

INSTALLING JL INDUSTRIES ROOF HATCH CYLINDER & ARM BRACKET UPGRADE

Tools needed: Wrench. Compression rod assembly from JL.

Parts needed (number varies with roof hatch model & size): Replacement brackets for lid and sides, 2 part cylinder cover for, spring and lubricant for each cylinder assembly. Replacement bolts if existing bolts are damaged.

Personnel: 1 person can easily perform this operation.

Estimated Time: 15 minutes for 2 cylinders.

Replace Top Cylinder Bracket, Cylinder & Spring- Note: Replace One Cylinder at a time

1. Open roof hatch, engage automatic hold-open arm to hold the lid open while working.
2. Remove bolts on bottom of cylinder that attach it to bottom bracket on the inside of the roof hatch
3. Remove steel cylinder holder and spring and discard. Bolts will be reused.
4. Remove bolt that attaches top cylinder holder to the lid. (Note direction that the bracket angles down so that new bracket can be installed at the same angle.) Remove steel cylinder holder and discard. Bolts will be reused.
5. Remove the 2 bolts that attach the bracket to the lid. Discard the bracket.
6. Install new top bracket at the same angle as the old one (angles down toward the roof), so that the holes are aligned with the holes in the lid. Bolt to lid.



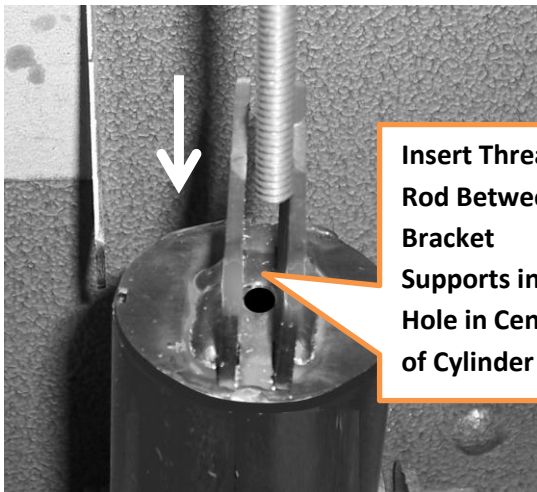
7. Install new bottom cylinder (smaller diameter tube) to bottom bracket using the same bolts from the old bracket. If bolts are stripped or worn, replace. Tighten, but make sure that the cylinder is able to pivot freely.
8. Lubricate spring with the grease provided and insert into bottom cylinder.
9. Place new cylinder top (larger diameter) over spring and bottom cylinder. Raise to vertical position.

10. Remove rectangular block from the end of the compression rod.

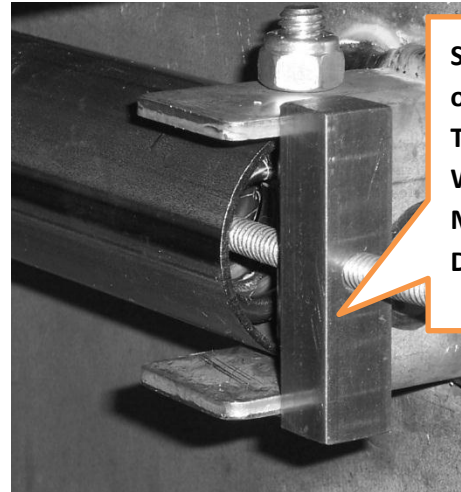


11. Move washer to the end of the rod with the nut.

12. Insert free end of the rod into the top of the cylinder, guiding the rod through the center of the spring until it protrudes from the bottom.



Insert Threaded Rod Between Bracket Supports into Hole in Center of Cylinder

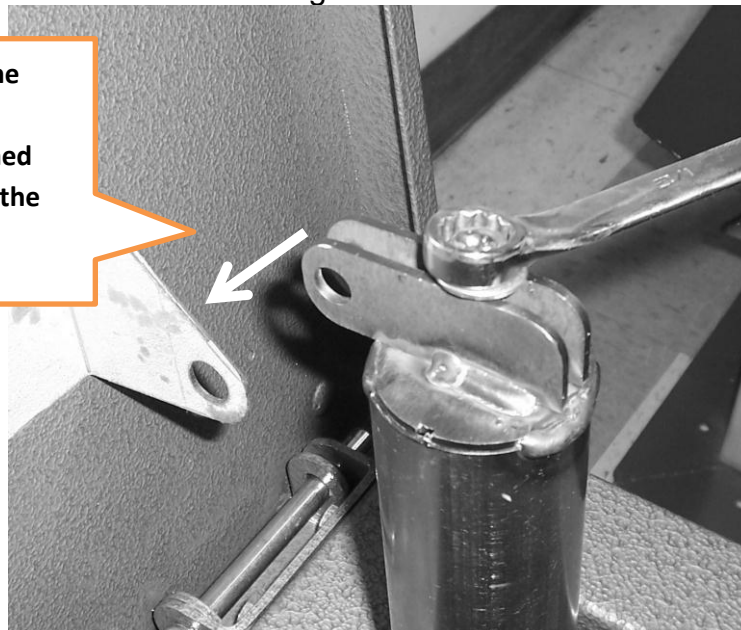


Screw the Block onto the end of the Threaded Rod. When Compressing, Make Sure this Does Not Rotate

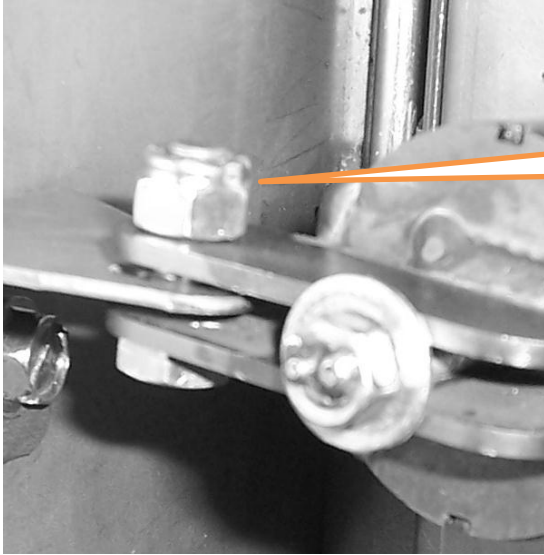
13. Screw rectangular block by hand until it is snug against the bottom of the bracket and it is resting on the 2 bracket arms.

14. Make sure that the holes in the cylinder top are facing the lid. Using the wrench, tighten the threaded nut to compress the shock assembly. After a few turns, and until cylinder has compressed about 1", check to make sure the block at the bottom has not rotated out of position. Compress until the holes in the top cylinder are aligned with the holes in the new mounting bracket on the lid.

Compress Until the Holes in the Top Cylinder are Aligned with the Holes in the Lid Bracket



15. Insert bolt through both and tighten, making sure that it pivots freely.



Insert Bolt When Bracket
on Lid and Cylinders are
Aligned

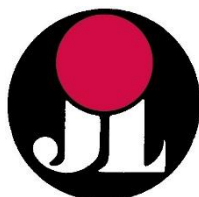
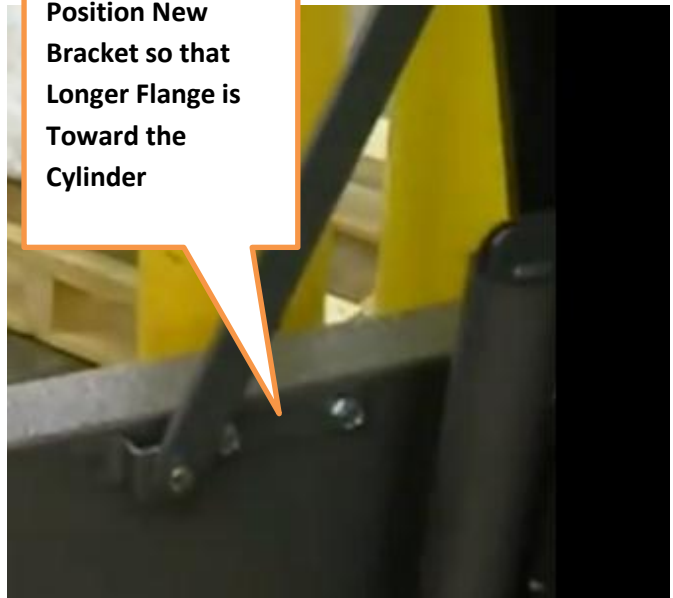
16. Unscrew bolt until the block at the bottom can be removed. Remove the rod.

17. Repeat above steps for each cylinder.

Replace Side Brackets

1. Have second person hold lid open, as you remove and replace the hold-open arm.
2. Remove (1) bolt and nut that attach the arm to the bracket.
3. Remove the (2) bolts and nuts that attach the side bracket to the inside of the hatch. Be sure to locate nuts on the outside of the hatch. Discard the side bracket.
4. Position new side bracket so that the longer flange is towards the cylinder. Reinstall bolts and nuts. The result of this change is that the bottom bracket is farther away from the back of the hatch.
5. Bolt hold-open arm to the new bracket, making sure that it pivots freely.
6. Repeat above process for each side bracket provided.

Position New
Bracket so that
Longer Flange is
Toward the
Cylinder



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