

# How to GX470 Front & Rear Differential Oil

## How to change the Differential Oil on GX470 – 2003-2009 models

This procedure has been quite simple and quite quick in replacing the oils in a jiffy. All you need is the basic tools and the required parts. As you all know the GX470 is LSD equipped so you can source the LSD type from the nearest Auto Parts Store.

The Following parts required:-

Front Differential – Required 1.5 Quartz of Oil (1.4 Liter) (GL5 85W-90 SAE 90 or equivalent)

Rear Differential – Required 3.3 Quartz of Oil (3.1 Liter) (GL5 85W-90 SAE 90 or equivalent)

Tools Needed

1 Socket Wrench.

2. 10 mm Hex Sockets

3. Torque Wrench.

Oil Parts Required. (Choose your own brands, Few of the known brands are listed here)

Toyota oil Part Nr- 08885-02606 (85W-90 – GL5)



Mobil Oil synthetic Gear Lube – (LS 75W90) Royal Purple – Max Gear

I chose to replace the filler and Drain Plugs along with the Crush Gaskets. In case you need to change them here is for ready reference of the Toyota Parts.

For the Front Differential Gear:-

1. Front Filler Plug – P/N 90341-18032 – 1 Qty



2. Front Filler Plug Crush Gasket – P/N 12157-10010 – 1 Qty



3. Front Drain Plug – P/N 90341-24014 – 1 Qty



4. Front Drain Plug Crush Gasket – P/N 90430-24003 – 1 Qty



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## For the Rear Differential Gear-

1. Rear Filler Plug – P/N 90341-18006 – 1 qty



2. Rear Filler Gasket – P/N 12157-10010 – 1 Qty



3. Rear Drain Plug – P/N 90341-18057 – 1 Qty

4. Rear Drain Plug Gasket – P/N – 12155-10010 – 1 Qty



You will require a Gear Lube pump of any brand shown below, I picked up from Walmart – 10/-



And some shop towel rags.

1. First thing park your car on a flat surface. Start the Ignition and ensure to push the button of the Height Control to "OFF" as shown below ( located on your gear Pedestal) and then ensure this is indicated on the Instrument Cluster. Now have the ignition key position to "off".



2. Get the car on a jack stand and ensure to start this process when the car is completely cooled off. Have the Front and the Rear of your truck ramped up, so that there is enough room to work.
3. Now to change the Rear Differential oil, the Rear wheel Drain Plug ideally you should access the car from the rear side of the car, and you will have this view at the bottom chassis, right behind the spare wheel. It is the Pumpkin lookalike stuff middle of the both the rear wheel where you will be doing your work. The Image on the Left is the Filler Plug and the Right is the Drain Plug which is located below the pumpkin stuff.



Filler Plug



Drain Plug

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4. Have the bolt remove using the Wrench ( before you start; give it a few taps with a mallet to loosen the plug) and drain the oil. The oil in mine was bit clear in the beginning, but gradually began to darken at the later stage with a lot of slime greasy stuff.

Important Note: **Always begin with removing the Filler Plug and remove the Drain Plug**



Filler Plug Remove

5. Once the oil is completely drained off, Replace the bolt with the Rear Drain Plug, Here I had used a new one. Here you could see. The drain plug has a magnet attached to catch the metal shavings. You can see here the amount it has got here.



New Drain Plug Fitted

6. Have the New oil filled up until the filler plugs overflow. Use the Pump which is very handy due to space constraints this is the perfect one to pump up the oil. Have the Filler Plug fitted and torque it 39Nm (29ft Lbf).



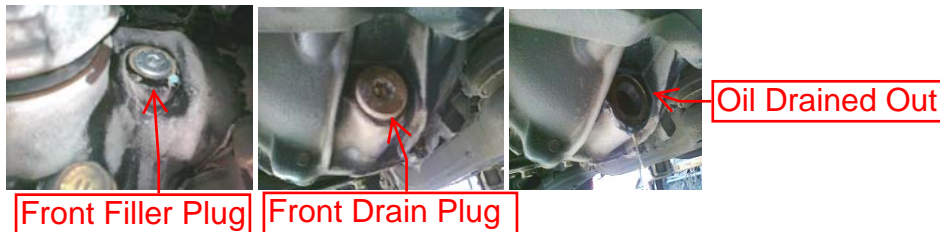
New Drain Plug Fitted

### For the Front Differential Gear

1. First remove the front Engine under cover No 2 rear which is located below the Transmission ( 6 bolts )



Due to the unique position of the Front Differential Carrier Assy, the Drain Plug and the Filler Plug, there is very limited amount of space to work on for the rotation of unscrewing the plugs. Use a Fibre Mallet and have them slapped around the Plugs (10 times) . This will loosen the grip it has got around its threads. Now you can use the Hex Spanner to unlock from its thread. This the view of the Front Filler Plug & the Front Drain Plug. And oil been drained



Front Filler Plug

Front Drain Plug

Oil Drained Out

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Here is a look of the Filler Plugs removed



They were quite rusted and took around 15 minutes to loosen and then to remove these plugs. And the new one compared.



Filler Plug

Drain Plug

Have her filled up to the brim and Have the Drain Plugs fitted back with the new gaskets. Torque to 39Nm ( 29ft Lbf).

Job done, Clean up the area and check up for any leaks after initial start up



Full View after Fill up & Clean up

Now have the Engine Under Cover Fitted and your are good to go. Maybe take a test ride to see the difference. Factory Manual suggests to top it again after a Test ride, My patience was thin. I used for the Front Mobil 1 and for the Rear Toyota OEM. The ride was quite really smooth.

Hope this information was useful.