

# ZERO TURN SERIES (ZF-L, LZ, LX, SZ, SX, ZF Comm LZ, SZ)

Date: April 14, 2016

Subject: Deck Spindle Shim Kit

**Part Numbers Affected:** 618-06994 / 918-06994 Deck Spindle Assembly 48".  
618-06993 / 918-06993 Deck Spindle Assembly 54".  
618-06076 / 918-06076 Deck Spindle Assembly 60".

**Models Affected:** Z-Force Lap Bar and Steering Wheel Models.

**Serial Number Range Affected:** Riders Manufactured 2014 through 2015.

**PURPOSE:**

The Deck Spindle Shim Kit **759-05113** has been developed to eliminate the engine stalling condition on Z-force riders when engaging the (PTO) mower deck.

**NOTE:** These materials are prepared for use by trained technicians who are experienced in the service and repair of equipment of the kind described in this publication, and are not intended for use by untrained or inexperienced individuals. Such individuals should seek the assistance of an authorized service technician or dealer.

**NOTE:** Always wear eye protection while servicing equipment. Wear hearing protection when appropriate. Always work in a well ventilated area and follow all safety precautions when dealing with combustible materials.

**NOTE:** Left (LH) and Right (RH) sides are determined from the operator's position and facing in the forward direction.

## 759-05113 Service Kit Contents

ITEM NO.	PART NUMBER	QTY	DESCRIPTION
1	721-3018A	3	SEAL-SINGLE LIP OIL
2	736-05167A	3	WASHER-SHIM: 0.755 x 1.0 x 0.015

Instruction sheet included with kit.

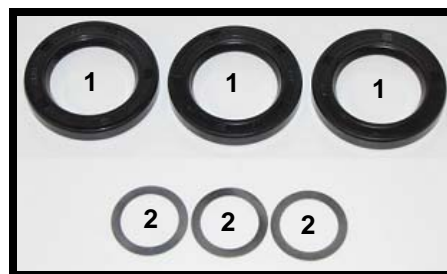


FIGURE 1

**Installation Instructions:**

1. Park the rider on a flat level surface. Engage the parking brake.
2. Disconnect the negative battery cable from the negative battery terminal, then disconnect the positive battery cable from the positive battery terminal.

**NOTE:** The mower decks are very heavy, use caution when working around heavy items.

3. Remove the mower deck from under the rider. Refer to the Operator's Manual for mower deck removal instructions if needed.
4. Support the mower deck on a deck cart or support with four (4) jack stands. Make sure the deck is stable on the deck cart or jack stands.

**NOTE:** A hydraulic lift was used to support the mower deck for the creation of this Service Kit.

5. Remove the left and right belt covers.
6. Remove the belt from all spindle pulleys.
7. Clean the top side of the deck with compressed air. This will keep debris out of the spindle bearings.

**NOTE:** If the mower deck is extremely dirty, use caution to keep water out of the spindle when pressure washing the deck prior to disassembly.

8. Remove all three (3) mower blades and blade nuts.

**NOTE:** Service one deck spindle assembly at a time.

9. Lift the 3/4-16 x 8.25" spindle bolt and spacer up and out of the spindle assembly. See Figure 2.

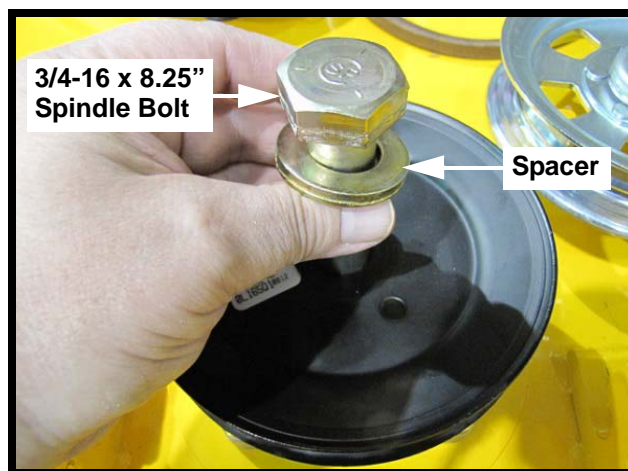
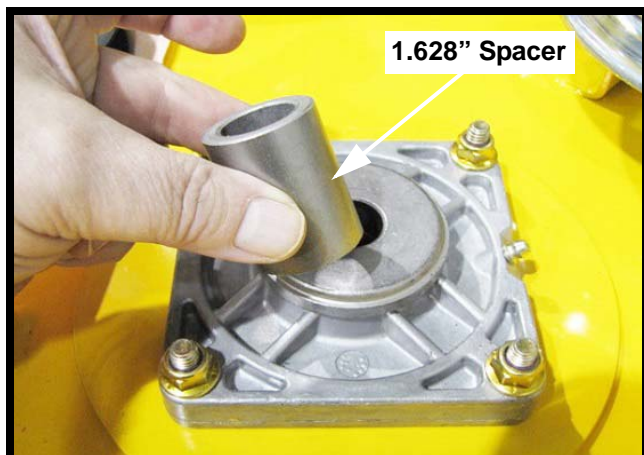


FIGURE 2

**NOTE: The Deck Spindle Assembly shown in the Figures is a representation of the actual spindle to be serviced.**

10. Remove the spindle assembly pulley.

11. Remove the 1.628" spacer then remove the deck spindle spacer. See Figure 3.



**FIGURE 3**

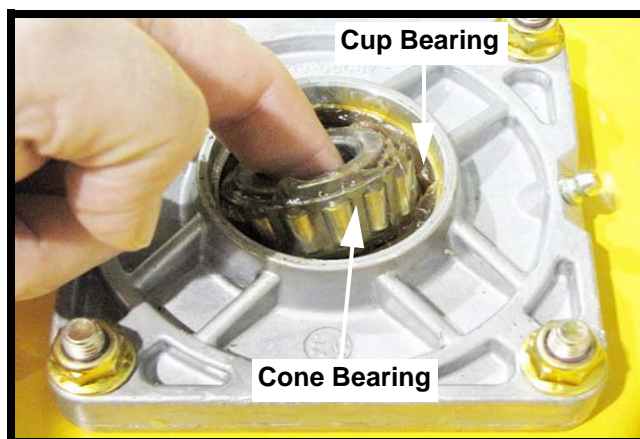
**NOTE: Take caution to keep all contaminants out of the open spindle assembly.**

12. Use a seal removal tool to extract the upper, single lip oil seal from the spindle assembly housing. See Figure 4.



**FIGURE 4**

13. Remove the upper cone bearing from the cup bearing in the spindle housing assembly as shown in Figure 5.



**FIGURE 5**

14. Locate from the 759-05113 Deck Spindle Shim Kit, one (1) of Item #2 (736-05167A) Shim Washer 0.755 x 1.0 x 0.015".

15. Place the 0.755 x 1.0 x 0.015" shim washer on top of the 2.895" long internal spacer. See Figure 6.



**FIGURE 6**

16. Wipe any grease from the seal area ledge of the spindle housing. See Figure 7.

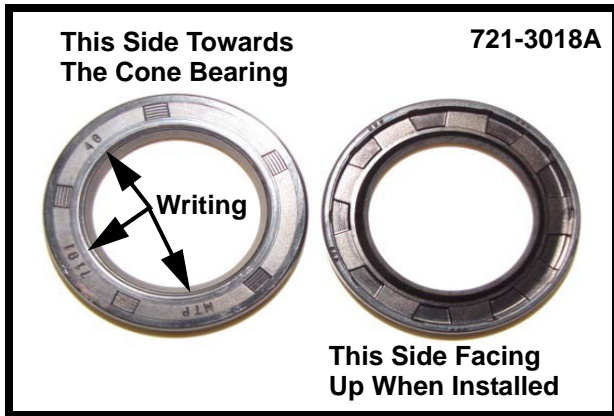


**FIGURE 7**

17. Place the cone bearing back into the cup bearing on top of the shim washer.

18. Locate one (1) of Item #1 (721-3018A) Single Lip Oil Seal from the 759-05113 Deck Spindle Shim Kit.

19. Install the single lip oil seal with bottom side up and the side with writing, down towards the cone bearing. See Figure 8 for identification.

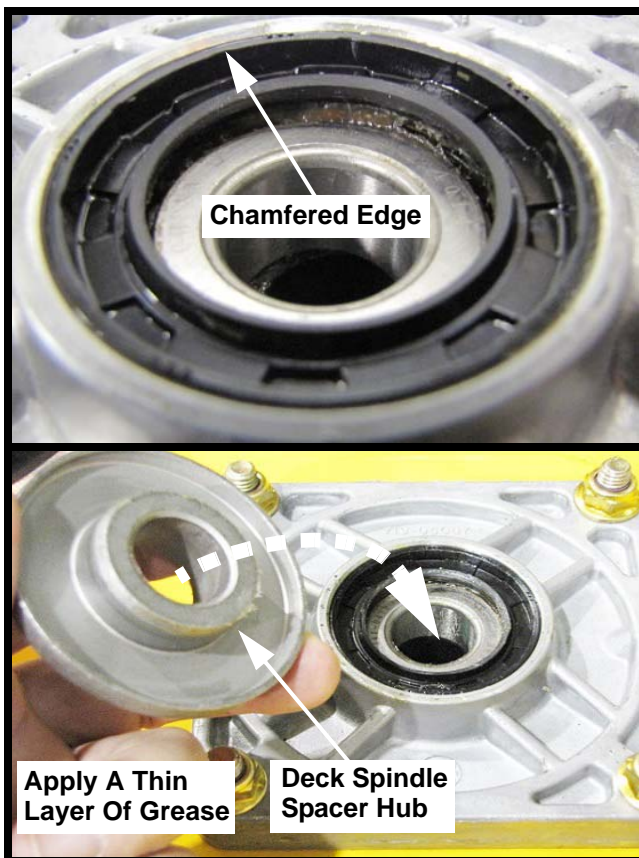


**FIGURE 8**

20. Use an appropriate seal installation tool to install the single lip oil seal into the spindle housing assembly. Make sure the seal is seated below the chamfered edge of the spindle housing as shown in Figure 9.

21. Wipe a thin layer of grease on the OD of the hub prior to installing into the seal.

22. Install the hub of the deck spindle spacer into the single lip oil seal. See Figure 9.



**FIGURE 9**

23. Press down on the deck spindle spacer to make sure the hub is against the top of the cone bearing.

24. confirm that all items within the spindle housing are in alignment, (bottom cone bearing, 2.895" long internal spacer, 0.755 x 1.0 x 0.015" shim washer, upper cone bearing). See Figure 10. Use a #2 Phillips or equivalent tool to align all the items.



**FIGURE 10**

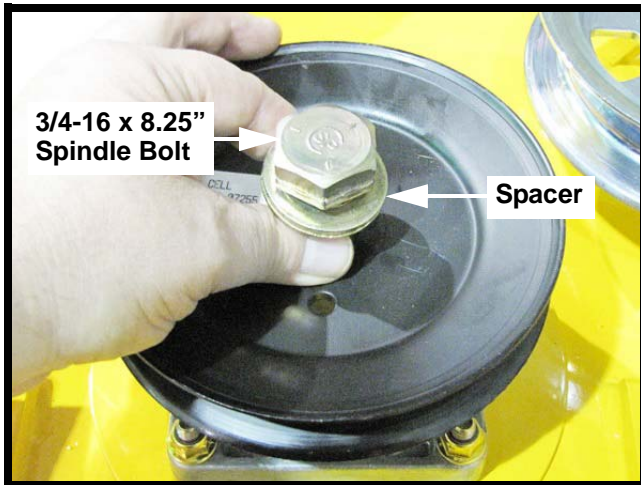
25. Center the 1.628" spacer removed in Step 11 on top of the deck spindle spacer. See Figure 11.



**FIGURE 11**

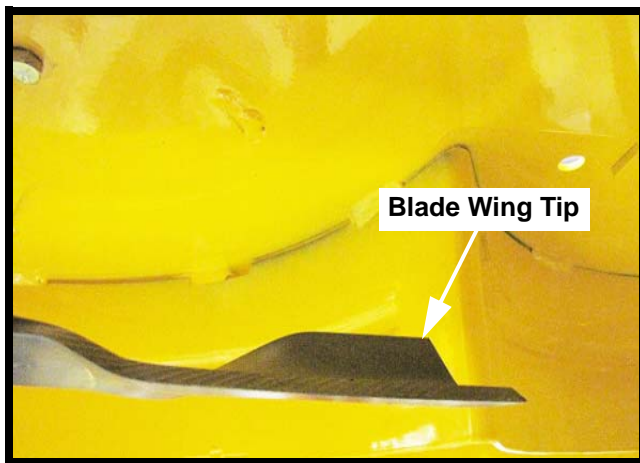
26. Center the spindle assembly pulley removed in Step 10 on top of the 1.628" spacer.

27. Install the 3/4-16 x 8.25" spindle bolt and spacer through the spindle assembly pulley, 1.628" spacer, and the complete spindle housing assembly. See Figure 12.



**FIGURE 12**

28. Install the Blade with the blade wing tips up and the word "Bottom" facing the ground/down. See Figure 13.



**FIGURE 13**

29. Secure the blade with the 3/4-16 flange nut. Torque the blade nut to 70 - 90 ft. lbs.

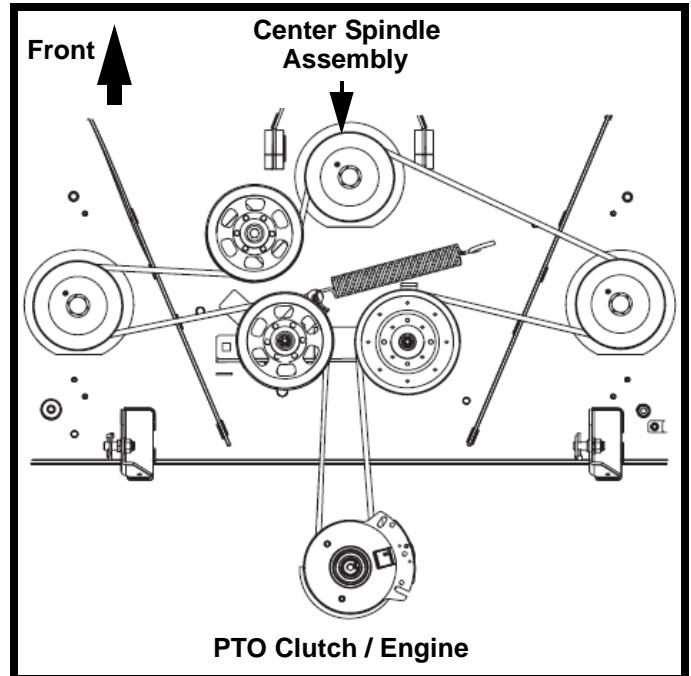
30. Rotate the spindle assembly pulley. Make sure the spindle assembly rotates freely.

31. Repeat Steps 9 through 30 for each of the remaining two (2) spindle assemblies, then proceed to Step 32.

32. Grease all three (3) spindle assemblies with 2.3 oz. of **737-3034** or an equivalent grease.

33. Wipe up any excess grease after greasing the spindles.

34. Correctly route the PTO/Deck belt back around all three (3) spindles and idler pulleys. See Figure 14 for belt routing. **NOTE: This is for 48", 54" & 60"**



**FIGURE 14**

35. Install the left and right hand belt covers.

**NOTE: The mower decks are very heavy, use caution when working around heavy items.**

36. Remove the mower deck from the deck cart or jack stands and set on the ground.

37. Install the mower deck back under the rider. Refer to the Operator's Manual for mower deck installation instructions if needed.

38. Connect the positive battery cable to the positive battery terminal, then connect the negative battery cable to the negative battery terminal.

39. Start the rider and confirm that all operating features are functioning correctly.

40. Test the deck operation in a safe, open area free from obstacles and bystanders. Engage and disengage the mower deck several times to confirm the stalling issue has been resolved.