150 (what I paid for it)

Triumph Books

I've got a few books that I haven't read in a while (pronounced years) that are rare and possibly interesting to a few of you out there. Getting rid of these helps me in my eventual goal of moving bookshelves to the basement!

1. *Service Information Book* (Supplementary To TR2-TR3 Service Manual). This contains all the updates your manuals don't. Still in original black binder. These are a mix of original and good copies of originals - mostly originals. Rare to the max. Try to find this on eBay! \$75
2. *TR3 service bulletins* issued by European Motors (Standard-Triumph's Authorized Mid-West distributor) in Detroit. These are good copies of mimeographed originals (I gave the originals to John Warfield (TRA President) if I remember correctly). Unbound, ready for you to punch holes. Needless to say not your typical book store fare. \$20
3. *1959 TSOA Handbook*. No cover, but the rest of the 129 pages are intact. Very interesting reading on the birth of TR2/3 series as well as helpful maintenance tips. Another thing you'll never find at a swap meet. Softbound \$50
4. *Triumph TR2/3/3A*, by Bill Piggott. First printing. Yeah, I think you can buy this again, but not one signed by Bill! Pretty pictures, good information, period information and plenty of specifications. Hardbound \$30
5. *Triumph By Name, Triumph By Nature*, another Bill Piggott book. Bill's definitive 300 page side-screen TR book with everything you wanted to know about the TR3's history and more. Bill gave this to me at the '95 TRA Meeting, and it's signed by him and Ken Richardson. I know this is a memento, but I've never really read the book! Off to someone who will. \$60

Notes from Nelson

Gearbox Disassembly

Tis the day before Thanksgiving and the spouse is preparing for the in-laws. I've been banished to the workshop with the understanding that I don't make a mess; otherwise I'll end up in the dog pen.

One of my near term goals is to pull the gearbox on my TR250 so that I can deal with a sticky clutch. The gearbox is whining when in neutral so I don't want to put it back in without repairing it. I have a spare TR250 gearbox, also with an A type overdrive. I had planned to use the spare in a '70 TR6 that is a future project. So, I decided I'd get the spare gearbox all fixed up and put it in the TR250 when repairing the clutch. I can then repair the whining gearbox later for use in the '70 TR6 project.

Unfortunately, when I opened the spare gearbox I found gears with a few teeth missing (made me think of those in-laws that are coming tomorrow). I opened up the non-overdrive gearbox from the '70 TR6 and found gears with all the teeth present. I then decided to rebuild the '70 gearbox and replace the rear shaft with the rear shaft from the spare gearbox. I will then have a good gearbox ready to accept the A type overdrive. (The only difference between an overdrive gearbox and a non-over drive gearbox is the length on the main shaft and the presence of the gearbox extension in place of the overdrive unit.)

The most difficult part of rebuilding a gearbox is taking it apart. The maintenance manual leaves most the hard parts to the reader, so much so that I think it's written by an engineer or an English major, neither who have ever disassembled a gearbox. The following describes a practical way to disassemble a gearbox. I tried to use the same parts nomenclature as used in The Roadster Factory Parts Catalogue. The catalogue shows all parts and how the parts fit together. The catalogue should be used to supplement the following description.

The first problem is removing the pin in the clutch-operating fork so that the clutch-operating shaft can be removed. In most cases this pin is broken or breaks when it is unscrewed leaving part of the pin in the fork thus preventing the removal of the shaft. One technique to remove the remaining part of the pin is described in the August 2000 Newsletter (available on the website if you can't find your copy).

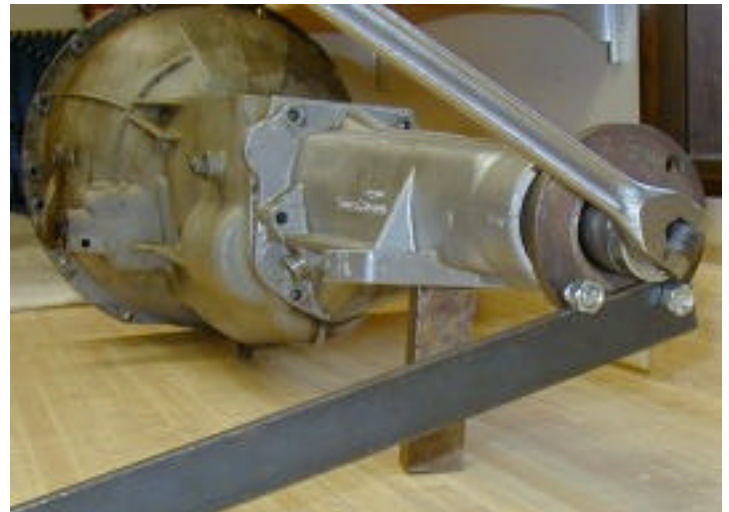
The next job is to remove the gearbox extension. The instructions from the manual are as follows:

1. *Drive the vehicle onto a ramp and raise the ramp.*
2. *Remove the exhaust intermediate pipes, silencer and tail pipes.*
3. *Remove the propeller shaft 47.15.01.*
4. *Using tool RG421 to retain the drive flange, unscrew and remove the nut and washer.*
5. *Remove the drive flange.*

6. *Unscrew and remove the peg bolt and washer.*
7. *Withdraw the speedometer drive cable and pinion assembly.*
8. *Using a ramp jack, support the gearbox and remove the rear mounting platform attachment bolts and nuts.*
9. *Remove the two mounting bolts and nuts. Swing the steady strap forward and clear of the rear extension.*
10. *Raise the gearbox and remove the mounting. Lower the gearbox.*
11. *Place a drip tray under the gearbox.*
12. *Unscrew and remove the bolts.*
13. *Withdraw the extension housing, thrust washer and gasket.*

Steps 1, 2, 3, 8, 9, 10 & 11 apply if the gearbox is still in the car. My gearbox has been drained, degreased and is setting on the workbench.

Number 4 is the first step I have to do. I have no ideal what a RG421 tool is. I made a **Flange Retaining Tool** (something to keep the drive flange from turning when the mainshaft nut is removed) by drilling a 3/8 inch hole in the end of a 1/4 inch by 1 1/4 inch flat steel bar and loosely attaching it to the flange with a 3/8 inch bolt and using a second bolt to keep the flange from turning as shown in the following photo. (This bar also serves as a **Flywheel Retaining Tool** where it is attached to the flywheel with a clutch plate bolt.)



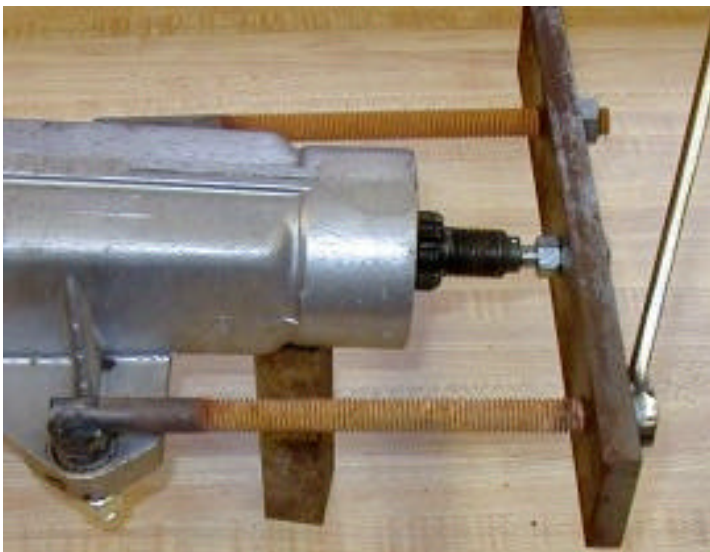
After the mainshaft nut is removed, the drive flange can be removed by tapping it lightly with a small hammer if it is too snug to slide off.

The next step is to remove the peg bolt holding the speedometer gear bearing ---- no big deal. Next one must remove the speedometer gear bearing with gear. This bearing is an aluminum cylinder threaded on the end for attachment of the speedometer cable. The first instinct is to grab the end with a pair of pliers and pull. Bad idea ---

that will only smash the treads so that it will be impossible to attach a speedometer cable. In most cases that won't be a problem since most speedometer cables are broken anyway. For those who want a working speedometer, the bearing can be removed undamaged using the following procedure. First, attach a speedometer cable. Next, use a large screwdriver with the tip positioned against the front lip of the cable nut to pry out the bearing. See next photo.



The next step (#12) is to remove the bolts and then (#13) withdraw the extension housing --- like it's ready to fall off. I don't know whom they're trying to kid; removing the extension requires that the rear bearing slide off the main shaft ---- not likely since the bearing is a force fit on the shaft. One method is to use a big hammer and try to pound the extension off. Big hammers and gears and bearings don't mix well. I instead made an **Extension Removal Tool** by welding 1/2 inch bolts perpendicular to the end of two threaded rods; making a center by turning a point on a 3/8 inch bolt; and drilling some holes in a 1/2 inch steel plate. The next photo shows the tool in use. The extension comes off easily as the nuts are tightened.

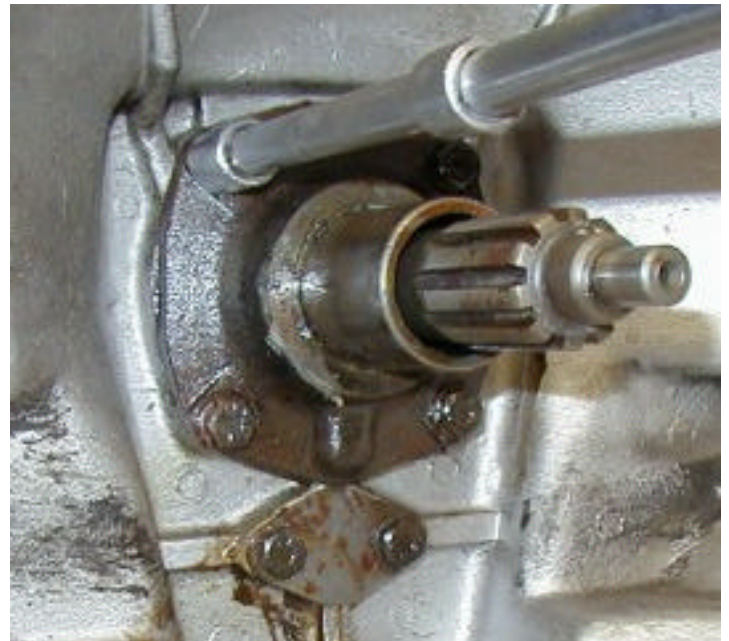


It is now bedtime. The spouse insists I spend the next two days being a congenial host to the in-laws so I stored the

parts in a way that I could remember where everything goes.

Tis now the day after Thanksgiving. The in-laws are gone; the turkeys are picked clean; the refrigerator is picked clean; the pantry is picked clean; and the dog is hiding for fear he will be next. Time to get back to the gearbox before the spouse decides I should help clean up the debris left by the in-laws.

The next step is to remove the bolts at the front of the gearbox that retain the front cover (the thing the throw out bearing sleeve slides over) and the countershaft cover. See next photo. The covers can be pried off after the bolts have been removed.



The Wedglok screw that holds the retaining plate is removed next. The retaining plate fits in slots on the end of the countershaft and on the end of the reverse idler gear shaft. This screw is usually difficult to remove and requires a very large Phillips screwdriver and much torque. I positioned the gearbox on end to get good leverage on the screw as shown in the following photo.



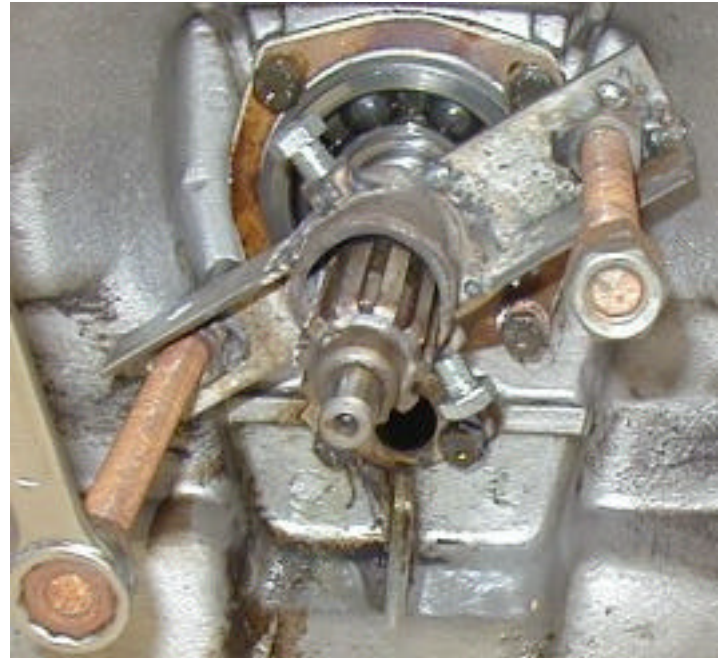
After the retaining plate is removed the countershaft can be removed to the rear by placing a long rod against the front of the countershaft and tapping gently with a small hammer as shown in the next two photos.



Once the countershaft is removed the countershaft gears drop to the bottom of the gearbox permitting the input shaft and main shaft to be removed.

The input shaft and front bearing are removed next through the front of the gearbox. One way to accomplish this is to lightly tap a long punch positioned against the outer race of the front bearing from the inside of the gearbox. Rather than doing this I decided to make an

Input Shaft Removal Tool from scrap pipe, scrap angle, 3/8 inch bolts and 1/2 inch threaded rods. (I have about 25 pieces of threaded rod that were scraps from a church project about ten years ago. I hated to throw them away -- just knew that I'd find a use for them someday.) The next photo shows the tool in use. The tool is attached to the shaft by tightening the bolts that press against a narrow part of the shaft behind the splines. The input shaft is then pulled out as the rods are screwed in. The subsequent photo shows the tool holding the input shaft after removal.

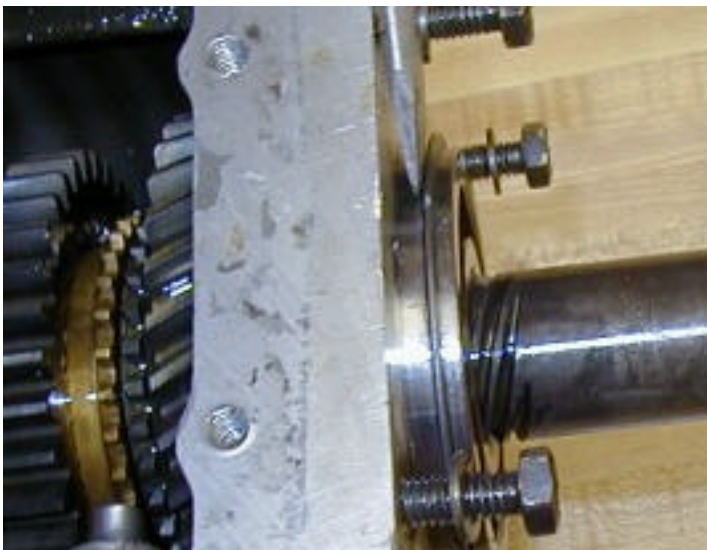


The next step is to remove the circlip on the main shaft to the rear of the center bearing using circlip pliers as shown in next photo.



The mainshaft must now be pressed forward and off the center bearing. One way to do this is to drive the shaft out of the bearing with a large hammer. Again, I prefer to not pound shafts, bearings and gears with a hammer. So, you guessed it, I made a **Mainshaft Removal Tool** using some scrap angle, the plate from the **Extension Removal Tool** and more of those 1/2 inch threaded rods.

The threaded rods of the tool are held to the back of the gearbox housing using bolts through the angles welded to the end of the rods as shown in the following photo. The bolts are those that normally attach the extension. The mainshaft is pressed forward as the nuts of the tool are tightened. It is only necessary to press the mainshaft forward about an inch to where the bearing is over a narrower part of the mainshaft. The bearing can then be pried out of the gearbox housing using a large screwdriver as shown in the subsequent photo.



Once the bearing is free from the case, it can be slid off the mainshaft. The mainshaft can then be tilted up at the front and together with the gears, removed through the top of the gearbox. Next, the reverse idler gear shaft and idler gear are removed. Finally, the countershaft gears can be slid out. The easiest way to do this is to position the gearbox front down on the workbench. Next, remove the rear countershaft thrust washer using a pair of needle

nose pliers. Once this washer is removed there is enough clearance for the gears to slide out easily.

I stored shafts with the gears and washers still in position so that I will have no trouble determining which piece goes where. The next step of the project is to examine each part for wear, replace parts where required, and then reassemble everything. That's tomorrow's project and maybe a note for the next newsletter.

One last thought ---- my in-laws are a lot of fun. (The hands in some of the photo belong to my brother-in-law.) Please don't take my comments about them too seriously.

BT Events: December	
12 th	Social/Business Event – Election of new officers

Buckeye TRIUMPHS REGALIA Excellent Holiday Gift Ideas!

Golf Shirts –Outer Banks - 100% Cotton \$35.00
Style 17434-Solid body color with Collar of contrasting color

- Wine, with Navy Blue
- Spruce, with Navy Blue
- White, with Black
- Navy Blue, with Green
- Oatmeal, with Green

Style 17489-Solid body color with a striped Collar
Spruce, with Blue Stripe
White, with Black Stripe
Black, with Red Stripe
Red, with Blue stripe

T-Shirts - Lt Grey Cotton \$14.00
BTC Logo - front
Large Wreath Logo – back

Patch Embroidered Logo \$10.00
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Select your favorite jacket, shirt or bag since the logo can be added to almost any cloth article at a cost of about \$10.00.

Send or bring your articles to Bob Mains. Turn-around is usually about 2-4 weeks. (Names or lettering can be added for additional costs).

Classifieds:

These classifieds are free to BTC members, given, of course, that they relate to Triumphs, and are for private (not business) use. No, you cannot sell that old couch here! We'll run classified ads for two months, beyond that you'll have to ask for an extension.

FOR SALE

1973 Triumph TR6

Mimosa Yellow, 84K Miles New Interior & Under carriage, Very Good Condition / Runs Great

\$5,400

Contact John Szlag @ 614-297-7249

Now Taking TR6 Orders:

1971 TR6 Due out of bodyshop in October. Fresh signal red paint job, black interior, new carpet, dash top, refinished dashboard, fiberglass front fenders. This is a nice driver, or could easily be for show. \$5500.00

1971 TR6 Due out of bodyshop next spring. This will be racing green with a fresh light tan interior, all new interior panels, carpet. Seats redone by TriTex. Rebuilt engine by Eric Jones-runs strong. Factory hardtop, overdrive, new fenders, new redlines on steel wheels, new reflective stripe top, NOS trim rings, detailed engine, all bumpers show quality replated, no expense spared. For show or concourse, mid to upper teens.

New Triumph convertible tops by Crown, TR4, 4A, TR250, TR6, TR7/8, Spitfire, and Herald \$185.00 in black or white continental grain vinyl.

Triumph TR6 black standard cut-pile carpet set \$135.00

Contact Doug Braden at:

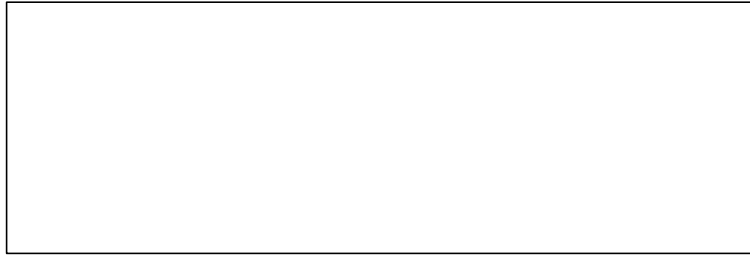
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Many common parts in stock.

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Buckeye Triumph Club
P.O. Box 584
Lithopolis, OH 43136-0584



Buckeye Triumphs Newsletter – December 2000

BT Social / Business Event

Tuesday, December 12th

See inside for details...