



Replacement Ogura Clutch Kit

For 2006 through 2007 Kubota-Powered Z Master Riding Mowers

Model No. 114-8150

Installation Instructions

Loose Parts

Use the chart below to verify that all parts have been shipped.

Procedure	Description	Qty.	Use
1	No parts required	—	Remove the existing clutch
2	Clutch adapter Key Clutch Retainer Flat washer (.469 x .922 inch) Curved washer (7/16 inch) Locknut (5/16 inch) Carriage bolt (5/16 x 1 inch) Spacer Clutch stop Flat washer (.344 x .688 inch) Bolt (5/16 x 1 inch) Locknut (5/16 inch)	1 1 1 1 1 2 3 1 3 1 4 1 3	Install the new clutch.

1

Removing the Existing Clutch

No Parts Required

Procedure

Important: Allow the engine to cool before installing this kit.

1. Disengage the power take off (PTO) and set the parking brake.
2. Turn off the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Allow the engine to cool before installing this kit.
4. Tilt the seat forward and remove the front engine panel (Figure 1).

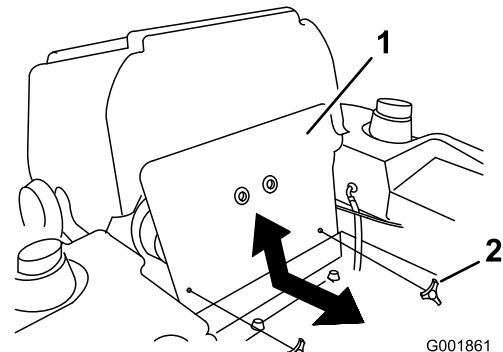


Figure 1

1. Front engine panel
2. Knob

5. Remove the spring from the idler arm (Figure 2).
6. Remove the clutch stop bracket from the machine. The holes for the clutch stop will be used for the new clutch (Figure 2).
7. Remove the PTO drive belt from the clutch (Figure 2).

2

Installing the New Clutch

Parts needed for this procedure:

1	Clutch adapter
1	Key
1	Clutch
1	Retainer
1	Flat washer (.469 x .922 inch)
2	Curved washer (7/16 inch)
3	Locknut (5/16 inch)
1	Carriage bolt (5/16 x 1 inch)
3	Spacer
1	Clutch stop
4	Flat washer (.344 x .688 inch)
1	Bolt (5/16 x 1 inch)
3	Locknut (5/16 inch)

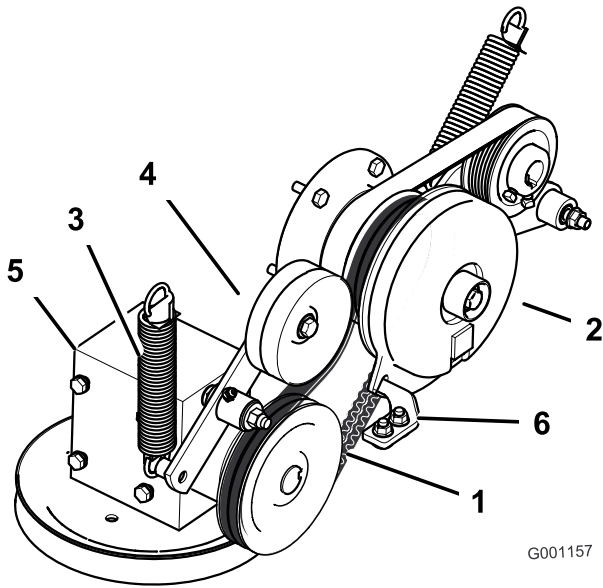


Figure 2

1. PTO drive belt
2. Clutch
3. Spring
4. Spring loaded idler pulley
5. Gear box
6. Clutch stop bracket

8. Unplug the electrical connection at the clutch (Figure 3).
9. To remove the clutch bolt, use a wrench to hold the engine crank shaft at the rear of the engine.
10. Remove the bolt in the center of the clutch and slide the clutch off the engine shaft (Figure 3). Save the bolt for installing the new clutch.

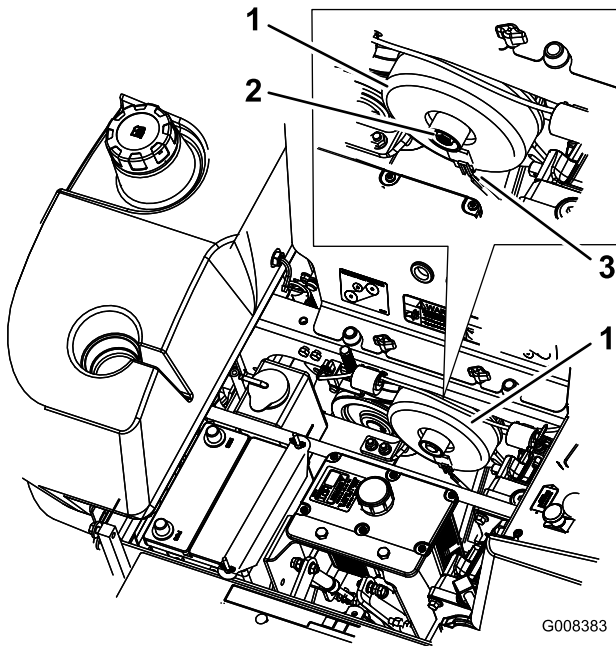


Figure 3

1. Clutch
2. Remove the center bolt
3. Unplug the electrical connection

Procedure

1. Install the new clutch stop to the clutch with a bolt (5/16 x 1 inch), 2 flat washers (.344 x .688 inch), a spacer and a locknut (5/16 inch) (Figure 4).
2. Install the clutch adapter onto the stub shaft (Figure 4). Ensure it is installed as shown.
3. Install the key onto the stub shaft and align the key with the clutch. Slide the clutch onto the stub shaft (Figure 4).
4. Secure the clutch to the stub shaft with the retainer, flat washer (.469 x .922 inch), 2 curved washers installed as shown (7/16 inch), and the previously removed bolt from the center of the clutch. Apply thread locker to the bolt and torque it to 50 ft-lb (Figure 4).

Important: Ensure the twist in the clutch stop is as show in Figure 4 and Figure 5.

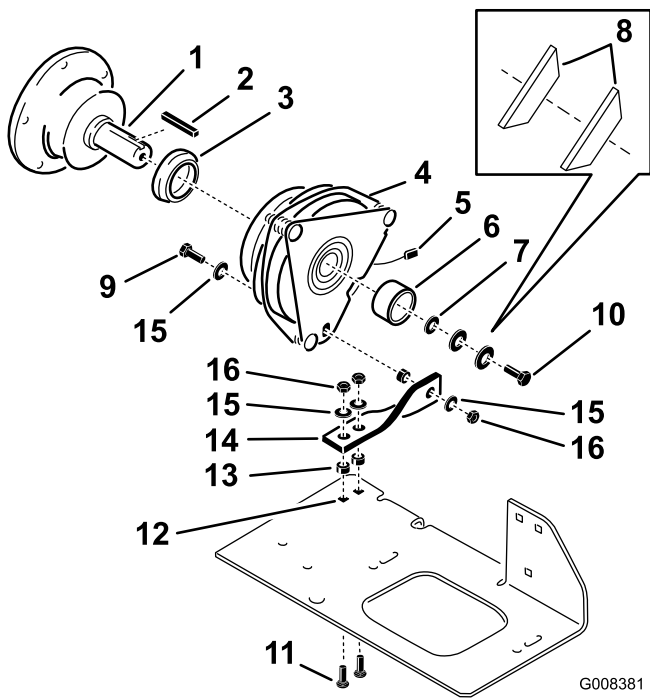


Figure 4

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|---|--|
| 1. Stub shaft | 9. Bolt (5/16 x 1 inch) |
| 2. Key | 10. Existing clutch bolt, torque to 50 ft-lb |
| 3. Clutch adapter, install as shown | 11. Carriage bolt (5/16 x 1 inch) |
| 4. New clutch | 12. Existing holes in machine |
| 5. Electrical connection | 13. Spacers |
| 6. Retainer | 14. Clutch stop, ensure the it is twisted as shown |
| 7. Flat washer (.469 x .922 inch) | 15. Flat washer (.344 x .688 inch) |
| 8. Top view of curved washers, install as shown | 16. Locknut (5/16 inch) |

5. Install the PTO drive belt onto the clutch (Figure 2). Ensure the belt is routed correctly.
6. Install the spring for the idler arm.
7. Using the existing holes for the old clutch stop, install the new clutch stop to the machine with 2 carriage bolts (5/16 x 1 inch), 2 spacers, 2 flat washers (.344 x .688), 2 locknuts (5/16 inch) (Figure 4). Ensure the twist in the clutch stop is as show in Figure 4 and Figure 5.
8. Plug the electrical connections together (Figure 5).
9. Install the front engine panel (Figure 6).

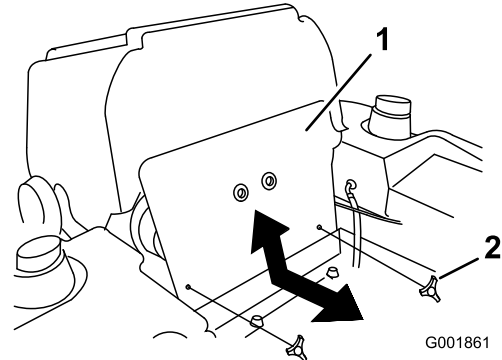


Figure 6

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| 1. Front engine panel | 2. Knob |
|-----------------------|---------|

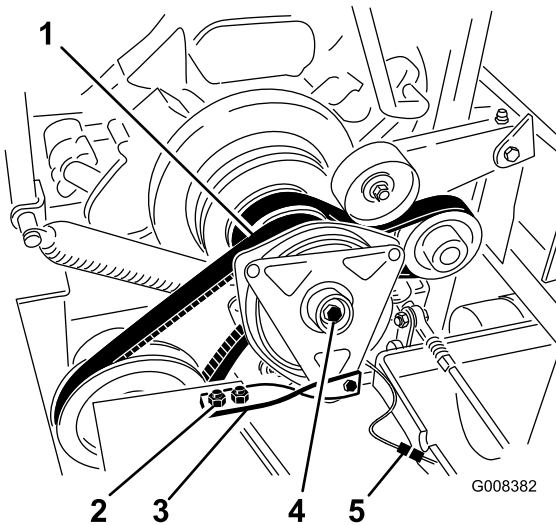


Figure 5

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|---|--------------------------|
| 1. PTO drive belt | 4. Clutch bolt |
| 2. Nuts and bolts | 5. Electrical connection |
| 3. Clutch stop, ensure it is twisted as shown | |

Maintenance

Adjusting the Electric Clutch

Service Interval: Every 500 hours

The clutch is adjustable to ensure proper engagement and proper braking.

1. Disengage the PTO, move the motion control levers to the neutral locked position and set the parking brake.
2. Stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Unlatch the seat and tip it forward.
4. Loosen the front engine panel knobs and remove the panel.
5. Pull up on the spring loaded idler pulley for the PTO drive belt and remove the belt from the clutch pulley (Figure 7).

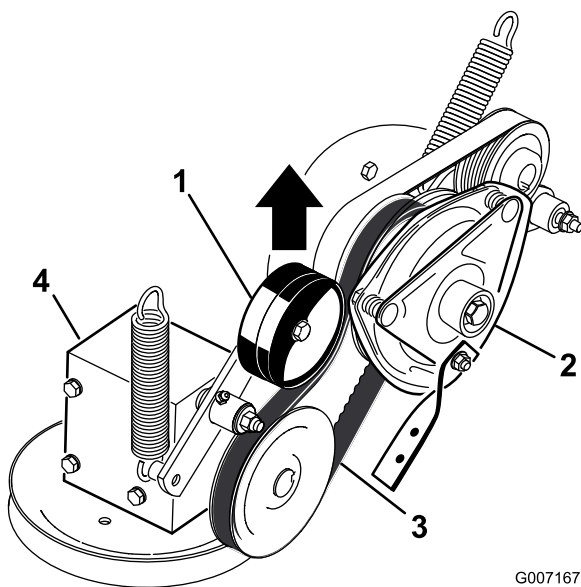


Figure 7

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|-------------------------------|-------------------|
| 1. Spring loaded idler pulley | 3. PTO drive belt |
| 2. Clutch | 4. Gear box |

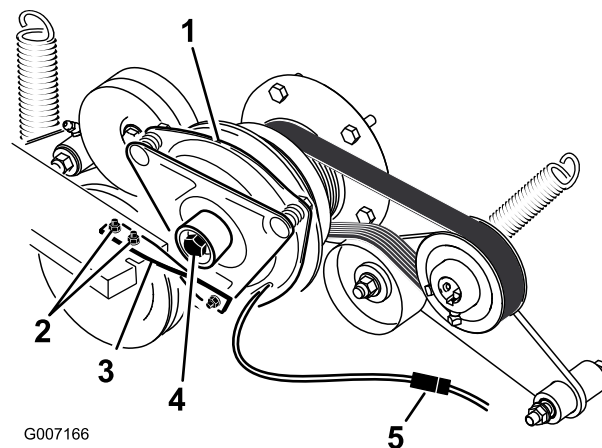


Figure 8

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|--|--------------------------|
| 1. Clutch | 4. Clutch center bolt |
| 2. Two bolts and nuts for clutch strap | 5. Electrical connection |
| 3. Rubber clutch strap | |

9. Insert a 0.015–0.021 inch (0.381–0.533 mm) feeler gauge through one inspection slot in the side of the assembly. Make sure it is between the armature and the rotor friction surfaces (Figure 9).
10. Tighten the lock nuts until there is slight binding on the feeler gauge but it can be moved easily within the air gap (Figure 9).
11. Repeat this for the remaining slots.
12. Check each slot again and make slight adjustments until the feeler gauge between the rotor and armature has very slight contact between them.

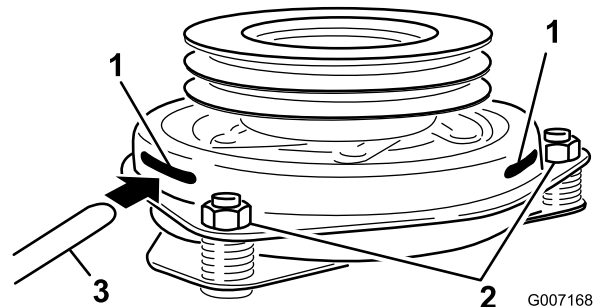


Figure 9

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|------------------|-----------------|
| 1. Slot | 3. Feeler gauge |
| 2. Adjusting nut | |

6. Unplug the electric connection for the clutch (Figure 8).
7. Remove the two bolts holding the rubber clutch strap to the mower frame (Figure 8).
8. Remove the center bolt holding the clutch to the engine shaft and remove the clutch and key (Figure 8).

13. Install the clutch to the engine shaft with the key.
14. Apply blue Loctite® (or equivalent) to the center bolt.
15. While holding the crank shaft at the back of the machine, install the center bolt and torque it to 50 ft-lbs (68 N-m) (Figure 8).
16. Install the rubber clutch strap to the mower frame with the two previously removed bolts and nuts (Figure 8).

17. Pull up on the spring loaded idler for the PTO drive belt and install it onto the clutch pulley (Figure 7).
18. Plug in the electric connection for the clutch (Figure 8).
19. Install the front engine panel and tighten the knobs.
20. Lower down the seat.

Notes:

Notes:



Count on it.