



Roll Over Protection System Kit

200 and 500 Series Z Masters

Part No. 107-0038

Form No. 3350-454

Installation Instructions

Note: This kit is used for replacing an existing ROPS or adding it to a machine without an existing ROPS.

Loose Parts

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

Step	Description	Qty.	Use
1	No parts needed	–	Removing the drive wheels
2	Roll bar, right section Roll bar, left section Roll bar, center section Bolt, 3/8 x 1 inch Bolt, 3/8 x 1-1/2 inch Curved washer, 3/8 inch Flange nut, 3/8 inch Locknut, 3/8 inch Internal lock washer Bolt, 1/2 x 3-1/4 inches Flange nut, 1/2 inch Lanyard	1 1 1 4 2 6 6 2 2 2 2 2	Installing the roll over protection system (ROPS)
3	No parts needed	–	Installing the drive wheels
4	No parts needed	–	Removing the existing seat frame
5	Seat frame	1	Installing the new seat frame
6	Seat latch catch Bolt, 5/16 x 3/4 inch Locknut, 5/16 inch	1 2 2	Installing a seat latch catch on 500 Series machines
7	Template	1	Drilling holes for a seat latch catch on 200 Series Machines
8	Seat latch catch Side locknut, 5/16 inch Serrated locknut, 5/16 inch	1 2 2	Installing a seat latch catch on 200 Series machines
9	Seat belt Bolt, 7/16 x 1 inch Locknut, 7/16 inch	1 2 2	Installing the seat belt on a standard seat



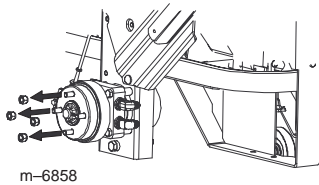
Step	Description	Qty.	Use
10	Seat belt Bolt, 7/16 x 1 inch Washer, 7/16 inch	1 2 2	Installing the seat belt on a deluxe seat
11	Footrest decal	1	Installing the Decals

Step**1****Removing the Drive Wheels****Parts needed for this step:**

None

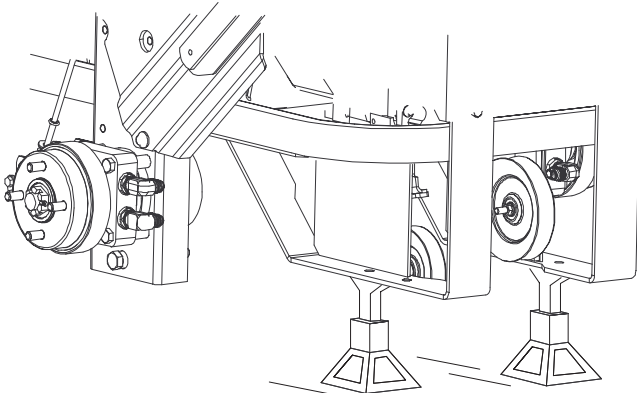
Procedure

1. Loosen the wheel nuts or bolts on both sides of the machine.



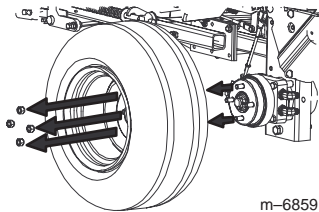
m-6858

2. Raise the back of the machine up and support it with jack-stands.



3. Remove the wheel nuts on both sides of the machine.

4. Remove the drive wheels from the machine.



m-6859

Step**2****Installing the Roll Over Protection System (ROPS)**

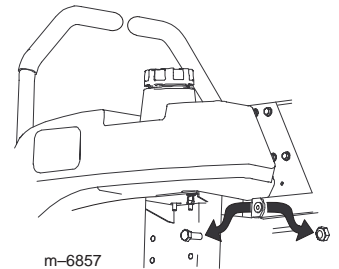
Note: When installing the ROPS with a previously installed bagger, contact an Authorized Service Dealer for the correct procedure.

Parts needed for this step:

Qty.	Part
1	Roll bar, right section
1	Roll bar, left section
1	Roll bar, center section
2	Bolt, 3/8 x 4-1/2 inches
2	Bolt, 3/8 x 1-1/2 inch
2	Lock nut, 3/8 inch
2	Internal lock washer, 3/8 inch
4	Bolt, 3/8 x 1 inch
6	Curved washer
6	Flange nut, 3/8 inch
2	Bolt, 1/2 x 3-1/4 inches
2	Flange nut, 1/2 inch

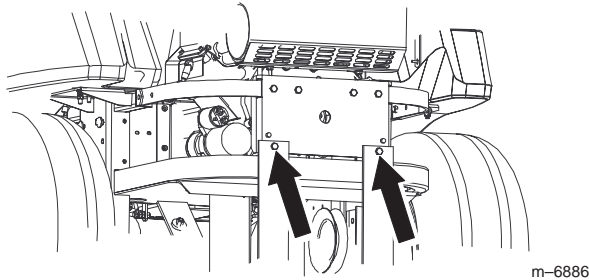
Procedure

1. Remove and discard the fuel tank mounting bolt and nut from under the tank on each side.



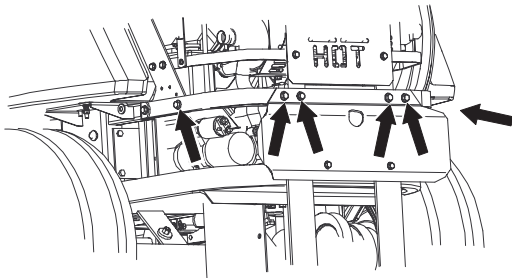
m-6857

2. For an air cooled machine, loosen the two bottom bolts in the rear bumper.



m-6886

3. For a liquid cooled machine, loosen the two side and four back bolts in the rear bumper.

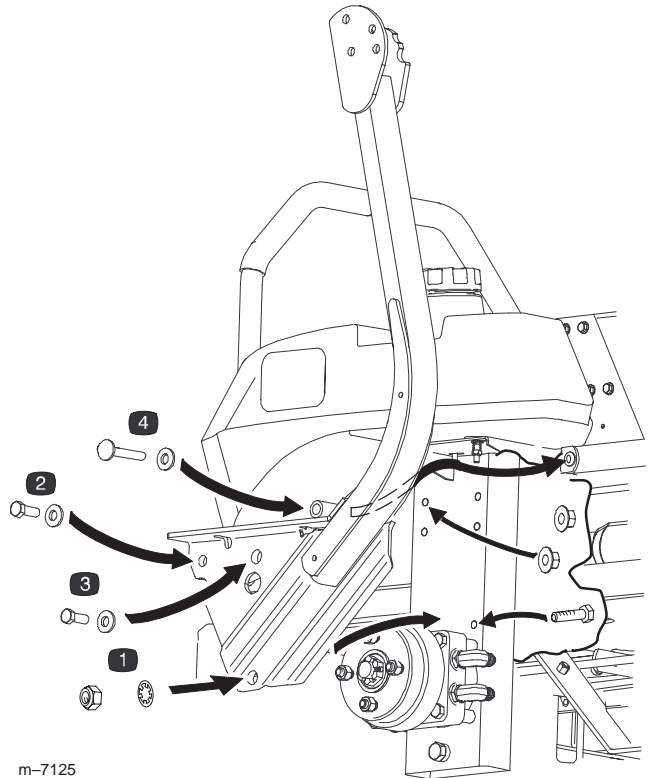


m-6885

4. Install the bolts in the order shown in the figure below.

5. **Loosely** install the right and left roll bar sections to the frame, in numbered order as follows:

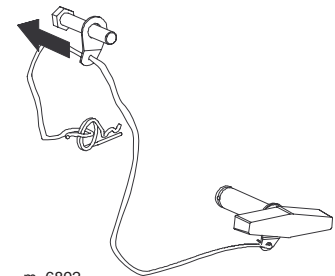
- 1 Lock nut (3/8 inch), internal tooth lock washer, and Bolt (3/8 x 1-1/2 inch)
- 2 Bolt (3/8 x 1 inch), curved washer, and flange nut (3/8 inch)
- 3 Bolt (3/8 x 1 inch), curved washer, and flange nut (3/8 inch)
- 4 Bolt (3/8 x 4-1/2 inches), curved washer, and flange nut (3/8 inch)



m-7125

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

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



m-6892

7. Lightly oil the ends of the center roll bar section.

8. Loosely install the center roll bar section, using 2 bolts (1/2 x 3-1/4 inches) and 2 flange nuts (1/2 inch).

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

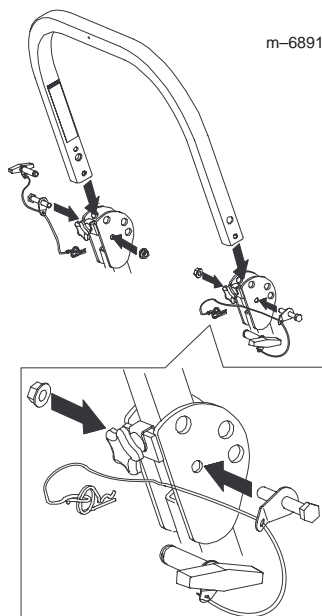
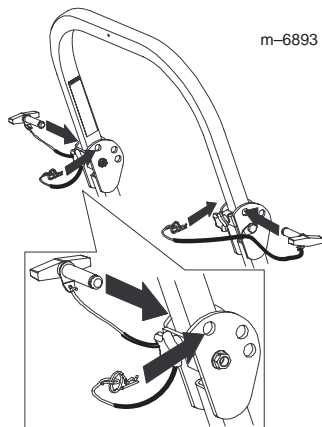
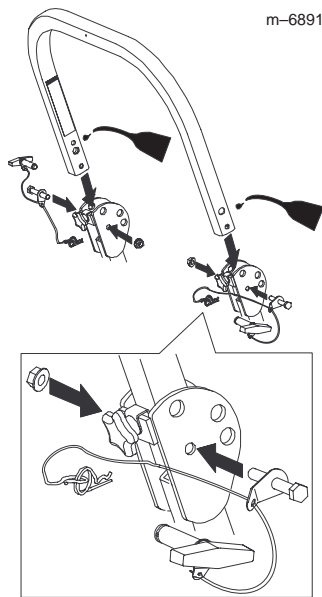
Note: Make sure the lanyard tab is installed as shown and points forward.

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

10. Tighten the center roll bar bolts (1/2 x 3-1/4 inches) so it rotates freely with some resistance.

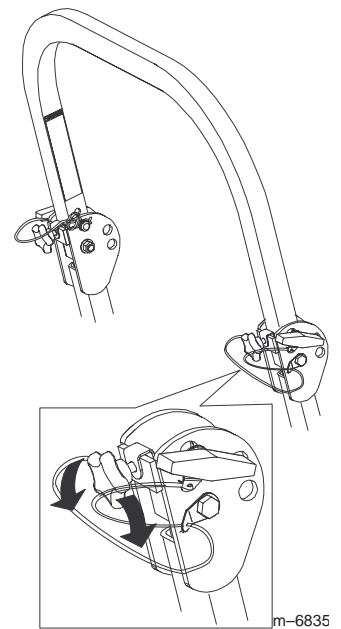
Note: No more than one thread should be exposed outside the nut.

11. Torque all lower fasteners, attached to the machine frame, to 30 ft-lb.



12. Tighten the front handles against the center roll bar ends.

13. Tighten the rear bumper bolts.



Step

3

Installing the Drive Wheels

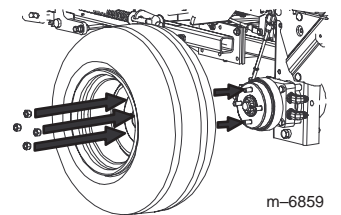
Parts needed for this step:

Qty.	Part
2	Rear wheels

Procedure

1. Mount the wheels with the valve stem to the outside and secure them with the nuts or bolts previously removed in Step 1.

2. Torque the nuts or bolts to 95 ft-lb (128 N·m).



Step

4

Removing the Existing Seat Frame

Parts needed for this step:

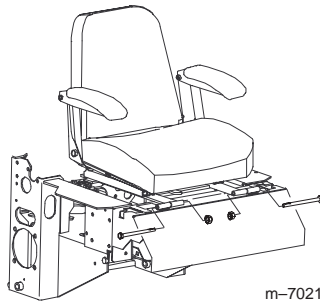
Qty.	Part
1	Seat
4	Flange nuts (installed on the seat)

Procedure

Note: Standard seat is shown in the following two diagrams.

1. Remove the 2 bolts and 2 locknuts at the front of the seat where it is hinged. Save the hardware.

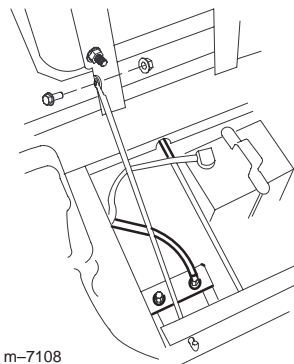
2. Remove the seat assembly from the machine.



3. Remove the seat frame from the existing seat by removing the four locknuts. Discard the seat frame.

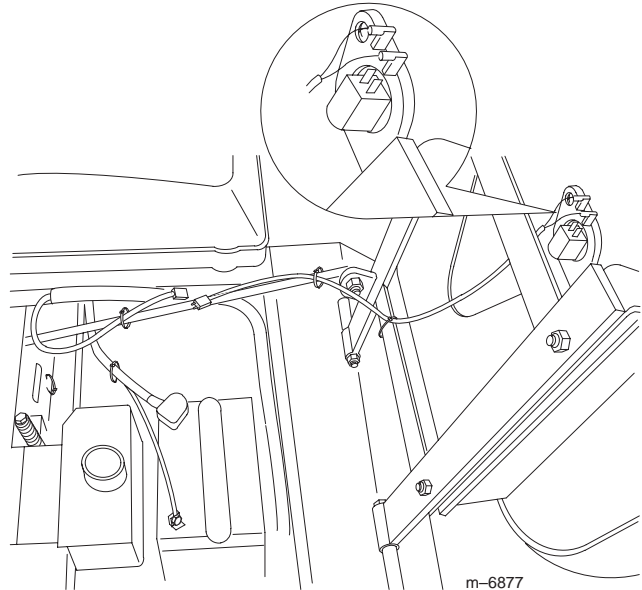


4. Remove the nut and bolt from the seat retaining rod.



Steps needed for a Deluxe Seat

1. Remove the two connectors from the seat switch.
2. Remove the cable ties from the seat frame.



Step

5

Installing the New Seat Frame

Parts needed for this step:

Qty.	Part
1	Seat frame

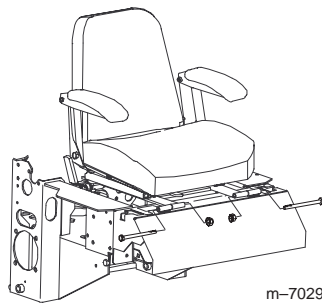
Procedure

Note: Standard seat shown only.

1. Install the seat to the new seat frame with the four locknuts previously removed.

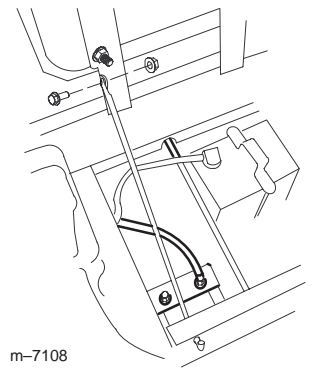


2. Install the seat at the hinges with the 2 bolts and 2 locknuts previously removed.

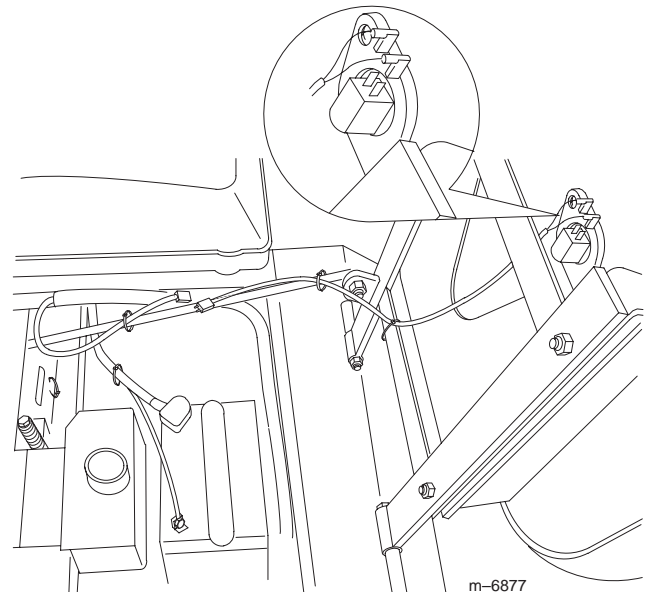


3. Install the seat retaining rod with the nut and bolt previously removed.

Note: Do not over tighten the nut and bolt to allow the retaining rod to pivot.



4. If needed, attach the two connectors onto the seat switch.



Step

6

Replacing a Seat Latch Catch on 500 Series Machines

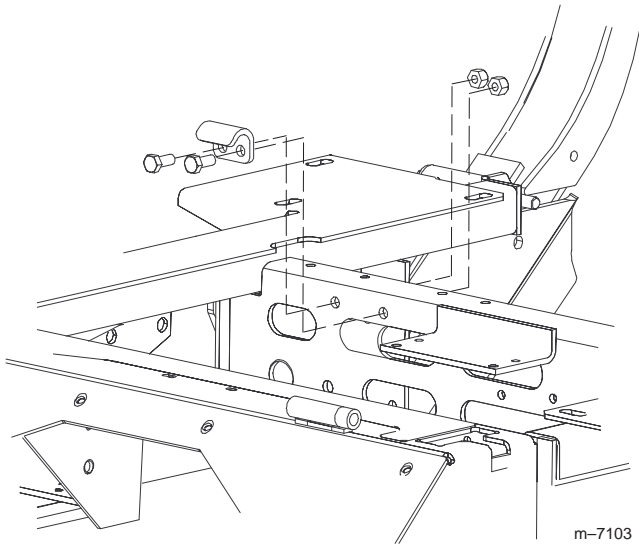
Parts needed for this step:

Qty.	Part
1	Seat latch catch
2	Bolt, 5/16 x 3/4 inches
2	Locknut, 5/16 inch

Procedure

1. Remove the existing latch catch.
2. Install the new seat latch catch to the frame with 2 bolts (5/16 x 3/4 inch) and 2 locknuts (5/16 inch).

Note: The bent part of the latch catch needs to point downward.



Step

7

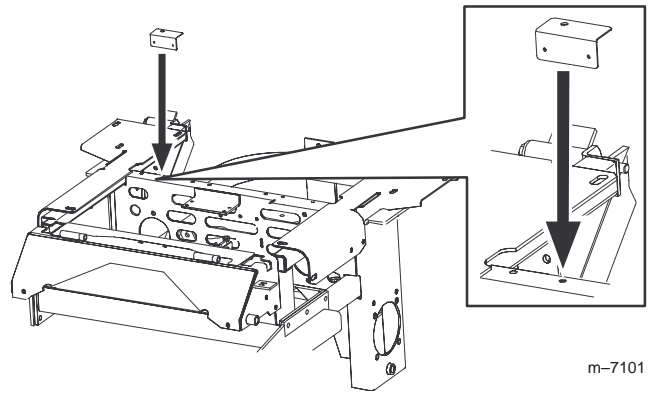
Drilling Holes for a Seat Latch Catch on 200 Series Machines

Parts needed for this step:

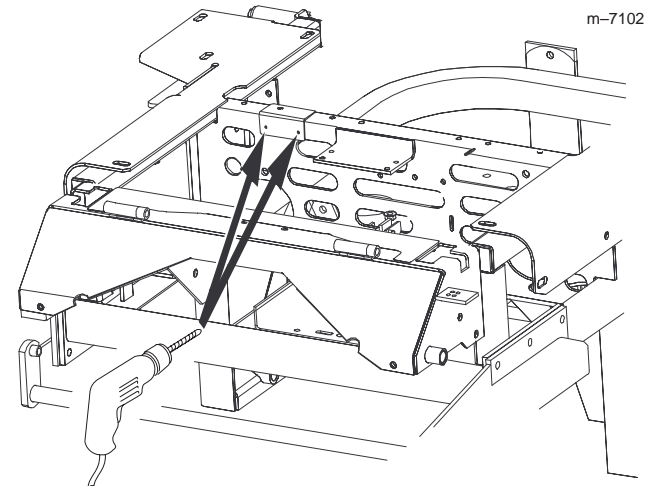
Qty.	Part
1	Template

Procedure

1. Position the template, by locating it with the second existing hole from the right side of the frame. The existing hole is on the top of the frame.



2. Mark the holes in the template and drill two holes (11/32 inch diameter) into the side of the frame.



Step

8

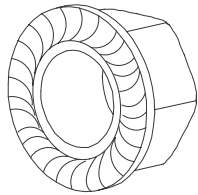
Installing the Seat Latch Catch for 200 Series Machines

Parts needed for this step:

Qty.	Part
1	Seat latch catch
2	Side locknut, 5/16 inch
2	Serrated locknut, 5/16 inch

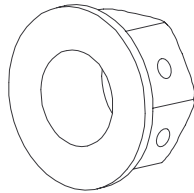
Procedure

The diagram to the right shows a serrated locknut. Notice the grooves on the flange side of the nut.



m-7111

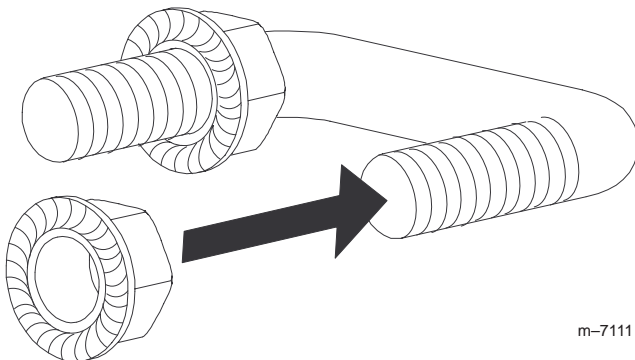
The diagram to the right shows a side locknut. Notice the dimples in the side of the nut.



m-7111

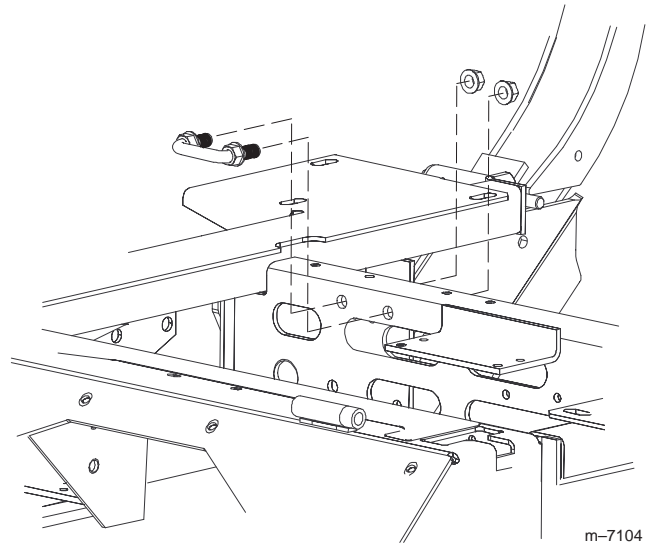
1. Install the serrated locknuts onto the seat latch catch as far as they can go on by hand.

Note: The 200 Series seat latch catch is shown below.



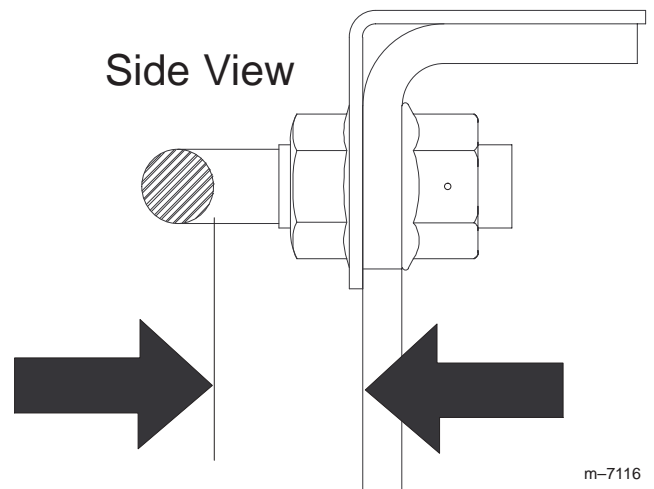
m-7111

2. Install the new seat latch catch and serrated locknuts to the frame with 2 side locknuts (5/16 inch). Torque the side locknuts to 33 ft-lb.



m-7104

3. Ensure the seat latch catch is installed 5/8 inches (16 mm) from the frame as shown below. If it is not correct, adjust the nuts to achieve this dimension.



m-7116

Step

9

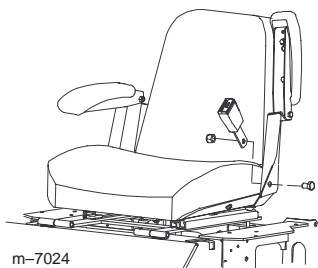
Installing the Seat Belt on a Standard Seat

Parts needed for this step:

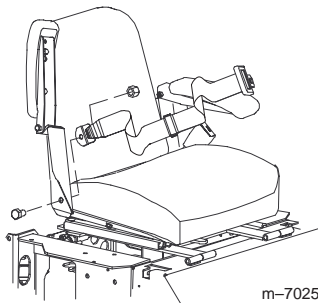
Qty.	Part
1	Seat belt
2	Bolt, 7/16 x 1 inch
2	Locknut, 7/16 inch

Procedure

1. Install the receiver part of the seat belt between the cushion and the metal seat frame with 1 bolt (7/16 x 1 inch) and 1 locknut (7/16 inch).



2. Install the long seat belt strap between the cushion and the metal seat frame with 1 bolt (7/16 x 1 inch) and 1 locknut (7/16 inch).



Step

10

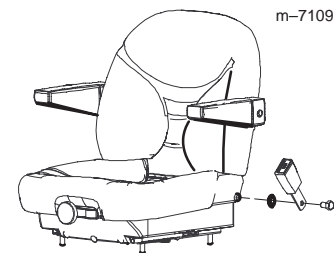
Installing the Seat Belt on a Deluxe Seat

Parts needed for this step:

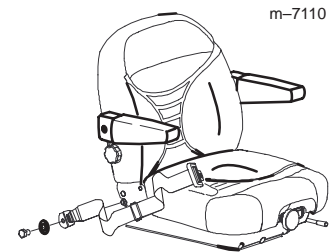
Qty.	Part
1	Seat belt
2	Bolt, 7/16 x 1 inch
2	Washer, 7/16 inch

Procedure

1. Install the receiver part of the seat belt to the outside of the metal seat frame with 1 bolt (7/16 x 1 inch) and 1 washer (7/16 inch).



2. Install the long seat belt strap to the outside of the metal seat frame with 1 bolt (7/16 x 1 inch) and 1 washer (7/16 inch).



Step
11

Installing the Decals

Parts needed for this step:

Qty.	Part
1	Footrest decal

Installing the Footrest Decal

1. Install the footrest decal onto the footrest as shown.

