



California Clutch & Gear presents

The Gear Gazette

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Help Us Help You: Flywheel Identification



Resurfacing your flywheel is one way to ensure a trouble-free clutch job, as it provides a good surface for the clutch friction material to bind with and reduces the likelihood of the clutch slipping.

To help keep you working, rather than waiting, we offer exchange flywheels for most heavy-duty engine makes and models.

To provide you with an exchange flywheel in a timely manner, here are some tips to identify the flywheel over the phone.

1. **Flywheel Casting or Stamp Number.** Many engine manufacturers put some sort of number on the **engine side** of their flywheels. Sometimes this number is cast into the forging and sometimes it is stamped.
2. **Engine Make and Model.** The manufacturer and model number is sometimes enough to identify a flywheel.
3. **Recess Diameter.** Even with the casting number, engine make and model, we sometimes will need to know the diameter of the recess where the front-most clutch disc spring hub sits into the flywheel. There are three sizes of recesses: 10-inch, 8-1/2 inch and 7-inch.

Did You Know?

We offer **removal and replacement services** for every product we sell:

- **Transmissions**
- **Differentials**
- **Drive Lines**
- **Clutches**
- **Flywheels**

We keep all of the recommended lubricants at-hand so you know your parts are being installed with the manufacturers' recommended lubes.

Call us Toll-Free
1-800-432-7348



Transmission Oil Coolers

Many models of transmission use a combination of oil pumps with heat exchangers or air coolers to keep the operating temperature of the transmission down.

Eaton Fuller's current 10-speed transmission, which we call the "FRO," is one of the most common models of transmission out there, and it is a special case.

Unlike other Fuller transmission models, which either have an internal lube pump or don't, the FRO transmission can also have an **integral cooler**.

Pump or No Pump

In other transmission models, if equipped with an internal lube pump, the transmission pumps oil from the transmission to either an air cooler hanging from the truck or a heat exchanger, which exchanges the heat between oil from the transmission and coolant from the engine.

Pump, No Pump or Integral Cooler

The FRO transmission has yet another option – the **integral cooler**.

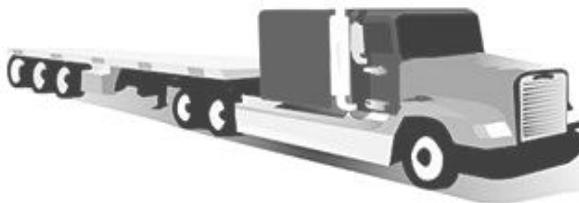
In the FRO transmission, coolant from the engine can be pumped into a heat exchanger **within the transmission housing**.

The integral cooler is held in the transmission housing by a twelve-bolt cover, which also has two ports for the coolant lines.

We can often identify which set up you have a description, but to be sure, we often ask for the casting number from the main transmission housing between the two mounting studs right behind the shift cover.

Some Information About Pumps and Coolers

While the internal lube pump and integral cooler do indeed lower the operation



temperature of the transmission, both can also be the source of a failure.

The material within heat exchangers, integral coolers and external air coolers will degrade over time, causing a leak.

In the case of air coolers, the oil will slowly drip from the transmission, eventually causing a failure due to lack of lubricant.

The heat exchanger and integral cooler are more insidious. Often you won't have an external indication that there is a failure.

Over time, the coolant from the engine and the oil from the transmission will start to mix. Once this happens, a major failure of the transmission is only a matter of time.

If you have either an integral cooler or heat exchanger, consider regular checks of the transmission oil to ensure it is not becoming contaminated.



California Clutch and Gear Yes, We Do Drivelines.

Call Toll-Free:
(800) 432-7348 #1
Local # (562) 921-7754

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We're also experienced with replacing auto-shift transmissions with manual transmissions.

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