



## **ATTENTION:**

### **SERVICE BULLETIN**

**\*\*\*Please distribute to your Parts Department\*\*\***

#### **Repairs to either 145 or 165 HP Gearboxes requiring Disassembly of the Output Shaft**

For the Brown Tree Cutter with either 145 or 165 Horsepower Gearboxes, ANY repairs to the gearbox requiring the disassembly of the output shaft **MUST REPLACE** the TOP, Output Shaft NUT. Part Numbers: BM-110 and T5-044A as the NUT is a **NON-REUSABLE ITEM**. – Please read below for further information.

-145 HP Gearbox Part No: BM-110 (Top, Output Shaft Nut)

-165 HP Gearbox Part No: T5-044A (Top, Output Shaft Nut)

This nut controls the preload of the output shaft bearings. At the factory the nut is set by measuring the rolling torque of the output shaft, with the seal removed (these seal lips have a certain amount of drag which affects the rolling torque).

The procedure is to assemble the output shaft, bearings, and gear, and tighten the nut until all play is removed. Bed the bearings by striking the end of the shaft with a soft faced hammer, and striking the top of the shaft using a large diameter punch. Then check the rolling torque of the output shaft with the seal removed.

-For the 145 HP Gearbox, this value should be 8.5 to 12 lbs. – in.

-For the 165 HP Gearbox, this value should be 17 to 23 lbs. – in.

When the proper rolling torque is achieved, the thin section of this nut should be staked into the keyways on both sides of the shaft. This will lock the nut in position and preserve the preload setting. Measuring the rolling torque of the output shaft is more accurate, as it is not affected by deformed threads or old locking compounds on the threads (which increase frictional torque of the nut's threads).