AXILOK Unitized Wheel Bearing Nut System
Installation and Removal Procedures

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PRE-INSTALLATION PROCEDURE
Before installing Axilok, check the following:

1. Inspect Axilok for two locking clips. Refer to Figure 1.
   - Each locking clip should be securely fastened to the nut body and have a rivet that passes through the top of the locking clip body.
   - Each locking clip should have a locking clip tab protruding completely through the retainer cage adjustment slot (when properly aligned and not compressed by a socket). Refer to Figures 2, 3 and 4.
   - Locking clips should not be bent, cracked, or broken.
   - Determine if you have slot style or D flat style axle and use appropriate Axilok product. See Figure 8.

2. Inspect Axilok retainer cage condition.
   - There should be no cracks or other damage to the retainer cage.
   - Retainer cage should be secured to the nut body and not fall off when the locking clips are compressed by the socket.
   - The retainer cage tab or “D” flat should be free of damage, such as cracks, scarring, gouges or distortion. Refer to Figure 6.

3. Inspect Axilok threads.
   - The threads should show no sign of wear or damage.
   - Wipe the threads to remove excess oil or debris.

4. If Axilok fails any of the checks above, the Axilok is unfit for use. DO NOT USE. Replace the unfit Axilok with a new Axilok and repeat all checks.

5. Free rotation inspection. This test will check for nut and socket compatibility.
   - With correct size six-point socket turned upside down, insert Axilok completely into the socket, compressing locking clips.
   - Retainer cage should spin freely with no interference between locking clip tabs and retainer cage.
   - If locking clip tabs interfere with rotation of the retainer cage, the socket is not fully compressing the locking clips. This indicates that the socket is the incorrect size, worn or out of specifications and must be replaced. Refer to Figure 2.

NOTE
Do not use chisel, hammer or any power tool to remove the Axilok product.

Equipment Required:
- Six-point socket, sized according to the markings stamped on the face of the Axilok. Refer to Figure 1 and Table 1.
- Torque wrench.

1. Install correct size six-point socket completely over the hex of the Axilok. Be sure that both the locking clips are completely disengaged from the retainer cage, permitting free rotation. Refer to Figure 2.

2. Turn counterclockwise to remove Axilok. If Axilok does not move freely, stop removal. Check that the socket is completely and fully engaged on the Axilok and that the locking clips are fully retracted from the retainer cage slots. If Axilok still will not turn freely, rotate slightly clockwise to tighten, and then loosen again. The nut should rotate counterclockwise freely.

3. Continue counterclockwise rotation until Axilok threads disengage from the spindle threads.

NOTE
Light burnishing of the retainer cage bearing surface after use is normal.

WARNING
Failure to observe the following warnings can result in separation of the wheel from the vehicle, creating a risk of death or serious injury

This Axilok product is not compatible with all axles currently in use. Do not use this Axilok product on an incompatible axle. Review axle or vehicle manufacturer’s literature to determine if the Axilok product is compatible.

<table>
<thead>
<tr>
<th>AXILOK</th>
<th>Part Number</th>
<th>Socket Size Six-Point</th>
<th>Initial Torque (in lbs/ft)</th>
<th>Initial Backoff</th>
<th>Final Torque (in lbs/ft)</th>
<th>Final Backoff</th>
<th>Increments of Adjustment (per slot)</th>
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</thead>
<tbody>
<tr>
<td>AX-12-1500D</td>
<td>39129</td>
<td>2 1/8&quot;</td>
<td>200</td>
<td>1/2 turn</td>
<td>75</td>
<td>1/8 turn</td>
<td>0.0038&quot;</td>
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<td>AX-18-1500</td>
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<td>2 1/8&quot;</td>
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<td>75</td>
<td>1/8 turn</td>
<td>0.0025&quot;</td>
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<tr>
<td>AX-12-17500</td>
<td>39121</td>
<td>3 1/4&quot;</td>
<td>200</td>
<td>1/2 turn</td>
<td>75</td>
<td>1/8 turn</td>
<td>0.0030&quot;</td>
</tr>
<tr>
<td>AX-12-2625</td>
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<td>0.0030&quot;</td>
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<td>39043</td>
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<td>1/2 turn</td>
<td>75</td>
<td>1/8 turn</td>
<td>0.0023&quot;</td>
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<tr>
<td>AX-12-3480</td>
<td>39028</td>
<td>4 1/8&quot;</td>
<td>200</td>
<td>1/2 turn</td>
<td>75</td>
<td>1/8 turn</td>
<td>0.0023&quot;</td>
</tr>
</tbody>
</table>

TABLE 1
INSTALLATION PROCEDURE

NOTE
When using the Axilok product with a bearing containing an internal spacer, follow the original equipment manufacturer’s torque specification. Ensure locking clips protrude through the adjustment slots after applying torque. If locking clips do not protrude through the adjustment slots, rotate the Axilok product slightly clockwise. Refer to Figures 2, 3, and 4. If locking clips are broken or damaged, replace the Axilok product and repeat the installation instructions.

Equipment Required:
- Six-point socket, sized according to the markings stamped on the face of the Axilok. Refer to Figure 1 and Table 1.
- Torque wrench.
- Dial indicator.

1. Before installation, perform pre-installation checks:
   - Be sure the spindle slot is clean and free of burrs and foreign material before installing Axilok.
   - Be sure the thread size is the same on both components.
   - Put a few drops of oil through one of the retainer cage holes. This will ensure friction-free movement.
2. Put Axilok in the correct size six-point socket (refer to Table 1) and verify that the locking clips are compressed. Refer to Figure 2. Retainer cage should spin freely.
3. Align Axilok retainer cage tab or “D” flat with spindle slot or “D” flat. Be sure to start and run down the Axilok by hand. Do not use power tools. Rotate the socket clockwise until contacting bearing.
4. Using a properly calibrated torque wrench, torque Axilok to the initial torque of 200 ft-lb while rotating hub.
   - Back off ½ turn.
   - Tighten to final torque while rotating hub assembly. Refer to Table 1.
   - Back off 1/8 turn. This will provide end play. Refer to Figure 5.

5. Remove socket and verify locking clip tabs have engaged the adjustment slots in the retainer cage. Refer to Figures 2, 3 and 4.
6. Measure end play using a dial indicator. If correct end play is not achieved, adjust according to adjustment increments shown in Table 1.
   - Rotate Axilok clockwise to reduce end play.
     (Example: from 0.004” to 0.002” end play.)
   - Rotate Axilok counterclockwise to increase end play.
     (Example: from 0.001” to 0.003” end play.)
   - This same procedure can be used to achieve a controlled pre-load condition. (Example: from 0.001” end play to 0.001” pre-load.)
7. After end play adjustment, make sure that both locking clip tabs are protruding through the slots in the retainer cage. Refer to Figures 2, 3 and 4.

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