Air Cylinder Replacement Instructions

Air Cylinder Kit (AMORACK)

Warning!
- Keep hands away from throat of operating fifth wheel
- Wear Personal Protective Equipment (PPE)
- Make sure the wheel is disarmed before maintenance
- Follow all instructions
- Read operating manual before use
- Use proper procedures
- Use proper tools

Tools Required
- Crowbar
- Pliers
- 9/16” socket
- 11/16” socket
- 1/4” allen wrench
- Kingpin tool

Personal Protective Equipment
- Safety glasses
- Work gloves
- Steel toe boots

Air cylinder exhaust screen can be removed and exhaust air line installed depending on truck manufacturer setup.

Air Cylinder Kit
Part # ARMORACK

Standard Repair Time:
15 Minutes

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Air cylinder</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>3-way air valve</td>
<td>1</td>
</tr>
</tbody>
</table>

For instructional video scan or go to fifthwheel.com/maintenance/

Air Cylinder Replacement Video available at:
fifthwheel.com/armor
Choose “Training” then “Air Cylinder Replacement”

All kits include hardware
Disassembly

Hint: If you need help with parts identification see pages 6-8.

1. Trip the wheel closed using a crowbar. **NEVER use hands to trip an activated fifth wheel.**

   - **Hint:** A fifth wheel is closed when the locking jaw is completely across the throat of the fifth wheel.

2. Raise the yard truck boom for easy access, then remove the air hose from the air cylinder quick release valve.

   - **Air Cylinder Quick Release Valve**

3. Remove spring tension by removing the cotter pin with pliers. Then remove the two spring tensioner nuts. **Hint:** You can place a screwdriver in the main spring loop to prevent spring from rotating when unbolting nuts (see video).

   - **Cotter Pin**
   - **Spring Tensioner Nuts (2)**

4. Pull the secondary lock for easy access.

   - **Air Cylinder Shaft**

All kits include hardware

See video at fifthwheel.com/maintenance/
Choose “Air Cylinder Replacement”
Disassembly

5. Remove the air cylinder/secondary lock nut and bolt.

6. Remove air cylinder bolt.

7. Remove the air cylinder.

All kits include hardware

See video at fifthwheel.com/maintenance/
Choose “Air Cylinder Replacement”
Assembly

1. Fasten air cylinder bolt.

2. Fasten air cylinder to the correct secondary lock bolt hole. Outside hole in secondary lock is for manual operation. Inside hole is for the air cylinder bolt.

3. Insert the spring tensioner through the hole.

4. Install the cotter pin.

5. Connect the air hose to the air cylinder quick release valve.

6. Tilt the fifth wheel down and lower the yard truck boom.

Test the wheel using the Fontaine kingpin tool (ARMORKPK) by frequently opening and closing the fifth wheel (see video).

Test Kingpin Tool
Part # ARMORKPK

All kits include hardware
Assembly

Air cylinder exhaust screen can be removed and exhaust air line installed depending on truck manufacturer setup.

See video at fifthwheel.com/maintenance/
Choose “Air Cylinder Replacement”

All kits include hardware
**Part Identification**

See video at fifthwheel.com/maintenance/
Choose “Air Cylinder Replacement”

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Included in kit</th>
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<tbody>
<tr>
<td>1</td>
<td>Wear plate</td>
<td>2</td>
<td>ARMORWPK</td>
</tr>
<tr>
<td>2</td>
<td>Knockout rod</td>
<td>1</td>
<td>ARMORKRK</td>
</tr>
<tr>
<td>3</td>
<td>Knockout rod clip</td>
<td>1</td>
<td>ARMORKRK</td>
</tr>
<tr>
<td>4</td>
<td>Knockout rod spring</td>
<td>1</td>
<td>ARMORKRK</td>
</tr>
<tr>
<td>5</td>
<td>Knockout rod nut</td>
<td>1</td>
<td>ARMORKRK</td>
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<tr>
<td>6</td>
<td>Bracket liner</td>
<td>1</td>
<td>ARMORBLK</td>
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<tr>
<td>7</td>
<td>Stationary jaw</td>
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<td>8</td>
<td>Locking jaw</td>
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<td>9</td>
<td>Torsion spring</td>
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<td>Trigger</td>
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<tr>
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</tr>
<tr>
<td>16</td>
<td>3-way air valve</td>
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<td>ARMORACK</td>
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<tr>
<td>17</td>
<td>Cover plate</td>
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<td>ARMORTAK, ARMORLAK, ARMORCPK</td>
</tr>
</tbody>
</table>

All kits include hardware
Part Identification – Bottom View

- Three way air valve
- Air Cylinder
- Main Spring
- Stationary Jaw
- Trigger
- Tertiary lock (for use outside private yard)
- Manual Override Pull Handle Hole. Also used for tertiary locking.
- Secondary Lock
- Serial Number
- Knockout rod
- Knockout rod nut
- Cover Plate
- Locking Jaw
- Torsion Spring
- Operating Handle
- Wear Plate

28th fifth wheel manufactured in September, 2014

Example serial number 09140028
Wear Plates (removable for easy maintenance)

Air cylinder bolt access (under wear plate)

Locking jaw access (under wear plate). Locking jaw slides in for easy maintenance.

Stationary Jaw

Locking Jaw

Knockout rod access (under wear plate). Slot for easy knockout rod maintenance.