



Bulletin No. REL-JD1.30-12 Group No. 1.30

September 21, 2006

Page 1 of 1

Crankshaft End Play Thrust Bearings. Engine Prematurely Fails or Seizes After Being Installed.

It is very important to check crankshaft end play after installing the engine, to insure that the crankshaft still has the proper end play to it and is not bound against the thrust bearing flanges. Failures of the thrust bearings will occur if the crankshaft does not have the proper end play. In some applications, primarily those tractors with quad range transmissions, improper installation of input shaft in clutch and P.T.O. clutch can put pressure on the rear of the crankshaft.

To check crankshaft end play, you will need to remove or loosen all belts and disconnect the hydraulic pump drive. You will need to install a dial indicator on the front timing cover or in an appropriate location to be able to position the indicator on the front end of the crankshaft. Using a pry bar, pry the crankshaft as far to the rear of the cylinder block as possible. Set dial indicator to zero, and then gently pry the crankshaft as far forward as possible. Check the reading on the dial indicator, and it should be the same as when the engine was assembled. If the engine was received as a short block, long block or as a complete engine you should measure the crankshaft end play and make a note of your findings before you install the engine in the machine.

Failure to check the crankshaft end play on any rebuilt engine will void warranty on engine parts.

Please check the following list of tractors with Quad Range Transmissions as these applications are particularly susceptible to having crankshaft end play problems.

Tractors: 8430, 8640, 8850, 4050, 4650, 4430, 8440, 8650, 4250, 4450, 4440, 4040, 8630, 4630, 4030, 8450, 4240, 4640, and 4230.

If you have further questions, please contact Reliance Technical Support.