

# FAQ's

## Frequently Asked Questions

### **Q: How often should I change my transmission & primary fluid?**

**A:** At least once a year, and preferably when you do your 'before' winter service. Oil, once exposed to oxygen through the vent, will begin to attract moisture and other contaminants that can eat away at seals, rust parts and degrade the fluid. A transmission breathes through the vent in the top cover as it is thermally cycled. As the transmission warms up, it exhales through the vent. As it cools, it breathes in through the vent. The primary drive housing also breathes through the vent in transmission top cover via the hole through the center of the mainshaft. Changing the fluid when warm is preferred as all the oil and its contaminants are in a homogenous solution and you will remove more of the heavy particulates and debris.

### **Q: How much fluid goes in my transmission?**

**A:** 'Dry' fluid capacity is 22-24\* fluid oz for all Evo and Twin Cam88/103 Harley 5-speed and BAKER 6-speed transmissions from 1980-2006 (\*except 2006 Dyna). The 2006-up Dyna, 2007-up Softail & Touring (Cruise Drive factory 6-speed bikes) take a full quart of fluid (32 fluid oz). Use white thread sealant on the drain plug and make sure that the drain plug o-ring (if an o-ring is present) is good condition, before filling the transmission. Replace the o-ring if in doubt of its ability to seal properly. If you check the fluid level with the dipstick, do so with the bike help upright off of the jiffy stand.

Note: By design, we generally establish the fluid line inside the gearbox at .4" below the centerline of the shafts.

### **Q: How much fluid goes in my primary?**

**A:** Fluid capacity is 1 Quart\* (32 fluid oz) for all Evo and Twin Cam88/103 primaries from 1980-2006 (\*except 2006 Dyna). The new bikes 2006-up Dyna, 2007-up Softail & Touring take a 45 fluid oz if the entire primary assembly has been removed or 38 fluid oz if you are simply draining the old fluid adding new oil. BAKER Function Formed Primaries (FFP) takes 10-12 fluid oz; match the fluid type to your clutch as mentioned above. Use white thread sealant on the drain plug and make sure that the drain plug o-ring (if an o-ring is present) is good condition, before filling the primary. Replace the o-ring if in doubt of its ability to seal properly.

If you check the fluid level in the primary, do so with the bike held upright off of the jiffy stand. The fluid level should be at the bottom of the derby cover opening.

### **Q: What kind of oil should I use in my Transmission?**

**A:** BAKER recommends Spectro Heavy Duty Platinum 6 Speed Transmission Fluid (75W140) for all factory and BAKER 4, 5, 6 and 7-speed applications. If Spectro cannot be found, use a gearbox grade oil or in a worst case scenario, differential (85W90) fluid.

### **Q: What kind of oil should I use in my primary?**

**A:** BAKER recommends Spectro Heavy Duty Primary Chaincase Fluid (85W) for all 1980-up stock clutches and mild performance aftermarket clutches. Although we recommend using Dexron III ATF with our King Kong Clutch due to the added friction modifiers found in the Automatic Transmission Fluid.

**Q: Do you recommend the new Harley SYN 3 oil?**

**A:** No. SYN 3 is a 20W50 multi-use full synthetic oil that can be used in the transmission, primary, and the engine according to the Factory. SYN 3 is convenient in that only one oil type need be used in the engine and drivetrain. Like most things in life, the trade for this convenience is compromise. 20W50 works OK in the engine but is way too thin to be effective in the transmission and primary under cold and hot operating conditions. If the convenience of having one type of oil in your garage out weighs your patriotic obligation to take good care of your bike, you should consider selling your Harley so you can buy a Toyota Preus. Then you can join the Peace Corps and help orphaned children with dysentery in Zimbabwe.

**Q: How often should I check the primary chain on my EVO/ TC88 bike?**

**A:** Do the first check at 500 miles, after installing a new primary chain. Do the second check at 2500 miles, and every 5000 miles after that.

**Q: How much free play should my primary chain have?**

**A:** When the bike is cold, 5/8"-7/8" overall on the top strand, with the bike hot, 3/8" -5/8" overall movement. Never adjust the chain on the low side of the spec without doing the following. Put transmission in high gear. Remove the spark plugs. Jack the rear wheel slightly off the ground. Have a drunken buddy, squaw, or circus freak rotate the rear wheel while you observe the rise and fall of the top strand of chain. Inherently, some sprockets have more runout than others so some bikes may have a top strand of chain that rises and falls more dramatically than others. Have your trusty assistant stop rotating the rear wheel when the chain has risen as high as it goes (most taught). This is the point at which the chain free play can be adjusted to the low limit.

**Q: Is there a recommended break-in procedure for my new BAKER transmission or clutch?**

**A:** Yes, drive it like you stole it! Seriously, drivetrain components do not require any break in and can be put into service with 100% duty cycle right away. After 5000 miles or so, you should notice a slight increase in shift quality and the clutch performance.

**Q: Do I need to purchase a rotor for my bike when installing the 2007-later comp sprocket?**

**A:** If you have a 2007 to 2010 Big Twin, you will need a HD rotor to install the BAKER compensating sprocket. For a 2006 Dyna, you will need a HD rotor and stator. For 2011 Big Twin models, if the stock spring cup is welded onto the stock rotor, a new HD rotor will be needed in order to install the BAKER compensating sprocket. HD rotors and stators are available for purchase from BAKER Drivetrain or your local HD dealer.

**Q: What length is my clutch rod and what are the applications?**

**A: Right Side Rod Baker Products:**

- 125-5R = 3.974 length
- 125-5MR = 4.466 length
- 126-56HR = 4.270 length
- 126-56MR = 4.556 length

5 Speed Right Side Rod:

- 37089-84 = 2.625

OD6 Right Side Rod:

- 37089-84L = 2.81

Center Rod Lengths:

- 37088-90 = 10.875
- 37088-90E = 11.375
- 37088-90B = 11.815
- 37088-90N = 11.675