

## Service Bulletin

Date: 8/13/2008

Product Type: **RYAN JR & Heavy Duty Sod Cutter**

Bulletin No: JC-020-08

### **Failing Sprocket/shaft/gear assembly**

**ISSUE:** We have received warranty claims on the composite metal "wheel drive" shaft, sprocket & gear assembly **547427** prematurely failing. This part is responsible for providing power to the drive rollers on the Sod Cutter.

**CORRECTION:** Standard Steel gear assembly was reinstated, effective 5-28-08.

**ACTION REQUIRED:** Due to the very low failure rate of the units produced with this style gear, and the knowledge that its assembly related rather than materials related we are authorizing fix as fails on the units and serial numbers listed below.

**PART INVOLVED:** **547427** – Instructions follow.

**PRODUCTS INVOLVED:**

**MODEL**

544844E serial 54484400961 – 54484401005 (zero reported)  
544845E serial 54484501381 – 54484501477 (3 reported)  
544944A serial 54494401469 – 54494401563 (zero reported)  
544945A serial 54494506113 – 54494506375 (16 reported)  
544946A serial 54494600070 – 54494600071 (zero reported)

**WARRANTY: 1.2 hours ONLY on as fail basis.**

If you have any questions please contact Commercial Grounds Care, Inc.  
Customer Service Department @ 920-699-2000

This bulletin is relevant to the departments shown below. Please circulate as appropriate.

SERVICE ☒

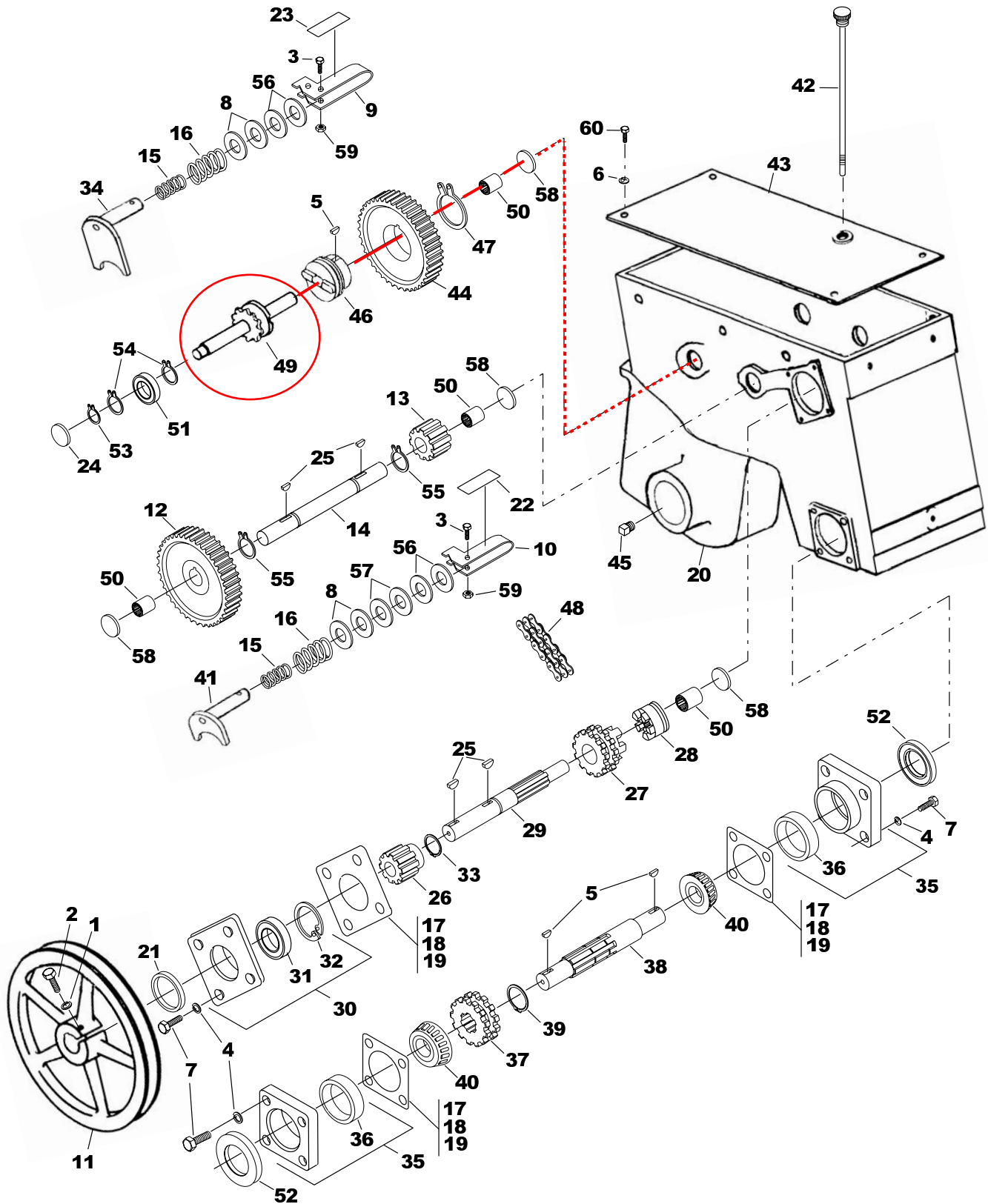
WARRANTY ☒

SALES ☐

PARTS ☒



FIGURE 2

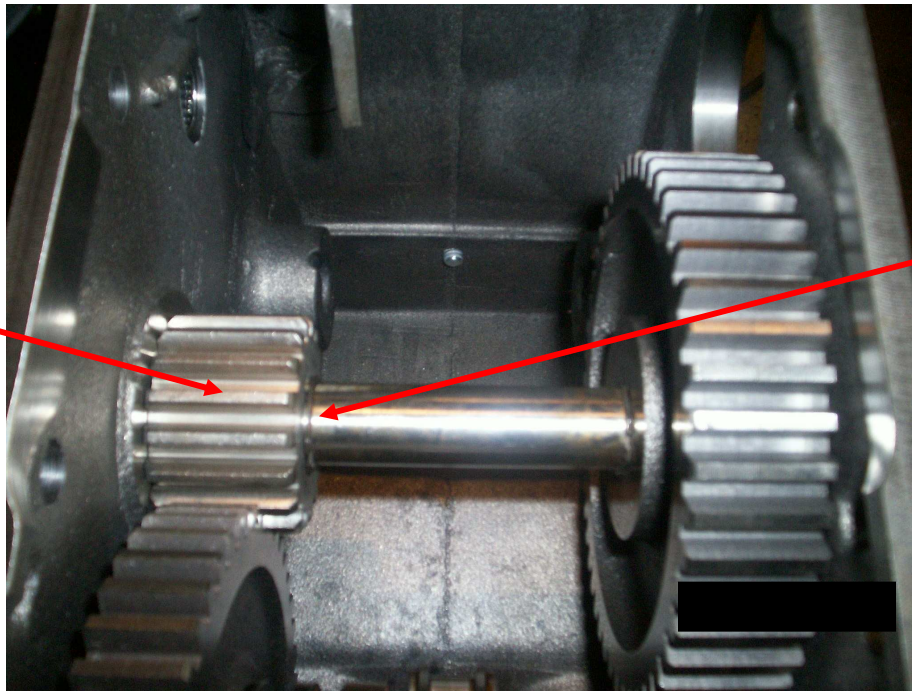


**JR Sod Cutter Gear Box**  
**Replacement of Gear Shaft #547427**  
**Instructions**

**JC-020-08**  
**Instruction PG 2**

1. Remove top cover of gear case to access inside of gear case to remove shaft (Part # 547427).
2. Loosen snap ring (Part # 548321) that holds small gear (Part # 516150). Slide gear over to the right and remove keyway (Part # 64164-28). Keyway is located underneath small gear (See **Figure 1**).

**Small Gear  
516150**

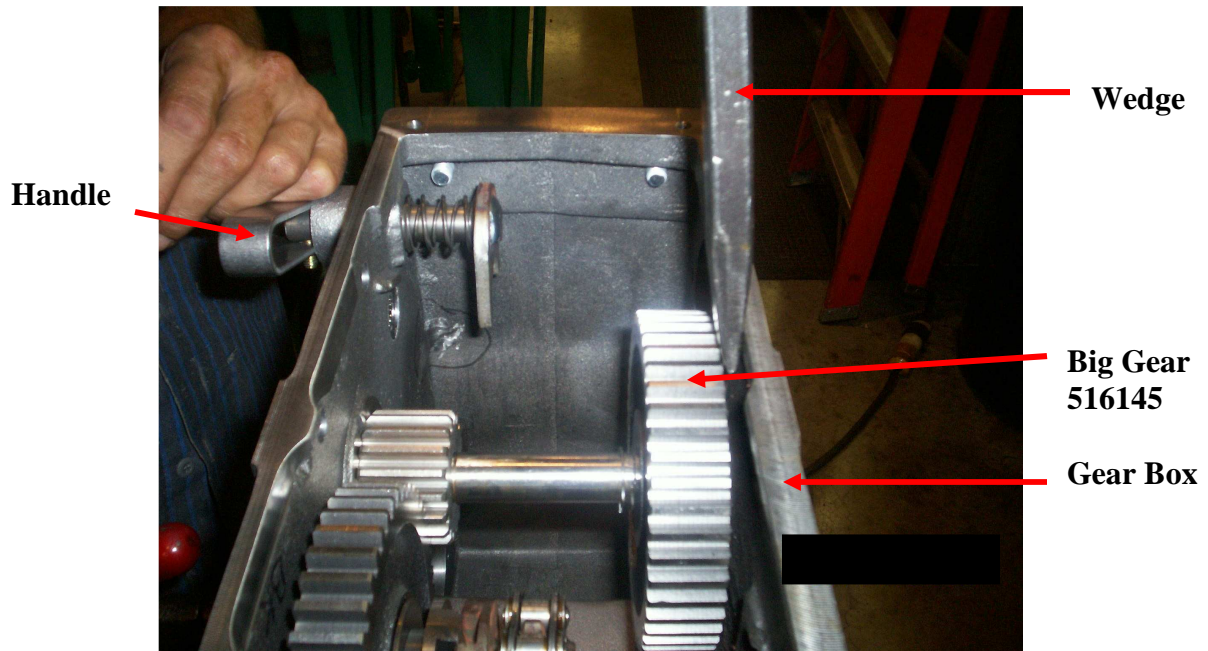


**Snap Ring  
548321**

**Figure 1**

**JC-020-08**  
**Instruction PG 3**

3. Place wedge between big gear (Part # 516145) and gearbox pry on bar to the left towards handle and freeze plug (Part # 548482) will pop off (See **Figure 2**).

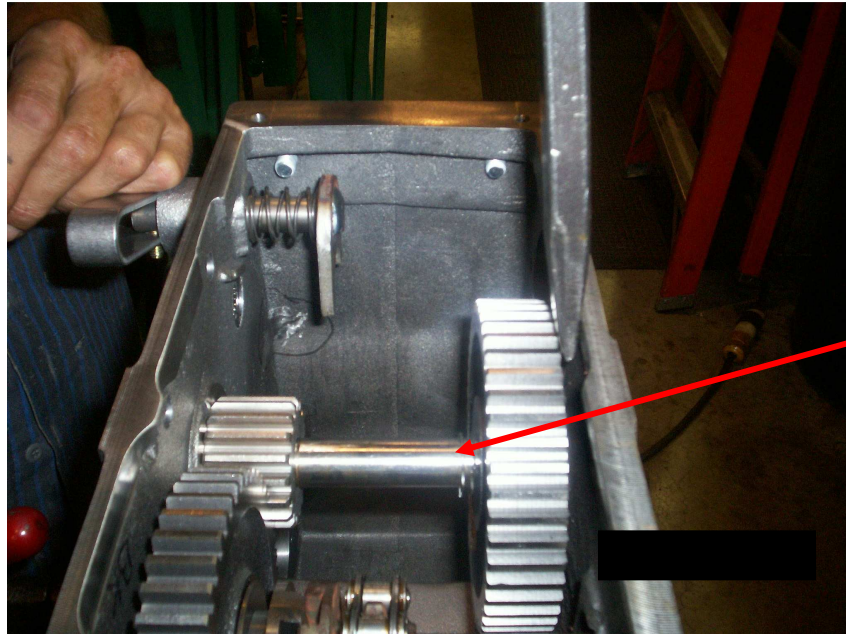


**Figure 2**



**JC-020-08**  
**Instruction PG 4**

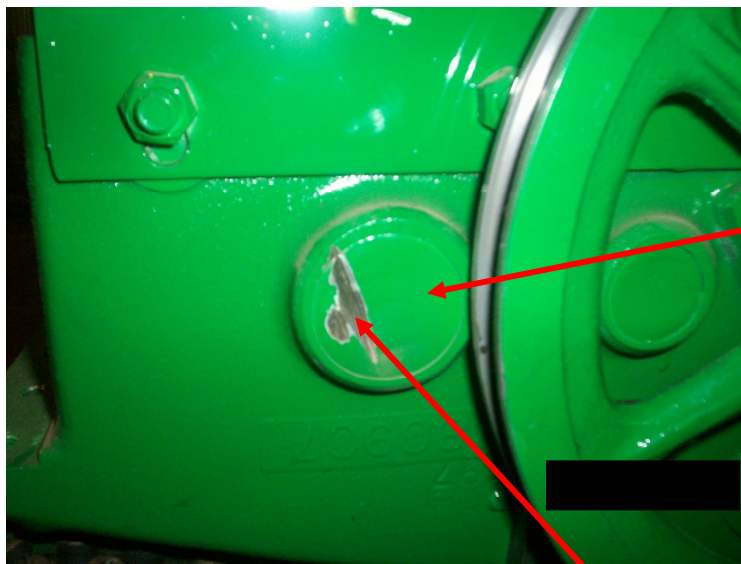
4. Take big gear and keyway off right side of shaft. Pull both snap rings (Part # 548324) off. Remove small gear, shaft is now free and can be removed from gear case (**See Figure 3**)



**Snap Rings  
548324**

**Figure 3**

5. Move to right side of gear case. Use grinder to cut freeze plug (548931) so chisel can be used to remove freeze plug (use small chisel). For best success cut freeze plug where is shown in **Figure 4** and pry open with chisel to the left hand side. Do not cut to deep with possibility of cutting into shaft.



**Freeze Plug  
548931**

**Figure 4**

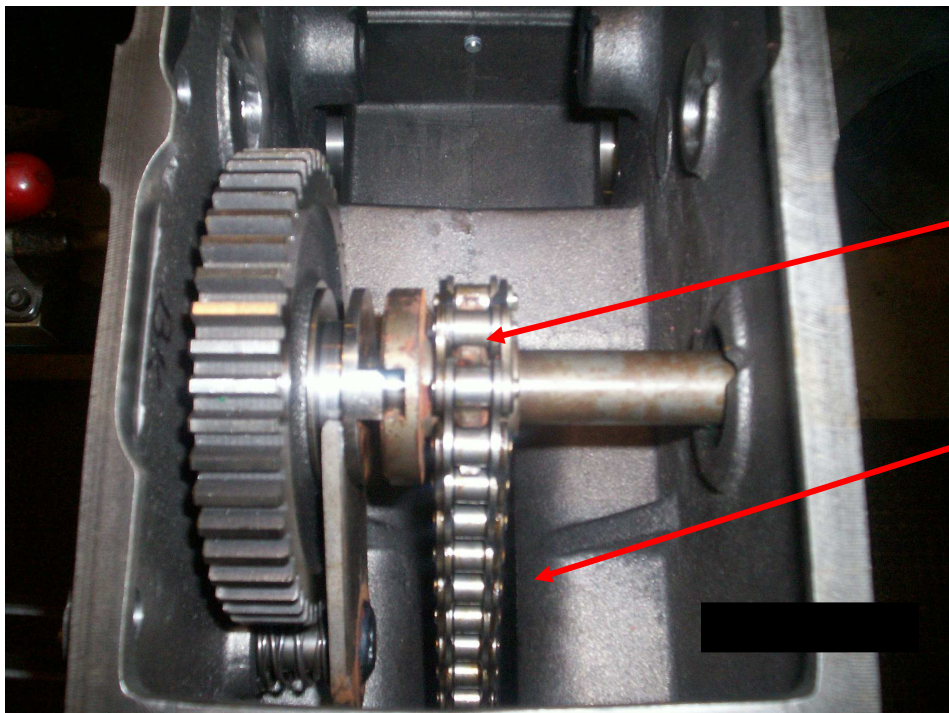
**Cut Freeze Plug here to  
keep from cutting Snap  
Rings behind Freeze Plug.**

6. Use chisel to pry freeze plug off and remove snap rings located behind the freeze plug.

**\* NOTE \*** If either snap rings or bearing is damaged during this stage replace with new parts.

**\* FOR STEPS 7-9 SEE FIGURE 5 \***

7. Rotate front tires until you see linkage at top-dead-center.
8. Place rag underneath and around chain so if parts fall they will land into rag and not bottom neck of gear case.
9. Rotate 1" off gear towards front of gear case, just enough so chain can be pulled apart. Set chain on cloth to prevent from falling into gear case



**Figure 5**

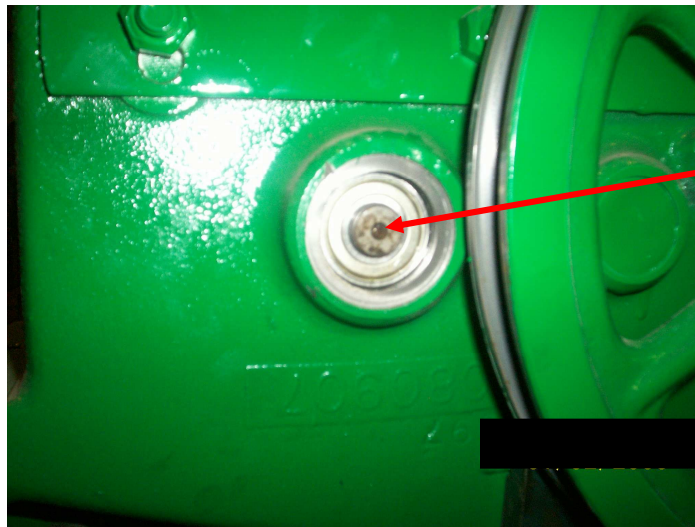
**Linkage at  
Top-Center**

**Place Rag  
underneath  
Chain**

**\* NOTE \*  
Rotate chain  
towards you  
from angle of  
this picture**



10. Open front handle, take punch and hit on shaft (Part # 547427) until freeze plug comes out on other side (**See Figure 6**).

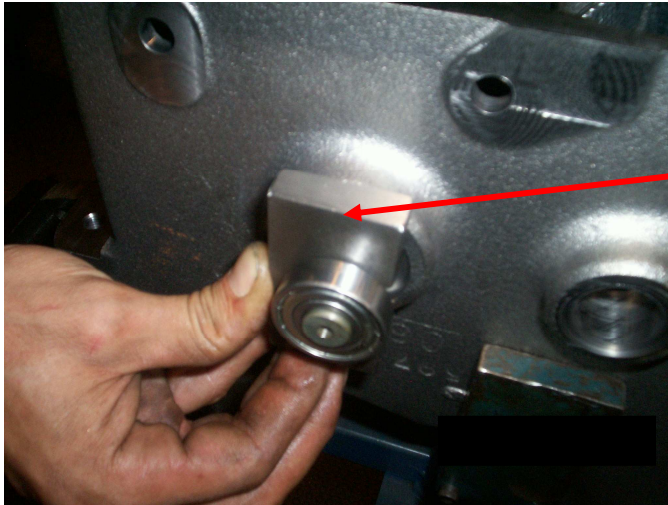


**Hit shaft with punch  
here.**

**Figure 6**

11. On other side hit shaft until bearing (Part # 548096) comes out opposite side.
12. Remove other big gear (Part # 2702139-A)

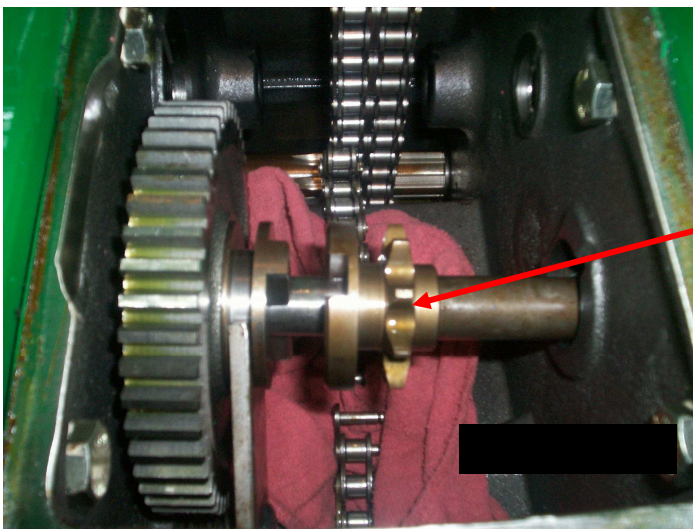
13. Place an object to brace bearing from going back in hole and hit with punch until shaft (Part # 547427) comes out of bearing (See **Figure 7**)



Object as shown is placed between bearing and gear case.

**Figure 7**

14. Replace shaft 547427 with new shaft. Put shaft in hole and place big gear (2702139) back on.. Barely start new shaft into bearing, reach down grab chain and piece back together. (See **Figure 8**)



See location of shaft. This location makes it easier to reconnect chain.

**Figure 8**

**JC-020-08**  
**Instruction PG 9**

15. Once chained together rotate back to top-dead-center and put linkage back on.

16. Tap bearing on shaft and put two snap rings back on.

17. Put shaft back in and place big gear and keyway back on shaft. Put first snap ring on past the first groove and second snap ring in groove.

18. Slide keyway into small gear. Put in other keyway and snap ring.

19. Place all freeze plugs back on gear case secure gear case top and shaft replacement is complete.

Realistic time frame you can expect for this repair is 45 minutes to 1 hour