Form No. 3358-222 Rev A

# Z500 Series Z Master® Gasoline Engine Mowers

**Model No. All Z500 Series Gasoline Engine Mower Models**

**Setup Instructions**

## Loose Parts

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

| Step | Description | Qty. | Use |
|---|---|---|---|
| 1 | No parts required | – | Remove parts from the crate. |
| 2 | No parts required | – | Check the tire pressure. |
| 3 | Rear wheels | 2 | Install the drive wheels. |
| 4 | Roll bar, right section<br>Roll bar, left section<br>Roll bar, center section<br>Bolt, (3/8 x 1 inch)<br>Curved washer<br>Flange nut, (3/8 inch)<br>Bolt, (1/2 x 3–1/4 inch)<br>Flange nut, (1/2 inch) | 1<br>1<br>1<br>8<br>8<br>8<br>2<br>2 | Install the Rollover Protection System (ROPS). |
| 5 | Control lever, right<br>Control lever, left<br>Bolt (3/8 x 1 inch) (2 assembled)<br>Curved washer (3/8 inch) (2 assembled) | 1<br>1<br>4<br>4 | Install the motion control levers. |
| 6 | Seat<br>Flange nuts | 1<br>4 | Install the seat. |
| 7 | No parts required | – | Charge the battery. |
| 8 | Air cleaner<br>Hose Clamp | 1<br>1 | Install the air cleaner (Models with Kohler engines only). |
| 9 | Air cleaner<br>Hose Clamp<br>Screws<br>Front engine cover | 1<br>1<br>4<br>1 | Install the air cleaner (Models with Kawasaki engines only). |
| 10 | Number 2 general purpose lithium base or molybdenum base grease. (Purchase separately.) | 1 tube | Check the spindles for grease. |
| 11 | No parts required | – | Prepare the side discharge chute. |
| 12 | No parts required | – | Check the engine oil level. |

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| Step | Description | Qty. | Use |
|---|---|---|---|
| 13 | No parts required | – | Add fuel to the machine. |
| 14 | No parts required | – | Check the machine before delivery to the customer. |
| 15 | Operator's Manual<br>Parts Catalog<br>Engine Owner's Manual<br>Registration Card<br>Safety Video<br>Key | 1<br>1<br>1<br>1<br>1<br>2 | Delivering the machine to the customer. |

**Step 1**

## Removing Parts from the Crate

### No Parts Required

### Procedure

Remove the tires and the parts for the ROPS from the shipping crate.

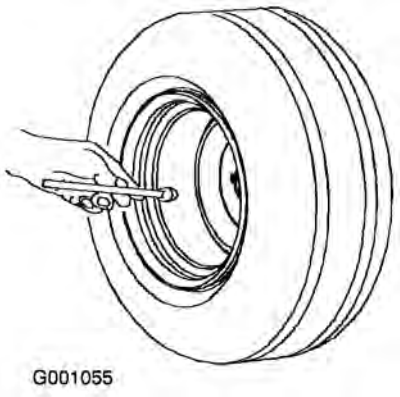



**Figure 1**

**Step 2**

## Checking the Tire Pressure

### No Parts Required

### Procedure

Pressure: 13 psi (90 kPa)

1. For entry level models only, check the air pressure in the front tires.

   **Note:** If there is no valve stem located in the front tires, then it is a semi-pneumatic tire and does not need to be checked.

2. Check the air pressure in the rear tires.

**Step 3**

## Raising the Machine Up and Installing the Drive Wheels

### Parts needed for this step:

| | |
|---|---|
| 2 | Rear wheels |

### Procedure

1. Remove the screws holding the right angle retaining plate to the crate (Figure 2).

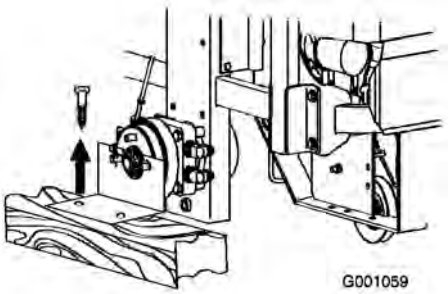



**Figure 2**

2. Raise the back of the machine up and support it with jack-stands (Figure 3).

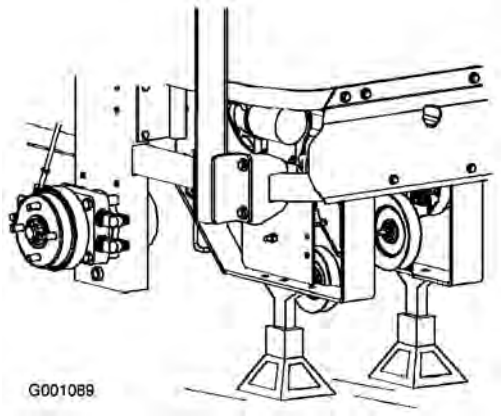



**Figure 3**

3. Remove the wheel nuts from both sides of the vehicle and remove the right angle retaining plate (Figure 4). Discard the screws and retaining plate.

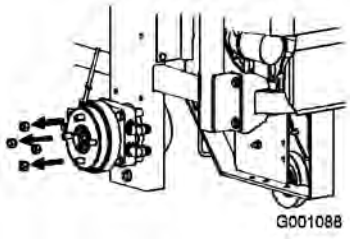



**Figure 4**

4. Mount the wheels with the valve stem to the outside and secure them with the wheel nuts previously removed (Figure 5).

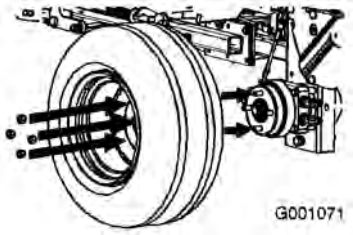



**Figure 5**

5. Torque the wheel nuts to 95 ft-lb (128 N·m).
6. Remove the jack-stands.

**Step 4**

# Installing the Roll Over Protection System

## Parts needed for this step:

| | |
|---|---|
| 1 | Roll bar, right section |
| 1 | Roll bar, left section |
| 1 | Roll bar, center section |
| 8 | Bolt, (3/8 x 1 inch) |
| 8 | Curved washer |
| 8 | Flange nut, (3/8 inch) |
| 2 | Bolt, (1/2 x 3–1/4 inch) |
| 2 | Flange nut, (1/2 inch) |

## Procedure

1. Loosely install the right and left roll bar section to the frame, with 8 bolts (3/8 x 1 inch), 8 curved washers, and 8 flange nuts (3/8 inch).

   **Note:** The curve washer cone must be installed toward the bolt head.

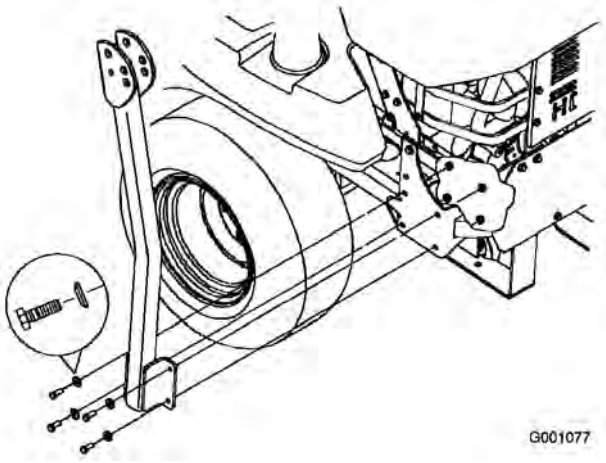



**Figure 6**

2. Install the lanyard clips onto the long bolts (1/2 x 3-1/4 inch).

   **Note:** Make sure the bent tab points toward the head of the bolt.




**Figure 7**

3. Lightly oil the ends of the center roll bar section.
4. Loosely install the center roll bar section using 2 bolts (1/2 x 3-1/4 inch) and 2 flange nuts (1/2 inch).

   **Note:** Make sure the bolts are installed from the outside of the roll bar.

   **Note:** Make sure the lanyard tab is installed as show and points forward.

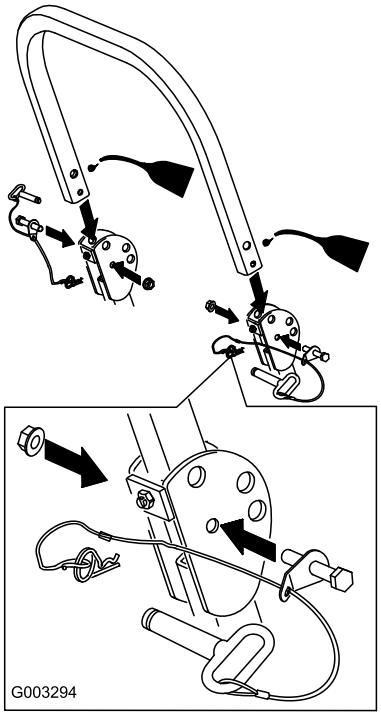



**Figure 8**

5. Raise the roll bar into the upright position and secure it with the pins and hairpin cotter pins fastened to the lanyards

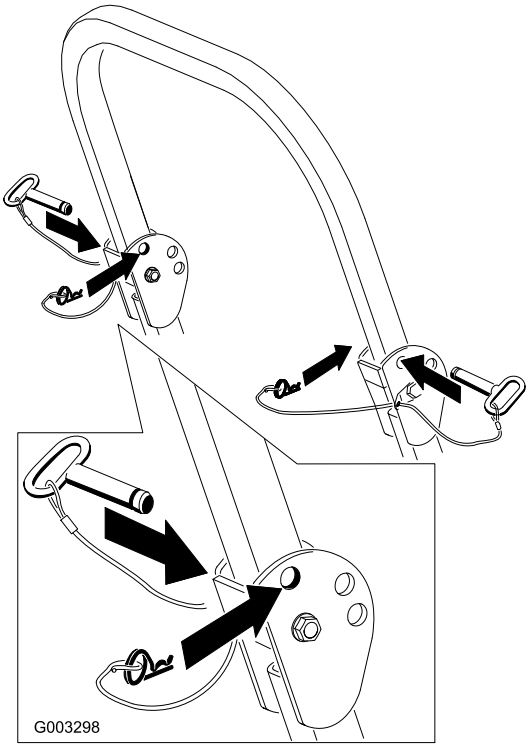



**Figure 9**

6. Torque all lower fasteners, attached to the machine frame, to 30 ft-lb.
7. Tighten the center roll bar bolts (1/2 x 3-1/4 inch) so it rotates freely with some resistance.

   **Note:** No more than one thread should be exposed outside the nut.

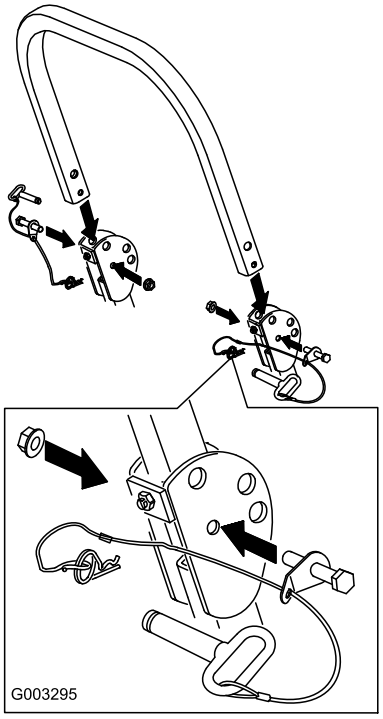



**Figure 10**

Step **5**

# Installing the Motion Control Levers

## Parts needed for this step:

| | |
|---|---|
| 1 | Control lever, right |
| 1 | Control lever, left |
| 4 | Bolt (3/8 x 1 inch) (2 assembled) |
| 4 | Curved washer (3/8 inch) (2 assembled) |

## Procedure

1. Rotate the handles to the upright position (Figure 11).

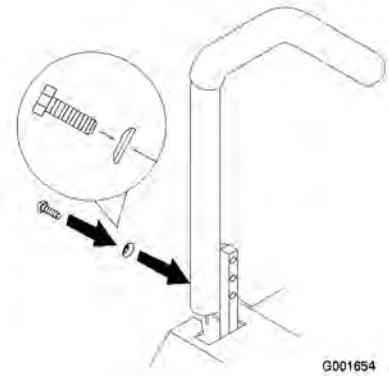



**Figure 11**

2. Loosely install the levers on the outside, using 4 bolts and curved washers (Figure 11).

   **Note:** Install the levers in the top and middle holes for the high position or the middle and bottom holes for the low position, as desired.
3. In the neutral position, raise the levers, bringing them together, and slide them until they are aligned, then tighten the bolts (Figure 12).

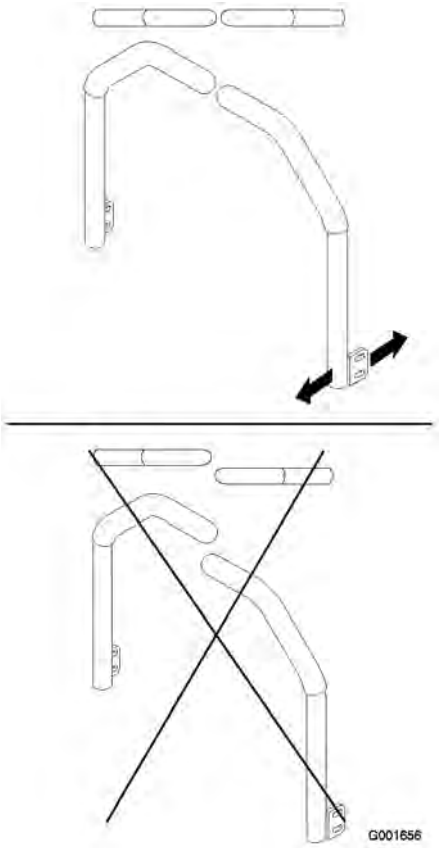



**Figure 12**

Step
6

# Installing the Seat

### Parts needed for this step:

| | |
|---|---|
| 1 | Seat |
| 4 | Flange nuts |

### Procedure

1. Remove the seat from the crate.
2. Position the seat into the holes in the seat frame (Figure 13).

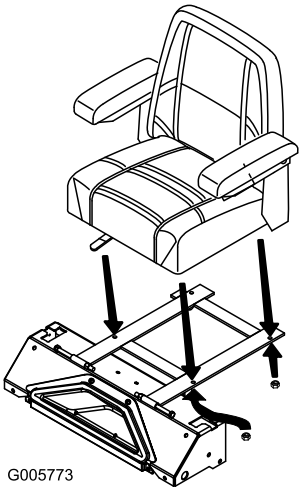



**Figure 13**

3. Secure the seat with 4 flange nuts (Figure 13).
4. If needed, attach the two connectors onto the seat switch (Figure 14).

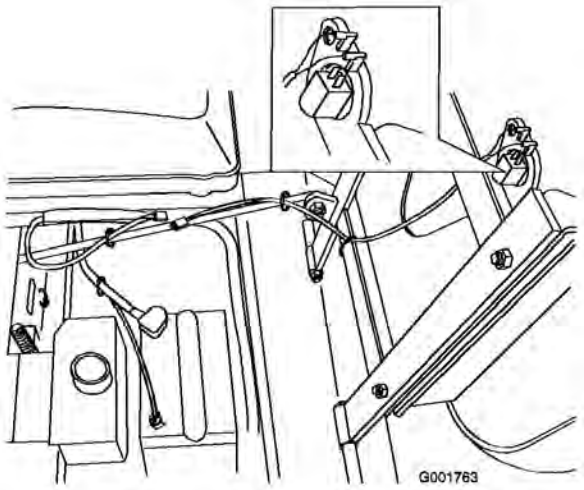



**Figure 14**

Step
7

# Charging the Battery

### No Parts Required

### Procedure

**Charging the battery produces gasses that can explode and cause serious injury.**

- **Keep cigarettes, sparks and flames away from the battery.**
- **Make sure the ignition switch is off.**
- **Ventilate when charging or using the battery in an enclosed space.**

**Important: Do not run the machine with the battery disconnected; electrical damage may occur to the engine.**

Charge the battery. Refer to the *Operator's Manual* for instructions.

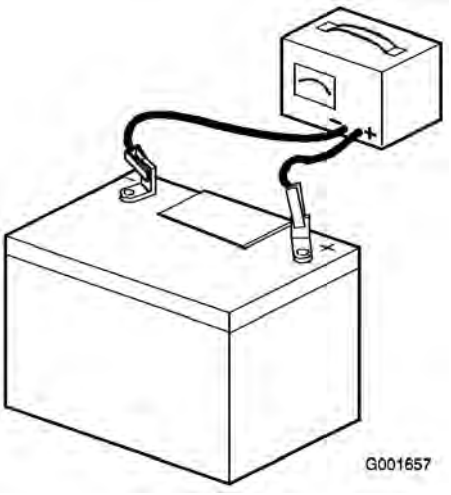



**Figure 15**

Step **8**

## Installing the Air Cleaner on Kohler Engines

### Parts needed for this step:

| | |
|---|---|
| 1 | Air cleaner |
| 1 | Hose Clamp |

### Procedure

**Note:** If the machine you are setting up does not have a Kohler engine, skip this procedure.

1. Remove the air cleaner from the crate, keeping the bracket together with it.
2. Remove the top 2 valve cover mounting bolts from both valve covers (Figure 16).

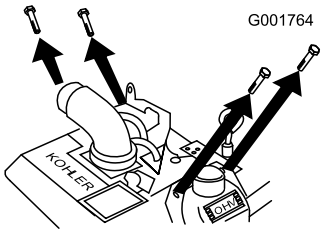



**Figure 16**

3. Remove the plastic plugs (Figure 17).

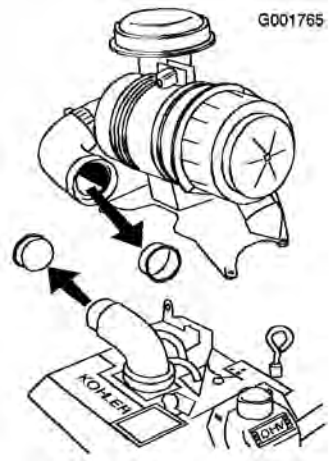



**Figure 17**

4. Align the holes in the air cleaner bracket with holes in the valve covers (Figure 18).




**Figure 18**

5. Secure the bracket and valve covers with the 4 bolts removed previously (Figure 18).
6. Torque the bolts to 70 in-lb (5 N·m).
7. Install the air cleaner hose over the air intake elbow on the engine and secure it with a hose clamp (Figure 18).

**Step**

# 9

# Installing the Air Cleaner on Kawasaki Engines

## Parts needed for this step:

| | |
|---|---|
| 1 | Air cleaner |
| 1 | Hose Clamp |
| 4 | Screws |
| 1 | Front engine cover |

## Procedure

**Note:** If the machine you are setting up does not have a Kawasaki engine, skip this procedure.

1. Remove the air cleaner from the crate, keeping the bracket together with the air cleaner.
2. Remove the plug from the air intake on the engine.

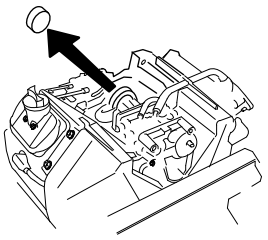



**Figure 19**

3. Remove the hose from the air cleaner and install it onto the air intake on the engine. This will make it easier to install the hose when the air cleaner is installed to the engine (Figure 20 and Figure 22).

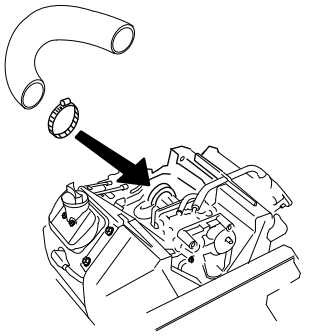



**Figure 20**

4. Remove the 2 bolts from the back of the engine (Figure 21).
5. Remove the 2 long bolts that run through the carburetor (Figure 21).

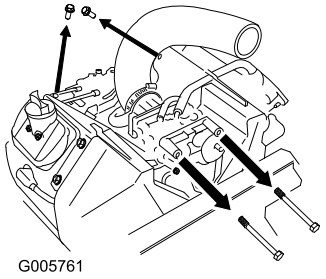



**Figure 21**

6. Install the hose into the air cleaner base (Figure 22).

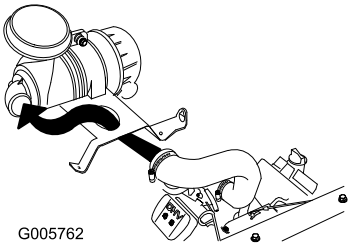



**Figure 22**

7. Align the holes in the air cleaner bracket with holes in the valve covers (Figure 24).
8. Install the long carburetor bolts into the air cleaner base and into the carburetor (Figure 23).

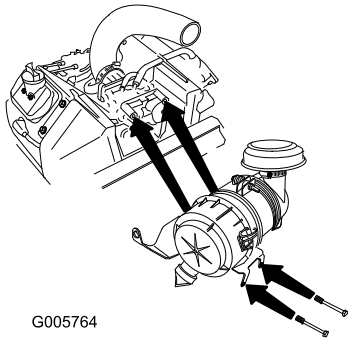



**Figure 23**

9. Install the hose clamp onto the hose and install the hose to the air cleaner (Figure 24).
10. Install the bolts into the back of the air cleaner bracket and into the motor (Figure 24).
11. Tighten the hose clamp.

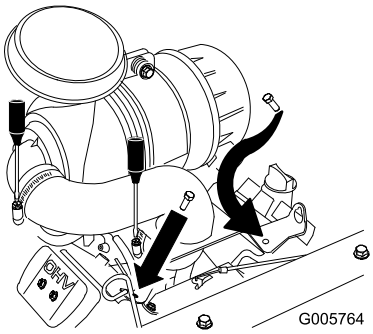



**Figure 24**

12. Install the front engine cover with 4 screws.

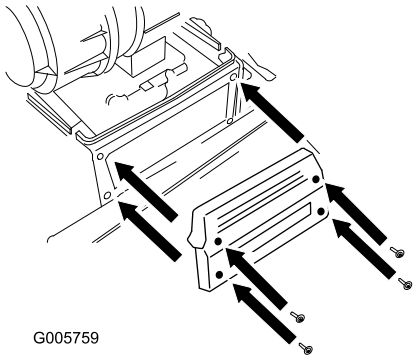



**Figure 25**

**Step**
# 10

## Checking the Spindles for Grease

### Parts needed for this step:

| | |
|---|---|
| 1 tube | Number 2 general purpose lithium base or molybdenum base grease. (Purchase separately.) |

### Procedure

1. Remove the belt covers on domestic machines (Figure 26).

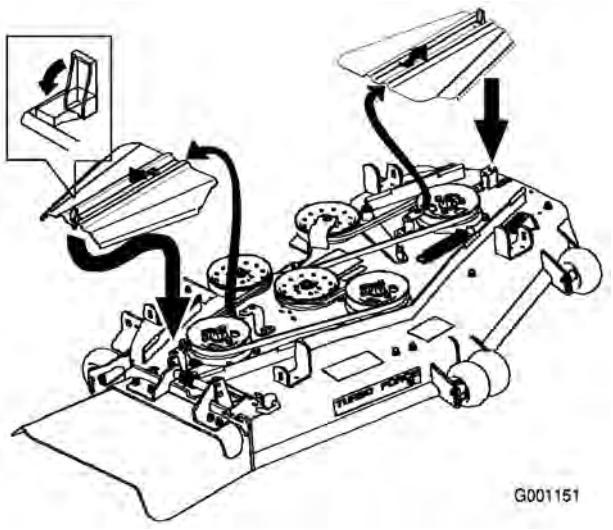



**Figure 26**

2. Remove the belt covers and bolts on international machines (Figure 27).

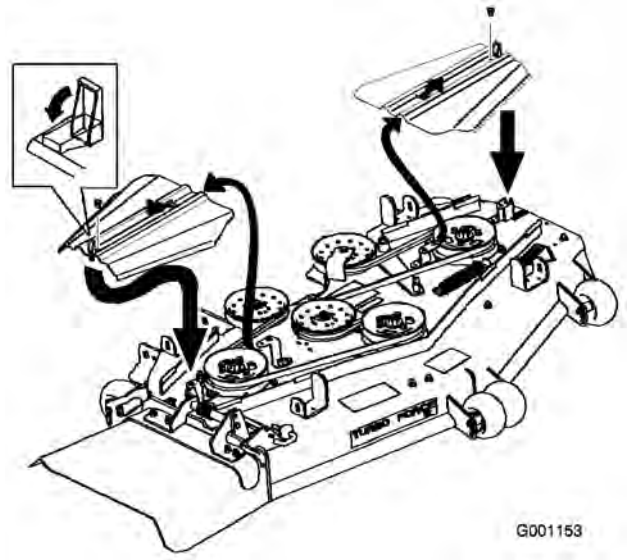



**Figure 27**

3. Check the tensioning arm for grease (Figure 28).
4. Check the grease for the three spindle bearings (Figure 28). If needed, add grease until it comes out of the lower seals.

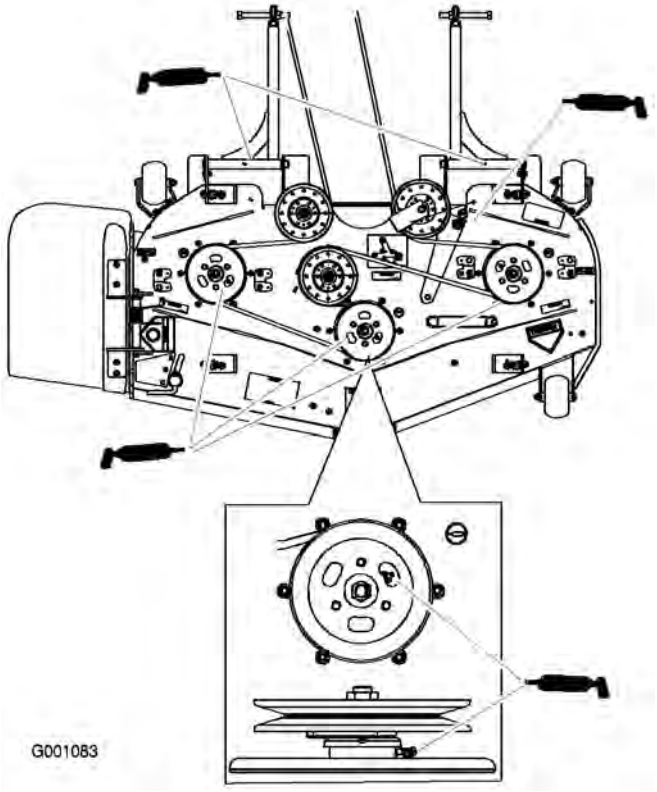



**Figure 28**

5. Install the belt covers.

**Step 11**

# Checking the Side Discharge Chute

## No Parts Required

## Procedure

If there are plastic ties holding the side discharge chute up, remove them and lower the chute into place.

**An uncovered discharge opening could allow the lawn mower to throw objects in the operator's or bystander's direction and result in serious injury or death. Also, contact with the blade could occur.**

**Never operate the lawn mower with the grass deflector removed unless you install a cover plate, a mulch plate, or a grass chute and catcher.**

1. Make sure the **L** end of spring is installed behind the deck edge before installing the bolt as shown in Figure 29.
2. Place the **J** hook end of spring around grass deflector (Figure 29).

   **Important: The grass deflector must be free to rotate with downward tension. Lift the deflector up to the full open position and ensure that it rotates freely,without binding into the full down position.**

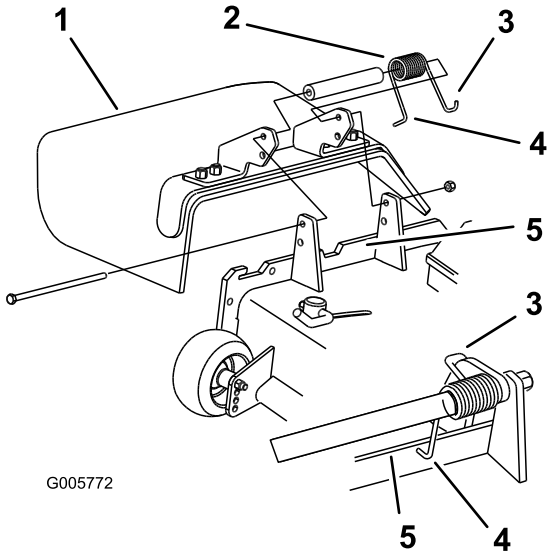



**Figure 29**

1. Grass Deflector
2. Spring
3. **J** hook end of spring
4. **L** end of spring, place behind deck edge before installing bolt
5. Deck edge

**Step 12**

## Checking the Engine Oil Level

### No Parts Required

### Procedure

Before you start the engine and use the machine, check the oil level in the engine crankcase; refer to Checking the Engine Oil Level in the *Operator's Manual*.

**Step 13**

## Adding Fuel to the Machine

### No Parts Required

### Procedure

Add gasoline to the machine before starting it. Refer to your *Operator's Manual.* for the correct fuel and procedure.

**Step**
# 14

# Checking the Machine Before Delivery to the Customer

## No Parts Required

## Procedure

Before delivering the machine to the customer, ensure that you perform or have performed the procedures listed in the following table and initial each when finished. Refer to the *Operator's Manual* for instructions on performing these procedures.

| Initial | Check Procedure |
|---|---|
| | Check the tire pressure. |
| | Check the level of the mower. |
| | Check that all mower spindles are greased. |
| | Check the engine oil level. |
| | Check the hydraulic fluid level. |
| | Check ROPS is secure. |
| | On liquid cooled machines, check the level of the coolant in the radiator and overflow bottle. |
| | Check the adjustment of the parking brake. |
| | Ensure that the machine tracks correctly; refer to the *Operator's Manual* for the adjustment procedure. |
| | Check the safety interlock system; refer to the *Operator's Manual*. |
| | Ensure that the PTO works. |
| | Check all fasteners you installed to ensure that they are tight. |

When you finish setting up the machine, sign and date in the space provided below:

**Signature:** _____ **Date:** _____

Step
# 15

# Delivering the Machine to the Customer

## Parts needed for this step:

| | |
|---|---|
| 1 | *Operator's Manual* |
| 1 | *Parts Catalog* |
| 1 | *Engine Owner's Manual* |
| 1 | Registration Card |
| 1 | Safety Video |
| 2 | Key |

## Procedure

At delivery, Fill in the model and serial number and complete the items listed in the following table and initial each when finished.

**Model No.** _____ **Serial No.** _____

| Dealer Initial | Customer Initial | Check Procedure |
|---|---|---|
| | | Show the customer where the following features are located and how they function: |
| | | • Fuel tank caps |
| | | • Oil fill cap/Oil dipstick |
| | | • Spark plug(s) |
| | | • Engine oil filter |
| | | • Engine oil drain |
| | | • Fuel filters |
| | | • Air filter |
| | | • Radiator coolant (if applicable) |
| | | • Hydraulic fluid reservoir |
| | | • Hydraulic filter |
| | | • Battery |
| | | • Ignition switch |
| | | • Throttle lever |
| | | • Choke (if applicable) |
| | | • Power take off switch (PTO) |
| | | • Motion control levers |
| | | • Parking brake |
| | | • Mower height-of-cut |
| | | • Lift assist lever (if applicable) |

| Dealer Initial | Customer Initial | Check Procedure |
|---|---|---|
| | | • Z Stand® (if applicable) |
| | | • Adjustable seat |
| | | • Hydraulic bypass valves |
| | | • Rollover Protection System (ROPS) |
| | | • Mower deck flow baffle |
| | | Refer to the*Operator's Manual* to point out safety procedures, operation, and maintenance procedures. |
| | | Review the warranty statement as shown in the *Operator's Manual.* |
| | | Describe the post sale service procedures for your store. |
| | | Assist the customer in filling out and mailing the registration card or register online at www.Toro.com |
| | | Make sure that the customer receives the *Operator's Manual*, *Parts Catalog*, *Engine Owner's Manual*, *Set Up Instructions*, and safety video. |
| | | Assist the customer in loading the mower. |

**Note:** When you, the dealer representative, have finished delivering the machine to the customer, sign and date in the space provide below and keep a copy of this page for dealer records.

**Signature:** _____ **Date:** _____

**Signature:** _____ **Date:** _____




**Count on it.**