

## TOOL LIST FOR TAILGATE HIDDEN LATCH & LINK ASSY FOR 53-87 FORD FLARESIDE TRUCKS

Vise Grip Clamps – C-clamps

Sharpie Marker

Ball Peen Hammer

Center Punch

3/8" or 1/2" Drill

5/32", 7/32", 9/32", and 3/8" Drill Bits

Masking Tape

Small High Speed Cutter/Wheel

3/16" and 5/32" Allen Wrenches

Tape Measure

17/32" Drill Bit (this part is available from MAR-K separately, if needed).

Round File

Small Flat File

1/2" Open-end Wrench

**Small Combination Square** 



## INSTALLATION INSTRUCTIONS FOR TAILGATE HIDDEN ROTARY LATCH & LINK FOR 53-87 FORD FLARESIDE TRUCKS

- 1. Assemble the bed and make sure the box is square. Measure the distance between the bedsides at the floor level and the top. This width should be 49" for a 53-72 short bed and 54" for a 76-87 short bed and 54" for 53-79 long bed. Also measure cross wise from one front corner to the opposite rear corner in both directions. These measurements should be within 1/16" of each other.
- 2. Install the hinges and tailgate and make sure it is aligned to your satisfaction. A smooth tailgate has been used for this instruction but any stock tailgate will work.



3. Support the tailgate in the horizontal (open) position. The tailgate has been removed in the photograph, but this is not necessary. Measure up from the bottom curl of the tailgate (15-1/2" for a 53-72 short bed) or (17-1/4" for a 73-87 short bed and 53-72 long bed) and make a mark. Using a combination square, draw or scribe a line 1-7/8" long inward towards the center of the tailgate.





4. Measure towards the bottom of the tailgate from this line 2-5/8" and make another mark. Make a 1-7/8" line on this mark as before. Join the ends of these two lines to create a rectangle





5. Create a vertical line on the edge of the tailgate from both horizontal lines. This marked area will need to be removed to allow the hidden latch to fit into the inside of the double wall structure of the tailgate.



Note: There are many ways to cut this area from the tailgate. A plasma cutter could be used, but will burn the paint away from the edges. Also, when cutting the vertical part away, it may burn through the outside of the tailgate end. You could use a high speed metal saw by adjusting the depth of the guide so that the saw tip does not make contact with the outside of the tailgate. With this, you may still have trouble getting to the bottom of the vertical cuts. We chose a high speed air cut-off tool with a 3" diameter wheel that was 1/16" thick. This is a common tool most any do-it-yourself person will have. In the next few steps, we will show you how to do this.

6. We first taped off the perimeter of the area to be removed. It is easier to see this when the sparks are flying. Start by cutting on the flat parts of the tailgate. Cut in the middle of the lines first until the cutter breaks through. Then continue with the edge of the cutting wheel into the 90 degree corners. When you come to the bend in the tailgate end, cut through it about 1/8" deep.



7. Cut horizontally between the cuts in the previous step until this piece is removed completely.





8. Cutting the vertical section of material away is a little harder. Rotate the cutting tool at an angle and move into the opening until you can cut all the way to the bottom of the vertical wall. The object here is to cut the vertical section without cutting through the outside flange of the tailgate. This outside flange is seen when the tailgate is closed and is not covered up by the adapter panel.



9. When you reach the bottom of the two vertical lines, Turn your tool back to flat but tilt it as shown. We need to cut along the bottom of the vertical sheet metal that is left. You will be leaving the strip of metal at the base that is spotwelded to the outside skin of the tailgate.

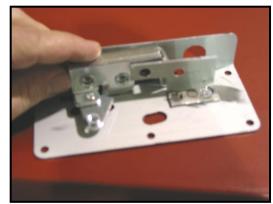


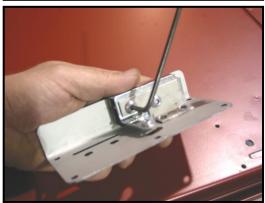


10. Remove the burs left by the cut-off wheel from the opening. Also make sure that the measurements are good. Refer back to step #3 & 4. Fit the adapter panel into the opening and check for clearance. The bottom of the adapter panel should be 10-11/16" from the bottom of the tailgate.



11. Bolt the rotary latch to the adapter panel by sliding the latch from the bottom up under the bracket as shown. Bolt the latch to the bracket with two 1/4-20 x 1/2" button head cap screws. Tighten the screws with a 5/32" Allen wrench.





12. Place the adapter panel with the latch into the hole and line it up as before. Use a clamp to hold it into this position. Mark all of the holes through the adapter panel including the long slot. Remove the adapter panel.



13. Center-punch the five outer locations.



14. Drill these five outer locations with a 5/32" drill.





15. Center-punch the two larger marks and drill these with a 9/32" diameter drill. Center-punch the two ends of the area that will be slotted and drill these with a 7/32" drill. Cut the area of the slot out with a rotary tool with a reinforced cutting wheel. Place some masking tape along the edges between the holes to guide you. You can do this cutting with the high speed 3" tool, but you will have greater control with the smaller device.





16. Re-install the adapter panel. Use (5) #10 x 3/8" stainless sheet metal screws supplied in the kit to attach each panel.



17. Slide the link assembly through the slot in the adapter panel and tailgate skin. Attach the link assembly to the tailgate with two 1/4-20 x 1/2" button head screws. Tighten the screws with a 5/32" Allen wrench. Note: It is important to notice that there is a left and right link assembly due to the pivot bracket of the link assembly. The offset part of the bracket where the rivet is should be at the bottom towards the tailgate hinge. This is the left (driver) side link shown installed.



18. Thread the aluminum spacers completely onto the black knobs. Thread the knobs into the rotary latches through the slotted hole in the adapter panels. Check the operation of the latch. Lift up towards the top of the tailgate until the latch releases.



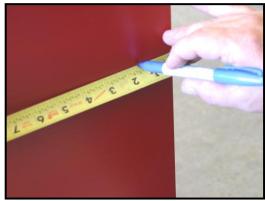


Note: If you have removed the tailgate for the previous steps, re-install the tailgate as before.

19. Now you need to position the upper pivot for the link assembly. Fold the link assembly as it would be when the tailgate is shut and lift the tailgate to the closed position. The link should be hanging vertical. Using a 3/8" diameter bit in a drill, place the drill bit through the slotted end of the link assembly as shown. Lift the drill bit to the top of the slot. Lightly drill the bedside with the drill bit just to leave a mark. Do this for both bedsides.



20. Lower and support the tailgate once again. Measure in from the back edge of the bed side 1-9/16" at the same vertical position as the drill mark and make a mark. Center-punch this position. Drill this position on each bedside with a 1/4" drill bit. Now drill this hole to a final size of 17/32".







21. Test fit the threaded insert into the 17/32" diameter hole. Use a round file to enlarge the hole if the insert will not fit. Often, a drill will not make a perfectly round hole in sheet metal. Use the file to make the hole round. The insert must be installed so that its' flange is against the sheet metal surface of the bed side.



22. Special tools are available to squeeze the threaded inserts but we will show you how to do this without these special tools. Obtain the 5/16"-18 x 1-1/2" bolt and 5/16 hex nut supplied in the kit. Thread the hex nut about 1" onto the bolt. Place the bolt through the supplied flat washer. Use a scrap piece of sheet metal with a 3/8" hole and place it on the bolt after the washer. Next thread the insert onto the bolt with the flange of the insert towards the sheet metal finger tight.



23. Place the insert into the hole in the bed side. Make sure to hold the insert flange tight against the bed side. The sheet metal scrap will act as a handle to keep the insert from rotating when the nut is tightened.



24. While holding the bolt head steady with a 1/4" Allen wrench and continuing to hold the insert flange tight against the bed side, start turning the nut off of the bolt with a 1/2" wrench. This will pull the bolt outwards and start compressing the threaded insert. The hex nut will be fairly hard to turn, so be prepared to exert some force on the nut. Turn the nut until it will not turn any more and the insert will be fully installed. Now remove the bolt, hex nut, washer, and sheet metal handle.

If you need further explanation of this procedure, go to <a href="www.mar-k.com">www.mar-k.com</a> and click on the Installation information on the home page. Scroll down to "Other helpful information" and click on "Threaded insert Information".

25. Supplied in the kit are 5/16"-18 shoulder screws and washers to act as upper pivots for the link assemblies. Place the bolts through the slotted end of the links. Then place the washer on the bolt. Thread these bolts into the threaded inserts. The washer keeps the shoulder bolt from threading too far in. Tighten these bolts with the 3/16" Allen wrench.

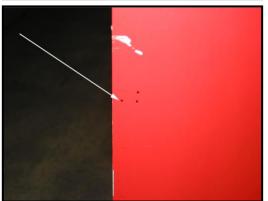


26. Raise the tailgate slowly to the closed position. The links should fold smoothly downward while closing. Supplied in the kit are two self-adhesive bumpers. Attach these bumpers where the link assembly will contact the tailgate when closed to protect the pain on the tailgate.



27. The latch striker is the only thing left to do. With the tailgate in the proper closed position, make a mark on the bed just at the top of the opening of the latch area on the adapter panel as shown. The latch striker will be positioned 3/8" lower from this mark. It will need to be 3/8" from the back edge of the bed side.





28. Center-punch this mark and drill a 3/8" diameter hole.



29. Bolt the strikers to the bedsides with the supplied 5/16-18 x 1/2" button head screws.



30. Pull up on both black knobs to release the latches. Slowly close the tailgate and watch for the strikers to enter the latch area. Continue closing the tailgate until each latch makes two clicking noises. If the latches do not close on the strikers properly, loosen the strikers and adjust their position until they do.



You have successfully installed the hidden latch and link assemblies. At final assembly, use a thread locking compound on all threaded areas to prevent them from coming loose.



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