



MKX16, X16, HX16, GMX16 Series

Swing-Away Grain Auger Assembly Manual

This manual applies to:

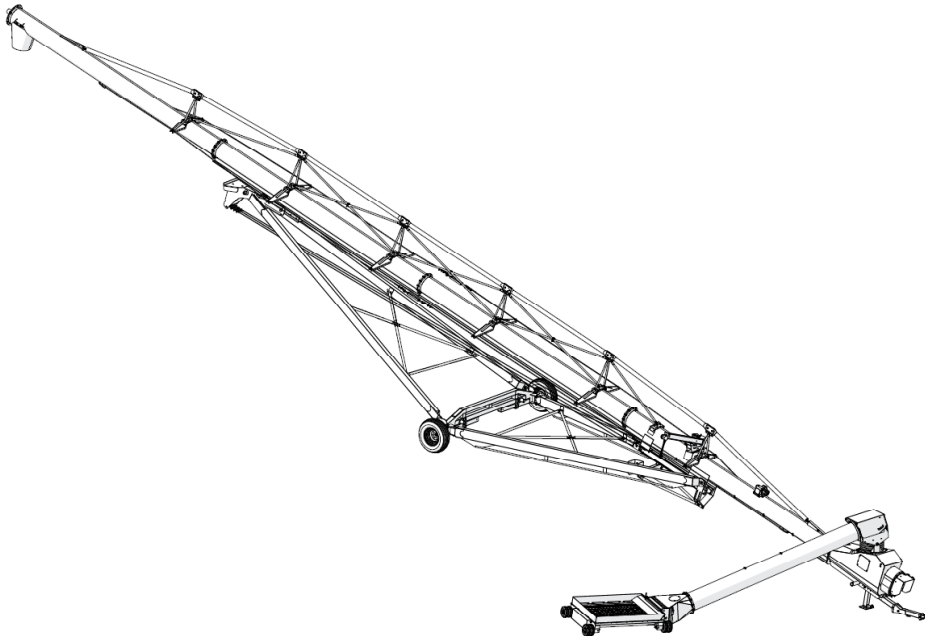
Westfield MKX16-85, MKX16-105, MKX16-125

AGI X16-85, X16-105, X16-125

Hutchinson HX16-85, HX16-105, HX16-125

Mayrath HX16-85, HX16-105, HX16-125

GrainMaxx GMX16-105, GMX16-125



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Parts Catalog!



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.

Part Number: 30869 R11

Revised: June 2023

Original Instructions

New in this Manual

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

Description	Section
Updated ram guide	Section 4.5.2 – Install the 105'/125' Hydraulic Lift Cylinders on page 35
Replaced the work light flood lamps	Section 4.27 – Install Work Lights on page 89

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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.



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



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



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



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

2.2. General Safety Information

Read and understand all safety instructions, safety decals, and manuals and follow them when assembling the equipment.

- Only experienced personnel who are familiar with this type of assembly and installation should perform this work. Untrained assemblers/installers expose themselves and bystanders to possible serious injury or death.
- Do not modify the auger in any way or deviate from the instructions in this manual without written permission from the manufacturer. Unauthorized modification or methods may impair the function and/or safety. Any unauthorized modification will void the warranty.
- Follow a health and safety program for your worksite. Contact your local occupational health and safety organization for information.
- Contact your local representative or AGI if you need assistance or additional information.
- Always follow applicable local codes and regulations.



2.3. Rotating Flighting Safety

DANGER

- 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. Rotating Parts Safety

WARNING

- Keep body, hair, and clothing away from rotating shafts, 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.



2.5. Hydraulic Winch Safety

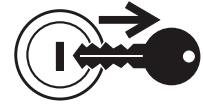
WARNING

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.

2.6. 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 unplug or remove the key (as applicable) 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 all personnel are clear before turning on power to equipment.



2.6.1 PTO Driveline Safety

WARNING 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.

2.6.2 Hydraulic Power Safety

WARNING Power Source

- Refer to the rules and regulations applicable to the power source operating the hydraulic system.
- 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.



2.7. 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.

2.8. Personal Protective Equipment

The following Personal Protective Equipment (PPE) should be worn when assembling 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.



Hearing Protection

- Wear ear protection to prevent hearing damage.



2.9. 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.



2.10. 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.

2.10.1 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.

2.10.2 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.

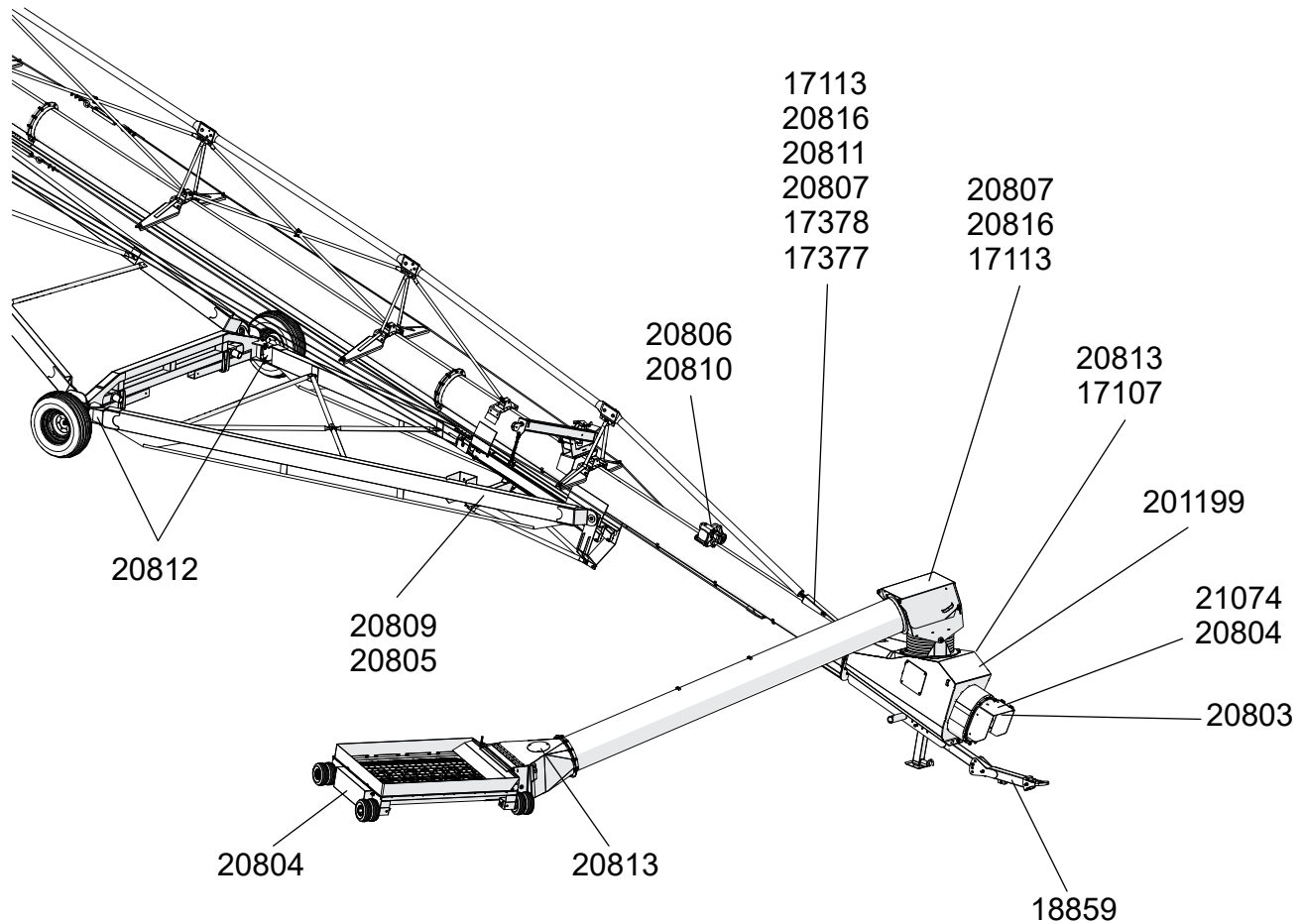


Table 1. Safety Decals



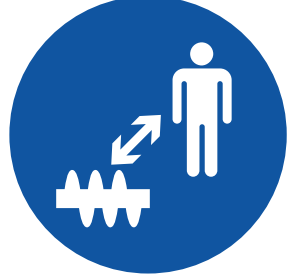












Part Number	Description					
20813	<div style="border: 1px solid black; padding: 10px;"> <div style="background-color: red; color: white; text-align: center; padding: 5px;">  DANGER </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;">   </div> <div style="text-align: center; margin-top: 10px;"> <p>ROTATING FLIGHTING HAZARD</p> <p>To prevent death or serious injury:</p> <ul style="list-style-type: none"> 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. </div> </div>					
201199	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td data-bbox="397 1333 568 1480" style="text-align: center; vertical-align: middle;">  </td> <td data-bbox="576 1333 852 1627"> <div style="background-color: red; color: white; text-align: center; padding: 2px;">  DANGER </div> <p style="text-align: center; margin-top: 5px;">ROTATING PTO DRIVELINE</p> <p>To prevent serious injury or death:</p> <ul style="list-style-type: none"> 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. </td> <td data-bbox="868 1333 1120 1459"> <div style="background-color: red; color: white; text-align: center; padding: 2px;">  DANGER </div> <p style="text-align: center; margin-top: 5px;">ROTATING FLIGHTING INSIDE</p> <p>To prevent serious injury or death, do not operate auger unless swing-hopper is securely attached to boot.</p> </td> </tr> <tr> <td data-bbox="397 1491 568 1627" style="text-align: center; vertical-align: middle;">  </td> <td data-bbox="868 1480 1120 1627"> <div style="background-color: blue; color: white; text-align: center; padding: 2px;"> NOTICE </div> <p style="text-align: center; margin-top: 5px;">To prevent damage, wheels must be free to move when raising or lowering equipment.</p> <p>When equipment is positioned, chock all wheels.</p> </td> </tr> </table>		<div style="background-color: red; color: white; text-align: center; padding: 2px;">  DANGER </div> <p style="text-align: center; margin-top: 5px;">ROTATING PTO DRIVELINE</p> <p>To prevent serious injury or death:</p> <ul style="list-style-type: none"> 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. 	<div style="background-color: red; color: white; text-align: center; padding: 2px;">  DANGER </div> <p style="text-align: center; margin-top: 5px;">ROTATING FLIGHTING INSIDE</p> <p>To prevent serious injury or death, do not operate auger unless swing-hopper is securely attached to boot.</p>		<div style="background-color: blue; color: white; text-align: center; padding: 2px;"> NOTICE </div> <p style="text-align: center; margin-top: 5px;">To prevent damage, wheels must be free to move when raising or lowering equipment.</p> <p>When equipment is positioned, chock all wheels.</p>
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Table 1 Safety Decals (continued)


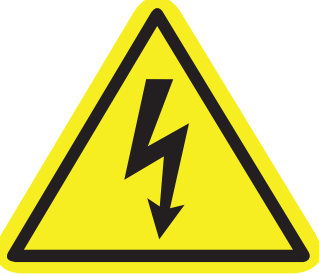
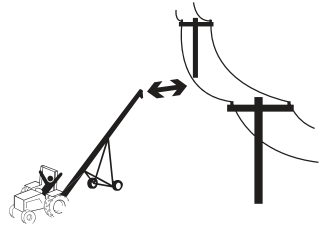

Part Number	Description
20816	<div style="border: 2px solid black; padding: 10px;"> <div style="background-color: red; color: white; text-align: center; padding: 5px;">  DANGER </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <div style="text-align: center; margin-top: 10px;"> <p>ELECTROCUTION HAZARD</p> <p>To prevent death or serious injury:</p> <ul style="list-style-type: none"> • When operating or moving, keep equipment away from overhead power lines and devices. • Fully lower equipment before moving. <p>This equipment is not insulated.</p> <p>Electrocution can occur without direct contact.</p> </div> </div>
17113	<div style="border: 2px solid black; padding: 10px;"> <div style="background-color: orange; color: white; text-align: center; padding: 5px;">  WARNING </div> <div style="text-align: center; margin-top: 10px;"> <p>TRANSPORT HAZARD</p> <p>To prevent serious injury or equipment damage, before towing:</p> <ul style="list-style-type: none"> • Lift up wheel frame completely and secure with safety chain. • Pull handle to disengage drive wheel motors. </div> </div>

Table 1 Safety Decals (continued)



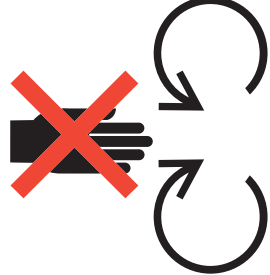
Part Number	Description
20804	<div style="border: 2px solid black; padding: 10px;"> <div style="background-color: #f4a460; padding: 5px; text-align: center; font-weight: bold; font-size: 1.2em;">  WARNING </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <div style="text-align: center; margin-top: 10px;"> <p>ENTANGLEMENT HAZARD</p> <p>To prevent serious injury or death:</p> <ul style="list-style-type: none"> • 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. </div> </div>

Table 1 Safety Decals (continued)


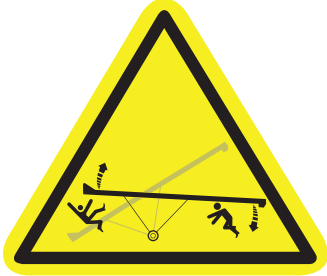

Part Number	Description
20811	<div style="border: 2px solid black; padding: 10px;"> <div style="background-color: #f4a460; padding: 5px; text-align: center; border: 1px solid black;">  WARNING </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <div style="margin-top: 10px;"> <p style="text-align: center; font-weight: bold; font-size: 18px;">UPENDING HAZARD</p> <p>To prevent death or serious injury:</p> <ul style="list-style-type: none"> • 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. </div> </div>

Table 1 Safety Decals (continued)




Part Number	Description
20807	<div style="border: 2px solid black; padding: 10px;"> <div style="background-color: #f4a460; padding: 5px; text-align: center; font-weight: bold; font-size: 1.2em;">  WARNING </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <div style="margin-top: 10px;"> <p>To prevent serious injury or death:</p> <ul style="list-style-type: none"> • 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. </div> </div>

Table 1 Safety Decals (continued)

Part Number	Description				
20803	<div style="border: 1px solid black; padding: 5px;"> <div style="background-color: #f4a460; padding: 2px; text-align: center;"> WARNING</div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; text-align: center; vertical-align: middle;"></td> <td style="padding: 5px;"> <p>MISSING GUARD HAZARD</p> <p>To prevent serious injury or death, shut off power and reattach guard before operating machine.</p> </td> </tr> <tr> <td style="text-align: center; vertical-align: middle;"></td> <td></td> </tr> </table> </div>		<p>MISSING GUARD HAZARD</p> <p>To prevent serious injury or death, shut off power and reattach guard before operating machine.</p>		
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Table 1 Safety Decals (continued)

Part Number	Description
20805	<div style="border: 1px solid black; padding: 10px;"> <div style="background-color: #f4a460; padding: 5px; text-align: center; font-weight: bold; font-size: 1.2em;"> WARNING </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <div style="text-align: center;"> </div> <div style="text-align: center;"> </div> </div> <div style="margin-top: 10px;"> <p style="text-align: center; font-weight: bold; font-size: 1.1em;">HIGH PRESSURE FLUID HAZARD</p> <p>Hydraulic fluid can cause serious injury if it penetrates the skin. If it does, see a doctor immediately.</p> <ul style="list-style-type: none"> 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. </div> </div>
20806	<div style="border: 1px solid black; padding: 10px;"> <div style="display: flex; justify-content: space-between; align-items: center; margin-bottom: 10px;"> <div style="text-align: center;"> </div> <div style="background-color: #f4a460; padding: 5px; text-align: center; font-weight: bold; font-size: 1.2em;"> WARNING </div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-bottom: 10px;"> <div style="text-align: center;"> </div> <div style="margin-left: 20px;"> <p style="text-align: center; font-weight: bold; font-size: 1.1em;">HIGH PRESSURE FLUID HAZARD</p> <p>Hydraulic fluid can cause serious injury if it penetrates the skin. If it does, see a doctor immediately.</p> <ul style="list-style-type: none"> 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. </div> </div> </div>
20812	<div style="border: 1px solid black; padding: 10px;"> <div style="display: flex; justify-content: space-between; align-items: center; margin-bottom: 10px;"> <div style="text-align: center;"> </div> <div style="text-align: center;"> </div> <div style="background-color: #f4a460; padding: 5px; text-align: center; font-weight: bold; font-size: 1.2em;"> WARNING </div> </div> <div style="margin-left: 20px;"> <p style="text-align: center; font-weight: bold; font-size: 1.1em;">ROLLOVER / TRANSPORT HAZARD</p> <p>To prevent serious injury or death:</p> <ul style="list-style-type: none"> Fully extend axles before raising tube. Retract axles before transporting. </div> </div>

Table 1 Safety Decals (continued)



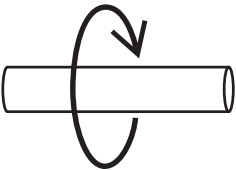

Part Number	Description
22950	<div style="border: 2px solid black; padding: 10px;"> <div style="background-color: #f4a460; padding: 5px; text-align: center;">  WARNING </div> <div style="display: flex; justify-content: space-between; padding: 10px 0;"> <div style="width: 45%; text-align: center;">  </div> <div style="width: 50%; padding-left: 10px;"> <p>Moving Parts will cause severe injury. KEEP AWAY</p> </div> </div> <div style="display: flex; justify-content: space-between; padding: 10px 0;"> <div style="width: 30%; text-align: center;">  </div> <div style="width: 65%; padding-left: 10px;"> <p>ROTATING SHAFT Keep hair and loose clothing away</p> </div> </div> </div>
17107	<div style="border: 2px solid black; padding: 10px;"> <div style="background-color: #ffff00; padding: 5px; text-align: center;">  CAUTION </div> <div style="padding: 10px;"> <p>To prevent personal injury or damage to equipment, close valve in lift cylinder hydraulic line after raising equipment into position.</p> </div> </div>

Table 1 Safety Decals (continued)


Part Number	Description
22957	<div style="border: 2px solid black; padding: 10px;"> <div style="background-color: yellow; text-align: center; padding: 5px;">  CAUTION </div> <div style="padding: 10px;"> <ol style="list-style-type: none"> 1. SHUT OFF PTO when retracting or extending swing to or from its fully retracted position. 2. Engaging spline shaft with PTO running will damage the machine. 3. Make certain everyone is clear of the equipment before applying power or moving the machine. </div> </div>
17378	<div style="border: 2px solid black; padding: 10px;"> <div style="background-color: blue; color: white; text-align: center; padding: 5px; font-weight: bold; font-size: 18pt;">NOTICE</div> <div style="padding: 10px;"> <p>This equipment is not intended for transport on public roads. If it must be moved, check local regulations. To avoid damaging the equipment:</p> <ul style="list-style-type: none"> • Be careful when turning corners. • Watch for low overhead objects. • Retract axles before transporting unit. </div> </div>
17377	<div style="border: 2px solid black; padding: 10px;"> <div style="background-color: blue; color: white; text-align: center; padding: 5px; font-weight: bold; font-size: 18pt;">NOTICE</div> <div style="padding: 10px;"> <p>To lower equipment, start tractor, then engage hydraulic lever in down position.</p> <ul style="list-style-type: none"> • This pumps oil to upper chamber of the hydraulic cylinders preventing overfill of tractor reservoir. </div> </div>

Table 1 Safety Decals (continued)

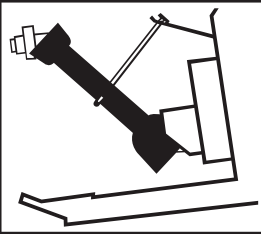




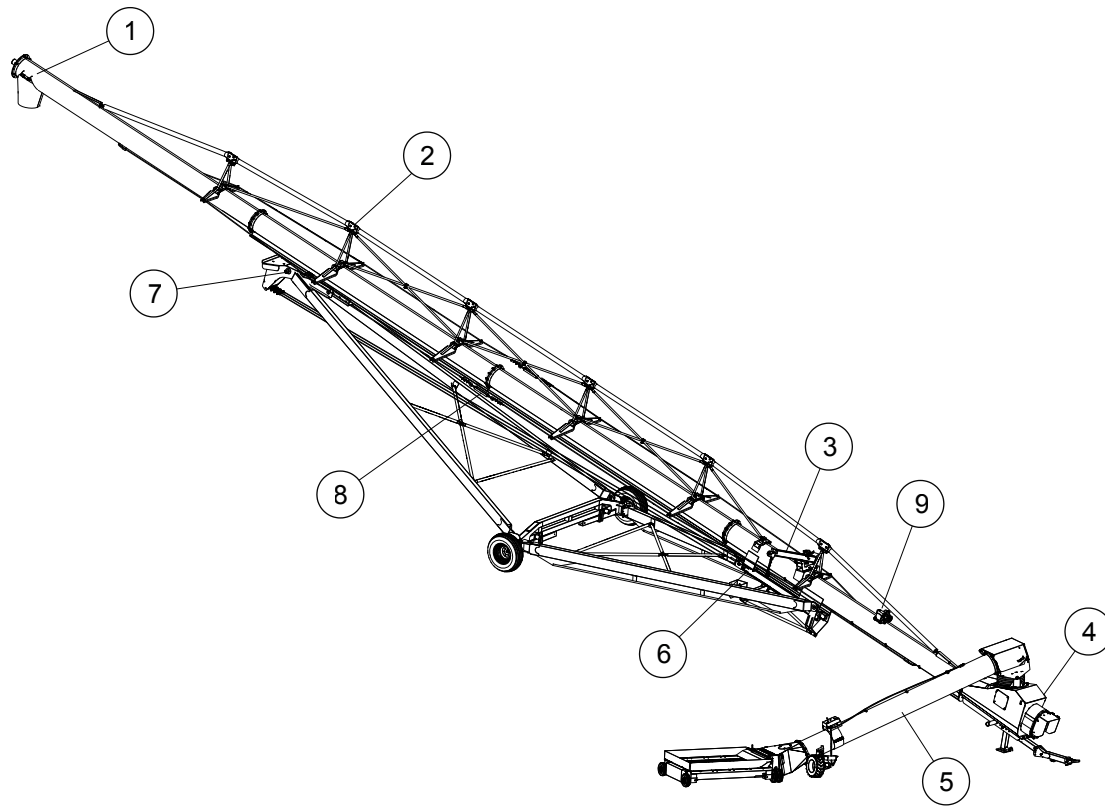
Part Number	Description
18859	<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; background-color: #0056b3; color: white; margin: 0;">NOTICE</p>  <p>Disconnect PTO driveline from tractor before moving equipment.</p> <p>If attached, driveline will bottom out, severely damaging the CV u-joint and lower flight shaft.</p> <p>See manual for maintenance.</p> </div>
22948	<div style="border: 1px solid black; padding: 10px;"> <p style="text-align: center; background-color: #0056b3; color: white; margin: 0;">NOTICE</p> <p>DO NOT operate the PTO when retracted past this point. </p> <p>Failure to follow could result in equipment damage. </p> </div>
22949	<div style="border: 1px solid black; padding: 10px;"> <p style="text-align: center; background-color: #0056b3; color: white; margin: 0;">NOTICE</p> <p> DO NOT operate the PTO when retracted past this point.</p> <p> Failure to follow could result in equipment damage.</p> </div>

Table 1 Safety Decals (continued)

Part Number	Description
21074	<div style="border: 1px solid black; padding: 10px;"> <div style="background-color: #0056b3; color: white; text-align: center; padding: 5px; font-weight: bold; font-size: 1.2em;">NOTICE</div> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="flex: 1;"> <p>To prevent damage during auger-to-tractor hookup:</p> <ul style="list-style-type: none"> 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. <p>See operation manual for complete details. </p> </div> <div style="flex: 1; text-align: center;"> </div> </div> </div>
22952	<div style="border: 1px solid black; padding: 10px; background-color: #f0f0f0;"> <div style="text-align: center; margin-bottom: 20px;"> </div> <div style="display: flex; justify-content: space-around; text-align: center;"> <div> <p>SWING</p> </div> <div> <p>TIP-UP</p> </div> <div> <p>XTEND</p> </div> </div> <p style="font-size: 0.8em; margin-top: 10px;">Patents: CA 2,683,843; US 7,946,416; Other Patents Pending</p> </div>

3. Features

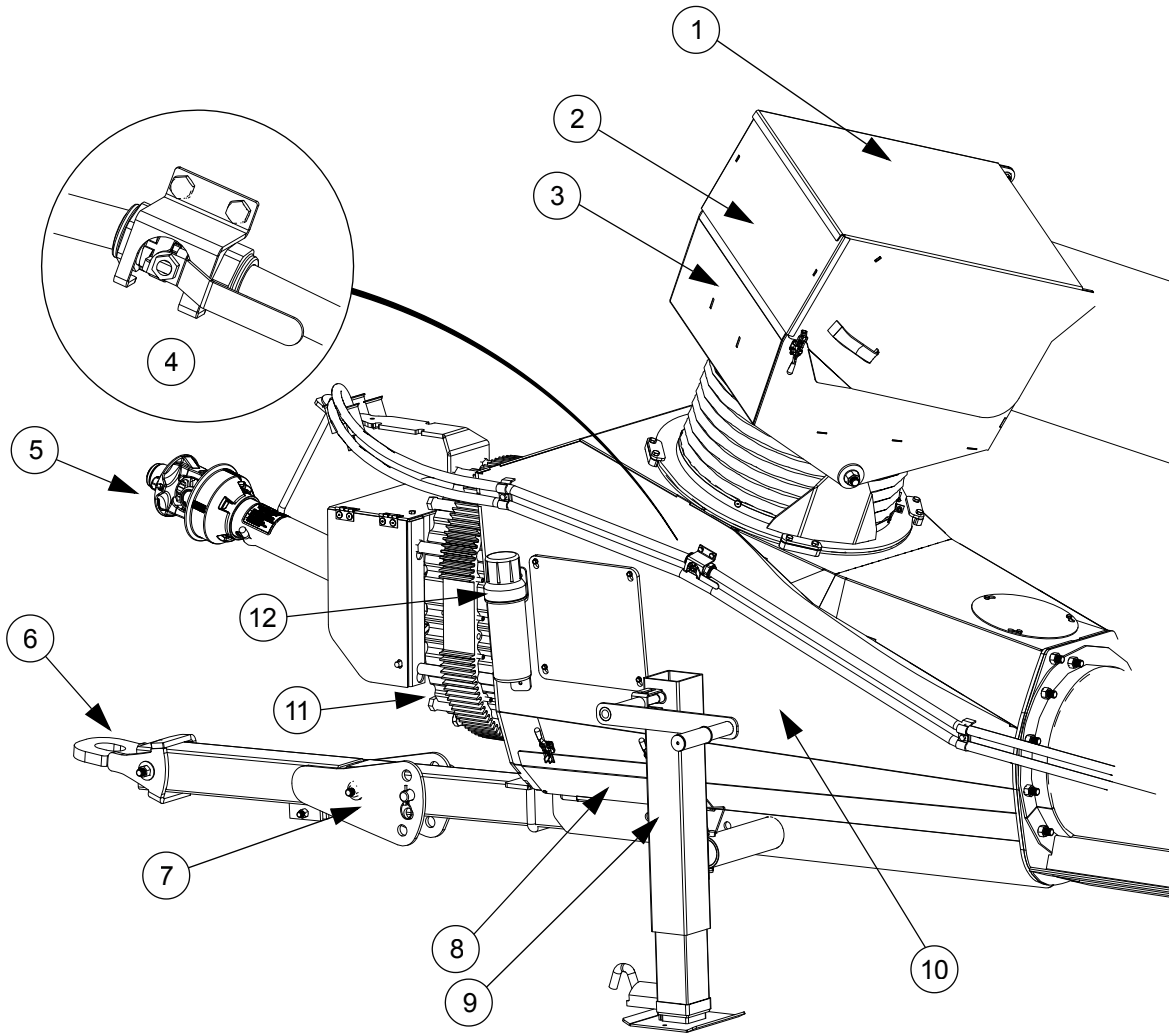
Read this section to familiarize yourself with the basic component names and functions of the auger.



1	Discharge Spout	6	Hydraulic Cylinders
2	Truss Tower	7	Track
3	Lift Arm	8	Cable Adjustment
4	Boot	9	Hydraulic Winch
5	Swing		

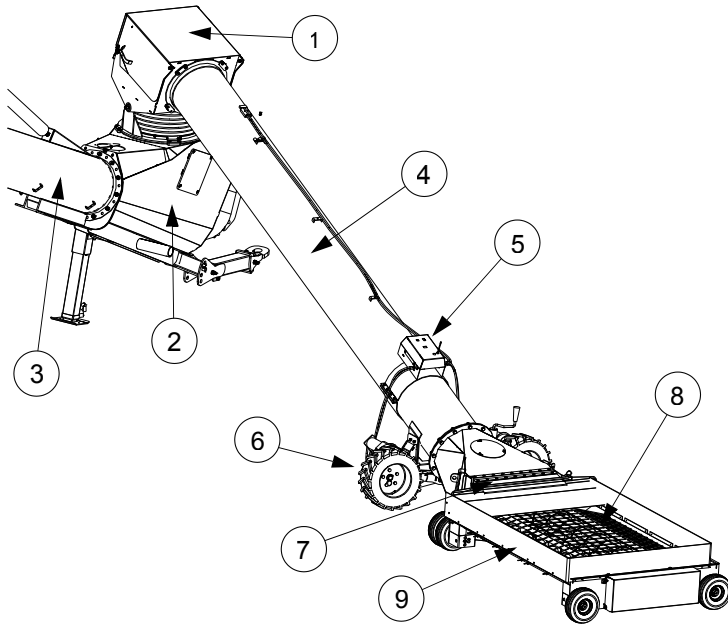
Also included: Work Lights and Transport Lights

Grain Transfer Boot Features



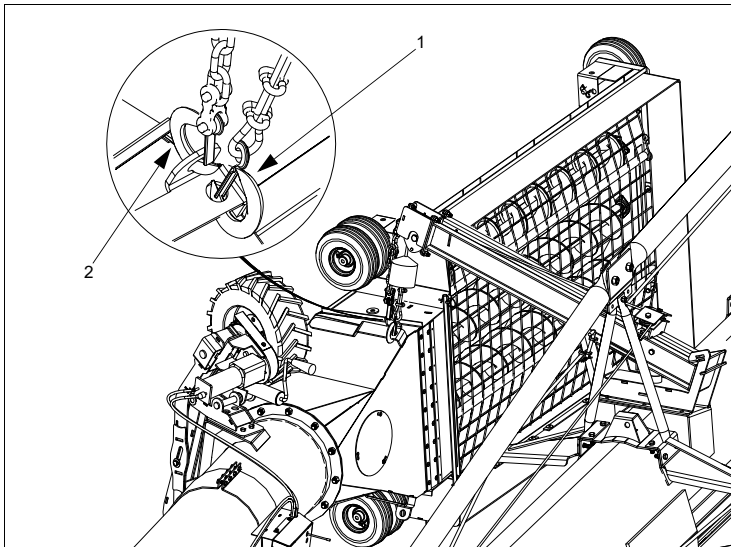
1	Spout Head Service Cover	7	Hitch Angle Adjuster
2	Spout Head Overflow Panel	8	Clean-Out Hatch
3	Spout Head	9	Jack
4	Auger Tube Lift Valve	10	Grain Transfer Boot
5	PTO Driveline	11	Speed Reducer Gearbox
6	Hitch	12	Manual Holder

Grain Hopper Features



1	Spout Head
2	Boot
3	Main Auger
4	Swing Auger
5	Power Swing Remote Transmitter
6	Power Swing Drive Wheels
7	Cleanout Hatch
8	Flights and Flight Guarding
9	Intake Hopper

Grain Hopper Lifted into Transport Position



1	Winch Cable and Hook
2	Safety Chain and Hook

4. Assembly

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.
 - Do not stand on, under, or near any component that is not secured.
 - 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. Check Shipment

Unload the auger parts at the assembly site and compare the packing slip to the shipment contents. Ensure that all items have arrived and that none are damaged. Take pictures of shipments prior to, or just after, unloading if there are any damages.

Report missing or damaged parts immediately to ensure that proper credit is received from AGI or your representative, and to ensure that any missing parts can be shipped quickly to avoid holding up the assembly process.

Important

Do not assemble or install damaged components.

4.3. Before You Begin

Before you assemble the auger:

- Familiarize yourself with all the sub-assemblies, components, and hardware that make up the equipment.
- Have all parts and components on hand, and arrange them for easy access.
- Separate the hardware (bolts, nuts, etc.) and lay them out into groups for easier identification during assembly.
- If assembling inside, confirm the ceiling and door width/height provide enough clearance when installing the undercarriage and to remove the auger from the building.
- Ensure there is adequate space to remove the assembled auger from the assembly area.

4.4. Assemble the Auger Tube

4.4.1 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 1. Upper Auger Tube Sections (All Models)

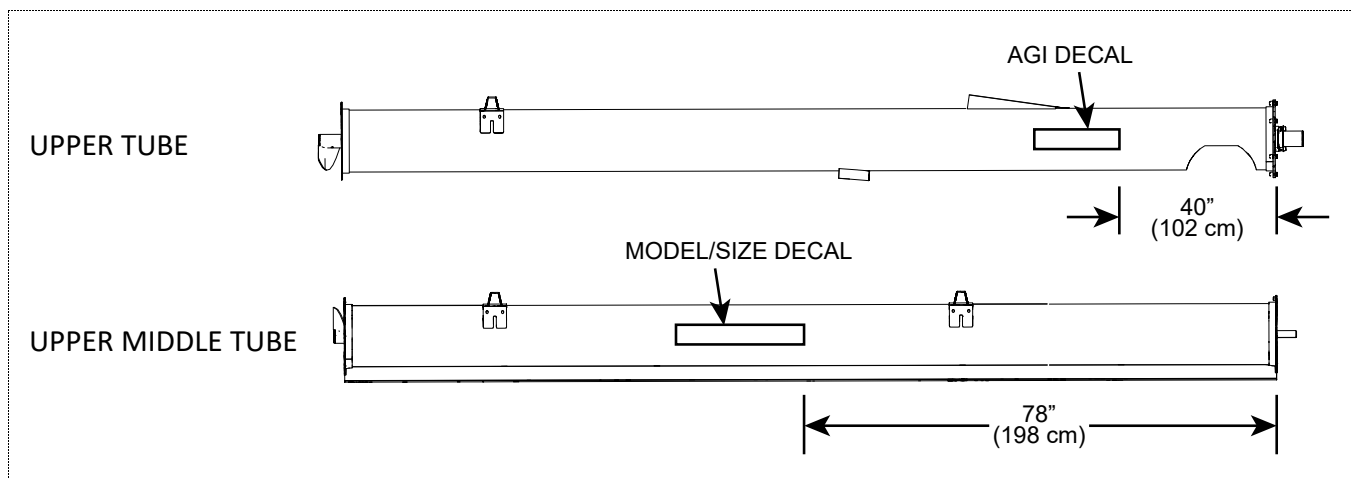


Figure 2. 85' Auger Tube Sections

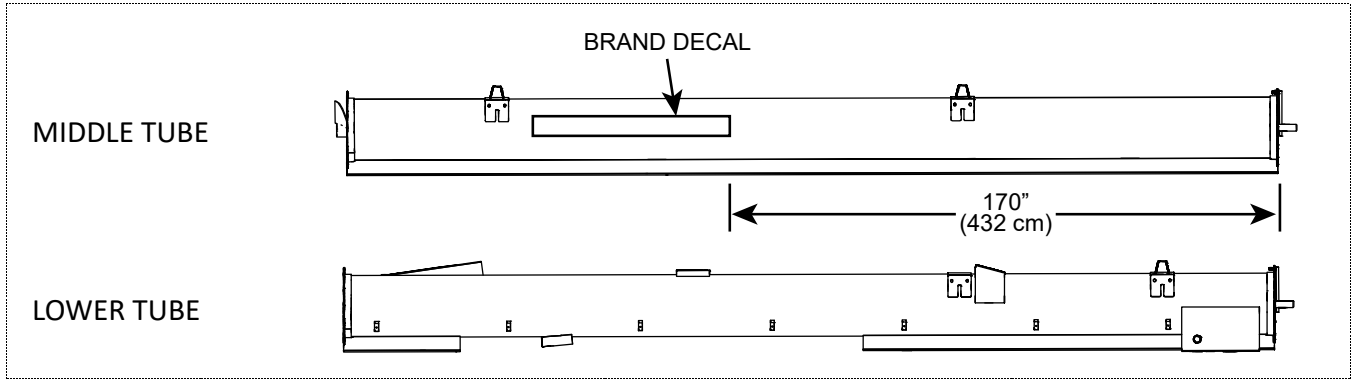


Figure 3. 105' Auger Tube Sections

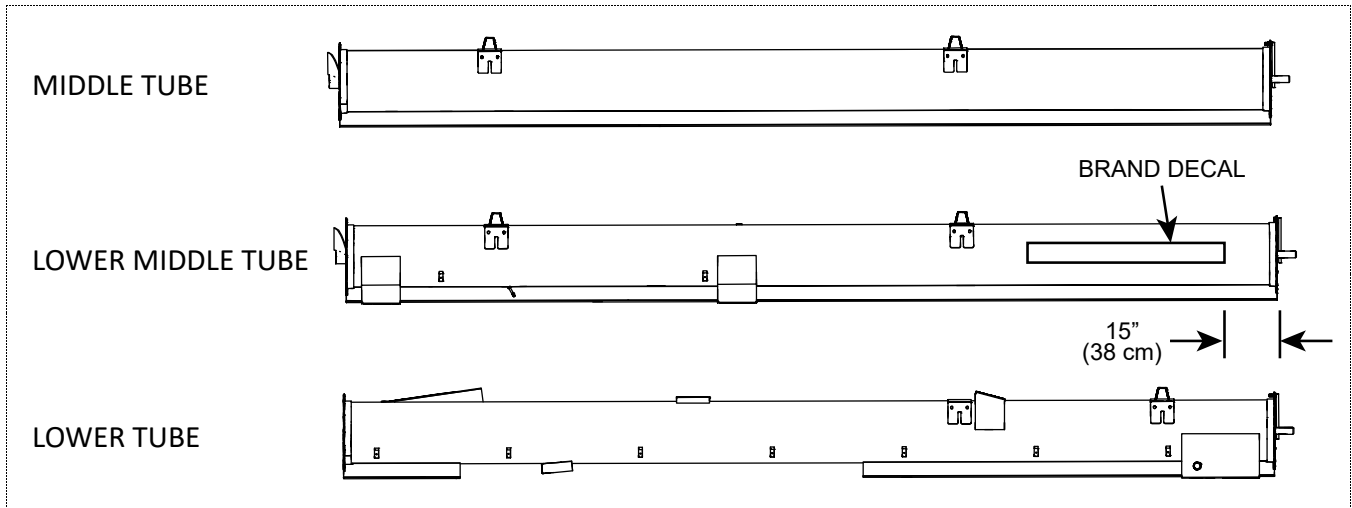
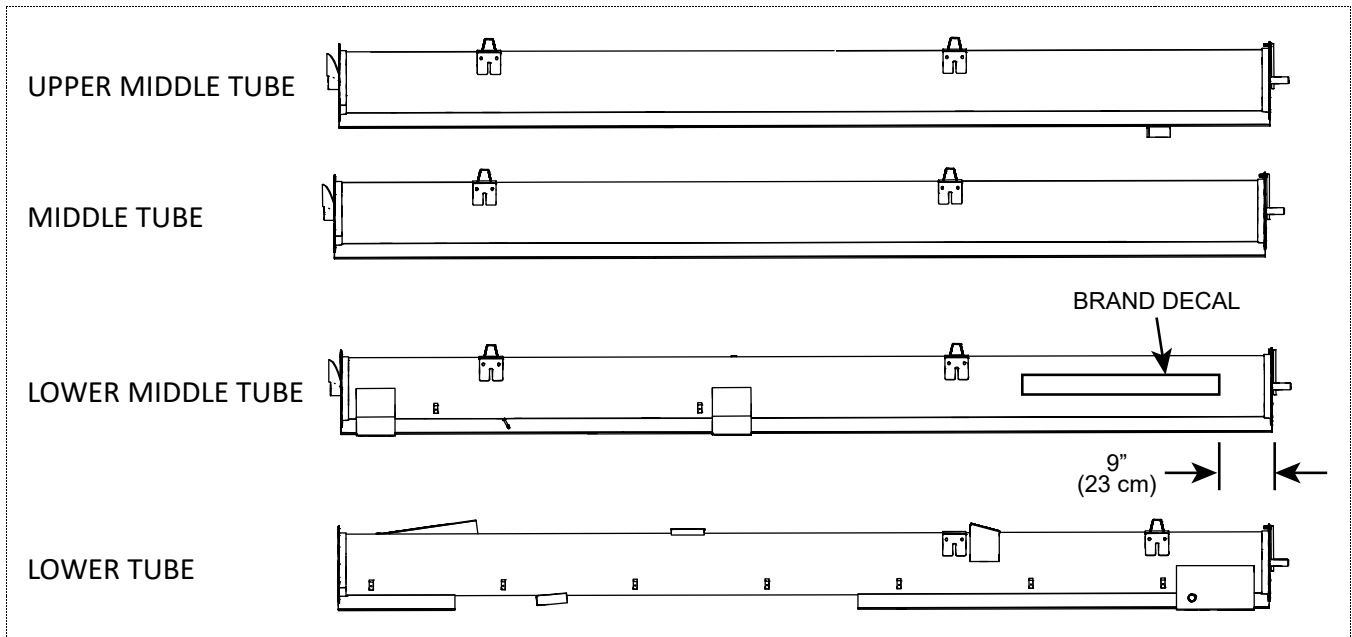


Figure 4. 125' Auger Tube Sections

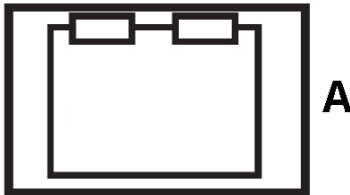


Apply the Logo and Model Decals on the Auger Tubes

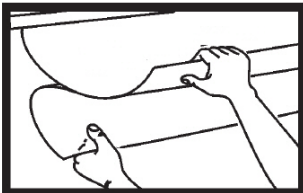
Important

Do not cover any existing safety or instruction decals with the model decals.

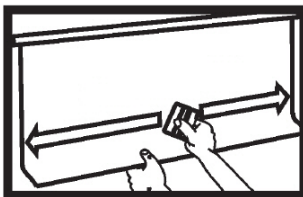
1. Prepare surface by cleaning thoroughly with soap and water. Surface must be clean and free of dirt, grime, rust and oil. To clean oily surface, wipe with clean cloth and solvent cleaner or isopropyl alcohol.
2. Apply decals to both sides of the auger tube. Center decals vertically on the tube and apply masking tape along the top, creating a gate hinge. Figure A demonstrates.
3. Remove backing paper from decal 6" (15.2 cm) 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" (15.2 cm) 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.



A



B



C

4.4.2 Connect Auger Tubes

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, working from the discharge end (upper tube) toward the intake end (lower tube).
2. Align flightings to ensure a continual spiral of auger surface, and connect flight shafts with 5/8" x 4-1/2" bolts and 5/8" lock nuts.
3. As flight shafts are connected, slide tube sections together and secure with eleven 5/8" x 1-1/2" GR8 bolts and 5/8" lock nuts. Use three 5/8" x 3" GR8 bolts and lock nuts for the flange section where the two sections of tube track meet (see [Figure 5](#)), or a single 5/8" x 2-1/2" GR8 bolt where tube track meets a flanged section without a tube track (see [Figure 6](#)).

Table 2. Connecting Auger Tube Sections and Flights

Item	Description	Tube Connection(Track-to-Track)	Tube Connection(Track-to-Flange)
1	5/8" x 4-1/2" bolt	1	1
2	5/8" x 1-1/2" bolt	11	11
3	5/8" x 3" bolt	3	0
4	5/8" x 2-1/2" bolt	0	1
5	5/8" nut	15	13

Note

Use a straight-edge to align tracks to ensure a smooth path for the track shoe ([Figure 5 on page 31](#)).

Figure 5. Track-to-Track Tube Section Connections

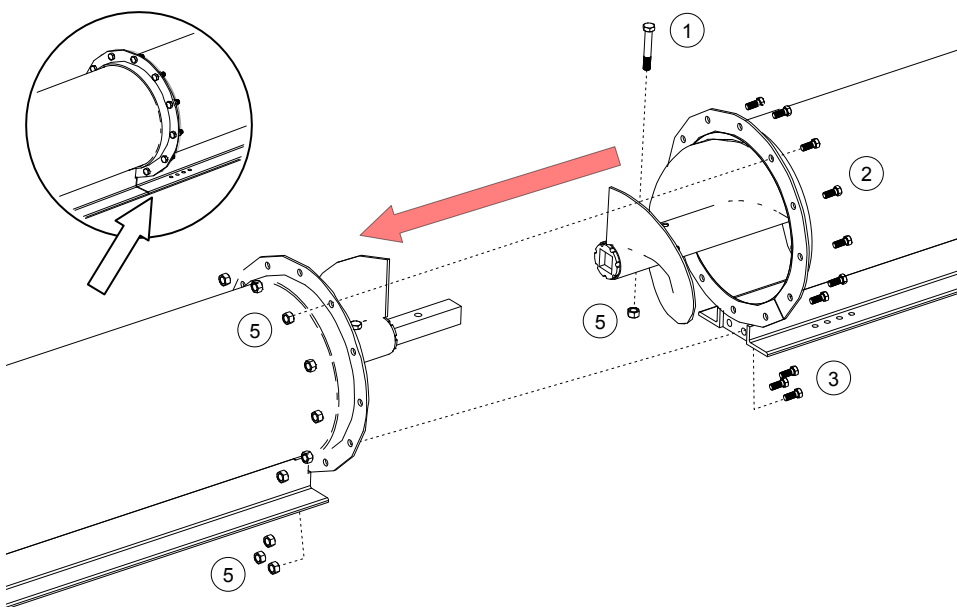
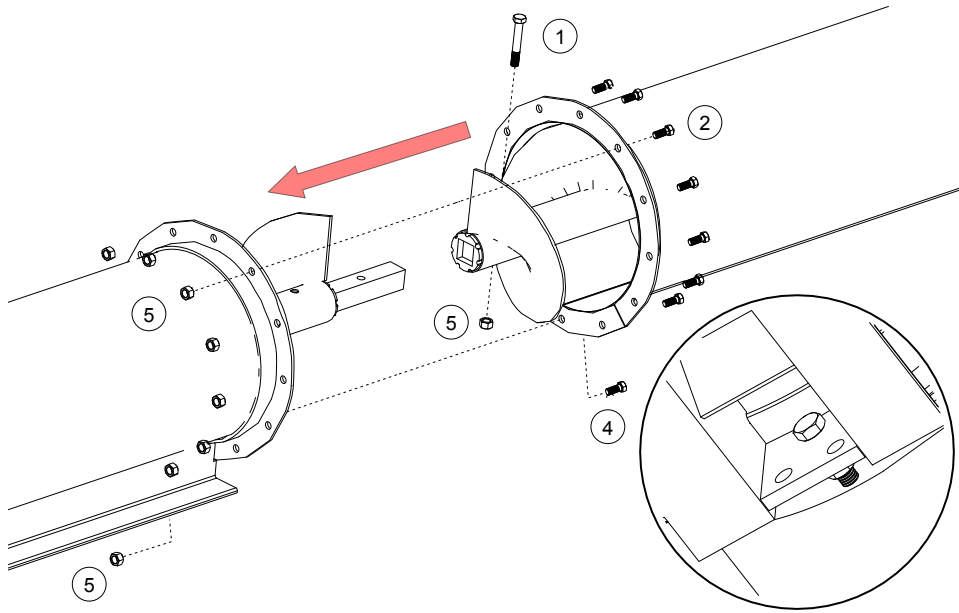


Figure 6. Track-to-Flange Tube Section Connection



4.5. Hydraulic Lift Cylinders

4.5.1 Install the 85' Hydraulic Lift Cylinders

1. Identify the tube section where the hydraulic lift cylinders install, and note the location of the cylinder mounts.
2. Slide the cylinder rod guide onto the end of the track closest to where the lift cylinders install. Ensure that gussets of ram guide are facing the discharge end.

Note

The hydraulic lift cylinders must be positioned with the rod end towards the discharge end of auger.

Important

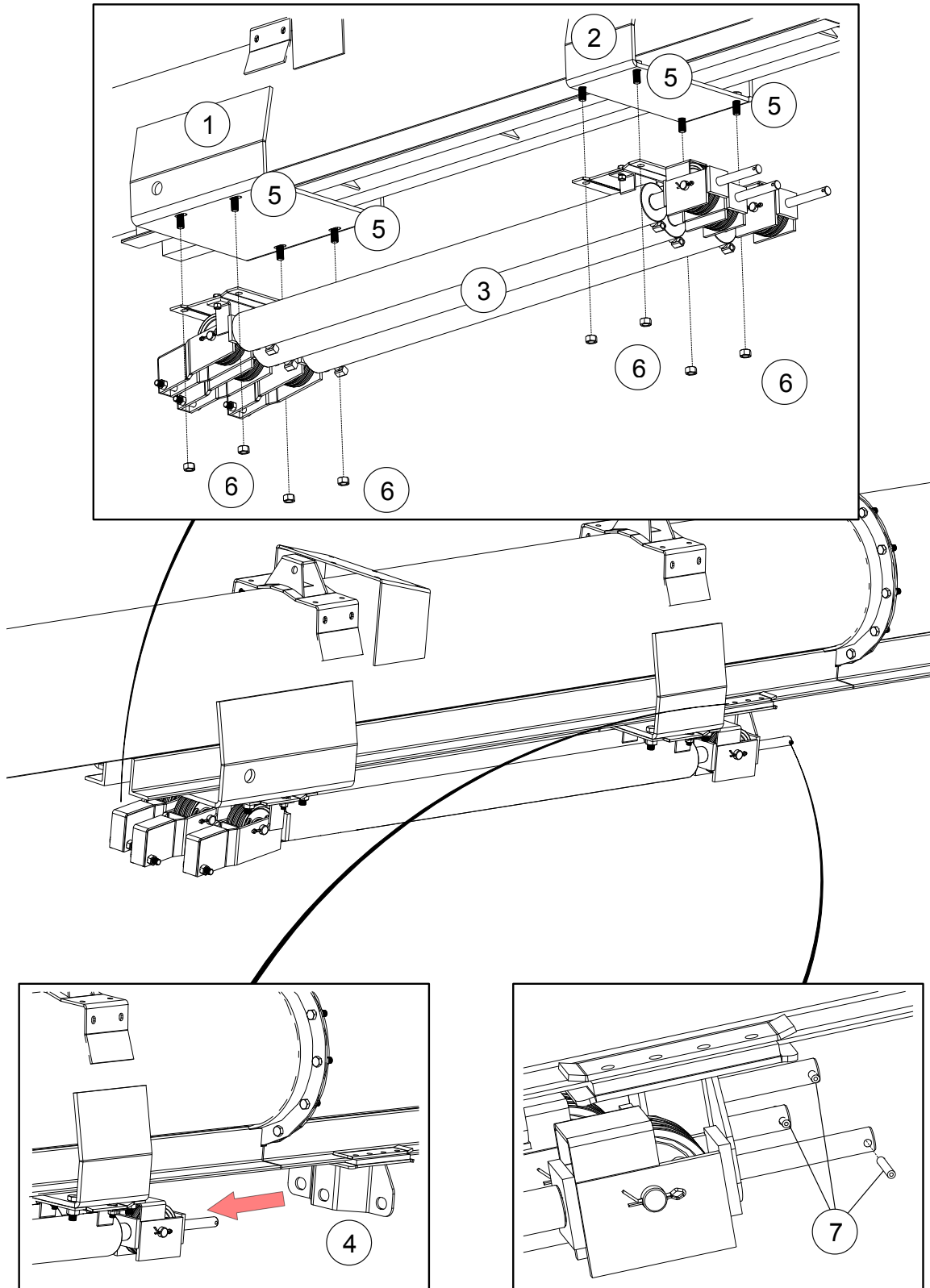
Always use a fork lift to lift hydraulic cylinders during installation.

3. Use a sling around all 3 cylinders, and align cylinders to tube, as shown. Lift up hydraulic cylinders to position, and fasten hydraulic cylinders to cylinder attach brackets and back-arm bracket with eight 3/4" x 2" GR8 bolts and lock nuts.
4. Slide the cylinder rod guide toward the lift cylinders until the rod ends pass through the three holes provided on the cylinder rod guide, and then insert a 5/16" x 2" roll pin into the hole on the end of each cylinder rod to prevent separation of rods and cylinder arm guide.
5. Ensure all bolts are fully tight.

Table 3. Install the 85' Hydraulic Lift Cylinders

Item	Description	Quantity
1	Back-arm bracket	1
2	Cylinder-mount bracket	1
3	Hydraulic cylinder assembly	1
4	Cylinder rod guide	1
5	3/4" x 2" GR8 bolts	8
6	3/4" nuts	8
7	5/16" x 2" roll pin	3

Figure 7. Installing the Lift Cylinders (85')



4.5.2 Install the 105'/125' Hydraulic Lift Cylinders

1. Identify the tube section where the hydraulic lift cylinders install, and note the location of the tube cylinder mounts.
2. Ensure that the tube cylinder mounts are facing down.
3. Fasten two rear cylinder attach brackets to the rear cylinder mounts with eight 5/8" x 2" GR8 bolts and lock nuts.
4. Loosely fasten the two front cylinder attach brackets and half clamps to the front of the cylinders with eight 1/2" x 1-3/4" bolts and lock nuts.
5. Slide the cylinder rod guide onto the end of the track closest to where the lift cylinders install.

Note

The hydraulic lift cylinders must be positioned with the rod end towards the discharge end of auger.

6. For each hydraulic cylinder:
 - a. Use forklift to lift the rear end of the cylinder and position it at a rear cylinder attach bracket. Insert a hydraulic cylinder pin into the hole, and secure with a 7/16" x 3-1/2" bolt and lock nut. Tighten securely.
 - b. Use the forklift to lift and support the front end of the cylinder in place on a front cylinder mount, and adjust the front cylinder attach bracket and half clamp to align with the bolt holes in the front cylinder mounts.
 - c. Fasten the front cylinder attach bracket to the front cylinder mount using four 5/8" x 2" bolts and lock nuts.
 - d. Tighten the four 1/2" x 1-3/4" bolts and lock nuts that fasten the cylinder attach bracket and half clamp together.
7. Slide the cylinder rod guide toward the lift cylinders until the rod ends pass through the two holes provided on the cylinder ram guide, and then secure with a 1/2" X 1-1/2" bolt and a 1/2" lock nut to prevent separation of rods and cylinder arm guide.

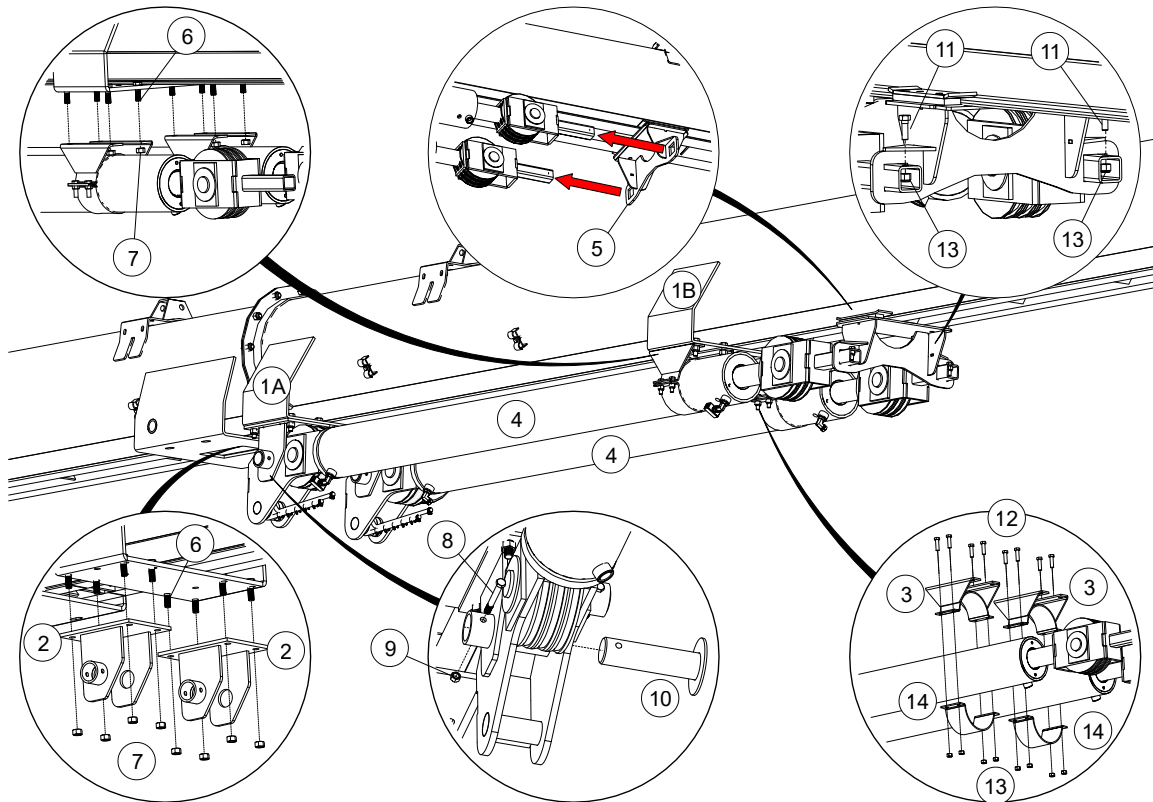
Table 4. Install the 105'/125' Hydraulic Lift Cylinders

Item	Description	Quantity
1A	Rear cylinder-mount	1
1B	Front cylinder mount	1
2	Rear cylinder-attach brackets	2
3	Front cylinder-attach brackets	2
4	Hydraulic cylinder	2
5	Cylinder rod guide	1
6	5/8" x 2" GR8 bolts	16
7	5/8" lock nuts	16
8	7/16" x 3-1/2" bolt	2
9	7/16" lock nut	2
10	Cylinder pin	2
11	1/2 x 1-1/2" bolt	2

Table 4 Install the 105'/125' Hydraulic Lift Cylinders (continued)

Item	Description	Quantity
12	1/2 x 1-3/4" bolt	8
13	1/2" lock nut	10
14	Half clamp	2

Figure 8. Installing the Lift Cylinders (105'/125')



4.6. Install the Track Shoe and Track Stop

1. Slide the track shoe onto the track.
2. Slide track shoe along full length of track to make sure there is no binding, and that track ends are properly aligned where tube sections meet.
3. Attach the track stop using six 3/4" x 3" GR8 bolts, two track stop spacer plates, and six 3/4" lock nuts.

Important

See [Figure 9](#) for track stop positions for specific auger models.

Figure 9. Track Stop Positions

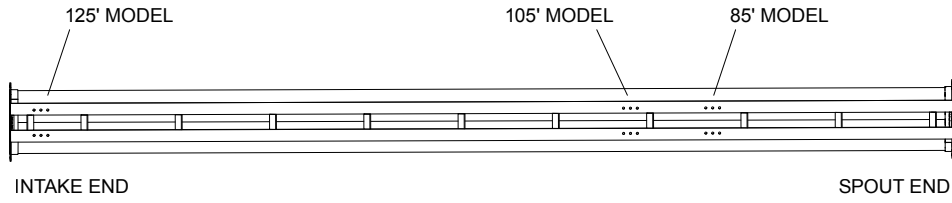
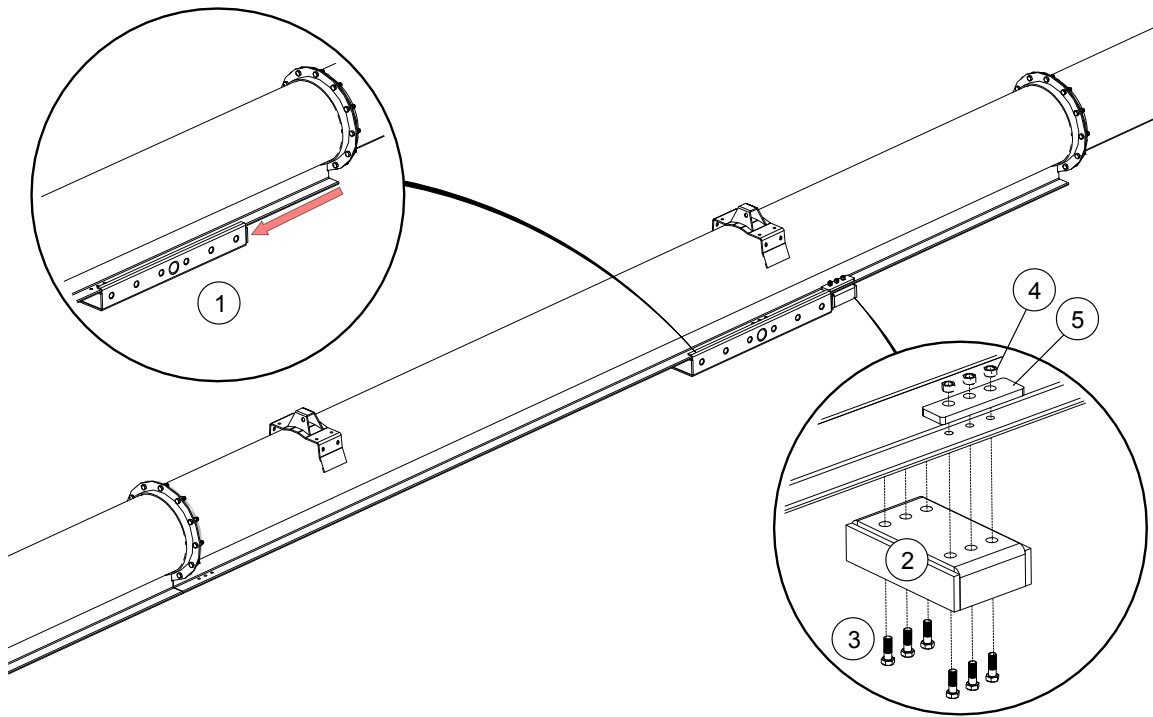


Table 5. Track Shoe and Track Stop

Item	Description	Quantity
1	Track shoe	1
2	Track stop	1
3	3/4" x 3" GR8 bolts	6
4	3/4" nylon lock nut	6
5	Track stop spacer plate	2

Figure 10. Track Shoe and Track Stop



4.7. Install the Boot on the Auger Tube

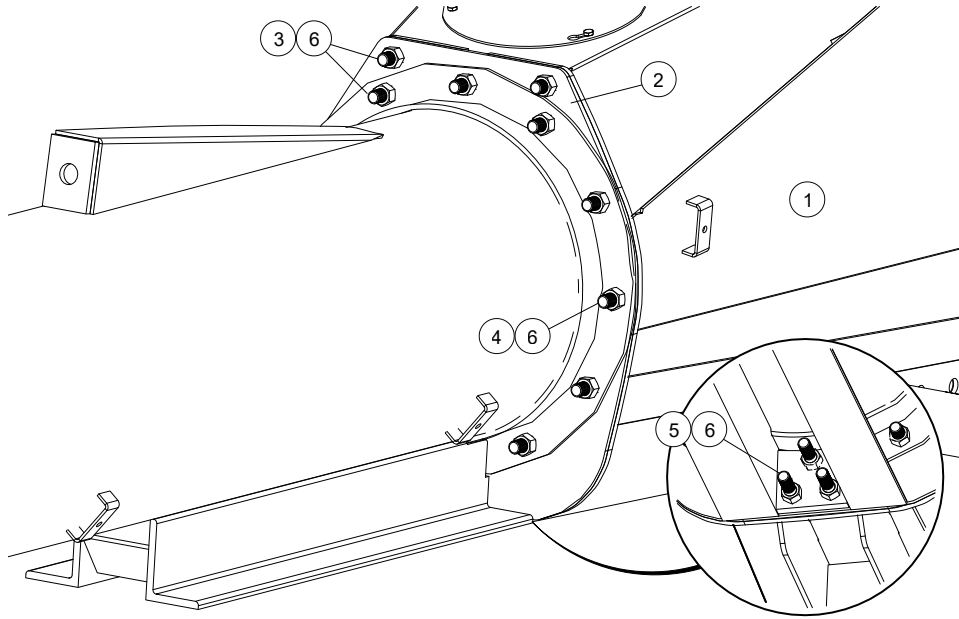
Note

- The boot lower gearbox is sent from the factory filled half way with gear oil (1.7 L [1.8 qt]). Before further assembly, check oil level to make certain the gearbox is half full. Add oil if necessary. Do not use grease.
 - The boot flighting comes pre-installed on the end of the lower tube flighting shaft
1. Remove the 5/8" x 4-1/2" bolt and lock nut that secures the boot flighting to the lower shaft flighting. Place the bolt and nut aside for use refastening the flighting later in the procedure.
 2. Position the boot plate against the boot with flat edge facing up (See [Figure 11](#)), and fasten with two 5/8" x 1-1/2" GR8 bolts at the top of the plate inserted from the boot side of the flange and 5/8" lock nuts.
 3. Slip the boot assembly over the boot flight/lower flighting assembly, angling the boot where required for fit, and rotating the boot flighting during inserting until the boot, boot attach plate, and lower tube flange are aligned and in full contact.
 4. Attach the boot to the lower tube flange according to the following bolt usage:
 - eight 5/8" x 2" GR8 bolts and lock nuts (four on each side),
 - three 5/8" x 1-1/2" GR8 bolts and lock nuts (at the top),
 - three 5/8" x 2-1/2" GR8 bolts and lock nuts (at the bottom).
 5. Fasten the boot flighting to the lower tube flighting using the 5/8" x 4-1/2" bolt and lock nut removed in [Step 1](#).

Table 6. Install the Boot on the Auger Tube

Item	Description	Quantity
1	Grain Transfer Boot	1
2	Boot Attach Plate	1
3	5/8 x 1-1/2" bolt	5
4	5/8 x 2" bolt	8
5	5/8 x 2-1/2" bolt	3
6	5/8" lock nut	16

Figure 11. Install Boot on Auger Tube

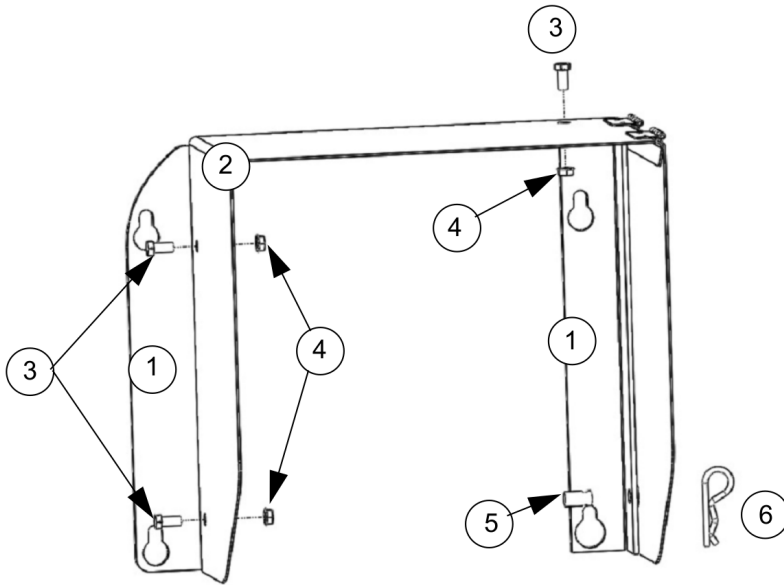


4.8. Assemble the PTO Shield Assembly

1. As shown in [Figure 12](#), align the PTO shield front on the PTO shield rear and secure it with three 5/16" x 3/4" bolts and 5/16" whiz nuts.
2. Insert the hair pin to lock PTO shield with base.
3. Set the assembled PTO shield assembly aside for use during the installation of the speed reducer.

Table 7. Assemble the PTO Shield Assembly

Item	Description	Quantity
1	PTO shield rear	1
2	PTO shield front	1
3	5/16" x 3/4" bolts	3
4	5/16" whiz nuts	3
5	Lock pin	1
6	Hairpin	1

Figure 12. Assemble the PTO Shield Assembly

4.9. Install the Speed Reducer on the Boot

1. Lift the speed reducer and carefully slide it over the gearbox and lower flighting shafts and against the face of the boot.

Important
Use the supplied lifting lug on the speed reducer.
2. Fasten the speed reducer gearbox, PTO shield, and PTO transport strap to boot using twelve 1/2" x 11-1/2" GR8 bolts and 1/2" lock nuts (see [Figure 13](#) for details).
3. Install the lower flight stop as follows ([Figure 14](#)):
 - a. Use a wrench to rotate the lower flight bearing case on the speed reducer until the bearing case keyway aligns with the lower flight shaft keyway.
 - b. Insert a 3/8" x 3-3/8" square key into the shaft keyway.
 - c. Slide the lower flight stop over the lower flight shaft, and secure it in place with a 7/16" x 3-1/2" GR5 bolt and 7/16" lock nut.
4. Install the upper gearbox shaft square key as follows ([Figure 14](#)):
 - a. Rotate the upper gearbox shaft bearing case until the bearing case keyway aligns with the upper gearbox shaft keyway.
 - b. Insert the 3/8" x 1-3/4" square key into the shaft keyway.
 - c. Secure the square key with a keyway lock washer, a 3/8" lock washer, and a 3/8" x 1-1/2" GR5 bolt.

Table 8. Install the Speed Reducer on the Boot

Item	Description	Quantity
1	Speed reducer	1
2	Lower gearbox shaft	1
3	Lower flight shaft	1
4	PTO driveline strap	1
5	PTO shield	1
6	1/2" x 11-1/2" GR8 bolts	12
7	1/2" lock nuts	12
8	Lower gearbox bearing case	1
9	Lower flight bearing case	1
10	Lower flight stop	1
11	3/8" x 3-3/8" square key	1
12	7/16" x 3-1/2" GR5 bolt	1
13	7/16" lock nut	1
14	3/8" x 1-3/4" square key	1
15	Keyway lock washer	1
16	3/8" lock washer	1
17	3/8" x 1-1/2" GR5 bolt	1

Figure 13. Installing the Speed Reducer

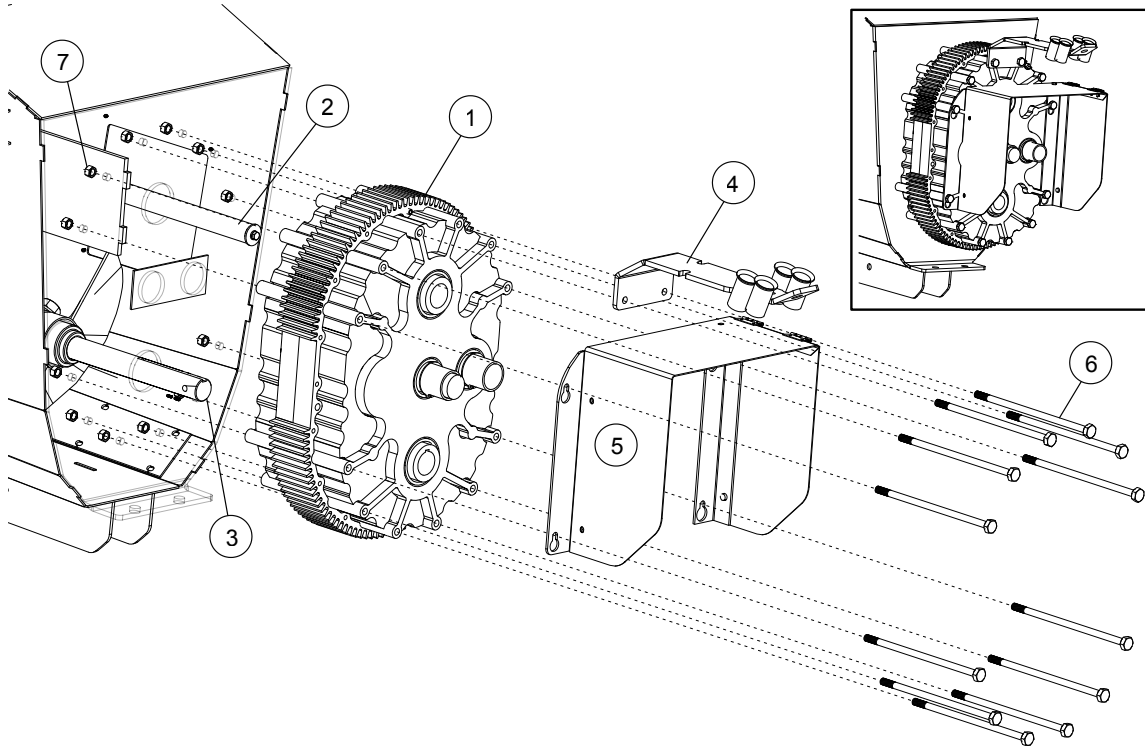
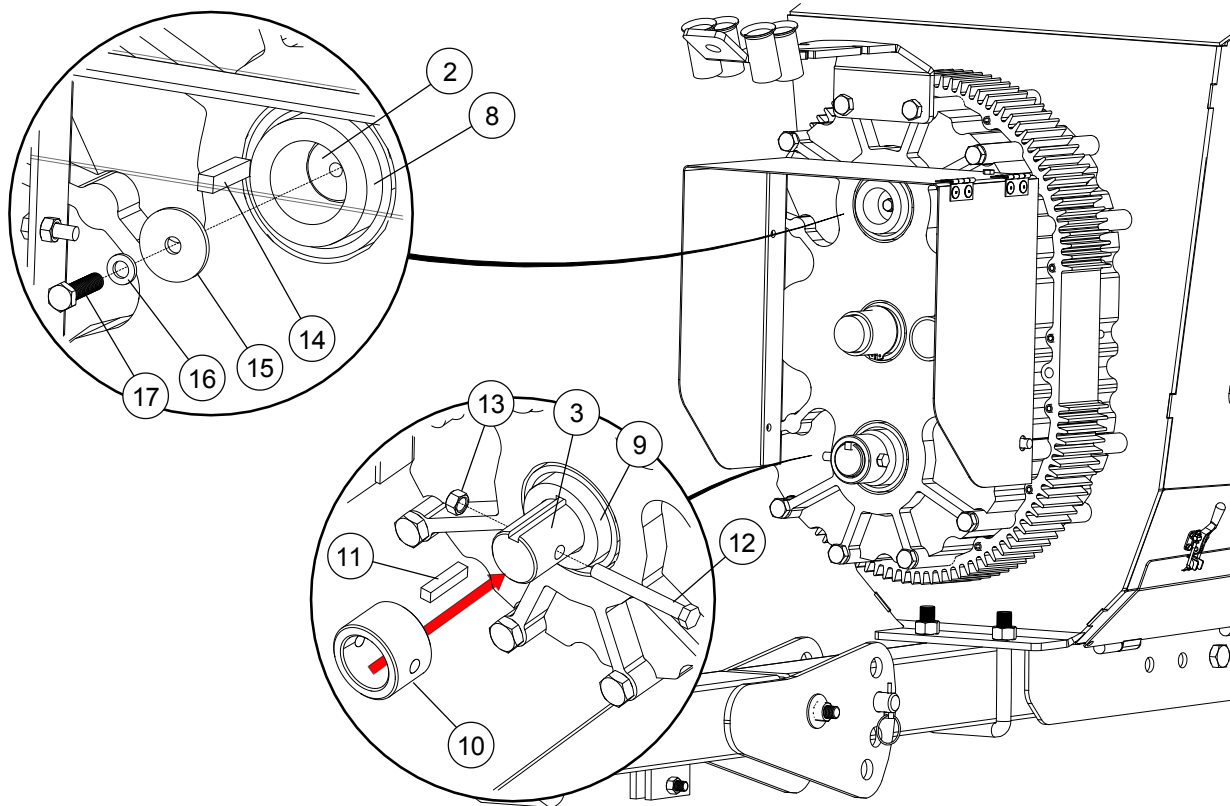


Figure 14. Install the Shaft Square Keys and Lower Flight Stop



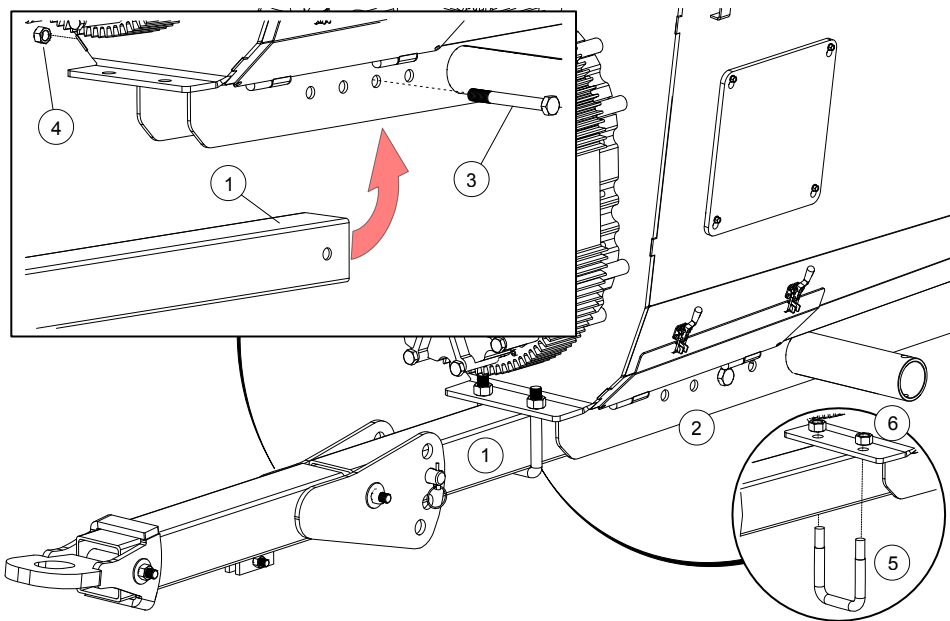
4.10. Install the Boot Tow Bar

1. Insert the tow bar into the boot channel (see [Figure 15](#)), and secure the back end loosely with a 3/4" x 6-1/2" bolt and 3/4" lock nut through the hole in the boot channel.
2. Tightly secure the middle of the tow bar in channel with a 3/4" x 4-1/16" x 5-3/4" U-bolt and two 3/4" lock nuts.
3. Fully tighten the 3/4" nut on the 3/4" x 6-1/2" bolt.

Table 9. Install the Boot Tow Bar

Item	Description	Quantity
1	Tow bar	1
2	Boot channel	1
3	3/4" x 6-1/2" bolt	1
4	3/4" lock nut	1
5	3/4" x 4-1/16" x 5-3/4" U-bolt	1
6	3/4" lock nuts	2

Figure 15. Installing the Boot Tow Bar



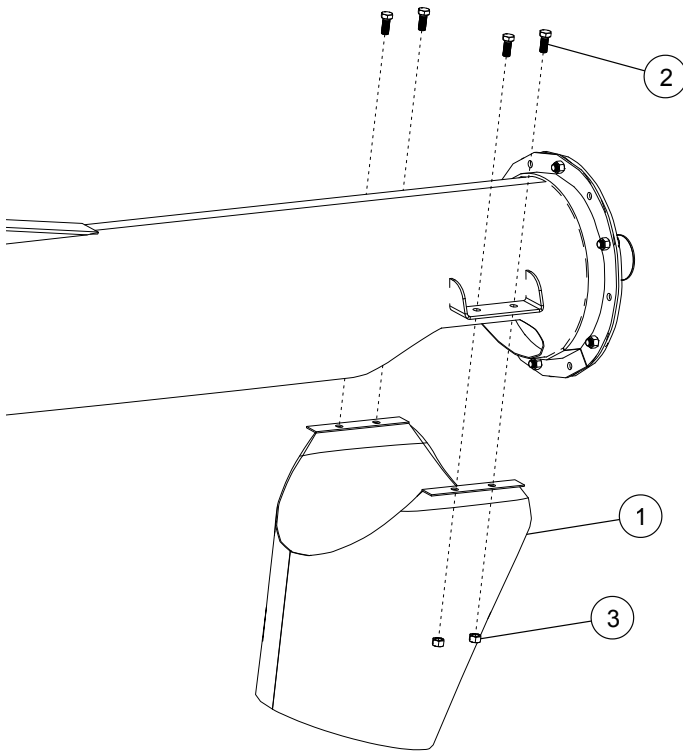
4.11. Install the Discharge Spout

1. Align the discharge spout over the opening in the upper tube.
2. Attach the discharge spout with two 5/8" x 3" GR8 bolts and 5/8" lock nuts on each side.

Table 10. Install the Discharge Spout

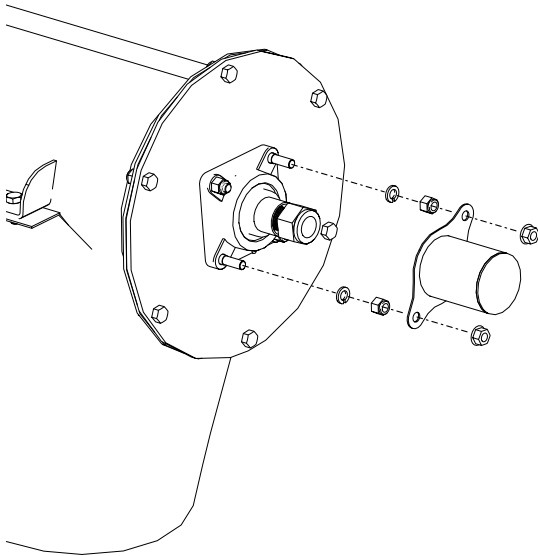
Item	Description	Quantity
1	Discharge spout	1
2	5/8" x 3" GR8 bolts	4
3	5/8" lock nuts	4

Figure 16. Installing the Discharge Spout



4.12. 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 1-1/2" nut.
3. Turn the nut until boot flight stop snug against the speed reducer gearbox, then keep turning it until all tube flights are turning with the shaft.
4. Secure the lock collar and tighten the set screw.
5. Install the cover over the two longer 5/8" bolts. Secure with two 5/8" lock washers, lock nuts and whiz nuts.

Figure 17. Setting the Thrust Adjuster

4.13. Install Truss Support Towers and Truss Tubes

Due to rigidity of the tubular trussing, do not put an upward bow in the auger. Assemble trussing with main auger tube straight/level and well supported over its length.

- 85' Model: See [Figure 18](#) and [Figure 21](#)
- 105' Model: See [Figure 19](#) and [Figure 22](#)
- 125' Model: See [Figure 20](#) and [Figure 23](#)

When assembling the truss system, DO NOT tighten any bolts until all components are in place.

1. Attach pairs of low and high truss tower brackets to the truss-attach brackets welded to the auger tube.
2. Thread a 1" hex nut as far as possible onto the threaded rod end of a truss adjust tube.
3. Insert the threaded rod end of the truss adjust tube into the truss anchor bracket, and bolt the opposite end to a tube connect plate that has been first bolted to the adjacent truss pair.
4. Thread a second 1" hex nut a short distance onto the threaded rod end of the truss adjuster tube.
5. According to the diagram for your specific model, work from one end of the tube toward the opposite end:
 - a. Install tube connect plate pairs between truss tower pairs.

Note

When installing the seven-bolt connect plates, ensure that the three 1/2" bolt holes should be closest to the boot, and the 3/4" bolt hole should be closest to the discharge spout.

- b. Install truss tubes between tube connect plates.
- c. Install short and long cross-brace tubes.

Note

Single cross-brace tubes are used between the two truss towers closest the ends of the main auger tube, and two cross-brace tubes are required between all other truss tower sets.

- d. Install the remaining truss adjust tube.

6. Tighten all truss, tube, and cross-brace bolts and nuts, but do not tighten the 1" hex nuts on the truss adjust tubes.
7. Install pairs of cross-brace clamps where the cross-brace tubes cross in an "X" pattern using two 7/16" x 1-1/4" bolts and lock nuts.
8. Adjust the "outer" 1" hex nuts on the truss adjust tube until the truss tubes are tight and the auger tube is straight (i.e. appears flat and well aligned, and does not have any noticeable bow).
9. Rotate the loose "inner" 1" hex nuts on the truss adjust tubes toward the "outer" nut until they are locked tightly against their respective truss anchor brackets.

Table 11. Truss Towers and Tubes Parts Reference

Item	Part Description
1	Low Truss Tower High Truss Tower
2	1/2" x 1-1/2" Bolts 1/2" Lock nuts
3	Truss Anchor Brackets
4	1" hex nut
5	Long Truss Adjust Tube
6	Five-Bolt Tube Connect Plate
7	1/2" x 1-3/4" Bolts 1/2" Lock nuts
8	Truss Tube
9	Seven-Bolt Tube Connect Plate (Left) Seven-Bolt Tube Connect Plate (Right)
10	3/4" x 2-1/2" Bolt 3/4" Lock nut
11	Truss Cross Brace, Long
12	Truss Cross Brace, Short
13	1/2" x 2-1/2" Bolt 1/2" Lock nut
14	Cross-Brace Clamps
15	7/16" x 1-1/4" Bolt 7/16" Lock nut
16	3/4" Hex Nut

Figure 18. 85' Truss Tower Brackets

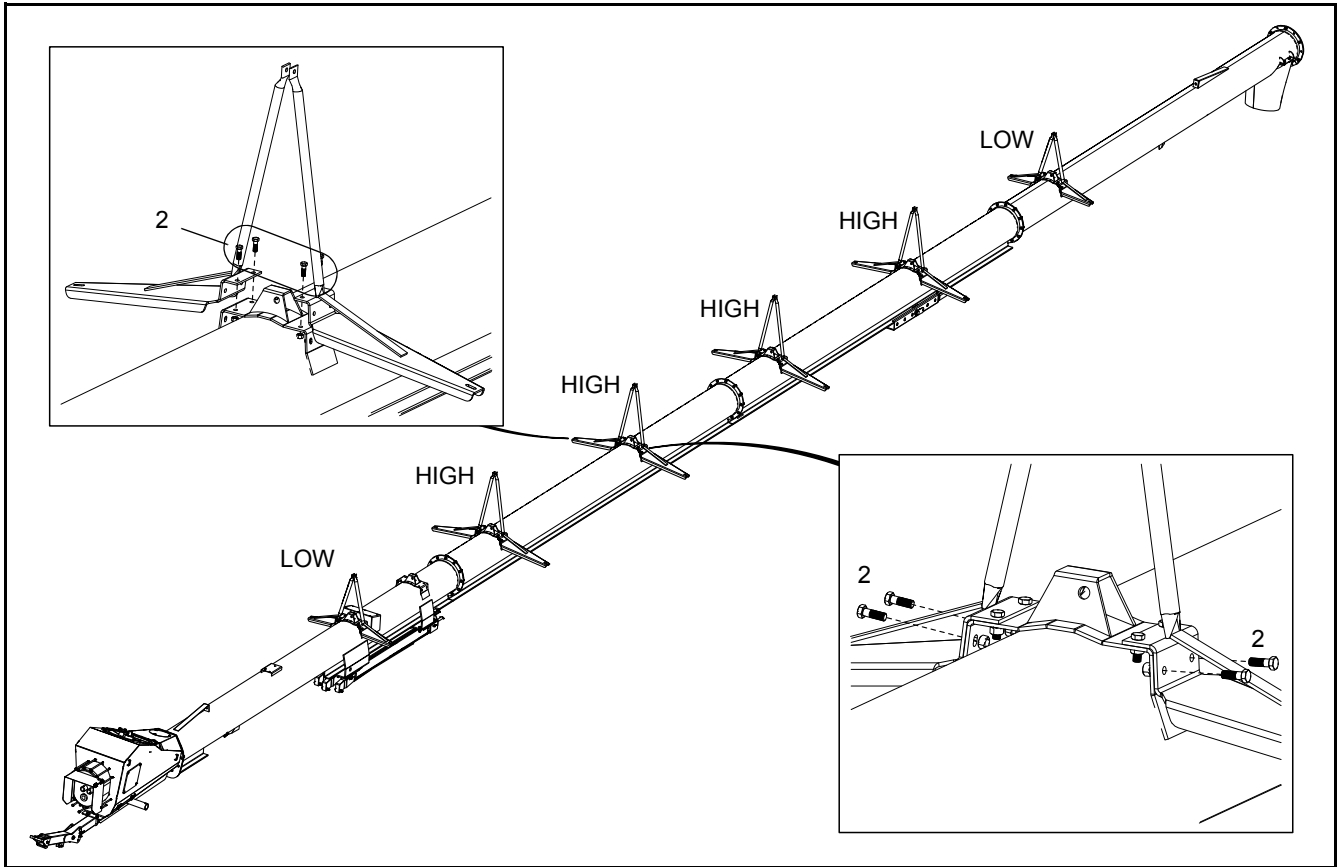


Figure 19. 105' Truss Tower Brackets

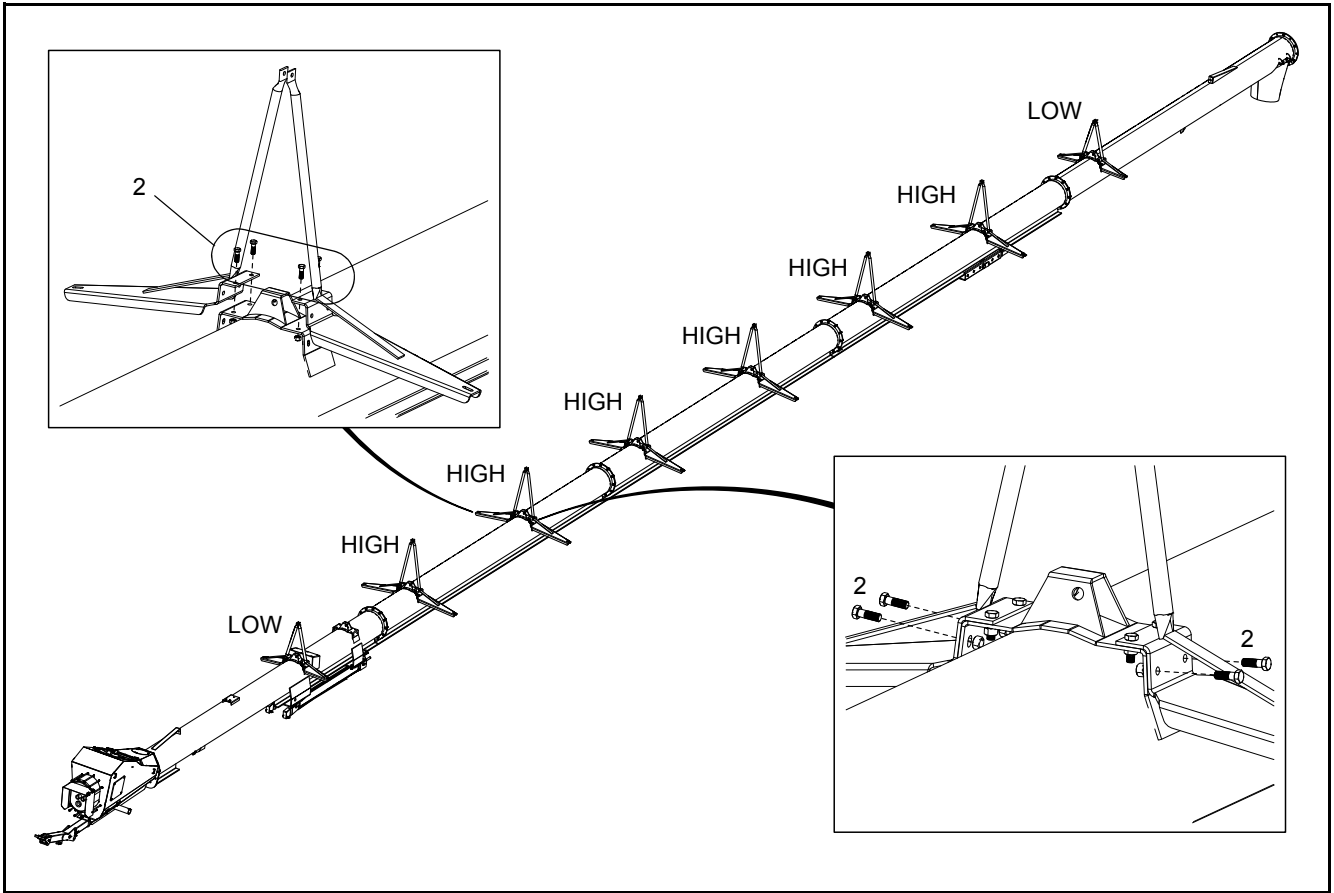


Figure 20. 125' Truss Tower Brackets

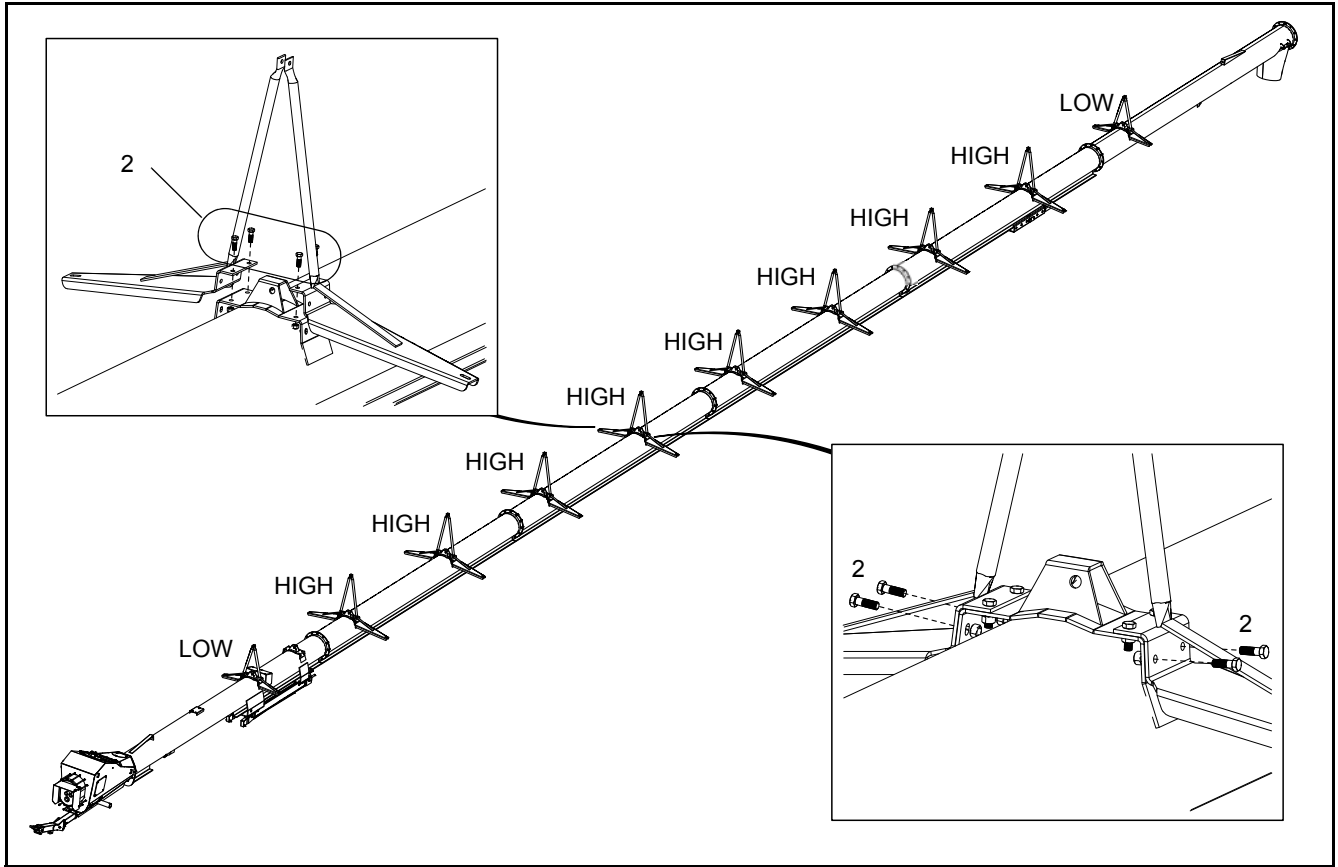


Figure 21. 85' Truss Tubes

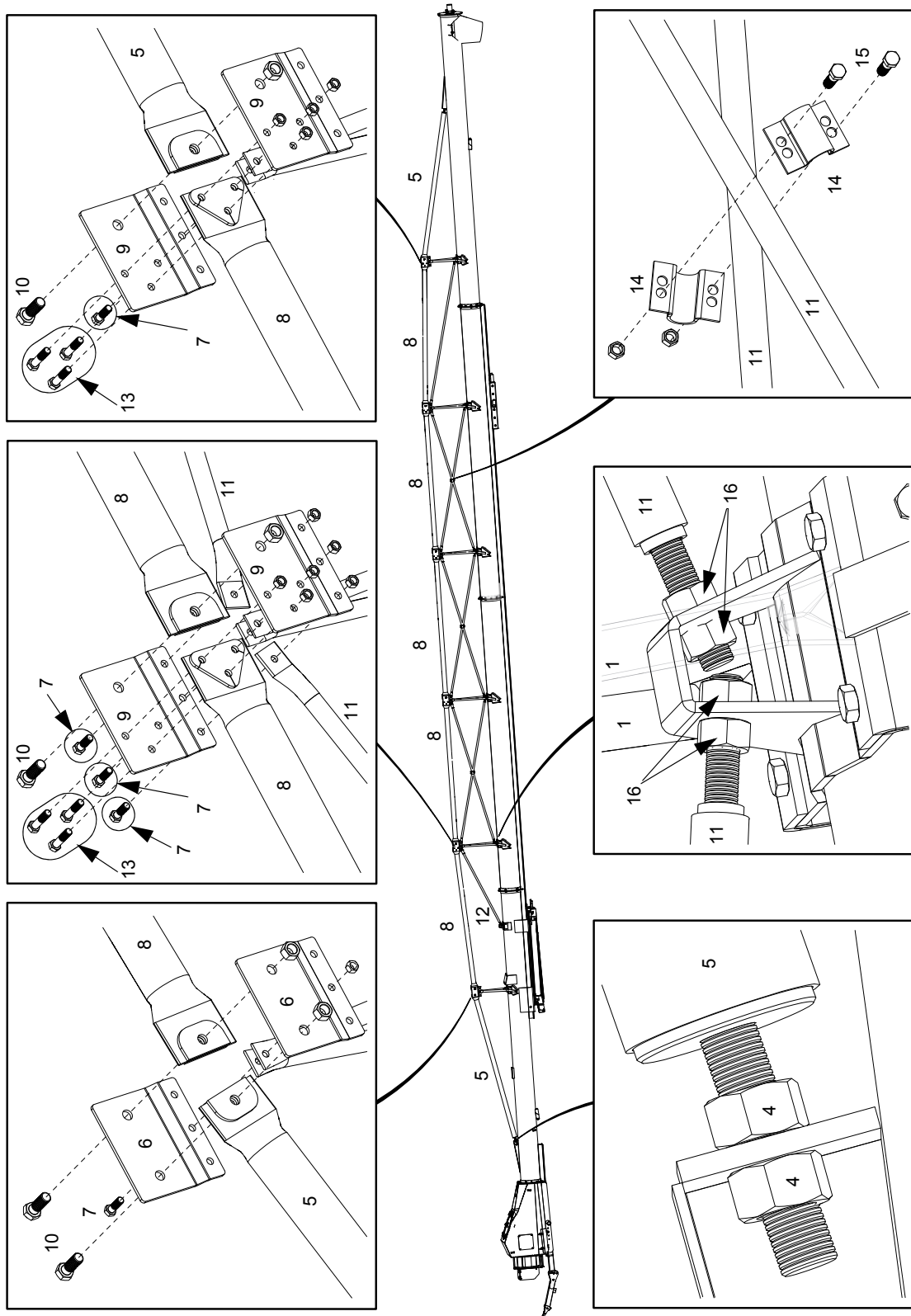


Figure 22. 105' Truss Tubes

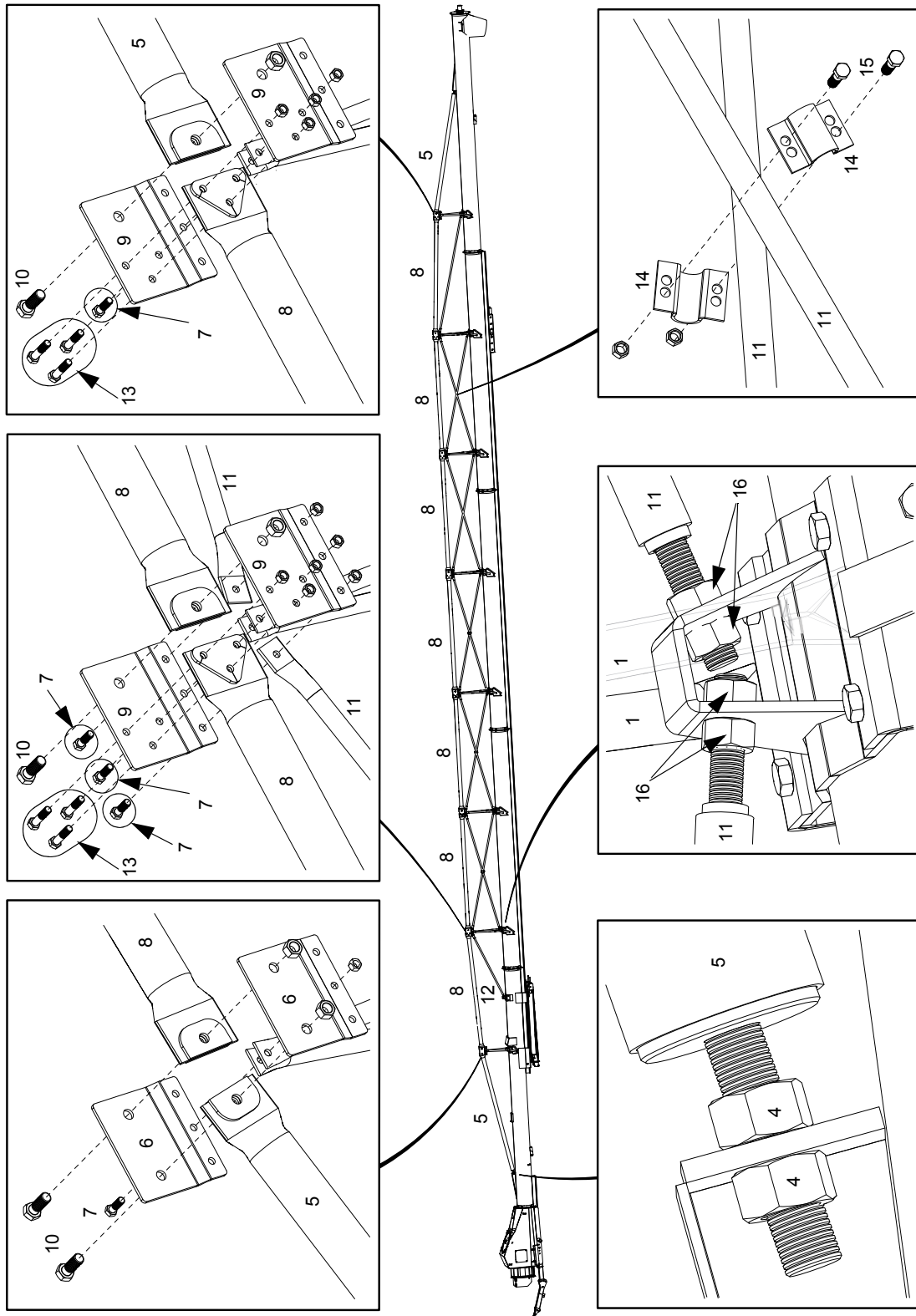
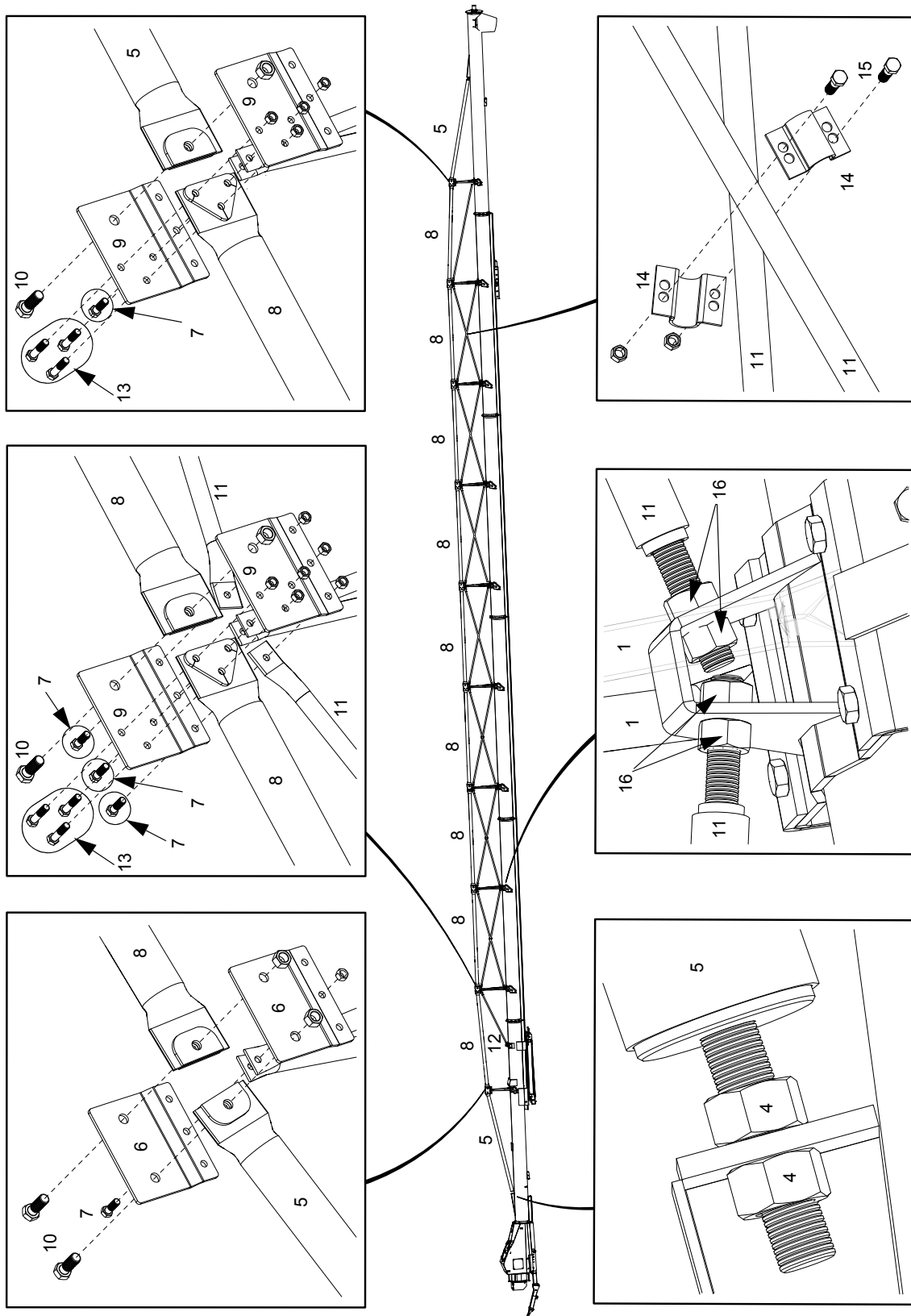


Figure 23. 125' Truss Tubes



4.14. Install Truss Cables

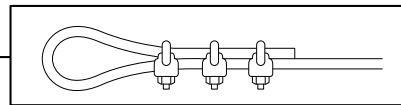
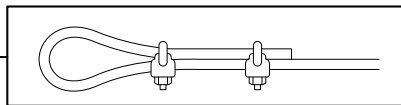
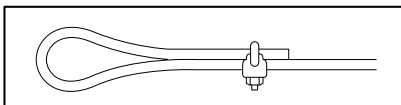
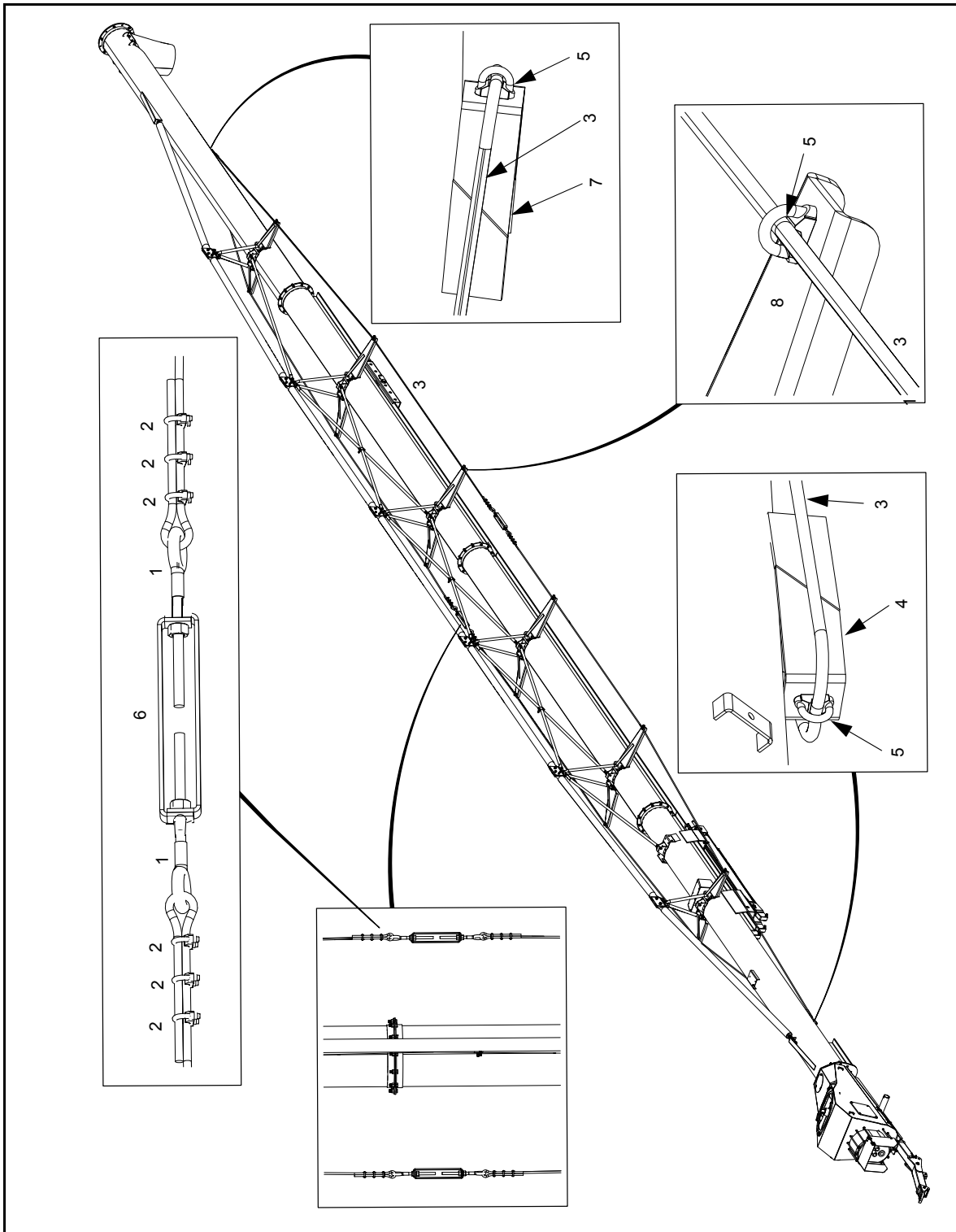
See [Figure 24 on page 55](#) for details (85' model shown, other models are similar).

1. Thread truss cable through eyebolts and double-back a minimum of 15-1/4" (39 cm) of cable. Secure the cable in place by installing and tightening three 1/2" cable clamps.
 - a. Apply first clamp one base width from the minimum turn back length of cable with the u-bolt over the dead end. Live end rests in clamp saddle. Turn nuts firmly but do not tighten.
 - b. Apply second clamp as close to loop as possible with the u-bolt over the dead end. Live end rests in clamp saddle. Turn nuts firmly but do not tighten.
 - c. Apply remaining clamp evenly between the first two with the u-bolt over the dead end. Live end rests in clamp saddle.
 - d. Apply tension and turn nuts firmly but do not tighten.
2. Thread the cable through the cable return bracket (4) on the underside of the lower tube, and pull the cable through until there is an equal length of cable on each side of the tube.
3. Secure the cable to the cable return bracket with a 1/2" cable clamp (5), ensuring that the cable clamp is loose enough that the cable remains free to move.
4. Insert the cable eyebolts into separate turnbuckle bodies (6) and secure with 3/4" lock nuts threaded fully onto the eyebolt shaft, but not further than 1/4" (0.6 cm).
5. Attach eyebolts (1) to the unconnected ends of both turnbuckle bodies, and secure with 3/4" lock nuts threaded fully onto the eyebolt shaft, but not further than 1/4" (0.6 cm).
6. Thread the second truss cable (3) through the cable return bracket (7) on the underside of the upper tube, and pull the cable through until there is an equal length of cable on each side of the tube.
7. Pull the ends of both cables over the truss cable supports (8), and secure the truss cables to each truss cable support with a 1/2" cable clamp (9), ensuring that the cable clamps are loose enough that the cables remains free to move.
8. Thread the second truss cable through the eyebolts and pull out all stack. Ensure a minimum turn back length of 15-1/4" (39 cm) of cable. Secure the cable in place by installing and tightening three 1/2" cable clamps.
 - a. Apply first clamp one base width from the minimum turn back length of cable with the u-bolt over the dead end. Live end rests in clamp saddle. Turn nuts firmly but do not tighten.
 - b. Apply second clamp as close to loop as possible with the u-bolt over the dead end. Live end rests in clamp saddle. Turn nuts firmly but do not tighten.
 - c. Apply remaining clamp evenly between the first two with the u-bolt over the dead end. Live end rests in clamp saddle.
 - d. Apply tension and turn nuts firmly but do not tighten.
9. Tighten the cables by adjusting the eyebolt lock nuts. These cables must be very tight.
10. If the tube has a curve to one side, tighten the turnbuckle on the opposite side, while loosening the other turnbuckle slightly if required.
11. Tighten all cable clamps to the recommended torque of 45 ft·lb.

Table 12. Truss Cables Parts Reference

Item	Description
1	3/4" x 11-1/2" Eyebolt
	3/4" Lock nut
2	1/2" cable Clamp
3	1/2" x 68' x 2 Cable
	1/2" x 90' x 2 Cable
	1/2" x 110' x 2 Cable
4	Lower Tube Cable Return Bracket
5	1/2" cable clamp
6	Turnbuckle Body
7	Upper Tube Cable Return Bracket
8	Truss Cable Support

Figure 24. Truss Cables



4.15. Assemble the Lower Frame

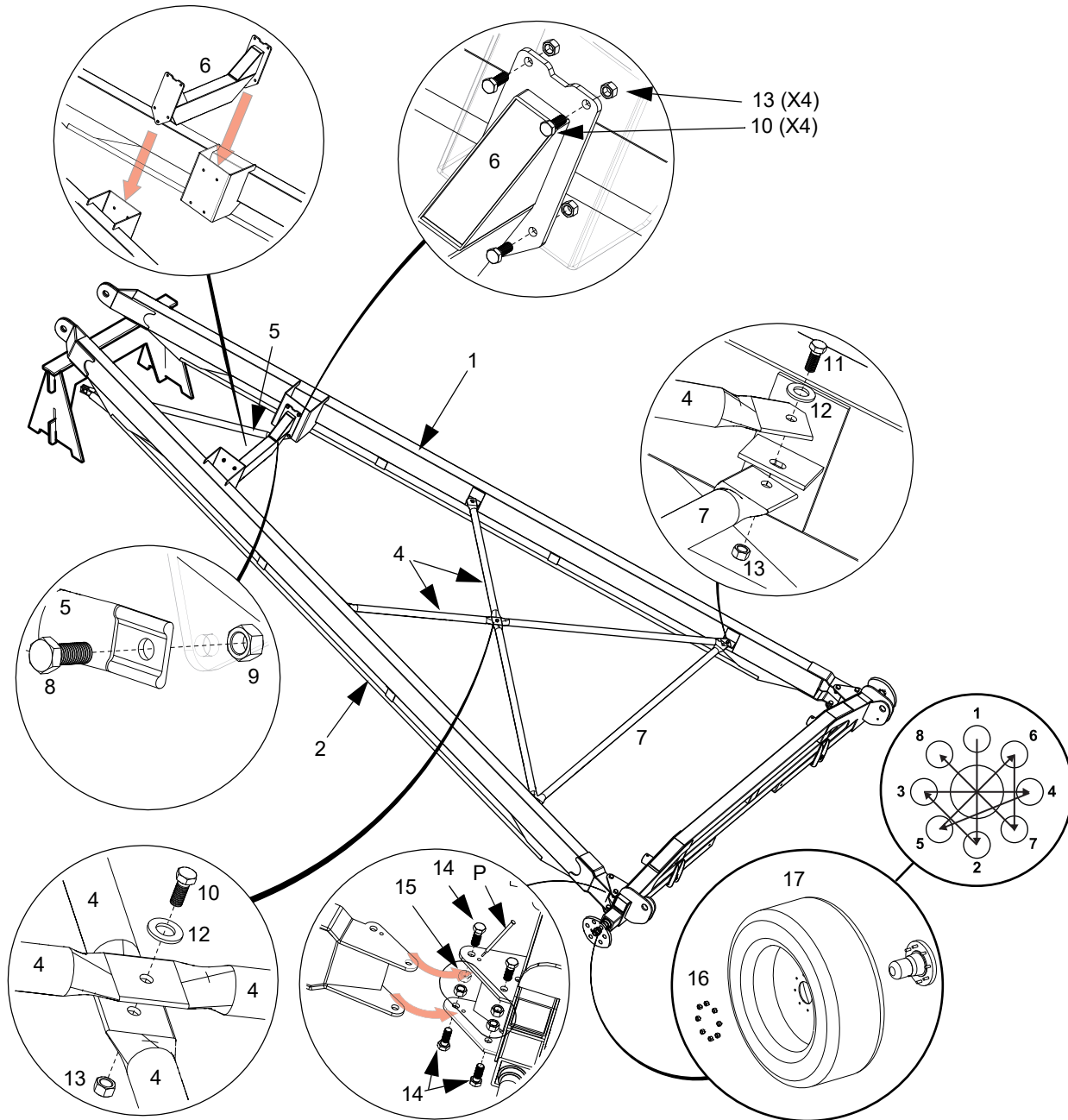
1. Fasten the lower reach arms to the axle with four 3/4" x 2" bolts and lock nuts on each side. Tighten securely.

Note

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

2. Attach the short cross member between the lower reach arms with four 1/2" x 1-1/2" bolts and lock nuts on each side. Tighten securely.

Figure 25. Assembling the Lower Frame



3. Install the stabilizer braces on either side of the short cross member with a single 5/8" x 2" bolt and lock nut per side. Leave loose until the other ends of the stabilizer braces are connected in [Section 4.16 – Connect the Auger Tube to the Frame on page 58](#).
4. Secure the frame cross braces and the long frame cross brace to the welded lugs on the lower reach arms with two 1/2" x 1-1/2" bolts, two 1/2" x 1-3/4" bolts, 1/2" flat washers, and lock nuts. Use a 1/2" x 1-1/2" bolt, 1/2" flat washer, and lock nut to fasten the cross-braces together where they cross.
5. Check that pressure of pre-inflated tires matches pressure indicated on tire sidewall.
6. Mount wheels on hubs and attach with eight 5/8" wheel nuts. Dry torque the wheel nuts to 240 ft·lb (± 10 ft·lb) using the pattern shown.


Table 13. Lower Frame Parts

Item	Description	Quantity
1	Lower Reach Arm, LH*	1
2	Lower Reach Arm, RH*	1
3	Axle	1
4	Frame Cross Braces*	2
5	Stabilizer Braces	2
6	Short Cross Member	1
7	Lower Tie Tube*	1
8	5/8" x 2" Bolt	2
9	5/8" Lock nut	2
10	1/2" x 1-1/2" GR8 Bolt	11
11	1/2" x 1-3/4" GR8 Bolt	2
12	1/2" Flat Washer	5
13	1/2" Lock nut	13
14	3/4" x 2" Bolt	8
15	3/4" Lock nut	8
16	5/8" Wheel Nuts	16
17	Wheels	2

* Part used varies depending on the auger size (85', 105' or 125')

4.16. Connect the Auger Tube to the Frame

1. Raise the discharge end of auger (e.g. with a front end loader and a strong sling, or with a chain or block and tackle). The height should be sufficient to clear the undercarriage assembly.

 **WARNING** Do not remove tube support until the assembly in this section has been completed.

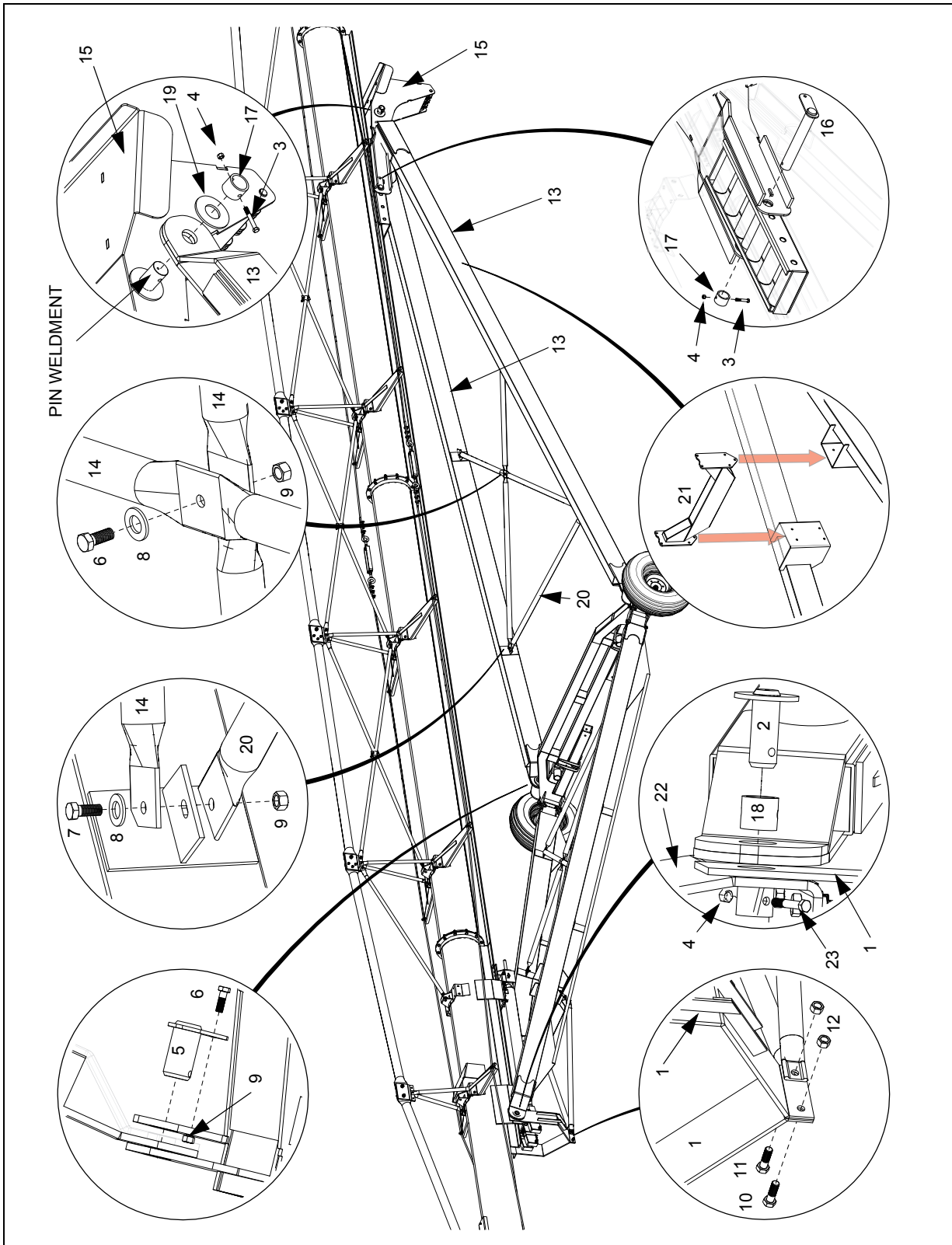
2. Place the undercarriage beneath the tube assembly.
3. Connect the lower lift arms to the auger tube:
 - a. Lift and support the lower attach arms on either side of the auger tube back-end brackets.
 - b. Position stabilizer brackets between the back-arm brackets and corresponding lower reach arms, and secure the lower reach arms and stabilizer brackets to the back-arm brackets with a tube frame pin, a lower arm attach bushing, a 7/16" x 3" GR5 bolt, and a 7/16" lock nut on each side.
 - c. Tighten securely.
4. Fasten stabilizer braces to first set of holes (closest to the intake) through the stabilizer brackets with one 5/8" x 2" bolt and lock nut. Place one 5/8" x 2-1/4" bolt and lock nut in the remaining set of holes through the stabilizer braces.
5. Fasten the upper lift arms to the axle: use an axle frame pin, a 1/2" x 1-1/2" GR8 bolt and a 1/2" lock nut on each side. Tighten securely.
6. Attach the tubing cross braces between the upper lift arms by loosely attaching the tubing cross braces using three 1/2" x 1-1/2" GR8 bolts, two 1/2" x 1-3/4" bolts, five 1/2" flat washers, and lock nuts.
7. Attach the lift assist bracket to the track shoe as follows:
 - a. Align the lift assist with the track shoe, and insert the track shoe pin through the lift assist and the track shoe. (See [Figure 26](#) for the correct insertion side).
 - b. Add the track shoe bushing and then secure the bushing with a 7/16" x 3-1/2" bolt and lock nut. Tighten securely.
8. Attach upper lift arms to the lift assist bracket as follows:
 - a. Raise and position the top of the upper lift arms on the pin weldments on either side of the lift assist.
 - b. Secure the upper lift arms on the pin weldments using an upper lift arm bushing, a washer, a 7/16" x 3-1/2" bolt, and a 7/16" lock nuts on each pin weldment.
 - c. Tighten securely.
9. Lower upper end of auger slowly until track shoe rests against upper track stop and the lift assist stops rest against track.
- ➡ 10. For 105'/125', attach a short cross-member between the upper lift arms using eight 1/2" x 1-1/2" bolts and 1/2" lock nuts. Tighten securely.

Table 14. Parts Required to Connect the Auger Tube to the Frame

Item	Description	Quantity
1	Stabilizer Bracket	2
2	Tube Frame Pin	2
3	7/16" x 3-1/2" GR5 Bolt	3
4	7/16" Lock nut	5
5	Axle Frame Pin	2
6	1/2" x 1-1/2" GR8 Bolt	5
7	1/2"x1-3/4" Bolt	2
8	1/2" Flat Washer	5
9	1/2" Lock nut	7
10	5/8" x 2" Bolts	1
11	5/8" x 2-1/4" Bolts	1
12	5/8" Lock nut	2
13	Upper Lift Arm*	2
14	Frame Cross Braces*	2
15	Lift Assist	1
16	Track Shoe Pin	1
17	Upper Lift Arm Bushing	3
18	Lower Arm Attach Bushing	2
19	2" flat washer	2
20	Upper Tie Tube*	1
21	Short Cross Member*	1
22	Back Arm Bracket	1
23	7/16" x 3" GR5 Bolt	2

* Part used varies depending on auger length (85', 105' or 125')

Figure 26. Connecting the Auger Tube to the Frame



4.17. Install Lift Cylinder Cables to the Lift Assist

CAUTION Track shoe must rest against track stop when adjusting cable. If this isn't done, the auger can raise higher than designed to lift, resulting in damage to auger and possible injury to personnel.

Note

Although the lift cable is factory installed on the cylinder, make sure that the cable clamps on the cylinder are secure and the cables are properly seated in the cable sheaves before attaching the cable to the track shoe.

1. Ensure that all cylinders are in full down position, and that track shoe is resting against the lift assist.
2. Thread lift cables over the cable-attach-rod on the track shoe and pull tight. Ensure the minimum turn-back length of cable has been reached.

Note

Unroll and straighten lift cables carefully during installation. Ensure that there are no kinks, loops, twists, or any visible defect in the cables. Discard and replace cables that have any visible defect. Do not unroll cables on the ground or otherwise expose cables to dirt or grit. Wipe cables with a clean cloth to ensure that any grit is removed before installation.

3. Secure the cables in place by installing and tightening the cable clamps.
 - a. Apply first clamp one base width from the minimum turn back length of cable with the u-bolt over the dead end. Live end rests in clamp saddle. Tighten nuts evenly to the recommended torque.
 - b. Apply second clamp as close to loop as possible with the u-bolt over the dead end. Live end rests in clamp saddle. Turn nuts firmly but do not tighten.
 - c. Apply remaining clamps evenly between the first two with the u-bolt over the dead end. Live end rests in clamp saddle.
 - d. Apply tension and tighten all nuts evenly to the recommended torque.

Important

The 85' model requires four 5/16" cable clamps per cable, and the 105'/125' models requires four 1/2" cable clamps per cable. Ensure that cable clamps are positioned with the U-bolt portion of the clamp on the unloaded side of the lift cables.

WARNING Failure to tighten the nuts properly could cause the main auger tube to drop from a raised position quickly and without warning, and could lead to personal injury or death.

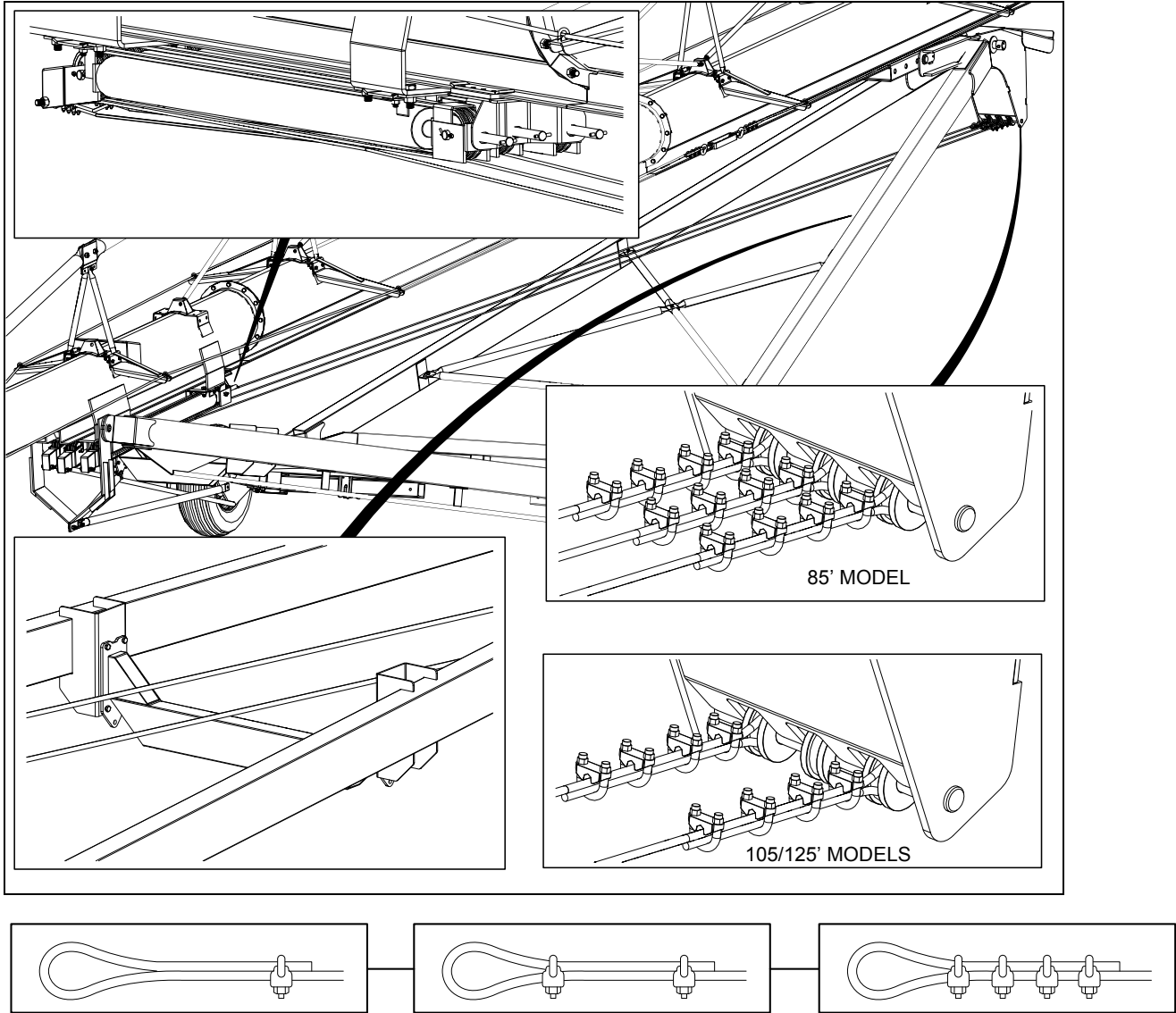
Model	Cable Clamp	Turn-Back Length	Nut Torque
85'	5/16"	7-3/4" (20 cm)	20 ft·lb
105'/125'	1/2"	11-1/2" (29 cm)	65 ft·lb

4. Tie up excess ends of lift cable with tape or cable ties.

Important

Lift cables will stretch with initial use. Check and adjust frequently.

Figure 27. Connecting the Lift Cylinder Cables



4.18. Connect Hydraulic Hoses and Ball Valve

Table 15. Hydraulic Hoses

Hose Description	Usage	85	105	125
85 HOSE, 1/2" x 228"	Hydraulic Pressure	1		
85 HOSE, 1/2" x 396"	Hydraulic Return	1		
105 HOSE, 1/2" x 302"	Hydraulic Pressure		1	
105 HOSE, 1/2" x 492"	Hydraulic Return		1	
125 HOSE, 1/2" x 324"	Hydraulic Pressure			1
125 HOSE, 1/2" x 504"	Hydraulic Return			1
85 HOSE, 3/8" x 32"	Cylinder Connector (rod end)	2		
85 HOSE, 3/8" x 16"	Cylinder Connector (cap end)	2		
105/125 HOSE, 1/2" x 36"	Cylinder Connector (cap end)		1	1
105/125 HOSE, 1/2" x 48"	Cylinder Connector (rod end)		1	1
1/2" Elbow fittings	—		4	4
1/2" T fitting	—		2	2
3/8" Elbow fittings (pre-installed)	—	6		
3/8" T fitting (MFF)	—	4		

Note

Use thread sealant (not supplied) on all hydraulic connections.

1. Install elbow and "T" fittings on the lift cylinders as shown in the appropriate diagrams for your auger model:
 - For 85', refer to [Figure 28](#) and [Figure 30](#)
 - For 105'/125', refer to [Figure 29](#) and [Figure 31](#)

Note

Before attaching short connector hydraulic hoses (labelled 3 and 3A in [Figure 30](#)) and [Figure 31](#) make sure that lift cables are tightly stretched.



WARNING

Wear on hose can cause auger to drop suddenly, causing serious injury or death and damage to the equipment.

2. Install the short hydraulic hoses (3 and 3A), adjusting elbow and "T" fittings so that the hoses are as far as possible from the lift cables.
3. Check the short hoses to ensure there is at least a 8-1/2" clearance between the hoses and the lift cables.
4. Connect the hydraulic pressure hose (labelled 4) to the correct lift cylinder lower "T" fitting for your auger model.
5. Attach the hydraulic fluid return hose (labelled 5) to the correct lift cylinder upper "T" fitting for your auger model.
6. Thread both long hoses through the back arm attach bracket, and route the hoses to the hydraulic hose catch on side of the auger tube.

7. Tighten hydraulic hose catch snugly enough to hold hoses in place. (See [Figure 32](#)).
8. Run both hoses straight down the side of the auger to the ball valve location on the boot, fastening the hoses at each available hose catch.

Important

Protect hose ends from dirt.

9. Recheck that bolts on undercarriage, lift cylinders, and cable clamps are tight, then remove auger tube support.
10. At the boot, install the ball valve on the hose, and secure the valve to the boot using the ball valve bracket and two 1/4" x 3/4" bolts and lock nuts (see [Figure 33](#)).
11. Install the pioneer couplers on the hydraulic hose ends.

Figure 28. Lift Cylinder Hydraulic Hoses and Fittings (85')

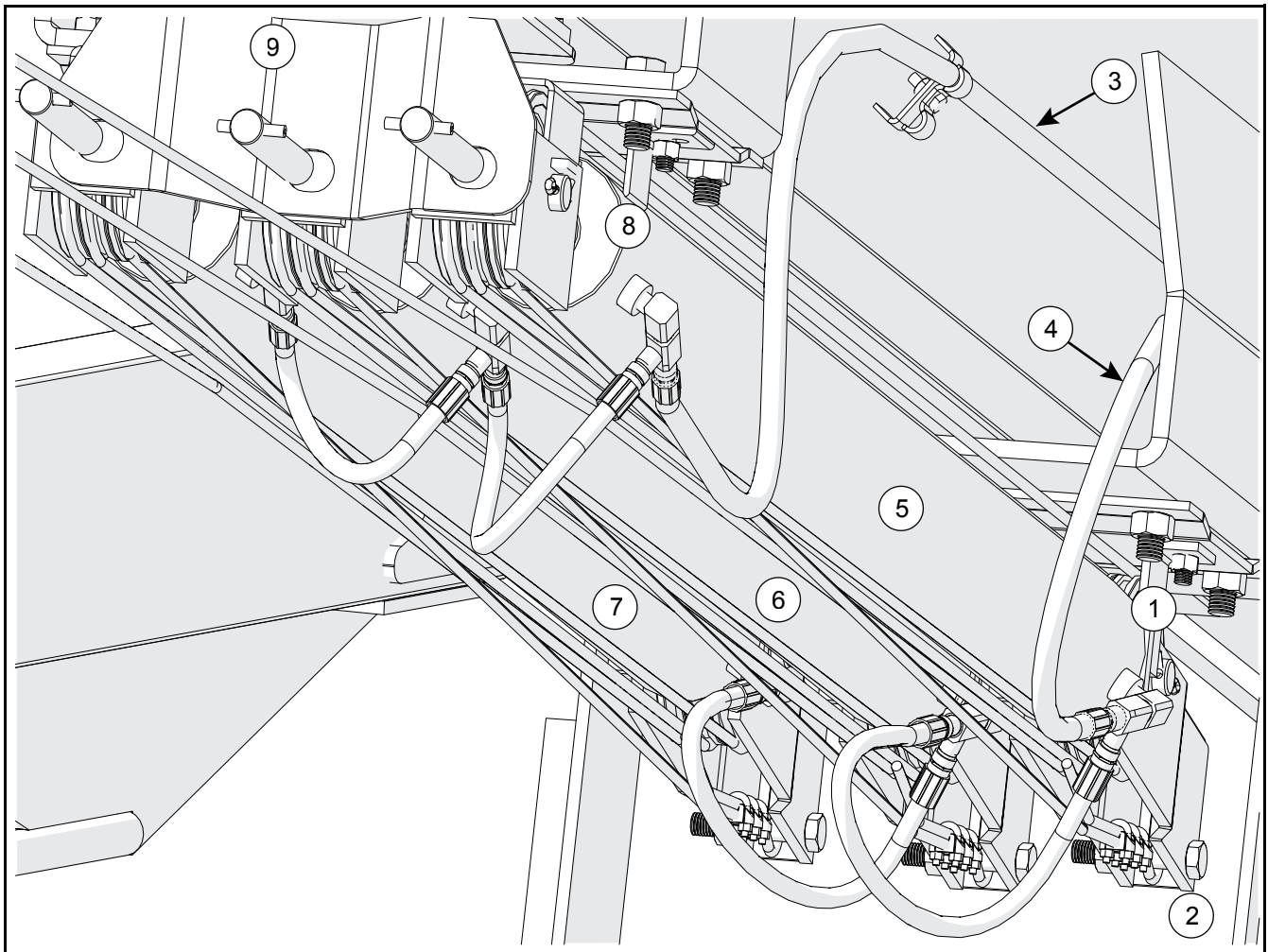


Table 16. Lift Cylinder Hydraulic Hoses and Fittings (85')

Number	Description
1	Cap End of Cylinders
2	Lower End (intake)
3	Fluid Return Hose
4	Pressure Hose
5	Cylinder 1
6	Cylinder 3
7	Cylinder 2
8	Rod End of Cylinders
9	Upper End (discharge)

Figure 29. Lift Cylinder Hydraulic Hoses and Fittings (105'/125')

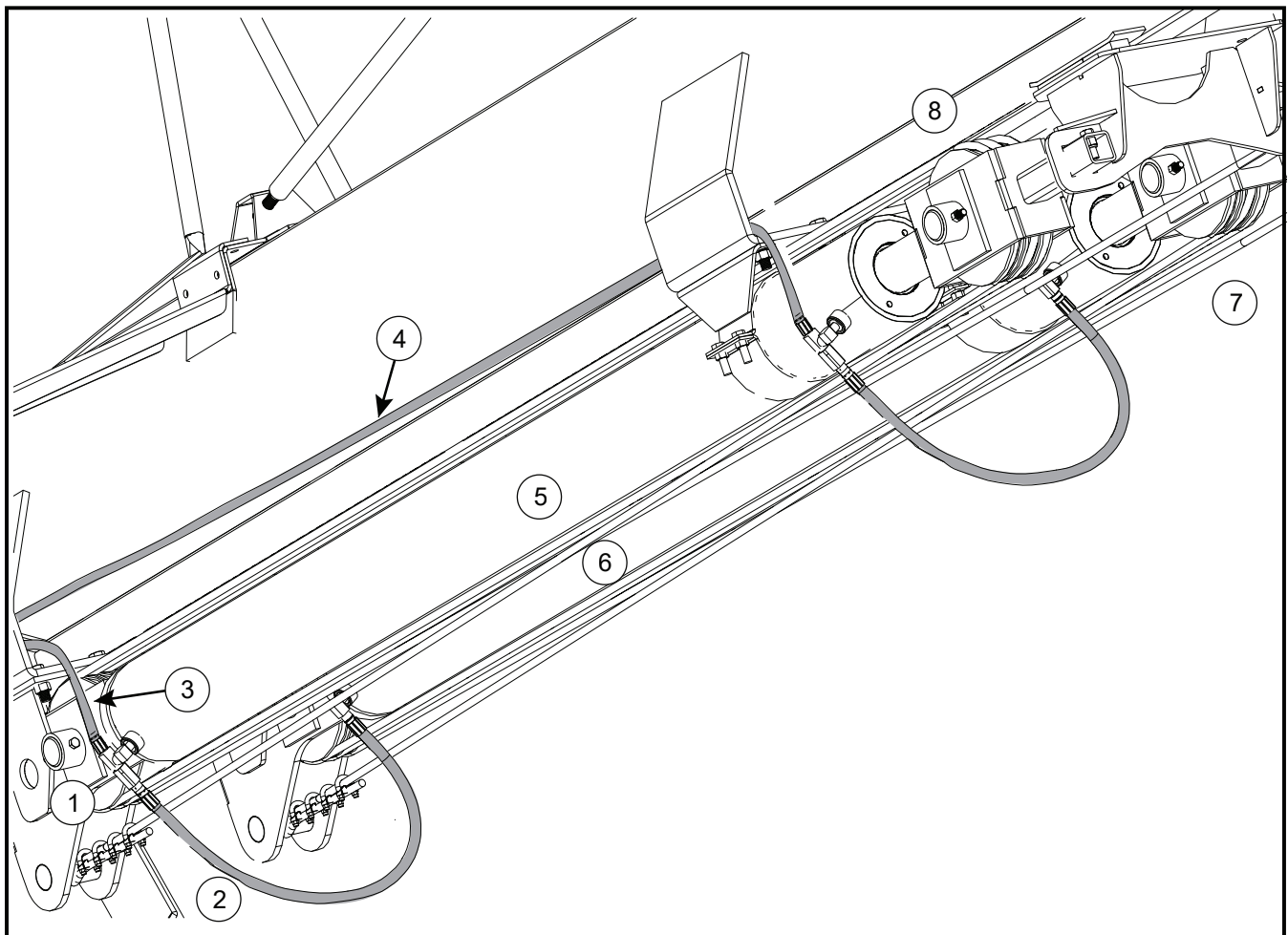


Table 17. Lift Cylinder Hydraulic Hoses and Fittings (105'/125')

Number	Description
1	Cap End of Cylinders
2	Lower End (intake)
3	Pressure Hose
4	Fluid Return Hose
5	Cylinder 1
6	Cylinder 2
7	Upper End (discharge)
8	Rod End of Cylinders

Figure 30. Hydraulic Diagram (85')

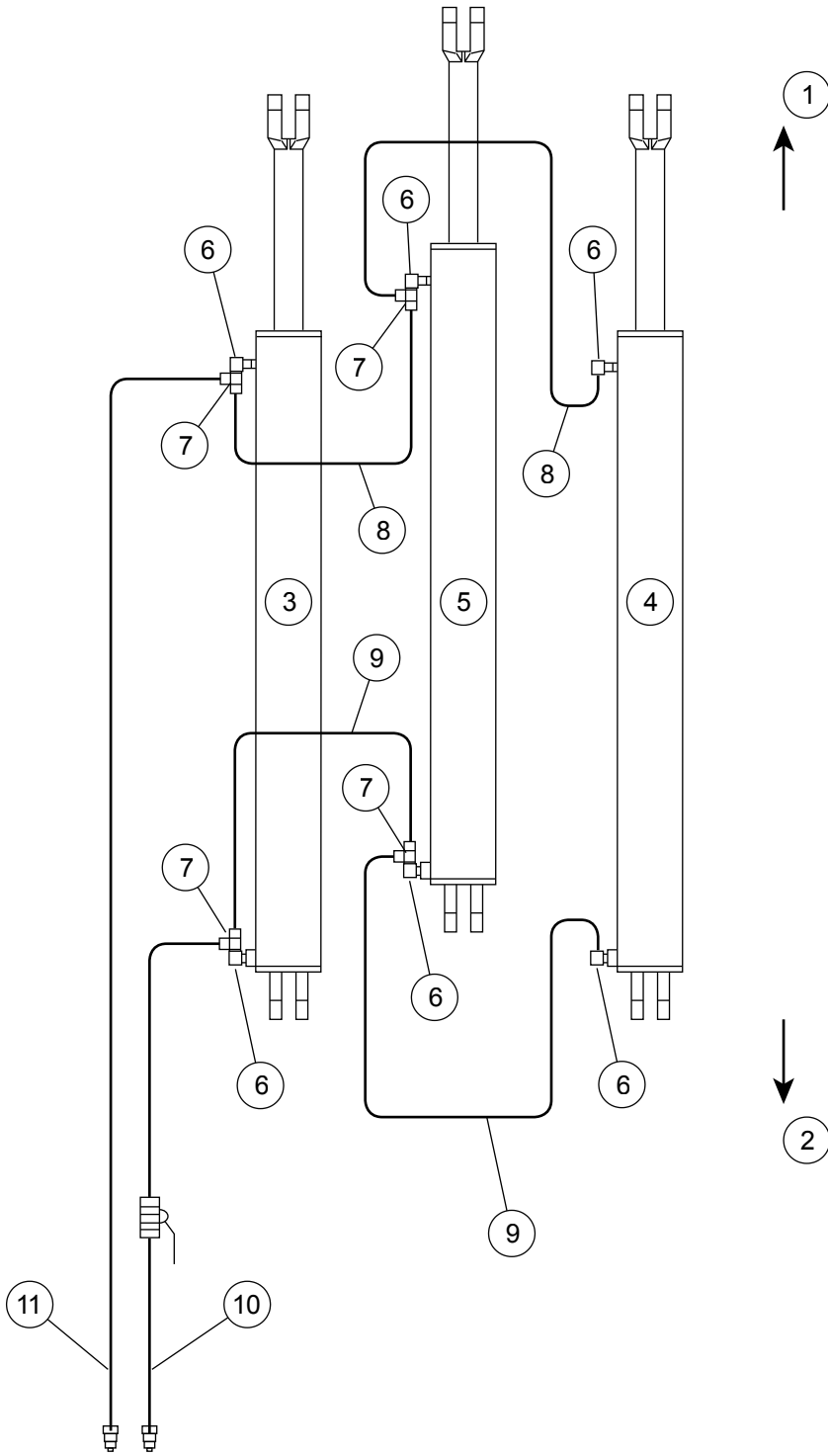


Table 18. Hydraulic Diagram (85')

Number	Description
1	Discharge
2	Intake
3	Cylinder 1
4	Cylinder 2
5	Cylinder 3
6	3/8" Elbow Fitting
7	3/8" Tee Fitting
8	Short Hydraulic Hose, 32"
9	Short Hydraulic Hose, 16"
10	Long Hydraulic Lift Hose, Pressure (with ball valve and 3/8" Pioneer coupler)
11	Long Hydraulic Lift Hose, Fluid Return (with 3/8" Pioneer coupler)

Figure 31. Hydraulic Diagram (105'/125')

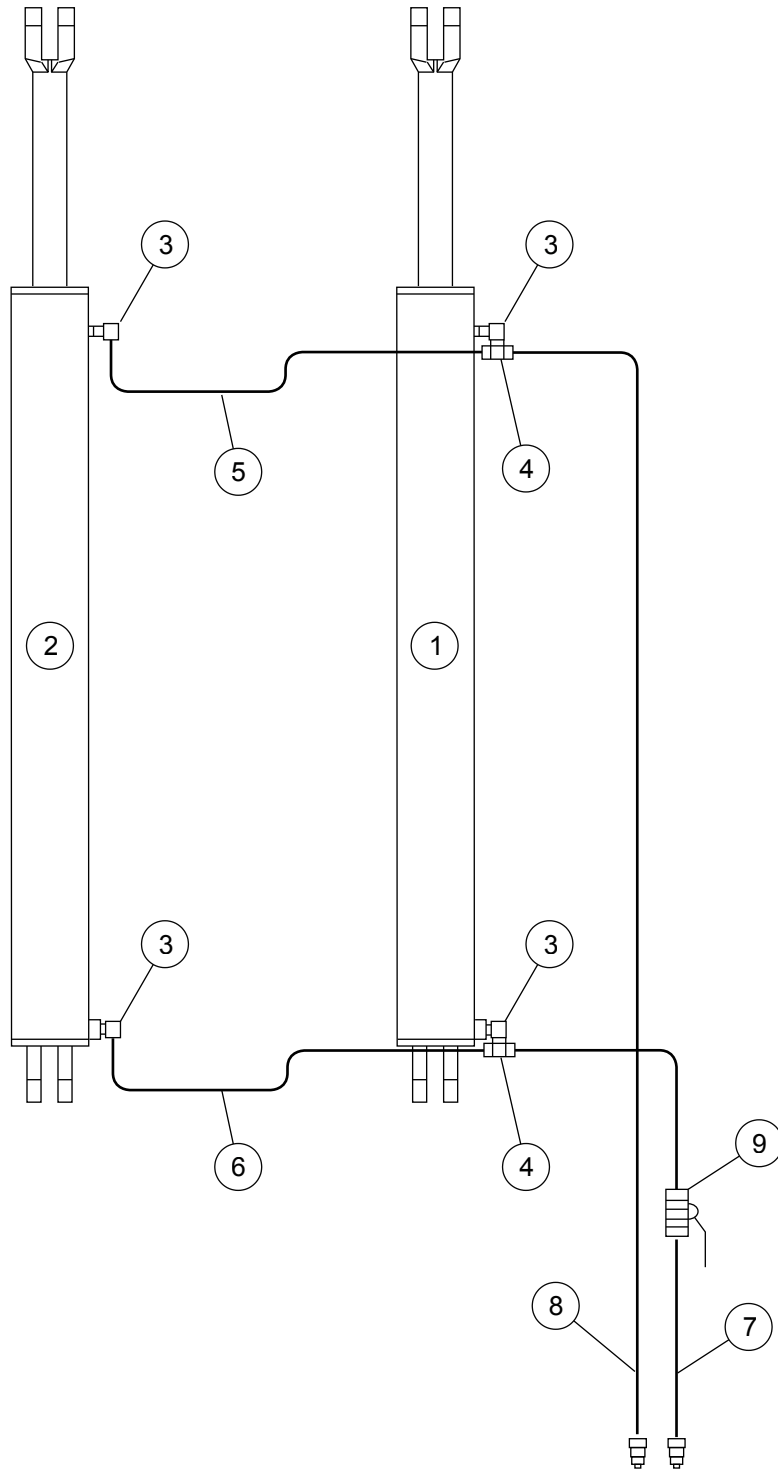


Table 19. Hydraulic Diagram (105'/125')

Number	Description
1	Cylinder 1
2	Cylinder 2
3	1/2" Elbow Fitting
4	1/2" Tee Fitting
5	Short Hydraulic Hose, 48"
6	Short Hydraulic Hose, 36"
7	Long Hydraulic Lift Hose, Pressure (with ball valve and 3/8" Pioneer coupler)
8	Long Hydraulic Lift Hose, Fluid Return (with 3/8" Pioneer coupler)
9	Ball Valve (on boot)

Figure 32. Installing Hose Clips

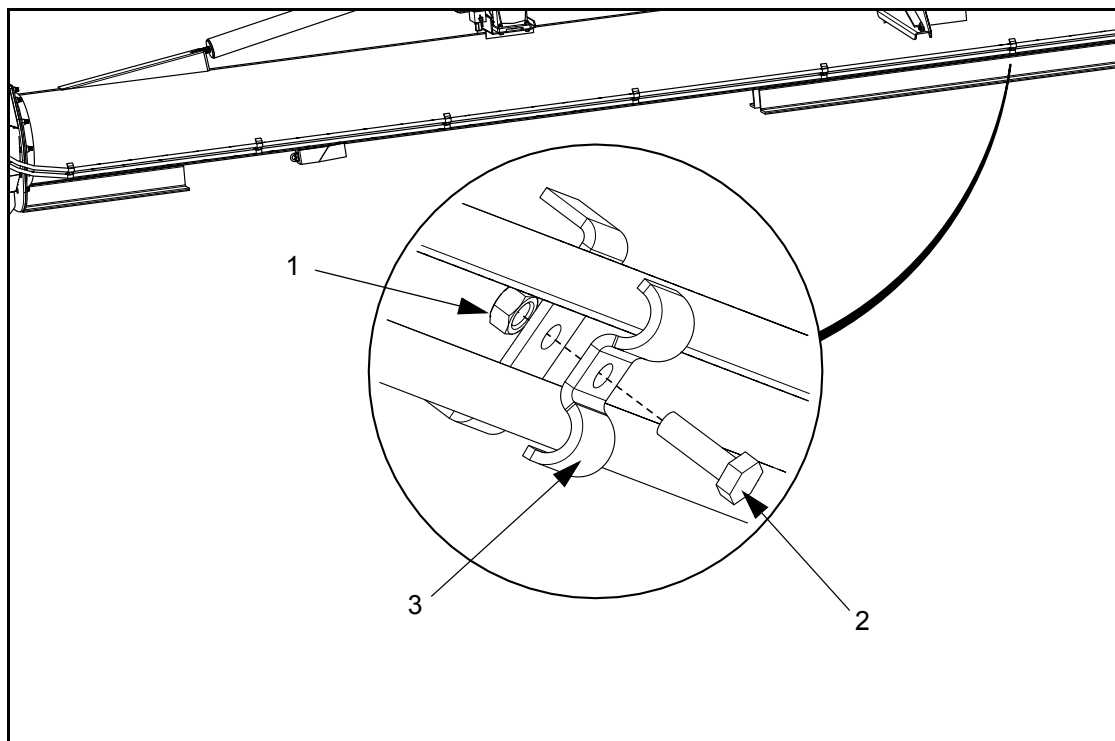
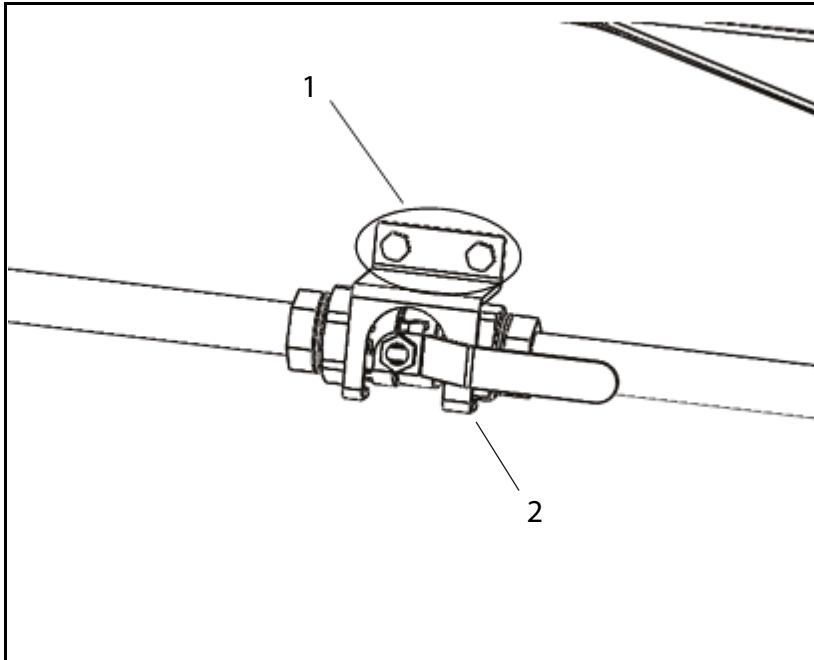


Table 20. Installing Hose Clips

Number	Description
1	5/16" Lock Nut
2	5/16" x 1-1/4" Bolt
3	Hydraulic Hose Clip

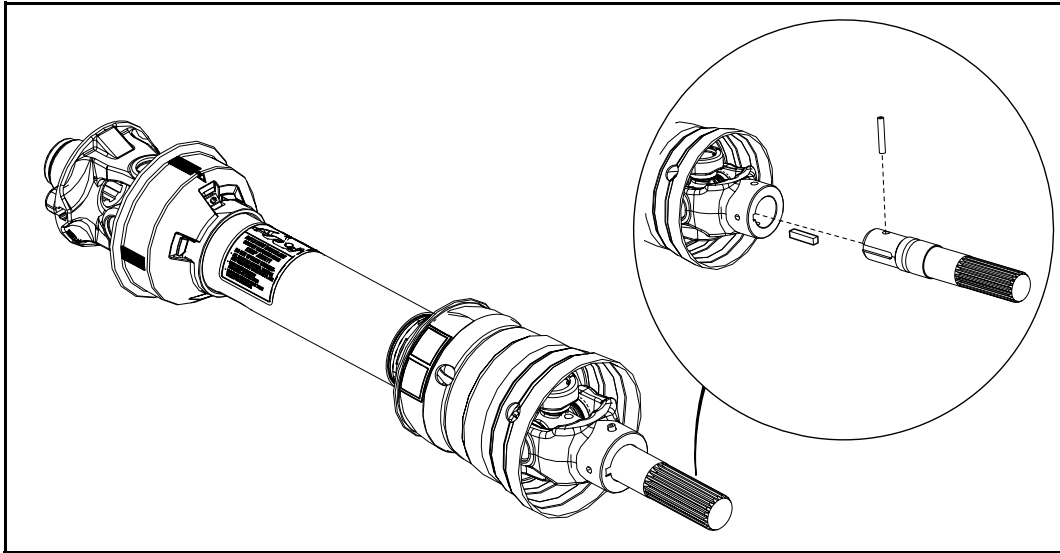
Figure 33. Installing the Ball Valve on the Boot**Table 21. Installing the Ball Valve on the Boot**

Number	Description
1	1/4" x 3/4" Bolts 1/4" Lock Nuts
2	Ball Valve Bracket

4.19. Connect the PTO Driveline

1. Clean dirt off of stub shaft ends before assembly.
2. Install the stub shaft on the PTO driveline using a 3/8" x 1-3/4" square key and a 3/8" x 2-1/2" coil roll pin. Tighten the 3/8" x 3/8" set screw on the PTO driveline.

Figure 34. Connecting the Stub Shaft to the PTO Driveline



- 3. Insert the splined end of the PTO stub shaft into the “forward” speed reducer gear box position.
- 4. Slide the PTO transport saddle through the support strap on the boot and rest the PTO driveline in it.

Figure 35. PTO Parts and Installation

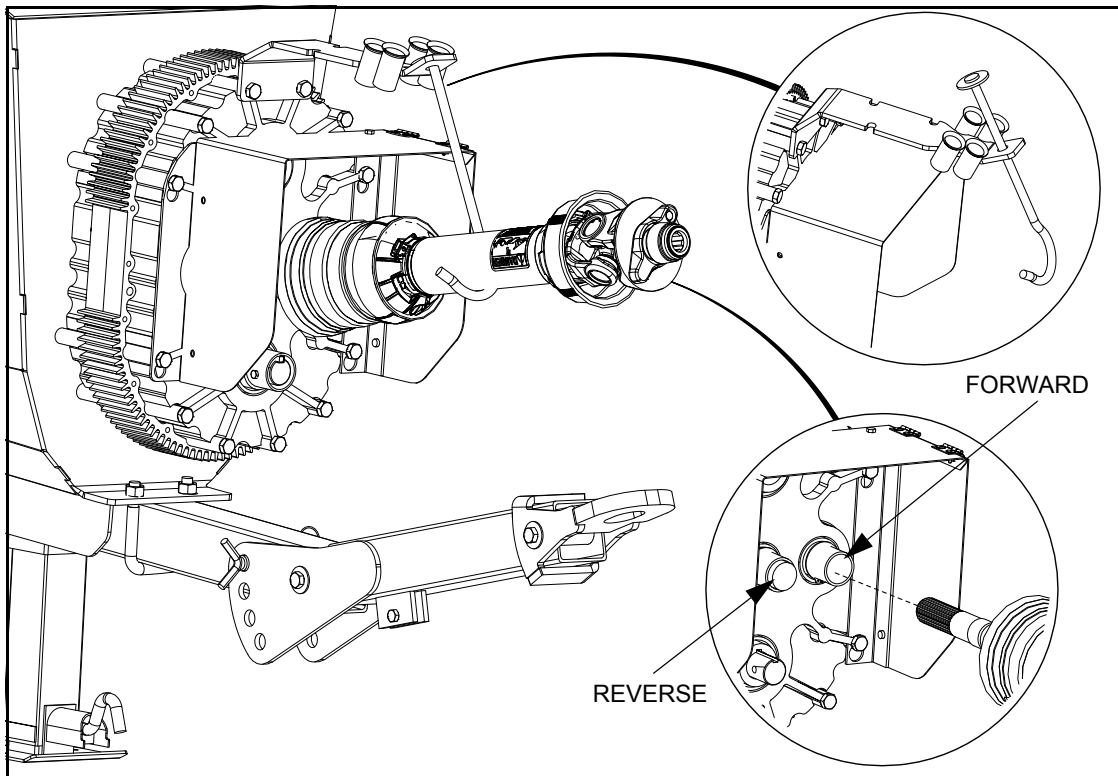


Table 22. PTO Parts and Installation

Item	Description
1	Forward
2	Reverse

4.20. Connect the Intake Hopper to the Swing Tube

WARNING Lockout the lifting apparatus before working around or under the raised components. Failure to do so may cause serious personal injury.

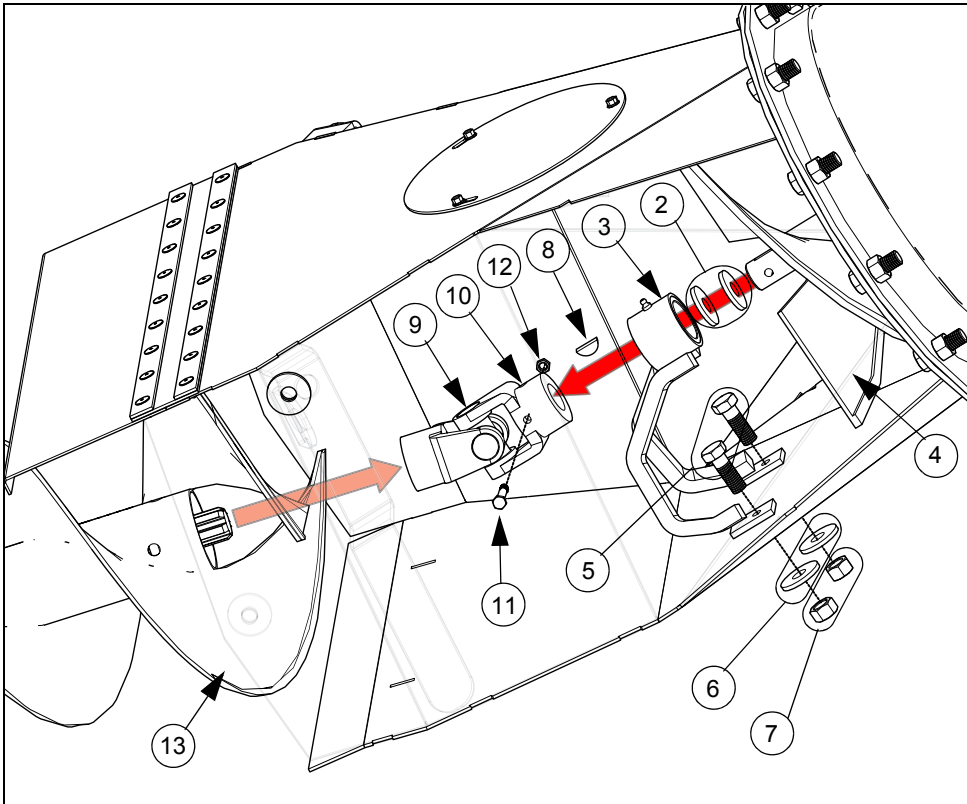
Table 23. Parts Required to Connect the Intake Hopper to the Swing Tube

Item	Description	Quantity
1	Swing Tube Assembly With Transition	1
2	1-3/4" Flat Washers	2
3	Bushing Support	1
4	Swing Flight	1
5	3/8" x 1-1/4" Bolts	2
6	3/8" flat washers	2
7	3/8" Lock nuts	2
8	Woodruff Key	1
9	U-Joint	1
10	3/8" Set Screw	2
11	5/16" x 2-3/4" Bolt	1
12	5/16" Lock nut	1
13	Transition Flight	1
14	Intake Hopper	1
15	5/8" x 2" Bolts	2
16	5/8" Lock nuts	2
17	Intake Hopper Wheels	6
18	Long Axle Pins	2
19	Hairpins	4
20	Short Axle Pins	2

1. Thoroughly grease two 1-3/4" flat washers, then place them fully onto the end of the swing flight shaft.
2. Place the bushing support onto the swing flight shaft and secure it in place with two 3/8" x 1-1/4" bolts, 3/8" flat washers, and lock nuts.
3. Insert a woodruff key into the swing flight shaft, then slide the U-joint onto the swing flight shaft.

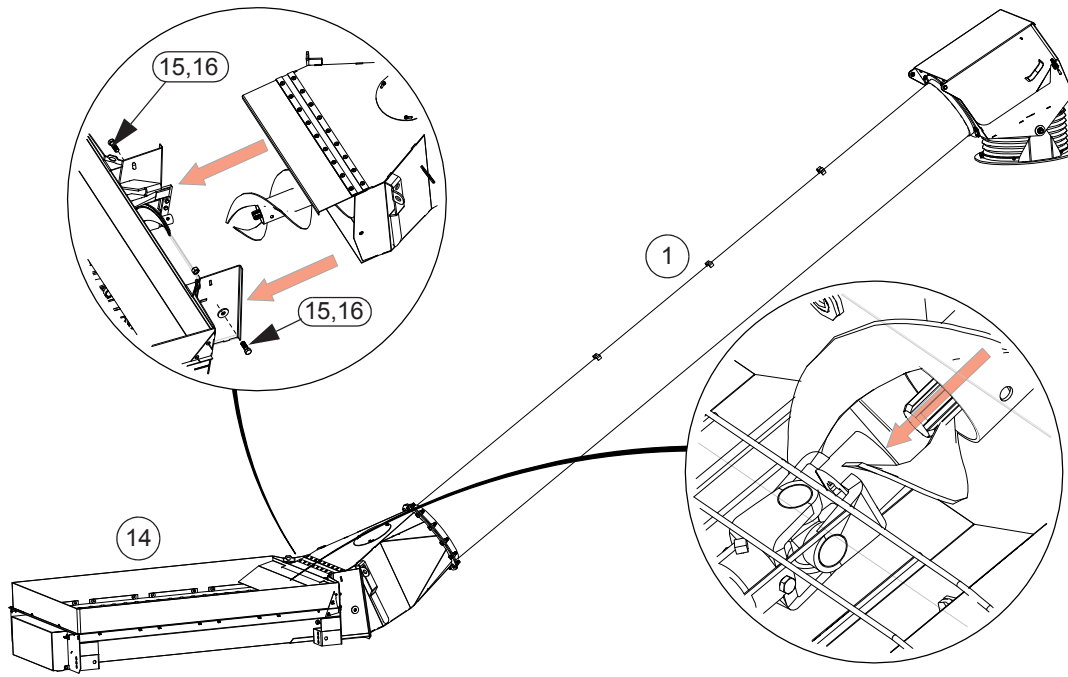
4. Secure the U-joint to the swing flight with a 3/8" set screw, a 5/16" x 2-3/4" bolt, and a lock nut.
5. Slide the transition flight shaft into the U-joint.

Figure 36. Secure Bushing Support and Connect Transition Flight



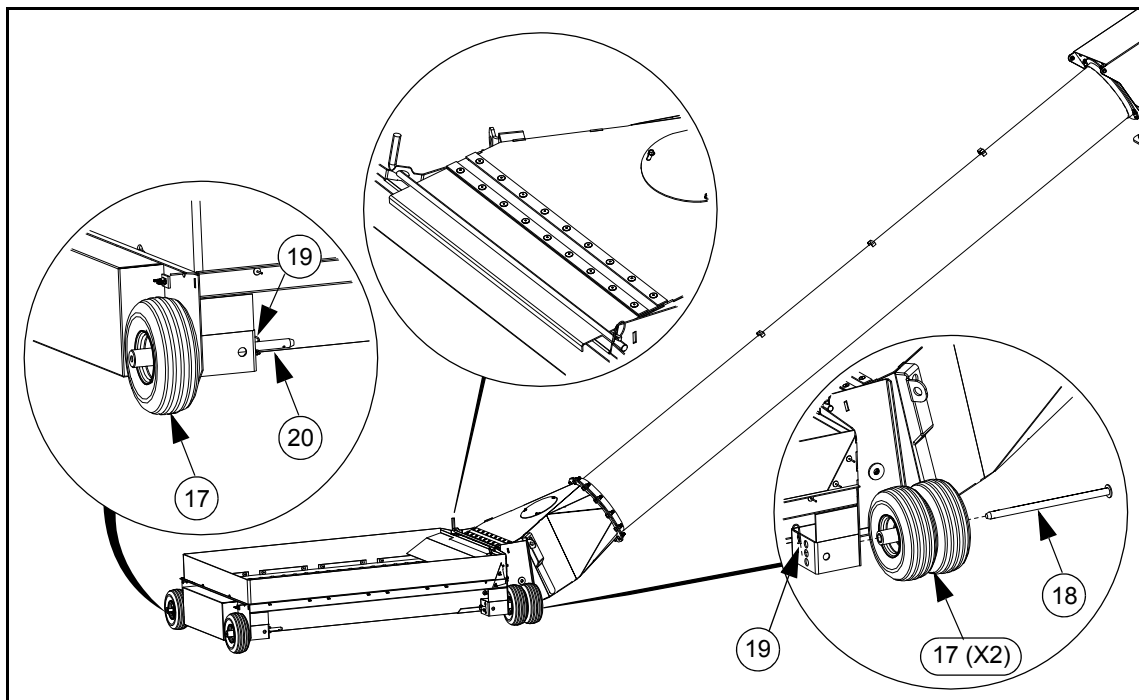
6. Raise and support the hopper tube spout head on a stand about 50" (127 cm) high.
7. Open the service door on the transition, then bring the intake hopper and transition together guiding the transition flight shaft into the U-joint. (See [Figure 37](#)).
8. Attach the transition to the intake hopper with two 5/8" x 2" bolts and 5/8" lock nuts. Tighten to a slightly loose fit only as these bolts act as pivot points, then close and secure the service door. DO NOT over-tighten.

Figure 37. Connecting the Transition to the Intake Hopper



9. Attach the six solid wheels to the four hopper corners with the axle pins and hairpins. There are three height settings (Figure 38) that can be used according to preference.

Figure 38. Installing the Wheels and Inspection Hatch Bar



4.21. Connect the Spout Head to the Grain Transfer Boot

Table 24. Parts Required to Connect the Spout Head to the Boot

Item	Description	Quantity
1	Service Cover Spring Clasps	2
2	Gearbox Coupler (2A Top, 2B Bottom)	1
3	3/8" x 1-3/4" Square Key	2
4	3/8" x 3-1/4" GR5 Bolt	2
5	3/8" Lock nut	2
6	Spout Head Spacers	4
7	Spout Head Retainers	4
8	3/8" x 1" Bolts	8
9	Shaft Grease Zerk	1

- Open the spout head service cover spring clasps, and swing the cover fully open, until it lies down securely on the top of the swing tube. (See [Figure 39](#) .)
- Separate the gearbox coupler into two sections by pulling it apart.
- Install the shaft section of the gear box coupler on the spout head gear box:
 - Insert a 3/8" x 1-3/4" square key into the gearbox shaft.
 - Align the gearbox coupler section U-joint with the gearbox shaft and square key, and slide it into place on the gearbox shaft.
 - Secure the U-joint using a 3/8" x 3-1/4" GR5 bolt and lock nut. Tighten securely.
- Install the remaining gear box coupler section on the boot gear box:
 - Insert a 3/8" x 1-3/4" square key into the gearbox shaft.
 - Align the gearbox coupler section U-joint with the gearbox shaft and square key, and slide it into place on the gearbox shaft.
 - Secure the U-joint using a 3/8" x 3-1/4" GR5 bolt and lock nut. Tighten securely.
- Shift the position of the hopper so that the spout head is supported above the hopper, centered on the shaft of the boot gear box.

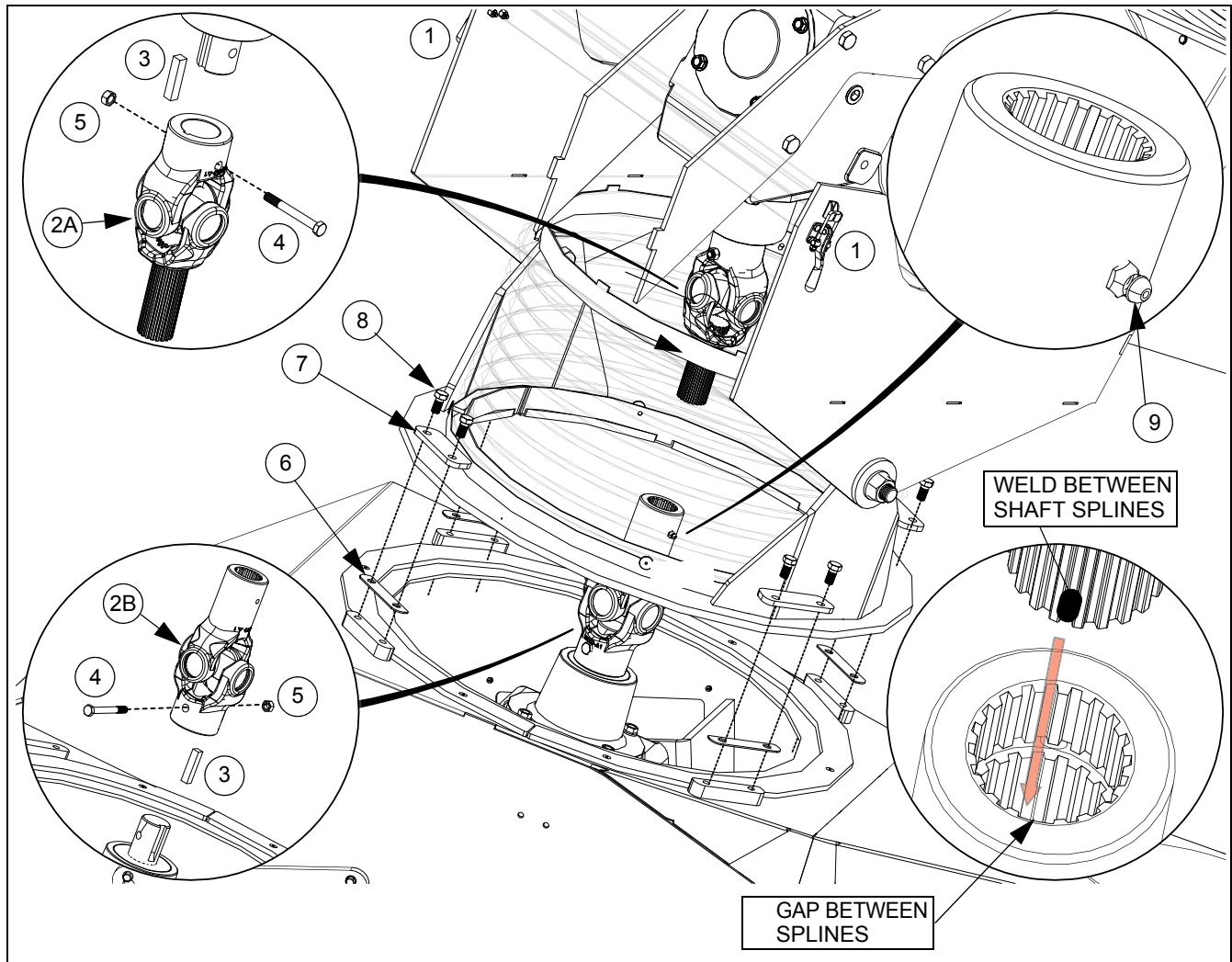
Note

The weld between splines on the top gearbox shaft must line up with the gap between splines on the bottom gearbox coupler.

- Lower the spout head onto the boot while guiding the two gearbox coupler sections together, inserting the top section shaft into the lower section, rotating sections as required to fit. Once positioned, the swivel ring should be resting flat on the boot surface.
- Install spout head spacers, followed by spout-head retainers, using eight 3/8" x 1" bolts.
- Grease the universal joints and the shaft and then close and secure the spout head service cover.

Important

Always keep the spout head service cover closed and secured during operation.

Figure 39. Connecting the Spout Head to the Boot

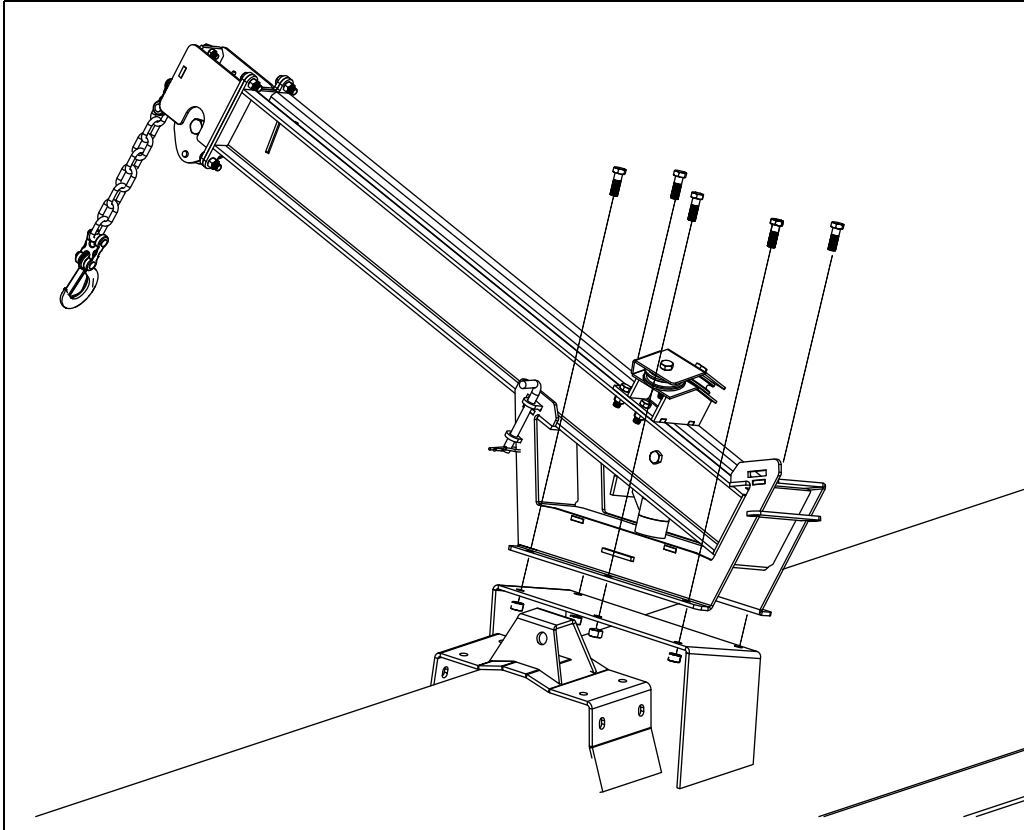
4.22. Install the Hopper Lift Arm

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 assembly on the mount bracket on top of the lower auger tube with the arm overhanging the side of the auger that the hopper will be operating on.
3. Fasten hopper lift arm assembly to the mount bracket with five 1/2" x 1-1/2" bolts and 1/2" lock nuts, as shown in [Figure 40](#).

Figure 40. Installing the Lift Arm

4.23. Install the Hydraulic Winch

1. Position the hydraulic winch on the winch mounting plate, and secure it using three 3/8" washers and three 3/8" lock nuts as shown in [Figure 41](#).
2. Thread the winch cable through the cylindrical cable weight, then feed the winch cable through the two lift arm pulleys (at the top of the lift arm and at the pulley guide), then under the spool and connect it to the spool (minimum three wraps around the spool, feed cable through hole in side of spool, and secure with clamp and clamp hardware) as shown in [Figure 42](#).
3. Connect the hydraulic hoses to the winch, as shown in [Figure 43](#), and install pioneer couplings on the hose ends as indicated.
4. Thread both hoses through hydraulic hose upper catches on side of auger lower tube and boot. Tighten hydraulic hose upper catches slightly to hold hoses in place.

Figure 41. Installing the Hydraulic Winch

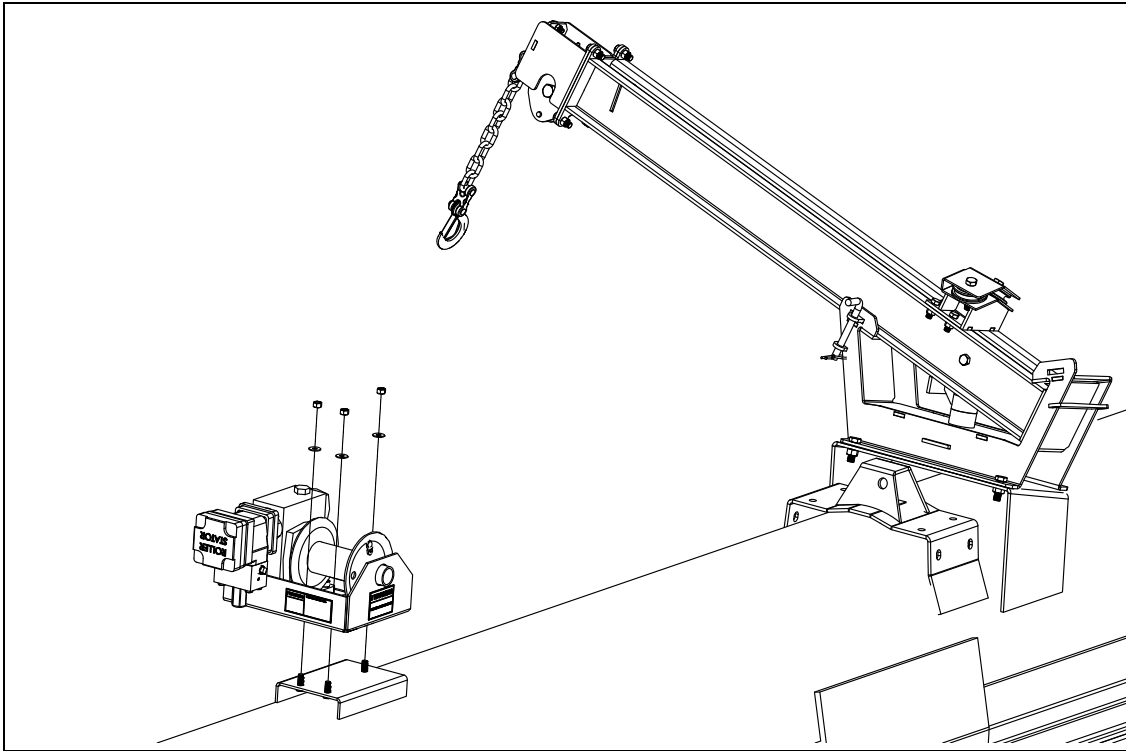


Figure 42. Installing the Winch Cable

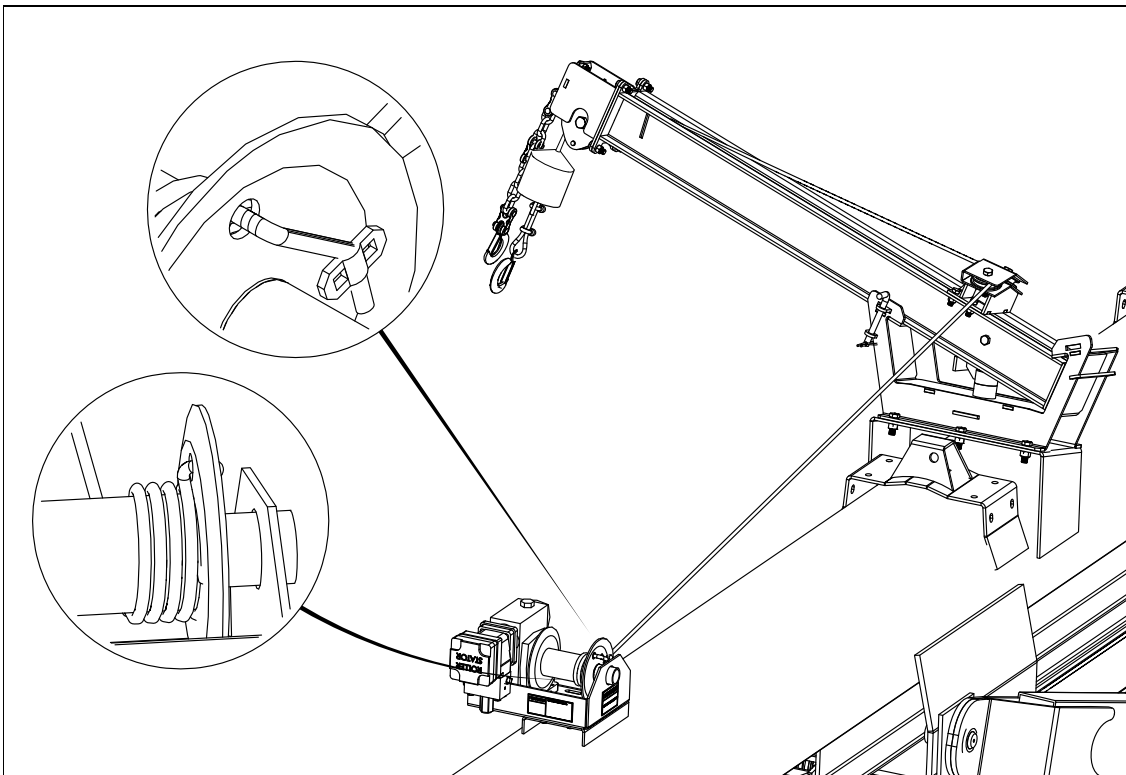


Figure 43. Installing the Hydraulic Winch Hose

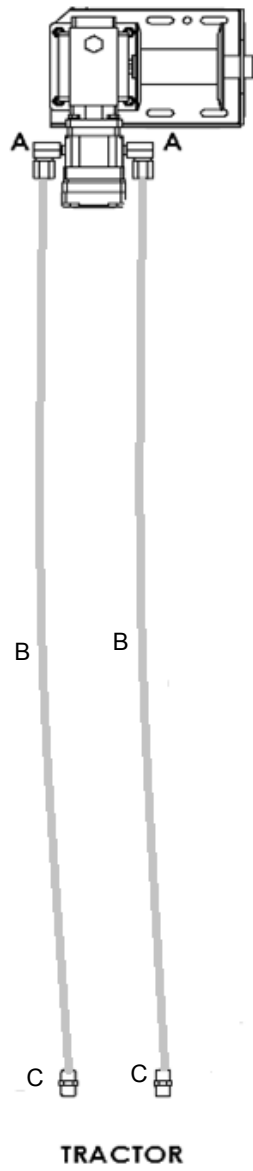


Table 25. Installing the Hydraulic Winch Hose

Item	Description
A	Steel Elbow 90.1 / 2FNPSMX3 / 8MNPT
B	1/2" x 226" Hydraulic Hose
C	Pioneer Coupler

4.24. Electric Power Swing Assembly

4.24.1 Power Swing Components

Figure 44. Electric Power Swing Components

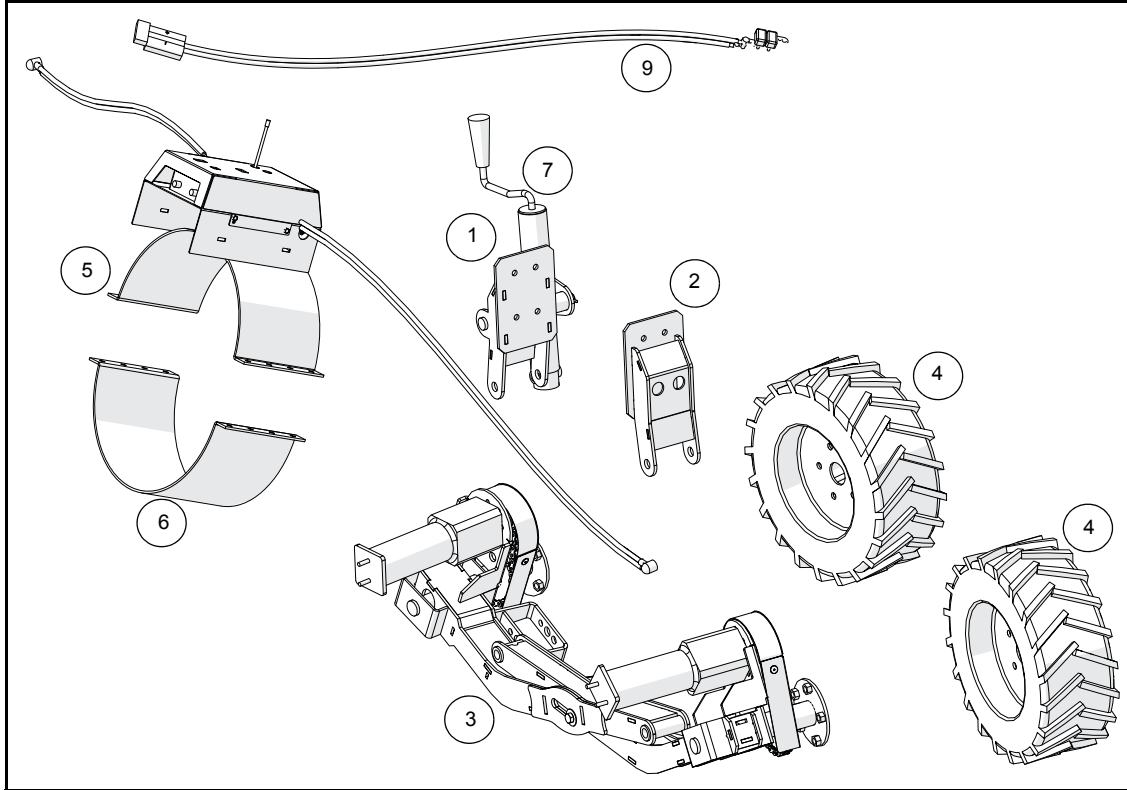


Table 26. Electric Power Swing Components

Item	Part Description
1	Manual Jack Attach Bracket
2	Right-Side Attach Bracket
3	Landing Gear Assembly (Electric)
4	Landing Gear Wheels
5	Receiver Top-Clamp Assembly
6	Hitch Ring Half Clamp
7	Manual Jack
8	Transmitter (Not Shown)
9	Wire Harness (Battery-To-Quick-Connect)

4.24.2 Install the Landing Gear

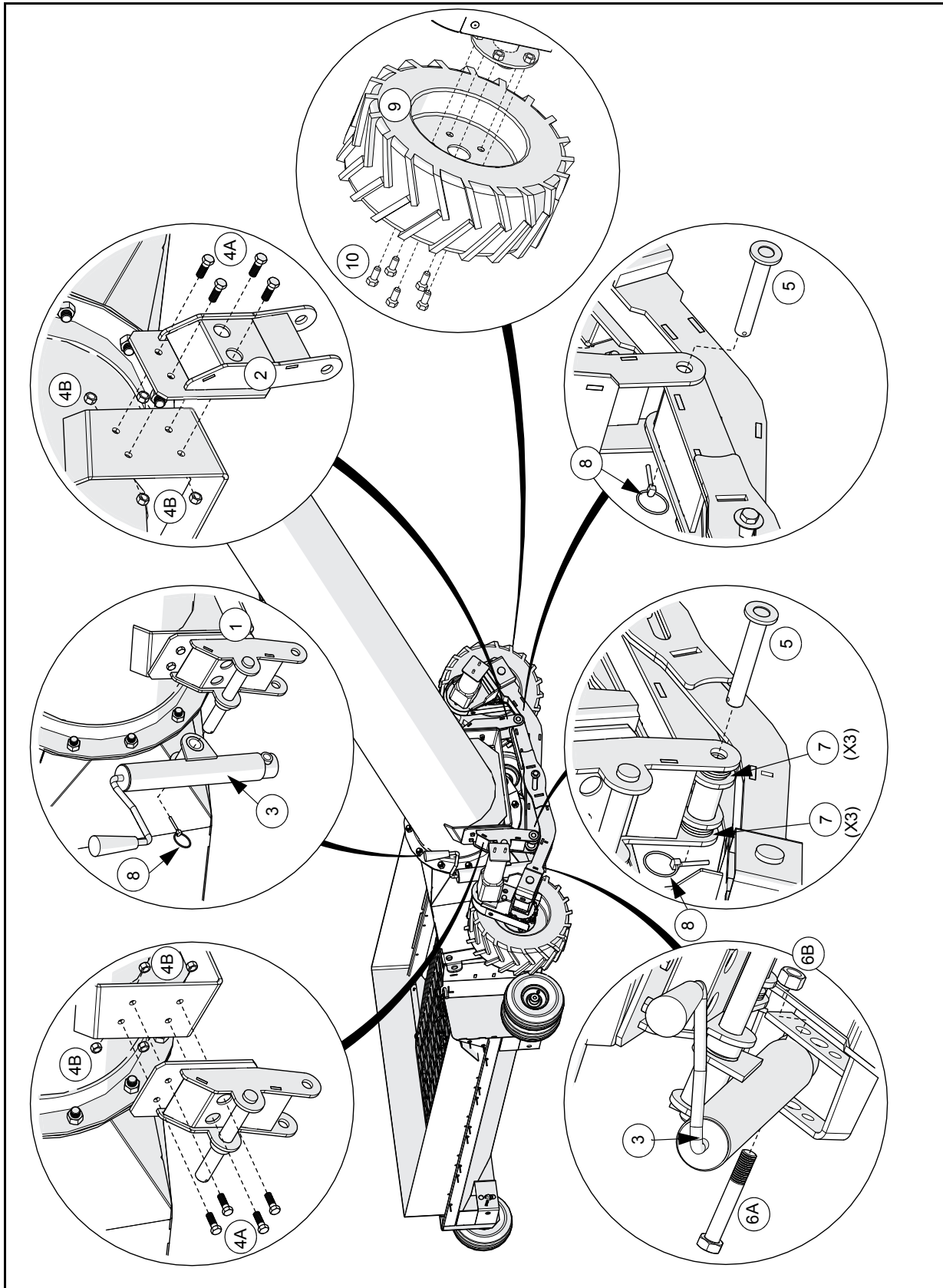
1. Fasten the right-side attach bracket to the swing tube using four 7/16" x 1-1/4" bolts and lock nuts.

2. Fasten the jack attach bracket to the swing tube using four 7/16" x 1-1/4" bolts and lock nuts.
3. Slide the upper manual jack attachment onto the manual jack attach pin, and secure using a lynch pin.
4. Connect the landing gear assembly to the attach brackets:
 - a. At the right-side attach bracket, use a landing gear pin and a lynch pin.
 - b. At the jack-attach bracket, use a landing gear pin, three 3/4" rim washers per side (as spacers), and a lynch pin.
5. Align the bottom manual jack attachment with the 5/8" hole in the landing gear attachment point, and secure using a 5/8" x 4" bolt and 5/8" lock nut.
6. Bolt both wheels to the landing gear power swing assembly using five wheel bolts per wheel. Tighten bolts securely.

Table 27. Attach the Landing Gear to the Tube

Item	Description
1	Jack Attach Bracket
2	Right-Side Attach Bracket
3	Manual Jack
4A	7/16" x 1-1/4" Bolts
4B	7/16" Lock nuts
5	Landing gear pins
6A	5/8" x 4" Bolt
6B	5/8" Lock nut
7	3/4" Rim Washers
8	Lynch Pins
9	Wheel (tire on rims)
10	Wheel Bolts

Figure 45. Attach the Landing Gear to the Tube



4.24.3 Install and Connect the Receiver Box

1. Position the receiver top clamp assembly approximately 24" (61 cm) from the transition attach plate and secure using eight 7/16" x 1-1/4" bolts and lock nuts. Tighten both sides securely.
2. Remove cover from the receiver box and top clamp assembly. This means removing the four sheet metal screws located on the sides of the cover.
3. Remove radio antenna and transmitter from the crate. (It will be in a separate bag). Screw antenna into the socket on the clamp-base.
4. Replace cover, making sure that the antenna fits through the top hole, as shown in [Figure 46 on page 84](#). Replace sheet metal screws, and tighten securely.

Figure 46. Install the Receiver Box

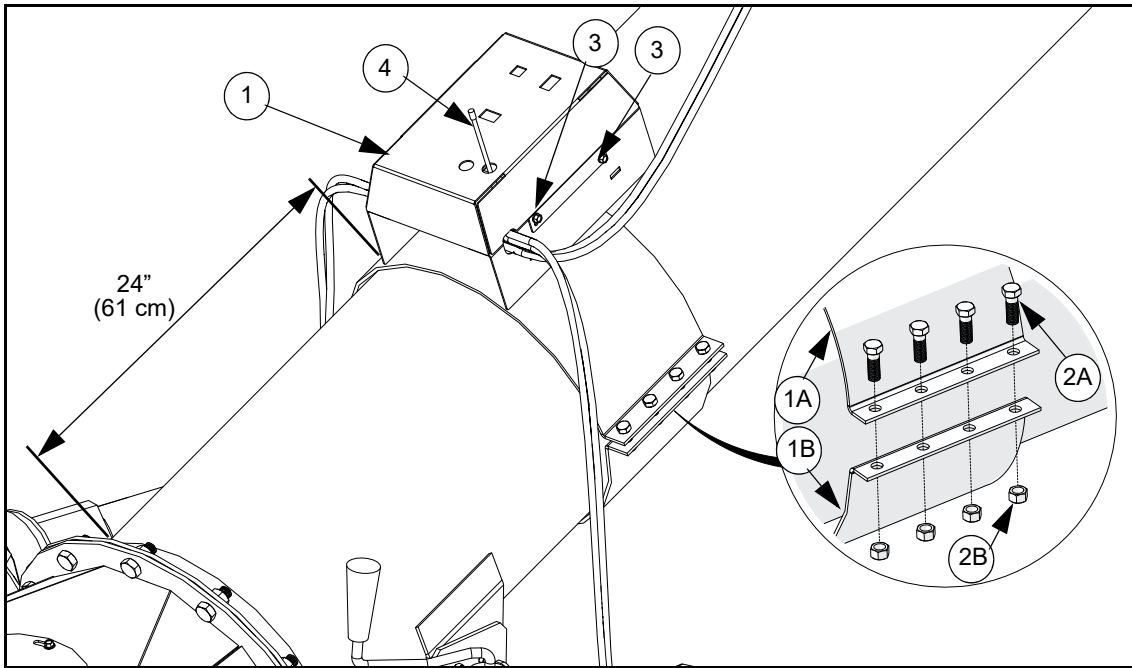


Table 28. Install the Receiver Box

Item	Description
1A	Receiver Top Clamp Assembly
1B	Hitch Ring Half Clamp
2A	7/16" x 1-1/4" Bolts
2B	7/16" Lock nuts
3	Sheet Metal Screws (#14 x 5/8")
4	Antenna

5. The electrical cables are pre-installed to the receiver box. Uncoil the two shorter (4') electrical cables and identify the positive and negative wires. The positive wire has a red boot and printing on it.
6. Attach the wires to the motor terminals on the power swing. The positive wire with the red boot connects to the positive (+) terminal on the electric motor. To connect:
 - a. Unscrew the nut on the motor terminal.

- b. Place the wire on, and then replace the nut.
 - c. Tighten securely.
 - d. Repeat the same steps for the negative wire and terminal.
7. Route the long electrical cable up the swing tube and secure it using an insulated clamp, a 1/4" x 3/4" bolt, and a 1/4" lock nut.
8. Uncoil the tractor wire harness.
9. Connect the end opposite the quick-connect to the battery and chassis ground using the 5/16" lugged connectors supplied with the kit:
 - a. Attach the positive wire directly to the positive terminal on the tractor battery. (The positive wire has a circuit breaker on it.)
 - b. Attach the negative wire to a tractor chassis ground point (assuming that the tractor battery is also grounded to the chassis).

Important

If these electrical cables are not hooked up properly the electric controller will be damaged.

10. Attach the receiver cable quick connect to the tractor wire harness quick connect.

Note

Ensure that both tires are turning in the same direction. If they are not, reverse the wires on one of the motors.

Figure 47. Connecting the Receiver Box

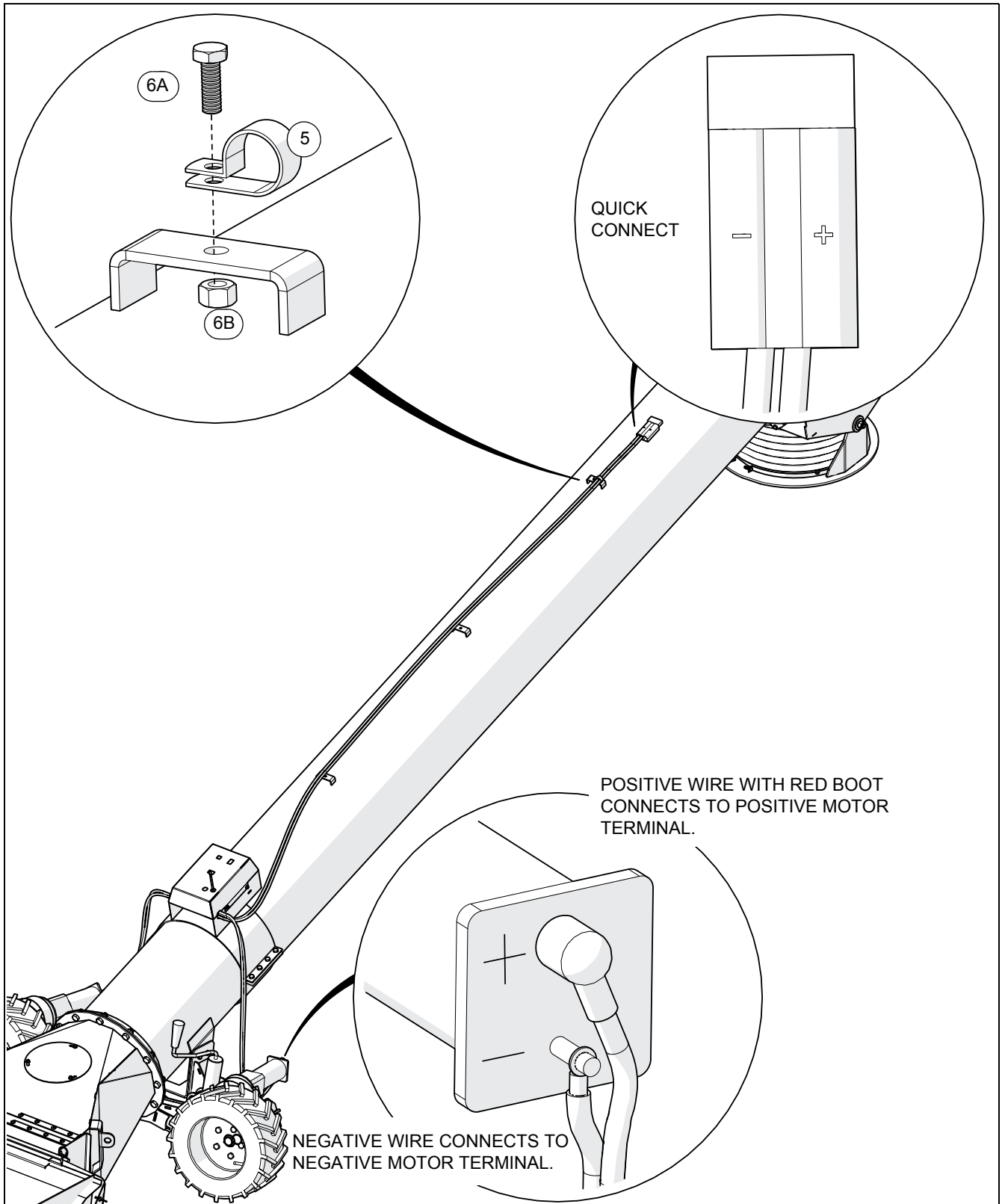
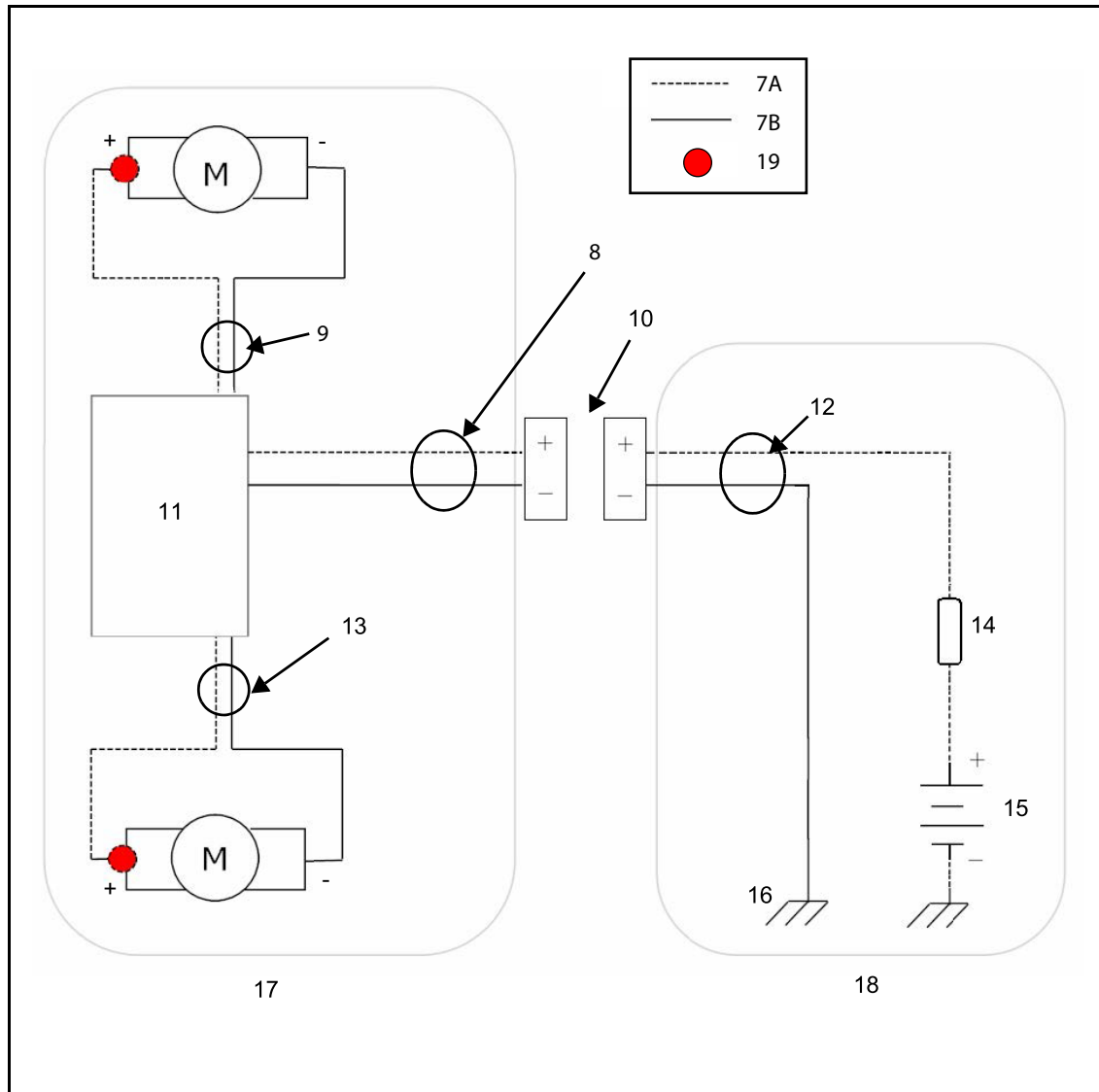


Table 29. Connecting the Receiver Box to the Motors and Battery

Item	Part Description
5	5/8" x 1/2" Insulated Clamp
6A	1/4" x 3/4" Bolt
6B	1/4" Lock nut
6C	Quick Connect
7A	Positive wire
7B	Negative wire
8	Long Electrical Cable
9, 13	Short Electrical Cable
10	Quick Connect
11	Receiver Box
12	Tractor Wire Harness
14	Fuse
15	Battery
16	Tractor Ground (chassis)
17	Power Swing
18	Tractor
19	Red Boot

Figure 48. Power Swing Wiring Diagram

4.25. 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

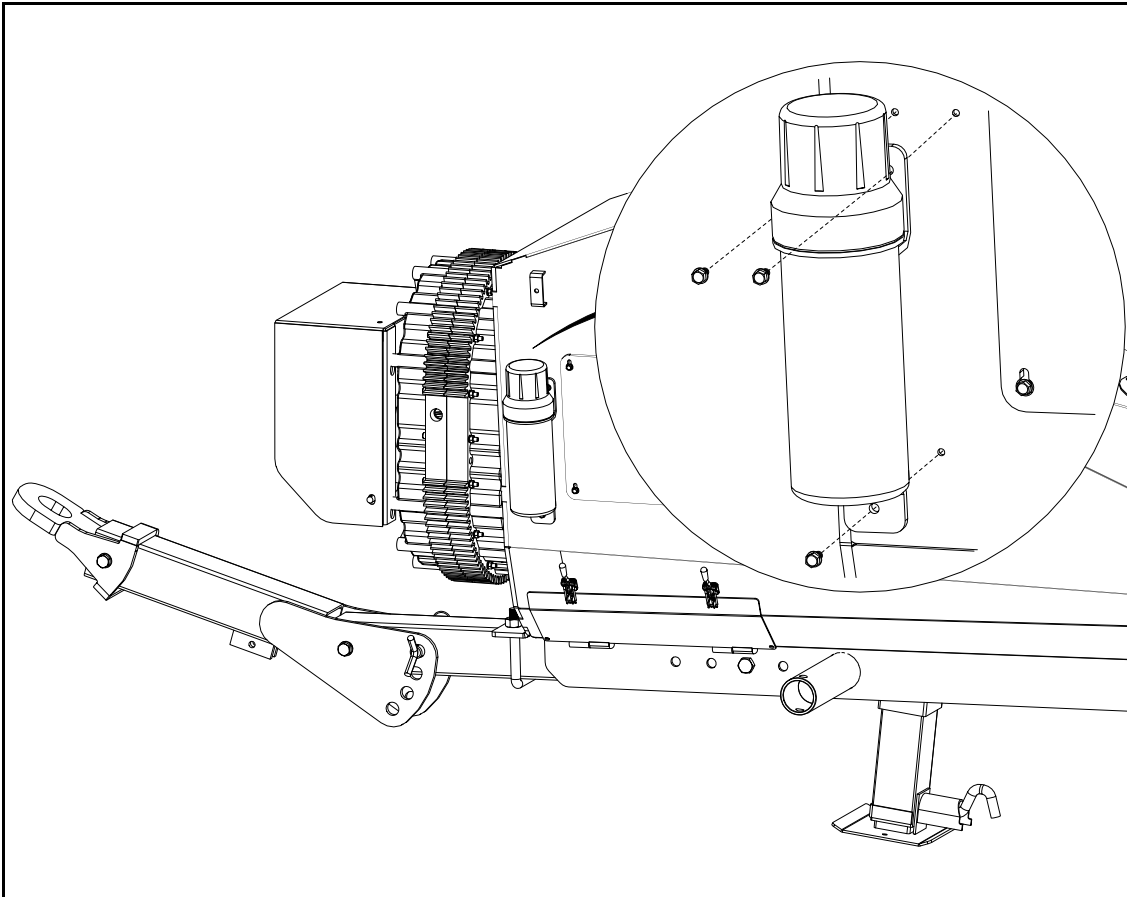
Jack must be rotated 90° for transport or operation.

WARNING The jack is designed for raising or lowering auger hitch only. Do not climb onto auger or place any part of your body under any part of the auger while it is supported by the jack, or while the jack is being operated.

4.26. Install the Manual Container

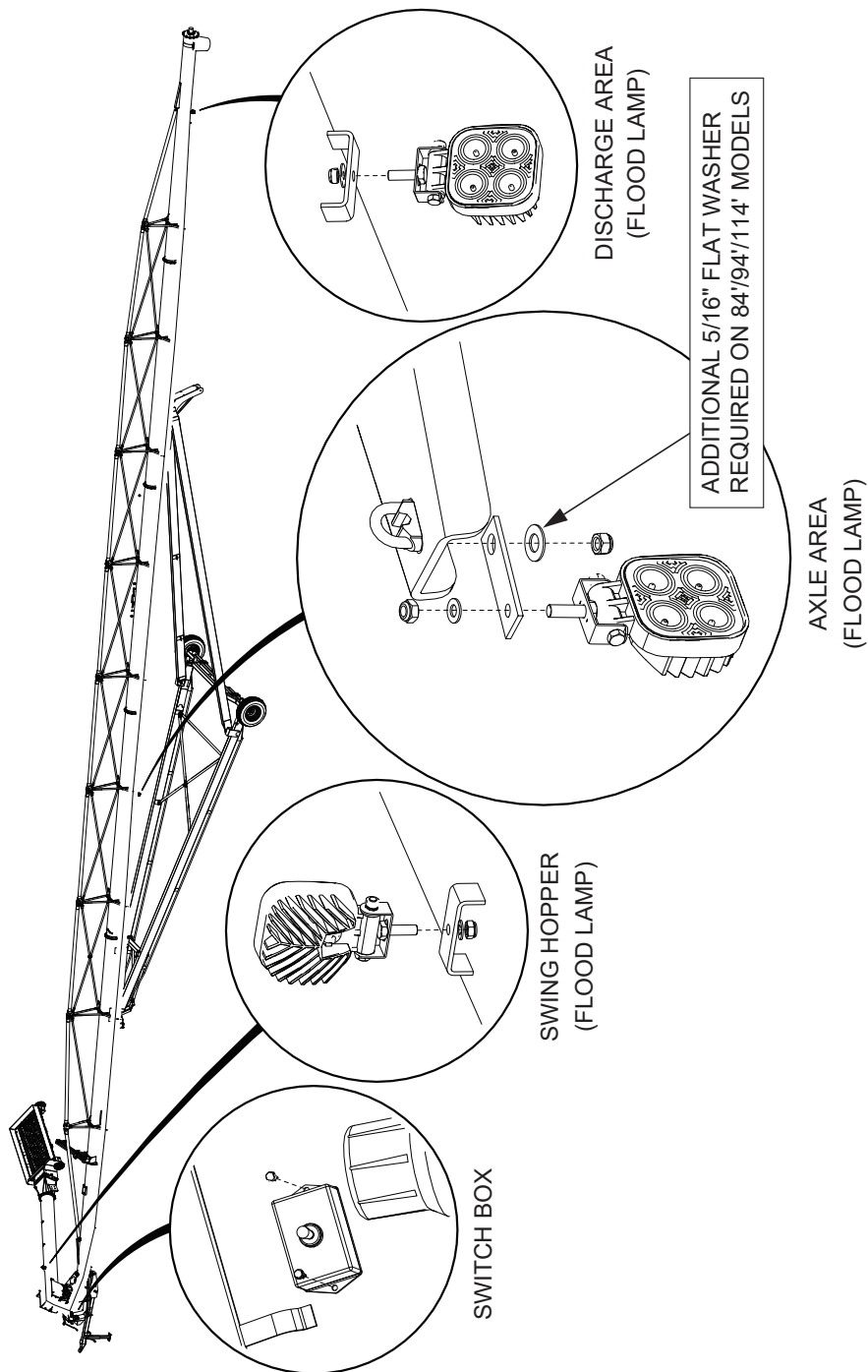
Mount the plastic manual holder directly to the boot (as shown below) using three self-tapping screws.

Figure 49. Installing the Plastic Manual Container



4.27. Install Work Lights

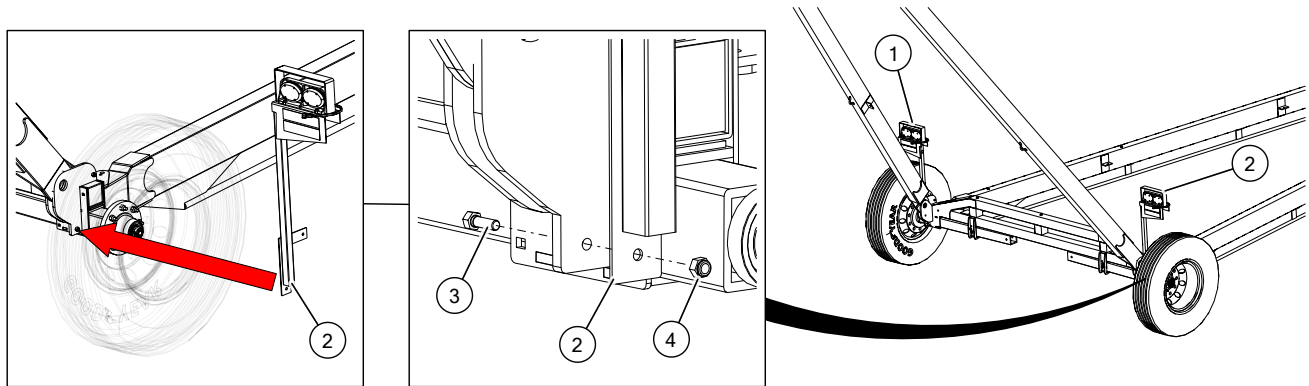
1. Secure the axle-area lamp bracket to the truss tower using the existing cable clamp.
2. Fasten the axle-area flood lamp to the bracket.
3. Fasten the discharge-area flood lamp to the upper tube.
4. Fasten the swing hopper flood lamp to the second bracket on the swing tube.
5. Route the wiring harness along the truss cable and secure using zip ties. Plug the wiring harness connectors into the lamp connectors. Ensure that the connectors are fully engaged.
6. Install the switch box on the boot using two #8 x 3/4" Tek screws.



4.28. Install Transport Lights

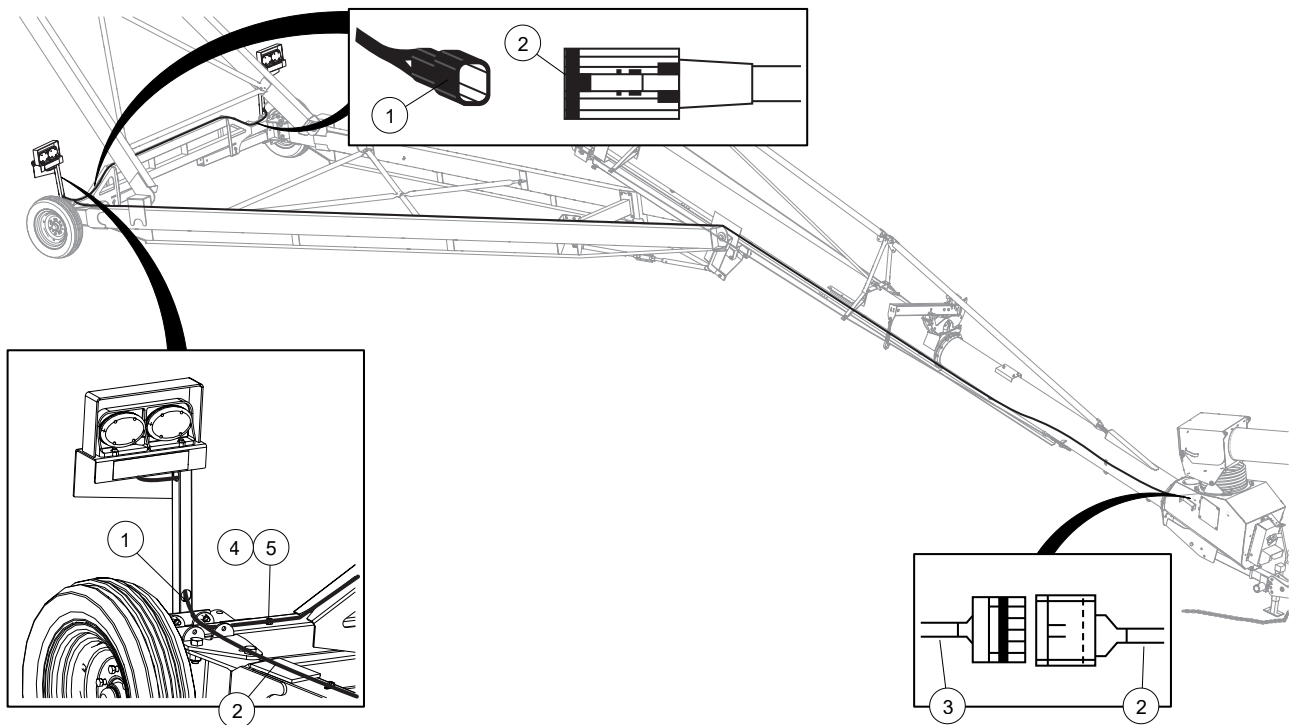
1. Attach the light mount assemblies to the axle with 7/16" x 1-1/4" bolts and lock nuts, then plug the transport light connector to the wiring harness connector. Ensure that the connectors are fully engaged.
2. Run the wiring harness along the axle to the lower frame and fasten the harness with the P-clamps.
3. Run the wiring harness up the lower frame to the lower tube and secure it with the P-clamps. Mount the P-clamps approximately 6 ft apart on the frame.

4. Run the wiring harness down the lower tube along the hydraulic hoses to the boot assembly and secure using zip ties.
5. Plug the wiring harness connector into the work light kit connector. Ensure that the connectors are fully engaged.



1	Light Mount Assembly, LH	3	Bolt, 7/16" x 1-1/4"
2	Light Mount Assembly, RH	4	Lock Nut, 7/16"

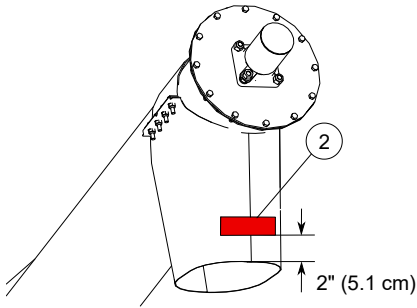
Harness Routing



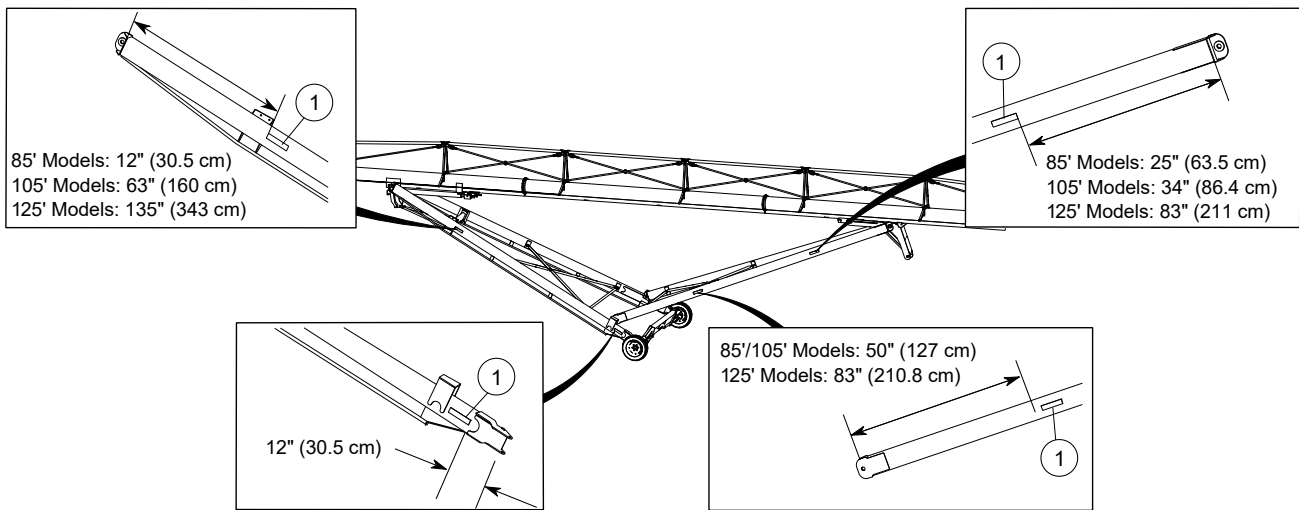
1	LED Light Harness	4	P-Clamp, 3/8"
2	Transport Light Harness	5	Tek Screw, #8 x 3/4"
3	Work Light Harness		

4.29. Install the Retroreflective Strips

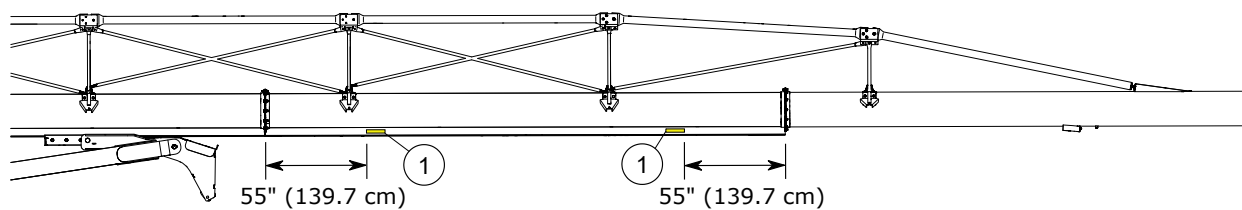
Spout



Lower and Upper Arms



Upper Middle Tube (125' Models Only)



Assembly Note:

- Add 2 safety strips at the given locations on each arm.
- For 125' Models only: Add 2 safety strips at the given locations on both sides of the tube.

1	Yellow Retroreflective Strip	2	Red Retroreflective Strip
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5. Specifications

Specification	16-85	16-105	16-125
Tube Size	16" (40.6 cm)		
CAPACITIES			
Unloading Rate	23000 Bu/Hr		
TRANSPORT DIMENSIONS			
Length	85'	105'	125'
Width	13'4"/16'9"		
Height	14' (4.27 m)	14' (4.27 m)	16' (4.88 m)
DISCHARGE CLEARANCE DIMENSIONS			
Min	12'3" (3.73 m)	10'7" (3.20 m)	12'0" (3.66 m)
Max	59'2" (18.03 m)	75'6" (23.01 m)	84' (25.60 m)
REACH TO WHEELS			
Min	35'7" (10.85 m)	41'11" (12.78 m)	51'3" (15.62 m)
Max	45'6" (13.87 m)	52'9" (16.08 m)	68'11" (21.01 m)
TIRES			
Type	22.5" Agricultural Highway Tractor-Trailer		
Inflation Pressure	See Manufacturer Recommended Pressure on Tire Sidewall		
Hubs	8 Bolt Automotive Type		
WEIGHT			
Total Weight (Basic)	11150 lb (5058 kg)	15230 lb (6908 kg)	17500 lb (7938 kg)
POWER RECOMMENDATIONS			
PTO Drive	175 HP	200 HP	225 HP
PTO Speed	1000 RPM		
PTO Shaft	55E Double CV with 2-Bolt Shear		
PTO Shear Bolt	3/8" x 1" GR8 Bolts		
PART SPECIFICATIONS			
Lubricating Grease	SAE multi-purpose high-temperature grease with extreme pressure (EP) performance. (SAE multi-purpose lithium-based grease is also acceptable)		
Gearbox Oil	SAE approved 90W or equivalent gear oil		
Gearbox Oil Capacity	1.8 US quarts (1.7 L)		
Speed Reducer Gearbox Oil Capacity	8 US quarts (7.6 L)		
PTO maximum Operating Angle	25°		
Hydraulic Hoses	Minimum 2500 psi (17200 kPa) working pressure		
Hitch Jack	12000 lb Drop Leg		
Hitch Pin (Minimum)	1-1/4" x 5"		

Specification	X-Tend 16
Tractor Hydraulic Flow	Adjust to 8 GPM
Tractor PTO Speed	1000 rpm
Hopper Height	14"
Hopper Length	68"
Hopper Width	46"
Total Swing Weight	2100 lbs
Weight on Lift Arm	1300 lbs
Power Swing Tire Pressure	20 psi
In-Use Operating Range	18"
Positioning Range	10'

6. Appendix

6.1. Bolt Torque

Table 30 gives the correct torque values for various hardware. Tighten all bolts to the torque specified, unless otherwise noted. Check tightness periodically, using Table 30 as a guide. Replace the hardware with the same strength bolt, contact AGI if you are unsure.

Table 30. Recommended Bolt Torque¹

Size	Dry or Lubricated	Threads per inch (Course/Fine)	Area of Bolt (sq in.)		Recommended Torque (ft-lb)							
					Grade 2		Grade 5		Grade 8		8.8 S/S	
					Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine
1/4"	Dry	20/28	0.0318	0.0364	5.5	6.3	8	10	12	14	6.3	7.8
	Lubricated				6.3	4.7	6.3	7.2	9	10	-	-
5/16"	Dry	18/24	0.0524	0.058	11	12	17	19	24	27	11	11.8
	Lubricated				8	9	13	14	18	20	-	-
3/8"	Dry	16/24	0.0775	0.0878	20	23	30	35	45	50	20	22
	Lubricated				15	17	23	25	35	35	-	-
7/16"	Dry	14/20	0.1063	0.1187	32	36	50	55	70	80	31	33
	Lubricated				24	27	35	40	50	80	-	-
1/2"	Dry	13/20	0.1419	0.1599	50	55	75	85	110	120	43	45
	Lubricated				35	40	55	65	80	90	-	-
9/16"	Dry	12/18	0.182	0.203	70	80	110	120	150	170	57	63
	Lubricated				55	60	80	90	110	130	-	-
5/8"	Dry	11/18	0.226	0.256	100	110	150	170	210	240	93	104
	Lubricated				75	85	110	130	160	180	-	-
3/4"	Dry	10/16	0.334	0.373	175	200	260	300	380	420	128	124
	Lubricated				130	140	200	220	280	310	-	-
7/8"	Dry	9/14	0.462	0.508	170	180	430	470	600	670	194	193
	Lubricated				125	140	320	350	180	180	-	-
1"	Dry	8/14	0.606	0.679	250	280	640	720	910	1020	287	289
	Lubricated				190	210	480	540	680	760	-	-
1-1/8"	Dry	7/12	0.763	0.856	350	400	790	890	1290	1440	288	290
	Lubricated				270	300	590	670	970	1080	-	-
1-1/4"	Dry	7/12	0.989	1.073	500	550	1120	1240	1820	2010	289	291
	Lubricated				380	420	840	930	1360	1510	-	-
1-1/2"	Dry	6/12	1.405	1.581	870	960	1950	2200	3160	3560	-	-
	Lubricated				650	730	1460	1640	2370	2670	-	-

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%.

7. AGI Limited Warranty

This warranty relates to AGI Augers (the “Product”) sold by AGI, (referred to herein as the “Seller”) and applies only to the first user of the Product (meaning a purchaser directly from the Seller or from an authorized dealer or distributor of the Product, referred to herein as the “Buyer”).

This warranty shall only be effective if properly registered with the Seller in accordance with information provided to the Buyer at the time of sale.

1. The Seller warrants to the Buyer that the Product is free from defects in material and workmanship **under normal and reasonable use.**
2. This warranty applies only to defects in materials and workmanship and not to damage incurred in shipping or handling, through normal wear and tear, or damage due to causes beyond the control of the Seller such as lightning, fire, flood, wind, earthquake, excessive voltage, mechanical shock, water damage, or damage arising out of abuse, alteration, improper assembly, improper installation, improper maintenance or improper repair of the Product.
3. **The warranty period for the Product shall be two years from delivery of the Product to the Buyer where the Product is used in a normal farm operation. First year of warranty coverage of parts and labour, second year warranty coverage of parts only. Warranty period for the Product shall be 90 days from delivery of the Product to the Buyer where the Product is used in a commercial operation.** In the event that any part incorporated into the Product is manufactured and sold to the Seller by a third party vendor, such part is only warranted to the extent of the warranty given by that third party.
4. The obligations set forth in this warranty are conditional upon the Buyer promptly notifying the Seller of any defect and completing reasonably required documentation and, if required, promptly making the Product available for correction. The Seller shall be given reasonable opportunity to investigate all claims and no Product shall be returned to the Seller or part disposed of until after inspection and approval by the Seller and receipt by the Buyer of written shipping instructions, with transportation charges prepaid.
5. Upon return of the Product, or such part of the Product that requires correction, the Seller shall, at the Seller’s option, either repair or replace the Product or such part. The Seller shall replace or attempt to repair and return the Product or such part within a reasonable period of time from receipt of an approved warranty claim from the Buyer. If the Seller is unable to repair or replace the Product, the Buyer shall be entitled to a credit note in the amount of the purchase price for the Product.
6. The total liability of the Seller on any claim, whether in contract, tort or otherwise, arising out of, connected with, or resulting from the manufacture, sale, delivery, repair, replacement or use of the Product or any part thereof **shall not exceed the price paid for the Product** and the Seller shall not be liable for any special indirect, incidental or consequential damages caused by reason of the installation, modification, use, repair, maintenance or mechanical failure of the Product. **Consequential or special damages as used herein include, but are not limited to, lost or damaged products or goods, costs of transportation, lost sales, lost orders, lost income, increased overhead, labor and incidental costs and operational inefficiencies.**
7. **Notwithstanding anything contained herein to the contrary, the foregoing is the Buyer’s sole and exclusive remedy for breach of warranty by the Seller in respect of the Product. The Seller, for itself, its agents, contractors, employees and for any parent or subsidiary of the Seller, expressly disclaims all warranties, either express or implied, written or oral, including implied warranties of merchantability or fitness for a particular purpose and undertakes no obligation with respect to the conformity of the Product except as set out in the purchase agreement, if any, or marketing materials.**
8. The foregoing warranty is the entire warranty of the Seller to the Buyer and the Buyer shall not be entitled to rely upon any representation or warranty contained in any marketing material of the Seller in respect of the Product. The Seller neither assumes, nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning the Product.






WARRANTY VOID IF NOT REGISTERED

AGI is a leading provider of equipment solutions for agriculture bulk commodities including seed, fertilizer, grain, and feed systems with a growing platform in providing equipment and solutions for food processing facilities. AGI has manufacturing facilities in Canada, the United States, the United Kingdom, Brazil, South Africa, India and Italy and distributes its products globally.



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Please include the part number listed on the cover page in your message.