BIMMERBOARD.COM

7 Series E38 Forum

This message is marked as Important.

Subject: **Transmission rebuild all in one thread.**
Author: **jbkds** : member since July, 2007 : 1123 posts
Posted on: 2008-02-24 20:27:24

After 2,000 miles of Trouble free driving I wanted to compress all the threads of my transmission rebuild into one thread. Plus add a few more pics of failed parts.

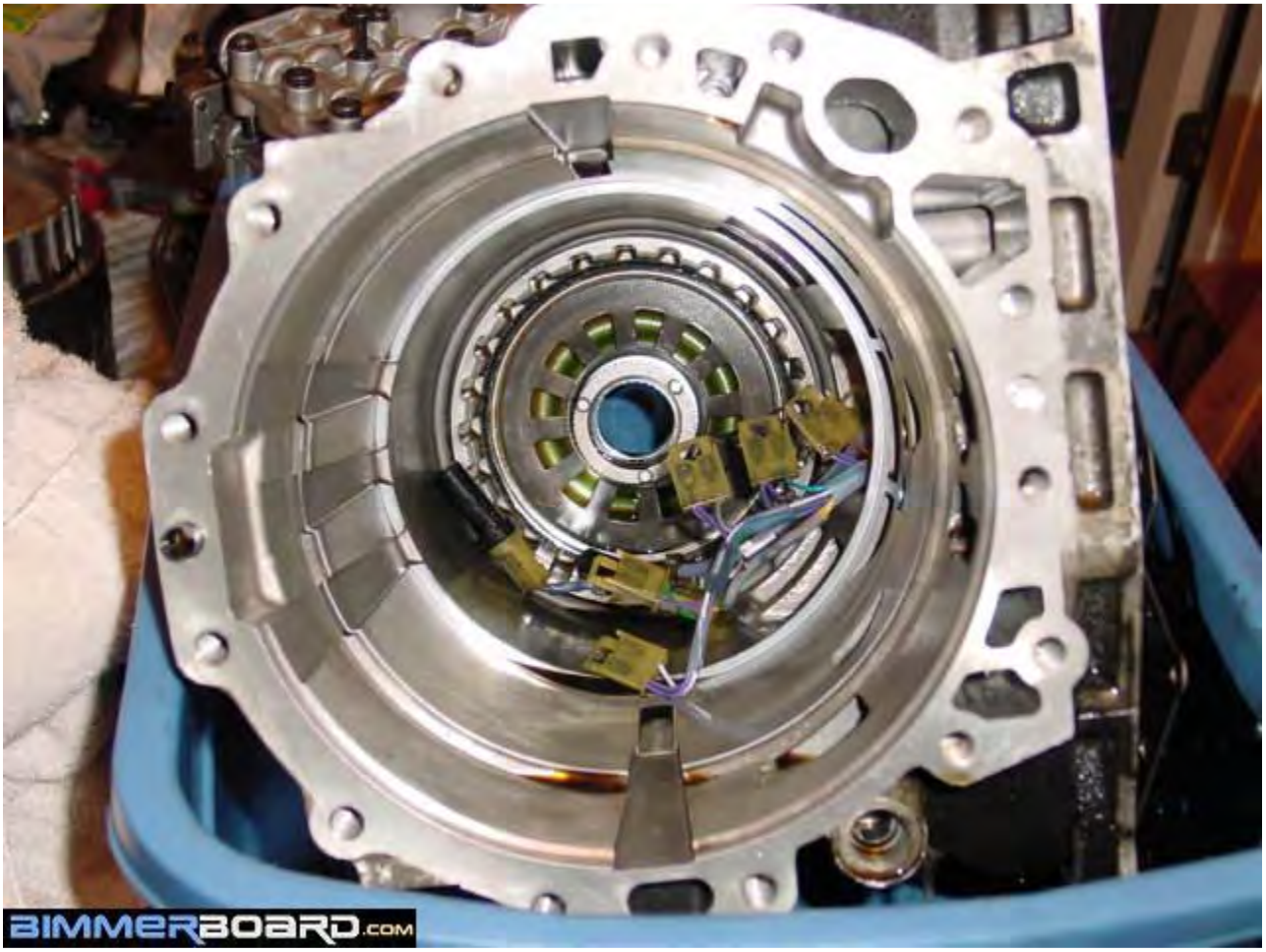
Driving along Dec 22nd on the way home from work got the dreaded Trans Fail message, car drove fine for another 35 miles until I stopped at the bottom of my exit and the car would not move forward any more. It would go in reverse fine. So had the car towed home and did some research. Called Kirt and we came up with that the forward clutch pack sunshell was bad. Being stubborn I tried to see if adding fluid would help (which was a mess..) and when that did not work tried to drop the pan and do a filter change ect. Once I dropped the pan I was faced with how serious the problem was. The bottom of the pan had big chunks of metal and knew my fate at that point. So put the car in the garage and put it up in the air.
Used this Transmission removal
Dropping the exhaust was a 4 day event.. Lol (the bolts ect.. did not want to leave the car.) Finally got the transmission out and opened it up found the cause of the problem.

When talking to Kirt he said that this part is a common fail item along with the reverse piston (more on that later) so ordered all the parts and continued with the tear down. This is what it looks like right now on my dining room table. (Yes I have a wonderful wife that even said to use the table so I could stay warm)

Had to call Kirt again yesterday because I started to get in a hurry putting the valve body back together and squashed some of the orifice rings and tore the gasket. So those parts should be here tomorrow.

You can see the valve body all taken apart in this picture. The two pieces on the blue crate are part of the valve body as well. The main section is in the trans pan.

The reverse piston is at the bottom of the case and is the gold colored part that you can see under the black retaining spring should be able to see it in this picture. Also this is where clutch pack F is.



The black retaining spring was difficult to remove. All of the "fingers" have to be pressed down and a split ring has to be removed to release the spring. I had to use this combo of tools. The first part I bought at LOWES.

It is a garbage disposal quick disconnect ring. I only used the part that is outside the package. It is the perfect diameter to press evenly down on the retaining spring so that you can get the split snap ring out. I tried pushing down on it with the end of two hammers and still could not get it so I came up with this setup.

That is a Chevy crankshaft pulley, a deck lag bolt and a Chevy fuel pump plate. The second picture is how I put it together then tightened the bolt to squeeze the spring.. Very easy this way.
This is the reverse piston. I had no trouble with reverse but as you can see here it would not have been long. The outside edges are very badly chewed up.


BIMMERBOARD.COM

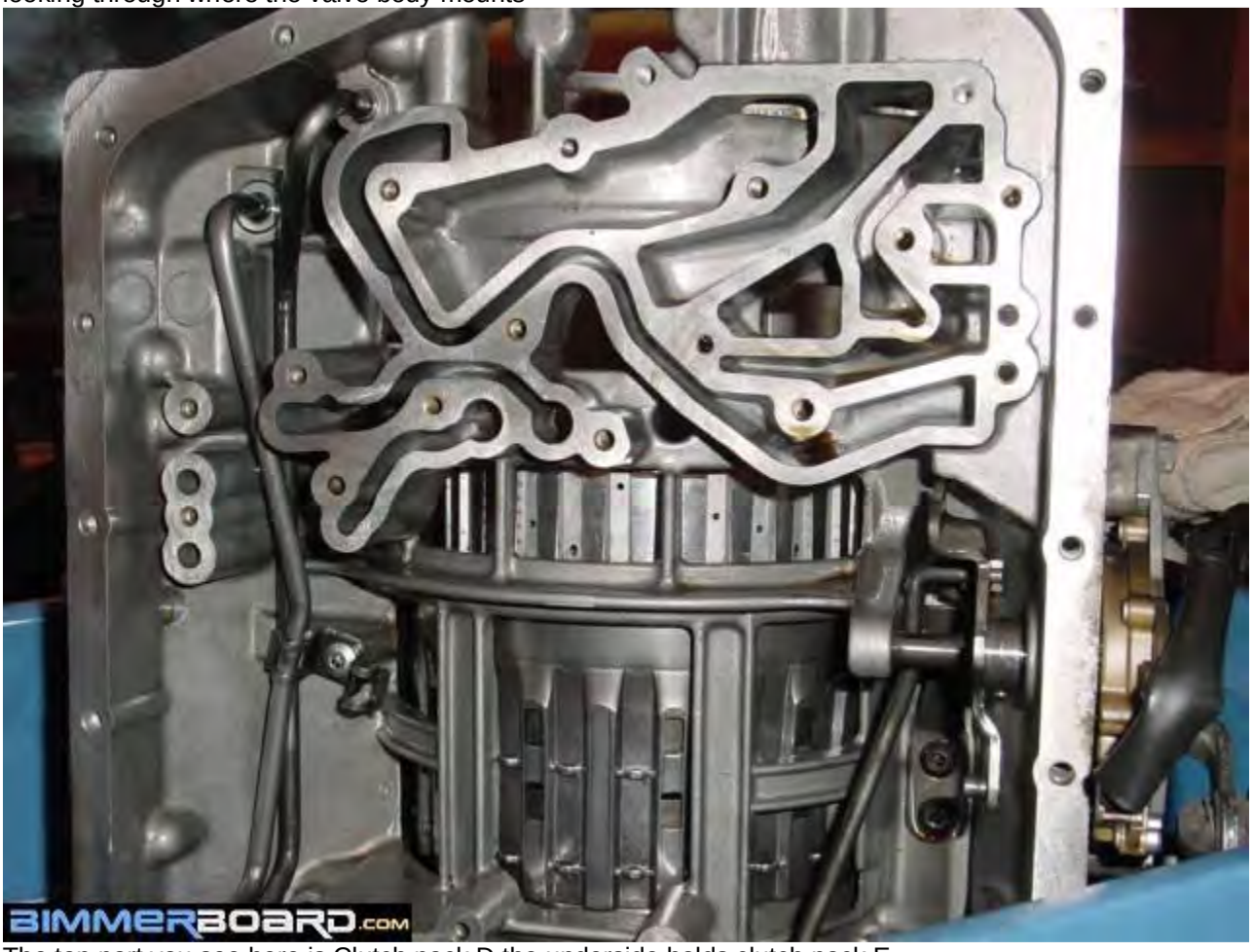

BIMMERBOARD.COM

Next few photos are the parts going into the trans in the order that they went.
Free wheel ring goes into the reverse clutch pack

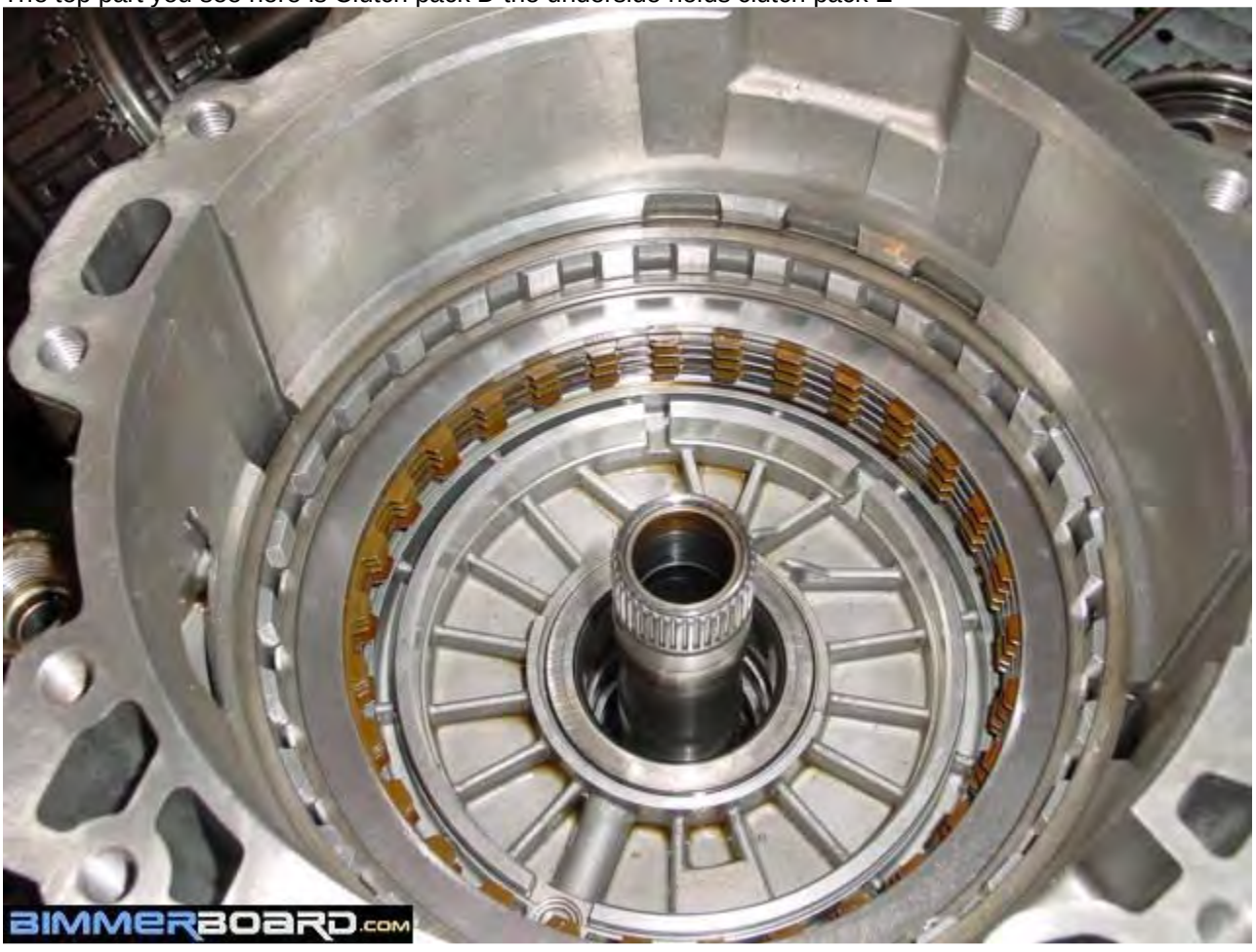
Planetary Drive

another part of Planetary Drive

looking through where the valve body mounts



The top part you see here is Clutch pack D the underside holds clutch pack E



Clutch pack C is in this picture.

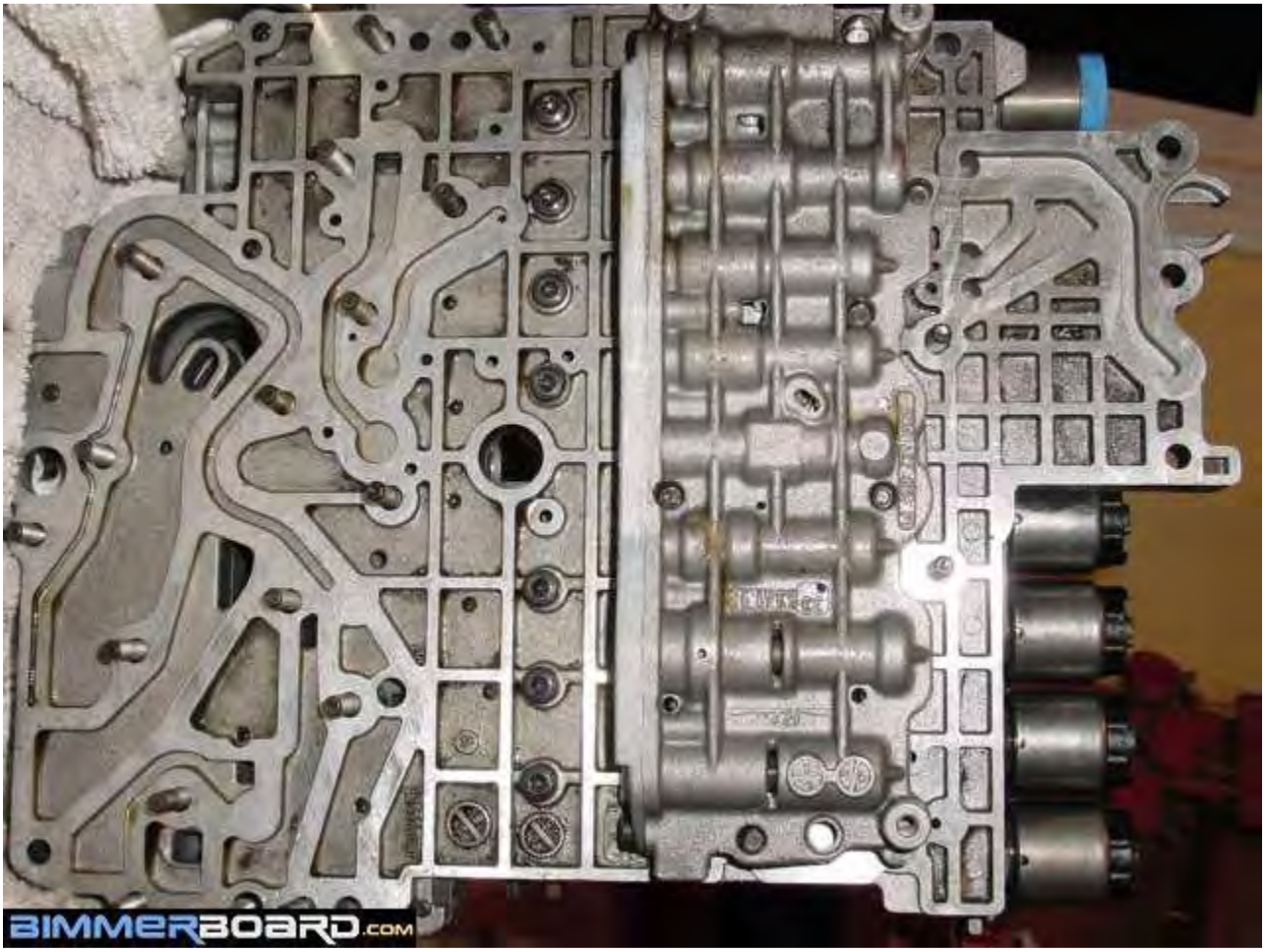
Forward clutch pack, inside this pack the input shaft that broke is located. If I did not have to replace the reverse drum then this repair would have been pretty easy. Once you remove the bellhousing and pump this part is right there.

Back part of the trans. The Chevy pulley went here to pull against the spring on the reverse drum.

Parking lot wheel. This is what holds the car in park.

Main part of the valve body. Has the check ball, orifice valves(the different colored disks), screen filters and pistons.

the part of the valve body you do not see when you drop the pan. The bolts go up into the trans.



The backside of the pump.

Front side of the pump. Bellhousing bolts on to this to complete the Trans rebuild.

This is the casting that I thought I could use to place the dipstick, it is located on the drivers side of trans. I decided not to go this route since this could not be an easy mod for everyone to do. Would require the trans to be dropped. Might have found a way to check fluid level and see the condition of the fluid by using a sight glass... Keep all posted on my findings.

This is the pump I used to fill the trans. I used the Maxlife fluid but this pump would not fit in the bottle, so I used the Mobile 1 bottle and poured the Maxlife into this worked Great. Worked quickly. Autozone $6.00

Lol.. To prove it was me that did the work..

I would have to say the worst part of the job was trying to get the exhaust down without cutting all the bolts off with a saw.. Lol this first picture is the tool set I used to finally get the brass lock nuts off they are from Sears.

The set closest, work Great for stripped out hardware. The aft tools in the red case are the torq sockets you need for the trans to engine bolts. Need the E10 and E14 sizes.
Will also need torq tip set,
a scribe to remove o-rings,
about 4 feet of extensions (to help get to the bell housing bolts),
petrolem jelly to coat all the o-rings after installing,
socket set,
Impact wrench helped with bell housing bolts,
printed out copies of the diagrams that I provided below.

A couple links I used along the way.. Has Great breakdown of the trans.
Break down view

Another View

Bought parts from Kirt at autosports unlimited

Hope this helps someone out. If you have any questions just let me know.

The input shaft was $170
Reverse piston $45.00
rebuild kit (seals, gaskets ect.) $160
Clutches for the input shaft that were burnt and valve body stuff $60
Trans Fluid Maxlife $48.50
Tools plus odds and ends $45