



Model: TM80/TM120	Nov. 16, 2018
Serial #: All	
Product Bulletin # TM-028	

## Spinner Roller Bearing Upgrade

Excessive loads on the TM80/TM120 spinner roller frame assembly can cause the inner races of the spinner roller bearings to separate from the outer races. Once separated, the inner race on the lower spinner roller bearing has a tendency to slide down the spinner roller shaft and rest on the bearing cap. This causes the spinner roller shaft to become unsupported and results in metal-to-metal friction between the inner race and the bottom cap, generating heat and metal contamination and causing excessive wear on the affected components. This problem is exacerbated when the roller bearings are not properly greased.

An upgraded roller bearing is now available which will greatly reduce the chances of this type of failure. The dynamic load rating on the new bearing is 78.1 kN compared to the dynamic load rating on the current bearing of 60.5 kN. In addition, the new bearing has flanges above and below the inner race that inhibits axial movement and separation of the inner race from the outer race, preventing the bearing from sliding down the shaft and coming into contact with the bearing cap.

### Affected Units:

All Canrig Torq-Matic Automated Floor Wrenches.

### Installation

Canrig kit P/N AY51455 contains the necessary quantities of bearings plus seals and thrust washers for all four spinner rollers. Replacement of the bottom bearing caps (qty. 4) and motor shaft bushings (qty. 4) are optional but highly recommended as they may be worn from metal contaminants.

**Table 1: AY51455 — Kit, Spinner Roller Bearings Double Row, TM-80/120**

Item	P/N	Description	Qty
1	S10104	Seal, Steel Case, Oil	8
2	DT51884	Spacer, Washer	8
3	M15457	Brg, Needle, Double Row, 60 x 85 x 25 mm	8
4	1611000261	Thrust Washer	4
<b>Below not included in kit (Optional)</b>			
5	161100253	Bearing Cap, 3.346	4
6	EP-1000173	Blue Loctite 242	1

Refer to the spinner roller frame assembly AY51334 BOM in the parts manual for replacement part numbers. Inspect and replace components that show signs of corrosion, damage or wear. If a complete overhaul of the spinner roller frame assembly is required, contact RigLine 24/7™ Support to order kit AY50189.

## Procedure



### Note

**It is highly recommended** that this procedure be **performed in a controlled environment**, such as a workshop.

1. Replace Main Gear Upper Bearings:
  - a. Remove the two (2) hydraulic hoses connected to the spinner assembly.
  - b. Remove the spinner assembly from the wrench for optimum accessibility.
  - c. Remove the four (4) nuts and corresponding washers holding the motor to the spinner assembly.
  - d. Note orientation of motor for future reference during reinstallation.
  - e. Remove the spinner motor (H10421).

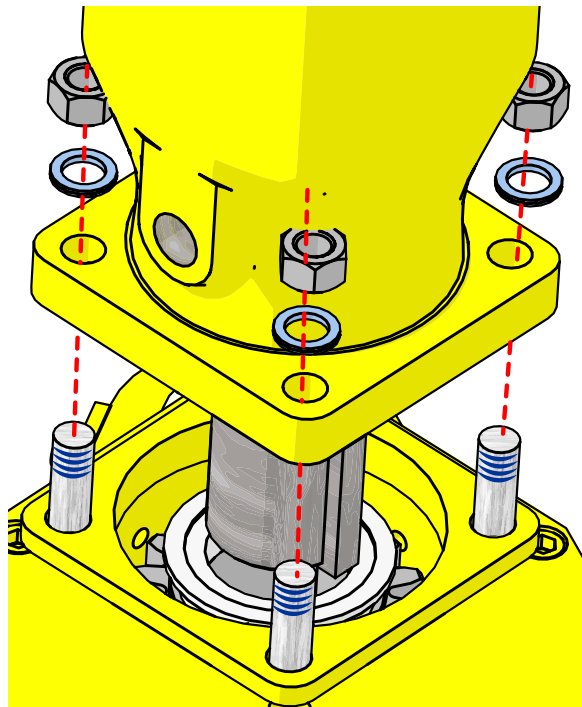


Figure 1: Remove spinner motor.

- f. Remove the spinner motor mount.
- g. Remove the two 1/2" bolts in the spinner gearbox.
- h. Remove the spinner gearbox.

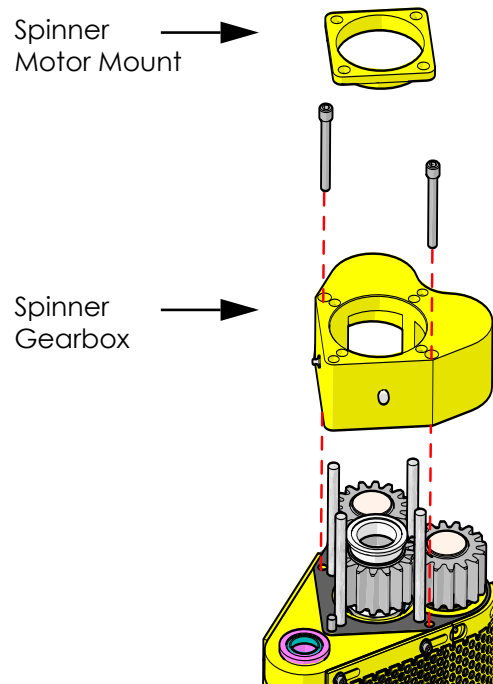


Figure 2: Remove spinner gearbox.

- i. Remove the retaining rings.
- j. Remove the gears.
- k. Replace the thrust washers (P/N: 161100261) with new washers from the kit.
- l. Replace bearings (P/N: M10500) with bearings M15457 from the kit.
- m. Replace seals (P/N: S10104) with new seals from the kit.

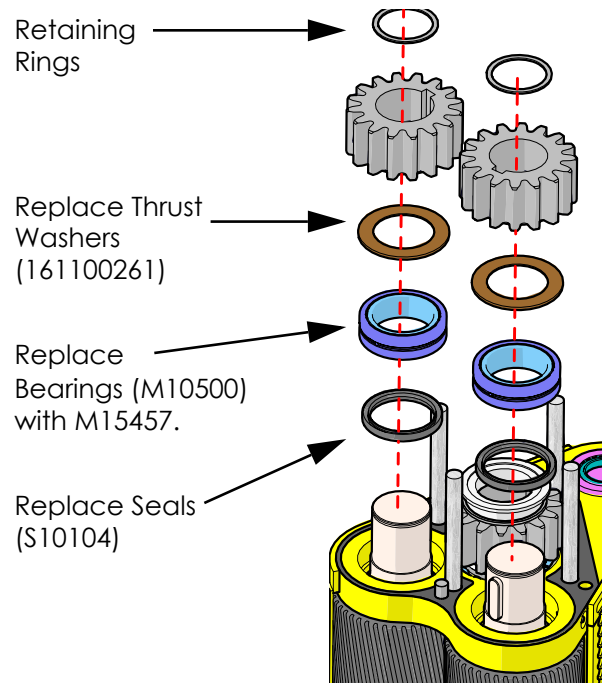


Figure 3: Remove spinner gear box and gasket.

- n. Reinstall seals, bearings, washers, gears, and retaining rings in the proper order. See Figure 3.
- o. Reinstall spinner gear box.
- p. Add blue Loctite 242 to the bolts.
- q. Torque to 99 ft-lb.

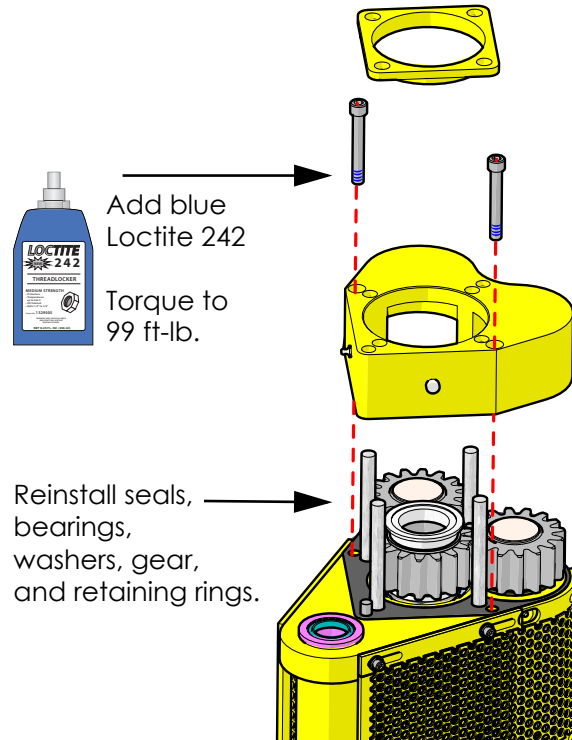


Figure 4: Reinstall components.

- r. Apply blue Loctite 242 to the four (4) exposed bolt threads.
- s. Reinstall washers and nuts in the proper order. See Figure 1.
- t. Torque nuts to 149 ft-lb.

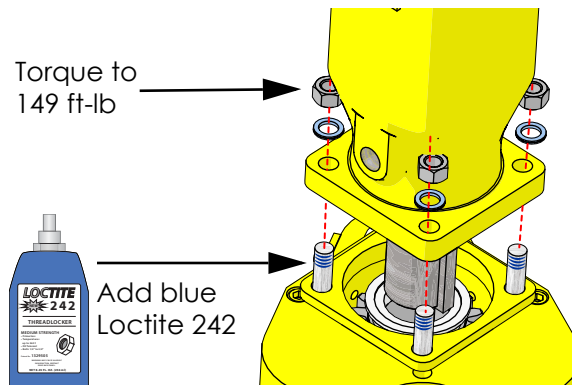


Figure 5: Reinstall components.

2. Replace Lower Bearings:
  - a. Remove the four (4) 5/16" bolts and corresponding washers holding the bearing cap.
  - b. Remove the bearing cap.

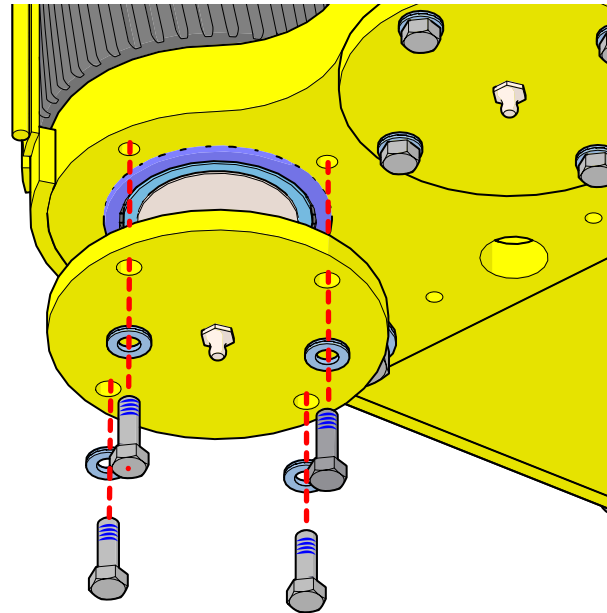


Figure 6: Remove bearing cap.

- c. Remove the seal and bearings.
  - d. Replace the bearings with M15457 from kit AY51455.
  - e. Replace seal (P/N: S10104) with new seal.

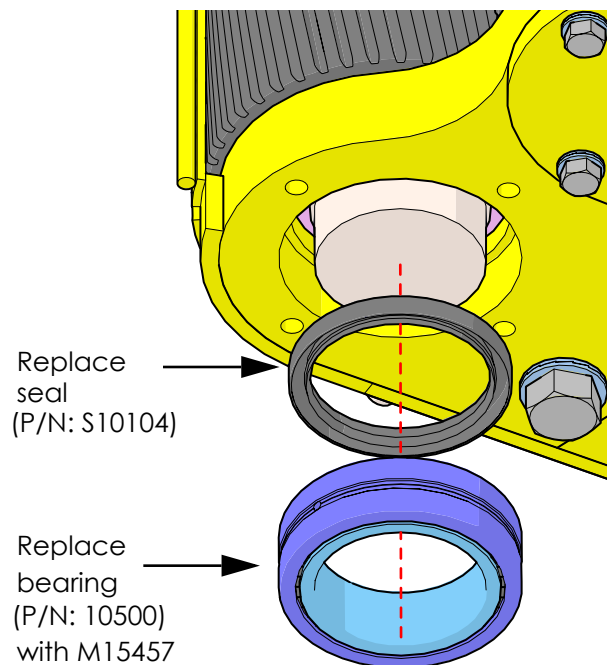


Figure 7: Remove lower bearing.

- f. Reinstall the bearing cap using fittings in the proper order. See Figure 6 on page 5.
- g. Add blue Loctite 242 to bolt threads for all four (4) 5/16" bolts.
- h. Torque bolts to 198 ft-lb.

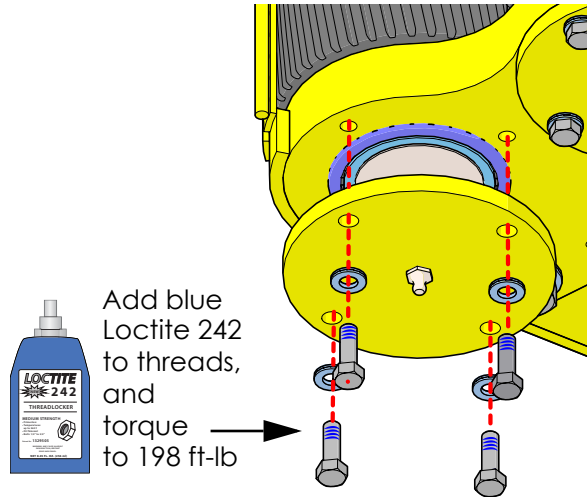


Figure 8: Reinstall bearing cap.

- 3. Repeat "Replace Lower Bearings:" ( on page 5) for the other lower bearing.

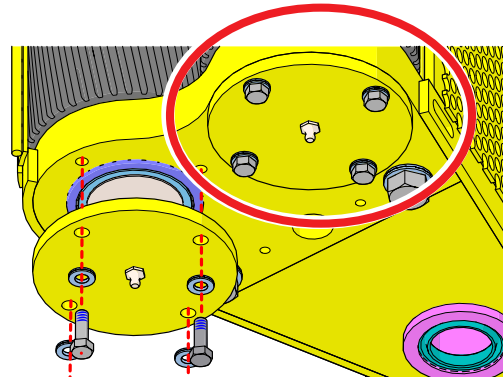


Figure 9: Repeat for other roller bearing.

- 4. Repeat entire procedure for the other spinner assembly on the wrench.

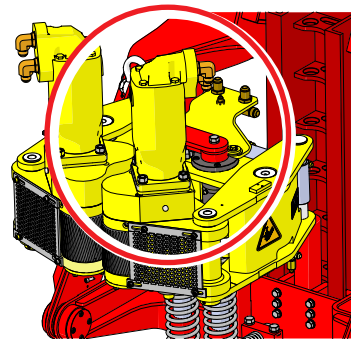


Figure 10: Repeat for other spinner assembly.



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5. Reinstall spinner assembly, roller frame assembly, and hydraulic hoses.
6. Grease spinner gearcase and lower bearing caps with lithium complex grease that complies with NLGI classification No. 1 or No. 2.
7. Test function to ensure proper installation.
8. Put back into service.

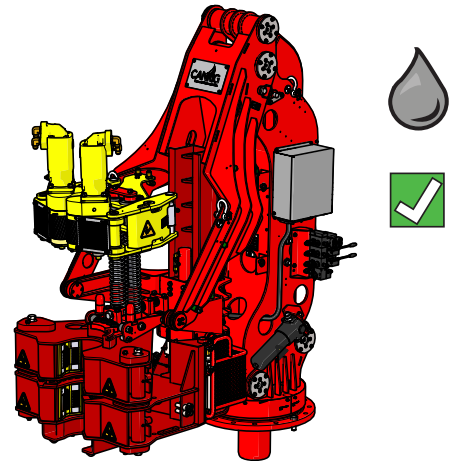


Figure 11: Test and put back into service.