A443
Speed Reducer Kit
Portable Grain Auger
Installation Instructions

Applicable Models:
WRX Series

Pre-Installation Notes
The following instructions are for installing the kit during the assembly of a new auger. To install the kit on a used auger, some disassembly will be required. Left hand or right hand is determined by standing at intake end and facing the discharge end.
Installing the Gearbox

Assembly Notes:

• Check the gearbox oil level; gearbox should be half full. Use only EP90 lube oil and fill to HALF FULL only.
• The ends of the gearbox shaft and the driveshaft should be flush with the inside of the chain coupler sprockets.

If the driveshaft is too long or too short, do the following:

• If the driveshaft is too long, take up the extra length in the driveshaft connector(s).

  **Note**
  There may be more than one driveshaft connector in the drive system.

• If the driveshaft is too short, remove the headcover, chain, sprocket, and lock collar at the top of the upper tube to adjust the two driveshafts.

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<tbody>
<tr>
<td>1</td>
<td>Gearbox Assembly</td>
</tr>
<tr>
<td>2</td>
<td>Woodruff Key, 1/4&quot; x 1&quot;</td>
</tr>
<tr>
<td>3</td>
<td>Bolt, 7/16&quot; x 1&quot;</td>
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<tr>
<td>4</td>
<td>Locknut, 7/16&quot;</td>
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<td>5</td>
<td>Chain Coupler Guard Assembly</td>
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<tr>
<td>6</td>
<td>Bolt, #10 x 3/4&quot;</td>
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<tr>
<td>7</td>
<td>Locknut, #10</td>
</tr>
<tr>
<td>8</td>
<td>Set Screw, 3/8&quot; x 3/8&quot;</td>
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</table>
Installing the EMD Mount Assembly

1 EMD Mount Assembly
2 Bolt, 7/16” x 1”
3 Locknut, 7/16”

Installing the Reducer Tower Assembly

Assembly Note:
- Place flat washers between gearbox and gearbox assembly

1 Reducer Tower Assembly
2 Bolt, 1/2" x 1"
3 Lock Washer, 1/2"
4 Flat Washer, 1/2"
Attaching the Shield Mounts to the Reducer Tower

1. Reducer Fixed Shield Mount  
2. Reducer Shield Mount  
3. Bolt, 7/16" x 1"  
4. Locknut, 7/16"

Installing the Belts and Belt Guard Assembly (Gearbox Side)

1. EMD Belt Guard Assembly  
2. Bolt, 5/16" x 3/4"  
3. Flat Washer, 5/16"  
4. Flange Nut, 5/16"  
5. Square Key, 1/4" x 1-1/2"  
6. Triple Pulley, 15" x 1-1/4"  
7. Triple Pulley, 6-1/2" x 1-1/4"  
8. Belt, B62

Assembly Notes:
- Use a straight edge to align the pulleys, and tighten the set screws.
- Once all bolts and set screws are tightened, re-check pulley alignment. Proper alignment will prolong belt life.
- Tighten the belts so that a 1" (25mm) deflection is obtained when a 5 lb (22N) force is applied at the belt center.
Tensioning the Gearbox to the Tower

**Assembly Notes:**
- Tension the Gearbox to the Tower using the 5/8” flat washer and hex nuts on the threaded bolt.
- Once satisfied with belt tension, lock the two nuts against each other (turn in opposite directions).
- Once belts are tight, adjust pulley backplate to make sure it will not rub on pulley shafts. Tighten backplate mount bolts, to secure in place.

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<tr>
<td>1</td>
<td>Flat Washer, 5/8”</td>
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<tr>
<td>2</td>
<td>Hex Nut, 5/8”</td>
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Installing the Electric Motor

**Assembly Notes:**
- Place the electric motor onto the mount and secure with the motor mounting hardware, but do not tighten yet.
- The auger speed will be 32 rpm per motor pulley inch diameter, based on 1750 rpm motor.
  - For example: **4-1/2” pulley x 32 rpm = 144 rpm auger speed**
- Have a qualified electrician perform the electrical connections and wiring to the electric motor.

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<tr>
<td>1</td>
<td>Motor</td>
</tr>
<tr>
<td>2</td>
<td>Bolt</td>
</tr>
<tr>
<td>3</td>
<td>Nut</td>
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Installing the Belts and Pulley Guard Assembly (Motor Side)

Assembly Notes:

• Use a straight edge to align the pulleys, and tighten the set screws.
• Once all bolts and set screws are tightened, re-check pulley alignment. Proper alignment will prolong belt life.
• Tighten the belts so that a 1" (25mm) deflection is obtained when a 5 lb (22N) force is applied at the belt center.

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<tr>
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<th>Description</th>
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</table>
| 1 | Triple Pulley Guard Assembly             | 6 | Bolt, 3/8" x 1-1/4"
| 2 | Electric Motor                           | 7 | Flat Washer, 3/8"
| 3 | Triple Pulley, 15" x 1-1/4"              | 8 | Locknut, 3/8"
| 4 | Triple Pulley, 4-1/2" (recommended)     | 9 | Belt, B67
| 5 | Square Key                               |   |
Tensioning the Drive Belt

Assembly Note:
- Use the two hex nuts to apply tension to the drive belt.
- Once satisfied with belt tension, lock the two nuts against each other (turn in opposite directions).
- Once belts are tight, adjust pulley backplate to make sure it will not rub on pulley shafts. Tighten backplate mount bolts to secure in place.

| 1 Hex Nut, 1/2” |

Completed EMD Speed Reducer Kit

Assembly Note:
- Close and lock the belt guards into place using the quick-clip.

| 1 Triple Pulley Guard Assembly |
| 2 EMD Belt Guard Assembly |