



Striping Kit for 500 Series Z Master® Model No. 107-1630

Form No. 3353-360 Rev A

Installation Instructions

Loose Parts

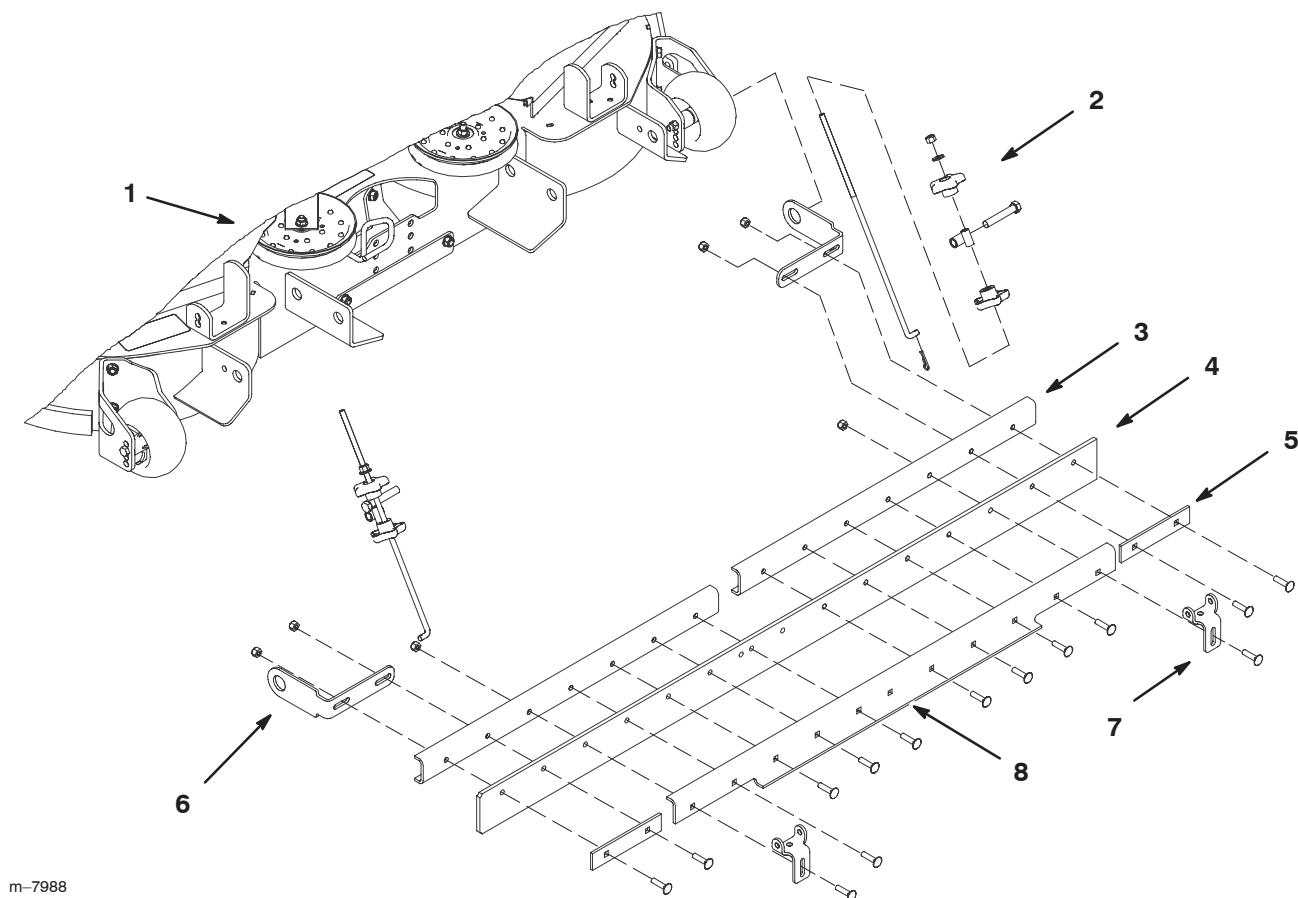
Note: Use the chart below to identify parts used for assembly.

DESCRIPTION	QTY.	USE
Adjuster mount	2	Installing the rod adjust mount
Bolt, 7/16 x 2-1/2 inch	2	
Long pivot mount, 52 inch	2	Assembling the striping bar
Short pivot mount, 60 & 72 inch	2	
Striping bar	2	
Wiper	1	
Rear bar	1	
Striper support	6	
Carriage bolt, 5/16 x 1-1/4 inch	17	
Lock nut, 5/16 inch	17	
Large flat washer, 5/16 inch	2	
Lift rod	2	Installing the lift rods
Knob	4	
Flat washer, 5/16 inch	2	
Lock nut, 5/16 inch	2	
Adjuster bracket, 52 inch	2	
Adjuster bracket, 60 & 70 inch	2	
Hair pin	2	
Wing nuts (optional)	4	
Installation Instructions	1	Read before installing

Installing the Striping Kit

The striping kit can be installed on models with 52, 60, and 72 inch decks. The installation instructions are divided into sections specific to those deck sizes. Find the section pertaining to your deck size and use those instructions to properly install the striping kit.

Installing the Striping Kit on Models with 52 inch Decks



m-7988

Figure 1

- | | | | |
|----------------------|-----------------|----------------------|---------------------|
| 1. 52 inch deck | 3. Striping bar | 5. Support plate | 7. Adjuster bracket |
| 2. Lift rod assembly | 4. wiper | 6. Pivot mount, long | 8. Rear bar |

Preparing the Unit

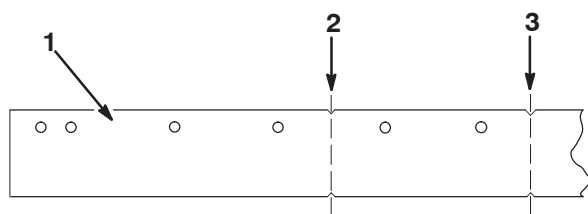
Park the unit on a level surface, engage the parking brake, stop the engine, and remove the key.

1. Raise the deck.
2. Place support blocks underneath the deck.
3. Lower the deck onto the support blocks to relieve weight from the rear chains.

Trimming the Wiper

The striping wiper needs to be trimmed for models with 52 inch decks.

1. Locate the notches in the wiper as shown in Figure 2.
2. Trim the wiper at the second notch for models with 52 inch decks (Fig. 2).
3. Discard the trimmed piece of wiper.



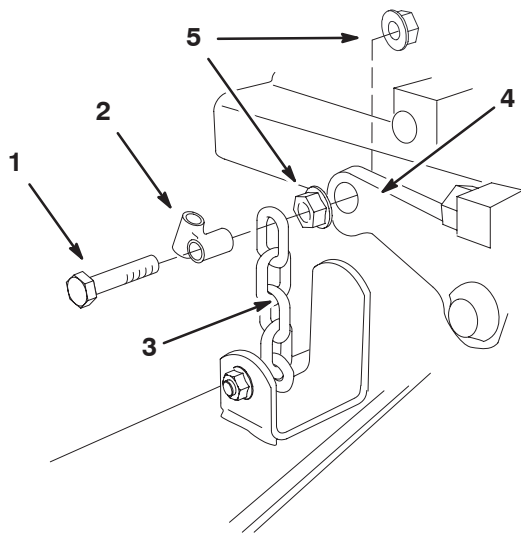
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Figure 2

- | | |
|-------------------|---|
| 1. Striping wiper | 3. Second notch, trim here for 52 inch models |
| 2. First notch | |

Installing the Rod Adjuster

1. Remove the bolt and two flange nuts that secure the top of the rear chains to the lift arms. Discard the bolt.
2. Install the 7/16 x 2-1/2 inch bolts through the adjuster mount with the cross tube nearest the bolt head (Fig. 3).



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Figure 3

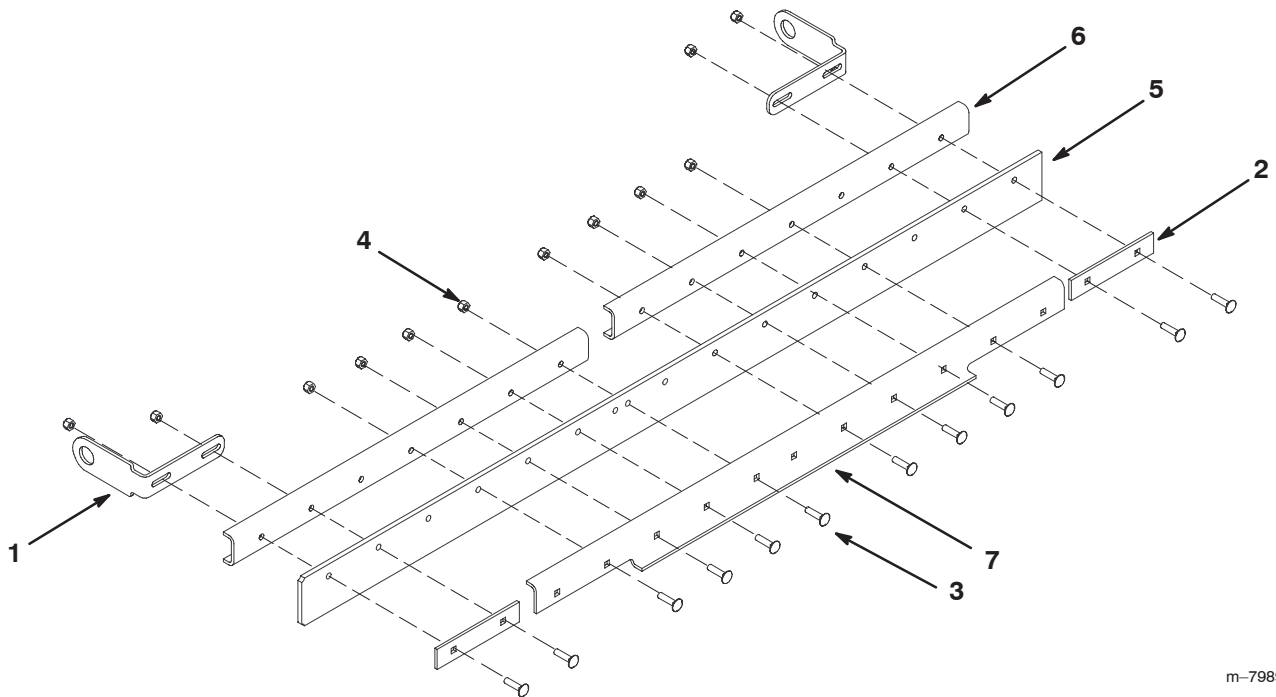
- | | |
|----------------------------|---------------|
| 1. Bolt, 7/16 x 2-1/2 inch | 4. Lift arm |
| 2. Adjuster mount | 5. Flange nut |
| 3. Rear chain | |

3. Install the top chain link next, then one flange nut with the flange side toward the lift arm (Fig. 3).
4. Install the assembly onto the lift arm and secure it with the remaining flange nut. The nut should be flush with the end of the bolt.
5. Torque nuts to 45 ft-lbs (N·m).

Assembling the Striping Bar

1. Select the set of long pivot mounts for 52 inch decks.
2. Install two carriage bolts (5/16 x 1-1/4 inch) through the support plate, wiper, striping bar, and pivot mounts as shown in Figure 4.
3. Secure the carriage bolts with two lock nuts (5/16 inch). Do not tighten to allow for later adjustment.
4. Repeat steps 1-3 for the other side.
5. Install the rear bar as shown in Figure 4 using 8 carriage bolts (5/16 x 1-1/4 inch) and 8 lock nuts (5/16 inch).

Note: The center hole of the rear bar is not used.



m-7989

Figure 4

- | | | | |
|----------------------|-------------------------------------|--------------------------|-----------------|
| 1. Long pivot mount | 3. Carriage bolt, (5/16 1-1/4 inch) | 4. Lock nut, (5/16 inch) | 6. Striping bar |
| 2. Support plate (2) | | 5. Wiper | 7. Rear bar |

Mounting the Striping Bar

1. Position the striping assembly behind the deck with the pivot mounts facing forward.
2. Remove the anti-scalp roller wheel, axle bolt, hub, wheel spacer, and flange nut (Fig. 5) from the wheel bracket.
3. Install the pivot arm of the striping assembly over the wheel spacer.
4. Assemble the anti-scalp roller wheel and striping assembly as shown in Figure 5.
5. Secure the anti-scalp roller wheel and striping assembly with the axle bolt and flange nut removed previously (Fig. 5).
6. Repeat steps 2-5 for the opposite side.
7. Adjust the striping assembly so that it is centered behind the deck. Tighten the fasteners at the support plates on opposite ends of the striping assembly (Fig. 4).

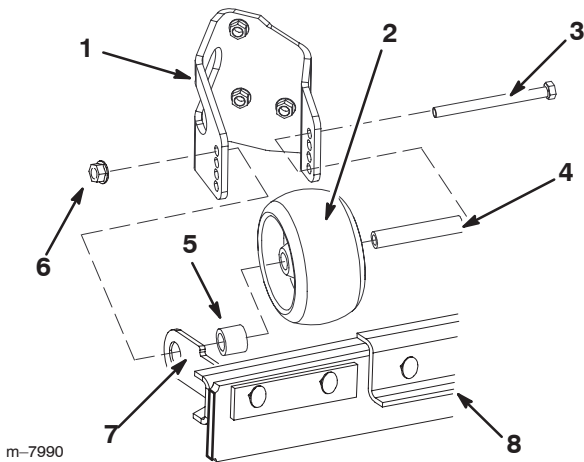


Figure 5

Left side shown

- | | |
|----------------------------|----------------------|
| 1. Bracket | 5. Wheel spacer |
| 2. Anti-scalp roller wheel | 6. Flange nut |
| 3. Axle bolt | 7. Long pivot mount |
| 4. Hub | 8. Striping assembly |

Installing the Lift Rods

Perform the following steps on both the left and right side of the unit.

1. Install one knob on the threaded end of the lift rod with the hub side up as shown in Figure 6.

Note: Wing nuts, included in the loose parts, can be substituted for the hand knobs in this step.

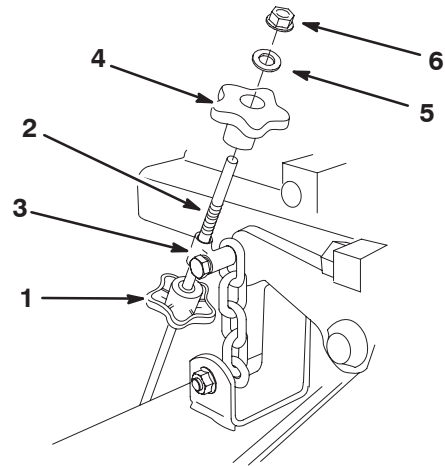


Figure 6

- | | |
|---|---|
| 1. Knob, hub side up (see Note) | 4. Knob, hub side down (see Note) |
| 2. Lift rod, threaded end | 5. Flat washer, 5/16 inch |
| 3. Adjuster mount | 6. Flange nut, 5/16 inch |

2. Guide the lift rod end with the inverted hub through the adjuster mount and install the another knob with the hub side down (Fig. 6).

Note: Wing nuts, included in the loose parts, can be substituted for the hand knobs in this step.

3. Secure the knob with a flat washer (5/16 inch), and flange nut (5/16 inch).

4. Install the adjuster bracket for the 52 inch decks at the hole closest to where the lift rod reaches the striping assembly (Fig. 7).

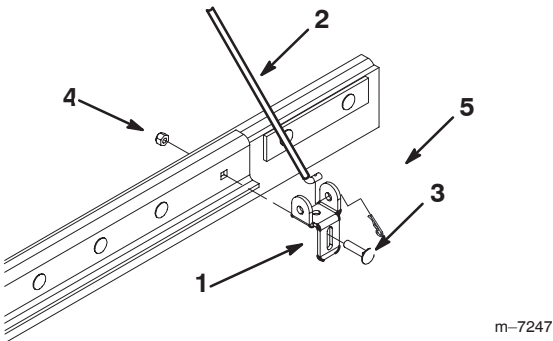
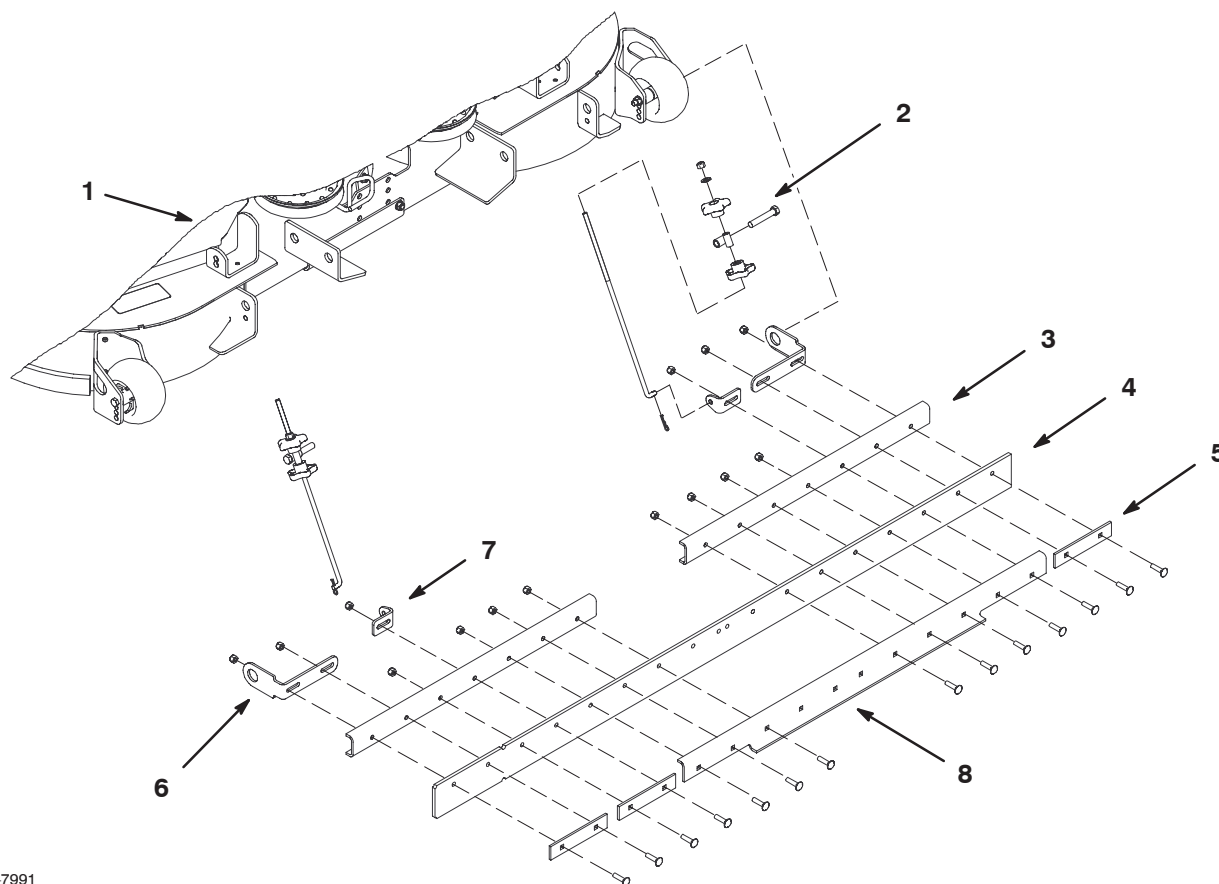


Figure 7

- | | |
|--|------------------------|
| 1. Adjuster bracket | 4. Lock nut, 5/16 inch |
| 2. Lift rod, bent end | 5. Hair pin |
| 3. Carriage bolt,
5/16 x 1-1/4 inch | |
-
5. Secure the adjuster bracket using a carriage bolt (5/16 x 1-1/4 inch) and lock nut (5/16 inch), as shown in Figure 7. Do not tighten to allow for later adjustment.
 6. Insert the bent end of the lift rod into the top hole of the bracket and secure it with a hair pin (Fig. 7).
 7. Repeat steps 4-6 for other side.
 8. If necessary, center the striping assembly by moving it within the adjuster bracket and then tighten the fasteners.

Installing the Striping Kit on Models with 60 inch Decks



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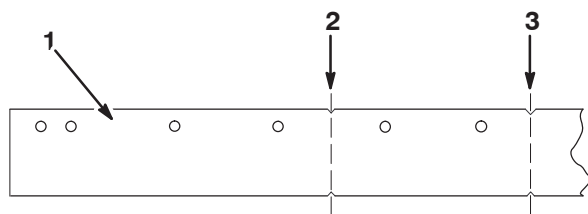
Figure 8

- | | | | |
|----------------------|-----------------|-----------------------|---------------------|
| 1. 60 inch deck | 3. Striping bar | 5. Support plate | 7. Adjuster bracket |
| 2. Lift rod assembly | 4. wiper | 6. Pivot mount, short | 8. Rear bar |

Preparing the Unit

Park the unit on a level surface, engage the parking brake, stop the engine, and remove the key.

1. Raise the deck.
2. Place support blocks underneath the deck.
3. Lower the deck onto the support blocks to relieve weight from the rear chains.



m-7240

Figure 9

- | | |
|--|-----------------|
| 1. Striping wiper | 3. Second notch |
| 2. First notch, trim here for 60 inch models | |

Trimming the Wiper

The striping wiper needs to be trimmed for models with 60 inch decks.

1. Locate the notches in the wiper as shown in Figure 2.
2. Trim the wiper at the first notch for models with 60 inch decks (Fig. 2).
3. Discard the trimmed piece of wiper.

Installing the Rod Adjuster

1. Remove the bolt and two flange nuts that secure the top of the rear chains to the lift arms. Discard the bolt.
2. Install the 7/16 x 2-1/2 inch bolts through the adjuster mount with the cross tube nearest the bolt head (Fig. 3).
3. Install the top chain link next, then one flange nut with the flange side toward the lift arm (Fig. 3).

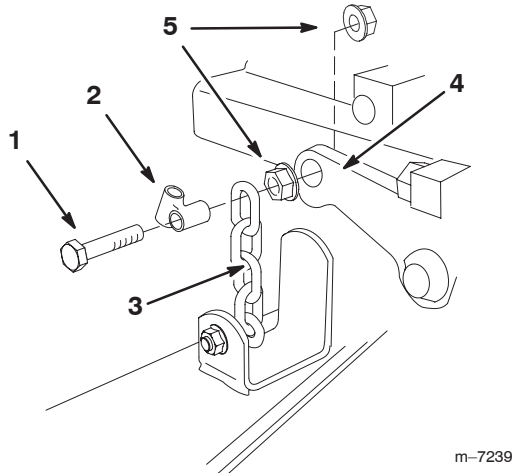


Figure 10

- | | |
|----------------------------|---------------|
| 1. Bolt, 7/16 x 2-1/2 inch | 4. Lift arm |
| 2. Adjuster mount | 5. Flange nut |
| 3. Rear chain | |

4. Install the assembly onto the lift arm and secure it with the remaining flange nut. The nut should be flush with the end of the bolt.
5. Torque nuts to 45 ft-lbs (N·m).

Assembling the Striping Bar

1. Select the set of short pivot mounts for 60 and 72 inch decks.
2. Install two carriage bolts (5/16 x 1-1/4 inch) through the support plate, wiper, striping bar, and pivot mounts as shown in Figure 11.
3. Secure the carriage bolts with two lock nuts (5/16 inch). Do not tighten to allow for later adjustment.
4. Repeat steps 1-3 for the other side.
5. Install the rear bar and extra support plate as shown in Figure 11 using 10 carriage bolts (5/16 x 1-1/4 inch) and 10 lock nuts (5/16 inch).

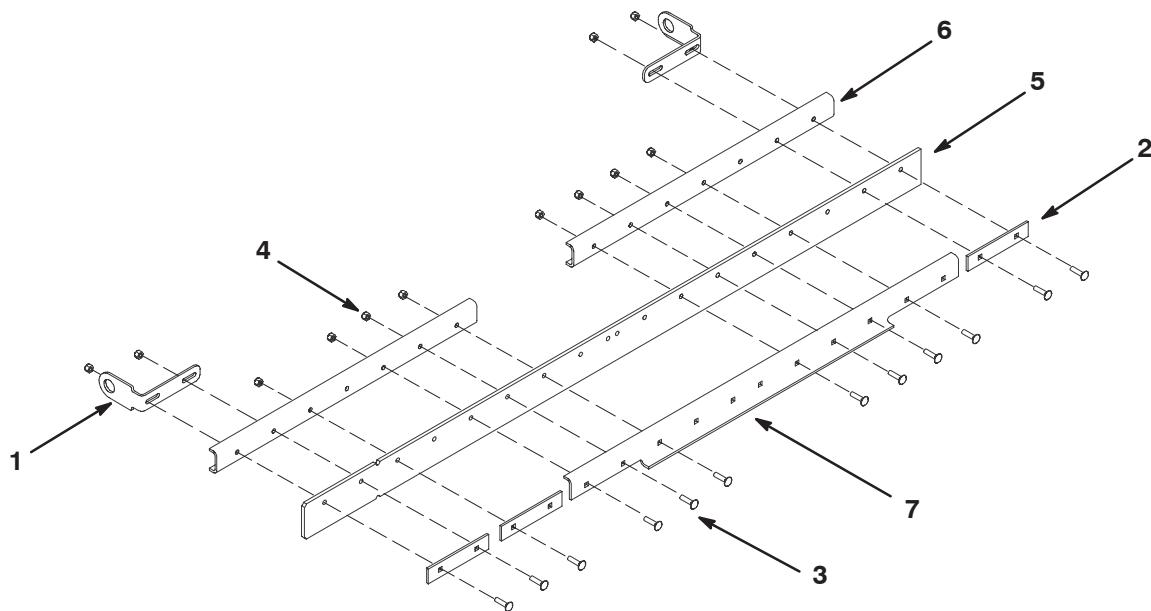


Figure 11

- | | | | |
|----------------------|---------------------------------------|--------------------------|-----------------|
| 1. Short pivot mount | 3. Carriage bolt, (5/16 x 1-1/4 inch) | 4. Lock nut, (5/16 inch) | 6. Striping bar |
| 2. Support plate (3) | | 5. Wiper | 7. Rear bar |

Mounting the Striping Bar

1. Position the striping assembly behind the deck with the pivot mounts facing forward.
2. Remove the anti-scalp roller wheel, axle bolt, hub, wheel spacer, and flange nut (Fig. 12) from the wheel bracket.
3. Install the pivot arm of the striping assembly over the wheel spacer.
4. Assemble the anti-scalp roller wheel and striping assembly as shown in Figure 12.
5. Secure the anti-scalp roller wheel and striping assembly with the axle bolt and flange nut removed previously (Fig. 12).
6. Repeat steps 2-5 for the opposite side.
7. Center the striping assembly by moving it within the pivot mount slots and then tighten the support plate fasteners.

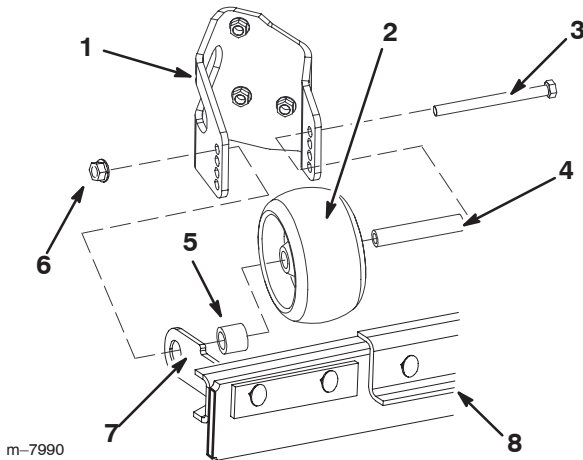
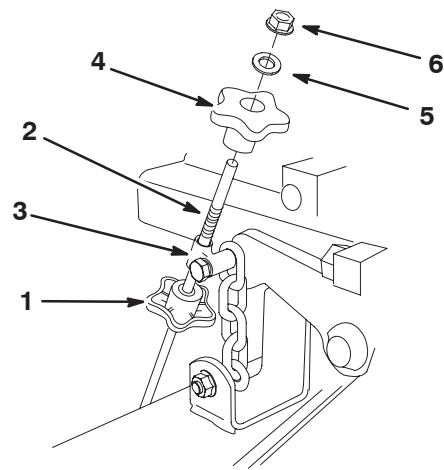


Figure 12

Left side shown

- | | |
|----------------------------|----------------------|
| 1. Bracket | 5. Wheel spacer |
| 2. Anti-scalp roller wheel | 6. Flange nut |
| 3. Axle bolt | 7. Short pivot mount |
| 4. Hub | 8. Striping assembly |



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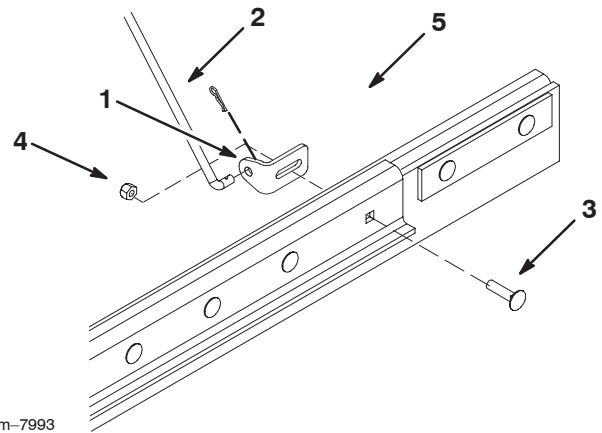
Figure 13

- | | |
|---------------------------------|-----------------------------------|
| 1. Knob, hub side up (see Note) | 4. Knob, hub side down (see Note) |
| 2. Lift rod, threaded end | 5. Flat washer |
| 3. Adjuster mount | 6. Flange nut |

2. Guide the lift rod end with the inverted hub through the adjuster mount and install the another knob with the hub side down (Fig. 13).

Note: Wing nuts, included in the loose parts, can be substituted for the hand knobs in this step.

3. Secure the knob with a flat washer (5/16 inch), and flange nut (5/16 inch).
4. Install the adjuster bracket for the 60 and 72 inch decks as shown in Figures 14 and 15.



m-7993

Figure 14

Rightside

- | | |
|-----------------------|--------------|
| 1. Adjuster bracket | 4. Lock nut, |
| 2. Lift rod, bent end | 5. Hair pin |
| 3. Carriage bolt, | |

Installing the Lift Rods

Perform the following steps on both the left and right side of the unit.

1. Install one knob on the threaded end of the lift rod with the hub side up as shown in Figure 13.

Note: Wing nuts, included in the loose parts, can be substituted for the hand knobs in this step.

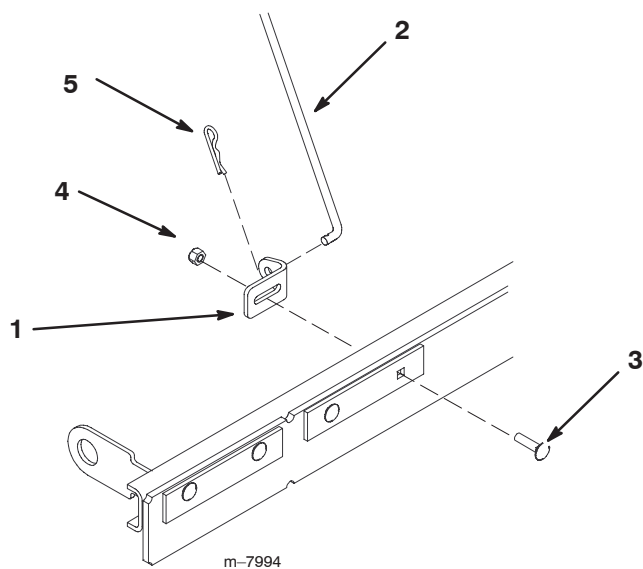
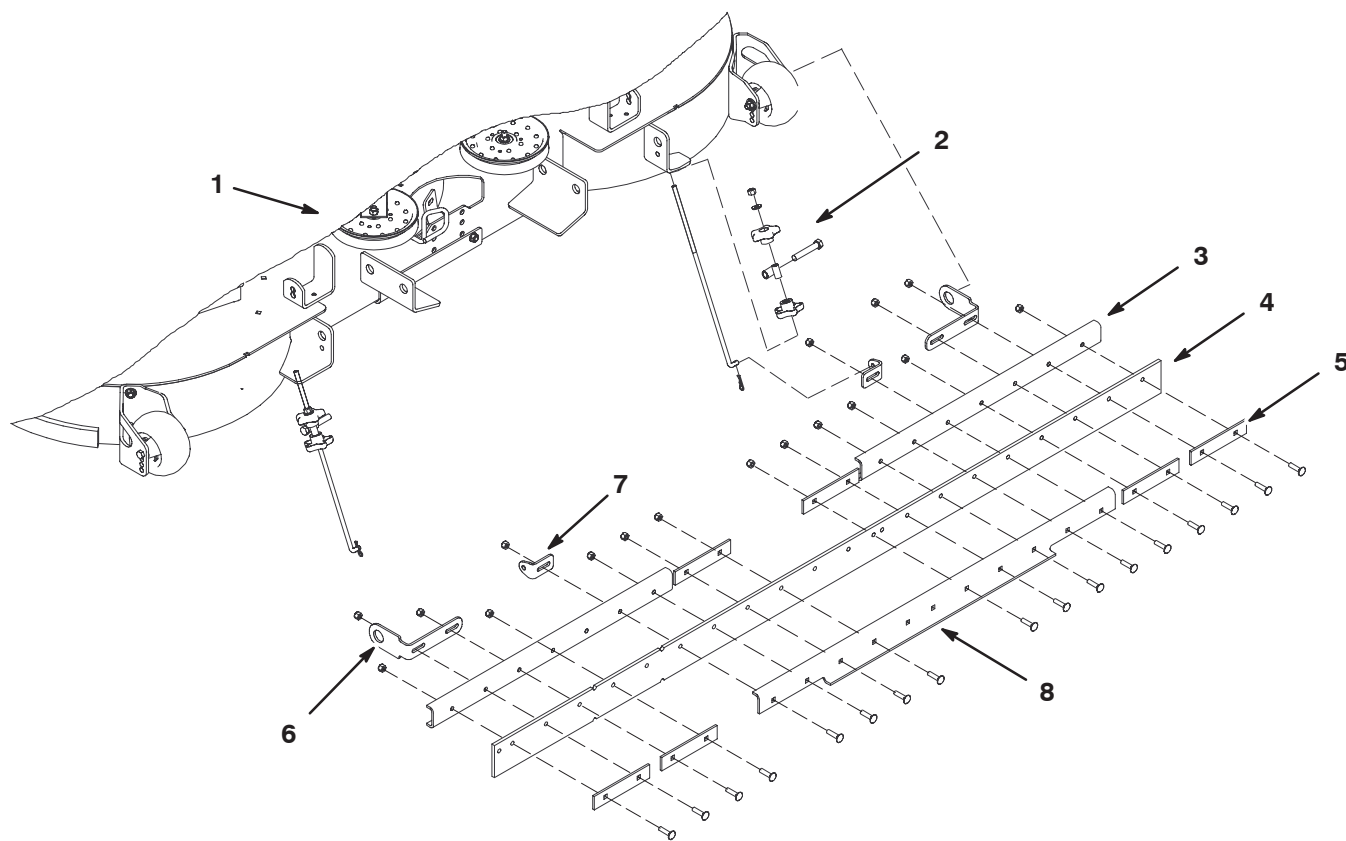


Figure 15

Leftside shown

- | | |
|-----------------------|--------------|
| 1. Adjuster bracket | 4. Lock nut, |
| 2. Lift rod, bent end | 5. Hair pin |
| 3. Carriage bolt, | |
-
5. Secure the adjuster brackets using a carriage bolt (5/16 x 1-1/4 inch) and lock nut (5/16 inch), as shown in Figure 14.
 6. Insert the bent end of the lift rod into the round hole of the bracket and secure it with a hair pin (Fig. 14).
 7. If necessary, center the striping assembly by moving it within the adjuster bracket and then tighten the fasteners.

Installing the Striping Kit on Models with 72 inch Decks



m-7995

Figure 16

- | | | | |
|----------------------|-----------------|-----------------------|---------------------|
| 1. 72 inch deck | 3. Striping bar | 5. Support plate | 7. Adjuster bracket |
| 2. Lift rod assembly | 4. wiper | 6. Pivot mount, short | 8. Rear bar |

Preparing the Unit

Park the unit on a level surface, engage the parking brake, stop the engine, and remove the key.

1. Raise the deck.
2. Place support blocks underneath the deck.
3. Lower the deck onto the support blocks to relieve weight from the rear chains.

Trimming the Wiper

The wiper is the correct length for models with a **72 inch deck** and **does not need to be trimmed**.

Installing the Rod Adjuster

1. Remove the bolt and two flange nuts that secure the top of the rear chains to the lift arms. Discard the bolt.
2. Install the 7/16 x 2-1/2 inch bolts through the adjuster mount with the cross tube nearest the bolt head (Fig. 17).

3. Install the top chain link next, then one flange nut with the flange side toward the lift arm (Fig. 17).

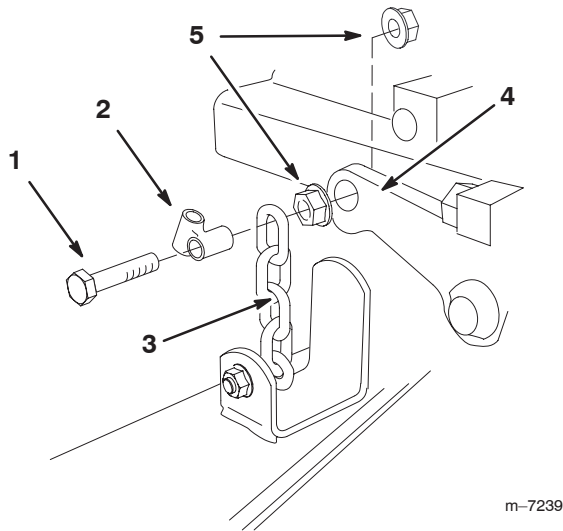


Figure 17

- | | |
|----------------------------|---------------|
| 1. Bolt, 7/16 x 2-1/2 inch | 4. Lift arm |
| 2. Adjuster mount | 5. Flange nut |
| 3. Rear chain | |

4. Install the assembly onto the lift arm and secure it with the remaining flange nut. The nut should be flush with the end of the bolt.

5. Torque nuts to 45 ft-lbs (N·m).

Assembling the Striping Bar

1. Select the set of short pivot mounts for 60 and 72 inch decks.
2. Install two carriage bolts (5/16 x 1-1/4 inch) through the support plate, wiper, striping bar, and pivot mounts as shown in Figure 18.
3. Secure the carriage bolts with two lock nuts (5/16 inch). Do not tighten to allow for later adjustment.
4. Repeat steps 1-3 for the other side.
5. Install the rear bar and three extra support plates as shown in Figure 18 using 16 carriage bolts (5/16 x 1-1/4 inch), 16 lock nuts (5/16 inch), and two large flat washers (5/16 inch).

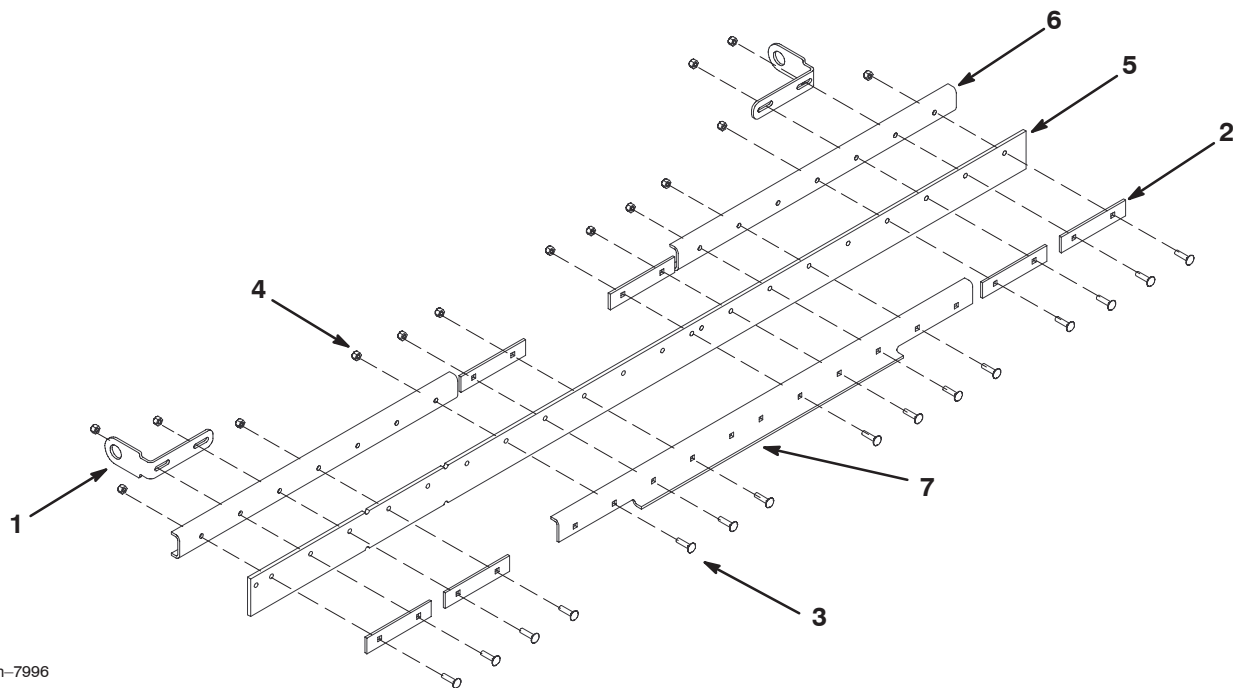


Figure 18

- | | | | |
|----------------------|---------------------------------------|--------------------------|-----------------|
| 1. Short pivot mount | 3. Carriage bolt, (5/16 x 1-1/4 inch) | 4. Lock nut, (5/16 inch) | 6. Striping bar |
| 2. Support plate (5) | | 5. Wiper | 7. Rear bar |

Mounting the Striping Bar

1. Position the striping assembly behind the deck with the pivot mounts facing forward.
2. Remove the anti-scalp roller wheel, axle bolt, hub, wheel spacer, and flange nut (Fig. 19) from the wheel bracket.
3. Install the pivot arm of the striping assembly over the wheel spacer.
4. Assemble the anti-scalp roller wheel and striping assembly as shown in Figure 19.
5. Secure the anti-scalp roller wheel and striping assembly with the axle bolt and flange nut removed previously (Fig. 19).
6. Repeat steps 2-5 for the opposite side.
7. Center the striping assembly by moving it within the pivot mount slots and then tighten the support plate fasteners.

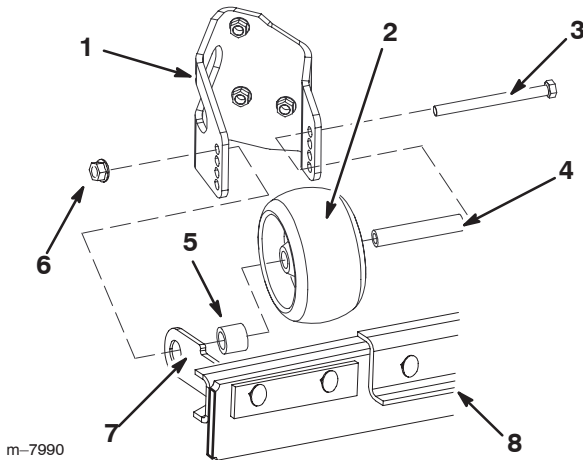
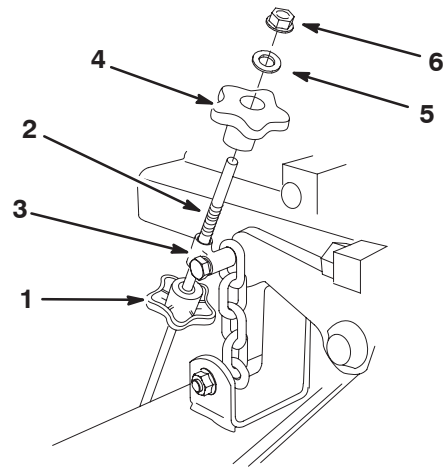


Figure 19

Left side shown

- | | |
|----------------------------|----------------------|
| 1. Bracket | 5. Wheel spacer |
| 2. Anti-scalp roller wheel | 6. Flange nut |
| 3. Axle bolt | 7. Short pivot mount |
| 4. Hub | 8. Striping assembly |



m-7246

Figure 20

- | | |
|---------------------------------|-----------------------------------|
| 1. Knob, hub side up (see Note) | 4. Knob, hub side down (see Note) |
| 2. Lift rod, threaded end | 5. Flat washer |
| 3. Adjuster mount | 6. Flange nut |

2. Guide the lift rod end with the inverted hub through the adjuster mount and install the another knob with the hub side down (Fig. 20).

Note: Wing nuts, included in the loose parts, can be substituted for the hand knobs in this step.

3. Secure the knob with a flat washer (5/16 inch), and flange nut (5/16 inch).

Installing the Lift Rods

Perform the following steps on both the left and right side of the unit.

1. Install one knob on the threaded end of the lift rod with the hub side up as shown in Figure 20. Thread the knob on all the way.

Note: Wing nuts, included in the loose parts, can be substituted for the hand knobs in this step.

4. Install the adjuster bracket for the 60 and 72 inch decks as shown in Figures 21 and 22.

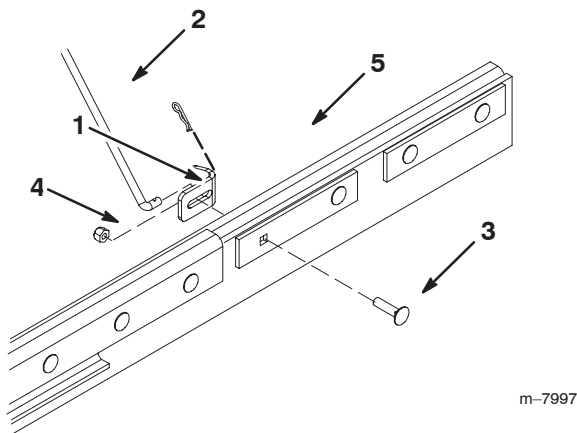


Figure 21
Rightside

- | | |
|-----------------------|--------------|
| 1. Adjuster bracket | 4. Lock nut, |
| 2. Lift rod, bent end | 5. Hair pin |
| 3. Carriage bolt, | |

5. Secure the adjuster bracket using a carriage bolt (5/16 x 1-1/4 inch) and lock nut (5/16 inch), as shown in Figure 21.
6. Insert the bent end of the lift rod into the round hole of the bracket and secure it with a hair pin (Fig. 21).
7. If necessary, center the striping assembly by moving it within the adjuster bracket and then tighten the fasteners.

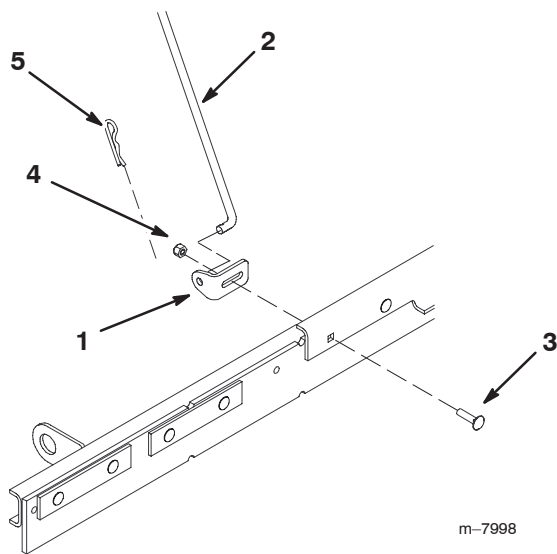


Figure 22
Rightside

- | | |
|-----------------------|--------------|
| 1. Adjuster bracket | 4. Lock nut, |
| 2. Lift rod, bent end | 5. Hair pin |
| 3. Carriage bolt, | |

Operation

Adjusting Height

Important Applying excessive downward pressure with the striping bar may damage turf and the striping kit.

Important Raise the striping bar when in transport and when loading and unloading the mower from a trailer.

Important Avoid obstacles that can damage the kit. Temporarily lift the deck to transport position when performing turns or moving in reverse.

Large height adjustments for the striping bar can be made with the position of the anti-scalp roller wheel. See your Operator's Manual for more information on adjusting the anti-scalp roller wheel height.

Fine height adjustments can be set by adjusting the threaded knobs on the lift rods. To lift the bar, spin the top knob down. This method of adjustment works best when the bottom knob has been threaded on completely.

Striper Operating Tips

Best results from normal striping are achieved with the bottom edge of the wiper is set at 1/2-1/4 inch below the bottom of the deck.

Allow the striping bar to float by not locking it in place with the hand knobs.

Use the hand knobs and anti-scalp roller wheel height to allow for variations in grass types and conditions.

Avoid close trimming with the striping kit installed to reduce damage to landscaping and the striping bar.

Replace the wiper yearly, or more often as wear requires.

Effective striping is influenced by grass condition and grass type

- Limp grass where wheel tracks are very visible is usually good for striping.
- Stiff grass where wheel tracks are less visible will usually produce poor striping.
- Cool season grass types found in northern areas are usually good for striping.
- Warm season grass types found in southern areas will usually produce less pronounced striping.
- Transition zone grasses found in the narrow belt region can produce good striping in some areas and some portions of the growing season, while producing poor striping in other areas or portions of the season.

- Some grass types produce better striping contrast when mowing short. Other grass types or moisture content of the grass can provide better contrast when mowing at a long/tall height of cut. Experiment with what works best in your situation.

Striping visibility is affected by the sun position

This is how the light is reflected on the grass.

- Mowing patterns which generally run east–west will have a greater contrast than north–south patterns.
- The striping pattern contrast is less visible around noon, and is more visible in mornings and afternoons.

Striping visibility is affected by your position

The grass which is bent towards you will appear darker, and grass which is bent away from you will appear lighter.

- Mowing patterns which generally run along a road will have greater contrast when viewed approaching or leaving the property. The contrast of striping will be less visible when looking across the mowing direction.
- If the property has a focal point, or a viewing location, it can be beneficial to mow in a pattern that is generally to and from the observation point.

Lawn condition affects striping visibility

- Large flat areas usually provide better striping contrast than on slopes or areas with a lot of trimming and edging.
- Mowing in morning dew can produce good striping contrast.
- Double cut mowing, and mowing a second pass at a 1/2 inch lower height of cut can produce good striping contrast.

Mowing mode can affect striping contrast

- Side dispersal of clippings can hide striping, reducing the contrast effect.
- Bagging can display heavy wheel tracks, reducing the effect of striping.
- Recycling will often display excellent contrast, enhancing the effect of striping.

The landscape can promote or hinder striping

- The mowing area size has an effect on the final appearance. Large areas can look better when mowed with a large mower. Small areas may not look right when cut with a large mower.
- Large areas with occasional trees or other obstructions will often look best when the mowing pattern appears to go through the obstruction. For example, it can look best for a pattern to match and continue on the far side of a small pond. A different cross cut pattern on the far side of a pond may not be visible.
- Some areas look best with long straight lines of striping mowing pattern, aligned with a property edge. Some areas look best with a diamond pattern, where neither straight line is aligned with the property edge. Properties with rolling hillsides or ponds can look best with a flowing curves striping pattern. A distinctive feature like a small pond can be highlighted and enhanced by a radial pattern or by a ring pattern.

Some lawns need to be *trained* to show a distinctive striping contrast

- On a new property during weeks 1 and 2, you may need to follow the exact same pattern and direction in the same wheel tracks. This will begin training the grass to bend in the desired direction.
- On week 3 use a cross-grain striping pattern.
- On weeks 4 and 5 follow with repeating the original pattern. After the primary striping pattern grain is established, you may alternate the pattern each week to establish a checkerboard or a plaid style of mowing pattern.
- Do not mow in the exact same pattern every week. This will cause compaction in wheel tracks, and may produce ruts or depressions along the wheel tracks.

Turning While Using the Striping Kit.

- Raise the deck when turning. Striping is generally not enhanced by end turns.
- Raising the deck will reduce confusing the pattern at the ends of the pattern.

Driving the machine to different cutting areas

- Raise the deck and drive along a previous cut path to transport from one area of the property to another section.
- A nice striping pattern can be ruined by driving across the pattern.

Follow all general mowing common practices

- It is usually best to first mow the perimeter to establish a boundary.
- When side discharging, the clippings should be directed away from walks, drives, flower beds, buildings and vehicles. If the discharge throws clippings a long distance, mow additional passes to avoid unwanted cleanup of clippings.
- Avoid excessive trimming. Driving back and forth, frequent forward and reverse maneuvers around an obstacle will compress the grass and disturb the professional appearance of a nice job.
- Follow all safe mowing practices as describe in the *Operator's Manual*. Do not let the striping pattern cause you to mow into a hazardous situation.

