

StringPin Pinsetter Front Sprocket/Guard Replacement 55-900006-000

Introduction

This document will assist the user in replacing the front drive sprocket and chain guard assembly on the Brunswick StringPin pinsetter.



WARNING! Before installing, make sure to disconnect the power to the StringPin 360 controller. Failure to do so could cause serious injury or death.

Tools Required

- Ratchet with extension
- Socket - 8 mm
- Socket - 10 mm
- Socket - 13 mm
- Socket - 17 mm
- Open End Wrench - 10 mm
- Open End Wrench - 13 mm
- Pliers
- 4 mm Hex wrench
- Shop Light (optional)

Approximate Time Required: 1 hour per pinsetter

1. Run the pinsetter on “Standalone 2 ball” so that the pins lower to the pindeck and the string wagon is toward the front of the machine.
2. Turn off power to the 360 controller. Lockout/Tagout the controller’s main power switch to prevent the pinsetter from being restarted.



Figure 1

3. Remove the 4 - 8mm screws that secure the wagon drive pulley guard. Remove the guard.

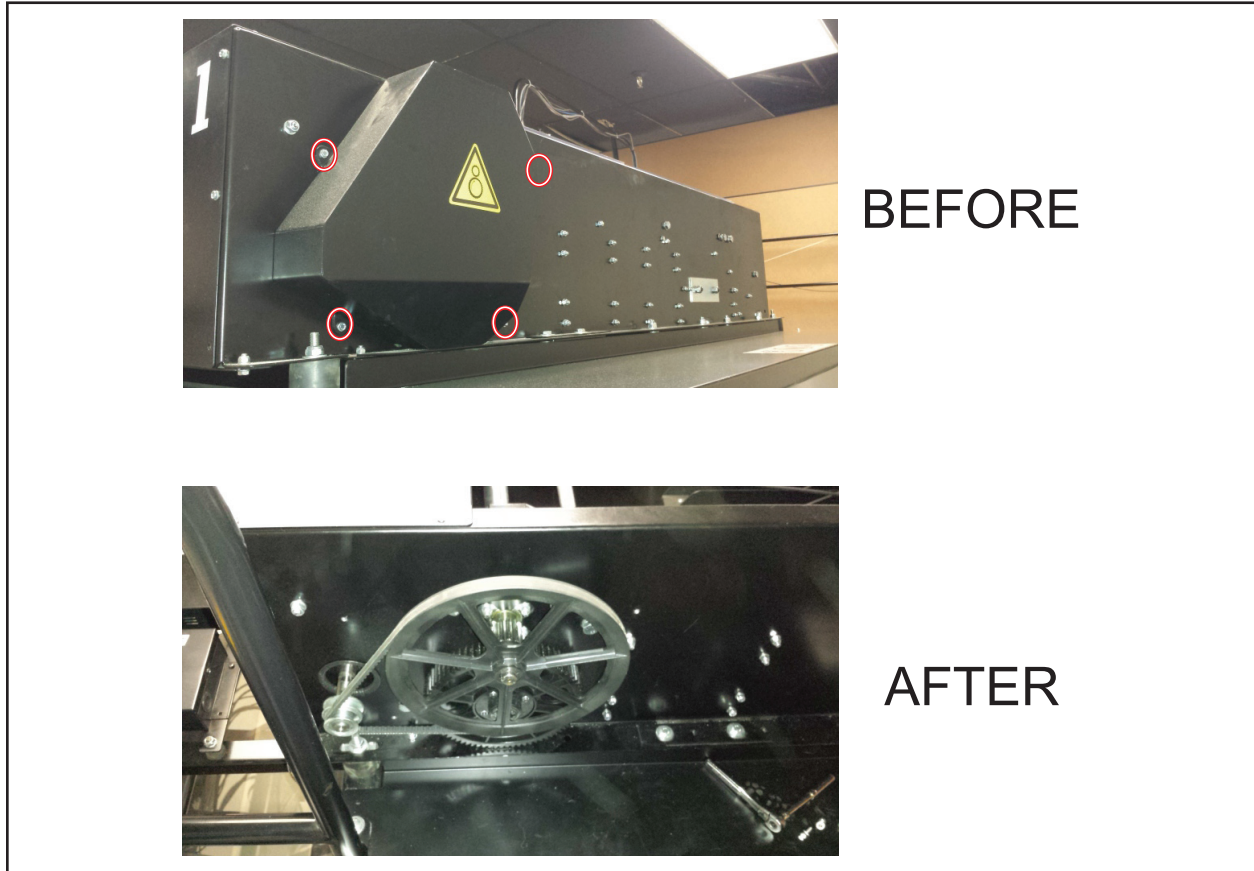


Figure 2

4. Open the top and front guards to gain access to the drive gears.

5. Remove the 2 - 10mm bolts securing the inner sprocket guard. Remove inner guard.

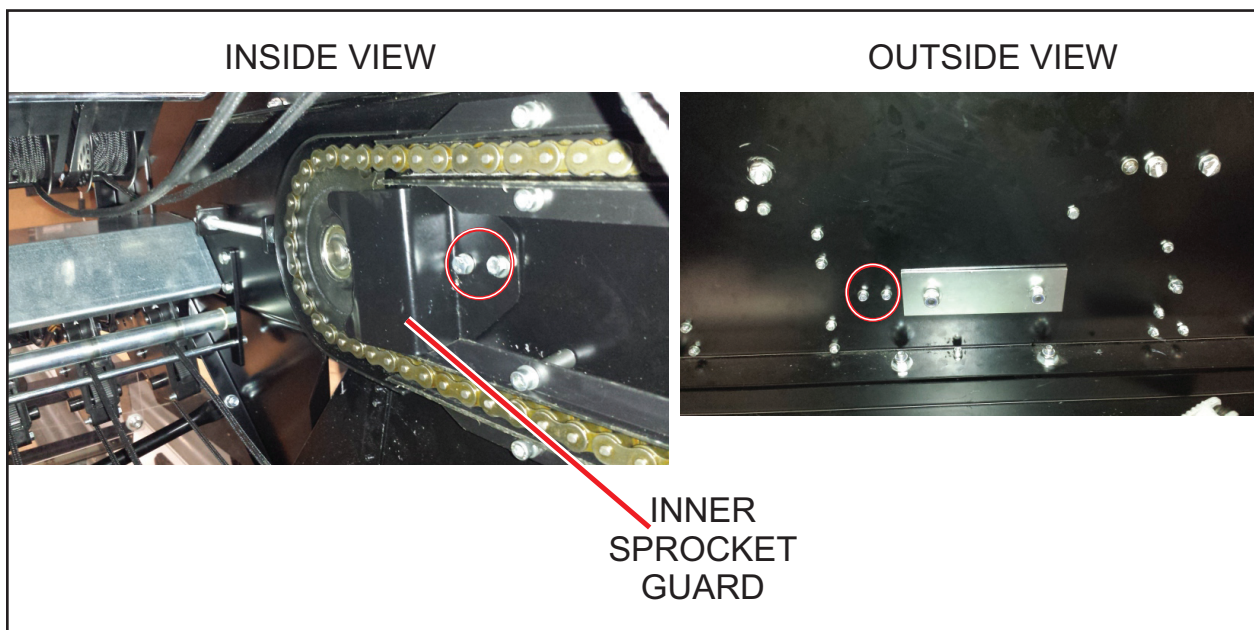


Figure 3

6. Remove the 2 – 17mm nuts and the mounting plate that secures the sprocket assembly.

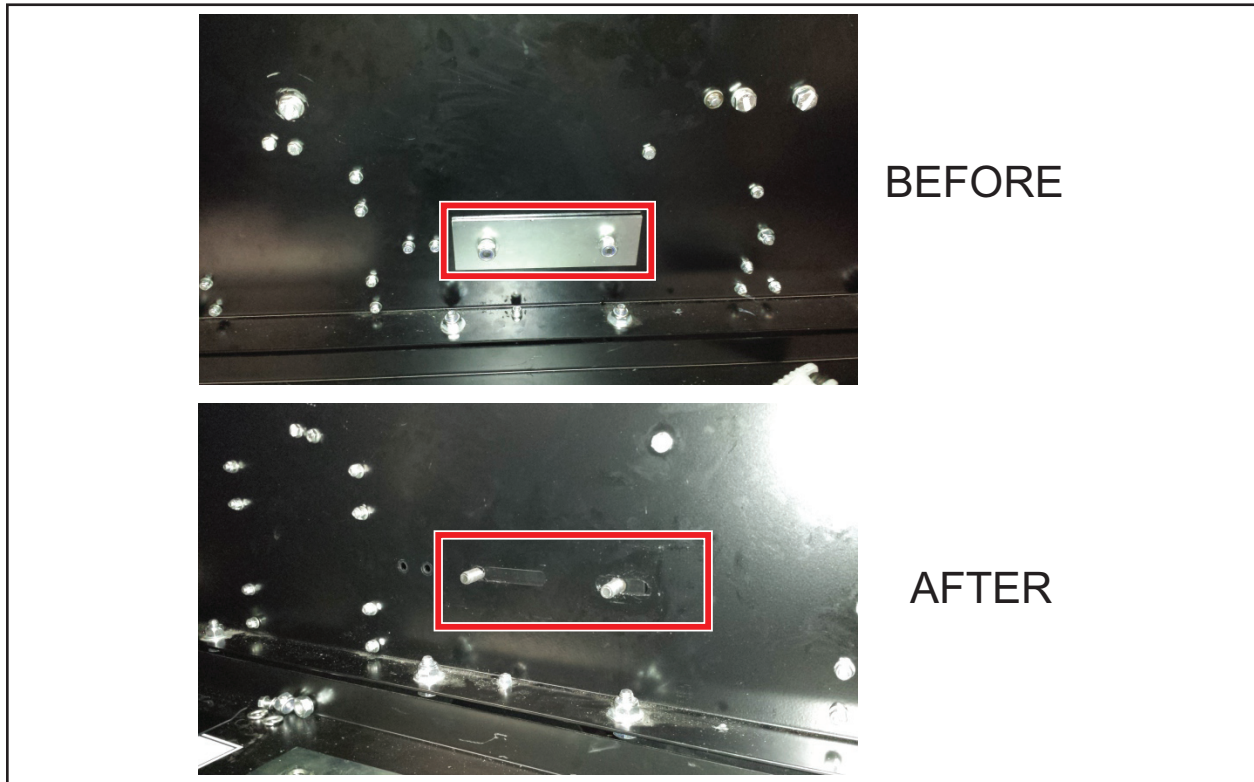


Figure 4

7. Loosen and remove wing nut from the sprocket tensioning rod

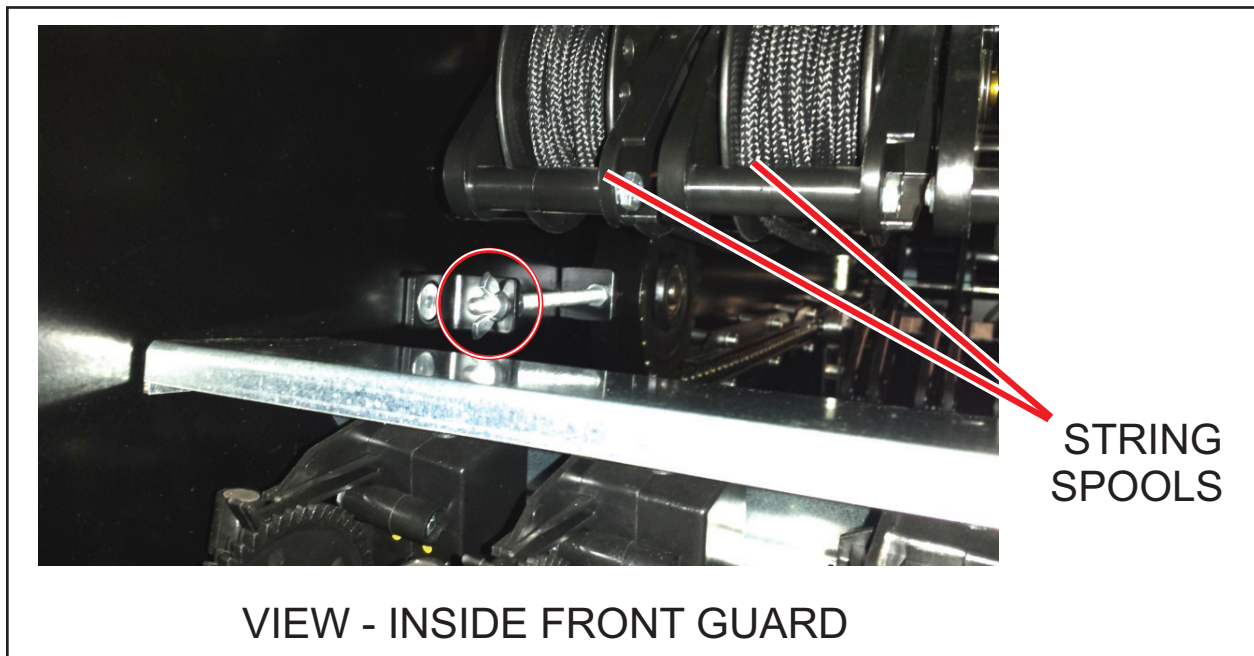


Figure 5

8. Remove the 6 - 10mm bolts that secure the lower rear chain guide.

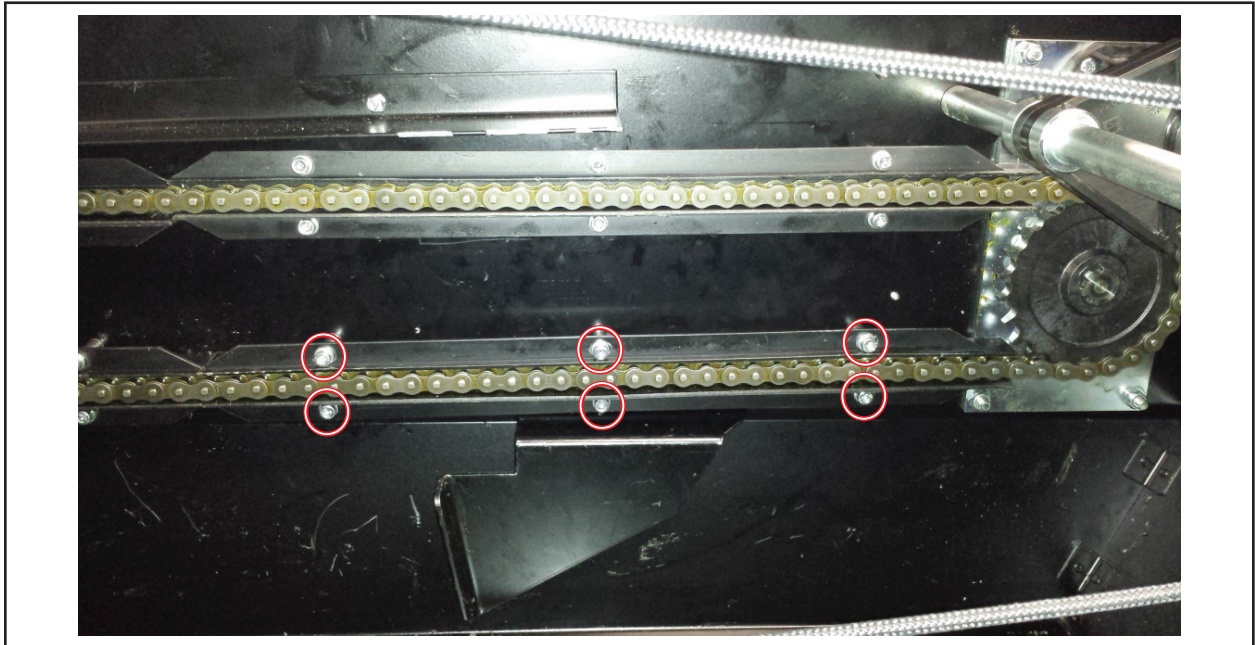


Figure 6

9. Remove the chain guide by holding the chain away from the guide toward the center of the machine while angling the front of the guide downward and sliding it toward the front of the machine.
10. Repeat steps 5 through 9 for opposite side of the machine
11. Rotate the drive pulley to move the string wagon away from the front drive sprockets and positioned near the slow pin bracket.

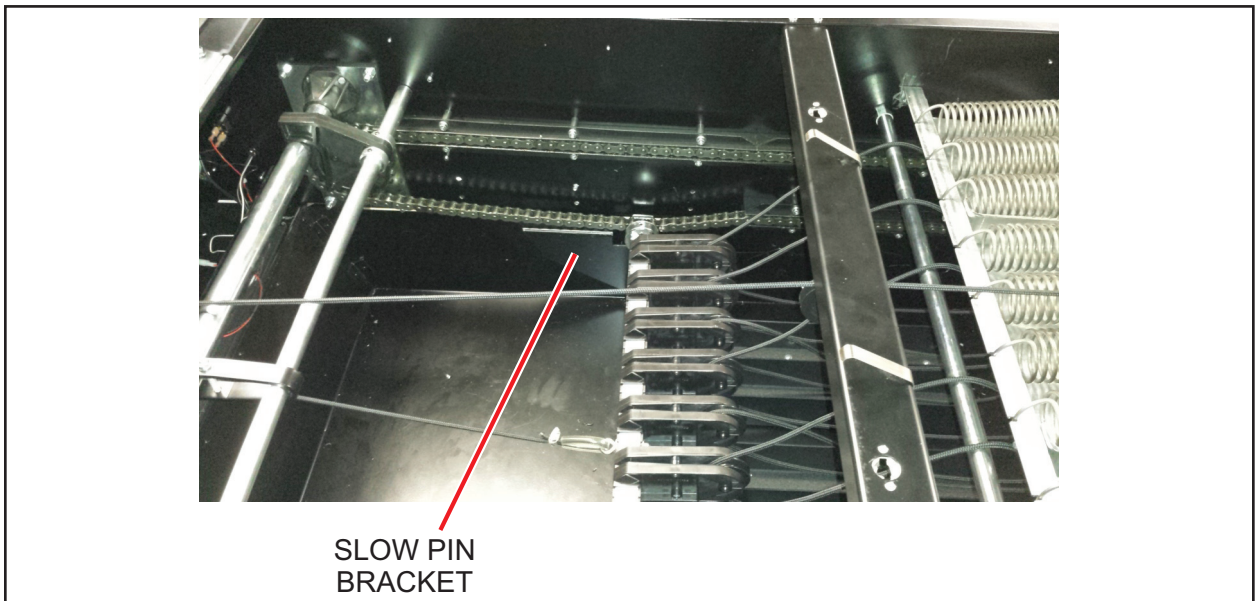


Figure 7

12. Separate the string wagon from the drive chain by pushing the chain toward the outside of the machine while pushing the wagon to the inside. Repeat for the opposite side of the machine. Set wagon down onto machine.

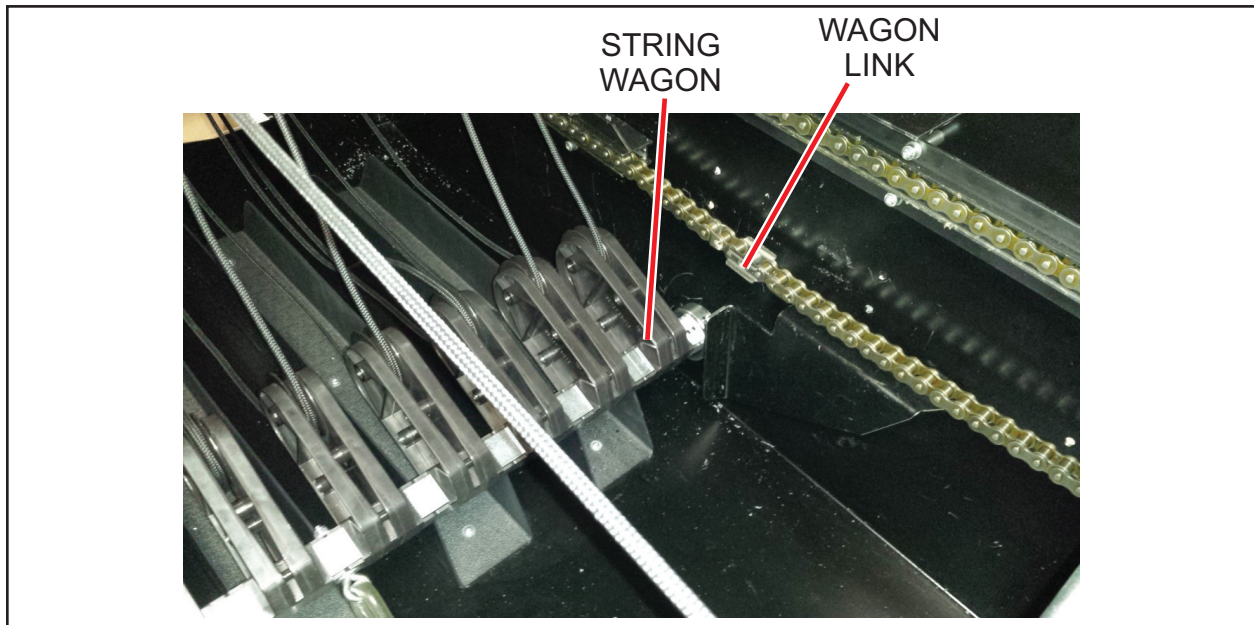


Figure 8

13. Remove tension rod L-bracket using a 4mm Allen (hex) wrench and 13mm socket/wrench. Repeat on other side.

i *Hint: Remove the string spool tension spring above the bracket to gain easier access to the hex bolt.*

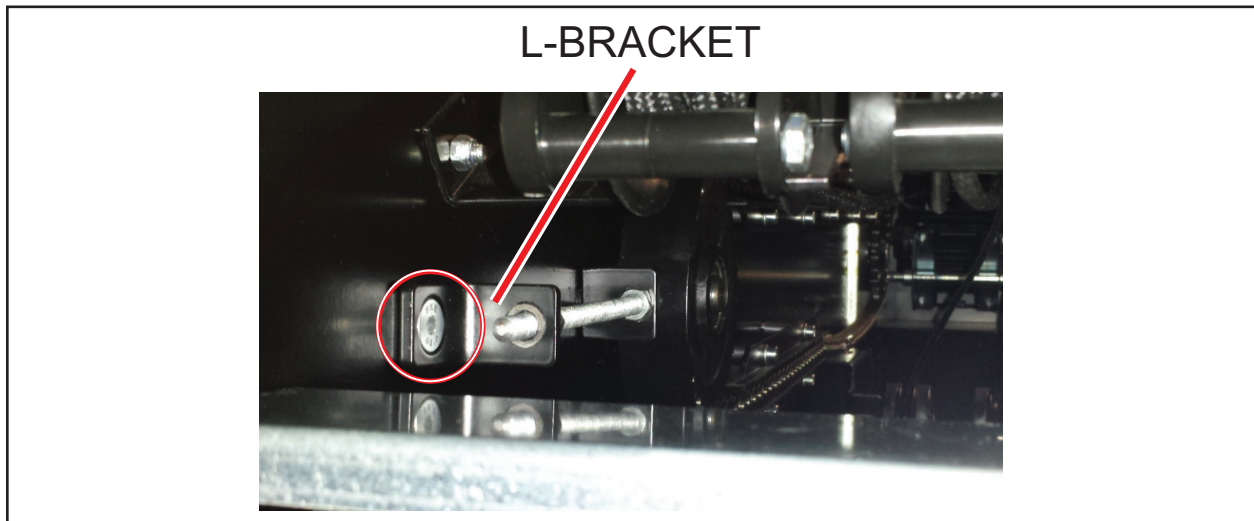


Figure 9

14. Rotate the drive pulley until the wagon link of the chain and sprocket timing mark on the rear drive sprocket are face toward the back of the machine.

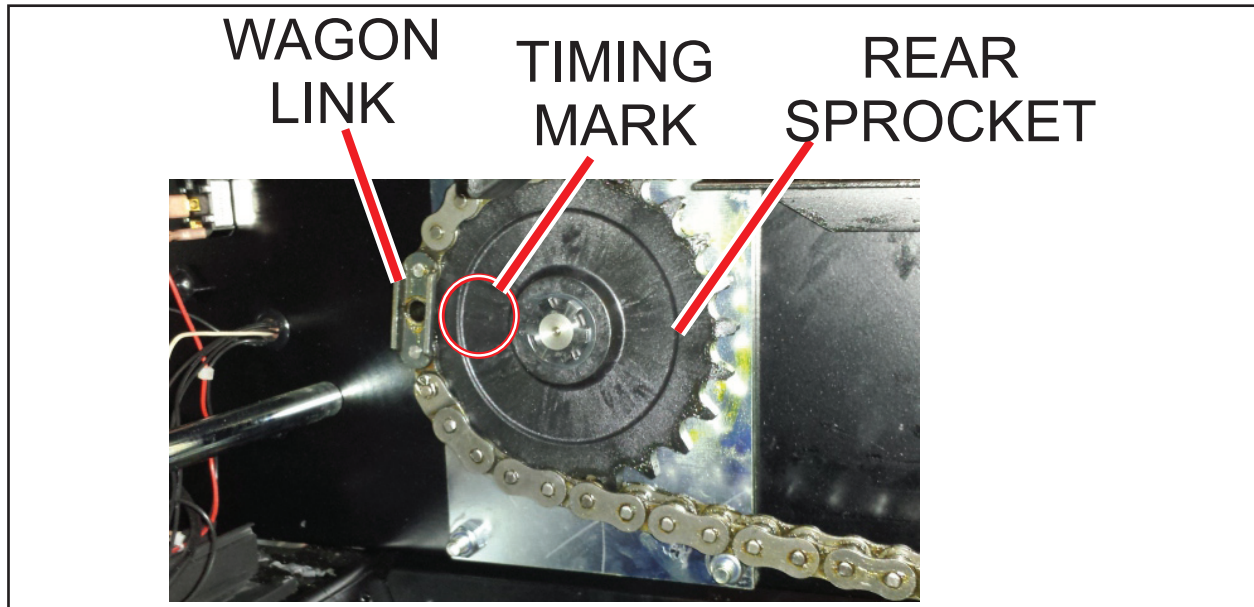


Figure 10

15. Remove the sprocket/guard assembly and chain from the machine
16. Using pliers, remove the chain master link and remove the chain from the old sprocket/guard assembly.



Figure 11

17. Transfer the tension rod from the old guard assembly to the new assembly. Make sure to tighten the jam nuts at the bracket.
18. Align the string wagon link with the timing mark on the sprocket and rotate the sprocket to install the chain into the new sprocket/guard assembly.

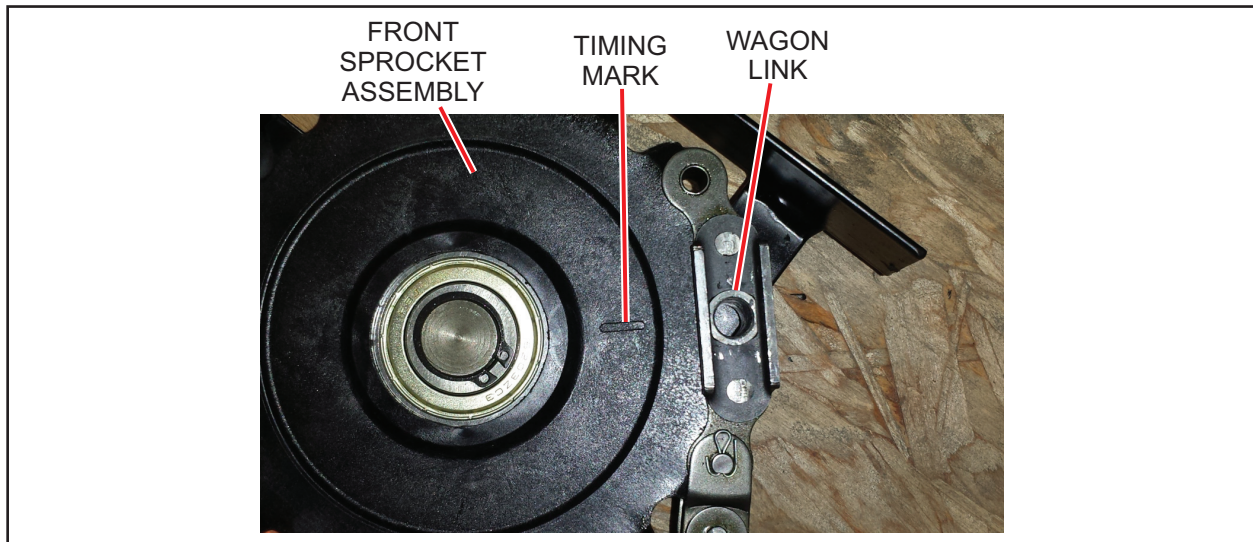


Figure 12

19. Using pliers, reinstall the chain master link, plate and spring clip. Make sure the closed end of the spring clip faces toward the wagon link. Make sure the retaining clip snaps fully into place.

i **IMPORTANT:** When installing the master link plate, the flat side of the plate should face toward the chain.

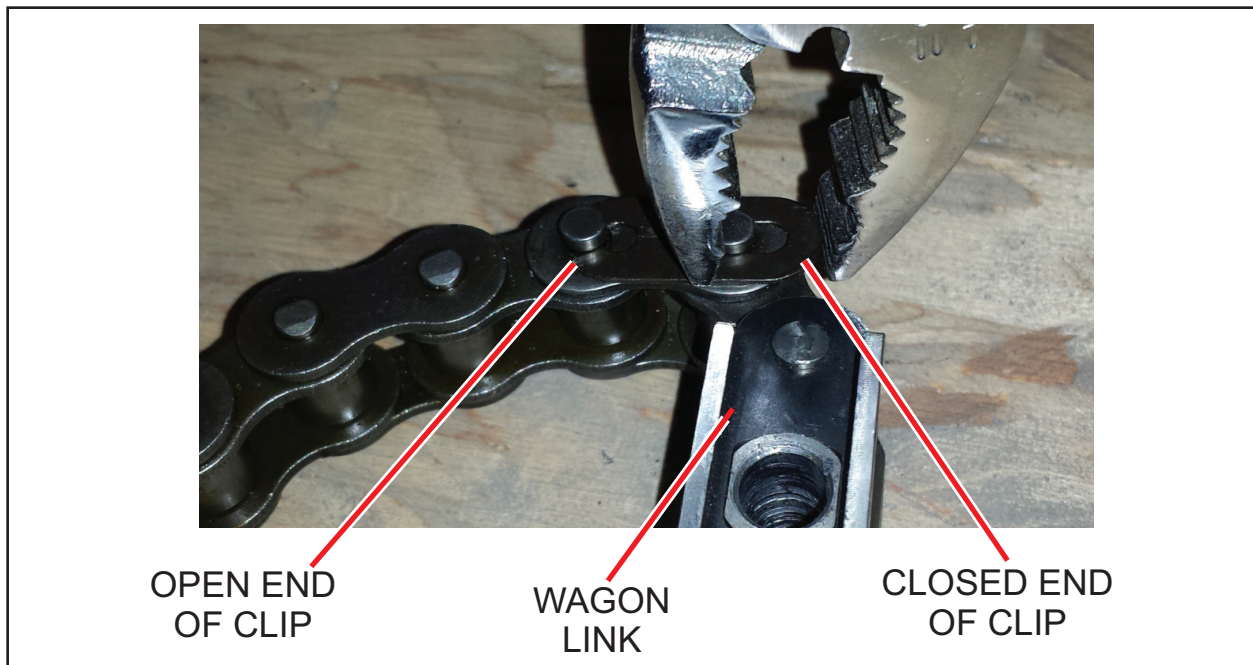


Figure 13



CRITICAL: Rotate the chain around the sprocket to make sure that the wagon link aligns with the timing mark on the sprocket as it passes through sprocket. Refer to Figure 12.

20. Reinstall the sprocket/guard assembly and chain.
- Make sure the sprocket timing mark on the rear drive sprocket on both sides of the machine are facing toward the back of the machine. Refer to *Figure 14*.
 - Align the wagon link of the chain in the notch indicated by the timing mark on the rear sprocket. Refer to *Figure 14*.

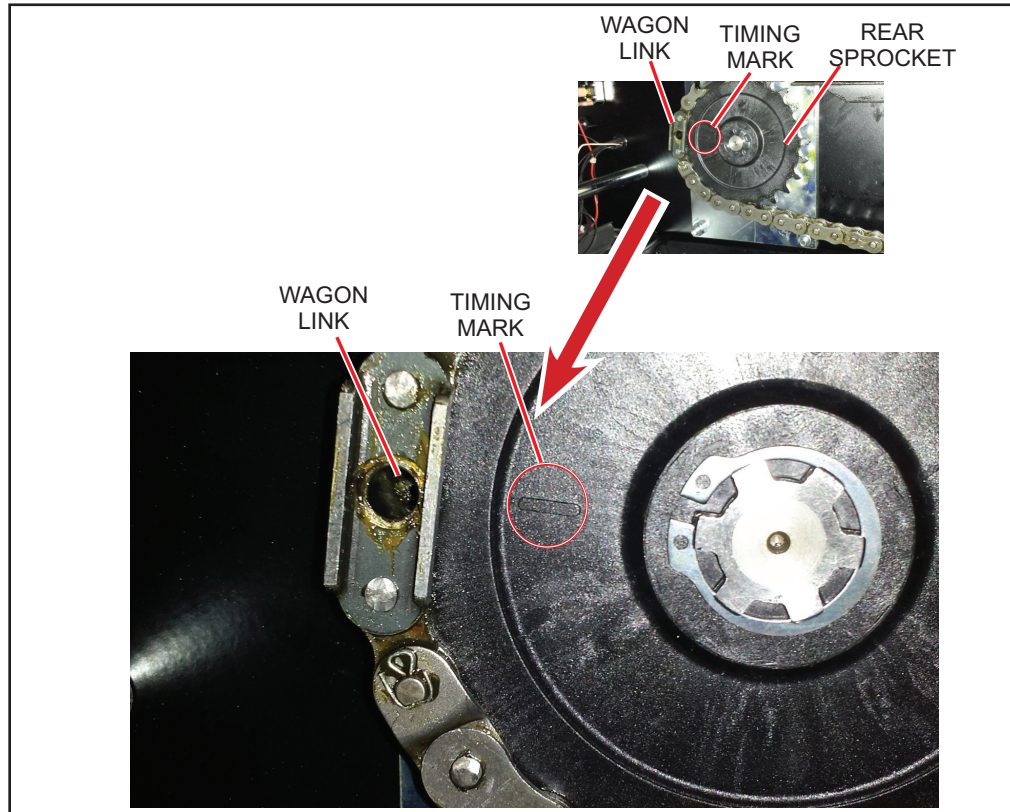


Figure 14

- Working back to front, place the chain in the upper and lower chain guides.
- Install the sprocket/chain guard assembly making sure that the plastic chain guides are positioned inside the sprocket guard.

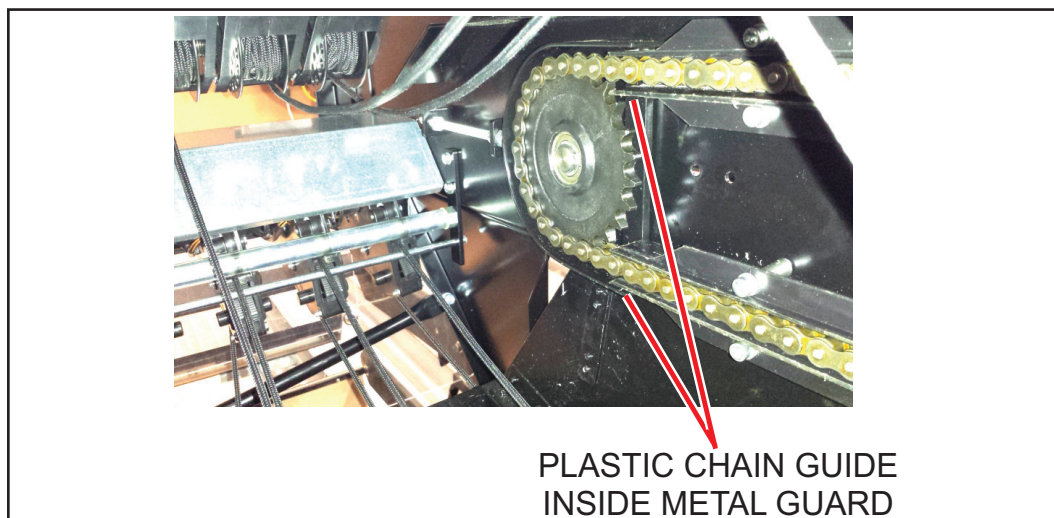


Figure 15

- Reinstall the sprocket mounting plate and 17mm nuts removing in step 6. Do not tighten the 17mm nuts. Refer to *Figure 4*.

21. Repeat steps 13 through 20 to replace the sprocket/guard assembly for the other side of the machine.



CRITICAL: Make sure the wagon link and rear gear timing mark are aligned properly on both drive chains. Refer to Figure 14.

22. Using the drive pulley, rotate the wagon chain so that the wagon link is positioned near the string wagon.
23. Reattach the string wagon to the drive chain by inserting the pivot pins of the string wagon into the wagon links of the drive chain.
24. Reinstall the inner sprocket guard on both sides of the machine. Refer to *Figure 3*.
25. Using the drive pulley, rotate the wagon chain so that the string wagon link is positioned near the front of the machine.
26. Reinstall the lower chain guides by holding the chain away from the guide toward the center of the machine while angling the front of the guide downward. Slide the side toward the back of the machine and onto the chain. Secure with the 6 mounting bolts. Do not tighten mounting bolts.

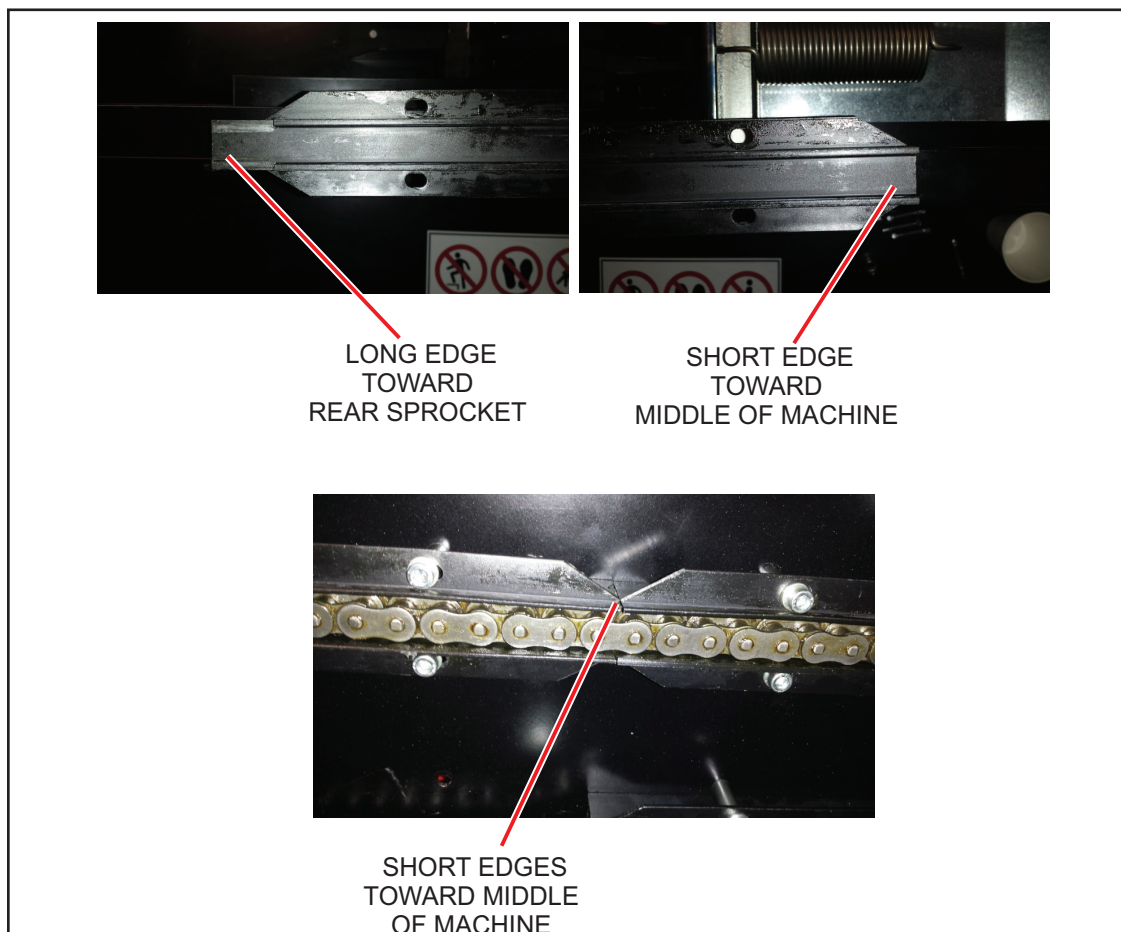


Figure 16



IMPORTANT: Make sure the chain guides are installed with the long side toward the rear drive gear and short side toward the middle of the machine. Refer to Figure 16.

27. Reinstall the tension rod L brackets and wing nuts for both sides of the machine. Hand tighten the wing nuts. Refer to *Figure 9 and Figure 5*.
28. Tighten the 17mm nuts to secure the sprocket/guard assemblies. Refer to *Figure 4*.
29. Reposition the lower rear chain guide so it is level and touching the front lower guide. Tighten the 6 mounting bolts. Refer to *Figure 6*.



IMPORTANT: Make sure all spacers are installed with the mounting bolts. Do not overtighten the mounting bolts.

30. Reinstall the string spool tension springs if removed in step 13.
31. Using the drive pulley, rotate the string wagon at least one complete rotation to make sure it moves smoothly and to verify the wagon attaching link aligns with the timing marks on all 4 drive sprockets as the wagon rotates around the sprocket. Refer to *Figure 12 and Figure 14*.
32. Reinstall the cover for the drive pulley. Refer to *Figure 2*.
33. Close/reinstall all guards.
34. Run the machine to ensure proper operation.