

# Installation Manual for your NP203/NP205 Adapter Kit



## Step 1:

Remove NP203 from transmission if necessary

## Step 2:

Drain all oil from NP203 into a container and discard/recycle where safe.



### Step 3:

Separate the tail housing from chain case. This is done by removing the 6 bolts that hold the tail housing to the chain case. After the bolts have been removed, smack the housing with a deadblow hammer to loosen the seal.

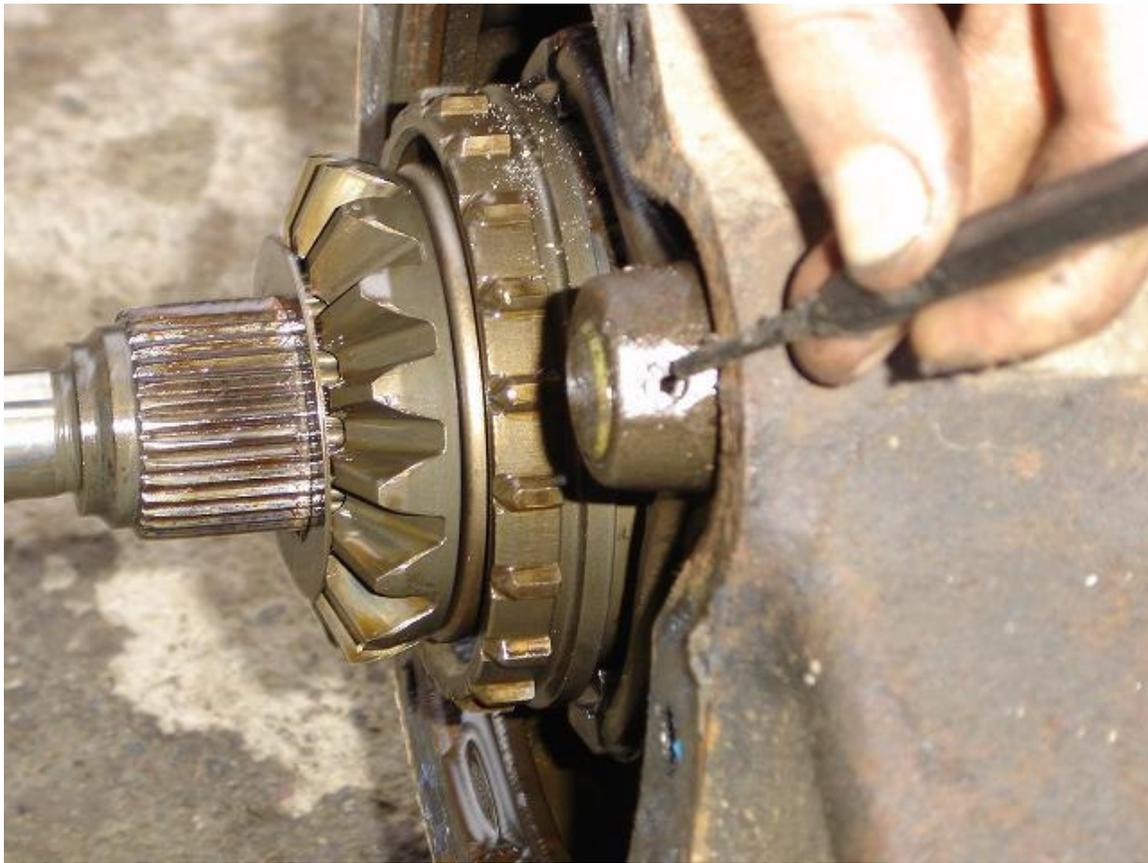
### Step 4:

Pry tail housing away from chain case. You will now see the shift fork assembly.



### Step 5:

Using a small punch, drive the roll pin out of shift fork.



### Step 6:

Unbolt range box from chain case and separate. There are 8 bolts holding the range box to the chain case; 6 accessed from the front of the range box, 2 from the backside.



This may require a light tapping or wiggling on the chain case to break the gasket seal. Once you have the cases separated about 1" you will notice a rod hooked from the range box onto the rear shift rail. You will need to unhook this rod. Once you have, you can now lift the chain case up and away from the range box. This may require some wiggling to free.

At this point you can discard of the chain case and the aluminum tail housing as they are not required to complete the doubler installation



### Step 7:

You will need to remove the portion of the NP203 shift linkage that connected to the rear shift fork earlier in disassembly. This can be found inside the range box.



If you do not remove this, it could potentially fall into your range box and cause serious damage to your gears.

### Step 8:

Make sure you have a clean and uncluttered section of work area, often placing cardboard or newspaper down is a good plan.

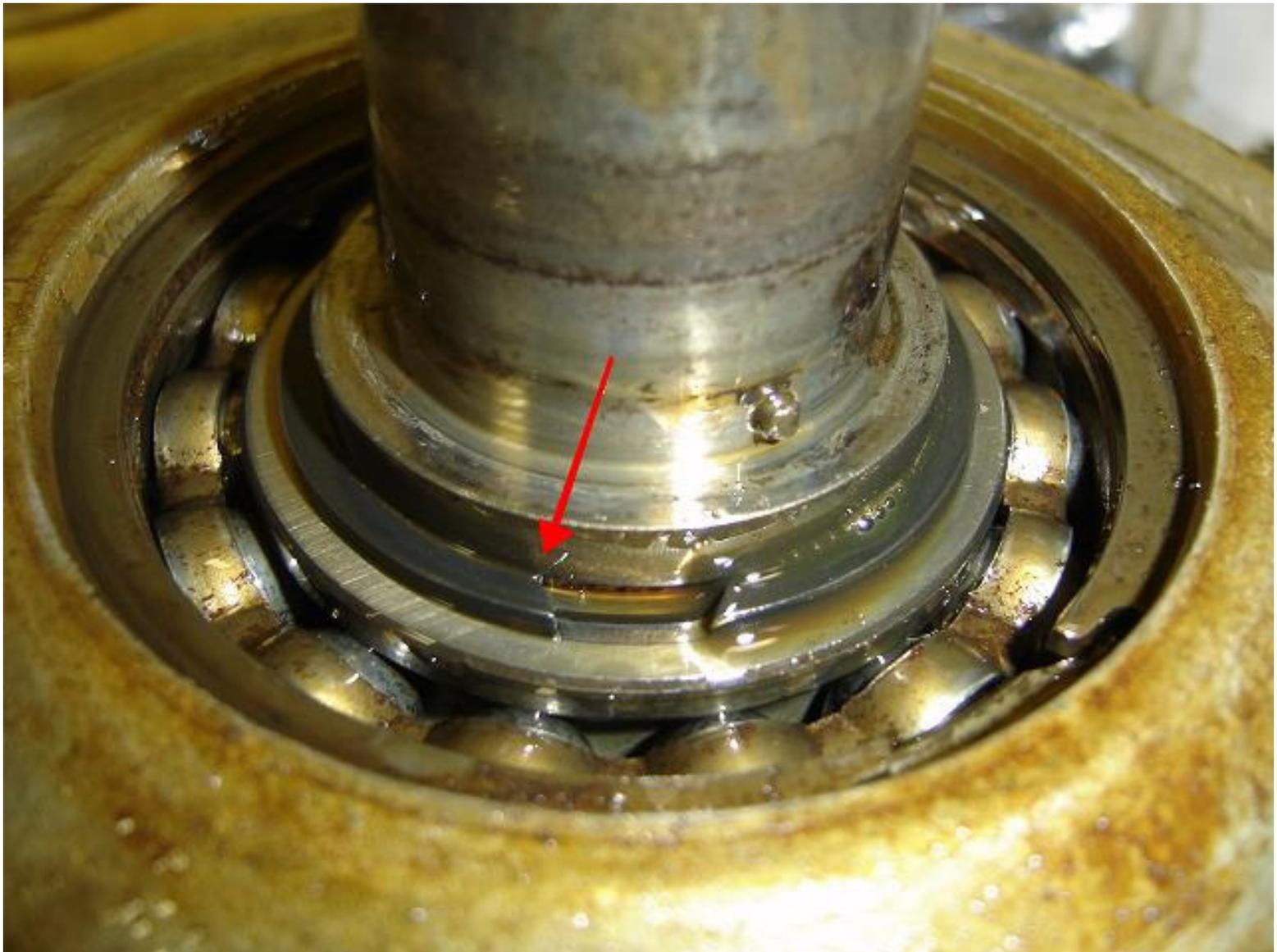


Remove the low range gear and intermediate shaft assembly by pulling it straight out of the range box, and place the assembly on the workbench.

**\*\*Note\*\*** inside the low range assembly contains 15 fat needles, these **MUST** be accounted for, and often fall inside the NP203 range box. You will need these needles later in the installation of your adapter kit. If you do not retrieve all needles from the 203 range box, they could get caught between gears and cause serious damage. Collect the needles and put them aside, in a clean container or bag.

## Step 9:

You now need to separate the low range gear from the stock intermediate shaft



This is accomplished by removing the snap ring retaining the bearing to the shaft. You will need a **LARGE** set of snap ring pliers. Do **NOT** use small snap ring pliers; you will snap them and injure yourself in the process.

Extra care must be taken as this snap ring can pop violently when removed.

**Wear eye protection!**

Set the snap ring aside, you will need it.

## Step 10:

Remove the factory roller bearing and bearing retainer by pulling vertically along the main shaft.

You will then need to remove the thrust washer that is located below the bearing and retainer. Often the gear oil makes this thrust washer stick to the roller bearing assembly. Clean the thrust washer and set it aside, you will need it.

With a set needle nose pliers, remove the locating pin found on the shaft



These are the parts you will need to keep for the re-installation of your low range gear and billet main shaft. Don't forget the locating pin!

## Step 11:

Check that the roller bearing in your factory bearing retainer (removed in Step 10) is still good. These transfer cases are over 25 years old, there is a good chance it is no longer useable. If this is the case, contact NorthWest Fab for a replacement. If the bearing is still in good working condition, remove the bearing from the factory retainer.

This is accomplished by removing the large snap ring, and pushing the bearing out from the backside of the retainer.

Great! You're Done the Disassembly of the NP203 range box! ...Now  
To Put It All Back Together :)

Now Head On to Part Two!