

## Complete repair kit

for Nighthawk, Sterling and Sterling All Terrain tow bars part number 910003-30

This kit contains the components to replace the handle springs and caps, shoulder bolt and washers, stinger washers and yoke assembly washers

All specifications are subject to change without notice

ROADMASTER, Inc. 6110 NE 127th Ave.

Vancouver, WA 98682

800-669-9690 Fax: 360-735-9300 www.roadmasterinc.com

# Installation instructions - handle springs and caps

Follow the instructions on page 1 and 2 to replace the springs and caps. To replace other components, see pages 3 and 4. Note: The photos show a Sterling All-Terrain but also apply to the Nighthawk and discontinued Sterling tow bar.

### ! CAUTION

Read the instructions before installing the kit components. Failure to understand how to install this product could result in property damage.

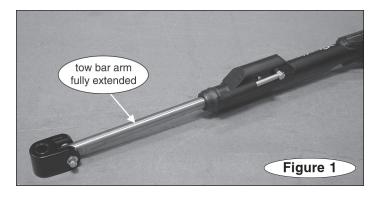
### Kit components

This kit contains the components for two Night handle caps and springs -

- (4) rubber caps
- (2) locking springs
- (2) retaining rings

### Required tools

A pair of snap ring pliers



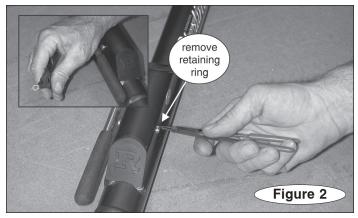
### Installation instructions

- 1. Work on one tow bar arm at a time. The tow bar arm must be fully extended (Figure 1).
- 2. Use snap ring pliers to remove the retaining ring (Figure 2) that secures the torsion pin.
  - 3. Remove the torsion pin (Figure 3).
  - 4. Remove the rubber caps (Figure 4).
- 5. Remove the original locking spring and insert the replacement spring into the handle, as shown in Figure 5. Align the two coils at the top of the spring to the two holes for the retaining pin.

Note: Earlier models of this tow bar used two locking springs. If this is the case, remove both of them.

6. Reinsert the retaining pin through the spring, and use the snap ring pliers to secure it in place with one of the provided retaining rings.

continued on next page



### **IMPORTANT NOTICE!**

### **Safety Definitions**

These instructions contain information that is very important to know and understand. This information is provided for safety and to prevent equipment problems. To help recognize this information, observe the following symbols:



WARNING indicates a potentially hazardous situation which, if not avoided, could result in property damage, serious personal injury or even death.



CAUTION indicates a potentially hazardous situation which, if not avoided, may result in property damage, or minor or moderate personal injury.

### **CAUTION**

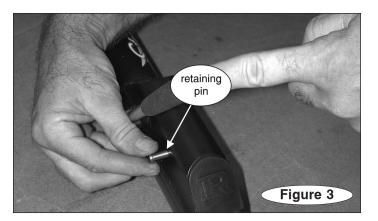
CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

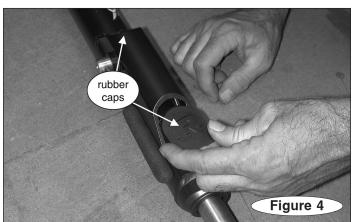
### NOTE

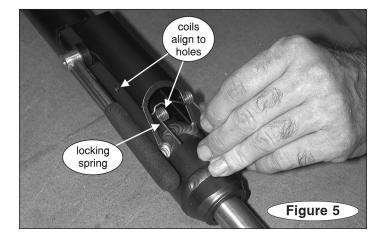
Refers to important information and is placed in italic type. It is recommended that you take special notice of these items.

continued from preceding page

- 7. Replace the original rubber caps with the replacement caps.
- **8.** Ensure that the release handle works correctly when installed correctly, the release handle will have spring pressure and the tow bar will function correctly without binding.
  - **9.** Repeat for the other tow bar arm.







# Installation instructions – shoulder bolt and washers, stinger washers and yoke assembly washers

Note: follow the instructions on this page and the following page to replace the shoulder bolt and washers, stinger washers and yoke assembly washers. To replace the handle springs and caps, see pages one and two.

Read the instructions before installing the kit components. Failure to understand how to install this product could result in property damage, serious personal injury or even death.



### Kit components

This kit contains the components for two shoulder bolts/ washers and yoke bolt washers—

(2) shoulder bolts

(2) Nylock nuts

(14) 11/2" diameter acetyl washers

(1) <sup>3</sup>/<sub>4</sub>" jam nut

(4) 3/4" diameter acetyl washers

(1) 34" lock nut

### **Required tools**

One 1-1/8" socket wrench A large crescent or impact wrench with 1-1/8" socket 9/16" socket wrench One 1/4" and one 5/8" Allen wrench

### Installation instructions

### To replace the shoulder bolt and acetyl washers...

- **1.** Remove the shoulder bolt with the 9/16" wrench and the ½" Allen wrench (Figure 6).
- **2.** Discard the two ¾" acetyl washers; retain the flat metal washer.
- 3. Insert the replacement shoulder bolt and one replacement  $\frac{3}{4}$ " acetyl washer through the collar, as shown in Figure 7.
- **4.** Align the second 3/4" acetyl washer to the hole on the other side of the collar and push the shoulder bolt through.
- **5.** Be certain that the head of the shoulder bolt is flush to the collar. Insert the flat metal washer on the outside of the collar, against the Nylock nut (Figure 8), and tighten the nut to secure the shoulder bolt in place.
  - 6. Repeat for the other tow bar arm

### To replace the stinger acetyl washers...

- **1.** Note the type and location of the flat metal and acetyl washers on the stinger (Figure 9).
- 2. Remove the stinger bolt with the 1-1/8" socket wrench and the crescent (or impact) wrench (inset, Figure 9). Discard the original acetyl washers. Reassemble with the replacement acetyl washers and the original flat metal washers; secure the bolt with the new 3/4" jam nut.

#### To replace the yoke assembly acetyl washers...

1. Due to manufacturing variances, the number of acetyl washers can vary from tow bar to tow bar; therefore, before removing the bolt, carefully note the location and number of acetyl washers (Figure 10). If the exact number of replacement

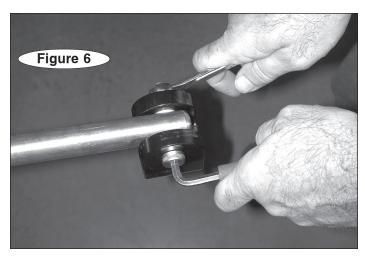
washers is not used at each point, the storage latch will not fit properly in the stowed position and, due to metal fatigue, the tow bar may fail.

### **WARNING**

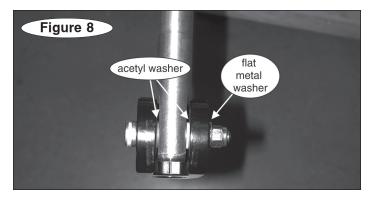
Before disassembly, carefully note the number of acetyl washers at each location. If the exact number of acetyl washers is not replaced at each point, metal-to-metal contact will occur, which will result in metal fatigue, causing tow bar failure.

Failure to follow these instructions may cause property damage, personal injury or even death.

continued on next page



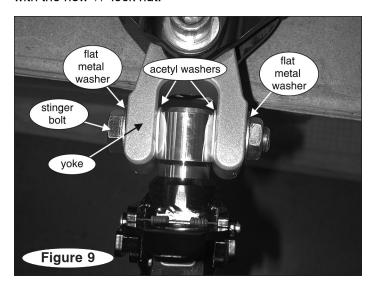


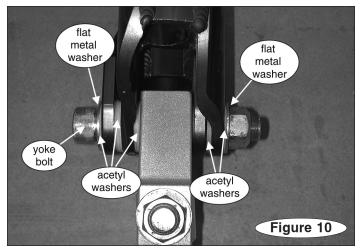


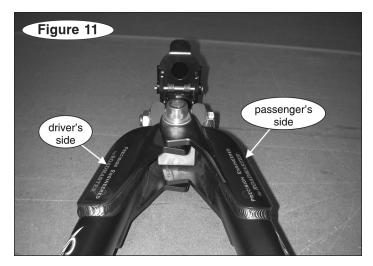
continued from preceding page

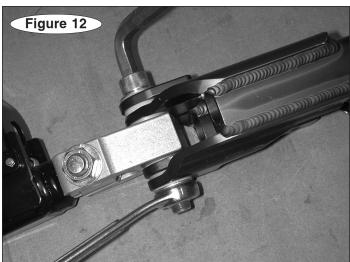
To aid in reassembly, also note the position of the driver's and passenger's side tow bar arms, in relation to the yoke (Figure 11).

- 2. Remove the yoke bolt with the 1-1/8" socket wrench and the 5/8" Allen wrench (Figure 12).
- 3. Discard the original  $1\frac{1}{2}$ " acetyl washers; retain the two flat metal washers.
- **4.** Reattach the yoke bolt with the replacement  $1\frac{1}{2}$ " acetyl washers and the original flat metal washers; secure the bolt with the new  $\frac{3}{4}$ " lock nut.









# 910003-30

### Complete repair kit

for Nighthawk, Sterling and Sterling All-Terrain tow bars

This kit contains the components to replace the handle springs and caps, shoulder bolt and washers, stinger washers and yoke assembly washers.

