Read this manual before using product. Failure to follow instructions and safety precautions can result in serious injury, death, or property damage. Keep manual for future reference.
**New in this Manual**

The following changes have been made in this revision of the manual:

<table>
<thead>
<tr>
<th>Description</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined tube layout and brand/model decal sections</td>
<td>Section 4.3.1 – Arrange Tubes and Apply Model Decals on page 29</td>
</tr>
<tr>
<td>New spout design</td>
<td>Section 4.3.4 – Install the Discharge Spout on page 36</td>
</tr>
<tr>
<td>Hubs pre-installed to axle</td>
<td>Section 4.8 – Connecting the Short Cross Member and Upper Scissors arms on page 45</td>
</tr>
<tr>
<td>Added detail for the 63’ and 73’ frame mounting brackets</td>
<td>Section 4.10 – Connect the Auger Tube to the Frame on page 47</td>
</tr>
<tr>
<td>Updated swing tube assembly</td>
<td>Section 4.13 – Install Low Profile Intake Hopper on page 52</td>
</tr>
<tr>
<td>Modified lift arm</td>
<td>Section 4.15 – Install Hopper Lift Arm and Winch on page 55</td>
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1. Introduction

Before assembling, please read this manual. Familiarize yourself with the process and the necessary precautions for efficient and safe assembly of this AGI Swing-Away Grain Auger.

Everyone present at the assembly site is required to be familiar with all safety precautions.

Keep this manual available for frequent reference and review it with new personnel. Call your local distributor or dealer if you need assistance or additional information.
2. Safety

2.1. Safety Alert Symbol and Signal Words

This safety alert symbol indicates important safety messages in this manual. When you see this symbol, be alert to the possibility of injury or death, carefully read the message that follows, and inform others.

**Signal Words:** Note the use of the signal words **DANGER, WARNING, CAUTION, and NOTICE** with the safety messages. The appropriate signal word for each message has been selected using the definitions below as a guideline.

- **DANGER**
  Indicates an imminently hazardous situation that, if not avoided, will result in serious injury or death.

- **WARNING**
  Indicates a hazardous situation that, if not avoided, could result in serious injury or death.

- **CAUTION**
  Indicates a hazardous situation that, if not avoided, may result in minor or moderate injury.

- **NOTICE**
  Indicates a potentially hazardous situation that, if not avoided, may result in property damage.

2.2. Follow Safety Instructions

Read and understand all safety instructions, safety decals, and manuals and follow them when operating or maintaining the equipment.

- Owners must give instructions and review the information initially and annually with all personnel before allowing them in the work area. Untrained users/operators expose themselves and bystanders to possible serious injury or death.

- Use for intended purposes only.

- Do not modify the auger in any way without written permission from the manufacturer and is not covered by the warranty.

- Follow a health and safety program for your worksite. Contact your local occupational health and safety organization for information.

- Follow applicable local codes and regulations.
2.3. Rotating Flighting Safety

- KEEP AWAY from rotating flighting.
- DO NOT remove or modify flighting guards, doors, or covers. Keep in good working order. Have replaced if damaged.
- DO NOT operate the auger without all guards, doors, and covers in place.
- NEVER touch the flighting. Use a stick or other tool to remove an obstruction or clean out.
- Shut off and lock out power to adjust, service, or clean.

2.4. Overhead Power Lines

- When operating or moving, keep auger away from overhead power lines and devices.
- The auger is not insulated.
- Electrocution can occur without direct contact.

2.5. Upending

- Anchor intake end and/or support discharge end to prevent upending.
- Intake end must always have downward weight. Do not release until attached to tow bar or resting on ground.
- Do not raise intake end above tow bar height.
- Empty the auger and fully lower before moving.

2.6. Rotating Parts Safety

- Keep body, hair, and clothing away from rotating pulleys, belts, chains, and sprockets.
- Do not operate with any guard removed or modified. Keep guards in good working order.
- Shut off and lock out power source before inspecting or servicing machine.
2.7. Hand Winch Safety

**WARNING** When Equipped:
- Inspect lift cable before using. Replace if frayed or damaged. Make sure lift cable is seated properly in cable sheaves and cable clamps are secure.
- Tighten brake lock by turning winch handle clockwise at least two clicks after lowering the auger.
- Raise the swing hopper fully before towing.
- Do not lubricate winch brake discs.

2.8. Hydraulic Winch Safety

**WARNING** When Equipped:
- Keep away from rotating cable drum and winch cable. Do not touch or grab cable while winch is being operated or use hands to guide the cable.
- Inspect cable and cable clamps before using hydraulic winch. Replace cable if frayed or damaged. Tighten cable clamps if necessary.
- Check the cable anchor on the winch drum is tight.
- Confirm hydraulic hoses are in good condition.
- Do not continue to supply power to hydraulic winch after the swing hopper is fully lifted.
- Do not disconnect hydraulic quick couplers when lines are pressurized.
- Make sure lift cable is seated in cable pulley.
- Always keep a minimum of 3 cable wraps on the cable drum.

2.9. Work Area Safety

- Have another trained person nearby who can shut down the auger in case of accident.
- The work area should be kept clear of bystanders, including children.
- Keep the work area clean and free of debris.
2.10. Guards Safety

- Keep guards in place. Do not operate with guard removed.
- Do not walk on, step on, or damage guards.
- Lock out power before removing a guard.
- Ensure all guards are replaced after performing maintenance.
2.11. Raising and Lowering the Auger

- **WARNING** • Before raising/lowering/moving/adjusting the auger, make sure the area around the auger is clear of obstructions and/or untrained personnel. Never allow anyone to stand on or beneath the auger when it is being placed.
  - Lower the auger to its lowest position when not in use.
  - Empty the auger before raising or lowering.
  - Do not get on or beneath the auger when raising or lowering.
  - Raise and lower auger on reasonably level ground only.
  - Never attempt to increase height of the auger by positioning wheels on lumber, blocks, or by any other means. To do so will result in damage to auger and/or serious injury.
  - Do not raise the auger in high winds.

2.12. Positioning the Auger

- **WARNING** • Transport and place equipment on reasonably level ground when raising, lowering, positioning, or operating.
  - Move the auger into position slowly. Do not unhitch and attempt to move by hand.
  - Chock wheels and anchor intake end after placement.

2.13. Towing the Auger

The auger is not intended for transport on public roads. If it requires transport on a public roadway, the following steps should be taken:

- **WARNING** • Check with local authorities regarding transport on public roads. Obey all applicable laws and regulations.
  - Always travel at a safe speed, never exceeding 20 mph (32 km/h).
  - Reduce speed on rough surfaces.
  - Do not transport on slopes greater than 20°.
  - Use caution when turning corners or meeting traffic.
  - Make sure the SMV (slow moving vehicle) emblem and all the lights and reflectors that are required by local authorities are in place, are clean, and can be seen by all over-taking and oncoming traffic.
  - Always use hazard-warning flashers on tractor/towing vehicle when transporting unless prohibited by law.
  - Do not allow riders on the auger or towing vehicle during transport.
  - Attach to towing vehicle with an appropriate pin and retainer. Always attach safety chains.
  - Place the auger in the transport position before moving on roads.
2.14. Drives and Lockout Safety

Inspect the power source(s) before using and know how to shut down in an emergency. Whenever you service or adjust your equipment, make sure you shut down the power source and follow lockout and tagout procedures to prevent inadvertent start-up and hazardous energy release. Know the procedure(s) that applies to your equipment from the following power source(s). Ensure that only 1 key exists for each assigned lock, and that you are the only one that holds that key. Ensure that all personnel are clear before turning on power to equipment.

2.14.1 PTO Driveline Safety

Drive

- Keep body, hair, and clothing away from rotating PTO driveline.
- Make certain the driveline shields telescope and rotate freely on driveline before attaching.
- Make certain the driveline is securely attached at both ends.
- Do not operate auger unless all driveline, tractor, and equipment shields are in place and in good working order.
- Do not exceed the specified operating speed.
- Keep universal joint angles small and equal. Do not exceed maximum recommended length for PTO driveline.
- Engage tractor park brake and/or chock wheels.

Lockout

- Position all controls in neutral, shut off tractor’s engine, and remove key from tractor.
- If removing key is impossible, remove PTO driveline from tractor.
2.14.2 Hydraulic Power Safety

**WARNING**

- **Power Source**
  - Refer to the rules and regulations applicable to the power source operating your hydraulic drive.
  - Do not connect or disconnect hydraulic lines while system is under pressure.
  - Keep all hydraulic lines away from moving parts and pinch points.
  - Escaping hydraulic fluid under pressure will cause serious injury if it penetrates the skin surface (serious infection or toxic reaction can develop). See a doctor immediately if injured.
  - Use metal or wood as a backstop when searching for hydraulic leaks and wear proper hand and eye protection.
  - Check all hydraulic components are tight and in good condition. Replace any worn, cut, abraded, flattened, or crimped hoses.
  - Clean the connections before connecting to equipment.
  - Do not attempt any makeshift repairs to the hydraulic fittings or hoses with tape, clamps, or adhesive. The hydraulic system operates under extremely high pressure; such repairs will fail suddenly and create a hazardous and unsafe condition.

**Lockout**

- Always place all hydraulic controls in neutral and relieve system pressure before disconnecting or working on hydraulic system.
2.15. Tire Safety

**WARNING** Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion that may result in serious injury or death.

- DO NOT attempt to mount a tire unless you have the proper equipment and experience to do the job.
- Have a qualified tire dealer or repair service perform required tire maintenance.
- When replacing worn tires, make sure they meet the original tire specifications. Never undersize the replacement tire.
- DO NOT weld to the tire rim with the tire mounted on the rim. This action may cause an explosion which could result in serious injury or death.
- Inflate tires to the manufacturer’s recommended pressure.
- Tires should not be operated at speeds higher than their rated speed.
- Keep wheel lug nuts tightened to manufacturer’s recommendations.
- Never reinflate a tire that has been run flat or seriously under-inflated without removing the tire from the wheel. Have the tire and wheel closely inspected for damage before remounting.

2.16. Personal Protective Equipment

The following Personal Protective Equipment (PPE) should be worn when operating or maintaining the equipment.

**Safety Glasses**
- Wear safety glasses at all times to protect eyes from debris.

**Coveralls**
- Wear coveralls to protect skin.

**Hard Hat**
- Wear a hard hat to help protect your head.
Steel-Toe Boots
- Wear steel-toe boots to protect feet from falling debris.

Work Gloves
- Wear work gloves to protect your hands from sharp and rough edges.

Dust Mask
- Wear a dust mask to prevent breathing potentially harmful dust.

Hearing Protection
- Wear ear protection to prevent hearing damage.

2.17. Safety Equipment

The following safety equipment should be kept on site.

Fire Extinguisher
- Provide a fire extinguisher for use in case of an accident. Store in a highly visible and accessible place.

First-Aid Kit
- Have a properly-stocked first-aid kit available for use should the need arise, and know how to use it.

2.18. Safety Decals

- Keep safety decals clean and legible at all times.
- Replace safety decals that are missing or have become illegible. See decal location figures that follow.
- Replaced parts must display the same decal(s) as the original part.
- Replacement safety decals are available free of charge from your distributor, dealer, or factory as applicable.

2.18.1 Decal Installation/Replacement

1. Decal area must be clean and dry, with a temperature above 50°F (10°C).
2. Decide on the exact position before you remove the backing paper.
3. Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.
4. Slowly peel back the remaining paper and carefully smooth the remaining portion of the decal in place.
5. Small air pockets can be pierced with a pin and smoothed out using the decal backing paper.

2.18.2 Safety Decal Locations and Details

Replicas of the safety decals that are attached to the auger and their messages are shown in the figure(s) that follow. Safe operation and use of the auger requires that you familiarize yourself with the various safety decals and the areas or particular functions that the decals apply to, as well as the safety precautions that must be taken to avoid serious injury, death, or damage.

Figure 2. Hydraulic Cylinder Safety Decals
Figure 3. PTO and Tow Bar Safety Decals

Figure 4. Auger Tube and Hopper Safety Decals
Figure 5. Boot Safety Decals

Figure 6. Roll-Over / Transport Safety Decal
## Table 1. Safety Decals

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20813</td>
<td>ROTATING FLIGHTING HAZARD</td>
</tr>
</tbody>
</table>

To prevent death or serious injury:

- KEEP AWAY from rotating auger flighting.
- DO NOT remove or modify auger flighting guards, doors, or covers. Keep in good working order. Have replaced if damaged.
- DO NOT operate the auger without all guards, doors, and covers in place.
- NEVER touch the auger flighting. Use a stick or other tool to remove an obstruction or clean out.
- Shut off and lock out power to adjust, service, or clean.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20818</td>
<td>ROTATING PTO DRIVELINE</td>
</tr>
</tbody>
</table>

To prevent serious injury or death:

- Keep body, hair, and clothing away from rotating PTO driveline.
- Do not operate equipment unless all driveline, tractor, and equipment shields are in place and in good working order.
- Make certain the driveline shields turn freely on driveline.
- Make certain the driveline is securely attached at both ends.
- Do not exceed specified operating speed (see operator’s manual).
- Keep u-joint angles small and equal. Do not exceed maximum recommended length for PTO driveline.
<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>17094</td>
<td><strong>DANGER</strong></td>
</tr>
<tr>
<td></td>
<td>ROTATING FLIGHTING INSIDE</td>
</tr>
<tr>
<td></td>
<td>To prevent serious injury or death, do not operate auger unless swing-hopper is securely attached to boot.</td>
</tr>
<tr>
<td>20816</td>
<td><strong>DANGER</strong></td>
</tr>
<tr>
<td></td>
<td>ELECTROCUTION HAZARD</td>
</tr>
<tr>
<td></td>
<td>To prevent death or serious injury:</td>
</tr>
<tr>
<td></td>
<td>• When operating or moving, keep equipment away from overhead power lines and devices.</td>
</tr>
<tr>
<td></td>
<td>• Fully lower equipment before moving.</td>
</tr>
<tr>
<td></td>
<td>This equipment is not insulated.</td>
</tr>
<tr>
<td></td>
<td>Electrocution can occur without direct contact.</td>
</tr>
<tr>
<td>17113</td>
<td><strong>WARNING</strong></td>
</tr>
<tr>
<td></td>
<td>TRANSPORT HAZARD</td>
</tr>
<tr>
<td></td>
<td>To prevent serious injury or equipment damage, before towing:</td>
</tr>
<tr>
<td></td>
<td>• Lift up wheel frame completely and secure with safety chain.</td>
</tr>
<tr>
<td></td>
<td>• Pull handle to disengage drive wheel motors.</td>
</tr>
</tbody>
</table>
### Table 1  Safety Decals (continued)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20804</td>
<td><img src="image.png" alt="Safety Decal" /></td>
</tr>
</tbody>
</table>

**WARNING**

To prevent serious injury or death:
- Keep body, hair, and clothing away from rotating pulleys, belts, chains, and sprockets.
- Do not operate with any guard removed or modified. Keep guards in good working order.
- Shut off and lock out power source before inspecting or servicing machine.

**ENTANGLEMENT HAZARD**
Table 1  Safety Decals (continued)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20811</td>
<td>![WARNING UPENDING HAZARD][1]</td>
</tr>
</tbody>
</table>

**UPENDING HAZARD**

To prevent death or serious injury:

- Anchor intake end and/or support discharge end to prevent upending.
- Intake end must always have downward weight. Do not release until attached to tow bar or resting on ground.
- Do not raise intake end above tow bar height.
- Empty tube and fully lower before moving.

---

[1]: ![Diagram of safety decal](image-url)
Table 1  Safety Decals (continued)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20807</td>
<td>![WARNING Icon] To prevent serious injury or death:</td>
</tr>
</tbody>
</table>

  - Read and understand the manual before assembling, operating, or maintaining the equipment.
  - Only trained personnel may assemble, operate, or maintain the equipment.
  - Children and untrained personnel must be kept outside of the work area.
  - Do not modify the equipment. Keep in good working order.
  - If the manual, guards, or decals are missing or damaged, contact factory or representative for free replacements.
  - Lock out power before performing maintenance.
  - To prevent equipment collapse or upending, support equipment tube while disassembling certain components.
  - Follow grain storage structure manufacturer's warnings when loading and unloading.
  - Electric motors must be grounded. Disconnect power before resetting overloads.
<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20803 (placed behind guard)</td>
<td>![WARNING][1] <strong>MISSING GUARD HAZARD</strong> To prevent serious injury or death, shut off power and reattach guard before operating machine.</td>
</tr>
</tbody>
</table>
| 20812 (only included on augers 83’ and longer) | ![WARNING][2] **ROLLOVER / TRANSPORT HAZARD** To prevent serious injury or death:  
- Fully extend axles before raising tube.  
- Retract axles before transporting. |
| 20806 | ![WARNING][3] **HIGH PRESSURE FLUID HAZARD** Hydraulic fluid can cause serious injury if it penetrates the skin. If it does, see a doctor immediately.  
- Relieve system pressure before repairing, adjusting or disconnecting.  
- Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands. |
| 17107 | ![CAUTION][4] To prevent personal injury or damage to equipment, close valve in lift cylinder hydraulic line after raising equipment into position. |

---

[1]: #/images/safety/missing-guard-hazard.png
[2]: #/images/safety/rollover-transport-hazard.png
[3]: #/images/safety/high-pressure-fluid-hazard.png
[4]: #/images/safety/caution.png
<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>18859</td>
<td><strong>NOTICE</strong></td>
</tr>
<tr>
<td></td>
<td>Disconnect PTO driveline from tractor before moving equipment.</td>
</tr>
<tr>
<td></td>
<td>If attached, driveline will bottom out, severely damaging the CV u-joint and lower flight shaft.</td>
</tr>
<tr>
<td></td>
<td>See manual for maintenance.</td>
</tr>
</tbody>
</table>

| 17531       | **NOTICE**  |
|             | To prevent damage during auger-to-tractor hookup: |
|             | • Follow dimensions above for correct auger-to-tractor hookup. |
|             | • Auger must be on level ground and in full down position when measuring. |
|             | • Adjust drawbar as needed. |
|             | See operation manual for complete details. |

| 19960       | **NOTICE**  |
|             | To prevent damage, wheels must be free to move when raising or lowering equipment. |
|             | When equipment is positioned, chock all wheels. |
3. Features

Read this section to familiarize yourself with the basic component names and functions of the auger.

Figure 7. Main Features

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Discharge Spout</td>
<td>5</td>
<td>Hydraulic Cylinder</td>
</tr>
<tr>
<td>2</td>
<td>Truss Tower</td>
<td>6</td>
<td>Boot</td>
</tr>
<tr>
<td>3</td>
<td>Cable Adjustment</td>
<td>7</td>
<td>Swing</td>
</tr>
<tr>
<td>4</td>
<td>Lift Arm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Figure 8. Grain Transfer Boot Features**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Overflow Panel</td>
<td>6</td>
<td>Clean-Out Hatch</td>
</tr>
<tr>
<td>2</td>
<td>Swing Arm Spout Head</td>
<td>7</td>
<td>Hitch Jack</td>
</tr>
<tr>
<td>3</td>
<td>Spout Head Service Cover</td>
<td>8</td>
<td>Hitch</td>
</tr>
<tr>
<td>4</td>
<td>Manual Winch (Hopper)</td>
<td>9</td>
<td>PTO Driveline</td>
</tr>
<tr>
<td>5</td>
<td>Grain Transfer Boot</td>
<td>10</td>
<td>Ball Valve</td>
</tr>
</tbody>
</table>
Figure 9. Grain Hopper Features

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Main Auger Tube</td>
<td>5</td>
<td>Maintenance Hatch</td>
</tr>
<tr>
<td>2</td>
<td>Boot</td>
<td>6</td>
<td>Hopper</td>
</tr>
<tr>
<td>3</td>
<td>Spout Head</td>
<td>7</td>
<td>Flights and Flight Guarding</td>
</tr>
<tr>
<td>4</td>
<td>Swing Tube</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

X10 & HX10 – SWING-AWAY GRAIN AUGER

3. FEATURES
4. Assembly

Before continuing, ensure you have completely read and understood this manual’s Safety section, in addition to the safety information in the section(s) below.

4.1. Assembly Safety

WARNING

- Do not take chances with safety. The components can be large, heavy, and hard to handle. Always use the proper tools, rated lifting equipment, and lifting points for the job.
- Carry out assembly in a large open area with a level surface.
- Always have two or more people assembling the auger.
- Make sure you have sufficient lighting for the work area.
- Tighten all fasteners according to their specifications. Do not replace or substitute bolts, nuts, or other hardware that is of lesser quality than the hardware supplied by the manufacturer.

4.2. General Assembly

1. Select an assembly area that is level, has a firm or hard surface and is free of debris. Be sure it is large enough to allow access from all sides when the components are being assembled.
2. If assembling inside a building, be sure the ceiling is at least 14’ (4.27 m) high to provide clearance when installing the undercarriage.
3. Bring all the tools, blocks, stands, jacks, and hoists to the assembly area before starting.
4. The following tools and equipment are required to assemble the machine:

- 11-14 Support stands (tube section supports, three per tube)
- Four Saw horses (1200 lb / 544.3 kg bearing capacity)
- One Standard socket set and wrench set
- One Torque wrench
- One Standard 25’ (7.62 m) tape measure
- One 2’ level
- One 8” level magnetic
- Two C-clamps or vise grips
- One Picker with minimum reach of 12’ (3.66 m) 4000-6000 lb (1814 - 2722 kg) lifting capacity
- One 100’ (30 m) measuring tape
- One Tire gauge
- One Tire chuck
- 6-10 Wood blocks (2x4's or smaller)
- Grease
- Impact wrench and sockets
• 2+ Steel Punches (for aligning bolt holes)

4.3. Assemble the Auger Tube

4.3.1 Arrange Tubes and Apply Model Decals

Identify and Arrange the Auger Tube Sections

1. Align tube sections on a series of support stands, placing a support stand at the end of each tube (see the figures below for correct tube identification and positioning).

2. As tubes sections are added, make sure that support stands are at equal heights across all tubes to ensure that tubes are level with each other. Otherwise, use some form of shim to keep the tubes level across all of the support stands.

   Important
   Strap tubes to the support stands to prevent the tubes from rolling off the stands.

Figure 10. 63’ Auger Tube Sections
Apply the Logo and Model Decals on the Auger Tubes

1. Prepare surface by cleaning thoroughly with soap and water. Surface must be clean and free of dirt, grime, rust and oil. To clean oily surface, wipe with clean cloth and solvent cleaner or isopropyl alcohol.
2. Position the decal on the tube and apply masking tape along the top, creating a gate hinge. Figure A demonstrates.

3. Remove backing paper from decal 6" from the top and use the squeegee to adhere decal to the tube, as seen in Figure B. Start at the top center of the decal and work your way outward both left and right using overlapping strokes.

4. As you work your way down the decal, peel back the backing paper 6" at a time. Repeat Step 3 until the entire decal has been applied to the tube. See Figure C as an example.

5. Once the entire decal has been properly adhered to the tube, remove tape hinge from front of decal. Remove the front application tape at a sharp 180° angle.

6. Inspect the entire decal for air pockets; if found, remove them by punching a tiny hole with a pin and then squeegee the surface flat.

7. As a final process, squeegee the corners and edges of the decal to ensure proper adhesion and to prevent premature peeling.

4.3.2 Connect Auger Tube Sections Together

**Important**
Always strap tubes to the support stands to prevent the tubes from rolling off the stands.

**Note**
Assemble the auger tube starting with the discharge section and working toward the intake section.

1. Bolt tube sections together (see Figure 13 for details), working from the spout end (upper tube) toward the discharge end (lower tube):
   a. Align flightings to ensure a continual spiral of auger surface, and connect flight shafts with 7/16” x 3” bolts and 7/16” locknuts.
   b. As flight shafts are connected, slide tube sections together and secure with 7/16” X 1” and 7/16” locknuts.
Assembly Note:
- Use a straight edge to align tracks at the joint to ensure smooth slide for track shoe.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bolt, 7/16&quot; x 1&quot;</td>
</tr>
<tr>
<td>2</td>
<td>Bolt, 7/16&quot; x 3&quot;</td>
</tr>
<tr>
<td>3</td>
<td>Locknut, 7/16&quot;</td>
</tr>
</tbody>
</table>

4.3.3 Install the Boot on the Auger Tube

**WARNING** Components are heavy and create a crushing hazard if improperly handled. Be sure to use proper hoisting equipment and procedures, and ensure lifting apparatus is secure. Lock out the lifting apparatus before working around or under the raised components; failure to do so may cause serious personal injury.

**Important**

The gearbox is sent from the factory filled half way with EP90 gear oil. Before further assembly, check oil level to make certain the gearbox is half full. Add oil if necessary. Do not use grease.

1. The boot flighting comes pre-installed on the end of the lower tube flighting shaft. (See Figure 14.) Ensure that the flighting is fastened with a 1/2" X 4" GR8 bolt and locknut.
2. Slip the boot assembly over the lower flighting shaft and attach it to the flange on the lower tube with eight 7/16" x 1" bolts and locknuts. (See Figure 15.)
3. Install the Lower Sprocket as follows:

a. Slide the 1-1/2" wide rim flat washer onto lower flight shaft.

b. Slide the lower bearing over the flighting shaft, and bolt it loosely in place with four 5/8" X 1-3/4" bolts and 5/8" locknuts.

c. Ensure that the flight shaft shoulder is seated against washer and lower bearing.

d. Position the lock collar tightly against the bearing, then tighten the collar set screw against the flighting shaft.

e. Install the 1/4" x 3-3/8" square key on the flighting shaft, then slide the lower sprocket onto the flighting shaft. Align lower sprocket face with upper sprocket face using a straight edge, then tighten set screws.
Figure 16. Installing Boot Bearing, Sprocket, and Chain

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
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<td>Drive Chain</td>
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<tr>
<td>2</td>
<td>Lower Bearing</td>
<td>6</td>
<td>Lower Sprocket</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Rim Washer, 1-1/2&quot;</td>
<td>7</td>
<td>Square Key</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Bolt, 5/8&quot; x 1-3/4&quot;</td>
<td>8</td>
<td>Lock Collar</td>
<td></td>
</tr>
</tbody>
</table>

**Note**
It is recommended you use a thread locking compound that meets or exceeds Loctite Blue© on all set screws.

**Important**
To prevent premature failure of the lower bearing, ensure it has been assembled in the correct sequence.

4. Loop the drive chain around upper and lower sprockets. Push the flighting shaft down until the chain is tensioned to within about 1/4" deflection, then tighten the four bolts on the bottom bearing. Oil the chain lightly.
4.3.4 Install the Discharge Spout

Spout

1. Align the discharge spout over the opening in the upper tube.
2. Attach the discharge spout with six 7/16" x 1-1/4" GR8 bolts and 7/16" locknuts.

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<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1</td>
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<td>Bolt, 7/16&quot; x 1-1/4&quot;</td>
</tr>
<tr>
<td>3</td>
<td>Discharge Spout</td>
</tr>
<tr>
<td>4</td>
<td>Locknut, 7/16&quot;</td>
</tr>
</tbody>
</table>

Plastic Spout

1. Align the discharge spout over the opening in the upper tube.
2. Place the reinforcement bars below the spout’s side flanges.
3. Secure the discharge spout and reinforcement bars to the back band using eight 5/16" x 1-3/4" bolts and locknuts.

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<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Back Band</td>
</tr>
<tr>
<td>2</td>
<td>Plastic Discharge Spout</td>
</tr>
<tr>
<td>3</td>
<td>Reinforcement Bar</td>
</tr>
<tr>
<td>4</td>
<td>Bolt, 5/16&quot; x 1-3/4&quot;</td>
</tr>
<tr>
<td>5</td>
<td>Locknut, 5/16&quot;</td>
</tr>
</tbody>
</table>
4.3.5 Set the Thrust Adjuster

1. Remove the upper bearing lock collar (if necessary).
2. Slide the lock collar and bushing onto the shaft and attach the 1-1/4" nut.
3. Turn the nut until it is snug against the bushing, then turn it so that the shaft moves an additional 1/4" away from the top plate.
4. Secure the lock collar and tighten the set screw.
5. Install the cover over the two longer 1/2" bolts with two 1/2" whiznuts.

<p>| | |</p>
<table>
<thead>
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<tr>
<td>2</td>
<td>Bearing</td>
</tr>
<tr>
<td>3</td>
<td>Nut, 1-1/4&quot;</td>
</tr>
<tr>
<td>4</td>
<td>Lock Collar</td>
</tr>
<tr>
<td>5</td>
<td>Whiznut, 1/2&quot;</td>
</tr>
<tr>
<td>6</td>
<td>Cover</td>
</tr>
</tbody>
</table>

![Figure 19. Setting the Thrust Adjuster](image)

4.4. Install Truss Towers

Install truss towers and truss cable attach brackets according to the configurations and hardware usage shown in Figures Figure 20, Figure 21, or Figure 22 (according to specific model).
Figure 20. 63’ Truss Supports

1: LOW TRUSS TOWER
2: 7/16” X 1” BOLTS
3: 7/16” LOCKNUTS
4: TRUSS CABLE ATTACH BRACKET

Figure 21. 73’ Truss Supports

1: LOW TRUSS TOWER
2: 7/16” X 1” BOLTS
3: 7/16” LOCKNUTS
4: TRUSS CABLE ATTACH BRACKET
4.5. Install Truss Cables

Refer to Figure 24 and Figure 25, according to the specific model.

1. Remove the support stands but those ones at the ends of the tube sections to let the tube deflect under its own weight.

2. Thread truss cable through eyebolt and ensure a minimum turn back length of 9-1/2" (24 cm) of cable (see Figure 23 on page 40). Secure the cable in place by installing and tightening two 3/8" cable clamps.
   a. Apply the first clamp 8-1/2" from the cable loop with the u-bolt over the dead end. The live end rests in clip saddle. Tighten nuts firmly but do not fully tighten.
   b. Apply the second clamp as close to the loop as possible in the same orientation as the first clamp. The live end rests in clip saddle. Apply tension and tighten nuts firmly but do not fully tighten.

3. Insert eyebolt into truss cable attach bracket and thread on a 1/2" locknut a short way (~1.0”).

4. Pull the long truss cable:
   • over the cable bridges
   • around the cable return bracket
   • back over the cable bridges
   • back to the cable anchor bracket

5. 73’/83’ only: Pull the short truss cable:
• over the middle cable bridge
• around the cable return bracket
• back over the middle cable bridge
• back to the cable anchor bracket

**Important**
The long truss cable must be installed on the outside of the middle bridge.

6. Use loosely attached 5/16” cable clamps to hold the cable in place — 2 cable clamps per cable bridge and two clamps on the cable return bracket at the eyebolt.

**Note**
Do not tighten the cable clamps at this time.

7. Insert eyebolts in the opposite sides of both cable attach brackets and thread on a 1/2” locknut a short way (“1.0”).

8. Thread truss cable through the eyebolt and pull out all slack. Ensure a minimum turn back length of 9-1/2” (24 cm) of cable. Secure the cable in place by installing and tightening two 3/8” cable clamps. (See Figure 23)
   a. Apply the first clamp 8-1/2” (21.6 cm) from the cable loop with the u-bolt over the dead end. The live end rests in clip saddle. Tighten nuts firmly but do not fully tighten.
   b. Apply the second clamp as close to the loop as possible in the same orientation as the first clamp. The live end rests in clip saddle. Apply tension and tighten nuts firmly but do not fully tighten.

**Note**
If there isn’t enough cable, loosen the clamps on the opposite eyebolt and adjust the cable. Retighten clamps.

9. Tighten the eyebolts on the long cable evenly to take the remaining slack out of the truss cable. Once the long cable is tightened, repeat for the short cable (for 73’ and 83’).

10. After tension is adjusted, tighten all cable clamps to the recommended torque (See Table 2 on page 42). Check for proper side alignment (See Figure 23).

**Figure 23. Install the Cable Clamps**
Figure 24. Installing Truss Cables (63’, 73’)

1: 1/2" EYEBOLT
2: 1/2" NUT
3: LONG CABLE
4: SHORT CABLE (73’ only)
5: CABLE CLAMP (3/8”)
6: CABLE CLAMP (5/16”)
7: TRUSS CABLE ATTACH BRACKET
8: TRUSS CABLE RETURN BRACKET
Figure 25. Installing Truss Cables (83’)

Table 2. Torque Values for Clamps

<table>
<thead>
<tr>
<th>Cable Clamp</th>
<th>Nut Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/16”</td>
<td>20 ft·lb</td>
</tr>
<tr>
<td>3/8”</td>
<td>30 ft·lb</td>
</tr>
</tbody>
</table>
4.6. Assemble the Lower Frame

1. Ensure the workspace is clear and large enough to accommodate assembly of the auger.

2. Place the axle on the floor, supported by two 4” blocks under each side, and positioned so that the lower lift arm flanges face toward the assembly area.

3. Install lower lift arms on each side of the axle:
   a. Use four 3/4” x 2” bolts and 3/4” locknuts to connect each lower frame arm to respective axle end flanges.

      **Note**
      Insert a punch tool (P) in the middle hole to help align the four bolt holes.

   b. Support the lower lift arms along their length with 4” blocks.

4. Install the scissor rest on the axle using four 3/8” x 1-1/4” bolts and 3/8” locknuts for each tube. Ensure that the scissor rest is oriented as shown in the diagram.

**Figure 26. Assemble the Lower Frame**

<table>
<thead>
<tr>
<th>Ref</th>
<th>Description</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Axle Assembly</td>
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Table 3  Assemble the Lower Frame (continued)

<table>
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<tr>
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<th>Lower Reach Arm</th>
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<tbody>
<tr>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Transport Stand</td>
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</tr>
<tr>
<td>4</td>
<td>3/4&quot; x 2&quot; Bolt</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>3/4&quot; Locknut</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>3/8&quot; x 1-1/4&quot; Bolt</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>3/8&quot; Locknut</td>
<td>8</td>
</tr>
</tbody>
</table>

4.7. Connect the Lower Frame Arms

**Important**
The position of the lower frame arm connections on the axle depends on the model. For the 83’ model the frame arms connect using the outermost bracket positions. For the 73’ model the frame arms connect using the middle bracket positions. For the 63’ model the frame arms connect using the innermost bracket positions.

1. Elevate the reach arms on a support stand, and place another support stand so it can be used to support the lower scissor arms as they are installed.

2. Lift, position, and connect the lower scissor arms one at a time. Use lower scissor attach pins to attach the narrow ends of the arms to the flanges on the axle, and secure each pin with two 1” SAE washers and two 1/4” x 1-3/4” cotter pins.
4.8. Connecting the Short Cross Member and Upper Scissors arms

1. Lift, position, and connect the upper scissor to both lower scissor arms with a greased scissor pin inserted in each side, and lock the scissor pins in place with 7/16” x 1-1/4” bolts and nuts.

2. Lift the short cross member into place, and bolt it to the lower scissors using four 5/8” x 1-1/2” bolts and 5/8” locknuts per side.

3. Check that the pressure of the pre-inflated tires matches the pressure indicated on the tire sidewall. Mount the wheels on the hubs and attach with six 1/2” x 1-1/4” wheel bolts.
4.9. Install Hydraulic Lift Cylinder

1. Position the cylinder on the cylinder lugs. The rod end of the cylinder must be attached facing downward. Ensure the port is oriented as shown in Figure 29.

2. Pin the cylinder in place using 1” x 3-3/8” cylinder pin and 1” hitch clips.
4.10. Connect the Auger Tube to the Frame

1. Arrange a strong sling around the auger tube. Attach the sling to a crane, block and tackle, or a front end loader, and lift the auger tube high enough to remove the stands from underneath the auger.

2. Move tube over top of the assembled frame, ensuring that the tube is centered on the scissor frame before proceeding.

3. Connect tube to the lower frame arms:
   a. Lift the lower frame arms to align with the lower back-arm bracket bolt holes.
   b. Secure each lower frame arm to its corresponding tube back-arm bracket with a spacer bushing, a flat washer, a 1” x 2-1/2” bolt, and a locknut.

4. Connect tube to the scissor lift:
   a. Adjust the tube height and frame position until the holes in the upper back-arm brackets are aligned with the flange bolt holes at the top of the upper scissor arm.
   b. Secure each side of the upper scissor arm to its corresponding tube back-arm bracket with a spacer bushing, a flat washer, a 1” x 2-1/2” bolt, and a locknut.

5. Lower the scissor lift until it rests on the transport stand.
4.11. Connect Hydraulic Hose and Ball Valve

**Note**

Elbow fittings are factory installed. Use thread sealant on fittings and hose threads (not supplied). Please refer to the Appendix for hydraulic fitting tightening specifications.

1. Attach the hydraulic hose to the elbow fitting on the hydraulic cylinder see Figure 31).
2. Run the hose along the upper scissor frame and tube.
3. Secure the hydraulic hose along the top of the upper scissor and on the tube using the welded hose clips.

---

**Table 6. Connecting the Auger Tube to Frame**

<table>
<thead>
<tr>
<th>Ref</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Spacer Bushing, Short</td>
<td>4</td>
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<tr>
<td>2</td>
<td>1&quot; x 2-1/2&quot; Bolt</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>1&quot; Locknut</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>1&quot; Flat Washer</td>
<td>4</td>
</tr>
</tbody>
</table>
4. Provide slack or a loop between each secured point.
5. Bend tops of welded clips over slightly to retain hose.
6. Connect ball valve to the boot using the ball valve bracket and two 1/4" x 3/4" bolts and locknuts (see Figure 32).

   **Important**
   Do not make bends in hydraulic hose too tight. The bends must have a radius of at least 4” to prevent failure of the hose.

7. Attach the pioneer coupler to the hydraulic hose end.

**Figure 31. Hydraulic Hose Cylinder Connection**
4.12. Connect the PTO Driveline

Refer to Figure 33 for PTO parts installation.

1. Install the PTO transport bracket using two 1/2” x 1-1/4” bolts and two 1/2” locknuts.
2. Clean paint or dirt off of PTO driveline and flighting shaft ends before assembly.
3. Ensure that the 1/4” x 3-3/8” square key is in place on the flighting shaft.
4. Slide plain end of PTO driveline onto flighting shaft. Make sure that the 5/16” holes are lined up.
5. Carefully tap in a 5/16” roll pin. Tighten the set screw on the PTO shaft.
6. Loosely install the sprocket shield on the boot using four 5/16” x 3/4” bolts.
7. Slide the PTO transport saddle through the support strap on the boot and rest the PTO driveline in it.
8. Tighten the sprocket shield bolts.

**Figure 33. PTO Parts and Installation**

<table>
<thead>
<tr>
<th>Ref</th>
<th>Description</th>
<th>Amount</th>
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<tbody>
<tr>
<td>1</td>
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<tr>
<td>2</td>
<td>PTO Transport Saddle</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>1/2” X 1-1/4” Bolts</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>1/2” Locknut</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>5/16” Roll Pin</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>1/4” x 3-3/8” Square Key</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Sprocket Shield</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>5/16” X 3/4” Bolts</td>
<td>4</td>
</tr>
</tbody>
</table>
4.13. Install Low Profile Intake Hopper

1. Clean dirt and paint from inside the u-joint and flighting shaft end, grease the shaft end, then insert a Woodruff key (Figure 34).

2. Raise and support the hopper tube spout head on a stand about 50” high.

3. Open the service door on the Transition, then bring the transition and hopper together guiding the flight shaft into the u-joint (Figure 34).

4. Attach the Transition to the intake hopper with two 5/8” x 1-1/2” bolts and 5/8” locknuts. DO NOT overtighten; tighten to a slightly loose fit only as these bolts act as pivot points (Figure 34).

5. Tighten set screws on u-joints, then close and secure the service door.

6. Attach the 4 solid wheels to the 4 hopper corners with the axle pins and hairpins. There are 3 height settings (Figure 35) that can be used according to preference.

7. To connect the intake hopper to the auger boot, the swing head spout door must first be opened. To do so, open the spring clasps and rotate the spout door open, so that it lies down on the top of the swing tube.

8. Check that the u-joint spline and splined shaft on the lower gear box are clean, then apply a light film of grease on the splined shaft.

9. Install a rim washer on the top shaft of the lower gearbox.

10. Shift the position of the hopper so that the spout head is supported above the hopper, centred on the shaft of the gear box.

11. Lower the spout head onto the boot while guiding the splined universal joint onto the splined gearbox shaft. Once positioned, the swivel ring should be resting flat on the boot surface.

12. Install spout head spacers, followed by spout-head retainers, using eight 3/8” x 3/4” bolts (Figure 36).

13. Lubricate the universal joint and then close and secure the spout head service cover.

**Important**
Always keep the spout head service cover closed and secured during operation.
Figure 34. Connection the Flighting and Tube

Table 9.

<table>
<thead>
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<th>Ref</th>
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<td>Transition</td>
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</tr>
<tr>
<td>3</td>
<td>5/8” x 1-1/2” Bolts</td>
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<tr>
<td>4</td>
<td>5/8” Locknuts</td>
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</tr>
<tr>
<td>5</td>
<td>Spout Head</td>
<td>1</td>
</tr>
</tbody>
</table>
Figure 35. Connecting the Wheels, Inspection Hatch Bar, and Hopper Cable Attach Bracket

Figure 36. Connecting the Spout Head to the Boot
4.14. Install the Hopper Lift Extension

83’ only:

1. Place the hopper lift extension onto the bracket on the lower tube as shown.
2. Secure by using the 2 lift extension brackets and six 7/16” x 1-1/4” bolts and locknuts.

Figure 37. Installing the Lift Extension

4.15. Install Hopper Lift Arm and Winch

1. Determine which side of the auger the hopper will be operating on.

   Note
   Feed side of hopper must face the main auger when in transport.

2. Position the hopper lift arm on the mount bracket on top of the lower auger tube with the arm overhanging the left side of the auger (as viewed from the boot, looking toward the discharge spout).
3. Fasten the hopper lift arm assembly to the mount bracket on top of the lower auger tube with two mount pins and a hairpins.
4. Install winch and winch bracket assembly to auger boot (opposite to side of hopper operation) with one mount pin and a hairpin (Figure 39).
5. Install the transport hook assembly to the lift arm using a 7/16” x 1-1/4” bolt, 7/16” washer, and 7/16” locknut.
6. Thread the cable through the hopper lift arm and pull the cable to the winch.
7. Wrap the cable over and around the winch spool at least three times, then insert the cable end through the hole provided in the side of the spool and secure the end with the provided cable clamp (Figure 40).
8. To place hopper into transport position, attach cable hook to hook on the hopper transition, then fully raise hopper with intake side facing main auger. Secure hopper to lift arm by connecting the safety chain (Figure 41) to the hopper cable attach bracket.
Figure 38. Installing the Lift Arm

Figure 39. Connecting Manual Winch to the Boot
Important
If you want to change the side of intake feed hopper operation:

1. Raise auger hitch jack and disconnect from tractor.
2. Swing intake feed hopper to opposite side of auger.
3. Reverse the position of the hopper lift arm assembly.
4. Position the winch upside down on the other side of the boot.
5. Reconnect to tractor.
4.16. Install the Hitch Jack

The jack is attached to the auger with a pin at the pivot point. To install:

1. Elevate the auger boot (intake end) approximately 2’ (5.08 cm) with a front-end loader and sling, and install the jack in a vertical position. Secure with supplied pin.

2. Place a board beneath the jack before setting it on the ground, then lower the auger until the jack is seated. Remove front-end loader from auger.

Note
Jack can be rotated 90° for transport or operation.

WARNING
- Jack is designed for raising or lowering auger hitch only.
- Do not get on or beneath auger while supported by or while jack is being operated.
4.17. Install the Plastic Manual Container

Mount the plastic manual holder directly to the boot (as shown below in Figure 43) using three #14 x 5/8” self-tapping screws.

Figure 43. Installing the Plastic Manual Container

<table>
<thead>
<tr>
<th>Ref</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Manual Container</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Self-tapping Screw</td>
<td>3</td>
</tr>
</tbody>
</table>
# 5. Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>10-63</th>
<th>10-73</th>
<th>10-83</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAPACITY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unloading Rate</td>
<td></td>
<td></td>
<td>6600 Bu/Hr</td>
</tr>
<tr>
<td><strong>DIMENSIONS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tube Size</td>
<td>10&quot; (25.4 cm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>64' 10&quot; (19.76 m)</td>
<td>75' (22.86 m)</td>
<td>85' 1&quot; (25.93 m)</td>
</tr>
<tr>
<td>Width</td>
<td>132&quot; (3.35 m)</td>
<td>132&quot; (3.35 m)</td>
<td>132&quot; - 180&quot; (3.35 m - 4.57 m)</td>
</tr>
<tr>
<td>Height</td>
<td>13' 8&quot; (4.16 m)</td>
<td>13' 4&quot; (4.06 m)</td>
<td>13' 4&quot; (4.06 m)</td>
</tr>
<tr>
<td>Discharge Clearance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min</td>
<td>12&quot; (3.66 m)</td>
<td>11' 2&quot; (3.4 m)</td>
<td>11' 8&quot; (3.56 m)</td>
</tr>
<tr>
<td>Max</td>
<td>43' 7&quot; (13.28 m)</td>
<td>47' 10&quot; (14.58 m)</td>
<td>55' 3&quot; (16.84 m)</td>
</tr>
<tr>
<td>Reach to Wheels</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min</td>
<td>23' 4&quot; (7.11 m)</td>
<td>27' 9&quot; (8.46 m)</td>
<td>29' 10&quot; (9.09 m)</td>
</tr>
<tr>
<td>Max</td>
<td>31' 4&quot; (9.55 m)</td>
<td>35' 3&quot; (10.74 m)</td>
<td>40' 11&quot; (12.47 m)</td>
</tr>
<tr>
<td><strong>TIRES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>16&quot; TRF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation Pressure</td>
<td>See Manufacturer Recommended Pressure on Tire Sidewall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hubs</td>
<td>6-Bolt Automotive type</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>WEIGHT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Weight</td>
<td>3,475 lb (1 576 kg)</td>
<td>3,790 lb (1 719 kg)</td>
<td>4,362 lb (1 979 kg)</td>
</tr>
<tr>
<td><strong>PTO DRIVE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Requirements</td>
<td>60 HP</td>
<td>65 HP</td>
<td>75 HP</td>
</tr>
<tr>
<td>PTO Speed</td>
<td>540 RPM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTO Shaft</td>
<td>14R</td>
<td>35R</td>
<td></td>
</tr>
<tr>
<td>PTO Maximum Operating Angle</td>
<td>15°</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OTHER</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hitch Jack</td>
<td>2000 lb (side wind)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hitch Pin Size (Minimum)</td>
<td>3/4&quot; x 5&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper/Lower Gear Box Oil Capacity</td>
<td>0.45 US quarts (0.43 L)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum Pressure Capacity of Hydraulic Hose &amp; Hose Ends</td>
<td>2500 psi (17200 kPa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressure Required to Raise Auger</td>
<td>1200 PSI (8274 kPa)</td>
<td>1400 PSI (9653 kPa)</td>
<td>1600 PSI (11032 kPa)</td>
</tr>
<tr>
<td>Shear Bolt Size</td>
<td>5/16&quot; x 1&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# 6. Appendix

## 6.1. Bolt Torque

Table 11 gives the correct torque values for various hardware. Tighten all bolts to the torque specified, unless otherwise noted. Check tightness periodically, using Table 11 as a guide. Replace the hardware with the same strength bolt, contact AGI if you are unsure.

### Table 11. Recommended Bolt Torque

<table>
<thead>
<tr>
<th>Size</th>
<th>Threads per inch (Course/Fine)</th>
<th>Area of Bolt (sq in.)</th>
<th>Recommended Torque (ft-lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Grade 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coarse</td>
<td>Fine</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>Dry</td>
<td>20/28</td>
<td>0.0318</td>
</tr>
<tr>
<td></td>
<td>Lubricated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/16&quot;</td>
<td>Dry</td>
<td>18/24</td>
<td>0.0524</td>
</tr>
<tr>
<td></td>
<td>Lubricated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/8&quot;</td>
<td>Dry</td>
<td>16/24</td>
<td>0.0775</td>
</tr>
<tr>
<td></td>
<td>Lubricated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7/16&quot;</td>
<td>Dry</td>
<td>14/20</td>
<td>0.1063</td>
</tr>
<tr>
<td></td>
<td>Lubricated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>Dry</td>
<td>13/20</td>
<td>0.1419</td>
</tr>
<tr>
<td></td>
<td>Lubricated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9/16&quot;</td>
<td>Dry</td>
<td>12/18</td>
<td>0.182</td>
</tr>
<tr>
<td></td>
<td>Lubricated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/8&quot;</td>
<td>Dry</td>
<td>11/18</td>
<td>0.226</td>
</tr>
<tr>
<td></td>
<td>Lubricated</td>
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</tr>
<tr>
<td>3/4&quot;</td>
<td>Dry</td>
<td>10/16</td>
<td>0.334</td>
</tr>
<tr>
<td></td>
<td>Lubricated</td>
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<td></td>
</tr>
<tr>
<td>7/8&quot;</td>
<td>Dry</td>
<td>9/14</td>
<td>0.462</td>
</tr>
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<td>Lubricated</td>
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<tr>
<td>1&quot;</td>
<td>Dry</td>
<td>8/14</td>
<td>0.606</td>
</tr>
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<td>Lubricated</td>
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<tr>
<td>1-1/8&quot;</td>
<td>Dry</td>
<td>7/12</td>
<td>0.763</td>
</tr>
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<tr>
<td>1-1/4&quot;</td>
<td>Dry</td>
<td>7/12</td>
<td>0.989</td>
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<tr>
<td>1-1/2&quot;</td>
<td>Dry</td>
<td>6/12</td>
<td>1.405</td>
</tr>
<tr>
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<td>Lubricated</td>
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<td></td>
</tr>
</tbody>
</table>

1. Torque value for bolts and cap screws are identified by their head markings. Established at 75% of yield strength of bolt given the cross-sectional area.

**Note**

Torque figures in table are valid for non-greased or non-oiled threads and head unless otherwise specified. Therefore, do not grease or oil bolts or cap screws unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.