

Texas T Parts

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T3369-BB+ - Ball Bearing 4th Main "Plus" Installation Instructions

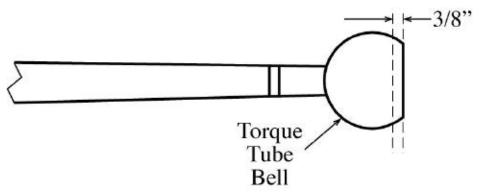
Note: Please read completely through the instructions carefully before starting to insure you have everything on-hand you will need. A tube of "PRESSFIT" has been included. PLEASE READ ITS LABEL!

- 1. Remove the drive shaft and differential from the car.
- 2. Remove the old 4th main from the rear of the transmission.
- 3. Lay an old rag inside the transmission to catch any dirt.
- 4. Clean off the old 4th main gasket from the pan. Using a straight edge across the back of the transmission cover and oil pan, measure the distance to the clutch spring. It should be 1-5/8". The casting of the ball bearing forth main extends 1-9/16" into the transmission cavity. There should be at least 1/16" clearance between the forth main casting and the clutch spring. If you have less, call us to discuss solutions.
- 5. Check the transmission drive shaft for a "lip" at the very end. A lip will not normally be found, but it is sometimes caused by excessive wear in the old 4th main. Test it by trying the new 4th main. It should start easily and push on by hand about an inch. Do not force it or attempt to install the 4th main completely at this time. If the 4th main will not start easily, the end of the tail shaft will need to be dressed with a small flat file until the new 4th main will start easily.
- 6. Using #80 emery paper or wet & dry sandpaper, roughen the end of the tail shaft for about 1-1/2". This will give the PRESSFIT better adhesion. Clean the tail shaft and the inside of the 4th main collar with lacquer thinner or contact cleaner.
- 7. Install the new gasket or gaskets on the rear of the pan, using a gasket sealer to hold it in place.

Note: If you are installing a Warford or other auxillary transmission, you do not need to trim the ball on the driveshaft. You may proceed to Step 11. If your car does not have an auxillary transmission installed behind the engine you will need to trim the ball on the end of the torque tube as described in Steps 8 thru 10 below.

- 8. Remove the universal joint from the drive shaft and clean the drive shaft housing bell thoroughly.
- 9. With a good hacksaw, equipped with a new Nickelson 14 to 18 tooth blade (why not be nice to yourself, unless your brother-in-law is helping, and then, who cares?) trim the end of the drive shaft housing bell 3/8" as shown in the drawing below. If your brother-in-law is not available an abrasive cut off saw works really well.

Cutting off this 3/8" is necessary to provide clearance around the new 4th main. Otherwise, the new 4th main can be broken when the rear axle moves down as you drive over a rough road. Don't forget to smooth the edges with a file after cutting.



- 10. Clean any filings from the housing bell, re-pack the universal joint in grease, and re-install it on the drive shaft.
- 11. With the drive shaft assembly (or Warford Transmission) ready to install, apply a thin coat of PRESSFIT on about 1-1/2" of the tail shaft end and the full inside length of the 4th main bearing collar. Remove the old rag from inside the transmission.
- 12. Push the 4th main assembly onto the tail shaft as far as possible by hand, and if necessary, finish seating the bearing collar on the tail shaft with a hammer and a driver until the 4th main assembly is seated on the gasket. Be careful not to damage the outer bearing seal, The bearing and collar should protrude past the tail shaft for 1/16" to 1/8". With a couple of bolts holding the 4th main in place, turn the engine over 2 or 3 times and then wipe the excess PRESSFIT from around the tail shaft.
- 13. Install the drive shaft assembly as normal. Be sure to coat the outside of the housing bell with grease.
- 14. Allow the PRESSFIT to setup for about 24 hours before moving the car, or starting the engine. Then, you're ready to go.
- 15. To remove the 4th Main Plus, first remove the transmission cover and the oil pan. Using a bearing separator that is large enough to fit behind the bearing (do not put any pressure on the housing), pull the bearing and housing off the <u>sleeve</u>. To remove the sleeve from the transmission shaft it is necessary to heat it to at least 380 degrees. To release the Pressfit. The wife's oven works well for this, providing you clean most of the oil off and she's not at home.

Have fun, and remember: If you like our product, tell your friends. If you have a question or a problem, let us know.

Important Note: One of the more destressing oil leaks from the Model T engine occurs when oil leaks into the universal joint housing from the engine and then leaks on the floor or even runs down the torque tube and fills the differential. The leak can be caused by a worn babbitt 4th main OR a loose soft plug (freeze plug) that is supposed to be inside the driven plate sleeve of the transmission. We have seen both missing plugs and plugs in place that appear to be tight but still leak.

If this plug is missing, see page 20 of the MTFCA book on rebuilding *The Model T Ford Transmission* (Texas T Parts Item # BT-T) for instructions on how to replace the plug.

If your soft plug is in place, we suggest degreasing the U-joint end of the sleeve with brake degreaser and using your finger to press some RTV around the soft plug to seal it.

Thanks, and Smooth Running,

Sometimes we get calls regarding whether or not the loctite furnished with the Ball Bearing 4th Main Plus will fill the gap on a loose tailshaft. The sleeve on the Ball Bearing 4th Main Plus is machined at the size to fit on a Model T tailshaft that is not worn. We are confident that Loctite 660 suitable for this application unless your tailshaft is EXTREMELY worn. It is the users responsibility to determine if the wear on their car's tailshaft is too extreme and the tailshaft needs to be replaced. However, we have not seen the product fail to serve the function properly when it is installed onto properly cleaned surfaces.

According to the Loctite website, "LOCTITE® 660 is designed for the bonding of cylindrical fitting parts, particularly where bond gaps can approach 0.50 mm (0.02 in.). The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration. This product possesses excellent gap cure characteristics. Typical applications include restoring correct fits on worn shafts, spun beraings, and damaged keyways."

TEXAS 'T' PARTS LIMITED WARRANTY

Texas 'T' Parts will repair or replace any part that we manufacture, for a period of 90 days from the date of purchase, that wears out or breaks.

Since we don't install parts, the part must be installed on the type of individually owned and operated passenger vehicle for which it is designed. Of course, we cannot replace a part whose failure was caused by another faulty part, low fluid, or other abuse.

Return any part directly to us, along with a copy of the sales receipt showing the date of purchase, and \$5 to cover shipping & handling. Do not return parts to your dealer.

That's what our warranty means in plain English, but we regret we must include this legalese, too: THIS LIMITED WARRANTY REPRESENTS THE TOTAL LIABILITY OF TEXAS 'T' PARTS FOR ANY WARRANTED PART, AND TEXAS 'T' PARTS MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTIBILITY OR FITNESS FOR A PARTICULAR PURPOSE. TEXAS 'T' PARTS SHALL NOT BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES. Texas 'T' Parts reserves the right, at its option, to refund the customer's money instead of replacing a part. This warranty does not cover parts that are installed on marine, off-road, commercial, or government vehicles, or stationary units.