Falcon 5250 complete repair kit

part number 910003-55

This kit contains the components to replace the Falcon 5250 Autowlok™ button assemblies, collar shoulder bolts, inner and outer arm bushings, washers and end plugs.

Towing and Suspension Solutions

855010-02 08-14

All specifications are subject to change without notice.

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⚠ WARNING

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.

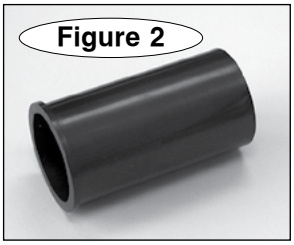
IMPORTANT!

Before you begin the installation…

Check the serial number before beginning the installation. The serial number is located on the passenger side tow bar arm (Figure 1).

If the serial number is 23240 or lower, you must use different outer arm bushings from those included in this kit. Discard the two supplied bushings (Figure 2) and order two replacement bushings, part number 200031-00.

Figure 2



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

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

⚠ CAUTION

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

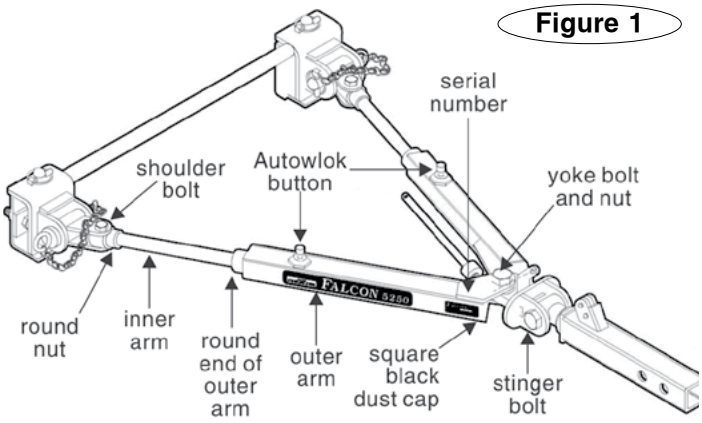
CAUTION

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.

Figure 1



Kit components

This kit contains the components to replace the Falcon 5250 shoulder bolts, bushings, washers and end caps –

(2) shoulder bolts (2) Nylock nuts
(2) ¾" locking nuts
(6) 1½" diameter acetyl washers
(4) ¾" diameter acetyl washers
(2) end caps (2) rubber 'bump ons'

This kit also contains the components to replace the inner and outer tow bar arm bushings and Autowlok button assemblies –

(2) 1¼" acetyl inner arm bushings
(2) outer arm bushings (2) button stems
(2) Autowlok buttons (2) springs
(2) pins (1) epoxy glue kit

Required tools

1¼" socket wrench
putty knife or scraper
¼" Allen wrench
pen knife
grinder
pliers or channel locks
crescent wrench
9/16" socket wrench
straight edge screwdriver
felt tip pen
rubber mallet

To aid in reassembly…

…carefully note: the position of the driver's and passenger's side tow bar arms, in relation to the yoke (Figure 3); the location of the two 1½" diameter acetyl washers on the stinger bolt (Figure 4); and the location of the four 1½" diameter acetyl washers on the yoke bolt (Figure 5).

Installation instructions

Replace the stinger washers and nut

1. Work on one tow bar arm at a time.

With a 1¼" socket wrench and a crescent wrench, remove the stinger bolt (Figure 6). Discard the two original 1½" diameter acetyl washers and the ¾" nut; replace them with new washers and a new nut. Reattach the bolt.

Remove the yoke bolt, washers and nut

2. Using the same wrenches, remove the yoke bolt (Figure 5). Discard the four original 1½" diameter acetyl washers and the ¾" nut; later, you will replace them with new washers and a new nut.

Replace the inner and outer arm bushings

3. With a straight edge screwdriver, pry off one of the square black dust caps (Figure 1).

4. Use a felt tip pen to mark the tow bar arm at the point where the round nut (Figure 7) attaches to the end of the tow bar arm.

5. Using a 9/16" socket wrench and a ¼" Allen wrench, remove the collar shoulder bolt (Figure 7). Discard the bolt, Nylock nut and the two ¾" diameter acetyl washers.

Unscrew the round nut (Figure 7) and remove it from the end of the inner arm.

6. Wrap a cloth around the end of the outer arm. You will use this cloth to catch the Autowlok assembly as it clears the outer arm. Then press the Autowlok button (Figure 1) down and push the inner arm out of the hole created by removing the square black dust cap.

⚠ CAUTION

The spring is under pressure and will eject the pin when the spring assembly clears the outer tubing. To avoid personal injury, wrap a cloth around the end of the tubing and stand to one side, clear of the pin, as the Autowlok assembly clears the outer tubing.

Push the inner arm completely out.

7. Remove the old bushings – both the 1¼" diameter acetyl inner arm bushing (Figure 8) and the outer arm bushing (Figure 2).

8. Clean the interior of the outer arm with a water-soluble

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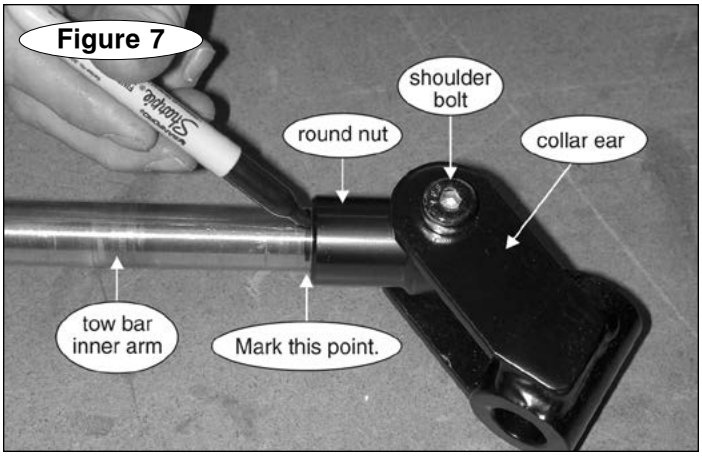

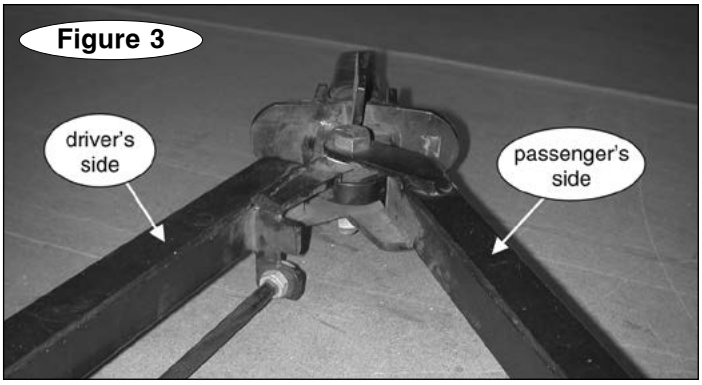

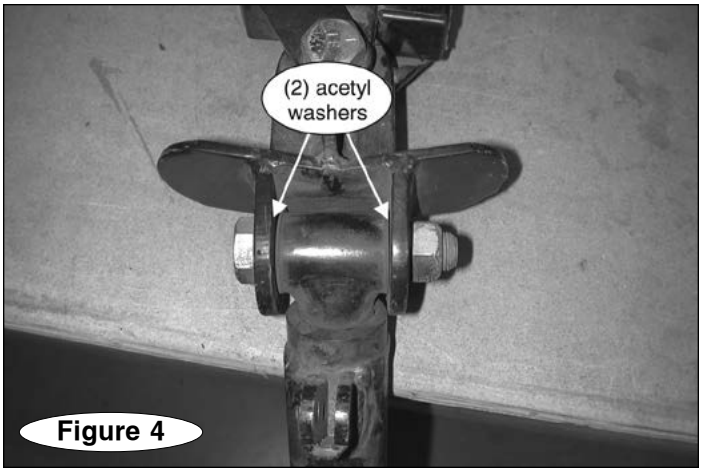

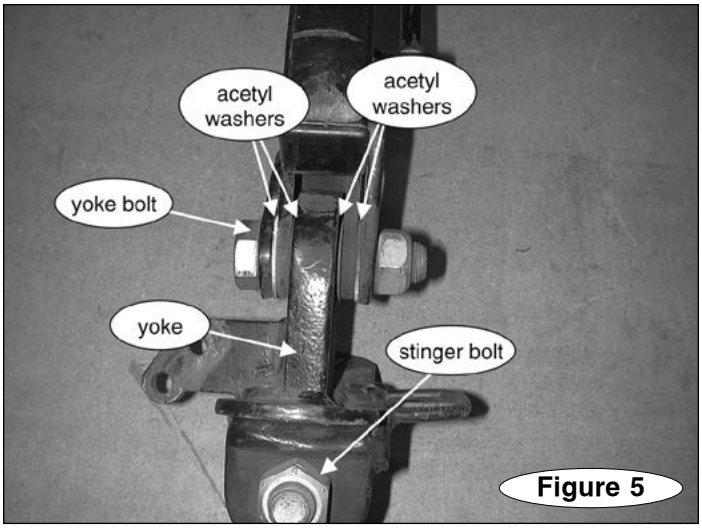

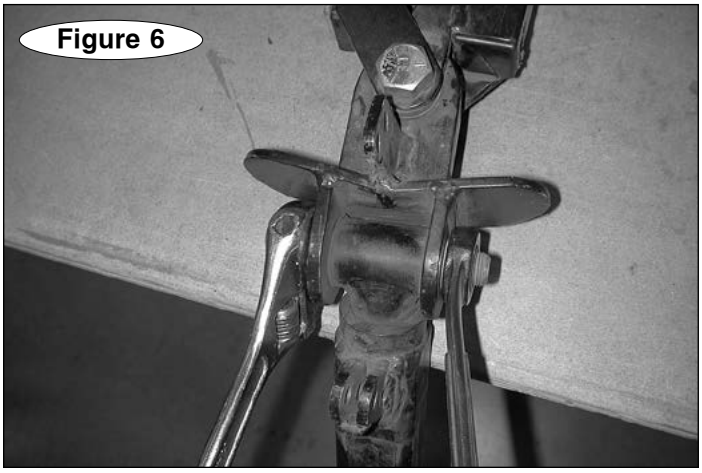

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cleaner such as Voom RV (part number 9911) – spray a liberal amount of cleaner inside the arm, then push a piece of cloth through to the other side. Repeat, if necessary, until the interior of the outer arm is clean.

CAUTION

Do not use petroleum-based products to clean or lubricate the tow bar. Petroleum will attract dirt and dust, which will impede the operation of the sliding inner arms and/or other components. Certain petroleum products may also corrode non-metallic components.

9. Inspect the surface at the round end of the outer arm (Figure 1), where the new outer arm bushing will be attached. If there is rust or corrosion, use extra fine (0000) steel wool, 3M "Scotch Brite" (fine pad) or a similar product to remove it.

10. Before attaching the new bushing, rinse the interior of the outer arm to remove all of the cleaner (and metal shavings, if you sanded the interior).

Dry the interior of the outer arm completely, by repeatedly pushing a piece of cloth through to the other end.

11. Follow the instructions on the supplied package of epoxy glue to mix and activate the glue.

Note: the epoxy glue will be used four times. Either mix a quarter for each application or substitute black ABS cement (not supplied).

Apply a light coat of glue around the outside of the new bushing and, within 30 seconds, slide it into the round end of the outer arm until it is flush with the hole.

Note: this is an extremely tight fit. It will require substantial force to fully insert the new bushing.

Note: the epoxy glue will be cured in 24 hours, but it will be set in 10 minutes. Allow the glue to set for at least 10 minutes before towing.

12. Fit one of the 1¼" diameter acetyl inner arm bushings (Figure 8) onto the raised lip at the end of the inner arm (Figure 8). Then, test the fit – slide the inner arm into the outer arm.

Note: if the 1¼" diameter acetyl bushing is too wide to fit, use a grinder to trim a small amount from the edges touching the inside of the outer arm. Trim an equal amount from each side, test-fit the bushing and trim more, if necessary, until the inner arm slides in and out easily.

Attach the Autowlok button assembly

13. Replace the button stem – first, with the old pin and spring (Figure 9) removed, insert the new button stem (Figure 9) flat side up into the opening at the end of the inner arm opposite the 1¼" acetyl inner arm bushing.

Then slide the inner arm into the outer arm until the top of the button stem is visible through the hole in the outer arm.

Figure 9

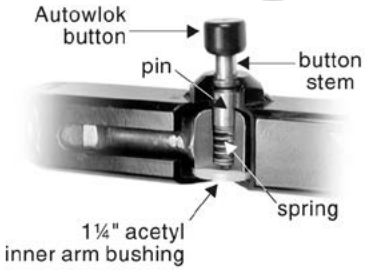
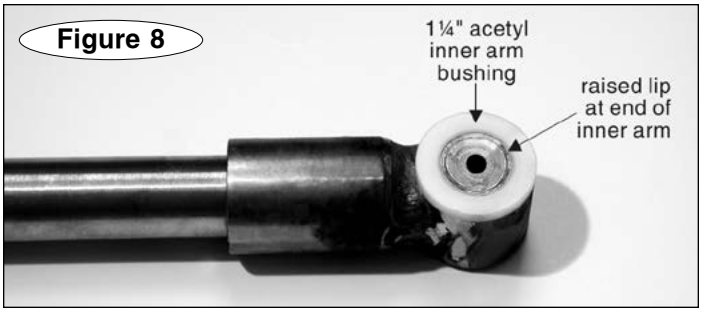


Figure 8



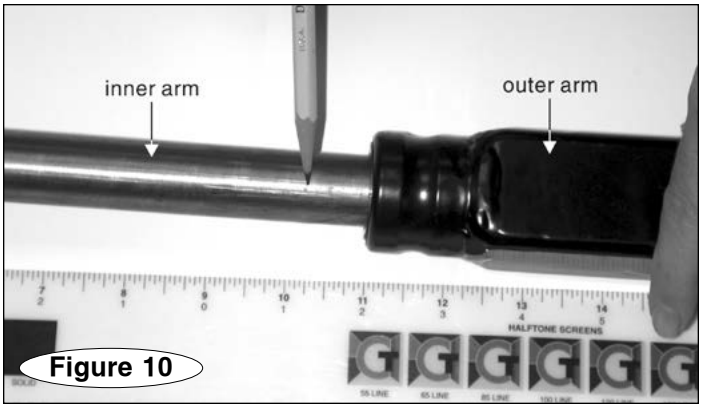
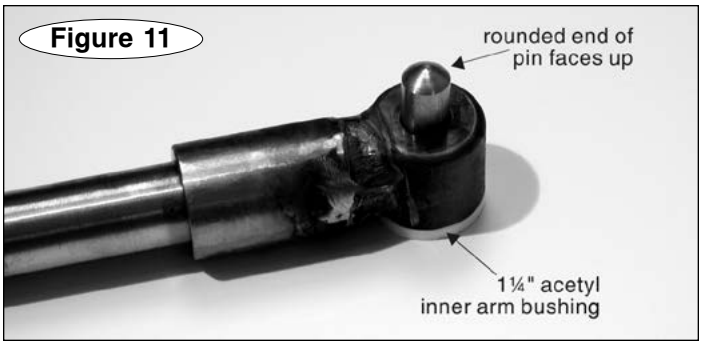


Figure 10

Figure 11



Turn the tow bar arm over and move the inner arm forward or backward slightly, if necessary, until the button stem drops through the hole in the outer arm. Then draw a straight line with a pencil across the bottom of the inner arm (Figure 10), ¾" from the edge of the outer arm.

Slowly close the inner arm until the edge of the outer arm is even with the pencil line you drew. This position will stabilize and support the button stem.

14. Remove the old Autowlok button (if present) with pliers or channel locks, being careful not to scratch the button stem.

15. Turn the tow bar arm back over and clean any dirt or debris that may be on the exposed surface of the button stem.

Note: for easier attachment to the button stem (step 16, below), drop the Autowlok button in boiling water for five minutes. The heat will make the button more flexible.

If you choose this method, dry the button completely before applying the glue.

16. As before, follow the instructions on the package of epoxy glue to mix and activate a portion of the glue (or substitute black ABS glue), then apply enough to lightly cover the inside of the button. Next, apply enough glue to completely fill the grooves at the top of the button stem.

Within 30 seconds, position the button over the top of

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the button stem and tap the button down over the button stem, as far as it can go, with a rubber mallet.

⚠ WARNING

Ensure that the button is tapped completely down, as far as it can go. If the button is not completely down, it will not depress the pin and spring far enough to lock or unlock the tow bar arm.

Both tow bar arms must be locked before towing. If they are not, the momentum of the towed vehicle will apply excessive force to the tow bar arms and other components of the towing system, which may cause the towing system to fail, resulting in property damage, personal injury or even death.

17. Allow 24 hours for the glue to set. The button can be depressed and released after approximately 10 minutes, but do not pull on the button for 24 hours.

18. After the button has been attached, slide the inner arm out.

19. Replace the spring and pin – first insert one of the supplied springs (Figure 9) into the opening at the end of the inner arm opposite the flat white bushing.

Then lubricate the flat side of one of the pins (Figure 9) thoroughly – use a dry silicone aerosol, such as Lube-Master (part number 747). Then insert the pin into the hole at the end of the inner arm, so that the rounded end of the pin faces up (Figure 11).

CAUTION

Do not use petroleum-based products to lubricate the tow bar. Petroleum will attract dirt and dust, which will impede the operation of the sliding inner arms and/or other components. Certain petroleum products may also corrode non-metallic components.

Figure 9 shows the 1¼" acetyl inner arm bushing, spring and pin correctly positioned below the Autowlok button and button stem.

20. Insert the inner arm back into the outer arm. When the inner arm is fully inserted, the Autowlok button will snap into the locked position.

Replace the collar shoulder bolt, washers and nut

21. Screw the round nut back onto the inner arm, up to the mark you made in step 4. Make certain that the round nut is not forward or backward of the mark.

If the round nut is forward of the mark, the replacement shoulder bolt will not fit. If the round nut is backward of the mark, it will rotate off the tow bar arm. Refer to Figure 12.

⚠ WARNING

If the round nut is moved backward on the tow bar arm, the shoulder bolt will not hold the round nut in place. Towing vibrations will cause the round nut, and the swivel ear with it, to rotate off the tow bar arm. The tow bar arm will detach from the towed vehicle, causing the towed vehicle to separate or to be held by only one tow bar arm, which will result in property damage, personal injury or even death.

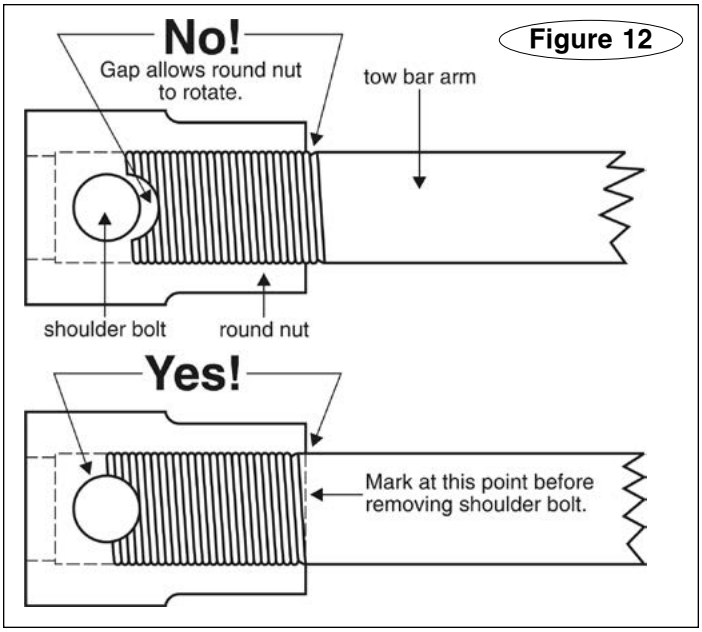

Figure 12

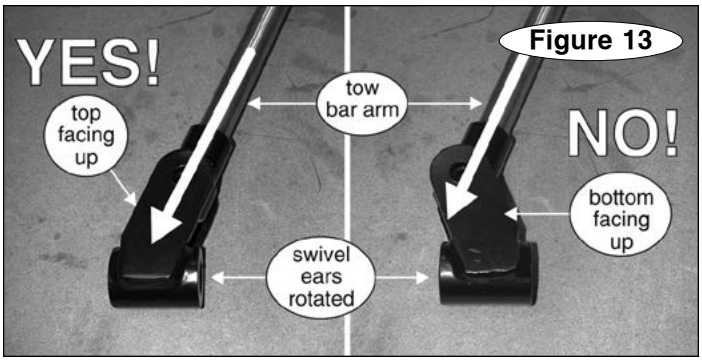

Figure 13

22. With a ¼" Allen wrench and a 9/16" socket wrench, reattach the collar ear to the round nut. Replace the original shoulder bolt, Nylock nut and the two ¾" diameter acetyl washers with the new components from the kit.

Torque the shoulder bolt to 45 ft./lbs.

Note: over-tightening the shoulder bolt will bind the collar and prevent it from pivoting properly. When it is tightened correctly, the collar should pivot easily.

Note: the swivel ears (Figure 13) must be attached with the top facing up. To distinguish between the top and bottom, spread the tow bar arms about 28 inches apart. Place a swivel ear over a round nut and rotate it to the left or the right, to the approximate position it would be in when towing. When the top is facing up, the swivel ear will be at the same angle as the tow bar arm.

⚠ WARNING

If the swivel ears are not attached as described above, the weight of the towed vehicle will cause them to separate, resulting in tow bar failure and the loss of the towed vehicle.

Failure to attach the ears properly may cause property damage, personal injury or even death.

23. Replace the square black dust cap you removed in

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step 3 with one of the new ones.

24. With a putty knife or scraper, pry off the rubber 'bump on' (Figure 14). With a cleaner such as Voom RV (part number 9911) remove any residue.

25. With a pen knife, separate the two new 'bump ons,' peel the backing strip on the bottom of one and press it into place.

26. Repeat steps 3 through 25 for the other tow bar arm.

27. Reattach the tow bar arms with the original yoke bolt, four new 1½" diameter acetyl washers and a new ¾" nut.

Tighten the nut until the bolt is snug.

The torque required to adequately tighten the yoke bolt varies from tow bar to tow bar. If the bolt is over-tightened, the tow bar arms will not pivot easily. If this is the case, adjust the torque.

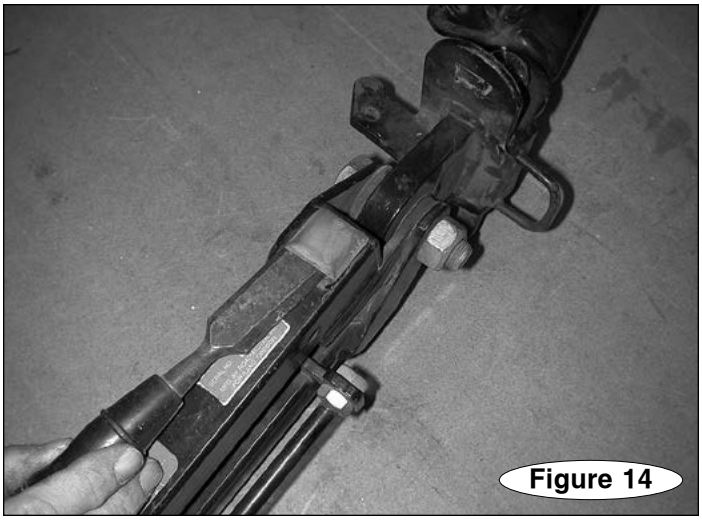

Figure 14

⚠ WARNING

Use all mounting hardware and parts necessary to replace all kit components and reassemble the tow bar as described above.

Failure to use all kit parts or to reassemble the tow bar correctly may cause the tow bar to fail, which may cause a loss of vehicular control, a traffic accident or loss of the towed vehicle, resulting in property damage, personal injury or even death.

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Falcon 5250 complete repair kit

This kit contains the components to replace the Falcon 5250 Autowlok™ button assemblies, collar shoulder bolts, inner and outer arm bushings, washers and end plugs.