



California Clutch & Gear presents

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Flywheel Pilot Bearings

Unlike other repairs, clutch jobs stand out as one of the few that require a lot of labor to change a relatively inexpensive part.

And with any labor-intensive repair, many mechanics learn the hard way what happens when a worn part isn't replaced or is replaced with a part of inferior quality: you get to do the job twice.

We strongly encourage our customers to check their clutch linkage, flywheel, transmission input shaft, etc., when changing a clutch. Often, these parts are worn and will interfere with the operation of the replacement clutch.

One of the often-overlooked parts is the pilot bearing. The pilot bearing fits in the flywheel and accommodates the bearing journal of the transmission input shaft.

The pilot bearing bears the weight exerted on the front of the input shaft by the clutch assembly – and this can be a considerable amount of weight if the truck uses a 15-1/2-inch clutch.

A pilot bearing failure can be catastrophic, causing damage that would cost hundreds of times the cost of the bearing.

A pilot bearing failure can cause damage to:

- the clutch assembly,
- the flywheel,
- the transmission input shaft,
- the internal parts within the transmission,
- the front transmission housing and bell housing,
- and the engine flywheel housing.

Because of this, we go out of our way to source the best quality bearing we can find, and those bearings are the first we offer.

Our first-choice bearing is manufactured in the United States by SKF. You can identify them by the "USA" and "SKF" stamped into the outer race.

Cheaper, off-shore bearings generally have the country of manufacturer embossed into the rubber grease seal (eg: China or Poland).

For those on a budget, we do offer these cheaper, off-shore bearings as well..



Clutch Alignment Tools

We carry splined clutch alignment tools for all the common sizes of medium- and heavy-duty clutches.

To supply the correct tool, we need to know the spline diameter of the input shaft and the part number (or inner diameter) of pilot bearing.

California Clutch and Gear
Your Heavy-Duty Drivetrain Specialist

Call Toll-Free:

(800) 432-7348 #1

Local # (562) 921-7754



Three Choices for a Replacement Transmissions and Differentials

When your truck requires transmission or differential work, we offer three options to get you back on the road.

By far the fastest option is an exchange transmission. We keep a number of different models of transmission and differentials on the shelf and ready to go, and we can quote you over the phone with a model number and a couple questions.

For those with a little time to spare, we can also tear down your unit for a time and material quote.

Time and material jobs take more time, obviously, be depending on the condition of your transmission or differential, but they can mean a significant savings in dollars.

And finally, for those who prefer to repair their own units, we can sell you parts over the counter.



We offer rebuilt transmissions and differentials and rebuilt and new clutches. We turn flywheels, repair drivelines and offer R&R labor.

Flywheel Ring Gears

Flywheel ring gears (or starter ring gears) are pressed onto the outer edge of most flywheels and interact with the starter gear to start the truck.

These ring gears can experience a lot of wear and abuse, and they should be inspected whenever the flywheel is down (eg, during a clutch job).

There are two places to look for the kind of wear that requires a replacement.

Firstly, the face of the teeth, where the starter gear interacts with the ring gear can show signs of “digging in.” That is, you will see notches, lines or grooves start to form on the face of the teeth.

Secondly, the edges of the teeth can show a grinding or “rounding” where the starter gear moves to engage the ring gear. This grinding is a result of the racket you hear when you try to start the vehicle, but it doesn’t start.

Depending on the severity of the wear, a new ring gear may be in order.

We carry a very extensive stock of flywheel ring gears that we can install when your flywheel is here for service.

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