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# NP241 Slip Yoke Eliminator Instructions

| Quantity in kit | ☑ | Part |
|---|---|---|
| | | |
| 1 | | Fixed yoke style main shaft for NP241 |
| 1 | | Billet aluminum bearing/seal retainer |
| 1 | | Flanged locking nut for yoke |
| 1 | | Spacer |
| 1 | | Seal for 2-1/8” diameter yoke |
| 4 | | M10 x 1.5 x 30mm Socket head cap screws |

The new fixed yoke style main shaft is installed just like the stock shaft, so you'll follow the factory rebuild/assembly instructions other than a few minor details. The case needs to be largely disassembled for this swap, so if it needs a rebuild, now is the time.

New Process used two different styles of main shaft depending on the year. The early style used a needle bearing between the main shaft and drive sprocket, in later years New Process deleted that bearing and ran the sprocket directly on the main shaft.

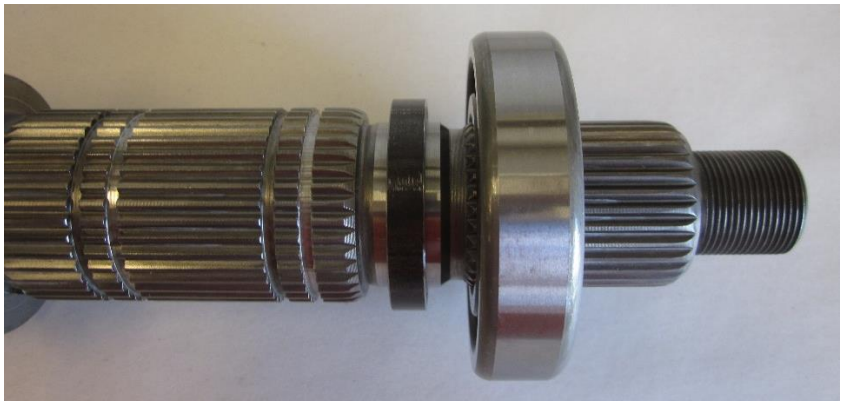
Our shaft is the updated design, without the needle bearing. If you have an early case that had a needle bearing here, remove the bearing and install the sprocket directly onto the shaft. If you have a later case without a needle bearing, proceed as normal.

Pictured below are the early shaft on the left and the updated shaft on the right.

The depth on the pump seal is important. This seal below has been driven beyond flush and can cause problems:

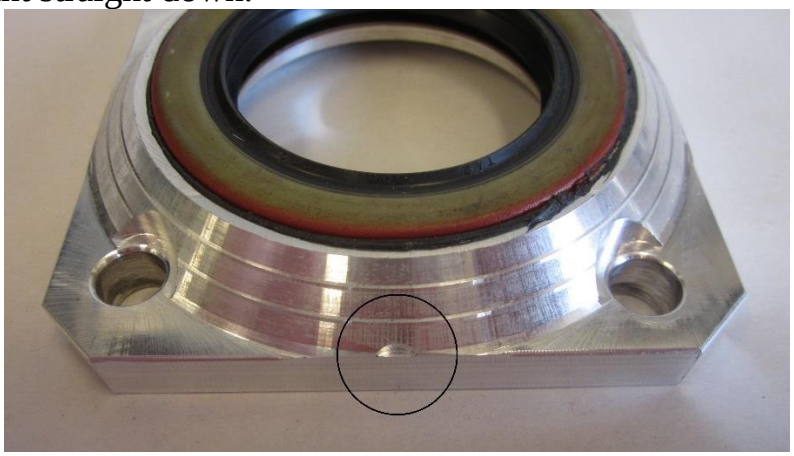
This seal has been driven exactly flush, this is correct. Regardless of how your seal was when you took it apart, make sure the seal is flush with the pump housing when you reassemble it.

A spacer is installed between the shoulder on the mainshaft and the rear output ball bearing as shown.



Install the seal into the bearing/seal retainer, a touch of RTV silicone on the OD of the seal can help if there are any minor imperfections. Remember to oil both the seal ID and yoke OD before final assembly.

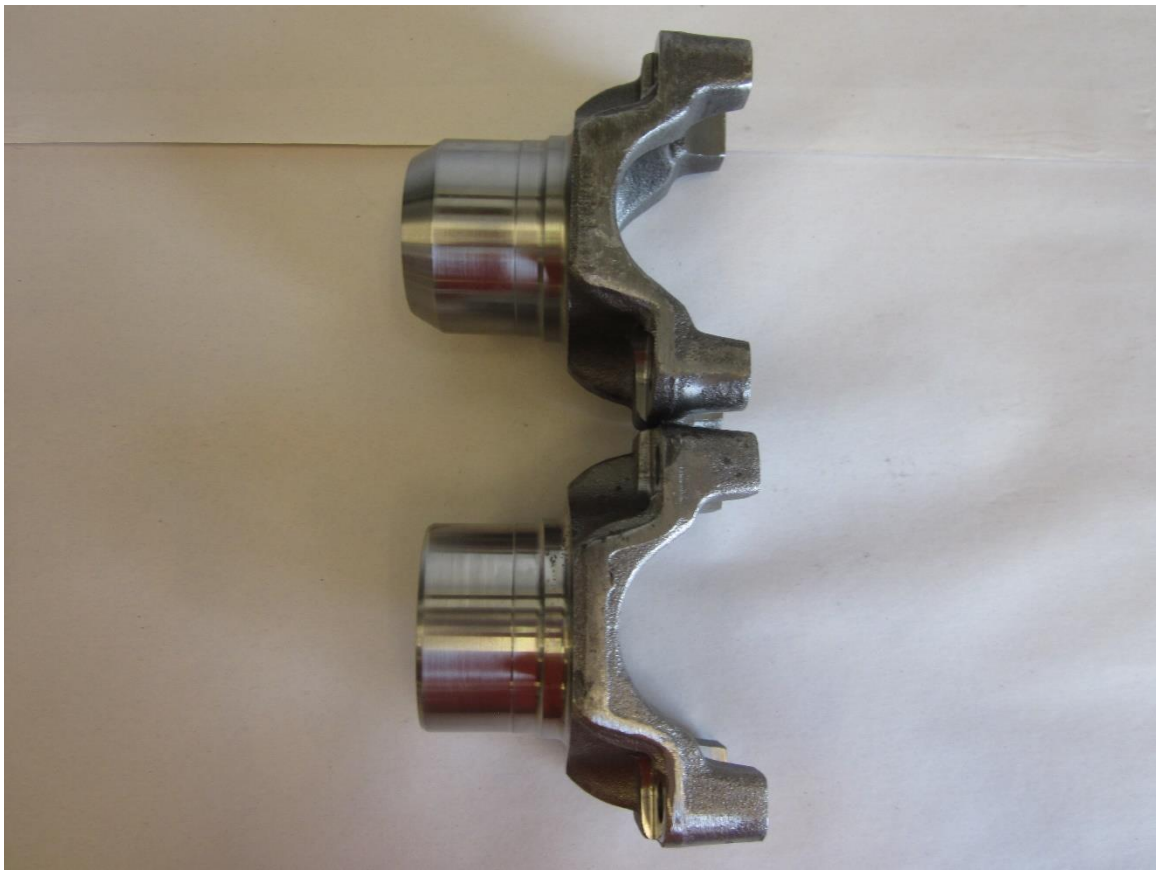
The bolt pattern on the NP241 tailhousing isn't symmetric. We've machined a small ID mark into the bottom of the bearing/seal retainer, that needs to point straight down.



Check that any blind holes in the tailhousing are free of silicone/debris (a blind hole is one that isn't drilled through all the way). The bolt can hydro-lock and break the casting if there is anything residual in the bottom of the hole.

Apply RTV silicone to the back side of the bearing/seal retainer and apply thread locker to the bolts. Install bearing/seal retainer and torque bolts to 23 ft. lbs.

The final detail is the yoke. Most yokes are a little too long for an NP241 SYE conversion, pictured below are a non-modified yoke up top and an identical yoke below that's been shortened ¼".



Most 32 spline yokes will need to be shortened by about ¼", the length of the spline in the yoke needs to be 1-11/16".

It's possible that oil can leak down the splines of the yoke, so it's a good idea to use silicone either on the splines themselves or on the bottom of the flanged nut to prevent an oil leak.

Install yoke and torque nut to 150 ft. lbs.