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GT Clutch Replacement with lots of pics

by boysatt
Started on : 09-06-2005 12:36 PM
Replies : 13
Last post by: Buffalo86GT on 09-07-2005 04:33 PM

boysatt
Member

Posts: 1185
From: Moorhead, MN USA
Registered: May 2005

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REPORT THIS POST 09-06-2005 12:36 PM

Well I just did a clutch replacement in a 1986 Fiero GT with a V6 and a 4-speed. The throwout bearing siezed up and made a ungodly sound and quite a mess. This car was brought to me by a college kid in Fargo, ND. He is originally from the Twin Cities in MN, and many of you in the area may know the car. Since I could not find any really good build-up threads I thought I would do one myself and let you know how it is done and easy ways I found to do things.

First we start out with the pics of the car





CPU-Z

CPU Cache Mainboard Memory SPD About

General

Type	DDR-SDRAM	Channels #	Single
Size	1024 MBytes	Performance Mode	disabled
		Bank Interleave	

Timings

Frequency	200.1 MHz
FSB:DRAM	4:5
CAS# Latency	3.0 clocks
RAS# to CAS# Delay	4 clocks
RAS# Precharge	3 clocks
Cycle Time (Tras)	8 clocks
Bank Cycle Time (Trc)	
DRAM Idle Timer	
Total CAS# (tRDRAM)	
Row To Column (tRCD)	

Version 1.30

CPU-Z



The engine was completely stock other than the cold air intake that he adapted from a Honda. I wasn't very impressed with the intake at all, didn't look to help much and made the car sound like a vacuum with the loud sucking sound, lol.



Well First I put it into the garage in a place it will sit until it is done. I positioned the jack under the center part of the rear section of the cradle, because this is a very solid place to jack and will lift the whole rear end evenly. Unfortunately the car was too low and had to have a buddy help lift the car a little to get the jack under the car.

has been lowered a good 2 inches.



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REPORT THIS POST 09-06-2005 12:44 PM

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The car is in the air now, I put blocks in front of the front tires. I jacked my floor jack as high as it would go and put jack stands just in front of the cradle mounts, so it would hold it safely and still be able to tilt the cradle

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The screenshot shows a software interface for engine specifications, titled "ENGINES". It is divided into several sections:

- ENGINE TYPE SELECTION:** A table with columns for engine type and S.F.C. (Specific Fuel Consumption). The selected engine is "liquid-fuel rocket" with an S.F.C. of 0.9900. Below this are several rows of numerical values for different parameters, with units like "(feet, positive aft of ref)", "(feet, positive right of center)", and "(feet, positive above ref)".
- RECIP AND TURBOPROP ENGINE SPECS:** A section for reciprocating and turboprop engines. It includes fields for maximum power (0.00000), critical altitude (0.0000 ft msl), gear ratio (0.100), maximum manifold pressure (2.99 inches), redline rpm (0.0000), rpm top green (0.0000), idle rpm (0.0000), rpm bottom green (0.0000), and a checkbox for "reverse-pitch equipped" (set to "no").
- JET ENGINE SPECS:** A section for jet engines. It includes fields for maximum static thrust (0.87200 lb), frontal area of engine (8.92 ft²), afterburner thrust increase (0.00000 lb), spool time idle to full thrust (0.3 sec), max mach number before loss in inlet efficiency (1.20), and a checkbox for "reverse-thrust equipped" (set to "no").
- ROCKET ENGINE SPECS:** A section for rocket engines. It includes fields for maximum thrust at sea level (1.7773666 lb), design point (1.7773666 lb), vacuum (1.7773666 lb), and design altitude (999.999 feet).

Drivers side suspension, as you can see this is not stock.



Passenger side suspension.



Start by removing the driver side caliper and rotor and hang the caliper out of the way, since the suspension and brakes were just done a couple months ago, everything unbolted very easy.



Driver side strut and lower arm remover in one piece and laying on my floor. This makes removing the transmission very easy now.



I removed the drivers side inverter and guards to gain easy access to everything, as you can see the air filter wasn't firmly attached to the tube and probably been off for a while.



Shot of the suspension removed.



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09-06-2005 12:50 PM

A little rust anyone?



Passenger side innerliner removed and coolant lines disconnected.



Here is a shot of the engine as I was removing stuff. In order to tilt the engine you need to disconnect a few things. Undo both coolant lines running to the front of the car, also undo the one heater line coming off the water pump. Disconnect the electrical wiring block and positive and negative battery terminals and lay them on the engine. You also need to undo the two vacuum lines going towards the cruise servo, undo the cruise cable from the servo, undo both shifter cables, unbolt the slave cylinder and hang it out of the way. You also have to unbolt the rear muffler heat shield and the cooling tube mounted towards the alternator. Everything else has the play

to stay connected when tilting the engine.



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 **REPORT THIS POST** 09-06-2005 01:00 PM

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Another engine shot of things being disconnected.



And now undo the 2 rear cradle bolts and use the floor jack to tilt the cradle back, I was able to drop it a little over 14 inches.



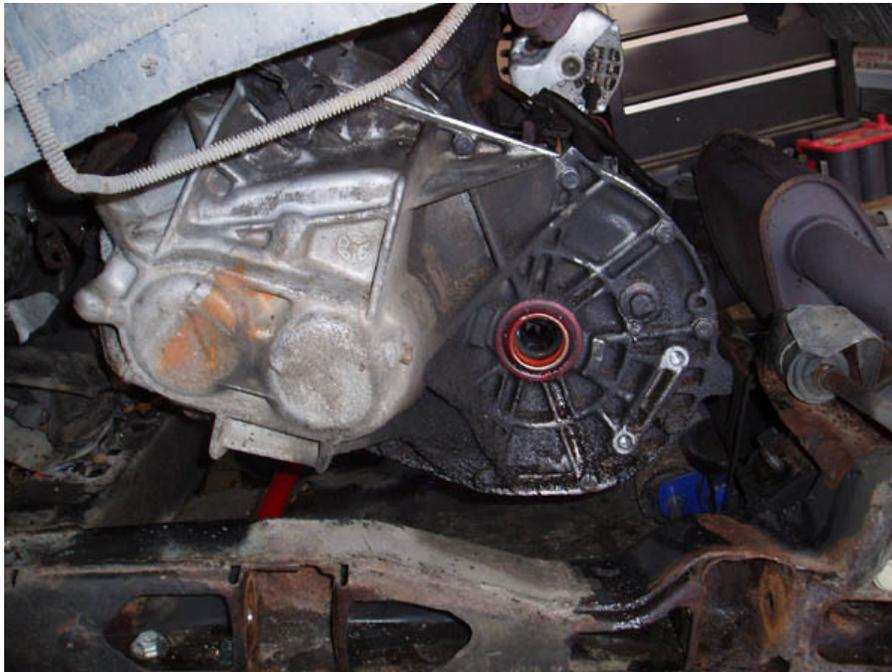
Another shot of it tilted from the rear.



Engine shot of it tilted.



Transmission is very easy to get to now. I used my engine hoist to hold the engine up by the rear lift point and then I unbolted both transmission mounts. If I completely remove the brackets from the transmission and the front one from the cradle it gives you more working room. The drive axles just pop out if you pry on them a little too.



Transmission was unbolted and slid right off. The easy way to do this without damaging the splines on the transmission is to take two 3 inch long bolts that are the same size as the engine bolts and cut the heads off and put one in the lowest front bolt hole and one in the rear lowest bolt hole on the tranny. Then just pull it off and it will slide

right off without damaging anything. You can see the bolt still sticking out to the right it was a gold colored one.



Tranny laying on the floor, now you can see the damage. You can also see the gold guide bolt I used when getting it off still screwed into the transmission. The throwout bearing siezed and busted into 3 pieces and also took one fo the fingers off the shift fork, so that was replaced too.



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09-06-2005 01:06 PM

I installed a new flywheel as the old one was pretty grooved and looked like it got really hot.



Picture of old flywheel.



Old clutch and pressure plate. Clutch disk was still good but pressure plate was grooved bad too.



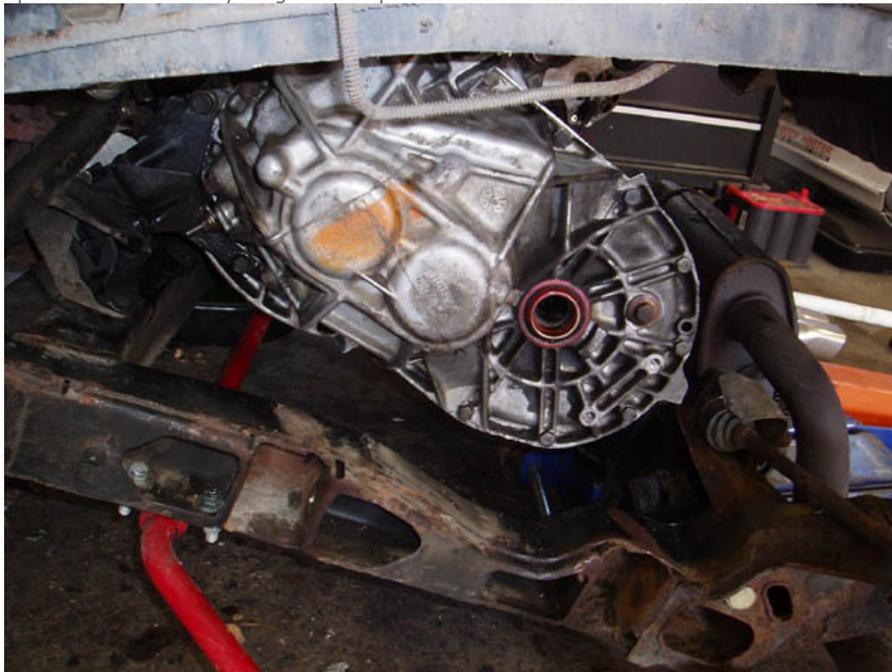
The new spec stage 3 clutch



Well I had things apart, he wanted me to fix the rear manifold leak, found a broken bolt and the far right flange was completely busted off the manifold.



Transmission back on, it was easy to just slip it on with the guild bolts, took a minute to get the splines to line up but otherwise everytging went as planned.



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09-06-2005 01:13 PM

Things slowly getting reconnected, reassembly is the reverse of the disassembly. So it is pretty easy to put it back together. Go a lot faster than taking it apart. Remember to only use SYNCROMESH in fiero manual

transmissions.



Cradle bolted back up in place and awaiting the suspension.



Engine stuff all reconnected and ready to put the intake tube back on.



Well I hope you guys liked my clutch install on the fiero. It was my first one with everything actually in the car. All in all, it would have taken 8 hours to do the clutch and took another 2 hours to fix and manifold. I was able to have this done working on it part time over 2 days. The transmission shops in town told him it would be \$900 in labor and 4 days to have the clutch done, and he still would have had to have someone sif the manifold. He supplied me with the clutch, flywheel and fork and I also put new syncromesh in it and a new front tranny mount, and my bill came up to \$500.

Well let me know what you guys think, and if you have any questions just ask.

Mike



www.FierosandMore.com This is a link to my personal web site, has pictures of all my projects and parts for sale.

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Chris88GT
Member

Posts: 101
From: Hamilton OH, USA
Registered: May 2004

User Banned

 **REPORT THIS POST** 09-06-2005 04:55 PM

Thats nice. Wish i would have done mine that way. Followed the hanes manual procedure. I dropped the cradle while suspending the engine. Pain in the ... You know what.

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boysatt
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Registered: May 2005

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 **REPORT THIS POST** 09-06-2005 04:59 PM

quote

Originally posted by Chris88GT:

Thats nice. Wish i would have done mine that way. Followed the hanes manual procedure. I dropped the cradle while suspending the engine. Pain in the ... You know what.

I'll tell you what, the way I did it was really easy, the haynes manual is nuts, I read there procedure and it seemed like more work than the way I did it.

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avengador1
Member



Posts: 35442
From: Orlando, Florida
Registered: Oct 2001


Total ratings: 576
Rate this member

 **REPORT THIS POST** 09-06-2005 08:26 PM

Excellent write up and pictures. Plus for you. 😊

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