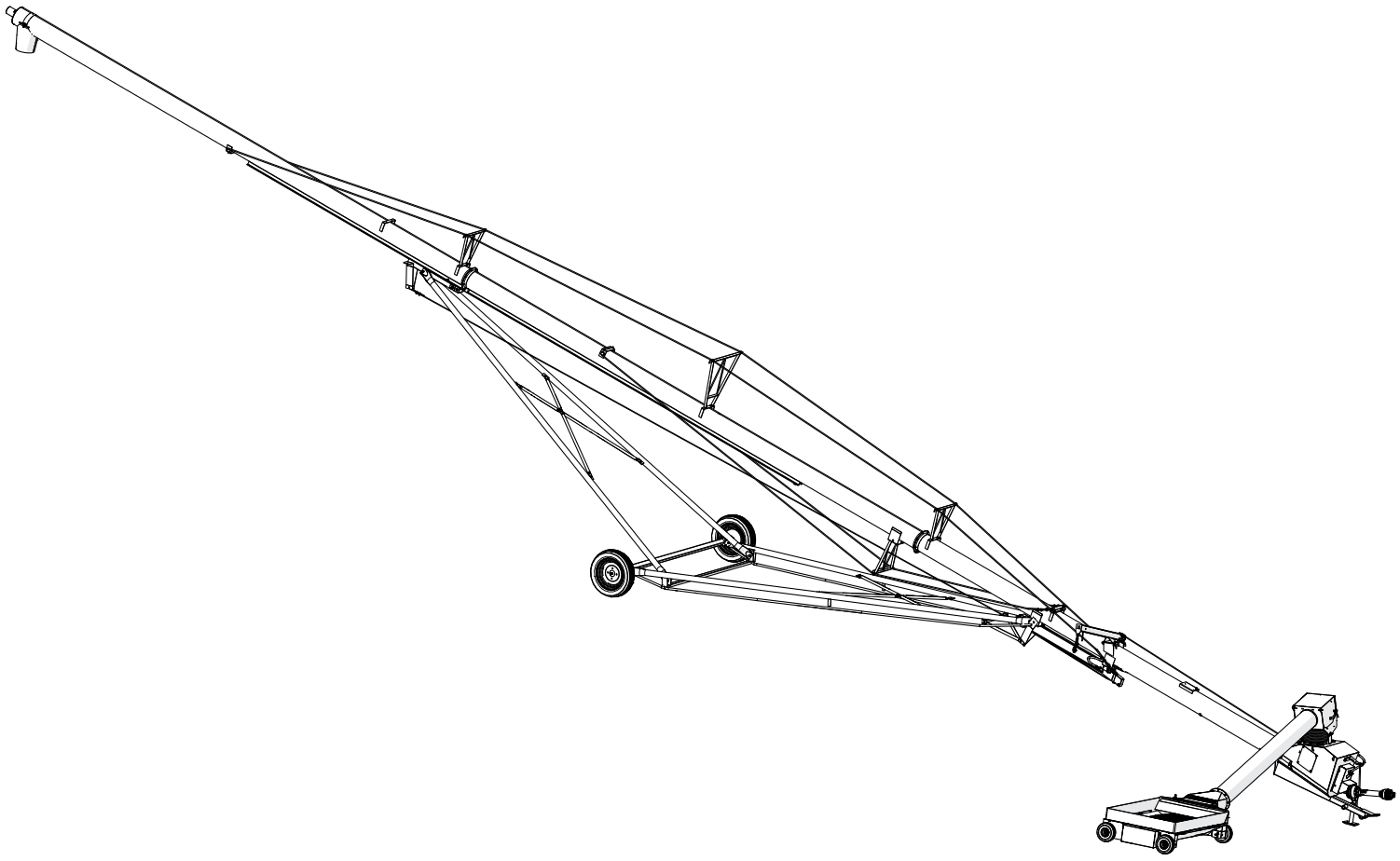
MKX100-SERIES GRAIN AUGERS

MKX100-53/63/73/83
ASSEMBLY MANUAL



ORIGINAL INSTRUCTIONS

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: 30908 R3

Revised: 15/1/18

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1. Introduction

This manual describes how to assemble the Westfield MKX100-Series Grain Augers.

Before assembling this equipment, please read this manual. Familiarize yourself with the process and the necessary precautions for efficient and safe assembly.

Anyone 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. GENERAL SAFETY INFORMATION

The Safety Alert symbol identifies important safety messages on the product and in the manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety messages.

Why is SAFETY important?

- Accidents disable and kill.
- Accidents cost.
- Accidents can be avoided.

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

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

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

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

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

YOU are responsible for the **SAFE** use and maintenance of your equipment. **YOU** must ensure that you and anyone else who is going to work around the equipment understands all procedures and related **SAFETY** information contained in this manual.

Remember, **YOU** are the key to safety. Good safety practices not only protect you, but also the people around you. Make these practices a working part of your safety program.

Important: *Below are general instructions that apply to all safety practices. Any instructions specific to a certain safety practice (e.g., Operational Safety), can be found in the appropriate section. Always read the complete instructional sections and not just these safety summaries before doing anything with the equipment.*

- It is the equipment owner, operator, and maintenance personnel's responsibility to read and understand **ALL** safety instructions, safety decals, and manuals and follow them when assembling, operating, or maintaining the equipment. All accidents can be avoided.
- Equipment owners must give instructions and review the information initially and annually with all personnel before allowing them to operate this product. Untrained users/operators expose themselves and bystanders to possible serious injury or death.
- Use this equipment for its intended purposes only.
- Do not modify the equipment in any way without written permission from the manufacturer. Unauthorized modification may impair the function and/or safety, and could affect the life of the equipment. Any unauthorized modification of the equipment voids the warranty.
- Do not allow any unauthorized person in the work area.

2.2. ASSEMBLY SAFETY

- Read and understand the assembly instructions to get to know the subassemblies and hardware that make up the equipment before proceeding to assemble the product.
- Do not take chances with safety. The components are large, heavy, and can be hard to handle. Always use the proper tools, stands, jacks, and hoists for the job.
- Always have two or more people assembling the equipment. Because of the weight, do not attempt assembly alone.

2.3. PTO SAFETY

- Never use a PTO driveline without a rotating shield in good working order.
- Ensure PTO driveline is securely attached at both ends before operating.
- Before starting tractor, turn power to PTO to the off position (where applicable).
- Keep body, hair, and clothing away from rotating PTO driveline.
- Ensure the PTO driveline shields turn freely on the PTO driveline.
- Do not exceed operating speed of 540 rpm.
- Keep u-joint angles small and equal. Do not exceed recommended operating length for PTO driveline.

2.4. HYDRAULIC SAFETY

- Wear proper hand and face protection when searching for hydraulic leaks. Escaping fluid under pressure can penetrate the skin, causing serious injury like gangrene. In case of accident, see a doctor immediately.
- Fluid leaks in the hydraulic lift cylinders or hoses will allow the auger to lower inadvertently. Repair all leaks and breaks immediately. Rupture could cause damage and/or personal injury.
- A hydraulic lift is faster than a conventional hand crank—always clear area of personnel before raising or lowering.
- Do not disconnect hydraulic couplers when hydraulic system is pressurized. For the correct procedure, consult this manual or your tractor manual.
- Relieve pressure before unhooking hydraulic lines.
- Inspect hydraulic fittings and hoses for damage on a daily basis. Repair if damaged.
- Ensure that the hydraulic line(s) is (are) properly connected and secure.
- Keep hydraulic line(s) away from moving parts.
- Clean connections before connecting to equipment.

2.5. 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.

2.5.1. 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 sign backing paper.

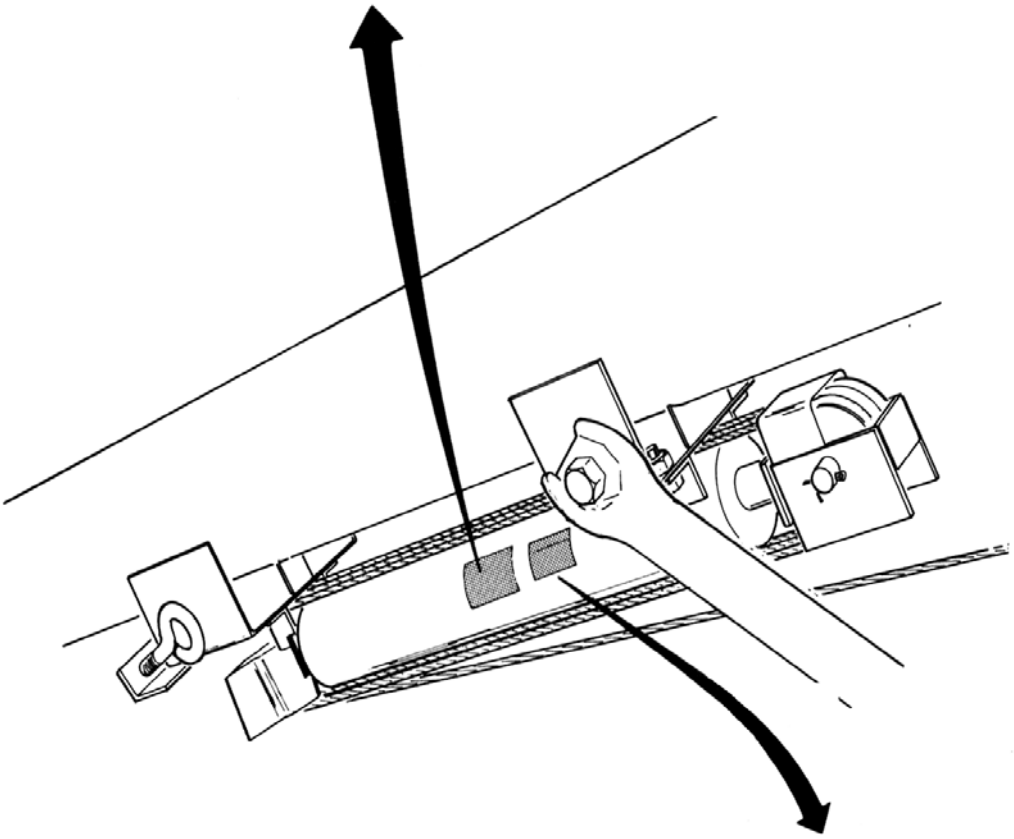
2.5.2. SAFETY DECAL LOCATIONS AND DETAILS

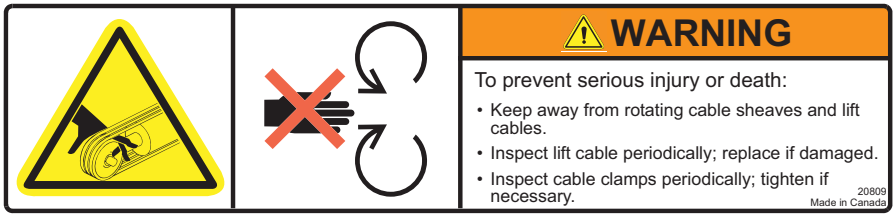
Replicas of the safety decals that are attached to the equipment and their messages are shown in the figure(s) that follow. Safe operation of the equipment requires that you familiarize yourself with the various safety decals and the areas or particular functions that the decals apply to, as well as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

Please review the decals shown. If your auger does not have these decals, they are available upon request. Please specify which decals you need.

***** *Westfield reserves the right to update safety decals without notice. Safety decals may not be exactly as shown.*

DECAL #20806





DECAL #20809

Figure 2.1 Hydraulic Cylinder Safety Decals

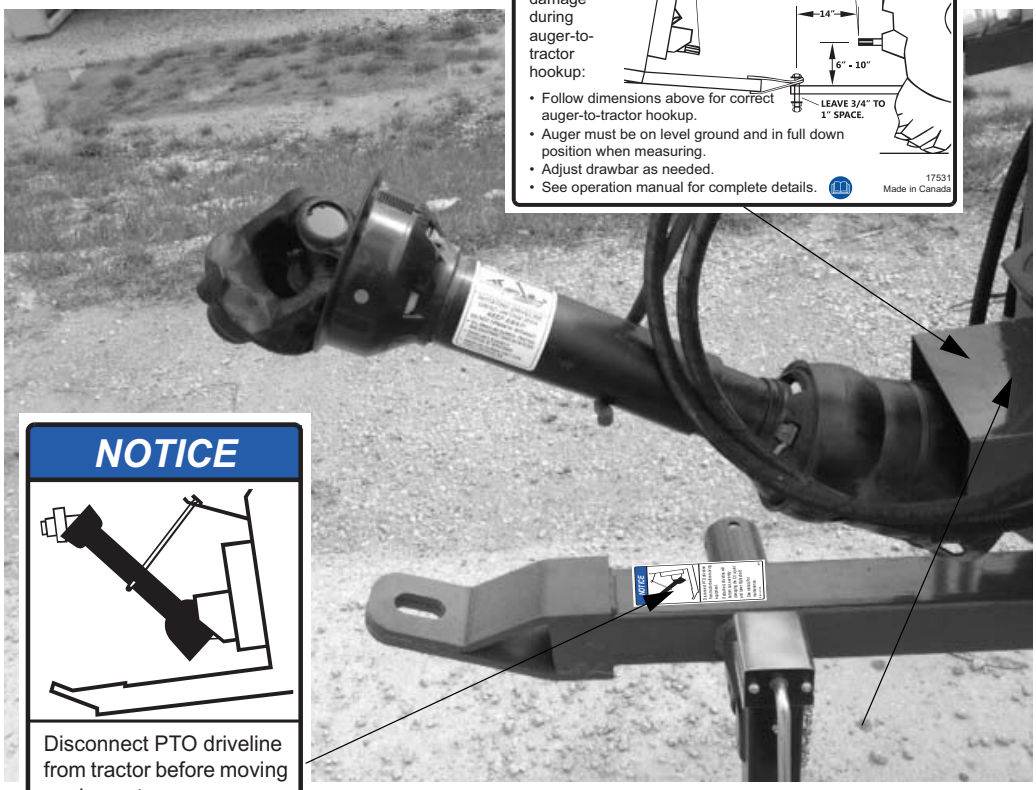


Figure 2.2 PTO and Tow Bar Safety Decals

DECAL # 17378

NOTICE

This equipment is not intended for transport on public roads. If it must be moved, check local regulations.

To avoid damaging the equipment:

- Be careful when turning corners.
- Watch for low overhead objects.
- Retract axles before transporting unit.

17378 Made in Canada

MKX100-83 ONLY

DECAL #20811

WARNING

UPENDING HAZARD

To prevent death or serious injury:

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

Made in Canada 20811

DECAL #20813

DANGER

ROTATING FLIGHTING HAZARD

To prevent death or serious injury:

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

DECAL # 17377

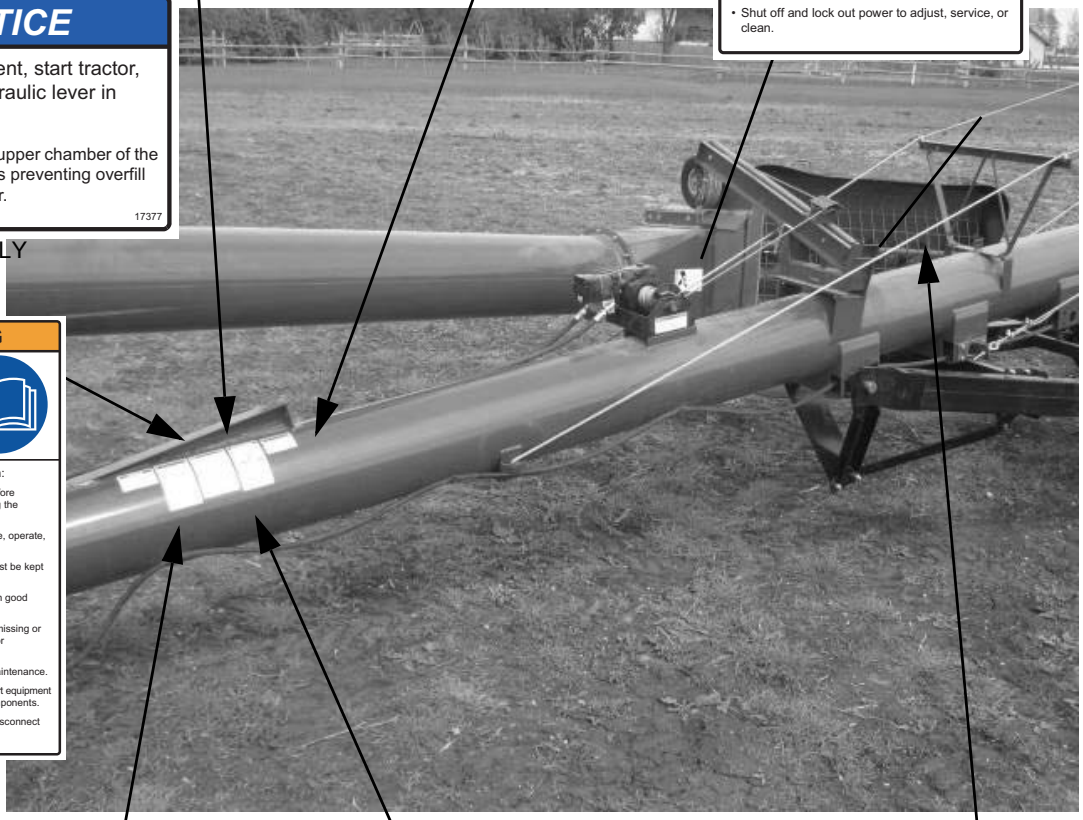
NOTICE

To lower equipment, start tractor, then engage hydraulic lever in down position.

- This pumps oil to upper chamber of the hydraulic cylinders preventing overfill of tractor reservoir.

Made in Canada 17377

MKX100-83 ONLY



WARNING

To prevent serious injury or death:

- 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 dealer for replacements.
- Lock out power before performing maintenance.
- To prevent equipment collapse, support equipment tube while disassembling certain components.
- Electric motors must be grounded. Disconnect power before resetting overloads.

DECAL #20807

DANGER

ELECTROCUTION HAZARD

To prevent death or serious injury:

- When operating or moving, keep equipment away from overhead power lines and devices.
- Fully lower equipment and truck box before moving.

This equipment is not insulated. Electrocution can occur without direct contact.

Made in Canada 20816

DECAL #20816

WARNING

TRANSPORT HAZARD

To prevent serious injury or death:

- Securely attach equipment to vehicle with correct pin and safety chains.
- Use a tow vehicle to move equipment.

Made in Canada 17113

DECAL #17113

WARNING

ENTANGLEMENT HAZARD

To prevent serious injury or death:

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

Made in Canada 20804

DECAL #20804
(LOCATED ON HOPPER CHAIN GUARD)

Figure 2.3 Auger Tube and Hopper Safety Decals

WARNING

To prevent serious injury or death:

- 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 dealer for replacements.
- Lock out power before performing maintenance.
- To prevent equipment collapse, support equipment tube while disassembling certain components.
- Electric motors must be grounded. Disconnect power before resetting overloads.

DECAL #20807

WARNING

TRANSPORT HAZARD

To prevent serious injury or death:

- Securely attach equipment to vehicle with correct pin and safety chains.
- Use a tow vehicle to move equipment.

Made in Canada 17113

DECAL #17113

DECAL #20816

DANGER

ELECTROCUTION HAZARD

To prevent death or serious injury:

- When operating or moving, keep equipment away from overhead power lines and devices.
- Fully lower equipment and truck box before moving.

This equipment is not insulated.
Electrocution can occur without direct contact.

Made in Canada 20816

CAUTION

To prevent personal injury or damage to equipment, close valve in lift cylinder hydraulic line after raising equipment into position.

17107 Made in Canada

DECAL #17107

DECAL #19960

NOTICE

To prevent damage, wheels must be free to move when raising or lowering equipment.

When equipment is positioned, chock all wheels.

Made in Canada 19960

DANGER

ROTATING FLIGHTING INSIDE

To prevent serious injury or death, do not operate auger unless swing-hopper is securely attached to boot.

Made in Canada 17094

DECAL #17094

DECAL #20813

DANGER

ROTATING FLIGHTING HAZARD

To prevent death or serious injury:

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

WARNING

ENTANGLEMENT HAZARD

To prevent serious injury or death:

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

Made in Canada 20804

DECAL #20804

WARNING

MISSING GUARD HAZARD

To prevent serious injury or death, shut off power and reattach guard before operating machine.

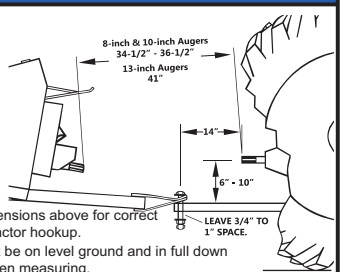
Made in Canada 20803

DECAL #20803
PLACED BEHIND GUARD

DECAL #17531

NOTICE

To prevent damage during auger-to-tractor hookup:



- Follow dimensions above for correct auger-to-tractor hookup.
- Auger must be on level ground and in full down position when measuring.
- Adjust drawbar as needed.
- See operation manual for complete details.

17531 Made in Canada

DECAL #20818

DANGER

ROTATING PTO DRIVELINE HAZARD

To prevent serious injury or death:

- Keep body, hair, and clothing away from rotating PTO driveline.
- Do not operate equipment unless all driveline, tractor, and equipment shields are in place and in good working order.
- Make certain the driveline shields turn freely on driveline.
- Make certain the driveline is securely attached at both ends.
- Do not exceed operating speed of 540 rpm.
- Keep u-joint angles small and equal. Do not exceed maximum recommended length for PTO driveline.

Made in Canada 20818

Figure 2.4 Boot Safety Decals

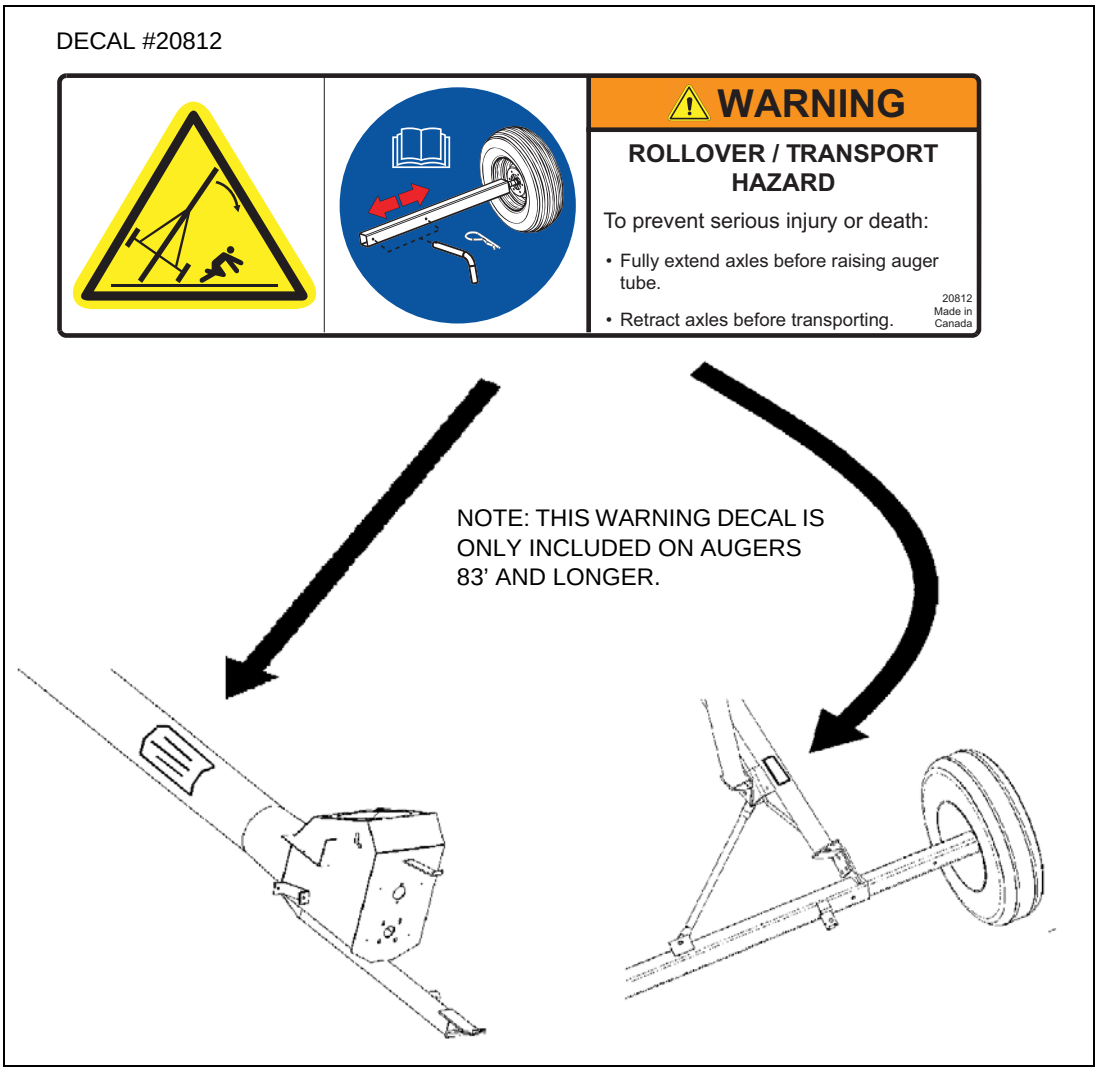


Figure 2.5 Roll-Over / Transport Safety

3. Assembly

WARNING *Before continuing, ensure you have read and understand the relevant information in the safety section. Safety information is provided to help prevent serious injury, death, or property damage.*

Before beginning assembly, familiarize yourself with all the sub-assemblies and hardware making up the auger. Have all parts on hand and arrange them for easy access. Carry out assembly in a large open area with a level surface.

Important: *Always have 2 or more people assembling the equipment. Because of the weight, do not attempt assembly alone.*

➡ Augers are available in various combinations. In most cases, the following instructions will apply to all augers. Where the assembly information varies, additional instructions will be included and will be indicated with an arrow.

Note: *Non-driveline options such as the hydraulic winch and hydraulic/electric power swing are compatible with all other options that can be installed on the auger. Driveline options (Right angle Drive, 540 RPM PTO Reverser) are not compatible with other driveline options, but are compatible with non-driveline options such as the hydraulic winch and hydraulic/electric power swing.*

3.1. GENERAL ASSEMBLY

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

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

- Grease
- Impact wrench and sockets
- 2+ Steel Punches (for aligning bolt holes)

See Table 3.1. for a list of assembly procedures.

Table 3.1. Assembly Procedures

Procedure	Page
Identify and Arrange Auger Tube Sections	page 19
Install Hydraulic Lift Cylinders	page 21
Connect Auger Tube Sections Together	page 23
Install the Track Shoe, Trackstop, & Lift-Assist Arm	page 24
Angle Ring Support Bracket[a]	page 26
Install the Boot on the Auger tube	page 27
Install the Discharge Spout	page 30
Set the Thrust Adjuster	page 31
Apply Logo and Model Decals on the Auger Tubes	page 32
Install Truss Support Brackets and Truss cables	page 35
Assemble the Frame (MKX100-53/63/73 Models)	page 39
Assemble the Wheel Hub and Install Tires	page 43
Connect the Auger Tube to the Frame	page 44
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Install the Hitch Jack	page 58
Install the Plastic Manual Container	page 59
Auger-to-Tractor Hookup	page 60

a. MKX100-83 only.
b. MKX100-83 only.

3.2. ASSEMBLE THE AUGER TUBE

3.2.1. IDENTIFY AND ARRANGE 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: *3. Strap tubes to the support stands to prevent the tubes from rolling off the stands.*

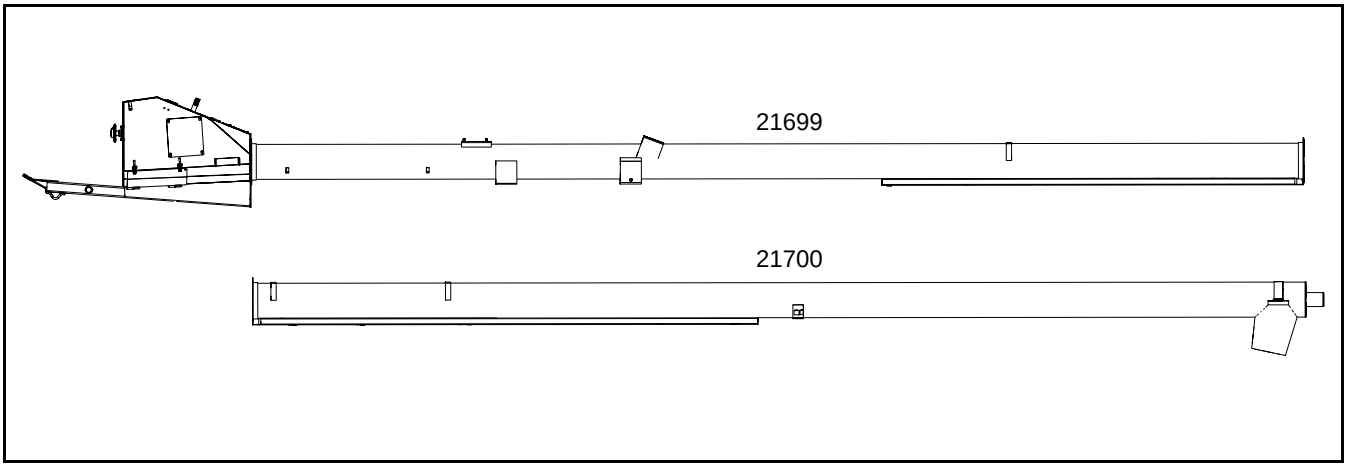


Figure 3.1 MKX100-53 Auger Tube Sections

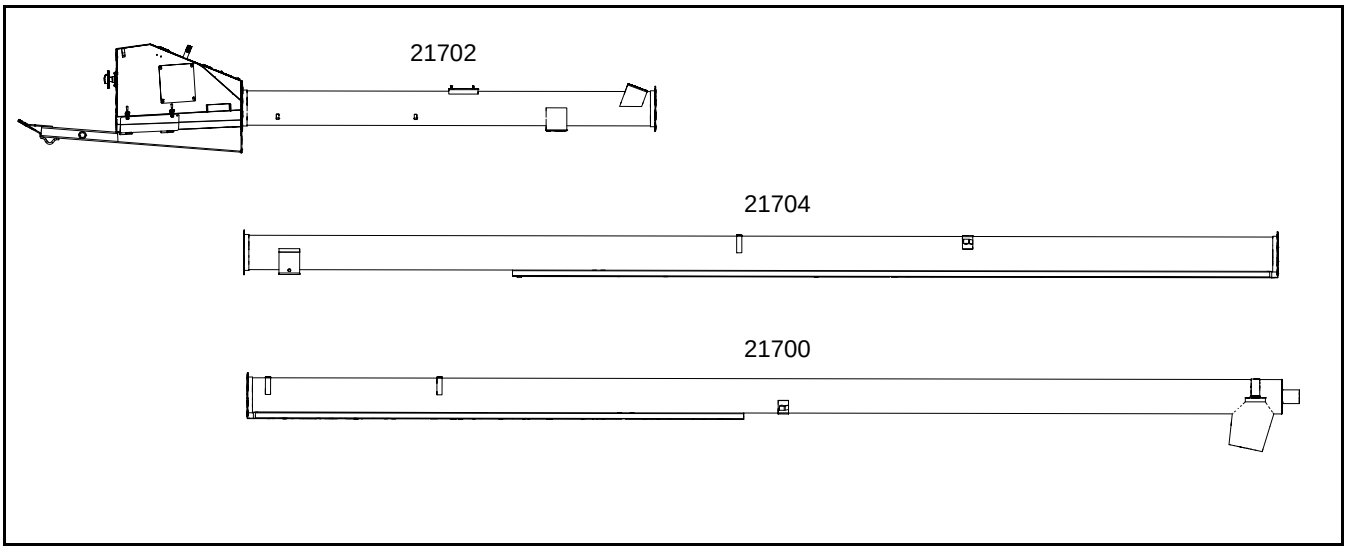


Figure 3.2 MKX100-63 Auger Tube Sections

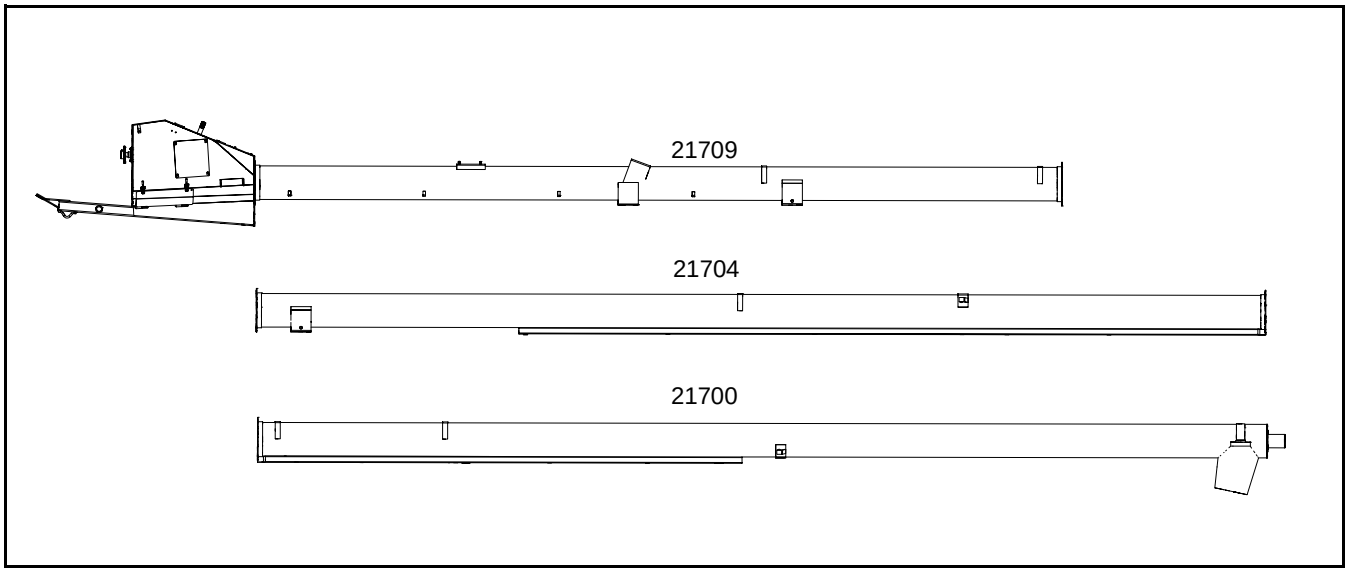


Figure 3.3 MKX100-73 Auger Tube Sections

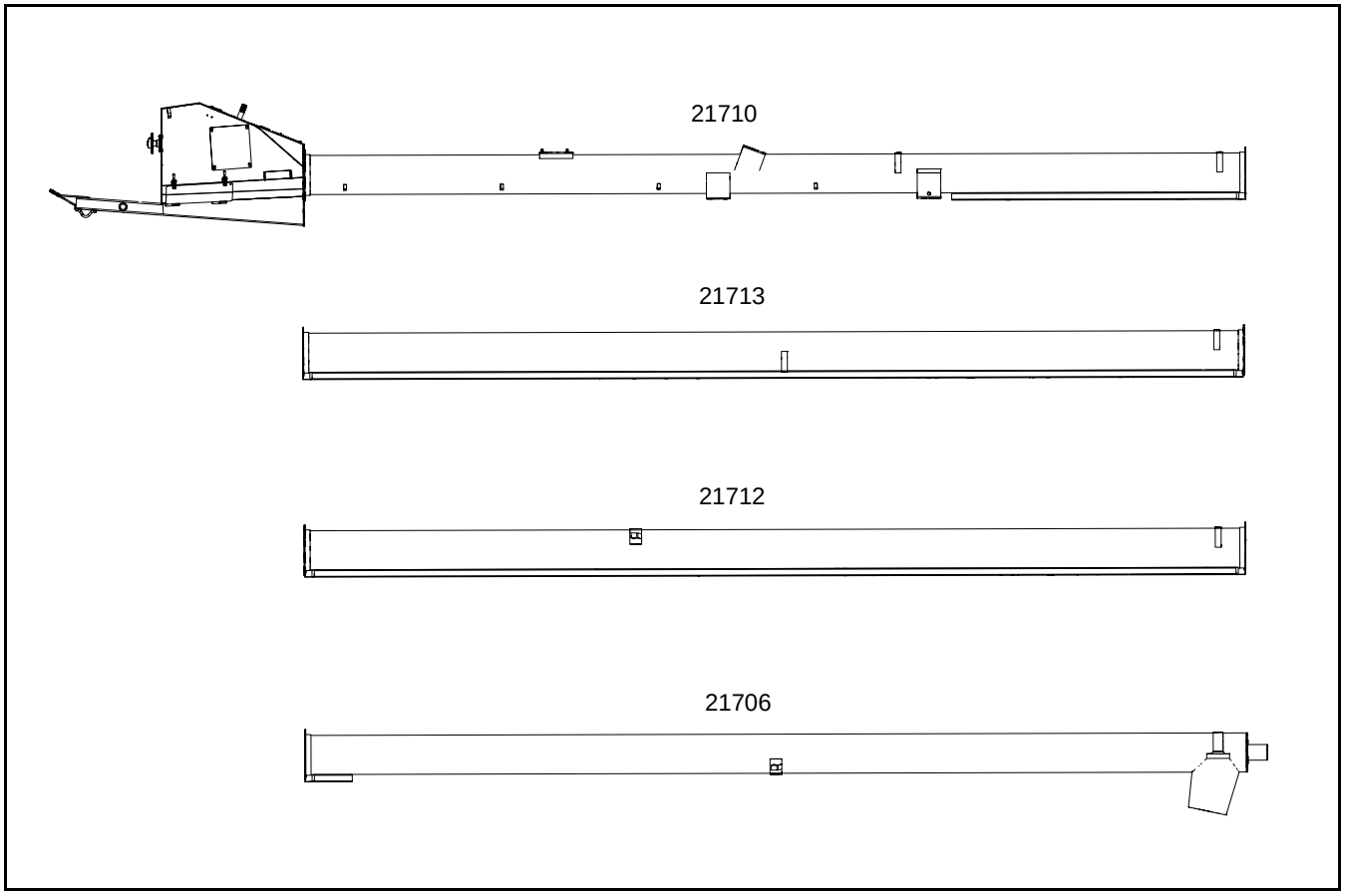


Figure 3.4 MKX100-83 Auger Tube Sections

3.2.2. INSTALL HYDRAULIC LIFT CYLINDERS

1. Identify the tube section where the hydraulic lift cylinders install, and rotate the section so that the cylinder mount brackets are facing up.
2. **MKX100-83 Only:** Slide the cylinder ram guide (27486) onto the end of the track closest to where the lift cylinder is installed. Ensure the triangular gusset of ram guide are facing the discharge end.
3. Position the lift cylinder on the welded brackets on the lower end of auger tube (see Figure 3.5 for correct position), and secure with four 7/16” x 1” bolts and locknuts. **Tighten securely**.

Note: *The hydraulic lift cylinder must be positioned with the rod end towards the discharge end of auger.*

4. **MKX100-83 Only:** Slide the cylinder ram guide (27486) toward the lift cylinder until the rod end passes through the hole provided on the cylinder ram guide, and then insert a 5/16" x 2-1/2" roll pin (28584) into the hole end of the cylinder rod to prevent separation of rod and cylinder ram guide.
5. Rotate the auger tube section so that the lift cylinder is facing down, and ensure that the tube is secure on its supports.
6. Strap the tube in place and proceed with connecting auger tube sections together.

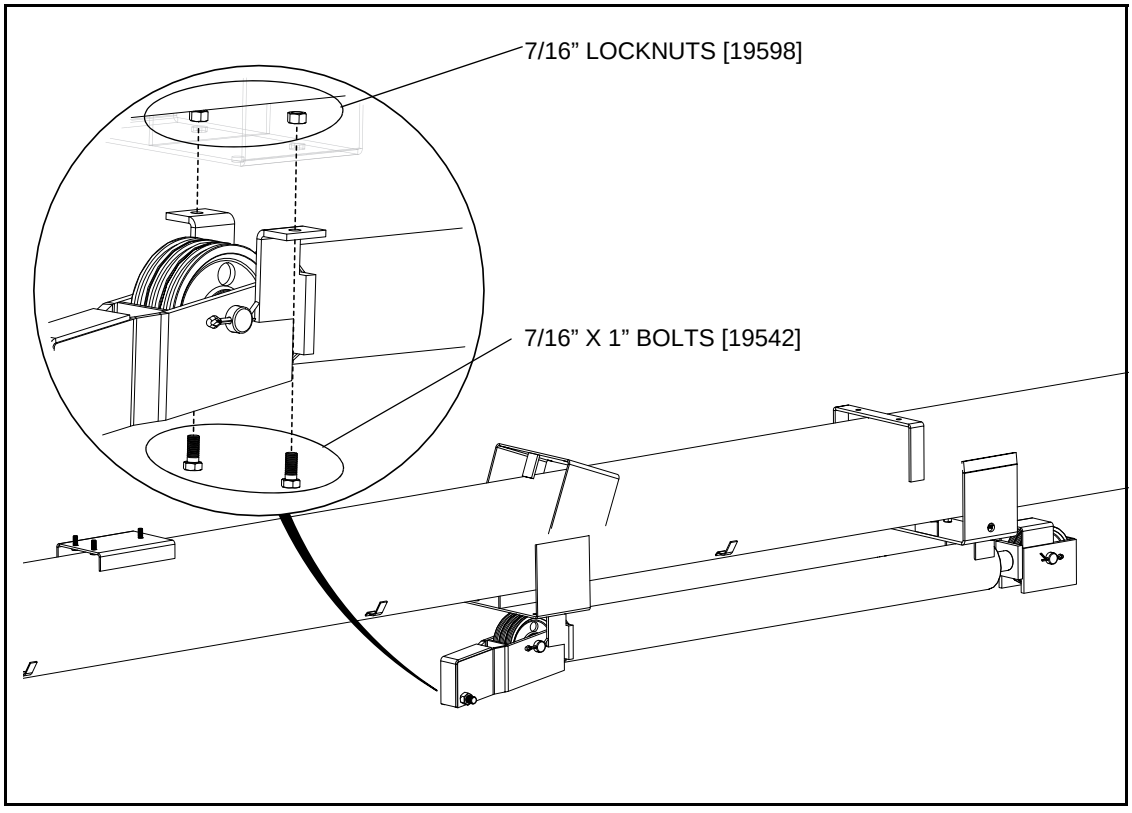


Figure 3.5 Installing Lift Cylinder (MKX100-53/63/73)

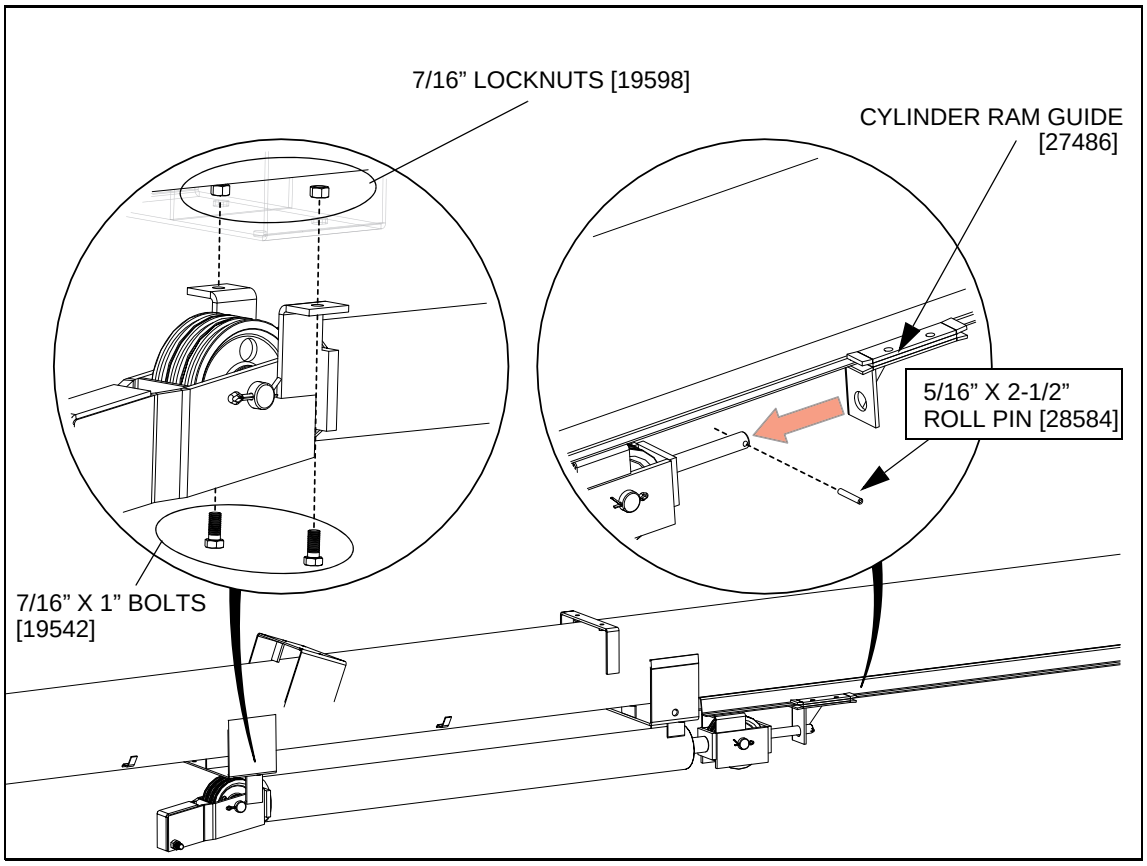


Figure 3.6 Installing Lift Cylinder (MKX100-83)

3.2.3. CONNECT AUGER TUBE SECTIONS TOGETHER

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

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

1. Bolt tube sections together (see Figure 3.7 for details), working from the spout end (upper tube) toward the discharge end (lower tube):
   a. Align flightings to ensure a continual spiral of auger surface, and connect flight shafts with 7/16” x 3” bolts and 7/16” locknuts.
   b. As flight shafts are connected, slide tube sections together and secure with 7/16'' X 1” and 7/16” locknuts.

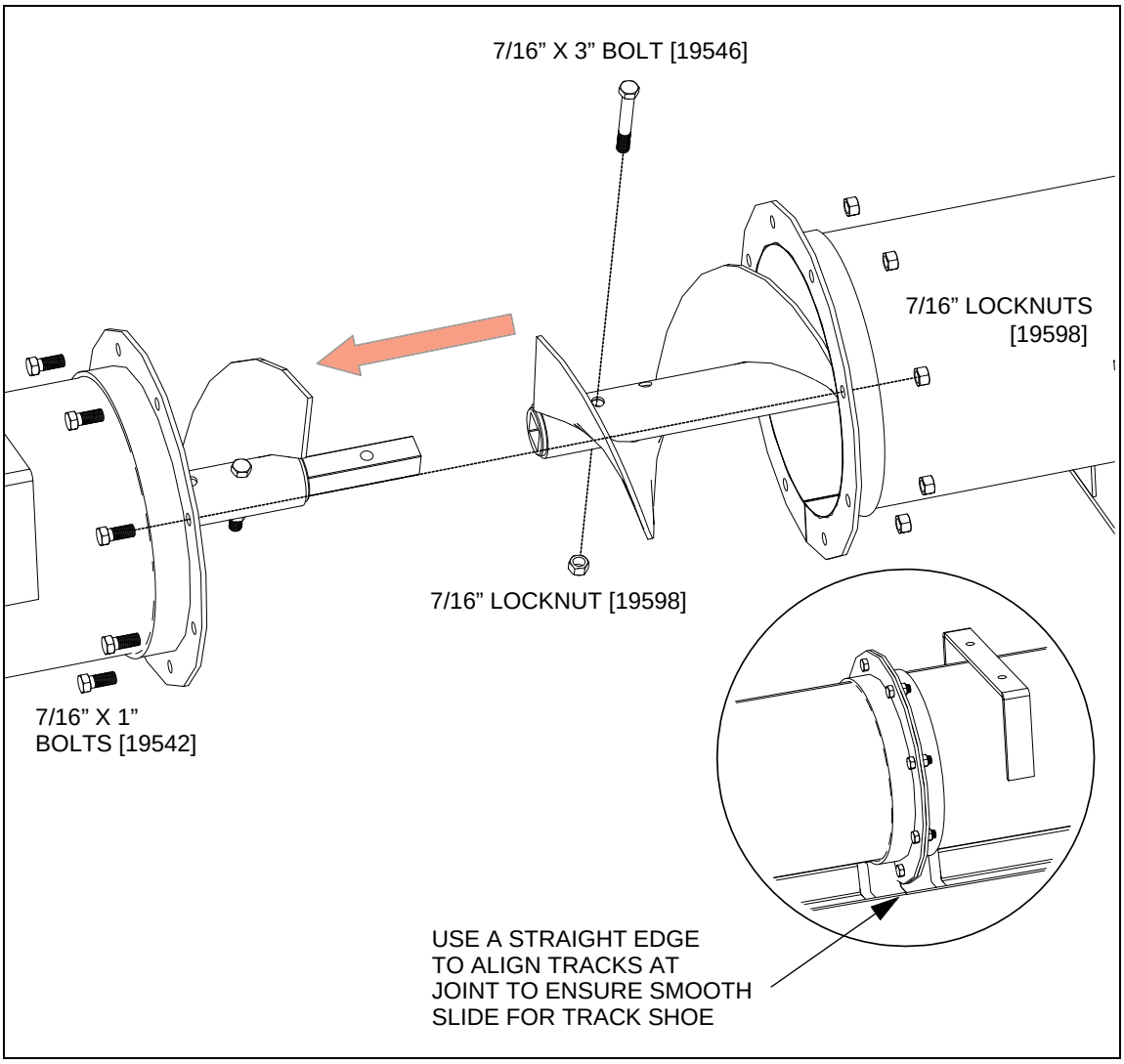


Figure 3.7 Connecting Auger Tubes Sections and Flights

3.2.4. INSTALL THE TRACK SHOE, TRACKSTOP, & LIFT-ASSIST ARM

1. Slide the double roller track shoe onto the track from the spout end of the tube.
2. Slide track shoe along full length of track to make certain there is no binding and that track ends are properly aligned. The upper and lower tracks must be aligned to allow track shoe to roll smoothly over this joint.
3. Attach the lift-assist arm to center hole on track shoe (Figure 3.8) with one 3/4" x 6-1/2" bolt and locknut. **Do not over-tighten**. Tighten snug only; this bolt acts as a pivot point.

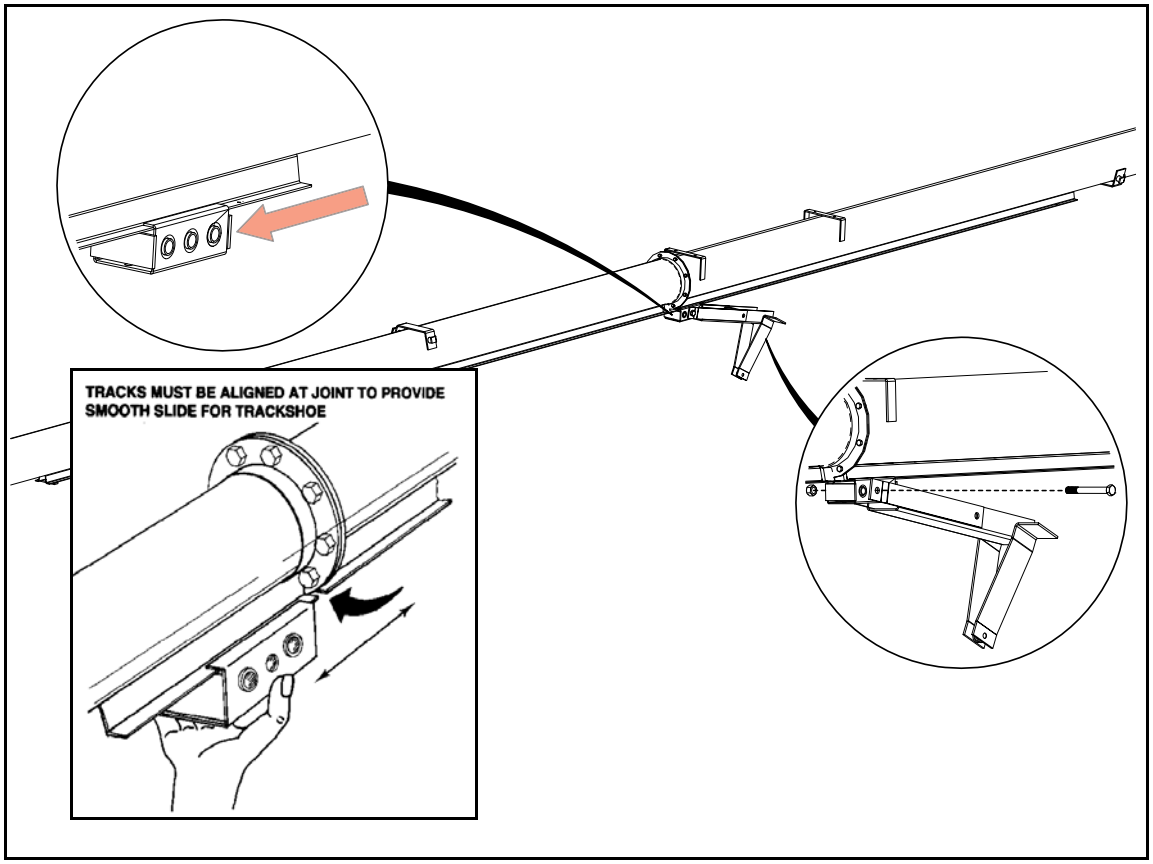


Figure 3.8 Installing the Trackstop and Lift Assist

4. Bolt the trackstop to the track (Figure 3.9, Figure 3.10) using two 7/16" x 1-1/4" bolts, locknuts, and flat iron washers.

Note: *The flat iron washers must be on top of track, and the trackstop must be centered on the track.*

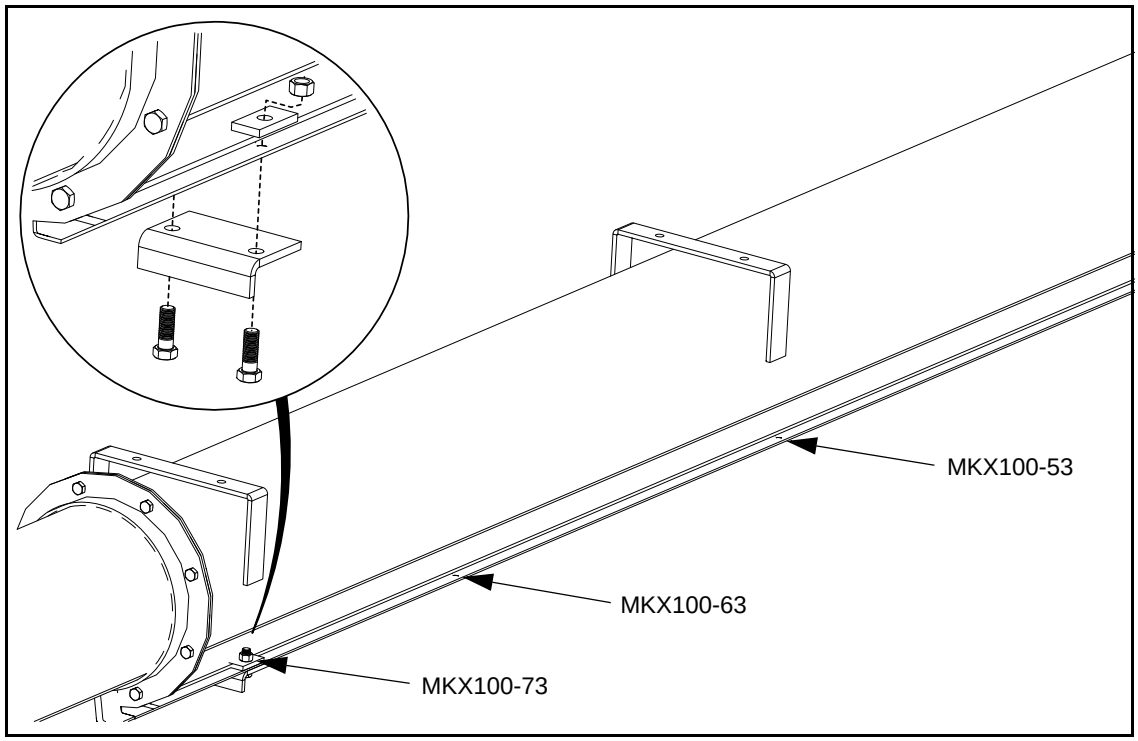


Figure 3.9 MKX100-53/63/73 Trackstop Locations

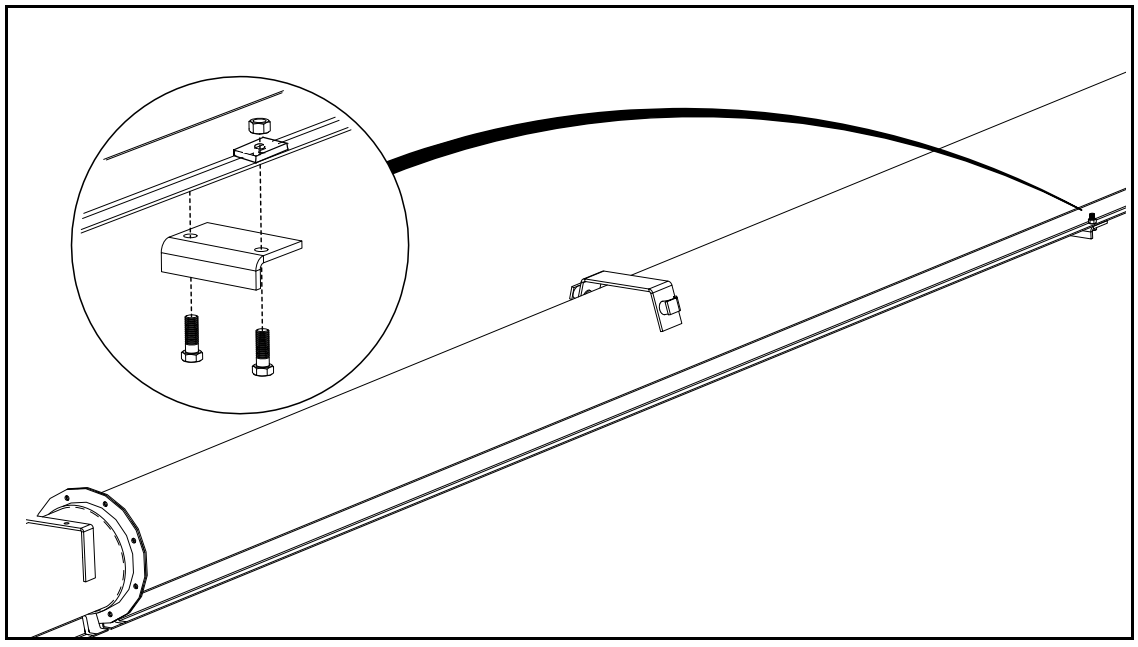


Figure 3.10 MKX100-83 Trackstop Location

3.2.5. ANGLE RING SUPPORT BRACKET

FOR MKX100-83 MODEL ONLY

Once the tubes are bolted together, install the angle ring support brackets at each connecting location between the tubes.

1. At the connection location between each of the tubes, install an angle ring support bracket by inserting one end at a time through the existing holes in the tabs located in the track.
2. Secure these brackets in place with two 1/2” locknuts. Tighten nuts.

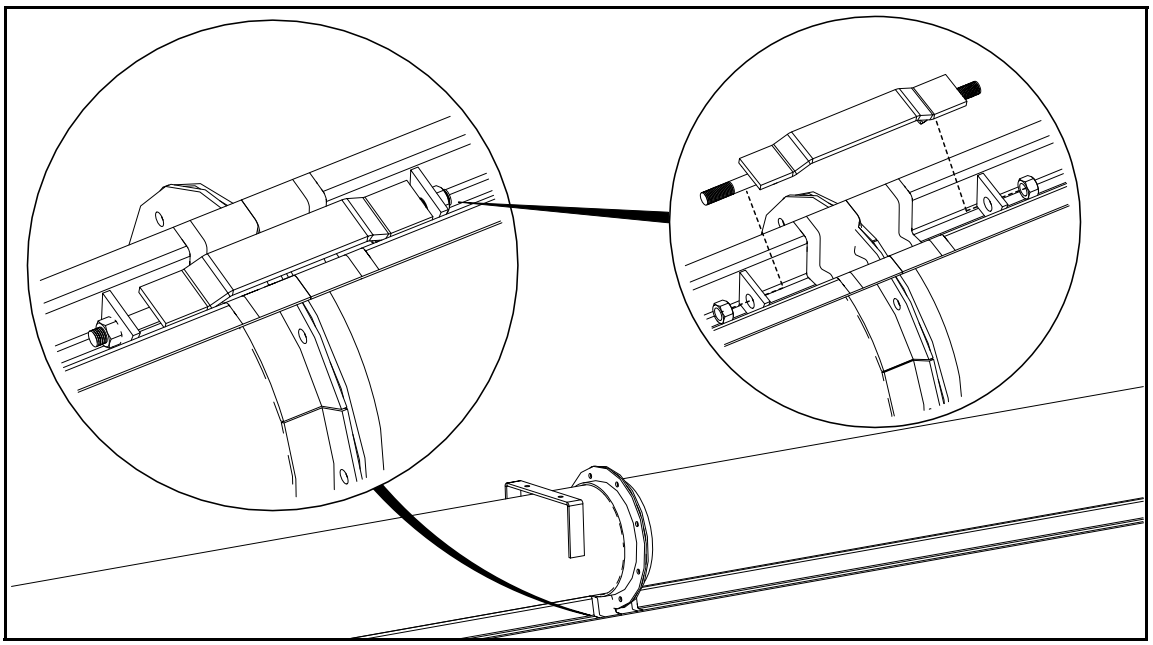


Figure 3.11 Installing the Angle Ring Support Bracket

3.2.6. INSTALL THE BOOT ON THE AUGER TUBE

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

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

1. The boot flighting comes pre-installed on the end of the lower tube flighting shaft (See Figure 3.12). Ensure that the flighting is fastened with a 1/2" X 4" GR8 bolt and locknut.

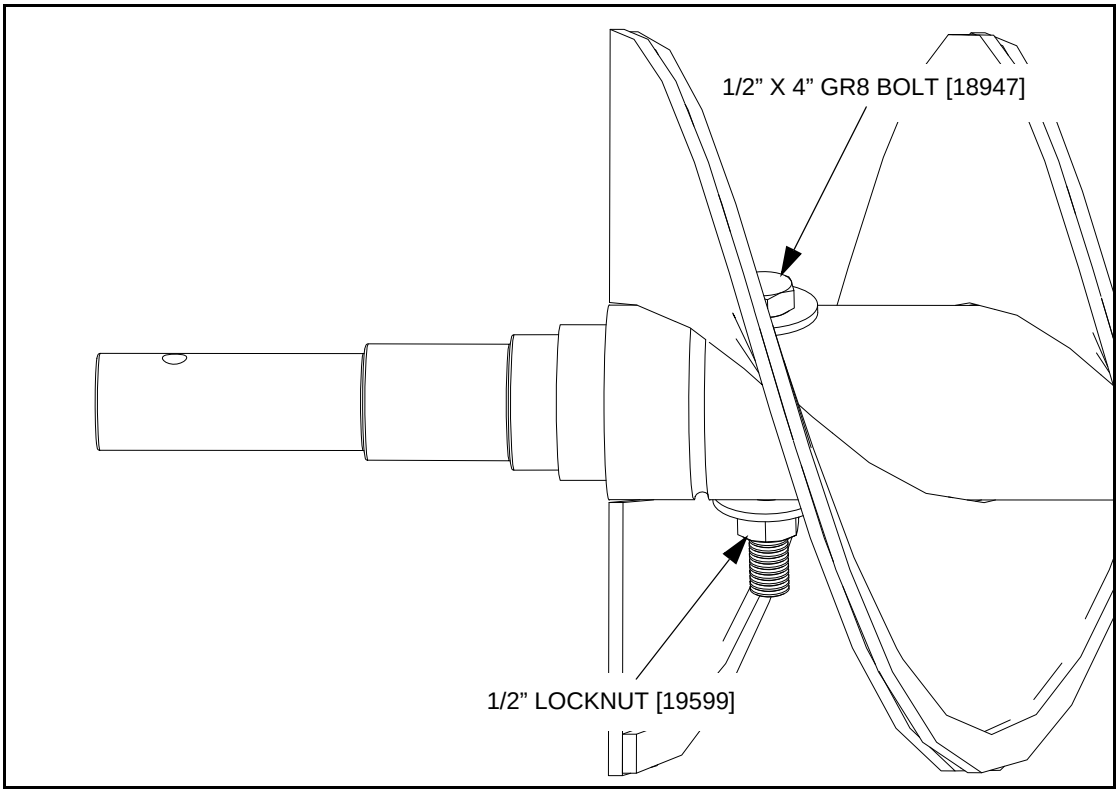


Figure 3.12 Check Boot Flight Bolt and Nut

2. Slip the boot assembly over the lower flighting shaft and attach it to the flange on the lower tube with eight 7/16” x 1” bolts and locknuts (see Figure 3.13).

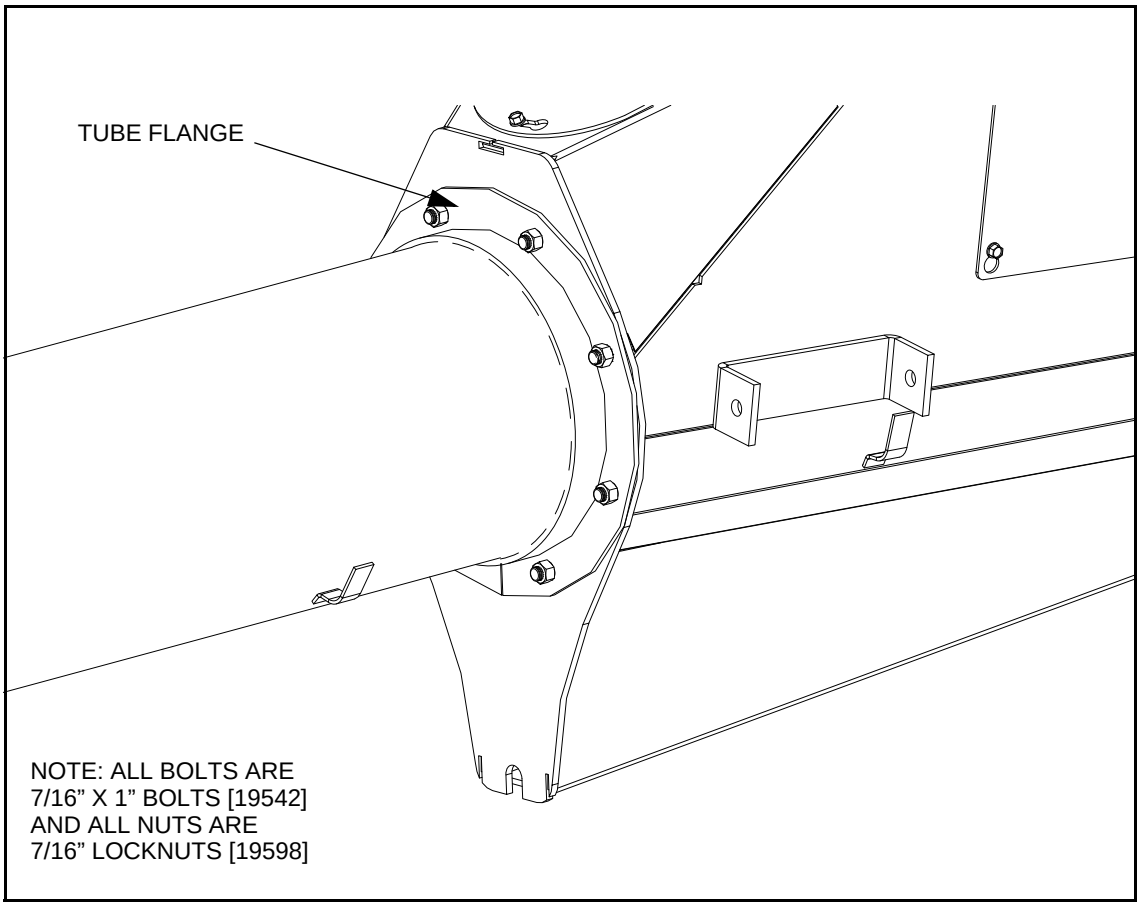


Figure 3.13 Install Boot on Auger Tube

3. Install the Lower Sprocket as follows:
   a. Slide the 1-1/2” wide rim flat washer [21707] onto lower flight shaft.
   b. Slide the lower bearing over the flighting shaft, and bolt it loosely in place with four 5/8" X 1-3/4" bolts [18544] and 5/8" locknuts [19600].
   c. Ensure that the flight shaft shoulder is seated against washer and lower bearing.
   d. Position the lock collar tightly against the bearing, then tighten the collar set screw against the flighting shaft.
   e. Install the 1/4” x 3-3/8” square key [21758] on the flighting shaft, then slide the lower sprocket [21567] onto the flighting shaft. Align lower sprocket face with upper sprocket face using a straight edge, then tighten set screws.

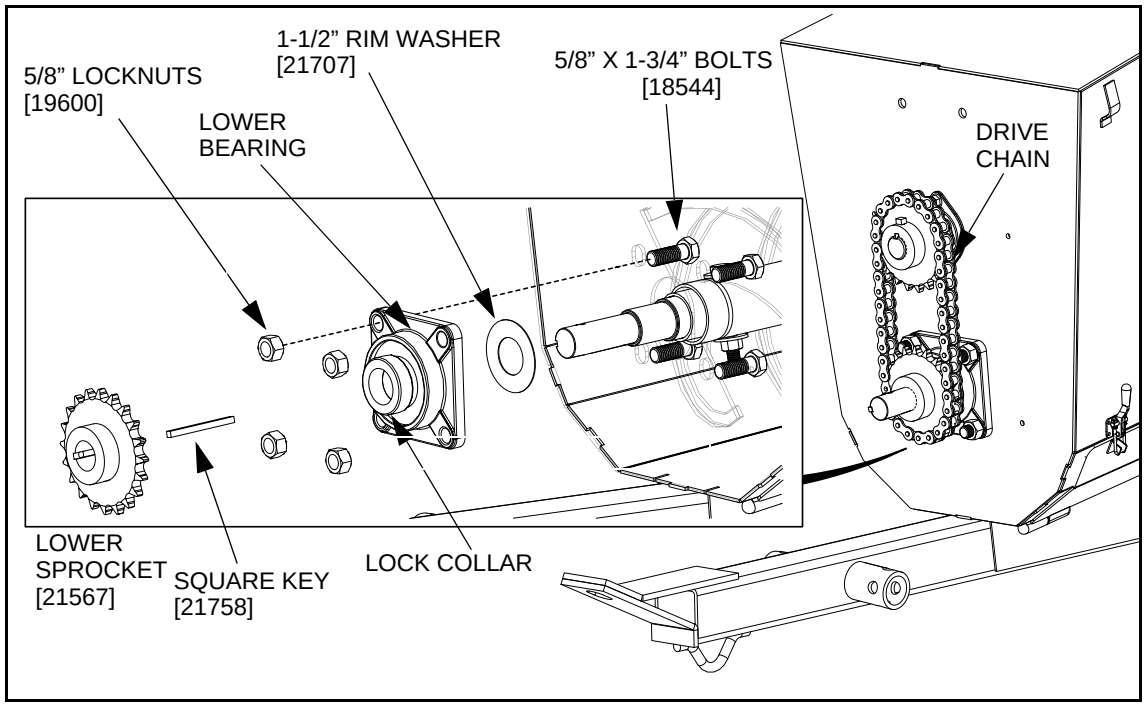


Figure 3.14 Installing Boot Bearing, Sprocket, and Chain

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

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

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

3.2.7. INSTALL THE DISCHARGE SPOUT

DISCHARGE SPOUT

1. Align the discharge spout over the opening in the upper tube.
2. Attach the discharge spout with two 7/16” x 1-1/4” GR8 bolts [18698] and 7/16” locknuts [19598].

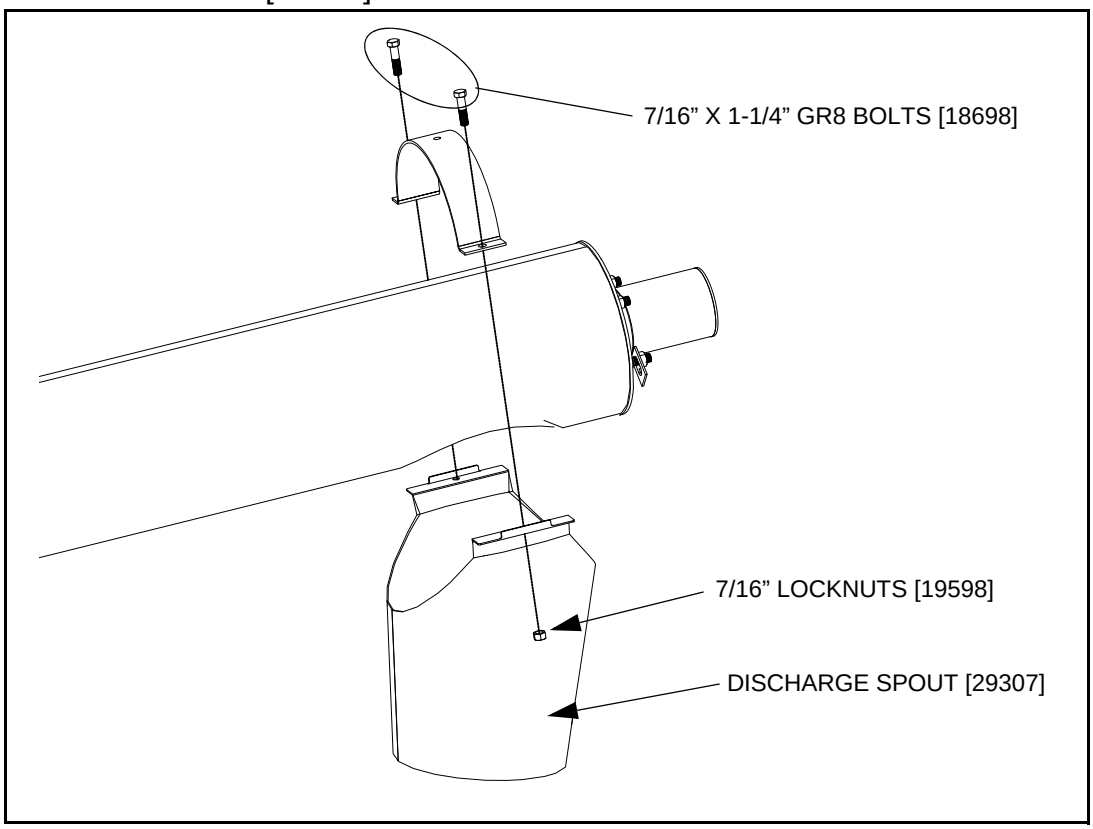
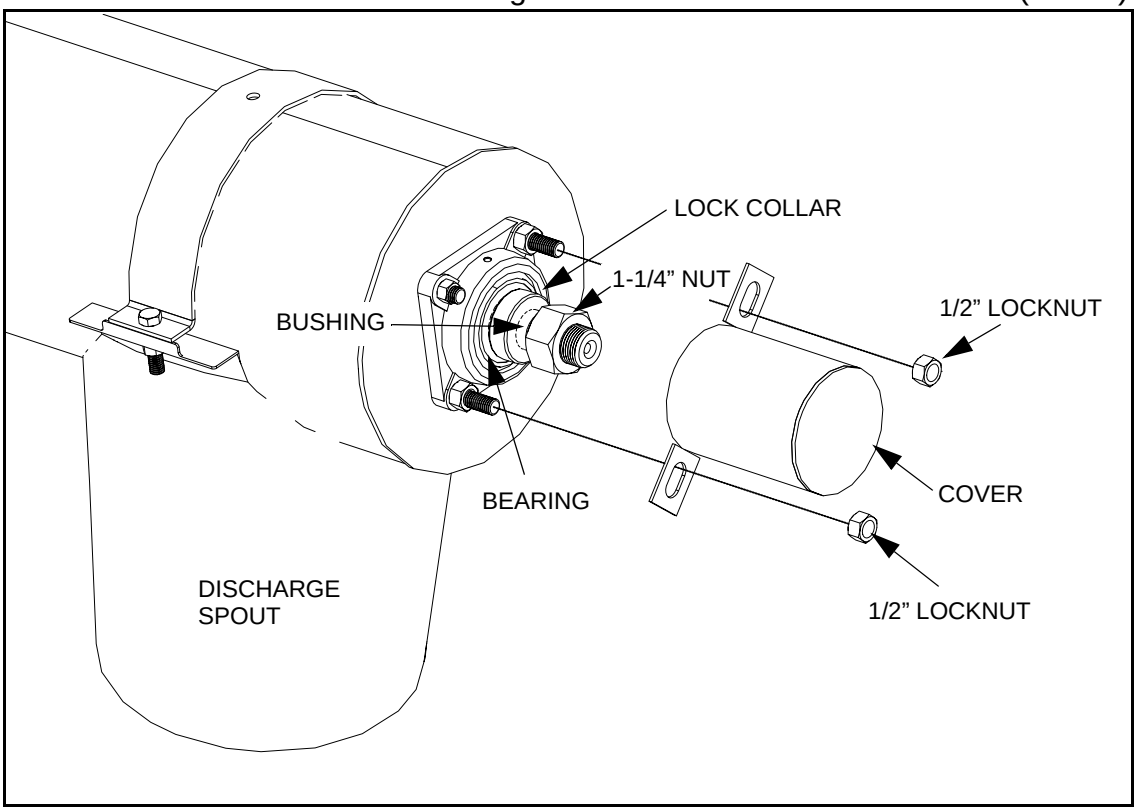


Figure 3.15 Installing the Discharge Spout

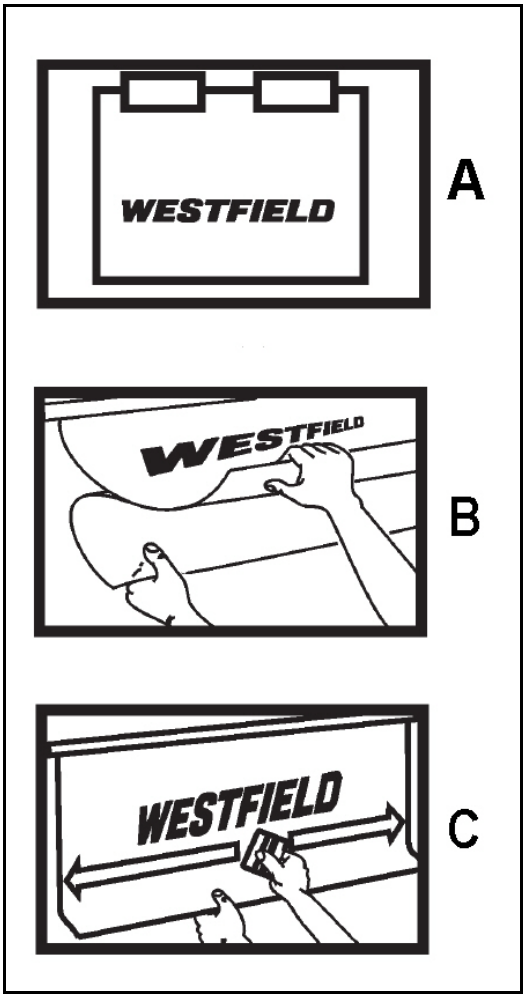
3.2.8. SET THE THRUST ADJUSTER

1. Remove the upper bearing lock collar (if necessary).
2. Slide the lock collar and bushing onto the shaft and attach the 1-1/4” nut.
3. Turn the nut until it is snug against the bushing, then turn it so that the shaft moves an additional 1/4” away from the top plate.
4. Secure the lock collar and tighten the set screw.
5. Install the cover over the two longer 1/2” bolts with two 1/2” locknuts (19599).



3.2.9. APPLY LOGO AND MODEL DECALS ON THE AUGER TUBES

Note: *See the model-specific figures on the following page for Westfield logo and model decal locations.*



1. Prepare surface by cleaning thoroughly with soap and water. Surface must be clean and free of dirt, grime, rust and oil. To clean oily surface, wipe with clean cloth and solvent cleaner or isopropyl alcohol.
2. Position the decal on the tube and apply masking tape along the top, creating a gate hinge. Figure A demonstrates.
3. Remove backing paper from decal 6" from the top and use the squeegee to adhere decal to the tube, as seen in Figure B. Start at the top center of the decal and work your way outward both left and right using overlapping strokes.
4. As you work your way down the decal, peel back the backing paper 6" at a time. Repeat Step 3 until the entire decal has been applied to the tube. See Figure C as an example.
5. Once the entire decal has been properly adhered to the tube, remove tape hinge from front of decal. Remove the front application tape at a sharp 180° angle.
6. Inspect the entire decal for air pockets; if found, remove them by punching a tiny hole with a pin and then squeegee the surface flat.
7. As a final process, squeegee the corners and edges of the decal to ensure proper adhesion and to prevent premature peeling.

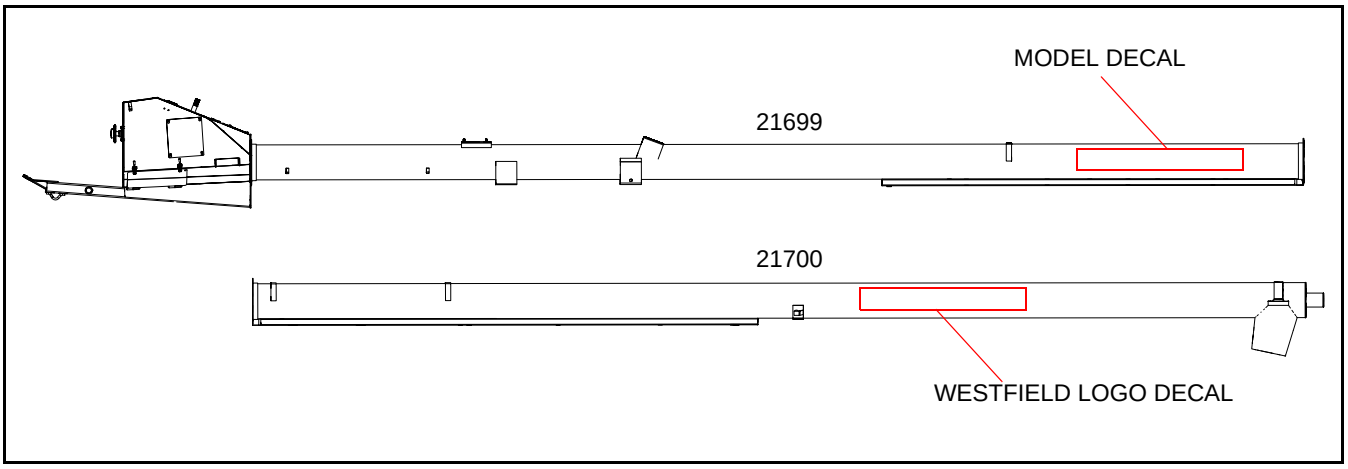


Figure 3.16 MKX100-53 Logo and Model Decal Locations

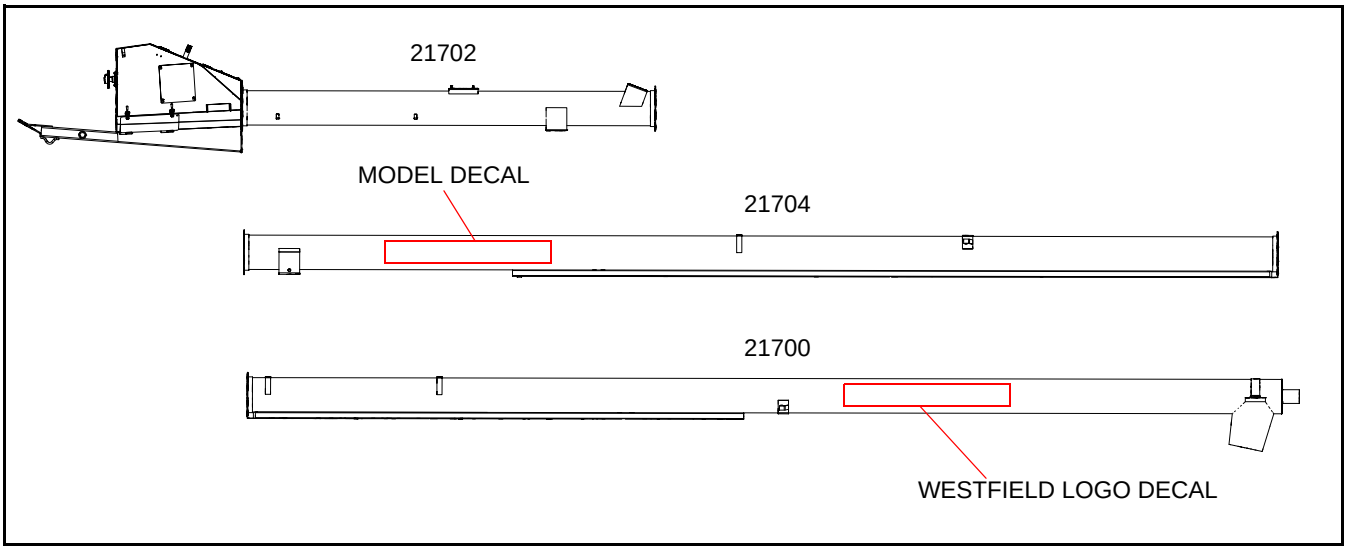


Figure 3.17 MKX100-63 Logo and Model Decal Locations

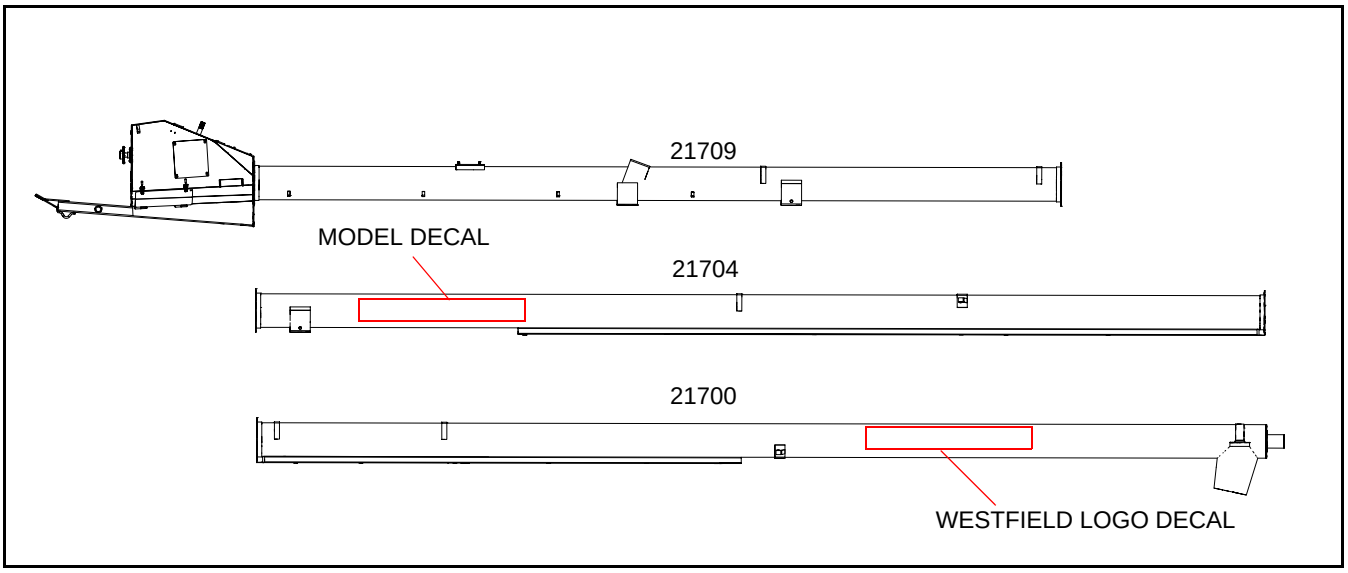


Figure 3.18 MKX100-73 Logo and Model Decal Locations

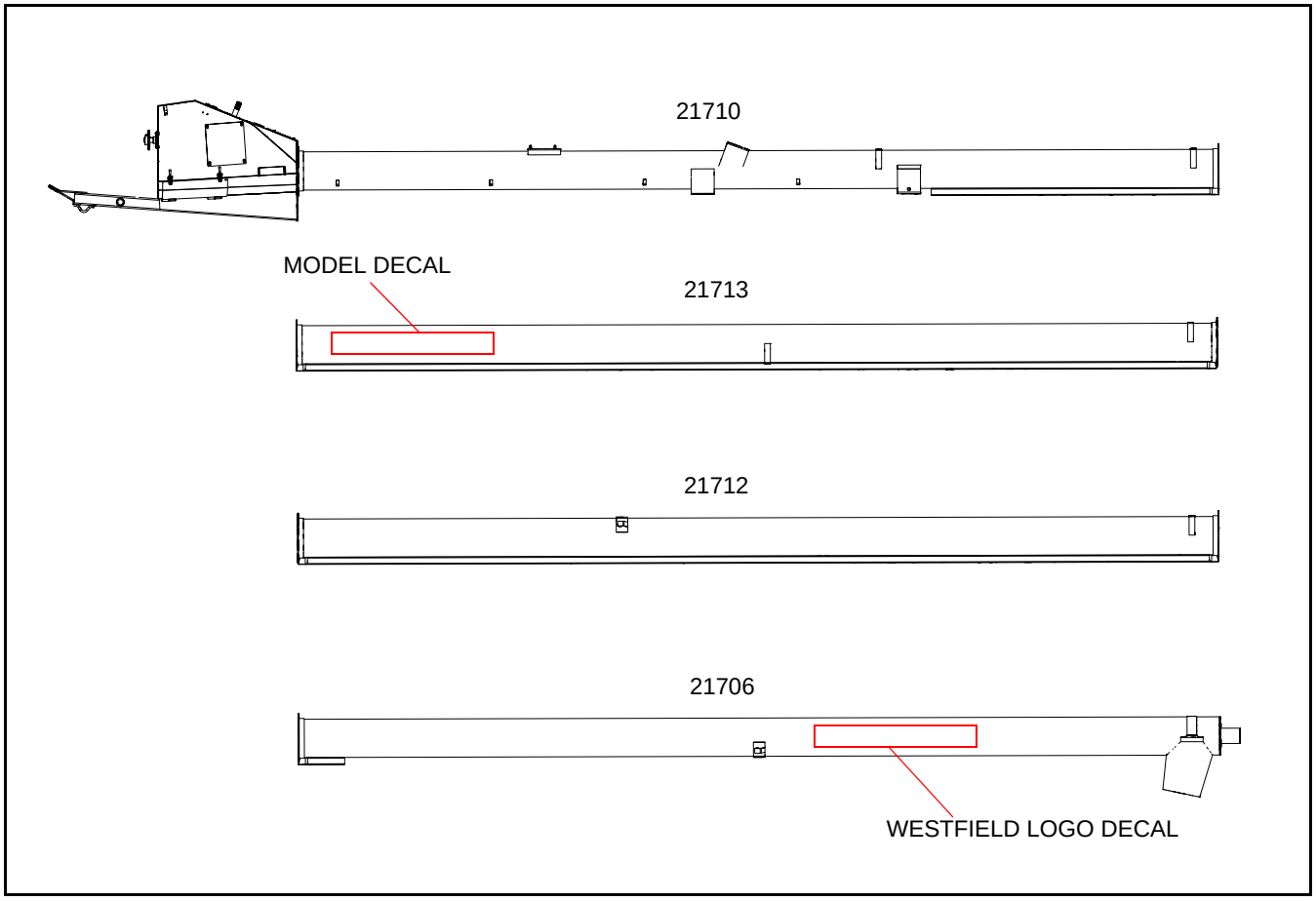


Figure 3.19 MKX100-83 Logo and Model Decal Locations

3.3. INSTALL TRUSS SUPPORT BRACKETS AND TRUSS CABLES

1. Fasten lower truss anchor to bracket.
   - use two 7/16” x 1” bolts and locknuts on the bracket welded to the lower tube
2. Fasten truss brackets to the auger tube with two 7/16” x 1” bolts and locknuts for each truss bracket.
3. Attach eyebolt to one end of truss cable with a cable clamp. Insert eyebolt into one side of the lower truss anchor bracket and thread on a 1/2” locknut a short way.
4. Pull the cable over the truss brackets, around upper truss anchor and back over truss support brackets to the lower truss anchor bracket.

Important: *Do not tighten cable clamps at this time.*

Important: *The upper end of augers equipped with truss cables should have an upward bow before being placed on the transport undercarriage (auger tube will straighten when fully assembled). Place supports under the discharge end until upward bow is correct. The upward bow should be as follows:*

- *MKX100-53: 2" (5 cm)*
- *MKX100-63: 3" (7.6 cm)*
- *MKX100-73: 5" (12.7 cm)*
- *MKX100-83: 7" (17.8 cm)*

5. Place the second eyebolt into the lower truss anchor bracket and thread on a a 1/2” locknut a short way.
6. Insert other end of truss cable through this eyebolt. Pull out all slack and secure with two 5/16” cable clamps.
7. Tighten eyebolts to take remaining slack out of truss cable and to maintain the appropriate upward bow. After tension is adjusted, tighten cable clamps on truss brackets and upper truss anchor. Check for proper side alignment.

Important: *Once auger is fully assembled, adjust truss cables on all units (because of initial stretching). Cables may also require adjustment for side alignment.*

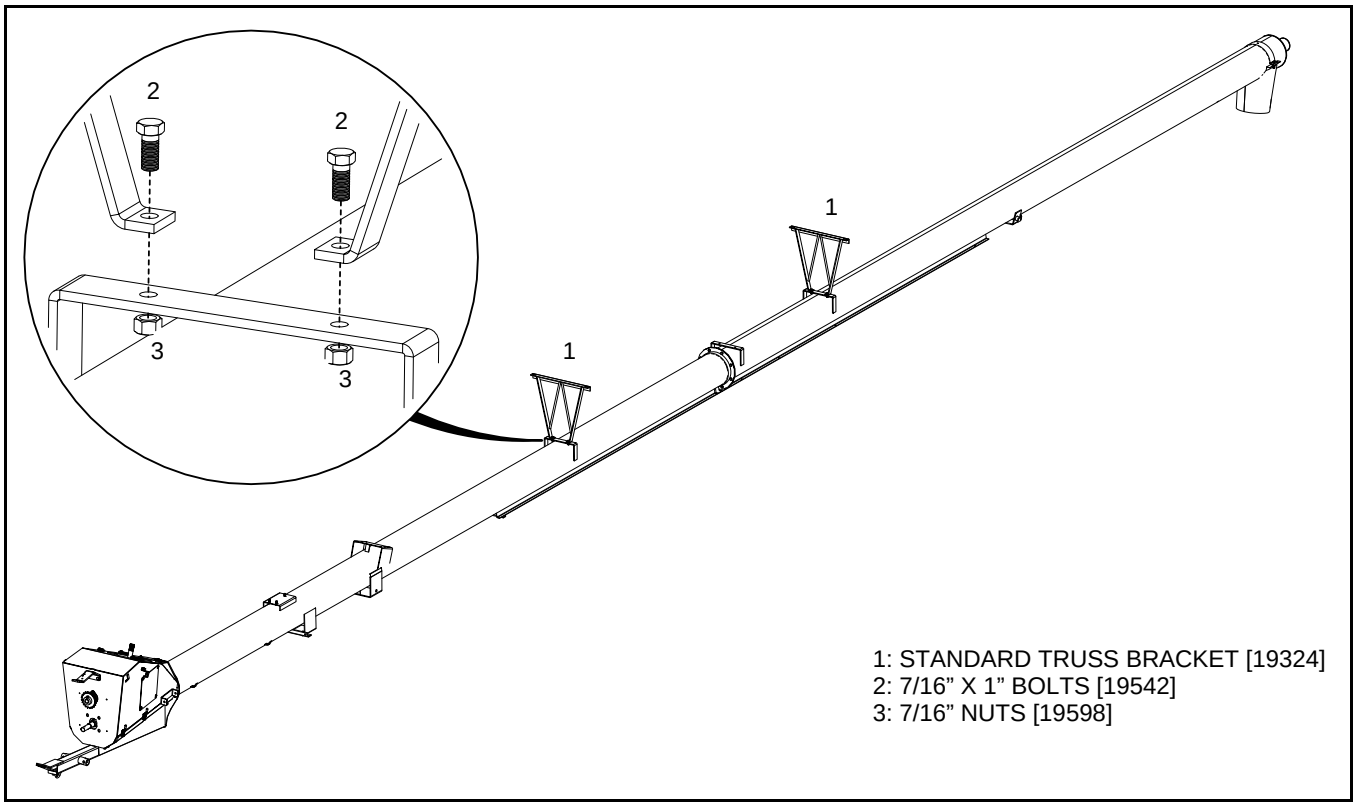


Figure 3.20 MKX100-53 Truss Supports

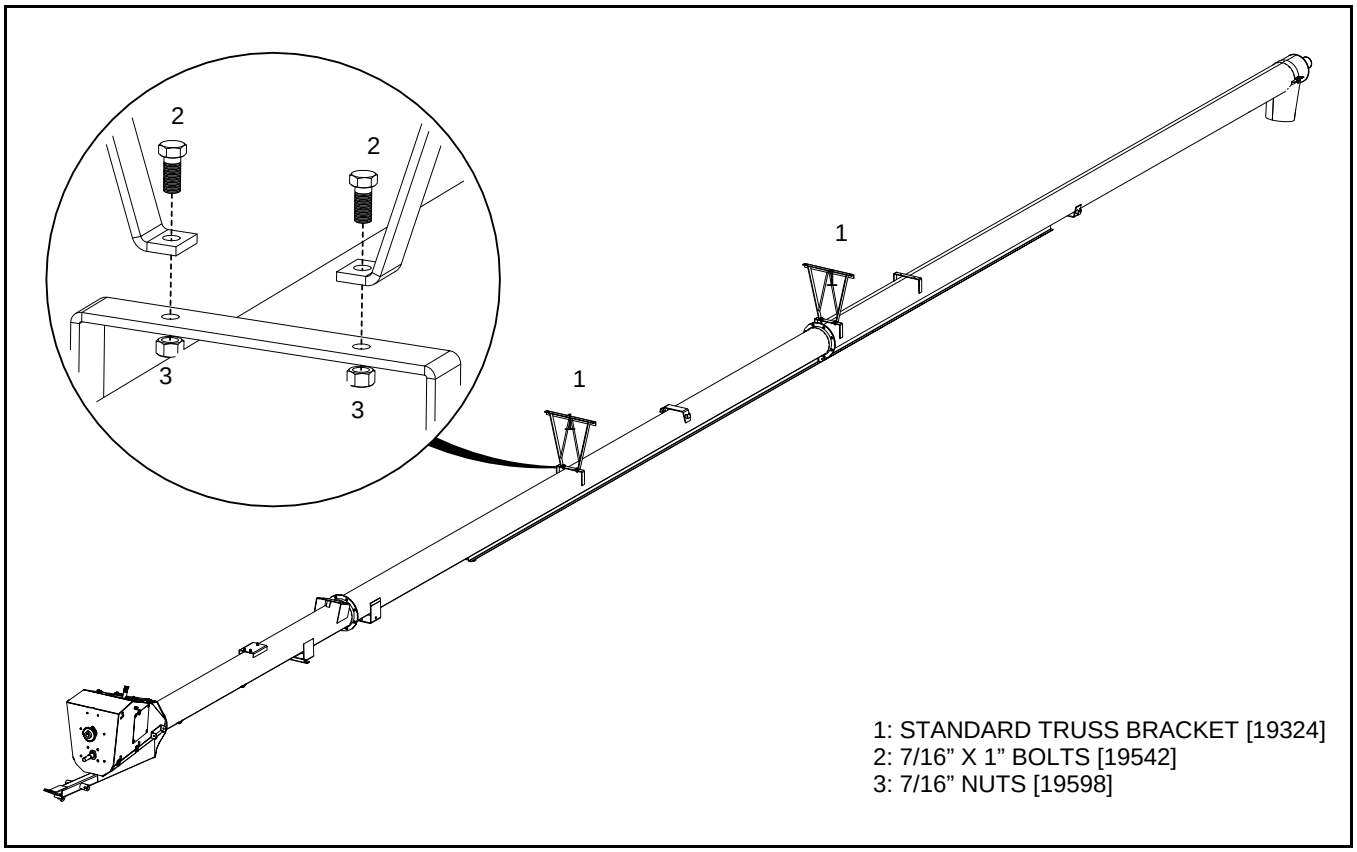


Figure 3.21 MKX100-63 Truss Supports

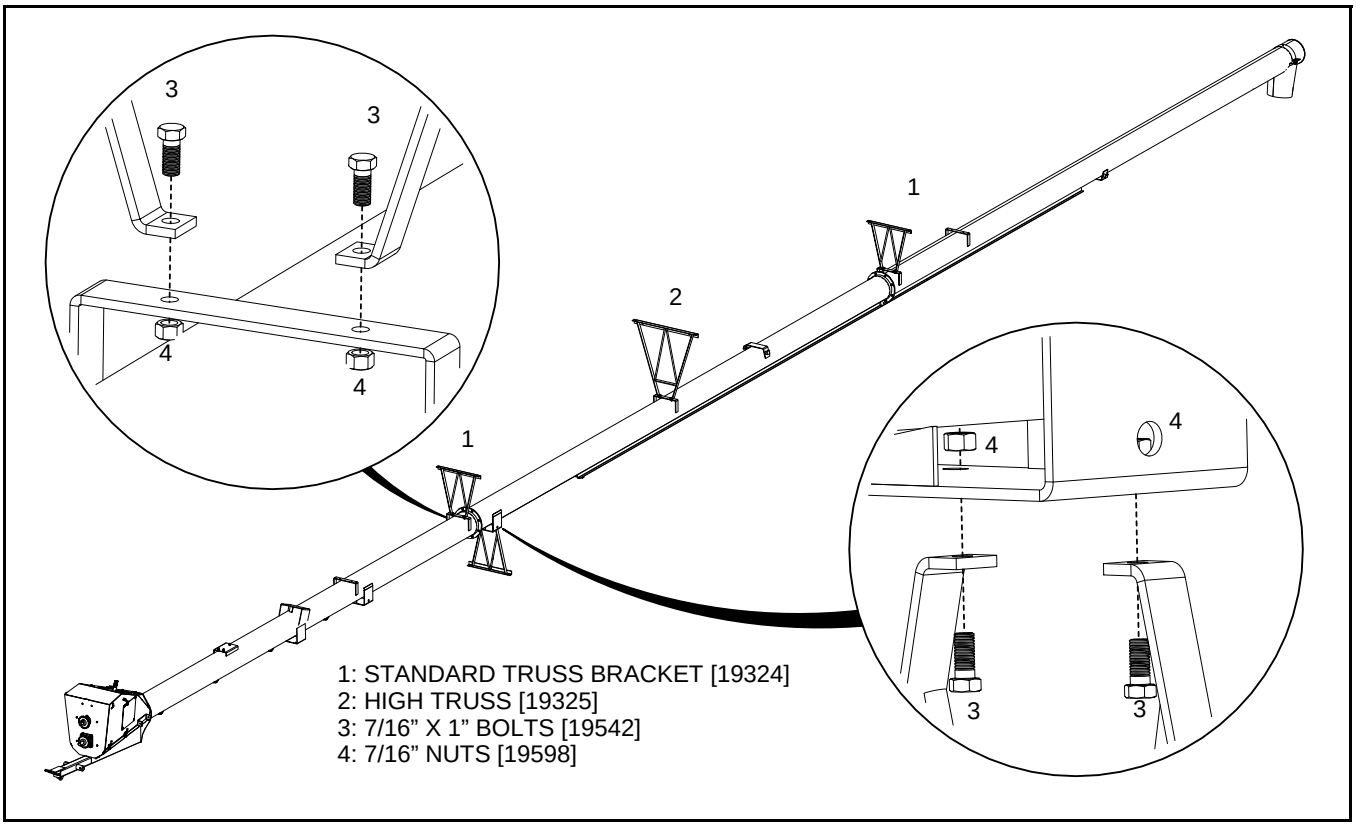


Figure 3.22 MKX100-73 Truss Supports

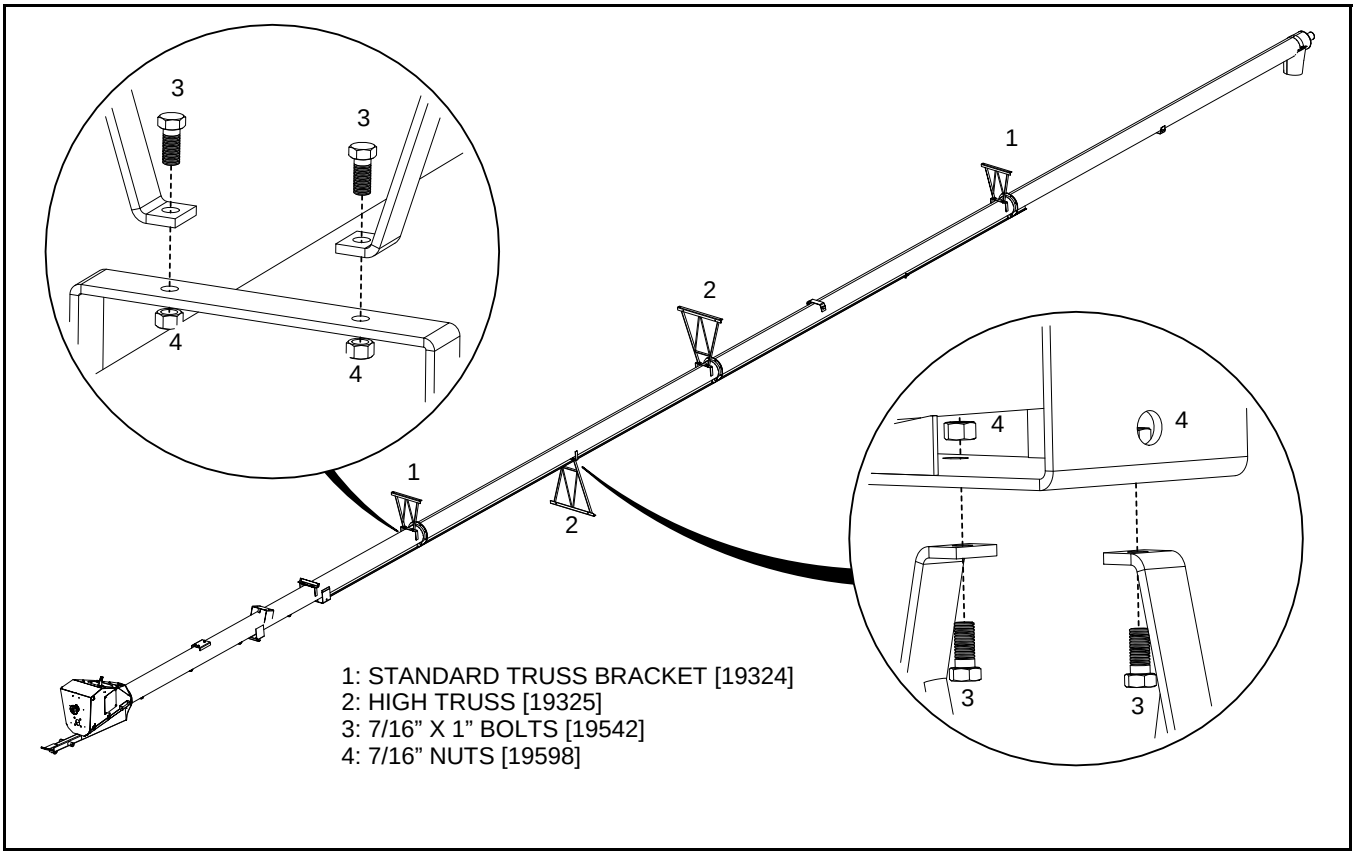
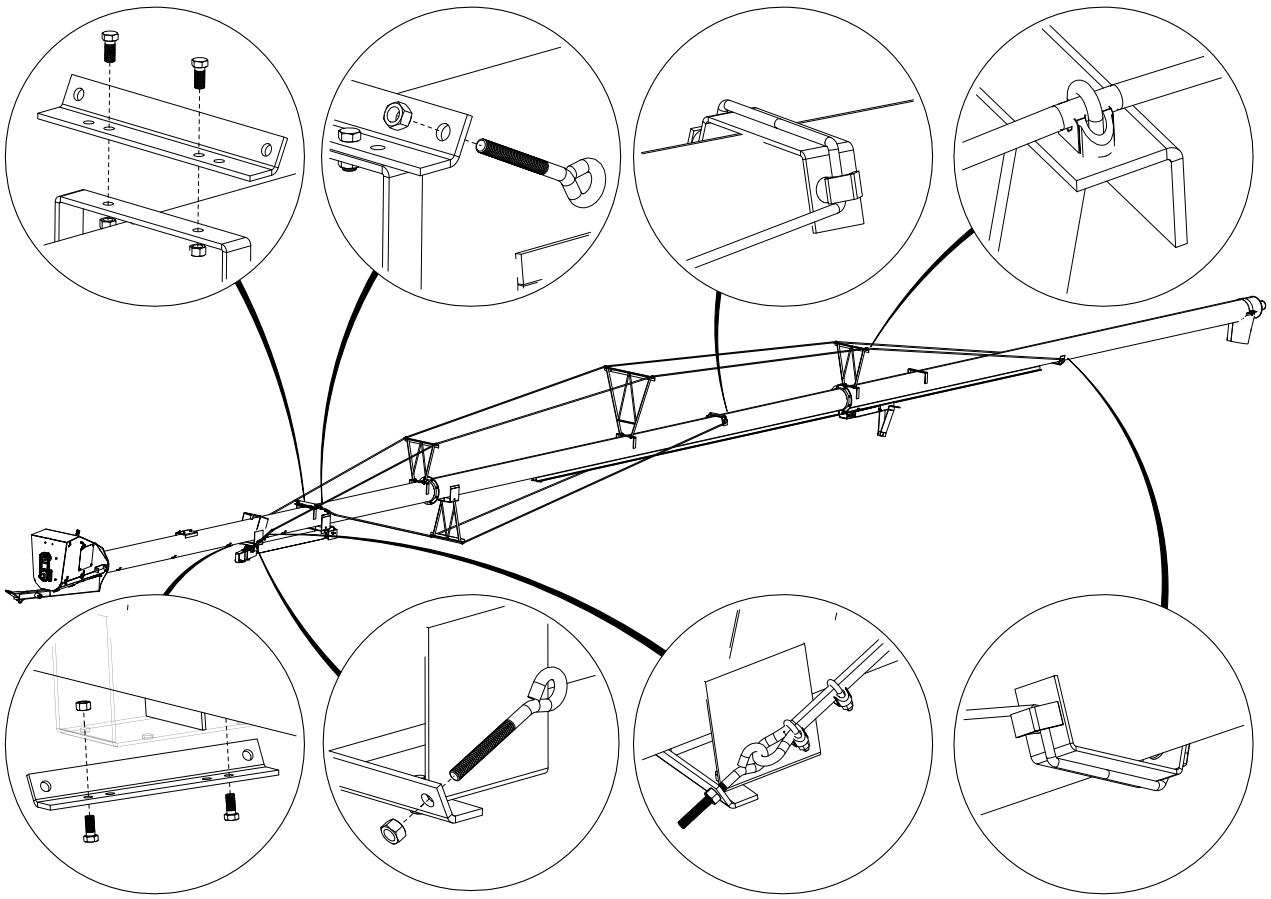


Figure 3.23 MKX100-83 Truss Supports



1: 7/16” X 1” BOLT [19542]
2: 7/16” LOCKNUT [19598]
3: TRUSS CABLE BRACKET [18032]
4: CABLE CLAMP (5/16” FOR MKX100-53/63/73 [19333], 3/8” FOR MKX100-83 [18990])
5: 1/2” EYEBOLT[19331]
6: TOP CABLE
7: BOTTOM CABLE

NOTE: THE CONFIGURATION SHOWN HERE (TRUSSING ABOVE AND BENEATH THE TUBE) APPLIES ONLY TO MKX100-73/83, BUT ALL OTHER DETAILS ARE THE SAME ACROSS ALL MODELS.

Figure 3.24 Installing Truss Cables

3.4. ASSEMBLE THE FRAME (MKX100-53/63/73 MODELS)

1. Fasten the lower reach arms to the axle with three 1/2” x 1-1/4" bolts and locknuts on each side.
2. Attach the long cross member to the bottom of large on the lower reach arms with two 1/2” x 1-1/4” bolts and locknuts.
3. Loosely attach short cross member between the lower reach arms with two 1/2” x 1-1/2" bolts and locknuts, sandwiching the stabilizer braces between the short cross member and small frame brackets on each side. Leave loose until the other ends of the stabilizer braces are connected in “Connect the Auger Tube to the Frame” on page 44.
4. Secure the tubing cross braces to the welded lugs on the lower reach arms with four 1/2” x 1-1/4” bolts and locknuts, and a fifth one where the braces cross. **Tighten securely.**

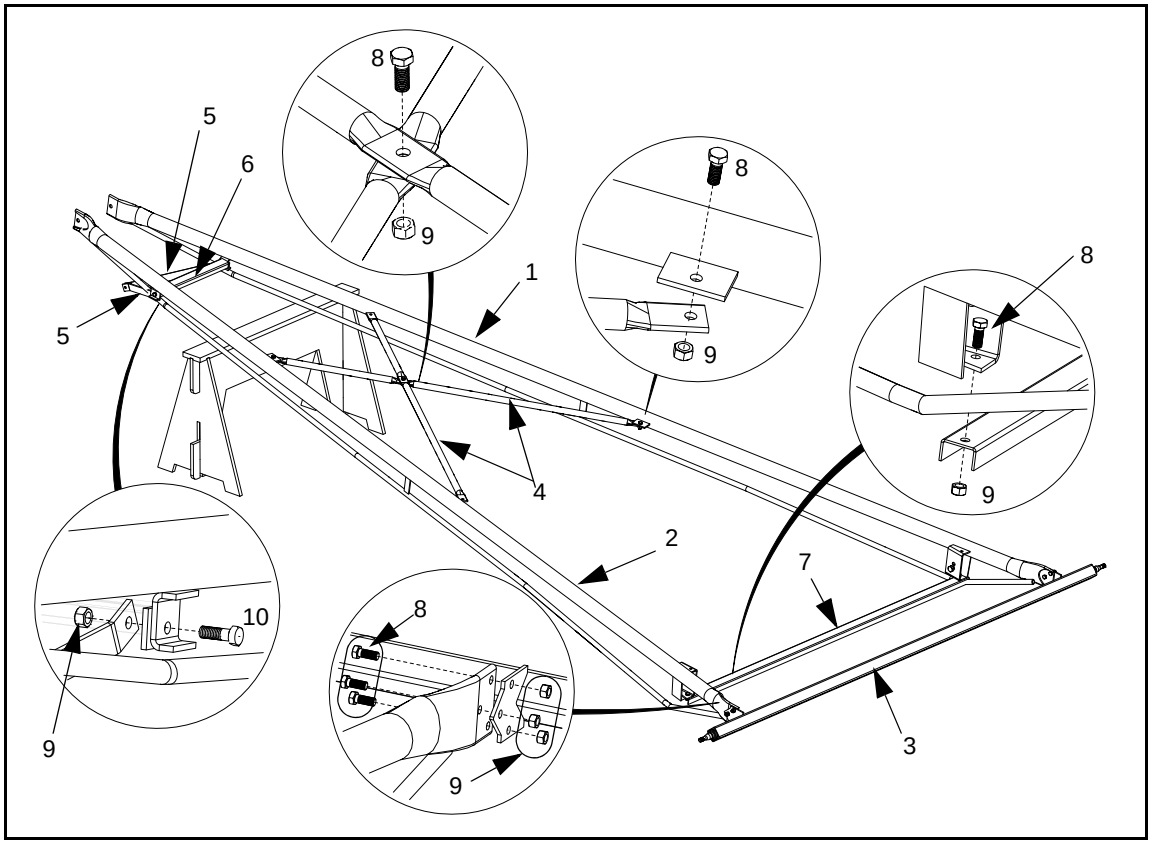


Figure 3.25 MKX100-53/63/73 Lower Frame

Table 3.2 MKX100-53/63/73 Lower Frame Parts

Number	Description	MKX100-53	MKX100-63	MKX100-73
1	Lower Reach Arm, RH	19790	19358	19360
2	Lower Reach Arm, LH	19789	19359	19361
3	Axle	18090	19342	19343
4	Frame Cross Brace	19796	19796	19796
5	Frame Stabilizer Brace	18908	18916	18915
6	Short Cross Member	18914	18914	18914
7	Long Cross Member	19376	19378	19379
8	1/2" x 1-1/4" Bolt	19588	19588	19588
9	1/2" Locknut	19599	19599	19599
10	1/2" x 1-1/2" Bolt	19589	19589	19589

3.5. ASSEMBLE THE FRAME (MKX100-83 MODEL)

1. Fasten the lower reach arms to the axle with three 5/8” x 2" bolts and locknuts on each side.
2. Attach the two corner braces between the lower frame assembly and the axle with two 1/2” x 1-1/4” bolts, two 1/2” x 1-1/2” bolts, and four locknuts.
3. Loosely attach short cross member between the lower reach arms with two 5/8” x 2" bolts and locknuts, sandwiching the stabilizer braces between the short cross member and small frame brackets on each side. Leave loose until the other ends of the stabilizer braces are connected in “Connect the Auger Tube to the Frame” on page 44.
4. Secure the tubing cross braces to the welded lugs on the lower reach arms with four 1/2” x 1-1/4” bolts and locknuts, and a fifth bolt and nut where the braces cross. **Tighten securely.**

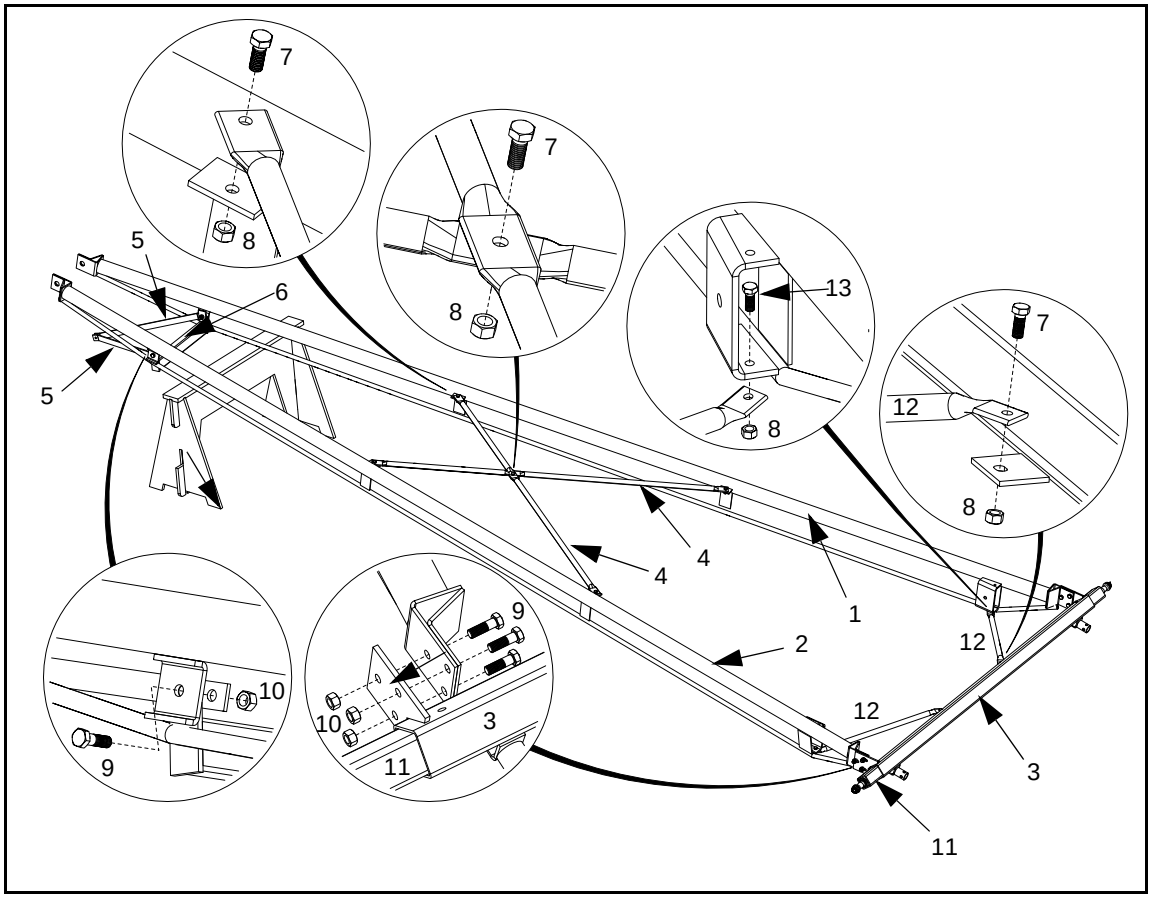


Figure 3.26 MKX100-83 Lower Frame

Table 3.3 MKX100-83 Lower Frame

Number	Description	MKX100-83
1	Lower Reach Arm, LH	27492
2	Lower Reach Arm, RH	27491
3	Axle	27489
4	Frame Cross Brace	27500
5	Frame Stabilizer Brace	27504
6	Short Cross Member	27493
7	1/2" x 1-1/4" Bolt	19588
8	1/2" Locknut	19599
9	5/8" x 2" Bolt	19991
10	5/8" Locknut	19600
11	Axle Extension	27490
12	Corner Brace	17463
13	1/2" x 1-1/2" Bolt	19589

3.6. ASSEMBLE THE WHEEL HUB AND INSTALL TIRES

1. Remove any dirt or paint from spindle and hub.
2. Thoroughly pack wheel bearings and cups with a good grade of bearing grease.
3. Place large bearing into hub and carefully tap in seal.
4. Slip hub onto spindle and insert small bearing.
5. Tighten slotted spindle nut until hub drags slightly. Back off the nut about 1/4 turn until the hub turns freely.
6. Install cotter pin and dust cap.

Note: *Installing tires may not leave you with enough clearance to position and attach undercarriage once auger tube is raised. If so, install wheels after assembly is complete.*

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

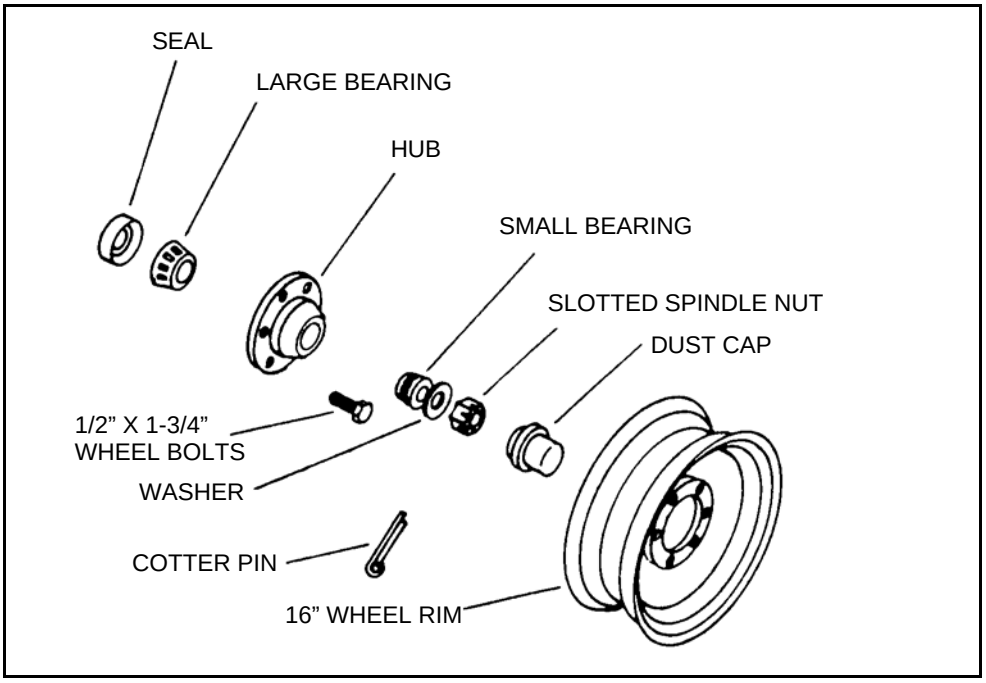


Figure 3.27 Wheel Hub Assembly

3.7. CONNECT THE AUGER TUBE TO THE FRAME

1. Raise the discharge end of auger with a front end loader and a strong sling/ 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 undercarriage beneath tube assembly and tighten 2 bolts that attach the short crossmember to the small frame brackets.
3. Position stabilizer braces and attach lower reach arms to bracket welded on lower end of auger tube with two 3/4” x 2" bolts and locknuts. **Do not over-tighten**. Tighten snug only; these bolts act as pivot points.
   - **MKX100-83**: 3/4” x 2-1/4” bolts are used along with a 3/4” flat washer and a long bushing (1-1/4” x 7/8”). These bolts can be tightened securely because the bushings are used as pivot points.
   - **MKX100-73**: attach lower reach arms to the proper bracket on the auger tube.
4. Fasten flat braces to first set of holes (furthest from intake) on stabilizer braces with one 7/16” x 1-3/4" bolt and locknut. Place one 7/16” x 1 bolt and locknut in other hole of the stabilizer brace.
5. Fasten upper liftarms to lower reach arms with two 3/4” x 2" bolts and locknuts. **Do not over-tighten;** tighten snug only as these bolts act as pivot points.
   - **MKX100-83**: 3/4” x 2-1/4” bolts are used along with a 3/4” flat washer and a short bushing (1-1/4” x 5/8”). These bolts can be tightened securely because the bushings are used as pivot points.
6. Attach the frame cross braces to the upper reach arms by loosely attaching the frame cross braces using five 1/2” x 1-1/4” bolts and locknuts.
7. Attach upper lift arms to center hole on the lift assist arms, with one 3/4” x 7-1/2” bolt and locknut (use 3/4” x 8-1/2” bolt and locknut for MKX100-83). **Do not over-tighten.** Tighten snug only; this bolt acts as a pivot point.
   - **MKX100-83:** These bolts can be tightened because bushings are used.
8. Lower upper end of auger slowly until track shoe rests against upper track stop.

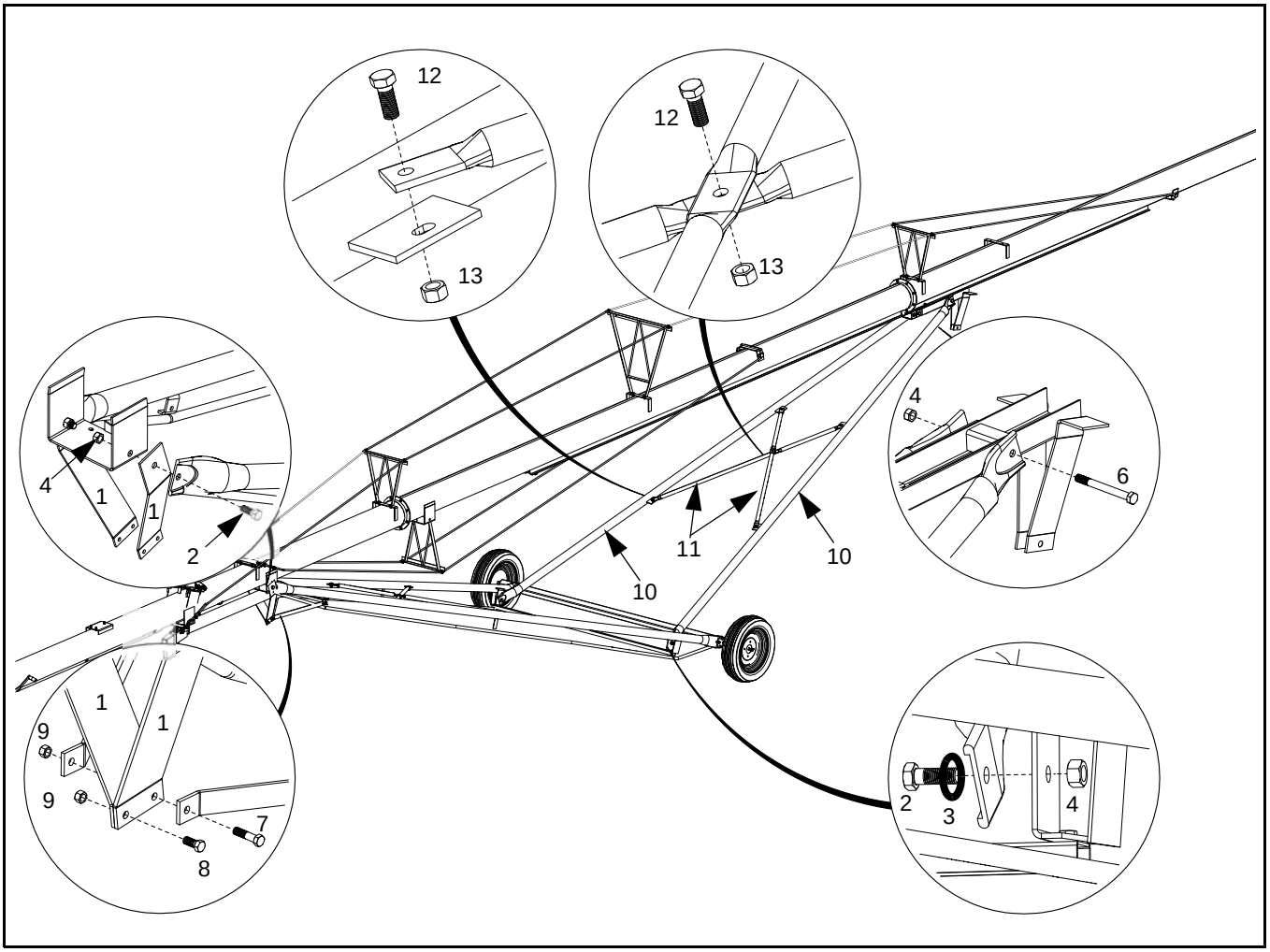


Figure 3.28 Connecting the Auger Tube to Frame (MKX100-53/63/73)

Table 3.4. MKX100-53/63/73 Upper Frame Parts

Number	Description	MKX100-53	MKX100-63	MKX100-73
1	Stabilizer Bracket	18909	18909	18909
2	3/4" x 2" Bolt	19592	19592	19592
3	3/4" Washer	19979	19979	19979
4	3/4" Locknut	19601	19601	19601
5	3/4" x 6-1/2" Bolt	19593	19593	19593
6	3/4" x 7-1/2" Bolt	18094	18094	18094
7	7/16" x 1-3/4	19981	19981	19981
8	7/16" x 1"	19542	19542	19542
9	7/16" Locknut	19598	19598	19598
10	Upper Reach Arm	19792	19524	19525
11	Frame Cross Brace	19796	19796	19796
12	1/2" x 1-1/4" Bolt	19588	19588	19588
13	1/2" Locknut	19599	19599	19599

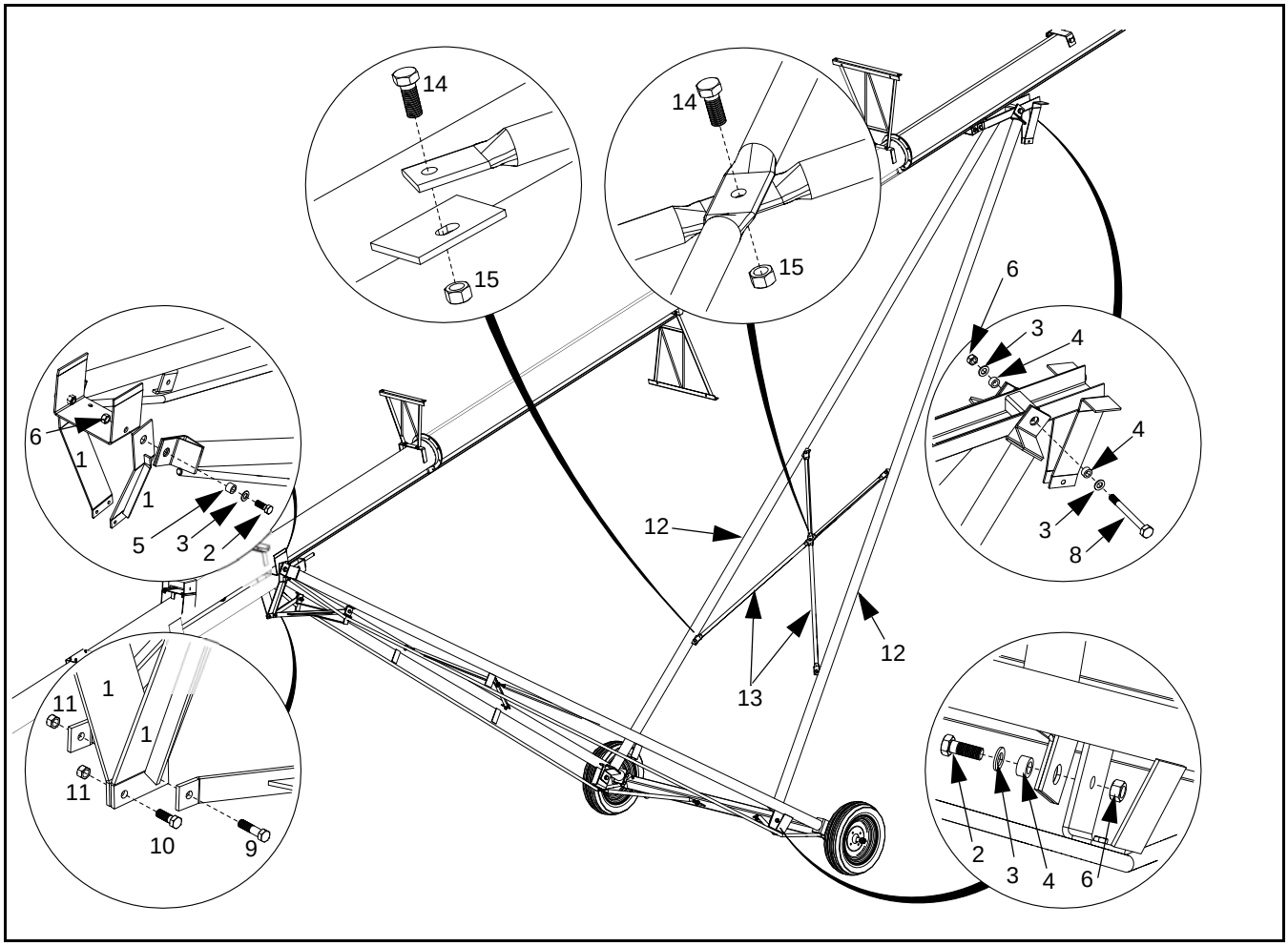


Figure 3.29 Connecting the Auger Tube to Frame (MKX100-83)

Table 3.5. MKX100-83 Upper Frame Parts

Number	Description	MKX100-83
1	Stabilizer Bracket	27494
2	3/4" x 2-1/4" Bolt	29254
3	3/4" Washer	19979
4	1-1/4” x 5/8” (Short) Spacer Bushing	27508
5	1-1/4” x 7/8” (Long) Spacer Bushing	27507
6	3/4" Locknut	19601
7	3/4" x 6-1/2" Bolt	19593
8	3/4" x 8-1/2" Bolt	27482
9	7/16" x 1-3/4	19981
10	7/16" x 1-1/4"	18698
11	7/16" Locknut	19598
12	Upper Reach Arm	27499
13	Frame Cross Brace	27500
14	1/2" x 1-1/4" Bolt	19588
15	1/2" Locknut	19599

3.8. INSTALL THE AUGER TUBE LIFT CYLINDERS AND CABLES

CAUTION	
	The lift assist arm 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 cable is properly seated in the cable sheaves before attaching the cable to the lift assist.*

1. With the auger in full down position (track shoe resting solidly against the track stop, and the lift assist arm seated against the track), thread the cable around the cable-attach-rod on the lift assist arm. Pull cable very tight, then secure with three cable clamps positioned as shown (see Figure 3.30). **Tighten securely**. Tie up excess ends of lift cable with tape or cable ties.

- For MKX100-53/63/73 use 5/16" cable clamps.
- For MKX100-83 use 3/8" cable clamps.

Important: *Lift cable will stretch with initial use. Check frequently and adjust.*

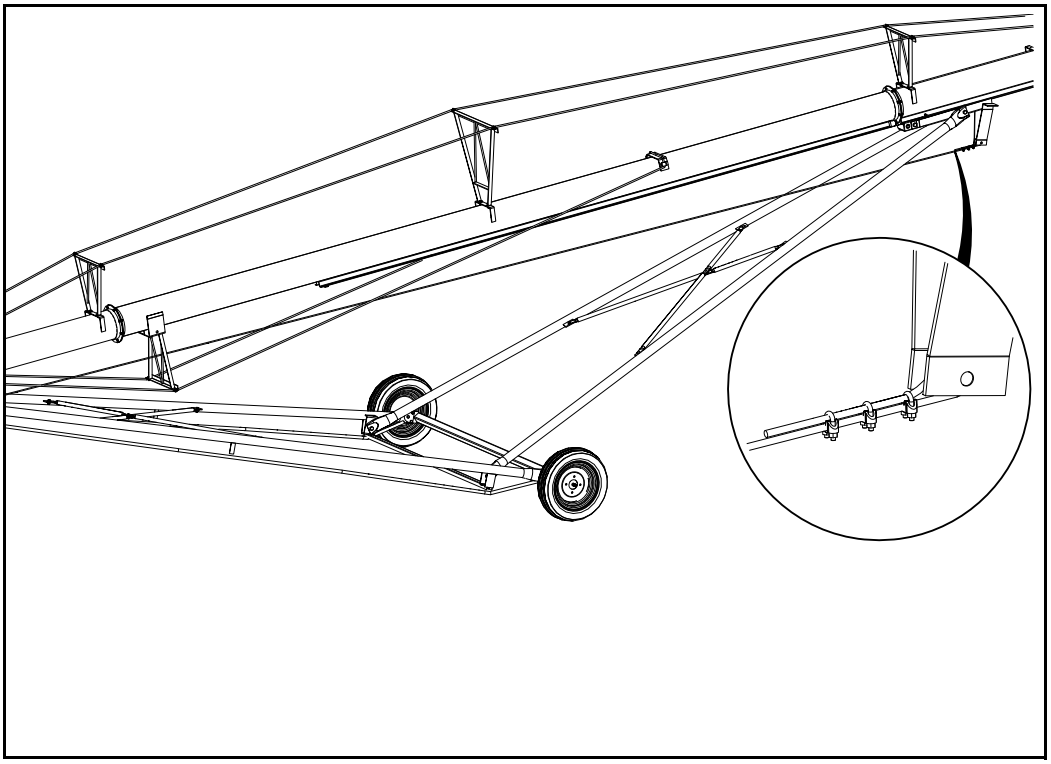


Figure 3.30 Connecting the Lift Cylinder Cable to the Lift Assist Arm

3.9. CONNECT HYDRAULIC HOSES AND BALL VALVE

Note: *Determine right or left side of auger by standing at intake end facing top discharge end.*

Note: *Elbow fittings are factory installed. Use thread sealant on fitting and hose threads (not supplied.)*

WARNING	
	Wear on hose can cause auger to drop suddenly, causing serious injury or death.

Note: *The MKX100-83 model lift cylinder has two hydraulic hoses, pressure and return, and all other models have only a pressure hose. For the MKX100-83, the pressure hose is shorter than the return hose.*

1. Connect the pressure hose to the hydraulic cylinder cap-end right-angle fitting as follows

- **MKX100-53:** Run the pressure hose under the tube and to the boot, securing the hose at brackets welded to side of auger tube and boot. Bend tops of these brackets over slightly to hold hose in place (see Figure 3.31).
- **MKX100-63:** Loop the pressure hose through the back-arm bracket, then run the hose under the tube and to the boot, securing the hose at brackets welded to side of auger tube and boot. Bend tops of these brackets over slightly to hold hose in place (see Figure 3.32).
- **MKX100-73:** Run the pressure hose under the tube and to the boot, securing the hose at brackets welded to side of auger tube and boot. Bend tops of these brackets over slightly to hold hose in place (see Figure 3.31).
- **MKX100-83**:
  a. Loop the pressure hose through the back-arm bracket, then run the hose under the tube and to the boot, securing the hose at brackets welded to side of auger tube and boot. Bend tops of these brackets over slightly to hold hose in place (see Figure 3.33).
  b. Run the return hose through the back-arm bracket, under the tube, and to the boot, securing the hose at brackets welded to side of auger tube and boot. Bend tops of these brackets over slightly to hold hose in place (see Figure 3.33).

2. At the boot, install the ball valve on the pressure hose, and secure the valve to the boot using the ball valve bracket and two 1/4” x 3/4” bolts and locknuts (see Figure 3.34).

Important: *Protect hose ends from dirt.*

3. Recheck that bolts on undercarriage, lift cylinders, and cable clamps are tight, then remove auger tube support.

Table 3.6 Hydraulic Cylinder and Hoses

Model	Cylinder	Pressure Hose	Return Hose
MKX100-53	18033	21608	n/a
MKX100-63	18034	20318	n/a
MKX100-73	18035	20320	n/a
MKX100-83	27506	27480	20320

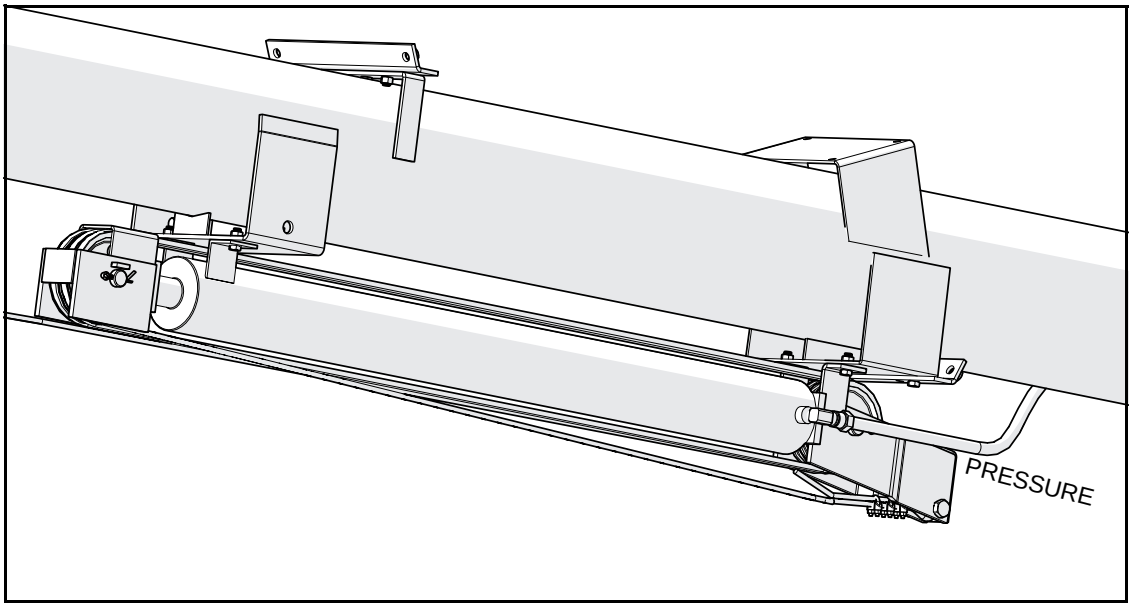


Figure 3.31 MKX100-53, MKX100-73 Hydraulic Hose Cylinder Connection

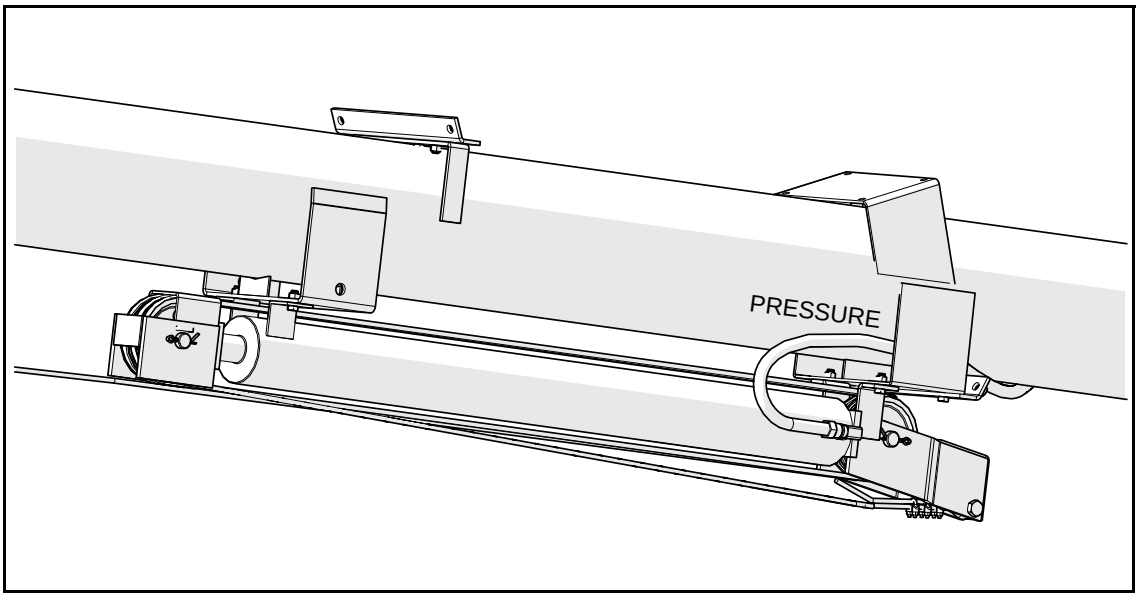


Figure 3.32 MKX100-63 Hydraulic Hose Cylinder Connection

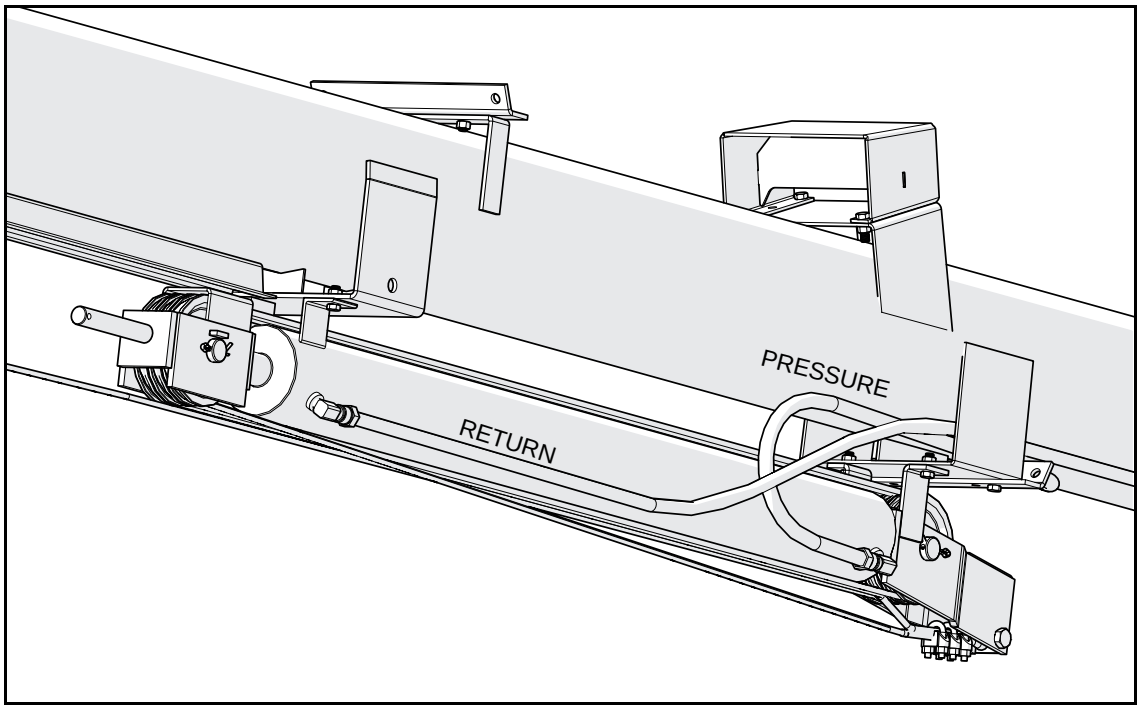


Figure 3.33 MKX100-83 Hydraulic Hose Cylinder Connections

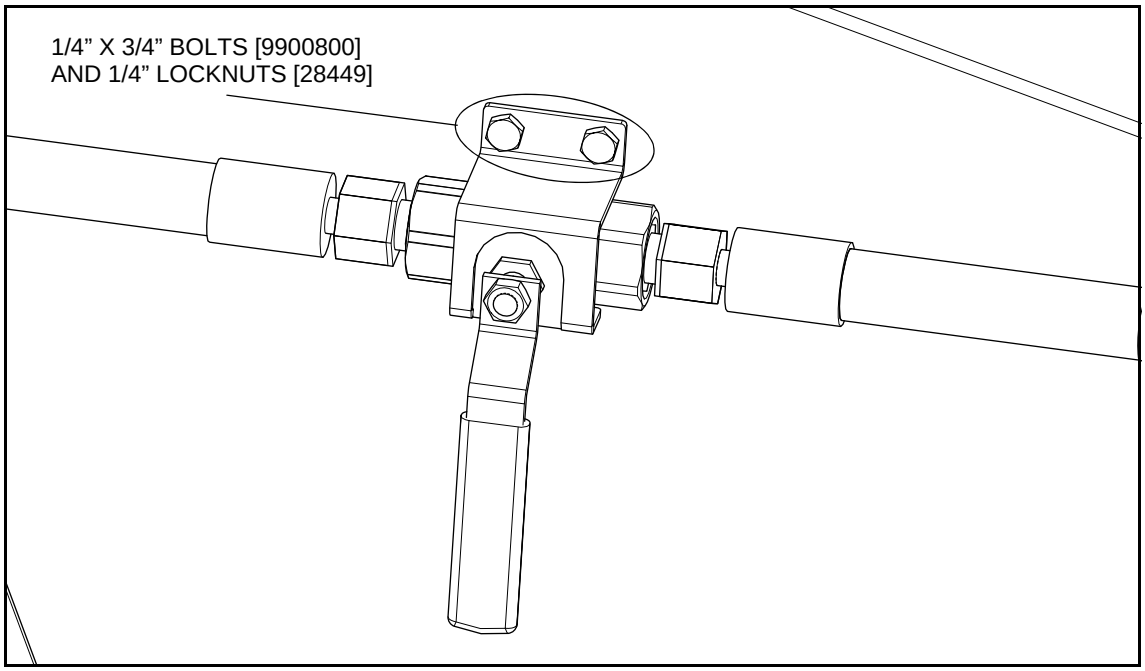


Figure 3.34 Installing the Ball Valve on the Boot

3.10. CONNECT THE PTO DRIVELINE

1. Install the PTO transport bracket using two 1/2” x 1-1/4” bolts (19588) and two 1/2” nuts (19599).
2. Clean paint or dirt off of PTO driveline and flighting shaft ends before assembly.
3. Ensure that the 1/4” x 3-3/8” square key is in place on the flighting shaft.
4. Slide plain end of PTO driveline onto flighting shaft. Make sure that the 5/16” holes are lined up.
5. Carefully tap in a 5/16” roll pin. Tighten the set screw on the PTO shaft.
6. Loosely install the sprocket shield on the boot using four 5/16” x 3/4” bolts.
7. Slide the PTO transport saddle through the support strap on the boot and rest the PTO driveline in it.
8. Tighten the sprocket shield bolts.

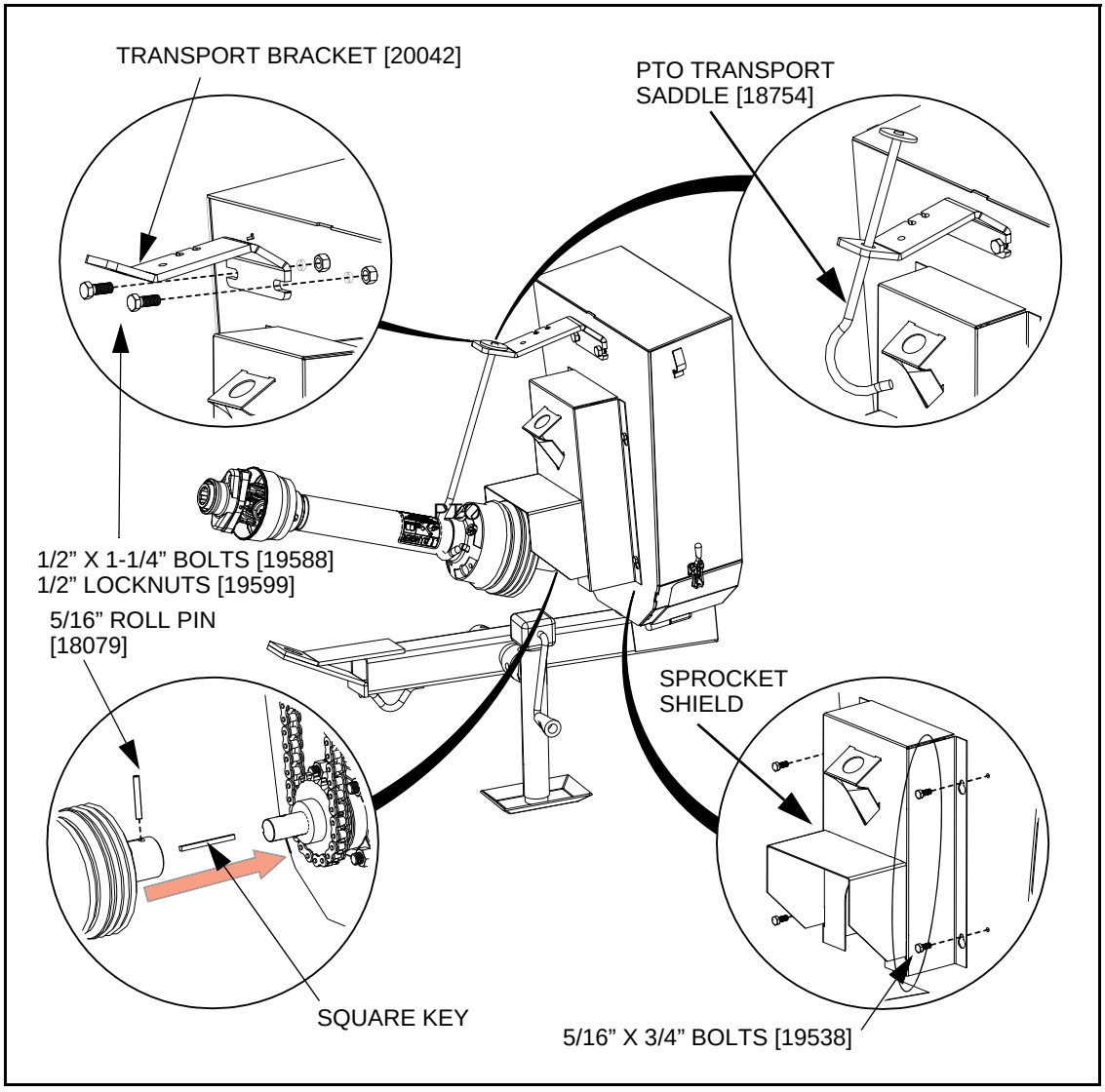


Figure 3.35 PTO Parts and Installation

3.11. INSTALL LOW PROFILE INTAKE HOPPER

WARNING

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

1. Attach the Transition to the intake hopper with two 5/8” x 1-1/2” bolts (19590) and 5/8” locknuts (19600). **DO NOT** over-tighten; tighten to a slightly loose fit only as these bolts act as pivot points (Figure 3.36).

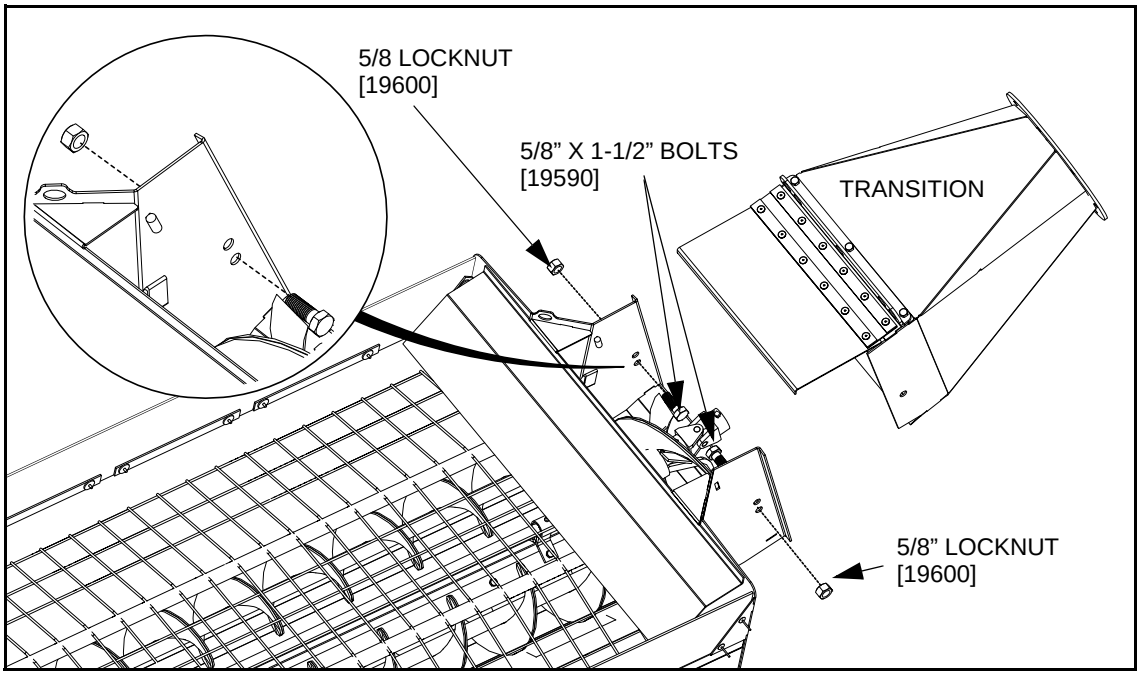


Figure 3.36 Installing the Transition

2. Clean dirt and paint from inside the u-joint and flighting shaft end, grease the shaft end, then insert a Woodruff key (Figure 3.37).
3. Raise and support the hopper tube spout head on a stand about 50” high.
4. Open the service door on the Transition, then bring the tube and Transition together guiding the flight shaft into the u-joint (Figure 3.37).
5. Secure the tube to the pivot-connector on the hopper with eight 7/16” x 1” bolts (19542) and 7/16” locknuts (19598).
6. Tighten set screws on u-joints, then close and secure the service door.

7. Attach the 4 solid wheels to the 4 hopper corners with the axle pins and hairpins. There are 3 height settings (Figure 3.38) that can be used according to preference.
8. To connect the intake hopper to the auger boot, the swing head spout door must first be opened. To do so, open the spring clasps and rotate the spout door open, so that it lies down on the top of the swing tube.
9. Check that the u-joint spline and splined shaft on the lower gear box are clean, then apply a light film of grease on the splined shaft.
10. Install a rim washer (17370) on the lower gearbox top shaft.
11. Shift the position of the hopper so that the spout head is supported above the hopper, centred on the shaft of the gear box.
12. Lower the spout head onto the boot while guiding the splined universal joint onto the splined gearbox shaft. Once positioned, the swivel ring should be resting flat on the boot surface.
13. Install spout head spacers (29152), followed by spout-head retainers (29166), using eight 3/8” x 3/4” bolts (19540) (Figure 3.39).
14. Lubricate the universal joint and then close and secure the spout head service cover.

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

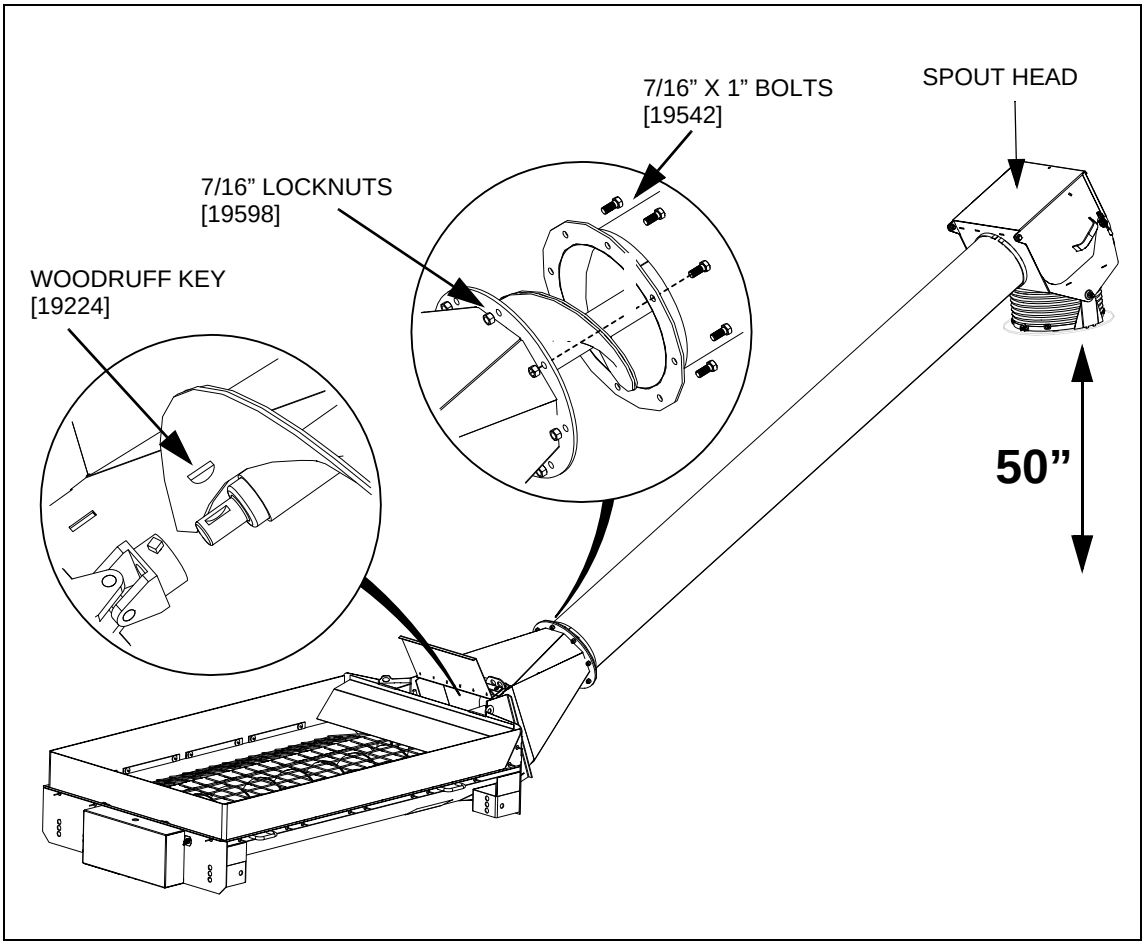


Figure 3.37 Connection the Flighting and Tube

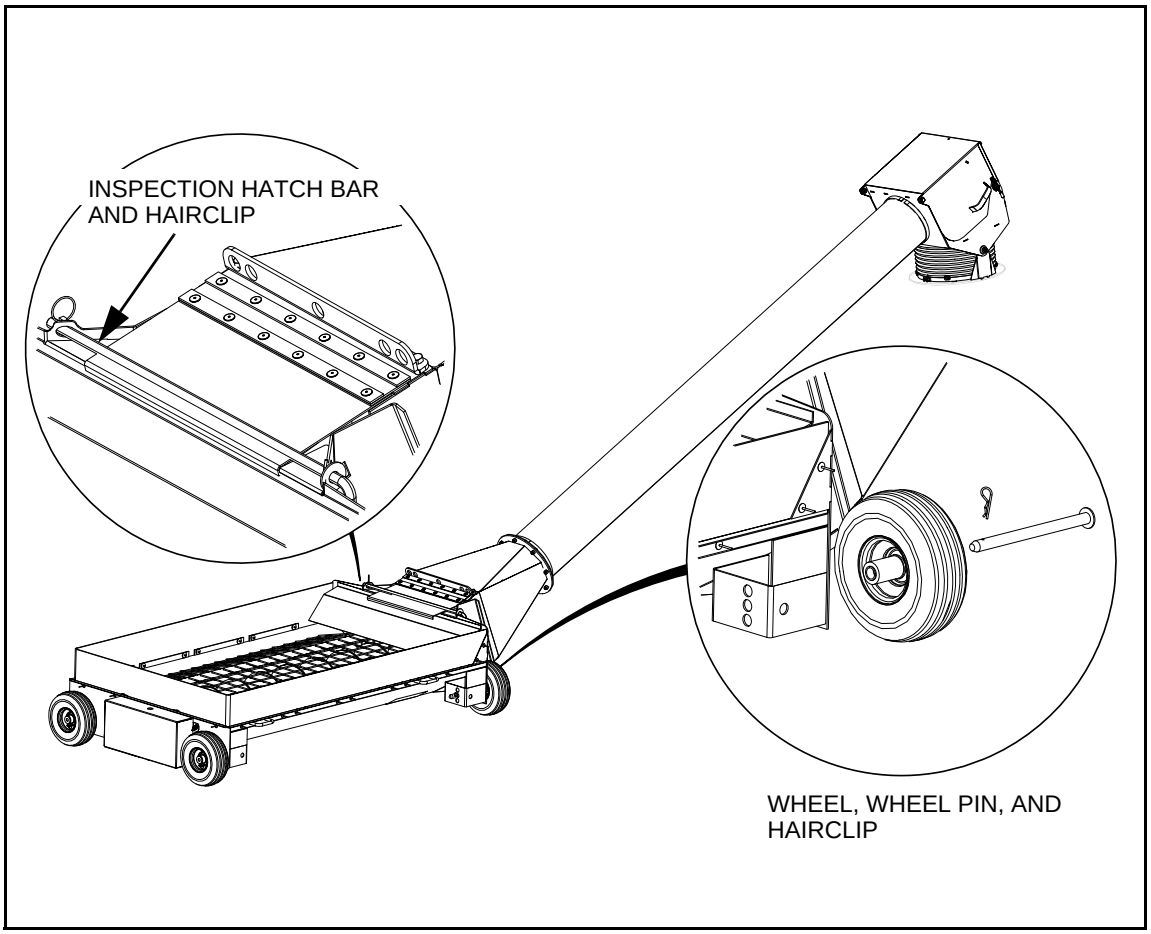


Figure 3.38 Connecting the Wheels, Inspection Hatch Bar, and Hopper Cable Attach Bracket

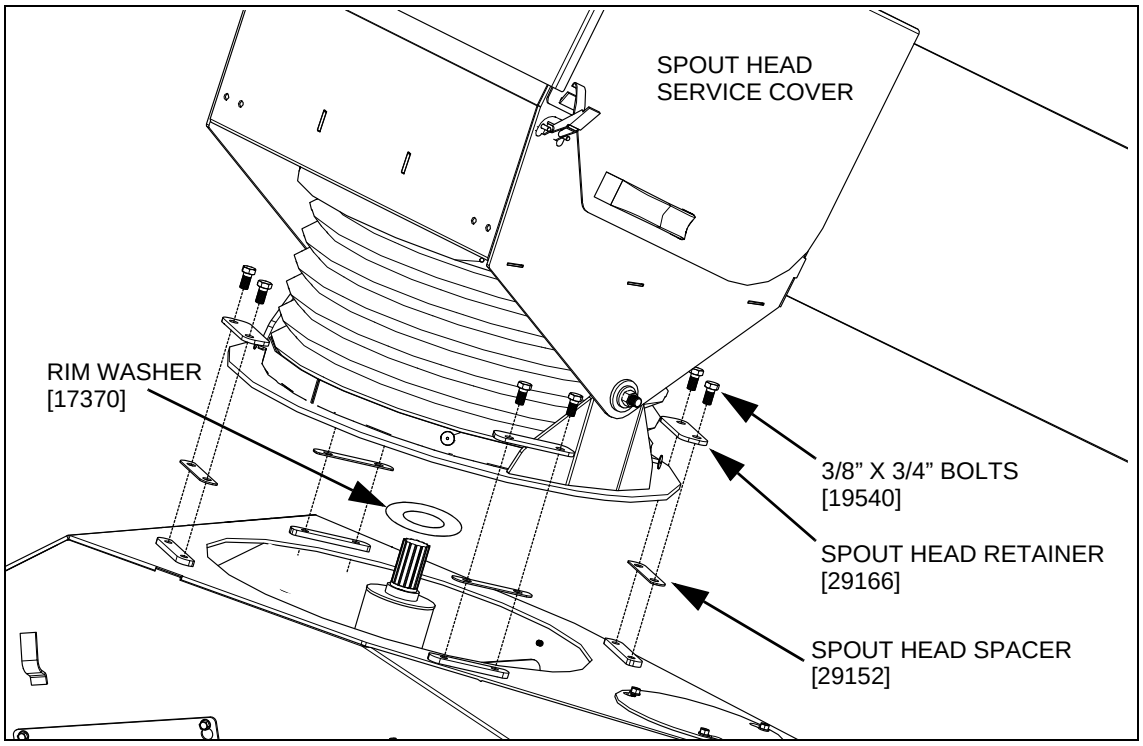


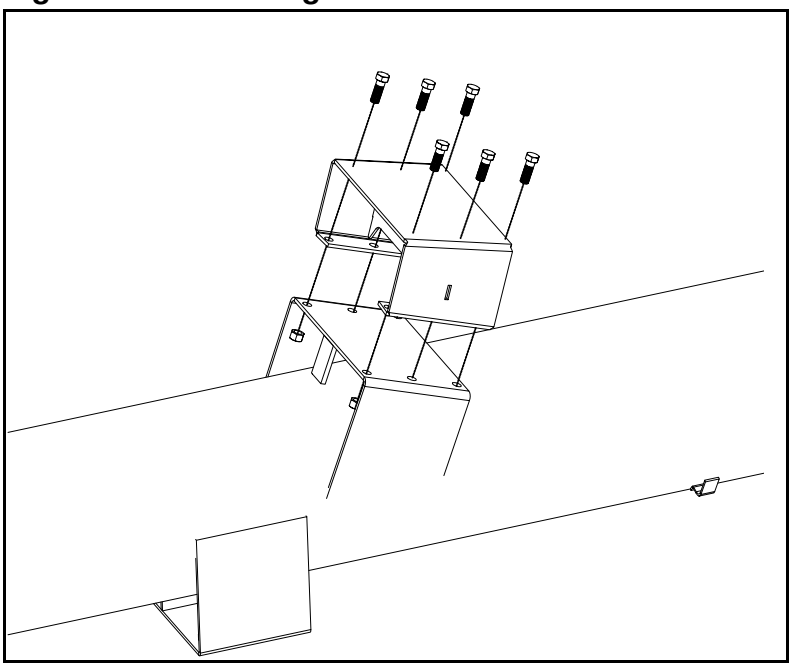
Figure 3.39 Connecting the Spout Head to the Boot

3.12. INSTALL THE HOPPER LIFT EXTENSION

➡ ***MKX100-83** only:*

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

Figure 3.40 Installing the Lift Extension



3.13. INSTALL HOPPER LIFT ARM AND WINCH

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

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

2. Position the hopper lift arm on the mount bracket on top of the lower auger tube with the arm overhanging the left side of the auger (as viewed from the boot, looking toward the discharge spout).
3. Fasten the hopper lift arm assembly to the mount bracket on top of the lower auger tube with two mount pins (18074) and a hairpins (19463).
4. Install winch and winch bracket assembly to auger boot (opposite to side of hopper operation) with one mount pin and a hairpin (Figure 3.42).
5. Install the transport hook assembly to the lift arm using a 7/16” x 1-1/4” bolt (18698), 7/16” washer (17182), and 7/16” locknut (19598).
6. Thread the cable through the hopper lift arm and pull the cable to the winch.
7. Wrap the cable over and around the winch spool at least three times, then insert the cable end through the hole provided in the side of the spool and secure the end with the provided cable clamp (Figure 3.43).

8. To place hopper into transport position, attach cable hook to hook on the hopper transition, then fully raise hopper with intake side facing main auger. Secure hopper to lift arm by connecting the safety chain (Figure 3.44) to the hopper cable attach bracket.

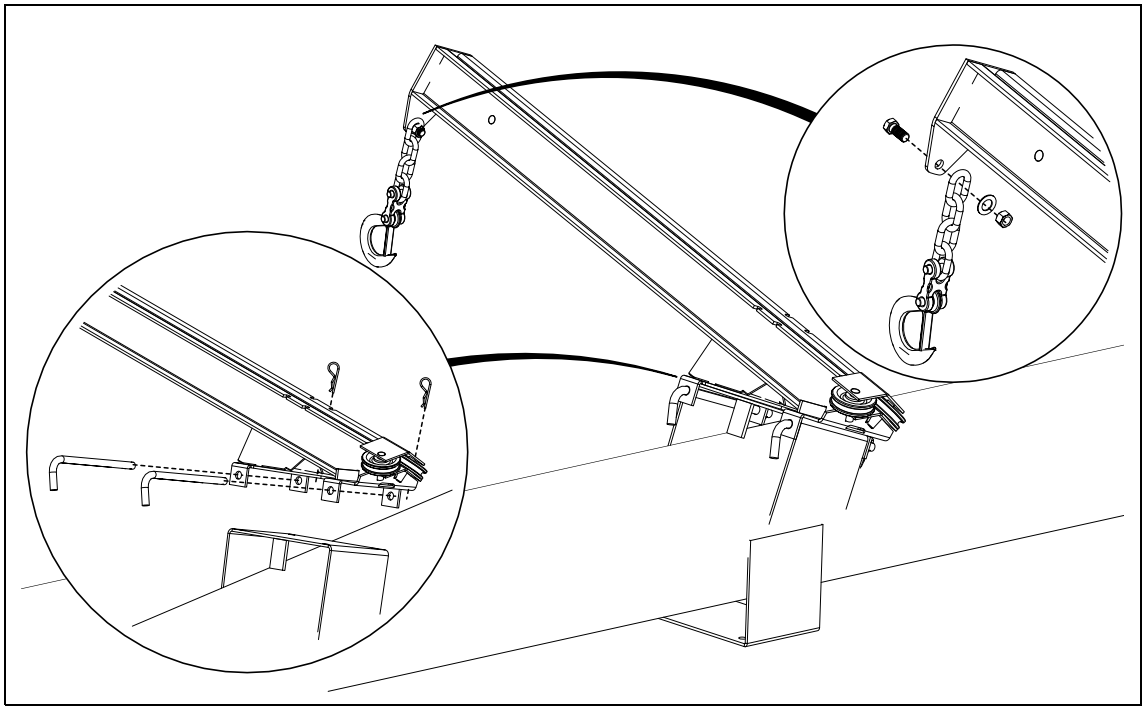


Figure 3.41 Installing the Lift Arm

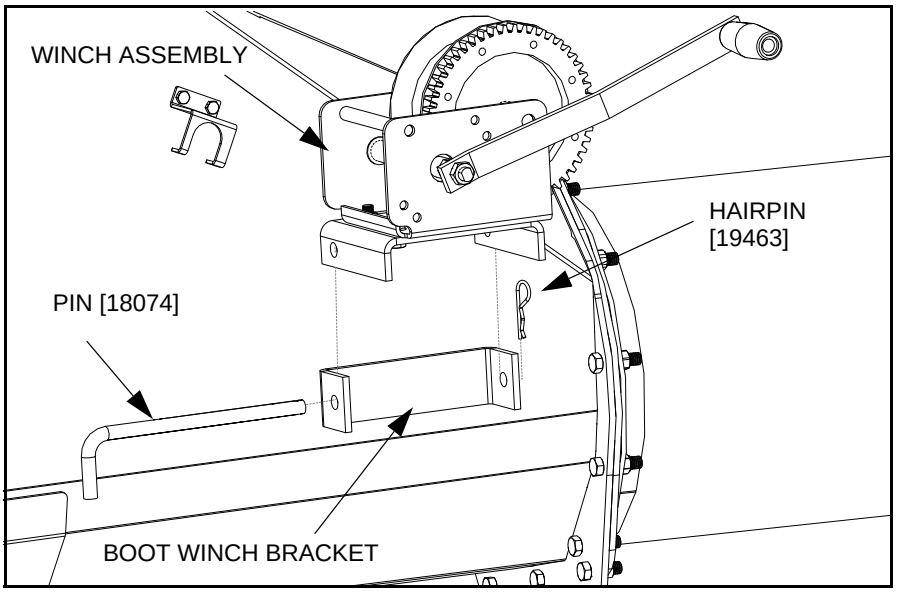


Figure 3.42 Connecting Manual Winch to the Boot

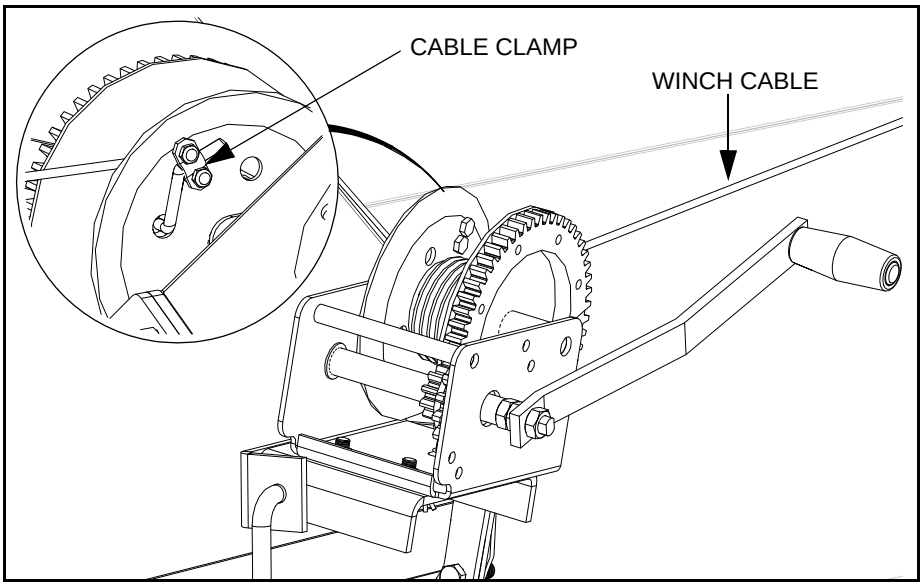


Figure 3.43 Connecting Winch Cable to Spool

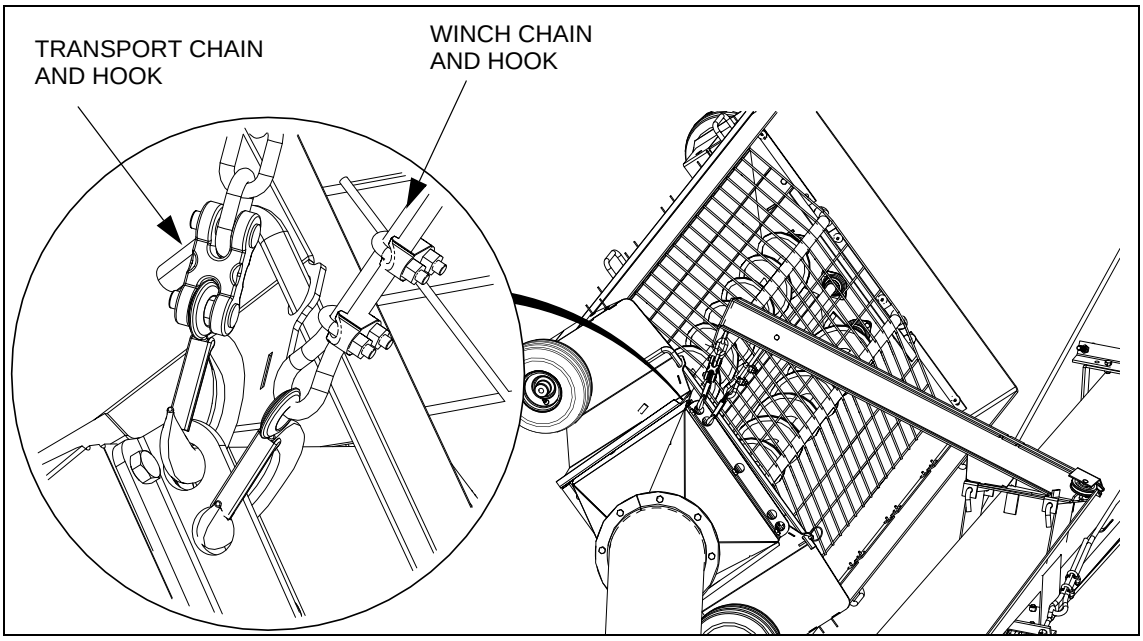


Figure 3.44 Transport Position, Safety Chain and Winch Hook

➡ *If you want to change the side of intake feed hopper operation:*

a. Raise auger hitch jack and disconnect from tractor.
b. Swing intake feed hopper to opposite side of auger.
c. Reverse the position of the hopper lift arm assembly.
d. Position the winch upside down on the other side of the boot.
e. Reconnect to tractor.

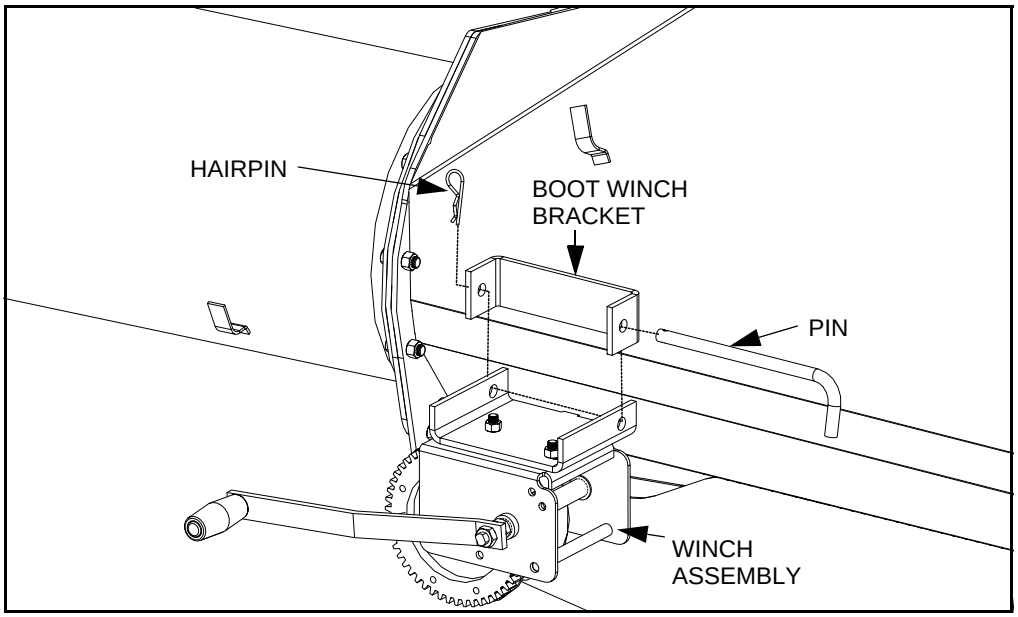


Figure 3.45 Positioning winch on the other side of the boot

3.14. INSTALL THE HITCH JACK

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

1. Elevate the auger boot (intake end) approximately 2’ (5.08 cm) with a front-end loader and sling, and install the jack in a vertical position. Secure with supplied pin.
2. Place a board beneath the jack before setting it on the ground, then lower the auger until the jack is seated. Remove front-end loader from auger.

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

WARNING	
⚠	Jack is designed for raising or lowering auger hitch only. Do not get on or beneath auger while supported by or while jack is being operated.

3.15. INSTALL THE PLASTIC MANUAL CONTAINER

Mount the plastic manual holder directly to the boot (as shown below) using three #14 x 5/8” self-tapping screws (19274).

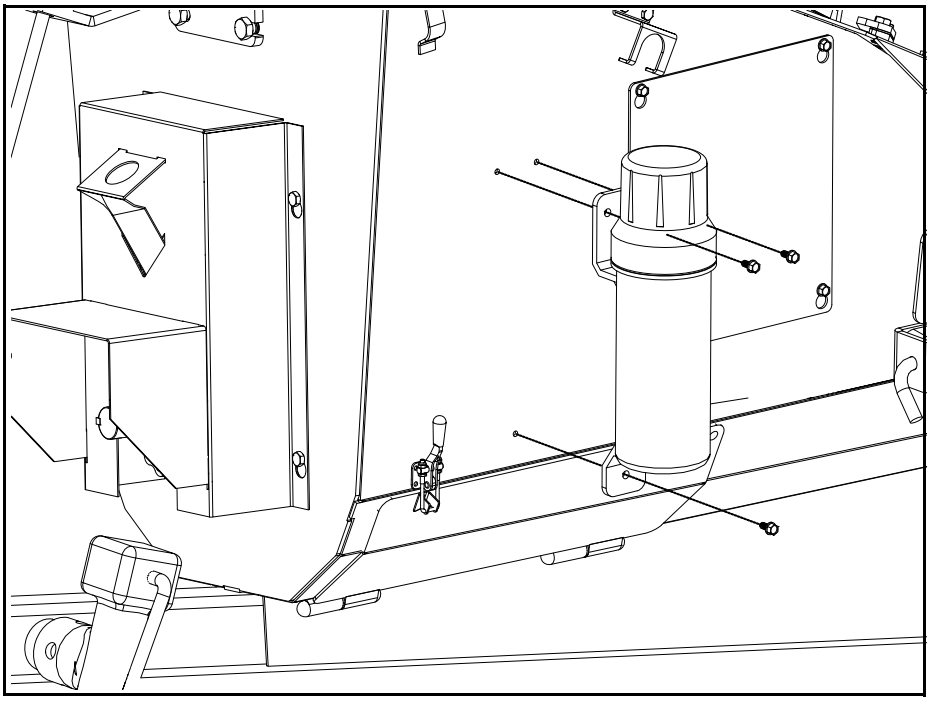


Figure 3.46 Installing the Plastic Manual Container

3.16. AUGER-TO-TRACTOR HOOKUP

Important: *Auger must be correctly connected to the tractor for all operations, including during transport, raising, placement, and augering grain.*

The final stage of the assembly is attaching the auger to the tractor.

To secure the auger hitch to the tractor, use:

- a suitable bolt with 2 nuts locked against each other as a pin, or
- a hitch pin, a washer, and a hairpin.

A space between 3/4” (1.91 cm) and 1" (2.54 cm) must be provided between the bottom of the tractor drawbar and the top of the securing device on the pin.

The bolt/hitch pin must be 3/4” x 5” minimum.

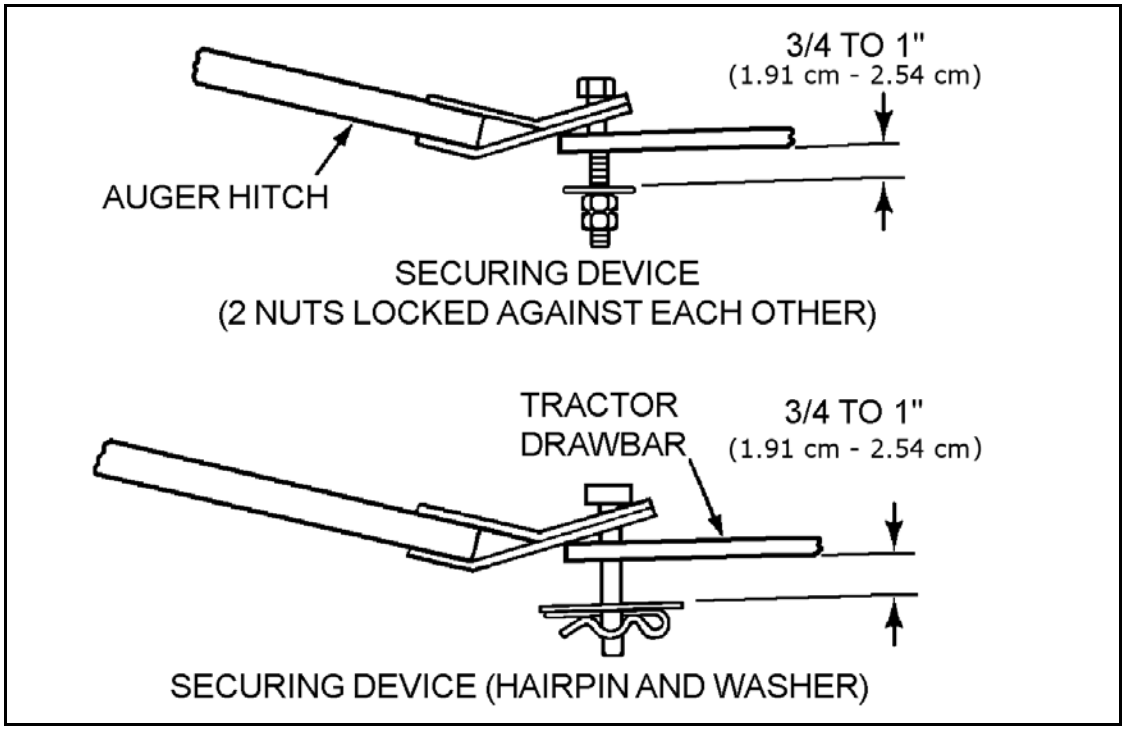


Figure 3.47

MEASUREMENTS BETWEEN DRAWBAR AND DRIVELINE

Since the auger and tractor become an integral unit during transport, placement, and operation, the configuration and measurements between the tractor drawbar and the tractor PTO driveline are very important.

The figure below illustrates the ideal measurements. Most tractors fall into this range.

- Dimension (B) may range from 6” (15.2 cm) to 10” (25.4 cm) with 8” (20.3 cm) being ideal.
- If dimensions (A) and (B) on your tractor are as shown, then dimension (C), which is critical, will be correct.
- If (A) and (B) vary on your tractor from the recommended dimensions, consult the table below for potential problems and their solutions.

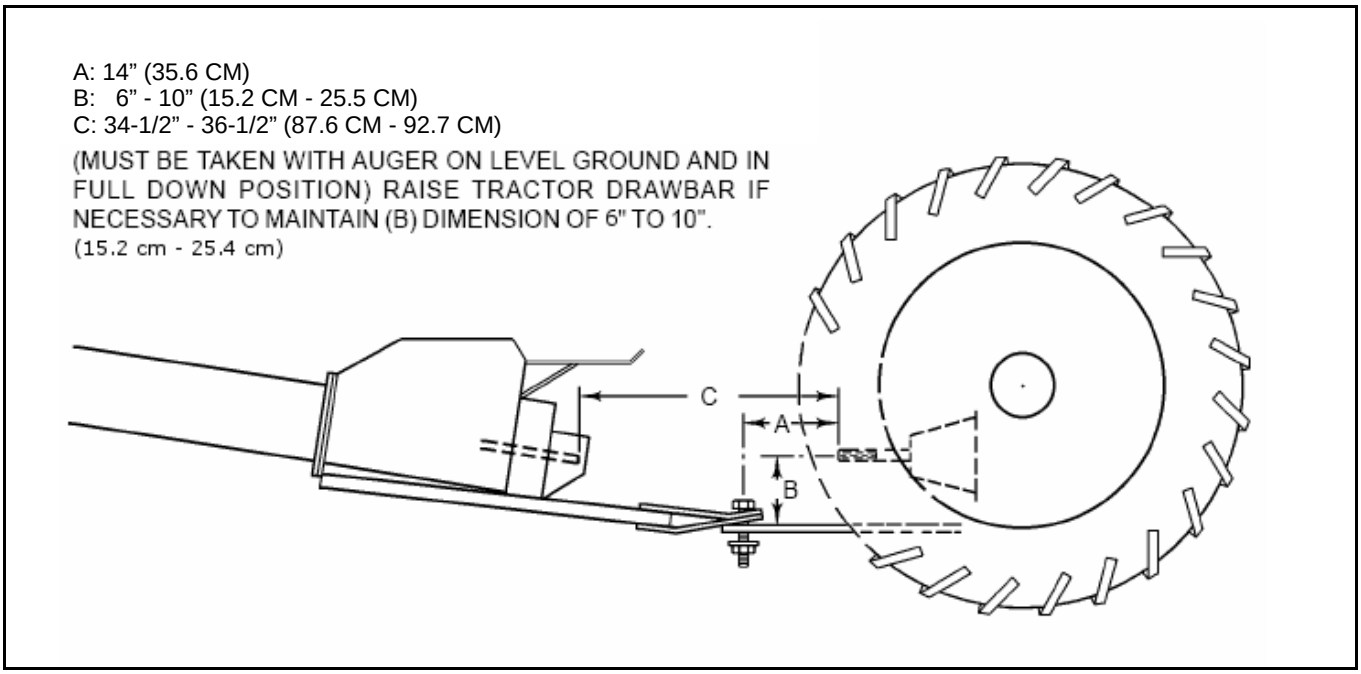


Figure 3.48 Measurements Between Drawbar and PTO Driveline

MEASUREMENT	PROBLEM	SOLUTION
If (A) is less than 14” (35.6 cm) (C) will be less than the recommended 34-1/2” to 36-1/2” (87.6 cm to 92.7 cm)	• The PTO driveline will bottom out when auger is in raised position. • This will cause damage to the PTO driveline, the bearing, or the boot housing.	• Pull out or lengthen the tractor drawbar as needed to make (C) 34-1/2” to 36-1/2” (87.6 cm to 92.7 cm) when the auger is in full down position.
If (A) is more than 14” (35.6 cm) (C) may be more than the recommended 34-1/2” to 36-1/2” (87.6 cm to 92.7 cm)	• The PTO driveline will separate from the auger in the lowered position. • This will cause damage to equipment and/or injury to personnel.	• Shorten distance (C) to the recommended 34-1/2” to 36-1/2” (87.6 cm to 92.7 cm) by attaching hitch to tractor drawbar at a point closer to the tractor PTO shaft.
If (B) is more than 10” (25.4 cm) (C) (between tractor PTO shaft and auger input shaft) shortens more quickly when auger is being raised	• The u-joint angle on the PTO driveline will be too severe in the raised position. • The PTO driveline will bottom out before auger is fully raised. • This will cause damage to the PTO driveline, flight shaft, bearing, and boot.	• Raise the tractor drawbar until dimension (B) is within the recommended 6” to 10” (15.2 cm - 25.4 cm).

4. Appendix

4.1. SPECIFICATIONS

Important: *Westfield Industries reserves the right to change specifications without notice.*

Table 4.1

Specification		MKX100-53	MKX100-63	MKX100-73	MKX100-83
CAPACITY					
Unloading Rate		6600 Bu/Hr			
DIMENSIONS					
Tube Size		10” (25.4 cm)	10” (25.4 cm)	10” (25.4 cm)	10” (25.4 cm)
Transport	Length	54’ 6”	64’ 6”	74’	85’
	Width	106” (2.7 m)	112” (2.8 m)	118” (3 m)	112” (2.8 m)
	Height	12’ 6” (3.8 m)	12’ 8” (3.9 m)	13’ 10” (4.2 m)	12’ 8” (3.9 m)
Discharge Clearance	Min	10’ 11” (3.3 m)	11’ 4” (3.5 m)	12’ 5” (3.8 m)	11’ 4” (3.5 m)
	Max	35’ 7” (10.9 m)	40’ 6” (12.3 m)	47’ 4” (14.4 m)	54” (16.5 m)
Reach to Wheels	Min	21’ 4” (6.5 m)	25’ 2” (7.7 m)	28’ 10” (8.8 m)	31’ 11” (9.7 m)
	Max	25’ 9” (7.9 m)	30’ (9.1 m)	35’ 7” (10.9 m)	42’ 5” (12.9 m)
TIRES					
Type		15”			16”
Inflation Pressure		50 PSI			80 PSI
Hubs		4 Bolt Automotive type			Heavy duty 6-bolt cast-iron
WEIGHT					
Total Weight		2,788 lb 1 265 kg	2,912 lb 1 321 kg	3,170 lb 1 438 kg	3,856 lb 1 748 kg
PTO DRIVE					
Power Requirements		50 HP	60 HP	65 HP	75 HP
PTO Speed		540 RPM			
PTO Shaft		14R			35R
OTHER					
Hitch Jack		2000 lb (side wind)			
Upper/Lower Gear Box Oil Capacity		0.45 US quarts (0.43 L)			

4.2. BOLT TORQUE VALUES

Tables 4.2 and 4.3 give correct torque values for various bolts and capscrews. The bolt diameter is measured to the outside of the threads. When tightening all bolts, tighten the nut on the bolt to the torque specified in the tables, unless otherwise specified. Do not replace or substitute bolts, nuts, or other hardware that is of lesser strength than the hardware supplied by the manufacturer.

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

Table 4.2 SAE Bolt Torque

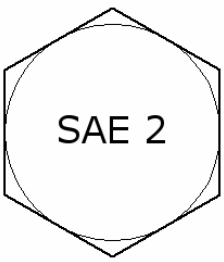
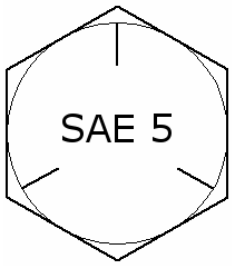
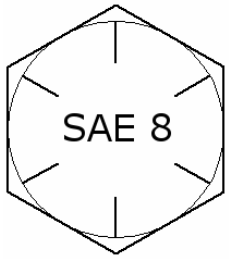
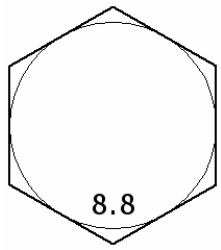
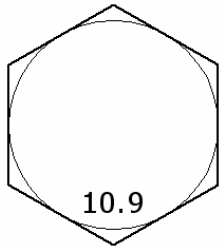
						
Bolt Diameter	**(N·m)**	**(ft·lb)**	**(N·m)**	**(ft·lb)**	**(N·m)**	**(ft·lb)**
1/4"	8	6	12	9	17	12
5/16"	13	10	25	19	36	27
3/8"	27	20	45	33	63	45
7/16"	41	30	72	53	100	75
1/2"	61	45	110	80	155	115
9/16"	95	60	155	115	220	165
5/8"	128	95	215	160	305	220
3/4"	225	165	390	290	540	400
7/8"	230	170	570	420	880	650
1"	345	225	850	630	1320	970

Table 4.3 Metric Bolt Torque

				
Bolt Diameter	**(N·m)**	**(ft·lb)**	**(N·m)**	**(ft·lb)**
M3	0.5	0.4	1.8	1.3
M4	3	2.2	4.5	3.3
M5	6	4	9	7
M6	10	7	15	11
M8	25	18	35	26
M10	50	37	70	52
M12	90	66	125	92
M14	140	103	200	148
M16	225	166	310	229
M20	435	321	610	450
M24	750	553	1050	774
M30	1495	1103	2100	1550
M36	2600	1917	3675	2710

4.3. LIFT CYLINDER HYDRAULICS

This auger is elevated with a 4” bore (the MKX100-83 has a 4-1/2” bore), and single acting hydraulic cylinder and cable. The following table lists the psi required to raise specific auger sizes (as determined by Westfield testing).

These tests used a hydraulic pressure gauge (4000 psi maximum rating) and are solely intended to be used as a guide. The psi requirements for specific augers may vary slightly. Should your auger require a significantly higher psi to raise, contact either your dealer or Westfield Industries.

Auger Model	Pressure Required to Raise Auger	Fluid Volume Required to Raise Auger
MKX100-53	1000 PSI (6895 kPa)	6.2 L
MKX100-63	1200 PSI (8274 kPa)	7.5 L
MKX100-73	1400 PSI (9653 kPa)	9.0 L
MKX100-83	1800 PSI (12411 kPa)	5.0 L

4.4. HOW TO CHARGE THE LIFT SYSTEM

MKX100-83 Only

Important: *The hydraulic cylinders are shipped without oil and must be charged with oil before auger is put into operation.*

The cylinder will require about 9 L (2.5 US gallons). Check your tractor's operation manual for correct oil type and specifications.

Before charging cylinders, ensure that:

- Tractor is correctly hooked up.
- Hydraulic hoses are connected.
- Shut-off valve is open.
- Auger is parked on level ground.

Note: *Do not raise auger in high winds.*

1. Start with the tractor's hydraulic oil level in a normal operating range.
2. Add about 4 L (1 US gallon) to the tractor's hydraulic oil reservoir.
3. Start tractor, then raise auger until the lift assist is fully extended and track shoe has moved about one foot from track stop.
4. **With tractor still running**, lower auger to full down position.
5. Repeat steps 2., 3., and 4. until about 9 L (2.5 US gallons) have been added and tractor hydraulic oil level in the reservoir remains within the operating range.

WARRANTY

Westfield Industries Ltd. warrants products of its manufacture against defects in materials or workmanship under normal and reasonable use for a period of one year after date of delivery to the original purchaser.

Our obligation under this warranty is limited to repairing, replacing, or refunding defective part or parts which shall be returned to a distributor or a dealer of our Company, or to our factory, with transportation charges prepaid. This warranty does not obligate Westfield Industries Ltd. to bear the cost of labor in replacing defective parts. Any defects must be reported to the Company before the end of the one year period.

This warranty shall not apply to equipment which has been altered, improperly assembled, improperly maintained, or improperly repaired so as to adversely affect its performance. Westfield Industries Ltd. makes no express warranty of any character with respect to parts not of its manufacture.

The foregoing is in lieu of all other warranties, expressed or implied, including any warranties that extend beyond the description of the product, and the IMPLIED WARRANTY of MERCHANTABILITY is expressly excluded.

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