

## HINGE REPAIR INSTRUCTIONS

### APPROVED FOR USE WITH THE FOLLOWING MODELS:

100425, 100426, 100427, 100428, 100949, 100950, 101261, 101262, 101638, 101905, 101906, 101907, 101908, 101909

### REQUIRED KIT

102593 KIT – HINGE REPAIR, PD, S\_A

### KIT CONTENTS:

- 1 X 102235 - HINGE RETAINING BAR
- 1 X 102236 - ARM HINGE
- 2 X 102239 - SCREW - FLANGED PAN HEAD, 1/8 SOCKET HEX, 10-24 X 5/8, 18-8 SS
- 1 X 100728 - COTTER PIN - 1/16 X .5



### TOOLS REQUIRED:

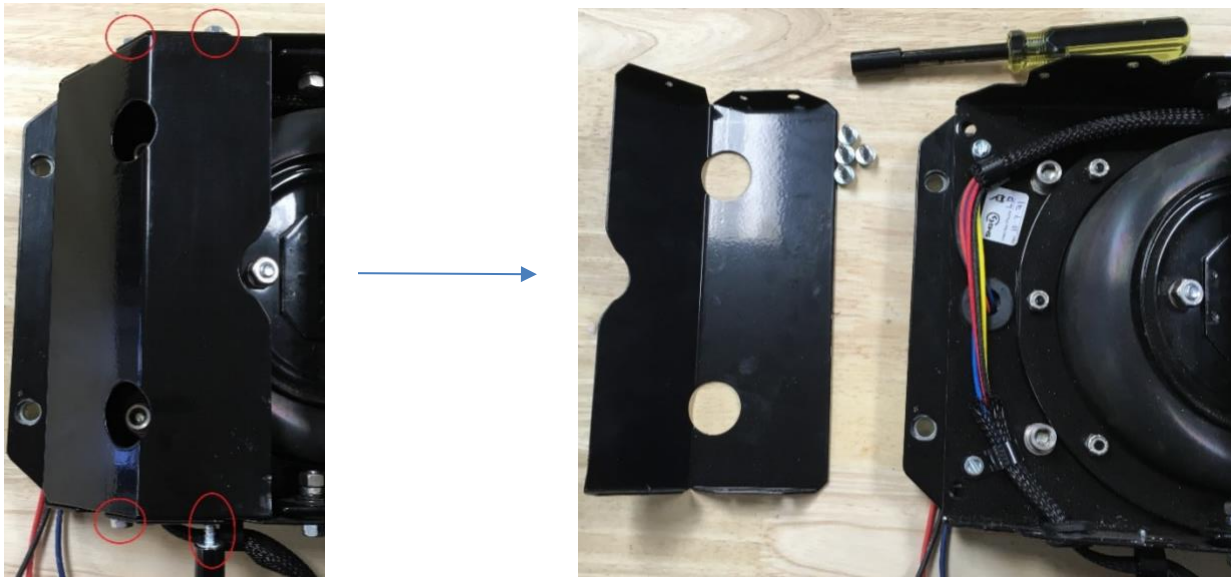
- 5/16" NUT DRIVER
- DIE GRINDER EQUIPPED WITH CUT OFF WHEEL
- NEEDLE NOSE PLIERS
- SIDE CUTTERS
- PHILLIPS SCREWDRIVER (#2)
- DRILL
- 3/16" DRILL BIT
- 1/8" HEX KEY
- 3/8" SOCKET AND ¼ DRIVE RATCHET WITH EXTENSION

## PROCEDURE

The following procedure may be completed without removing the stop arm from the vehicle.

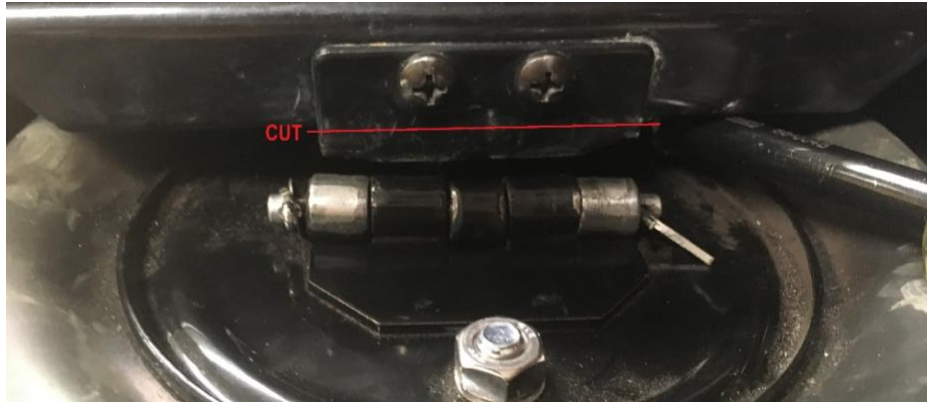
### STEP ONE

Remove the 4 screws and sheet metal cover at the front of the stop arm.



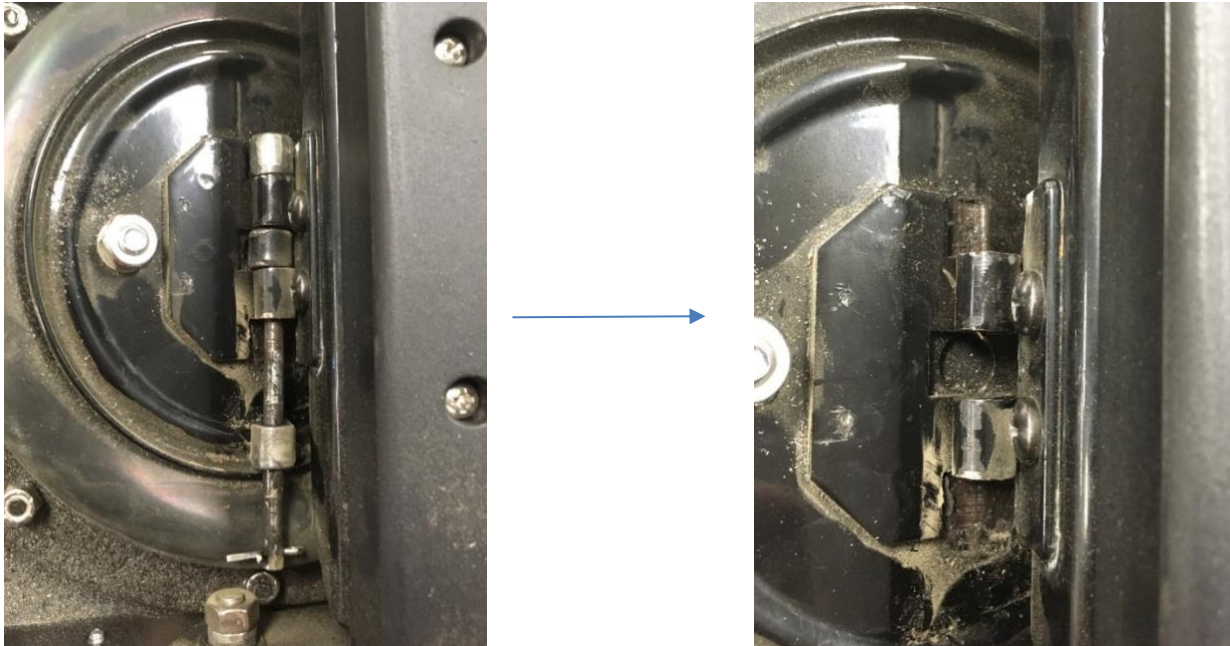
## STEP TWO

Press the diaphragm down to allow access for the die grinder and cut off wheel. If necessary, you may place the handle of your screwdriver or other object without sharp edges between the arm bracket and the diaphragm to hold it out of the way. Use the die grinder equipped with a cut off wheel to cut the hinge along the line shown. Be careful not to cut the rubber diaphragm.



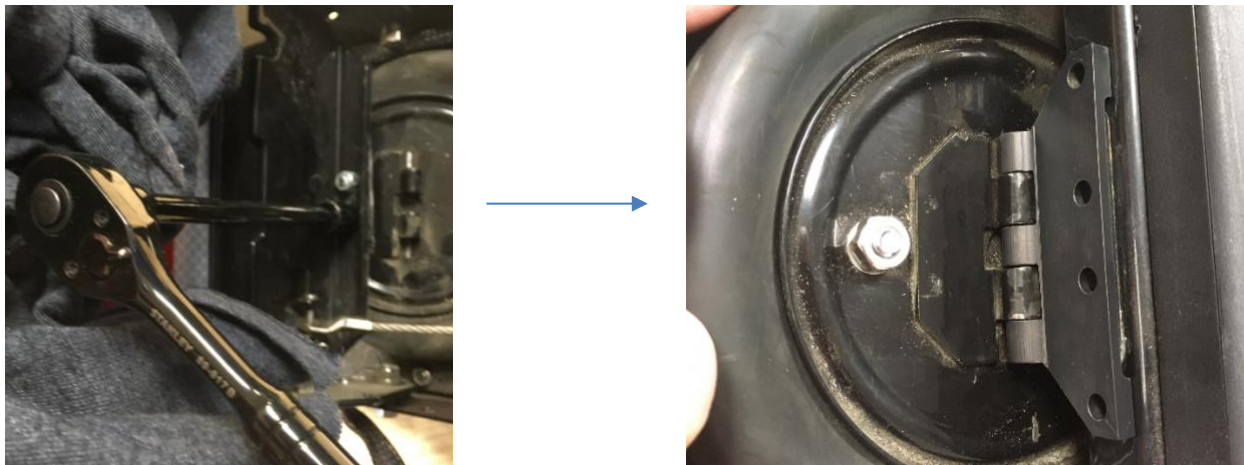
### STEP THREE

Use the side cutters to remove the upper cotter pin from the hinge pin. Remove the washer and slide the pin out to release the damaged portion of the hinge.



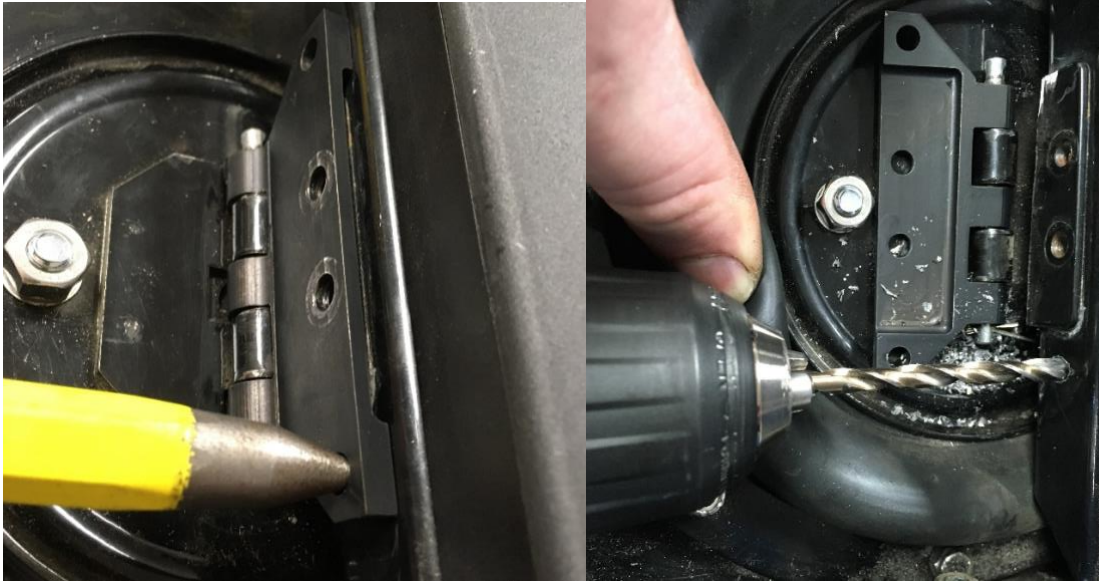
### STEP FOUR

If your current model is equipped with Phillips head screws as shown in the images above, you will need to remove the screws. Place the ratchet with extension and 3/8" socket on one of the nuts and while protecting the stop sign with a clean shop cloth, close the arm so that you can access the screw on the front to remove it. Remove both screws. Locate the new hinge part (102236) and place it in the original location so that the two inner holes align with the holes in the arm bracket. Proceed to step 8.



**STEP FIVE**

Place the new replacement hinge (102236) over the remaining portion of the original hinge. Align the top edge with the top edge of the original hinge. While holding the replacement hinge in position, use a center punch to mark the lowest of 4 holes. Move the replacement hinge out of the way and drill through the arm bracket using a 3/16" drill bit. Ensure the drill chuck is not contacting the diaphragm while drilling.

**STEP SIX**

Place the replacement hinge in position with one of the supplied screws in the hole that you just drilled. Manually open the arm enough so that you can place the hinge retaining bar (102235) in an offset position and thread in the screw so that it can be used to hold the replacement hinge in place while drilling the second hole in the next step.



### STEP SEVEN

With the arm closed, align the replacement hinge so that it is parallel to the arm and tighten the screw to no more than 14 in-lbs. Use a center punch at the top-hole location and drill through with the 3/16" drill bit. Remove the lower screw and hinge retaining bar.



### STEP EIGHT

Install the two supplied screws through the new hinge and arm bracket. Tighten the screws into the aluminum hinge retaining bar. The recommended installation torque is 14 in-lbs. Depending on which steps you followed above, the screws may be installed in the outer or inner hole locations.



### STEP NINE

Apply your grease of choice to the hinge pin and install using the new cotter pin included with this kit. Remember to re-install the washer on the top of the pin before inserting the cotter pin.



#### STEP TEN

Remove all filings and debris from inside the stop arm. Re-install the sheet metal cover and 4 screws using the 5/16" nut driver. The recommended installation torque is 10.5 in-lbs.



#### STEP ELEVEN

As a final step, activate the stop arm to test it. Ensure the pressure regulator is set so that the arm takes approximately 2 seconds or more to deploy and so that there is no sudden stop or noticeable impact when the arm reaches the fully deployed position.