



6" Power Sweep Auger

Bin Unload Assembly and Operator's Manual

This manual applies to:

Bin Diameter	Weld-On Wells	Band-On Wells
15'	B11717P	B11712P
18'	B11727P	B11722P
21'	B11737P	B11732P
24'	B11747P	B11742P
27'	B11757P	B11752P
30'	B11767P	B11762P
33'	B11777P	B11772P
36'	B11787P	B11782P
39'	B11797P	B11792P
42'	B11807P	B11802P
48'	B11817P	B11812P



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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: 1030087 R2

Revised: April 2025

Original Instructions

This product has been designed and manufactured to meet general engineering standards. Other local regulations may apply and must be followed by the operator. All personnel must be trained in the correct operational and safety procedures for this product. Use the sign-off sheet below to record initial and periodic reviews of this manual with all personnel.

[illegible]

New in this Manual

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

Description	Section
Modified manual format.	All sections

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1. Introduction

Follow the instructions in this manual for safe use of this power sweep auger. Following proper operation and maintenance will help to keep the power sweep auger running in optimal condition.

Keep this manual handy for frequent reference and to review with new personnel. A sign-off form is provided on the inside front cover for your convenience. If any information in this manual is not understood or if you need additional information, please contact AGI or your representative for assistance.

This manual should be regarded as part of the equipment.

1.1. Intended Use

The power sweep auger is intended for use as listed below and described throughout this manual. Use in any other way is considered contrary to the intended use and is not covered by the warranty.

Intended use for the power sweep auger

- This product is intended to provide the mechanical means to remove the grain that remains in the bin or storage structure, after all grain that can be emptied through the center and intermediate wells has flowed out of the bin or storage structure.
- This unit is designed to run at auger flight speeds of 230 to 366 rpm. The flight speed of the sweep auger should not be altered from the way it has been initially provided.

Use in any other way is considered contrary to the intended use and is not covered by the warranty.

Misuse


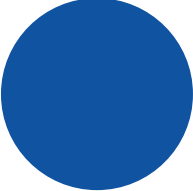

Do not install/use the power sweep auger for/with:

- transferring material other than dry, free-flowing grains.
- commercial or off-farm use.

2. Safety


2.1. About Safety Information in this Manual

Below are the definitions of the safety alert words and symbols that are used in this manual. When you see them, follow their messages to prevent injury, death, or equipment damage.

Safety Alert Symbols	Safety Alert Words
 This symbol indicates a safety hazard.	DANGER Serious injury or death will occur.
 This action is required.	WARNING Serious injury or death could occur.
 This action is not allowed.	CAUTION Minor or moderate injury could occur.
	NOTICE Property damage may occur.

2.2. Preventing Safety Hazards

Follow the information below to prevent safety hazards.

Read and Understand the Safety Information	
	<p>Before operating or maintaining:</p> <ul style="list-style-type: none">• Follow the information in this manual and on the safety decals.• Keep this manual in a convenient location.• Keep the safety decals clean and legible.

Keep a Safe Work Area



To prevent accidents, slips, trips, and falls:

- Keep the work area clean and free of debris.
- Have another trained person nearby who can shut down the power sweep auger in case of an accident.
- Do not allow others in the work area.

Lock Out Power Sources Before Maintaining or Inspecting



To prevent injury:

- Know how to shut off and lock out power before servicing, maintaining, inspecting, or cleaning.

Use Electric Motors Safely



To prevent electrocution:

- Have electric motors and controls installed and serviced by a qualified electrician to meet local codes and standards.
- Replace electrical wiring and cords that are worn or are not in good condition.
- Place the main power switch in the locked position when not using the equipment or before maintaining it.
- If reset is required, disconnect all power before resetting the motor.

Keep Away from Rotating Parts



To prevent serious injury or death:

- Keep body, hair, and clothing away from rotating parts.
- Make sure guards are in place.

Keep Away from Rotating Flighting



To prevent serious injury or death:

- KEEP AWAY from rotating auger flighting.
- NEVER touch the flighting. Use a stick or other tool to remove an obstruction or clean out.

Prevent Combustible Dust Fires and Explosions



If sufficient dust is airborne and a spark or flame is present, the dust may be flammable and a flash fire or explosion could occur.

To prevent:

- Remove accumulated dust from the interior of equipment.
- Keep equipment sealed to prevent dust leaks.
- Do not replace a component or electric motor with a different specification than was originally supplied. Components and motors may include features to prevent fires and explosions.
- Do not use anything near the power sweep auger that may produce a flame or spark unless the air and power sweep auger are free of dust. Do not use a match/lighter, grinder, welder, or power saw. Use explosion-proof lights, electric tools, and flashlights.

Enter the Bin Safely



To prevent serious injury or death:

- Never enter a bin when loading or unloading.
- Always try to work and solve problems without entering the bin.
- Only enter when all power is locked out and not loading or unloading.
- Unload only as described in the operation section of this manual.
- Close/lock all access doors when not in use.
- When entering through the roof, have a body harness tethered to a lifeline controlled by two others outside the bin. One worker should be able to see the inside worker through the inspection hatch.
- Always wear a dust-filtering respirator when entering the bin. Grain dust and spores when inhaled into the lungs can cause severe reactions leading to hospitalization in some cases. Persistent exposure may cause “farmer’s lung,” which can eventually be fatal.
- Clean up dust deposits when the bin is empty. Use tools and equipment that will not generate sparks. Make sure equipment is sealed to keep dust from escaping. This will help to prevent respiratory issues, fires, and in extreme cases catastrophic explosions from accumulated dust deposits if airborne.
- Before working inside the bin, ventilate the area by opening the vents or by other equivalent means to force air into the bin to prevent an oxygen-deficient atmosphere. Inadequate oxygen is very harmful to your health and can cause death. Exposure to carbon dioxide can cause drowsiness, headache and even death due to suffocation. Test the atmosphere. If the carbon dioxide hazard cannot be reduced or eliminated or you cannot test the atmosphere, use a correctly fitted and appropriate respirator.

In an emergency situation:

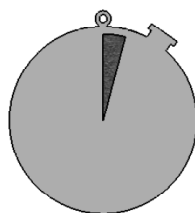
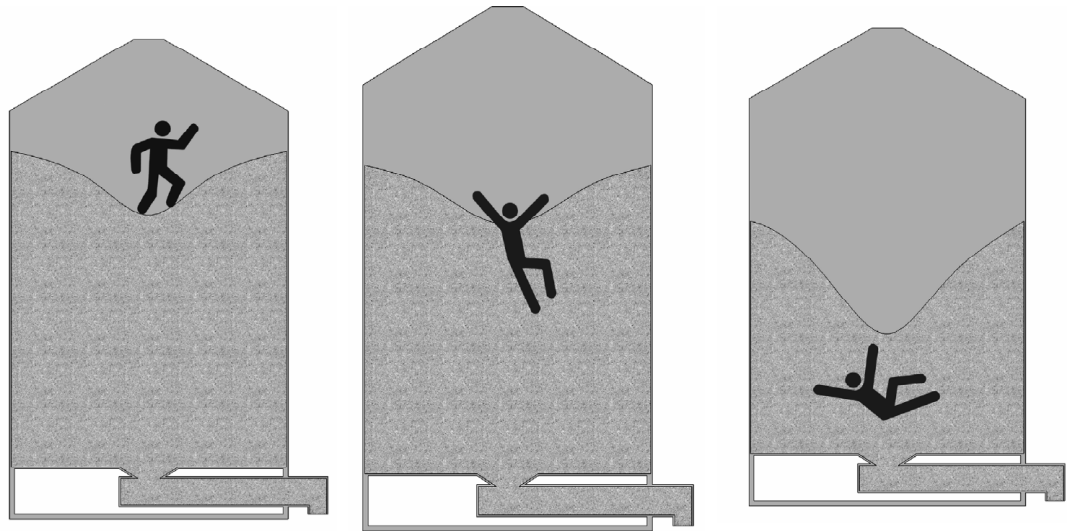
- If you become covered in flowing grain, cup your hands over your mouth and take short breaths. This may keep you alive until help arrives. A person outside can ventilate the bin by turning on the fan (if equipped). Do not run heaters as this will fill the bin with carbon monoxide
- If you need to rescue someone inside the bin, call emergency responders and only attempt to rescue using non-entry rescue procedure/equipment. One worker should stay outside the bin to focus on the victim while the other goes/calls for help.
- Do not enter the bin unless you are trained for rescue, equipped, and relieved by another attendant. It takes more than 1000 lb (4.5kN) 4.5kN (1000 lb) of force to remove someone buried below the surface.

Keep Away from Flowing Grain



This information may also apply to fertilizer where the bin is intended for fertilizer storage.

- Grain flows in a funnel-shaped path when unloading. This vortex of grain behaves very much like a water drain. Velocity increases as grain flows from the bin wall at the top of the grain mass into a small vertical column at the center of the bin.
- In the event that you are trapped in the bin as it is unloading, move as quickly as possible toward the bin wall; keep yourself elevated above the material by walking on the flowing mass while staying as close as possible to the bin wall.
- Flowing grain will not support the weight of a person. Submersion happens within seconds.



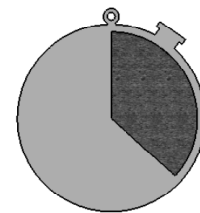
2-3 SECONDS

AFTER THE UNLOADING EQUIPMENT STARTS, YOU HAVE 2-3 SECONDS TO REACT.



4-5 SECONDS

IN 4-5 SECONDS YOU ARE TRAPPED.



22 SECONDS

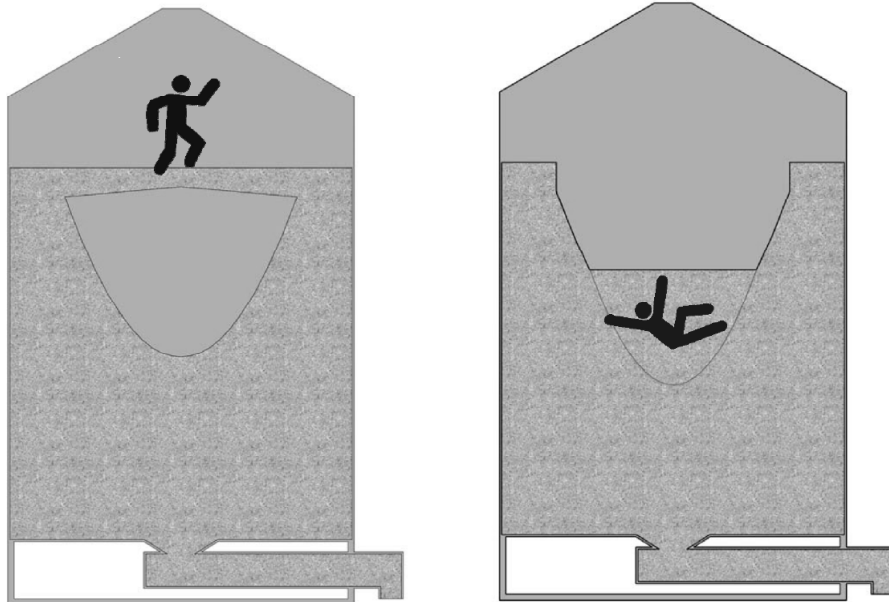
AFTER 22 SECONDS, YOU ARE COMPLETELY COVERED.

Watch for and Keep Away from Bridged Grain



This information may also apply to fertilizer where the bin is intended for fertilizer storage.

- Never enter a bin from the roof if you don't know its unloading history. Grain can "bridge" across a bin, creating an empty air space below. A person can easily break through this bridge and become trapped, risking suffocation.
- To identify bridged grain, look for a funnel shape on the surface of the grain after having removed some of the grain. If surface is undisturbed, the grain has bridged and formed a crust.
- Never walk on the grain crust. The crust rarely becomes strong enough to support the weight of a person.
- To remove bridge, try breaking the bridge from the inspection hatch or peak. Use a pole to hit the surface, securing it with a rope in case it is dropped. Be aware that chunks of crusted grain can move down to the auger and limit flow.

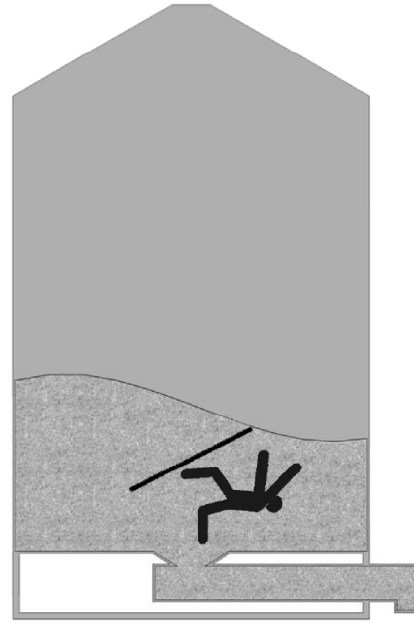
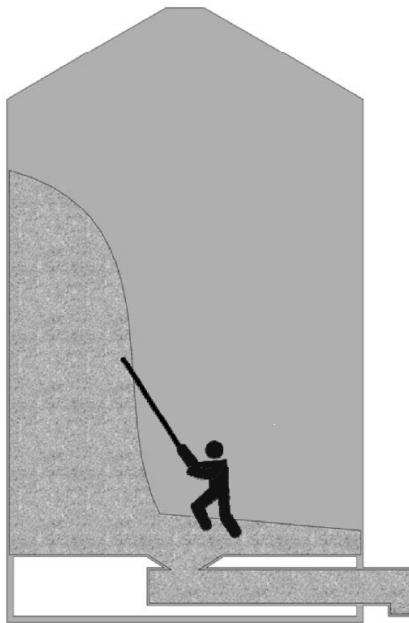


Keep Away from a Vertical Wall of Grain



This information may also apply to fertilizer where the bin is intended for fertilizer storage.

- Vertical walls of grain are created when the bin is partially empty. Poking at the wall can make the grain avalanche and submerge a person.
- Do not enter the bin to break down grain that has set up. Break grain mass from top of the bin outside.



Keep Appropriate Safety Equipment on Site



Fire Extinguisher

Keep for use in case of an accident. Store in a visible and accessible place.



First-Aid Kit

Keep properly-stocked and available.

Use Appropriate Personal Protective Equipment (PPE)

**Work Gloves**

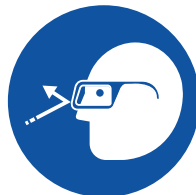
Protect hands from sharp and rough edges.

**Steel-Toe Boots**

Protect feet from falling debris.

**Hearing Protection**

Prevent hearing damage.

**Safety Glasses**

Protect eyes from debris.

**Coveralls**

Protect the skin.

2.3. Safety Decal Locations and Replacements

Read and follow all safety decals.

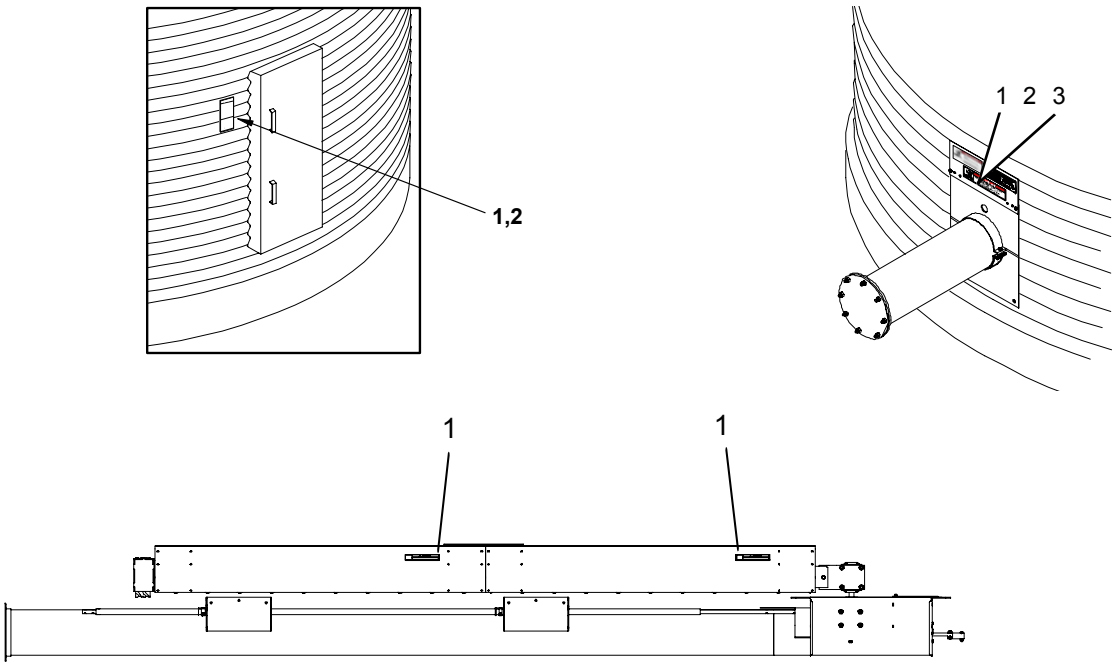
Know where they are located.

Replace all safety decals that are missing, damaged, or faded.

Click the [link](#), scan the QR code, or contact your local AGI representative for **free replacements**.

**To replace a safety decal:**

1. Ensure the area is clean, dry, and the temperature is above 50°F (10°C).
2. Decide on the exact placement before removing the backing.
3. Align the decal and press a small section in place.
4. Peel back the remaining backing and smooth out the decal.
5. Use a pin to pierce small air pockets and press them flat.



Safety Decals and Part Numbers — North America

1 1002304-1	2 1002303-1	3 1030423

Safety Decals and Part Numbers — International

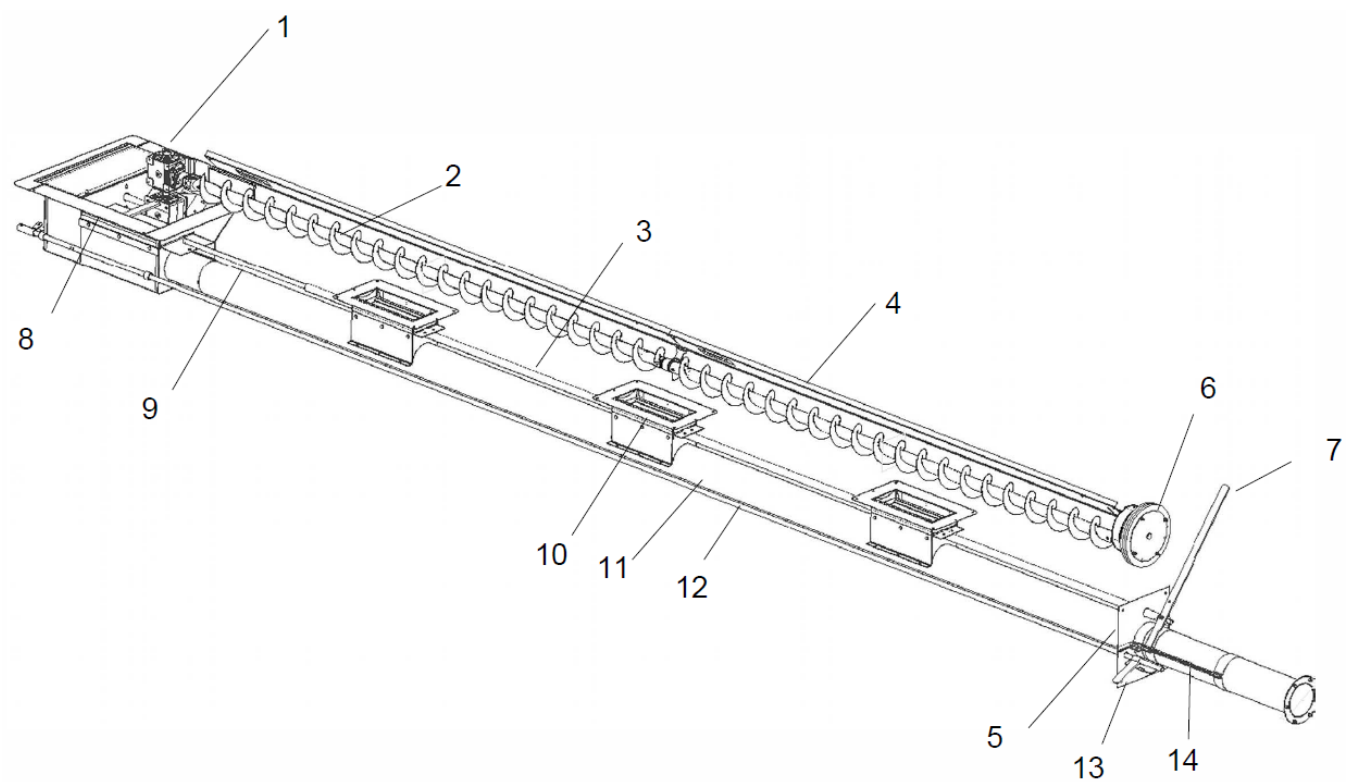
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3. Features



Item	Description
1	Double Gearbox
2	Bin Sweep Auger
3	Intermediate Sumps Control Pipe
4	Sweep Shields
5	Bin Adapter
6	Sweep Drive
7	Control Handle

Item	Description
8	Center Sump
9	Center Sum Control Pipe
10	Intermediate Sump
11	Underfloor Auger
12	Clutch Control Pipe
13	Clutch Handle
14	Control Bar

This product is designed to operate at a sweep auger speed range of 230 to 388 RPM.

4. Pre-Assembly

4.1. Check the Shipment

Unload the power sweep 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 Hutchinson | Mayrath 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.

4.2. Before You Begin

Before you assemble the power sweep 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.

4.3. Concrete Trench Layout

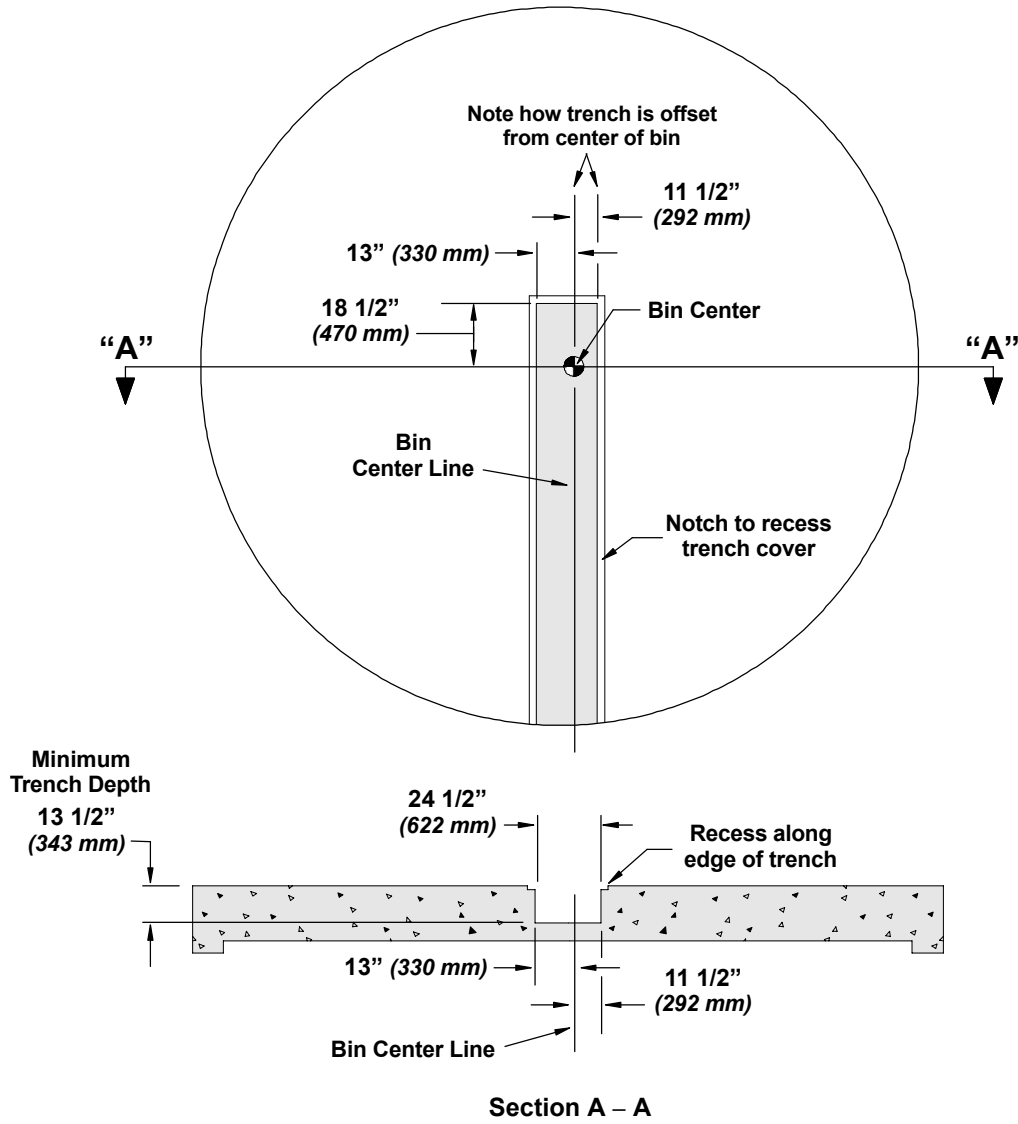
Concrete should not be poured around the unloading auger components. For installation of augers into grain bins with concrete floors, a pre-formed trench should be made in the floor that will accept the auger, wells and controls. See [Figure 1](#) for minimum trench dimensions and relative position of the trench to the center of the bin.

Note

The off-set design of the center well requires that the trench be off-set also, so that the vertical shaft between the gearboxes is located in the center of the bin.

A recess should be formed around the outer top of the trench for material used to cover the trench. The depth required for this recess depends on thickness of material used to cover the trench. One-quarter inch (6 mm) thick steel plate is often used.

Figure 1. Concrete Trench Layout



5. Assembly

5.1. Assembly Safety



WARNING

- All electrical connections must be made by a qualified electrician and must meet the applicable local codes and regulations.
- 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 bin unloader.
- 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.

5.2. Assemble the Unloading Auger and Bin Wells

The illustration in [Figure 2](#) shows the typical layout of the center and intermediate wells.

[Table 1](#) and [Figure 5](#) give the appropriate dimensions for well location according to various bin diameters.

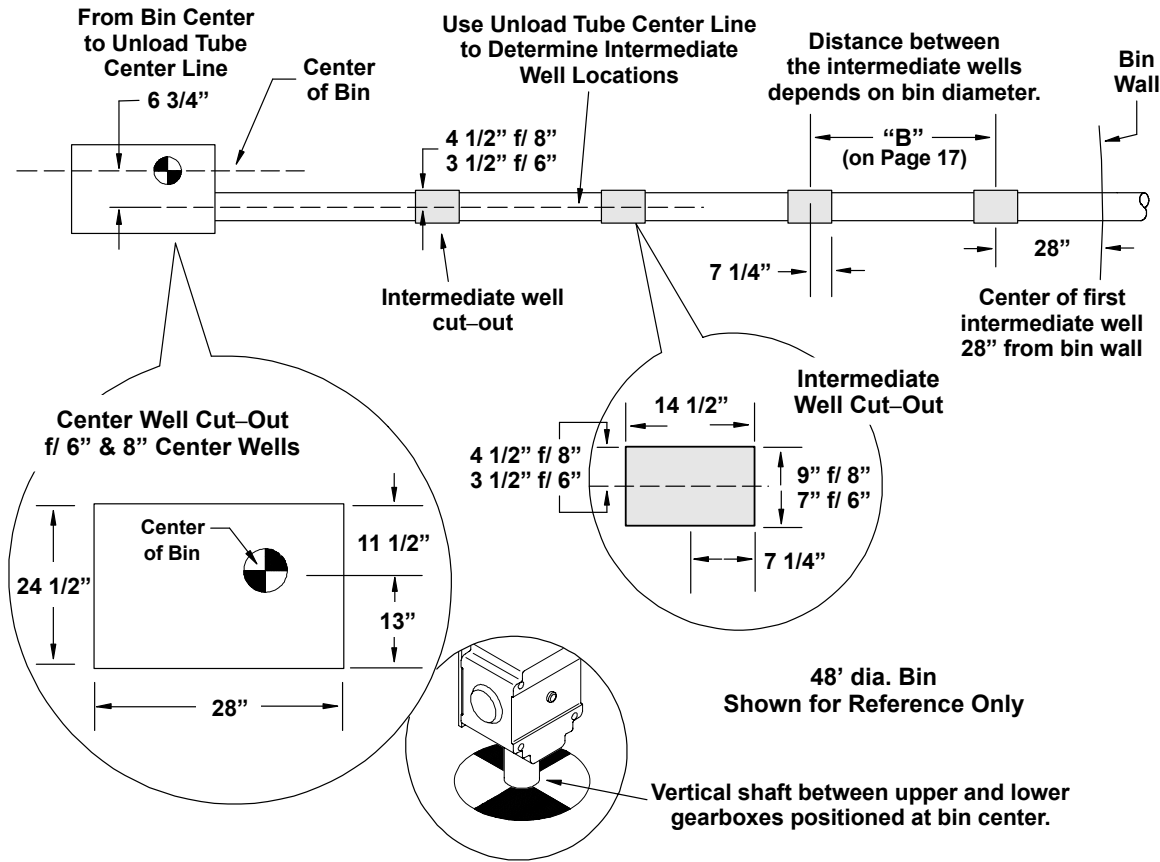
For bins with raised metal floors, it is necessary to cut openings in the floor for the center well and intermediate wells. Make sure the metal floor is at least 13" (330 mm) above the concrete base so there is space for the wells. Supports should be placed beneath all bin wells so the flange of the well above the floor is not bearing the weight of the wells.

For convenience, complete assembly of the bin floor as the unloading auger is being installed. This provides better access to components under the floor.

Place suitable supports under the center well to hold it in position.

Locate and Cut Out Openings for the Center Well, Tube and Pipes

1. Locate the center of the bin and make a cut-out in the bin floor for the center well as shown in [Figure 2](#).
When positioning the center bin well into place, locate the vertical shaft from the top gearbox at bin center.

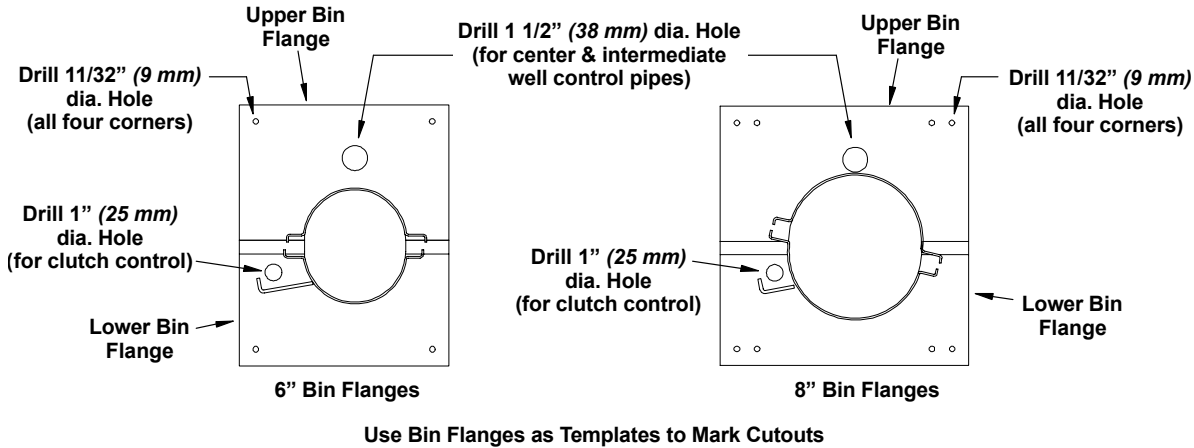
Figure 2. Top view of Cut-Outs for Center and Intermediate Wells in Bin Floor

2. Use the bin flange as a template to locate and mark the openings to be cut out of the bin wall for the unloading tube, the center and intermediate well control pipes, and the clutch control pipe.

Note

Locate the unload tube opening the same distance below the floor as the auger tube connected to the center well.

3. Mark each of the holes in all four corners for mounting the bin flanges.
4. After marking the appropriate locations:
 - a. Cut an opening in the bin wall for the unload tube.
 - b. Cut a 1-1/2" (38 mm) diameter hole for the center and intermediate well control pipes.
 - c. Cut a 1" (25 mm) diameter hole for the clutch control pipe.
 - d. Drill an 11/32" (9 mm) diameter hole at each of the four corner marks.

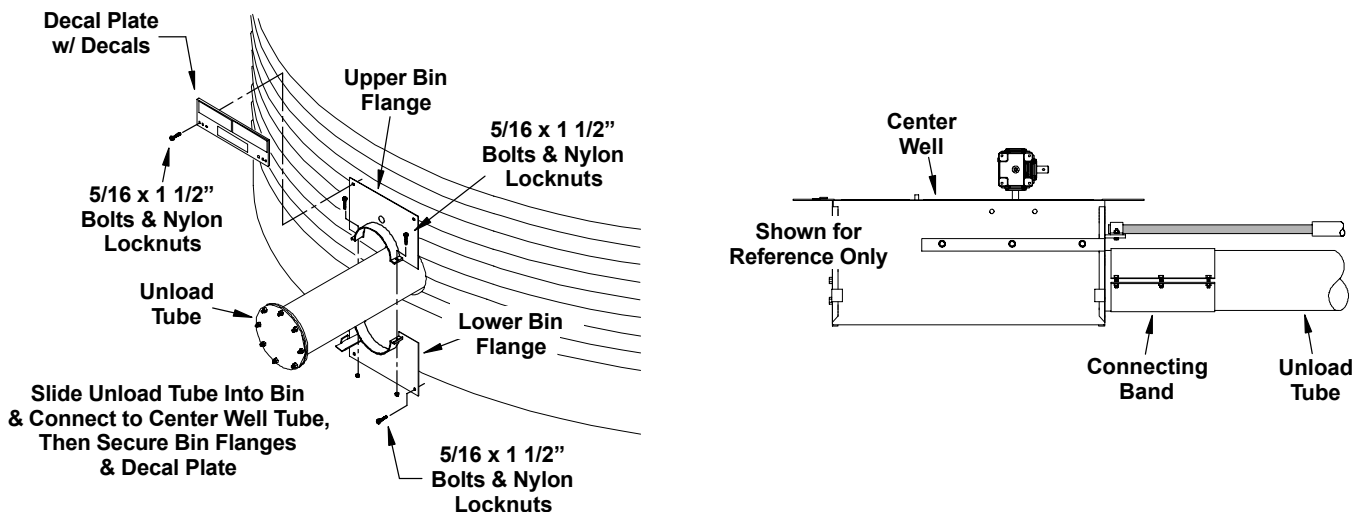
Figure 3. Cut-out and Hole Locations**Install the Unloading Tube**

1. Slide the unloading tube through the bin wall and align the end of the tube so it contacts the tube extension on the center well.
2. Secure the tubes together using a 12" (305 mm) long connecting band, 5/16 x 1-1/2" bolts and locknuts. (The unloading tube should be tight against the tube extending from the center well).

Note

For weld-on wells, the tubing must be installed from the inside of the bin, and inserted through the opening cut in the bin wall.

3. Attach the bin flange to the auger tube as shown in [Figure 4](#).
4. Loosely secure the bin upper and lower flanges together using two 5/16 x 1-1/2" bolts and locknuts. (Tighten only enough to allow the flange to slide on the tube).
5. Slide the flange against the bin wall and insert a 5/16 x 1-1/2" bolt through the two lower corners.
6. Position the decal plate on the upper section of the bin flange and insert two 5/16 x 1-1/2" bolts through the plate, the flange and bin wall.
7. Secure the four bolts using the locknuts provided.

Figure 4. Installing the Unloading Tube and Decal Plate

Locate and Cut Out Openings for the Intermediate Wells

1. Locate the intermediate wells using to determine distance between the wells. (Weld-on wells will already be properly positioned. The floor can then be installed around the bin wells).

Figure 5. Intermediate Well Cutout Dimensions

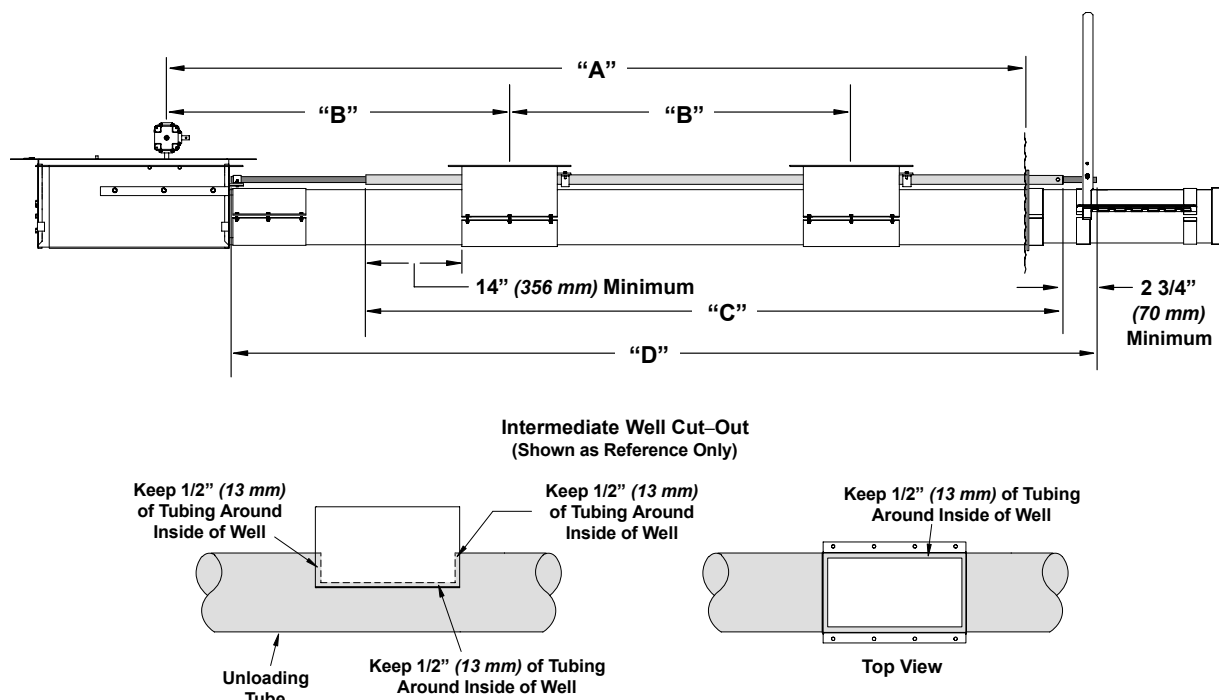


Table 1. Dimensions for Various Bin Sizes

Bin Diameter	Number of Intermediate Wells	Distance from Center of Bin to Wall (A)	Distance Between Wells (B)	Length of Intermediate Well Control Pipe (C)	Length of Center Well Control Pipe (D)	Length of Clutch Control Pipe (not shown)
15' (4.57 m)	1	7'-6" (2.29 m)	3'-9" (1.14 m)	5'-9" (1.75 m)	7'-0" (1.75 m)	10'-0" (3.05 m)
18' (5.49 m)	1	9' 0" (2.74 m)	4' 6" (1.37 m)	6' 6" (1.98 m)	8' 6" (1.98 m)	11' 6" (3.51 m)
21' (6.40 m)	2	10' 6" (3.20 m)	3' 6" (1.07 m)	9' 0" (2.74 m)	10' 0" (2.74 m)	13' 0" (3.96 m)
24' (7.32 m)	2	12' 0" (3.66 m)	4' 0" (1.22 m)	10' 0" (3.05 m)	11' 6" (3.05 m)	14' 6" (4.42 m)
27' (8.23 m)	2	13' 6" (4.11 m)	4' 6" (1.37 m)	11' 6" (3.35 m)	13' 0" (3.35 m)	16' 0" (4.88 m)
30' (9.14 m)	2	15' 0" (4.57 m)	5' 0" (1.52 m)	12' 0" (3.66 m)	14' 6" (3.66 m)	17' 6" (5.33 m)
33' (10.06 m)	3	16' 6" (5.03 m)	4' 1.5" (1.26 m)	14' 5" (4.39 m)	16' 6" (4.39 m)	19' 6" (5.94 m)
36' (10.97 m)	3	18' 0" (5.49 m)	4' 6" (1.37 m)	15' 6" (4.72 m)	17' 6" (4.72 m)	20' 6" (6.25 m)
39' (11.89 m)	3	19' 6" (5.94 m)	5' 0" (1.52 m)	16' 5" (5.00 m)	19' 0" (5.00 m)	22' 0" (6.71 m)
42' (12.80 m)	4	21' 0" (6.40 m)	4' 3" (1.30 m)	19' 0" (5.79 m)	20' 6" (5.79 m)	23' 6" (7.16 m)
48' (14.63 m)	4	24' 0" (7.32 m)	5' 2" (1.57 m)	21' 2" (6.45 m)	23' 6" (6.45 m)	26' 6" (8.08 m)

2. Cut openings in the bin floor for the intermediate wells using the cut-out dimensions shown on [Table 1](#). The number of wells depends on bin size.

3. After the bin floor openings have been cut, place the intermediate wells directly over the unloading tube.
4. Mark the tube around the inside of the well leaving at least 1/2" (13 mm) of tube extending inside the well on all four sides.
5. Cut the openings in the tube. (Do not cut the openings with the unload flight in the tube. Damage to the flight can occur).
6. Make sure the inside of the tube is smooth where the cuts are made. Retrieve all pieces of the cut material from inside the tube.
7. Position the intermediate wells so the gate opens toward the bin wall.
8. Secure the intermediate wells into place using the half bands. (Make sure the intermediate wells are positioned so the gate opens toward the bin wall).
9. Place the support material under the unloading tube at each bin well.
10. Position, install, and place supports under all wells.
11. Slide the "unloading flight" (with the squared end toward center of bin) into the unloading tube.
12. Connect it to the drive shaft on the center bin well's gearbox. (The flight will align itself with the tapered end of the drive shaft. However, it may be necessary to rotate the flight a little in order to align the squared ends).

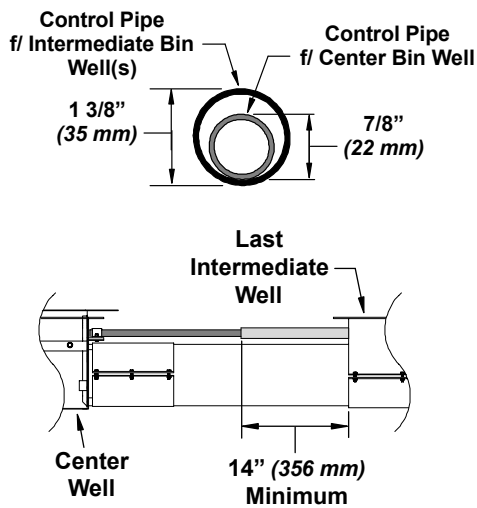
Install the Intermediate Control Pipe on Band-On Bin Wells

Install the intermediate well control pipe as follows:

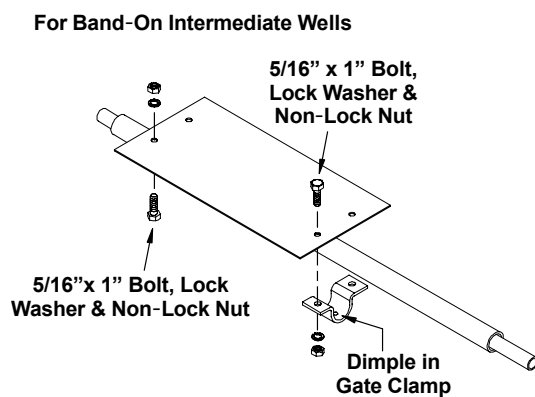
1. Shut the intermediate bin well gate(s).
2. Check the length of the 1-3/8" (38 mm) diameter control pipe for intermediate wells by sliding it into place, passing through all intermediate wells. (The control pipe should extend a minimum of 14 " (356 mm) past the last well in the group. (See [Figure 6](#)). The control pipe has a pre-drilled hole at one end. This end goes toward the outside of the bin.

Note

The hole at the end of the pipe aligns with the hole in the center well control pipe on the outside of the bin. Before drilling the hole into the intermediate well pipe for placement of the dimple on the gate clamp, temporarily install the control handle and pull bar half bands to determine orientation of hole alignment when the center well pipe is connected to the control handle. Otherwise, a hole will need to be drilled through the center well pipe in order to connect the two pipes together. (See [Section 5.3 – Assemble the Control Handle on page 28](#)).

Figure 6. Control Pipe Installation

3. Determine the location on the control pipe where the gate clamps will be fastened onto the well gate.
4. Note the dimple on the gate clamp.
5. Drill a 3/8" (10 mm) diameter hole through one side of the 1-3/8" O.D. control pipe so when the clamp is attached to the gate. The dimple will fit into this hole.
6. Fasten the gate clamp to the control gate and control pipe.
7. Secure using two 5/16" x 1" long bolts, lock washers and nuts.
8. Secure two 5/16" x 1" bolts, lock washers and non-lock nuts into the two holes on the rear of the control gate. This ensures the gate cannot be accidentally pulled completely out of the well.

Figure 7. Assembling the Control Pipe to the Gate

Install the Intermediate Control Pipe on Weld-On Bin Wells

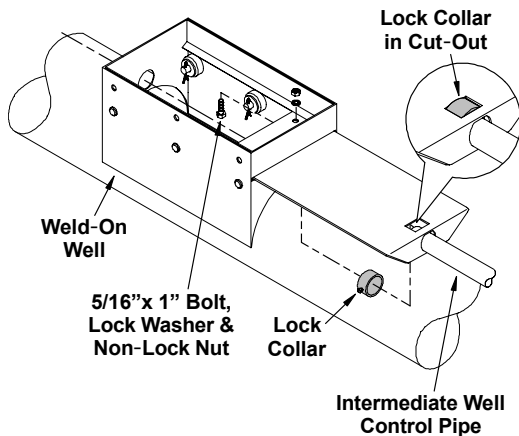
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3. Orient the end of the control pipe with a pre-drilled hole in it toward the outside of the bin.
4. After proper length has been determined, pull the control pipe back to the first well gate.
5. Position a lock collar on the inside of the gate and slide the pipe through the collar and through the intermediate well. (See [Figure 8](#)).

Figure 8. Assembling Weld-on Intermediate Wells

For Weld-On Intermediate Wells



6. Continue this procedure with the remaining wells until the end of the control pipe extends the minimum 14" (356 mm) past the last well.
7. Secure the lock collars to the control pipe. (A portion of the collar will protrude through the cut-out in the gate. See [Figure 8](#)).
8. Secure two 5/16" x 1" bolts, lock washers and non- lock nuts into the two holes on the rear of the control gate. This ensures the gate cannot be accidentally pulled completely out of the well.

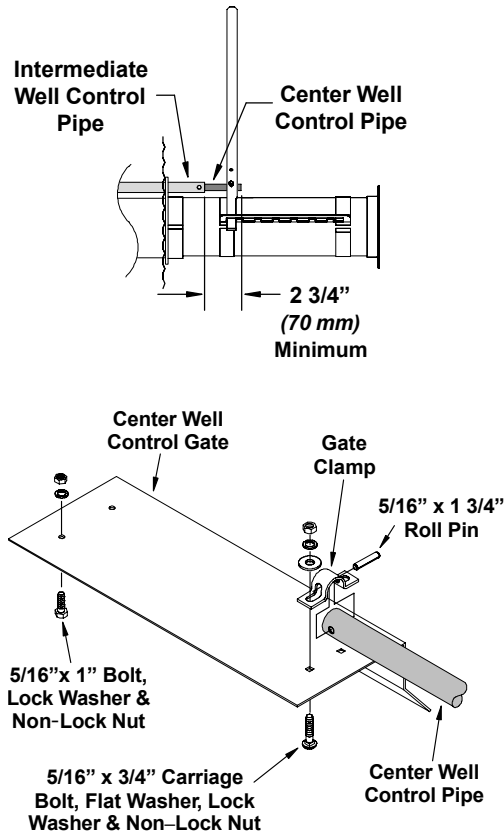
Install the Center Well Control Pipe

1. Make sure the center well control gate is closed.
2. Slide the 7/8" (22 mm) diameter control pipe through the larger intermediate well control pipe so it can be attached to the center well control gate. (The control pipe should have one pre-drilled hole at one end, and three pre-drilled holes at the other. The end with one hole will go toward the center well).

Note

Larger diameter bins use an extension, which has three holes at one end. The other end is tapped (inside threads) for attachment to the first control pipe from the center well.

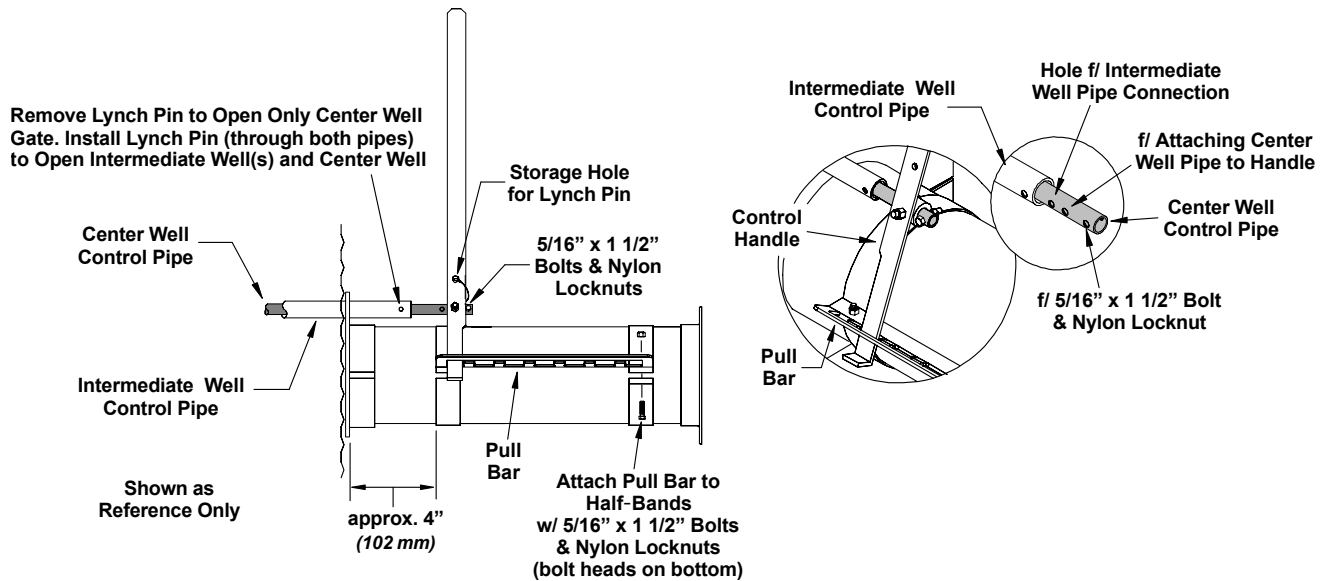
3. Check the length of the center well control pipe on the outside of the bin. In order for the intermediate well pipe to be connected to the center well pipe there must be a minimum of 2-3/4" (70 mm) of the center well pipe extending past the end of the intermediate well pipe. (See [Figure 9](#)).

Figure 9. Assembling the Center Well Gate and Control Pipe

4. Attach the control pipe to the control gate by sliding a 5/16" x 1-3/4" roll pin through the clamp and the pre-drilled hole in the control pipe.
5. Fasten the clamp to the top side of the control gate using two 5/16" x 3/4" carriage bolts, flat washers, lock washers and nuts.
6. Install the nuts so they secure the roll pin in place. (See [Figure 9](#)).
7. Secure two 5/16" x 1" bolts, lock washers and non-lock nuts into the two holes at the rear of the control gate. This ensures the gate cannot accidentally be pulled completely out of the well.

5.3. Assemble the Control Handle

1. On the outside of the bin, position the half-bands around the unload tube with the edge of the one closest to the bin wall approximately 4" (102 mm) from the wall. (See [Figure 10](#)).

Figure 10. Assembling the Control Handle

2. Attach the "pull bar" to the top of the half-bands and loosely secure half-bands and pull bar using 5/16" x 1-1/2" bolts and nylon locknuts. (Insert the bolts from the bottom).
3. Install the handle into the pull bar, inserting the bent end of the handle into the notched slot on the pull bar. (The center well mount tube on the handle should be oriented so the center well control pipe can be inserted through the mount tube).
4. Rotate the half-bands and pull bar so the center well control pipe can be inserted into the mount tube on the control handle. (See [Figure 10](#)).
5. After the mount tube on the handle and center well pipe are properly aligned, tighten the bolts securing the half-bands and pull bar.

Note

There are three holes in the end of the center well pipe:

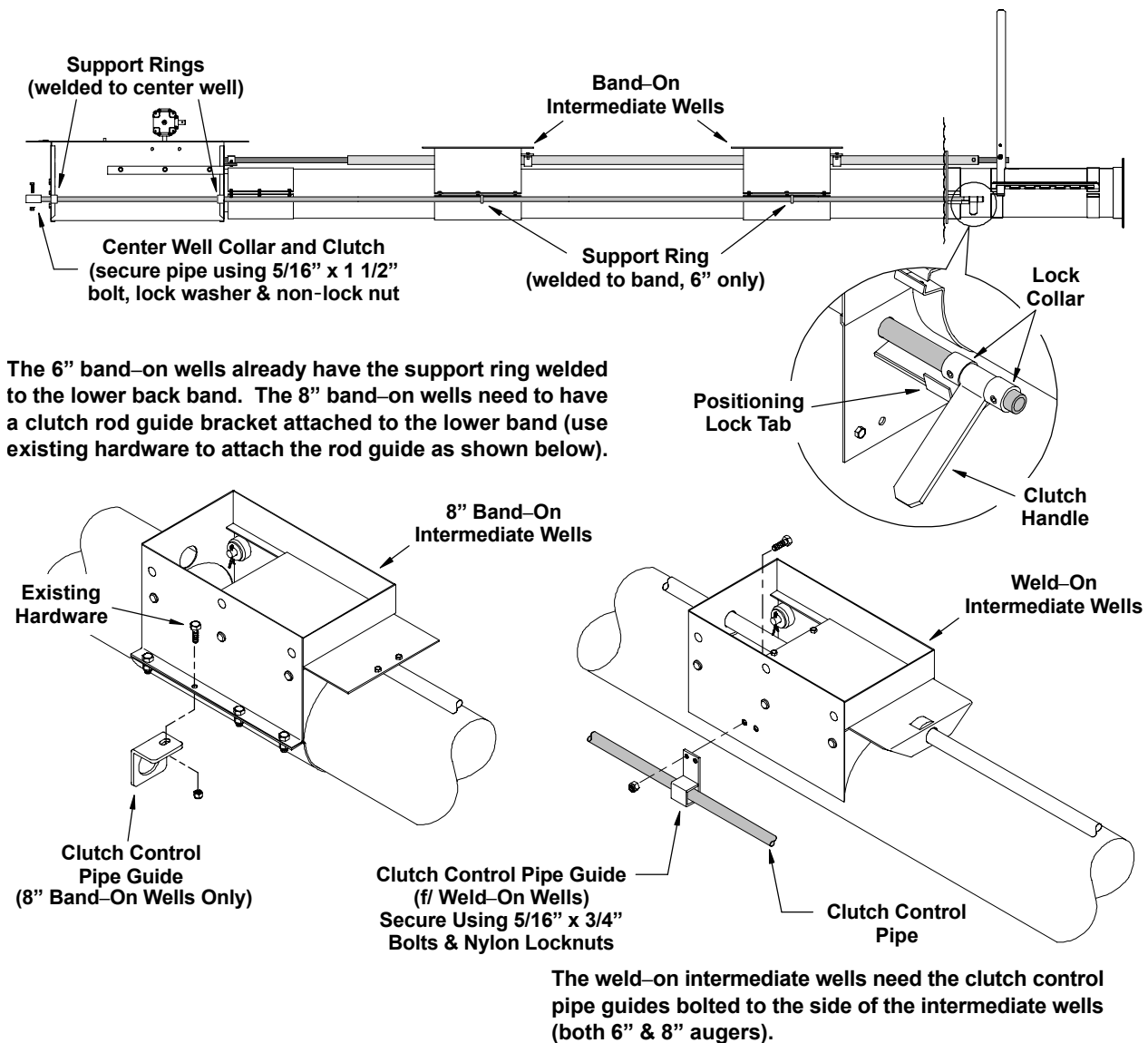
- The middle hole is used to attach the center well pipe to the mount tube on the handle using one 5/16" x 1-1/2" bolt and nylon locknut. (Do not tighten completely the handle should be able to pivot some when moving it from slot-to-slot in the pull bar).
 - The hole closest to the end of the pipe does not attach to anything. However, insert a 5/16" x 1-1/2" bolt through it and secure with a nylon locknut.
 - The hole nearest the bin connects the intermediate well pipe to the center well pipe using the lynch pin. (This hole alignment was the reason for waiting to drill the hole for the dimple on the intermediate well pipe gate clamp).
6. If it is necessary to drill a hole for the lynch pin to pass through both pipes:
 - a. Make sure all intermediate well gates are closed.
 - b. Use the handle to close the center well gate.
 - c. Use the existing hole in the intermediate well pipe for a guide and drill a 3/8" (10 mm) diameter hole through the center well pipe.
 - d. Check to ensure the lynch pin passes through both pipes.
 7. Check well gate operation:
 - a. Remove the lynch pin and pull handle back to open center well gate.

- b. To open gate farther if desired, pivot the handle so the bottom portion is in the next slot back and pull handle again.
 - c. Close gate in the same manner, reversing the sequence.
8. With the center well gate closed, insert the lynch pin through both pipes and open the center well gate and intermediate well gate(s).

5.4. Install Clutch Control Pipe

1. For intermediate bin wells that are welded to the unloading housing:
 - a. Bolt the clutch control pipe brackets to the well.
 - b. Use two 5/16" x 3/4" bolts and nylon locknuts.

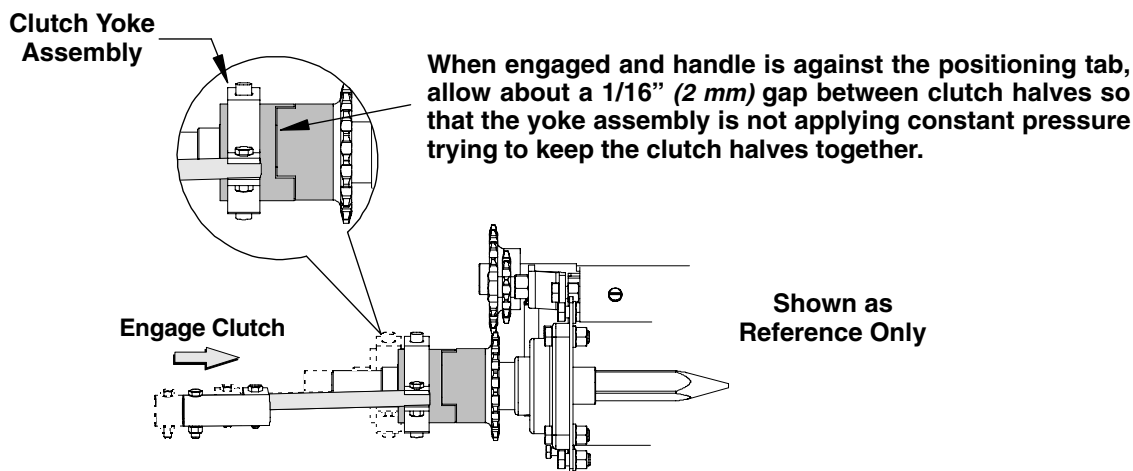
Figure 11. Installing Clutch Control Pipes



2. For band-on intermediate wells:
 - a. Note that 6" wells already have a clutch guide support ring welded to the bottom half-band. (Ensure the half-bands are aligned the whole length of the unload auger housing).
 - b. Note that 8" band-on wells use a clutch guide-bracket that is bolted onto the bottom half-band using the existing hardware on the half-band. (The bracket can be attached to any one of the existing bolts).
3. Slide the clutch control pipe through the bin flange and the support rings (or control guide-brackets) on the intermediate and center wells.
4. Slide the control pipe into the collar at the bottom rear of the center well.
5. Bolt the control pipe to the collar using a 5/16" x 1-1/2" bolt, lock washer and non-lock nut.
6. Attach the clutch handle to outer end of the clutch control rod by installing a lock collar on both sides of the handle.
7. Pull the clutch control rod to fully engage the clutch in the center well.
8. Position the control handle on the outside of the position lock tab.
9. Tighten the lock collars on both sides of the handle.
10. Check operation of clutch by:
 - a. Pulling the handle to engage the clutch.
 - b. Pushing the handle to disengage.

The control pipe should slide freely.
11. Lock the control pipe into the engaged or disengaged position by positioning the handle on the appropriate side of the positioning lock tab.

Figure 12. Clutch Yoke Assembly Detail



5.5. Install Sweep Flight and Back Shield

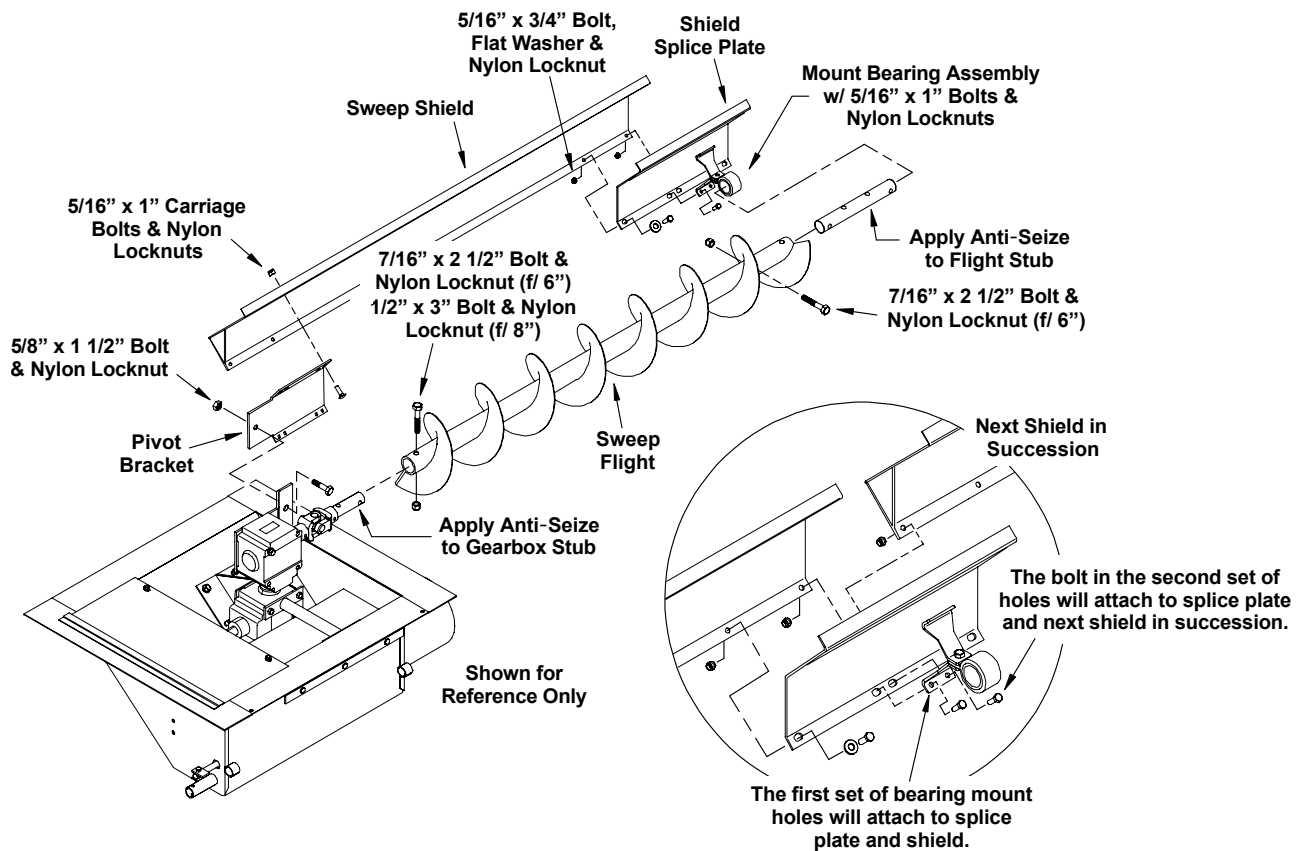
1. Attach the sweep shield pivot bracket to the mount bracket on the side of the gearbox using one 5/8" x 1-1/2" bolt and nylon locknut. (The bracket attaches to the outside of the gearbox bracket).

Note

Do not completely tighten this nut and bolt. This needs to be able to pivot slightly.

2. Attach the first shield section to the pivot mount and secure using 5/16" x 1" carriage bolts and nylon locknuts. (A support can be placed at the end of the shield to help keep it level).
3. Secure using two 7/16" x 2-1/2" bolts and nylon locknuts for 6".

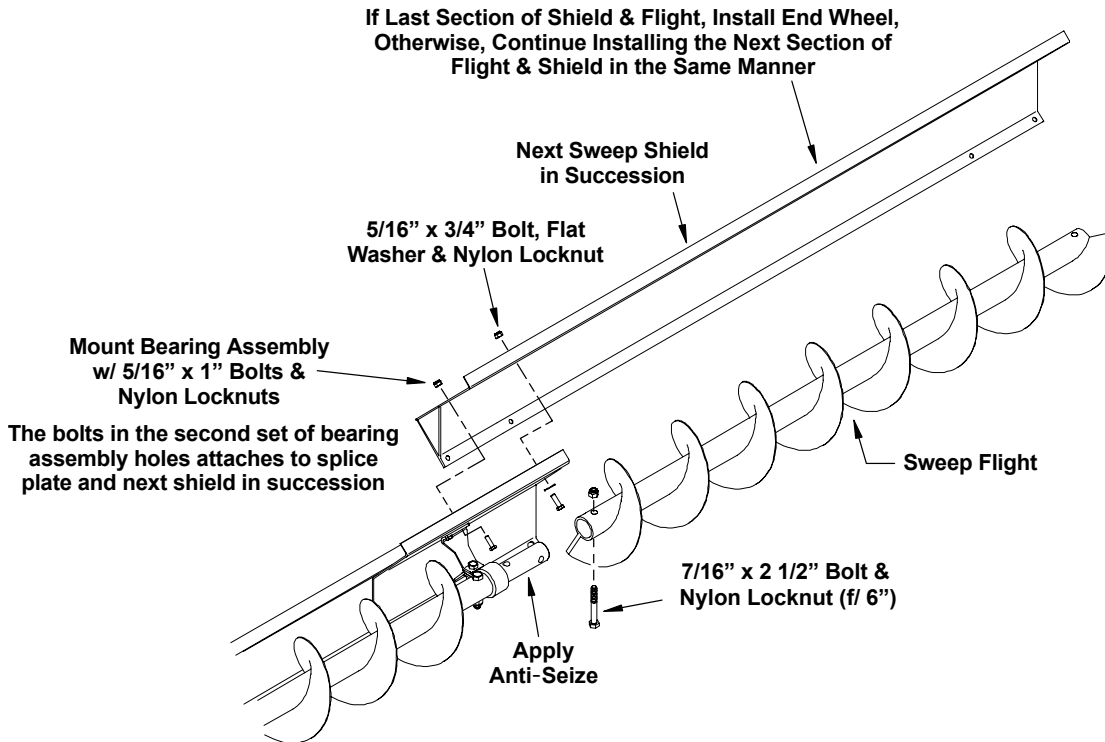
Figure 13. Installing the Sweep Flight and First Back Shield



4. Apply anti-seize compound to the 11-1/2" (292 mm) flight stub.
5. Secure the stub into the end of the flight using two 7/16" x 2-1/2" bolts and nylon locknuts.
6. Position the shield splice plate in front of the sweep shield.
7. Loosely secure the splice plate to the shield.
8. Use the first two holes in the shield that are closest to the center well.
9. Secure with 5/16" x 3/4" bolts, flat washers and nylon locknuts.
10. Slide the bearing assembly onto the stub and secure the first two holes with a 5/16" x 1" bolt and nylon locknut. (The bolts pass through the splice plate and sweep shield).
11. The bolts used in the second set of bearing assembly holes pass through the splice plate and next shield in succession.
12. Position the next sweep shield in succession behind the splice plate and align with the previous sweep shield.

Note

The bolt for the second set of holes in the bearing assembly passes through the splice plate and the sweep shield as shown in [Figure 13](#) and [Figure 14](#).

Figure 14. Install the Next Sweep Shield

13. Secure the sweep shield using 5/16" x 3/4" bolts, flat washers and nylon locknuts.

14. Secure the bearing assembly using only 5/16" x 1" bolts and nylon locknuts

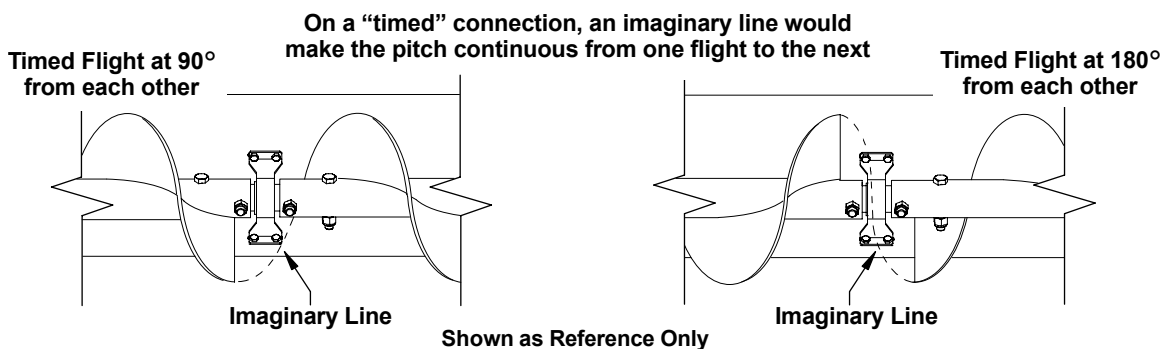
Note

If there are three sections of flights and shields, the shield that measures 86-1/4" (26.22 m) long MUST be placed in the middle.

15. Apply anti-seize compound to the flight stub and secure the next length of flight using 7/16" x 2-1/2" bolts and nylon locknuts.

Note

The flights are indexed to achieve a "timed" connection. (A "timed" connection is where the flight pitch does not change across the connection from one flight to the next, this can be a 90° or a 180° continuous pitch).

Figure 15. Connecting and "Timing" Flights

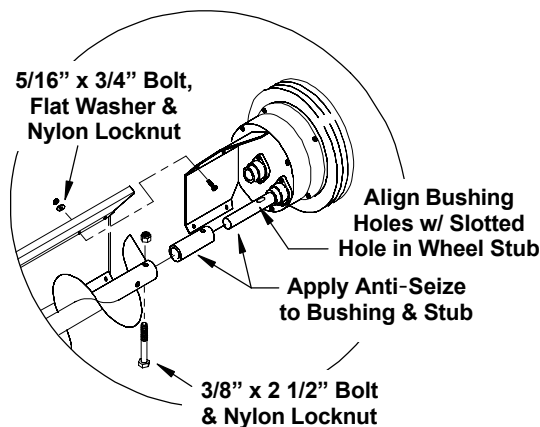
16. Continue these procedures for the remaining sweep shield and flight sections.

5.6. Install Drive Wheel

Install the drive wheel as described in the section appropriate for your product:

1. Pump approximately 2 oz. (59.15 ml) of a good quality multi-purpose grease into the sweep wheel drive enclosure.
2. Apply anti-seize compound to the stub on the drive wheel.
3. Slide the bushing onto the sweep wheel stub.
4. Align the hole in the bushing with the slotted hole in the wheel stub.
5. Apply anti-seize compound to the bushing.
6. Slide the flight onto the bushing.
7. Secure the mount to the shield with 5/16" x 1" bolts, flat washers and nylon locknuts.
8. Using the hole closest to the end of the flight, secure the flight, bushing and wheel stub with one 3/8" x 2-1/2" bolt and nylon locknut.
9. Fasten the shield to the sweep wheel mount plate using four 5/16" x 3/4" bolts, flat washers and nylon locknuts.

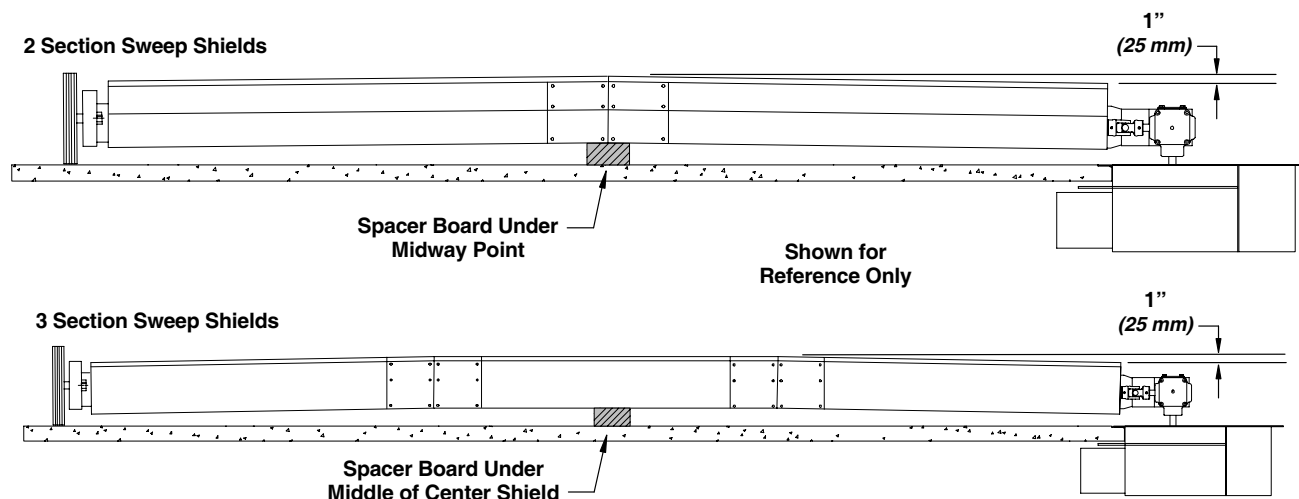
Figure 16. End Wheel for Sweeps



5.7. Create Crown for Sweep Shields

If your sweep has multiple sweep sections, it will be necessary to create a "crown" at the mid-way point of the shields. After sweep shields have been installed:

1. Loosen the bolts on all shield splices and the bolt securing the pivot bracket to the gearbox.
2. Place a spacer board under the shields at the mid-way point in order to achieve a 1" crown. (On three-section sweep shields, place the spacer board under the middle of the center shield, thus raising the entire length of the center shield to achieve the 1" (25 mm) crown).
3. Retighten the bolts.

Figure 17. Spacer Board Location

5.8. Machine Inspection

After delivery of your new power sweep auger and/or completion of assembly and before each use, inspection of the machine is mandatory. The power sweep auger should be frequently checked and serviced to operate freely. Use the assembly instructions in this manual as a reference to determine that the power sweep auger is assembled properly. This inspection should include, but not be limited to:

1. Check to see that all guards and shields listed in the assembly instructions are in place, secured and functional.
2. Check all safety signs (decals) and replace any that are worn, missing or illegible. Safety signs may be obtained free of charge from your dealer or ordered from the factory.
3. Check **all** fasteners; nuts, bolts, set screws etc. for tightness.
4. Check oil level in gearboxes (See Lubrication section).
5. Check all electrical connections and wiring.
6. Check drive belts for proper tension. Also check belts for fraying, cracking or any other damage. Replace as necessary.

6. Operation

This section provides important safety precautions and instructions for optimal operation. Follow all guidelines carefully to ensure safe and efficient use.

6.1. Operation Safety



WARNING

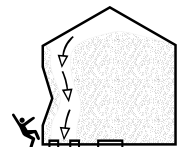
- Keep away from rotating and moving parts, including the flighting, drive components, shafts, and bearings.
- Do not enter the bin when the bin sweep is operating.
- Do not unload grain through the center sump and intermediate sumps at the same time or unload from the intermediate sumps before fully unloading from the center sump.
- Always operate with guards, covers, and shields in place.
- Have another trained person nearby who can shut down the equipment in case of accident.
- Do not fill the bin with the bin sweep placed in the wrong position.
- Keep the work area clear of bystanders.
- Keep the work area clean and free of debris.
- Ensure maintenance has been performed and is up to date.

6.2. Bin Unload Overview

The bin unload system operates by first opening the center sump to remove 70–80% of grain by gravity (see “A” in Figure 18). Next, the intermediate sumps are opened when the center sump runs empty to free the sweep (see “B” in Figure 18). Lastly, the bin sweep is operated to remove the remaining 20–30% of grain (see “C” in Figure 18).



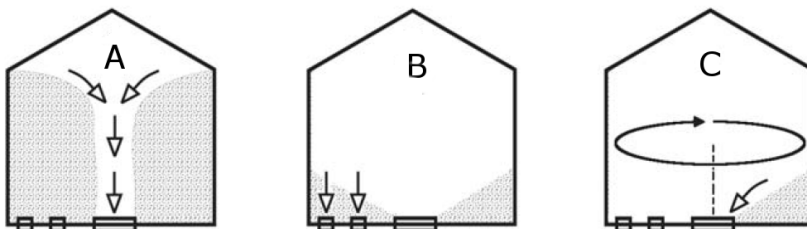
WARNING To prevent serious injury or death from bin collapse, the center sump must be open first to empty bin.



NOTICE

Make certain there are adequate vents installed on the bin to prevent a vacuum from forming in the upper portion of the bin during unloading. The pressures on the roof caused by such a vacuum could damage or cause structural failure to the bin roof.

Figure 18. Grain Bin Overall Emptying Procedure



6.3. Before Filling the Bin with Grain

Following this list will prevent problems that may otherwise occur during the unloading process.

1. Inspect the unload system, see Visual Inspection in the Maintenance section. Be aware of all adjustments and checks which should be performed.
2. Make sure there are no obstructions in the following locations:
 - sweep path along the bin floor bin sweep and underfloor auger flighting
 - center or intermediate sumps
3. Prior to filling the bin each time, run the bin unload system to check for proper operation.
4. Stop the power sweep auger and lockout power.
5. Close the center sump gate and intermediate sump gates.

NOTICE

If the gates are left open, the wells will fill with grain. Upon start-up, the unload auger would be under load, this can result in damage to the auger, the motor or both. Such damage would be considered abuse of the equipment and will void the warranty.

6. Park the sweep in the “start/park position” slightly behind intermediate sumps prior to filling the bin each time.

NOTICE

Failure to park the sweep in the “start/park position” could result in damage to the sweep, under-floor conveyance system, and/or aeration floor.

6.4. Operation of the Bin Unload System

Important

- Be familiar with the routine operating procedures before attempting start-up.

**WARNING**

Never attempt to control operation of the power sweep auger by pushing on the operating sweep auger with shovels, brooms or other devices. DO NOT attempt to restrain movement of power sweep auger by attaching ropes, bars or other devices to be held by an operator.

- Remember to observe the following during the first hours of operation.
 - Any screw type auger when it is new or after it sits idle for a season should go through a “break-in” period. The unload auger should be run at partial capacity until several hundred tons of grain have been augered to polish the flight and housing. Once this is accomplished, the unload auger can be run at full capacity.
 - Never operate the unload auger when empty for any length of time as excessive wear will result. If possible, do not stop or start the auger under load, especially before the flight and housing have become well polished, as this may cause the auger to freeze-up.
 - During the first few minutes of operation, ensure that the unit is running properly and not vibrating excessively.

NOTICE

Any unusual vibrations or noises would indicate a need for service or repair.

Perform the following sections, in order, to fully unload the grain bin.

Unload Grain From the Center Well and Intermediate Wells

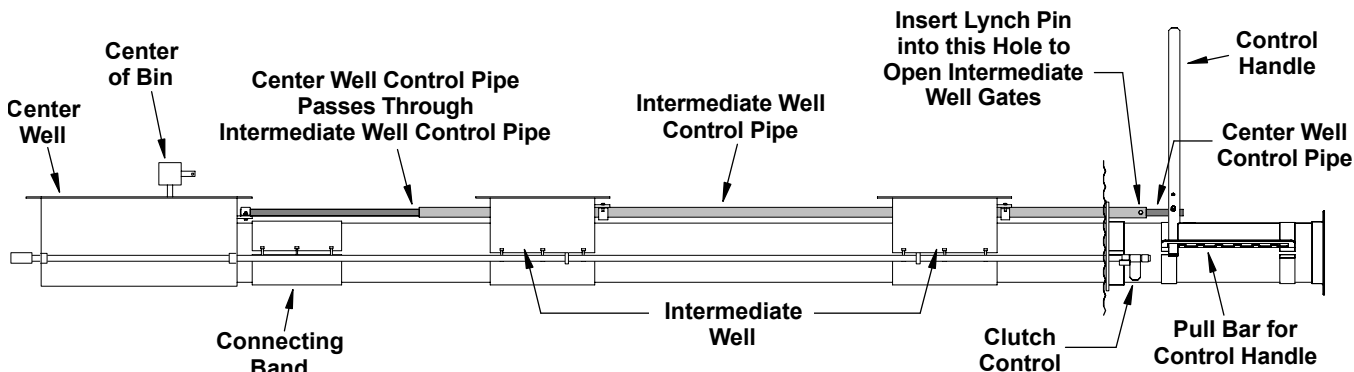
1. Start the motor for the unload auger.

2. Make sure the lynch pin for the intermediate wells is not inserted (located outside the bin).

Note

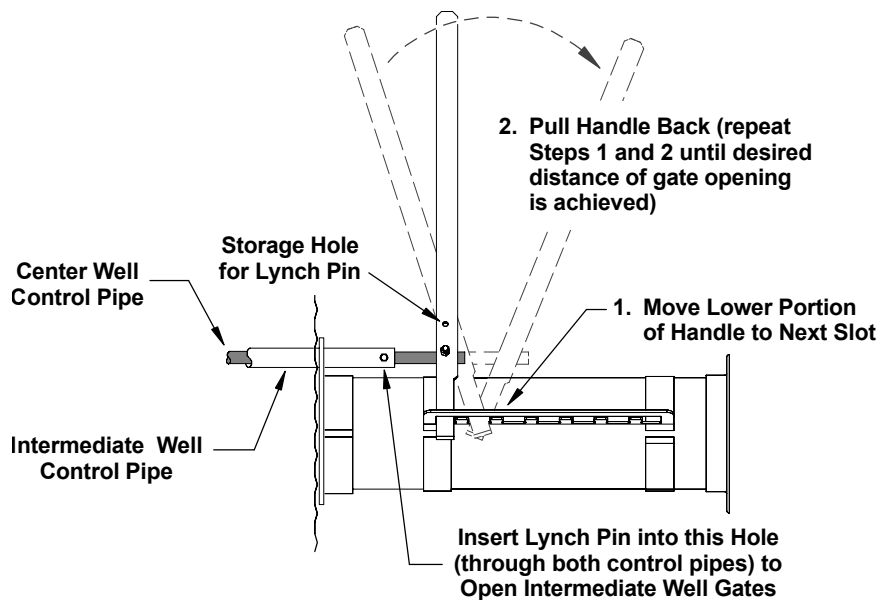
The center well control pipe is run through the larger intermediate well control pipe. When opening just the center well gate, the lynch pin should be removed so only the center well control pipe is functional.

Figure 19. Center Well and Intermediate Wells Control Pipes



3. Use the control handle to open the center sump gradually until desired flow is established. Open the well gate(s) using the control handle.
 - a. Position the bottom portion of the handle into the next available slot in the pull bar.
 - b. Pull handle back to slide gate(s) open.
 - c. Repeat this procedure until well gates are opened to the desired distance.
 - d. To close the well gates, follow the same procedure but in the opposite direction.
4. Continue to open the center sump and watch for constant product flow at discharge.

Figure 20. Control Handle Operation



Note

You should only need to open the gate approximately 3" to 6" (76 mm to 152 mm) to acquire a full load. Do Not overload the auger. This can cause high torque loads and possible damage to the auger. This kind of damage is not covered under warranty.

5. When the natural gravity flow of grain to the center well stops, close the center well gate and allow the unload auger to run until it cleans itself out.
6. Align the holes in the center well control pipe and intermediate well control pipe. Insert the lynch pin through the control pipes. See [Figure 19](#).

Important

The center bin well gate should be connected to always open with the intermediate well gates, but only after the gravity-flow of grain has stopped feeding into the center well.

7. Gradually pull the control handle back to open the center well and the intermediate wells until desired flow has been established. See [Figure 20](#).

Note

You should only need to open the gate approximately 2" to 4" (51 mm to 102 mm) to achieve a good flow.

8. After all grain has been removed that will gravity flow through the wells, close the well gates. Let auger clean itself out; then shut down and lockout power source.

Install the Sweep Auger Inside the Bin

1. Move the sweep auger inside the bin.

**WARNING**

Follow all safety procedures and wear appropriate PPE equipment during all phases of the installation process to avoid injury.

2. Attach the shield and flight to the double gearbox.
3. Position the sweep next to the intermediate wells with the wells in front of the sweeps direction of travel.
4. Mount the end wheel to the end of that section and proceed with the unloading process.

Sweep Auger Operation

1. Open the belt drive guard and rotate the large sheave while pulling on the clutch control. Position the clutch handle on the outside of the positioning lock tab.
2. Restore the power and start the unload auger and sweep auger.

The sweep auger will direct the grain towards the center well opening as it makes it travels around the bin. As the amount of grain is reduced, the sweep will begin to move more rapidly.

3. Once the sweep has cleared as much grain as possible from the bin, shut down and lockout power source.

6.4.1 Operating Capacities

Capacities of 6" Power Sweep Auger can vary greatly under diverse conditions. Different materials, moisture content, amounts of foreign matter, angle of operation, methods of feeding, and flight speed all play a role in the performance of the power sweep auger.

Maximum possible capacity will be less with high moisture grain (above 25%) than with dry grain. Twenty-five percent (25%) moisture could cut capacity back by as much as forty percent (40%) under some conditions.

6.4.2 Flight Speed Information

Proper auger flight speed is important for efficient operation of the 6" Power Sweep Auger.

Important

- If the flight speed is too fast, excessive wear will result.
- If the flight speed is too slow and the auger flighting is permitted to “load-up”, high torque will be required to turn the auger flighting. This can result in damage to the auger. Use the well slide-gates to control the amount of grain fed into the unloading tube.

Determine flight speed from the tables in the Specifications section.

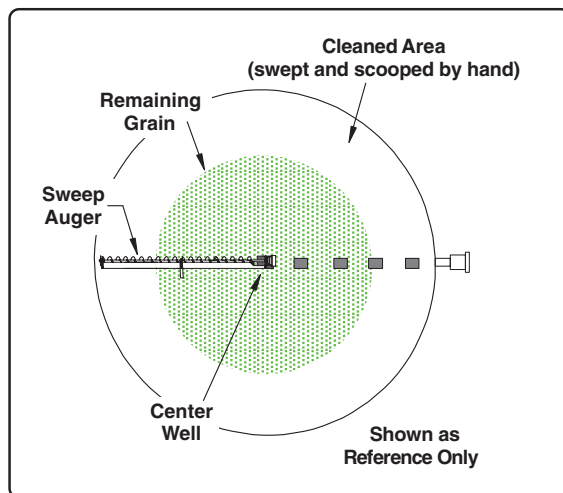
6.5. Final Cleanout

The following procedures are recommended for cleaning the floor of the bin after the sweep auger has removed as much grain as possible.

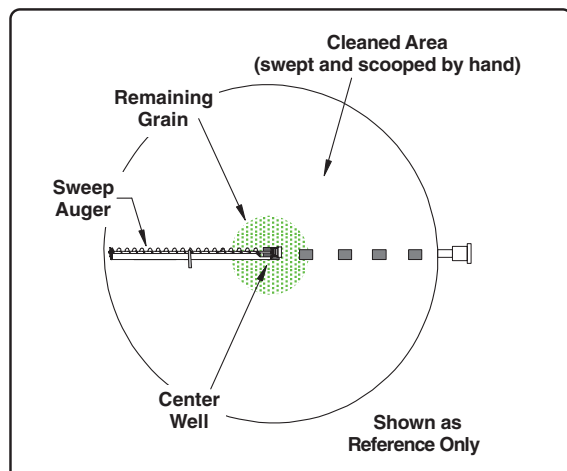
⚠ WARNING Close the intermediate well gates to prevent accidentally stepping into the well(s).

1. Shutdown and lockout the power source. Clean (scoop and sweep by hand) the outer area of the floor into a circular pile towards the center of the bin.

Figure 21. Cleaning Outer Area



2. Make sure everyone is outside the bin and clear of the equipment. Restore power to unload auger and sweep. The circular pile towards the center of the bin will have been reduced.

Figure 22. Cleaning Outer Area

3. Repeat these steps until all grain has been removed from the bin.
4. When grain flow stops and the bin is clean, allow the bin sweep to travel around the bin so that it lines up next to the intermediate sumps.

NOTICE

Failure to park the bin sweep in the “start/park position” could result in damage to the bin sweep, underfloor auger, and/or aeration floor.

5. Disengage the sweep by pushing the clutch handle and positioning it on the inside of the positioning lock tab.

6.6. Shutdown

Stop the flow of grain into the power sweep auger and let the unit empty itself out before stopping. **Before the operator leaves the work area, the power source shall be locked out.**

6.7. Intermittent Shutdown

When an auger is stopped and restarted under full load, it may result in damage to the auger and components. Therefore if intermittent operation is to be carried out, it is advisable to reduce the load level.

6.8. Emergency Shutdown

In an emergency situation:

1. Stop or shut down the power source immediately and lockout power.
2. Ensure the power sweep auger components come to a stop before inspecting.
3. Correct the emergency situation before resuming work.

6.9. Restarting with a Full Underfloor Auger

When the bin unload system is shut down inadvertently or due to an emergency, the system may still be filled with grain.

1. Close all intermediate sump gates and center gate.
2. Lock out power and remove as much of the grain as possible from the bin unload system using a grain vac or other tool.



Do not use your hands, feet, or other similar bodily means.

3. It may be necessary to tighten the drive belts slightly to handle the heavier than normal loads.
4. If guards or covers have been opened or removed, close or replace them before restarting the unit.
5. Once the problem is corrected, restart the machine.

NOTICE

Never attempt to start when under load. Starting under load may result in damage to the bin unload system if grain is not removed as much as possible. Such damage is considered abuse of the equipment and will not be covered under warranty.

6. Once the bin unload system has been started, you may resume normal operation.

6.10. Extended Shutdown / End of Season

After the season's use, the power sweep auger should be thoroughly inspected. Repair or replace any worn or damaged components and complete maintenance as described in [Section 7. – Maintenance on page 43](#) to prevent any unnecessary downtime at the start of the next season. Protect the motor from weather by covering it with a waterproof tarpaulin.

7. Maintenance

Proper maintenance will improve safety, efficiency, and will keep the power sweep auger operating reliably.

7.1. Maintenance Safety



WARNING

- Keep components in good condition. Follow the maintenance procedures.
- Ensure the service area is clean, dry, and has sufficient lighting.
- Do not modify any components without written authorization from the manufacturer. Modification can be dangerous and result in serious injuries.
- Shut down and lock out power before maintaining equipment.
- All electrical maintenance must be performed by a qualified electrician in accordance with all applicable local codes and standards.
- After maintenance is complete, replace all guards, service doors, and/or covers.
- Use only genuine Hutchinson | Mayrath replacement parts or equivalent. Use of unauthorized parts will void warranty. If in doubt, contact Hutchinson | Mayrath or your local dealer.

7.2. Maintenance Procedures

Visually Inspect the Equipment



WARNING

Lock out power before inspecting.

Frequency: Daily

Procedure:

1. Ensure all guards are in place and in good working order.
2. Examine the power sweep auger for damage or unusual wear.
3. Check tightness of bolts/nuts, fasteners, and hardware (re-torque if necessary).
4. Be sure all safety decals are in place and are legible.
5. Check that the discharge and intake area are free of obstructions.
6. Inspect all moving or rotating parts to see if anything has become entangled in them. Remove any entangled material.

Check Gearbox Oil

Frequency: Annually

Procedure:

1. Ensure gearbox is level when checking.
2. Remove level check plug. Oil should flow from the opening. If additional oil is needed, refer to Add Gearbox Oil section below.

Add Gearbox Oil

Important

The gearbox is shipped without oil, add oil to the unit during field assembly of the auger. Even under normal working conditions, oil still has a tendency to dissipate. Periodically check oil level and maintain proper level.

Frequency: As required

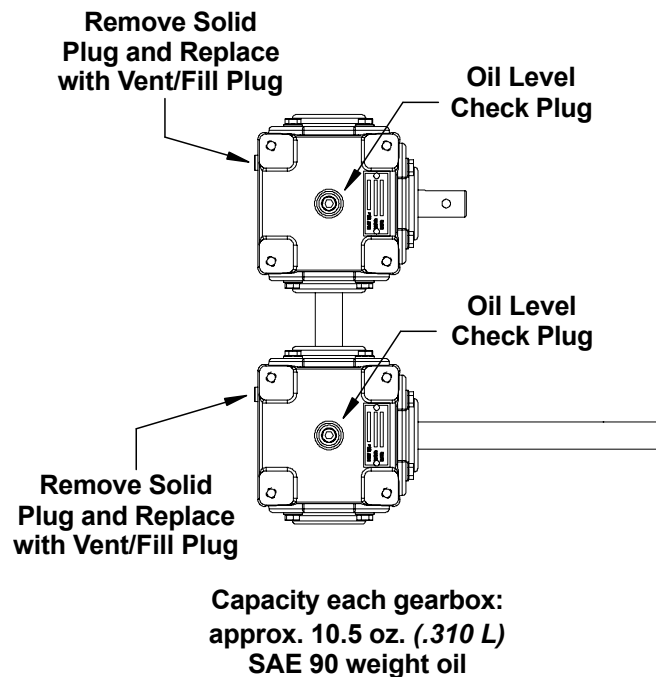
Procedure:

1. Keep gearbox in the upright position.
2. Remove the level check plug from the side of the gearbox and remove the vent/fill plug.
3. Add approximately 10.5 oz. (0.31 L) of an SAE 90 weight oil. Use a non-foaming multipurpose gear oil.
4. Watch the oil level check opening. When oil begins to leak from the opening stop adding oil.

Important

Do not overfill. Additional oil may damage the seals or be forced through the vent plug.

5. Replace the level check plug once oil level has been established.



Change the Gearbox Oil

Refer to Add Gearbox Oil Section for gearbox oil information.

Frequency: As required

Procedure:

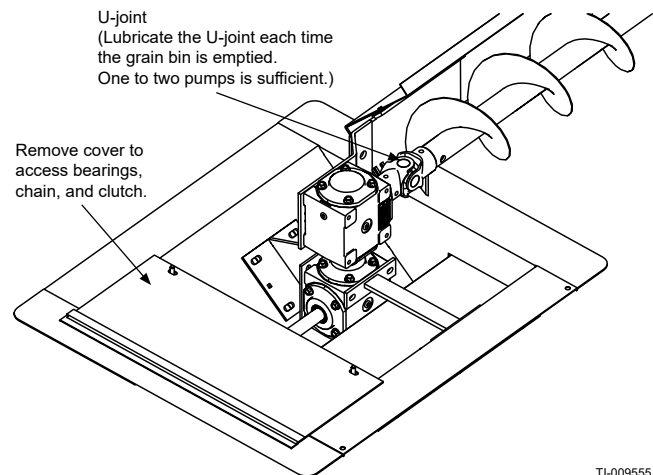
1. Remove gearbox from the power sweep auger.
2. Place a pan under the drain plug.
3. Use a wrench and remove the drain plug.
4. Loosen the filler plug so air can enter the gearbox and the oil will drain freely.
5. Allow the oil to drain completely.
6. Replace the drain plug.
7. Add oil until the gearbox is half full and replace filler plug. A flexible funnel may be required. Gearbox should be level when checking or refilling. Do not overfill.
8. Reinstall the gearbox and guards.

Lubricate the U-Joint

Use a good quality lithium-based grease. One to two pumps is sufficient.

Frequency: Each time the bin is emptied.

1. Clean the area around the U-joint.
2. Apply grease gun end to zerk fitting. Apply no more than one or two pumps of grease to the grease zerk.



TI-009555

Inspect the Drive Train and Clutch

Note

If needed, also lubricate the flange bearings.

Procedure:

1. Remove the drive cover door.
2. Clean this area of extra debris.
3. Visually inspect the drive components and verify the clutch mechanism moves freely.
4. Lubricate the bearings if needed. Apply a quality lithium based grease, no more than one to two pumps.
5. Clean and lubricate the other drive components at this location as needed.
6. Check all fasteners: nuts, bolts, set screws, etc. for tightness.
7. Check to see the drive door cover is securely in place.

Inspect the Chain

Note

If needed, add oil to the chain.

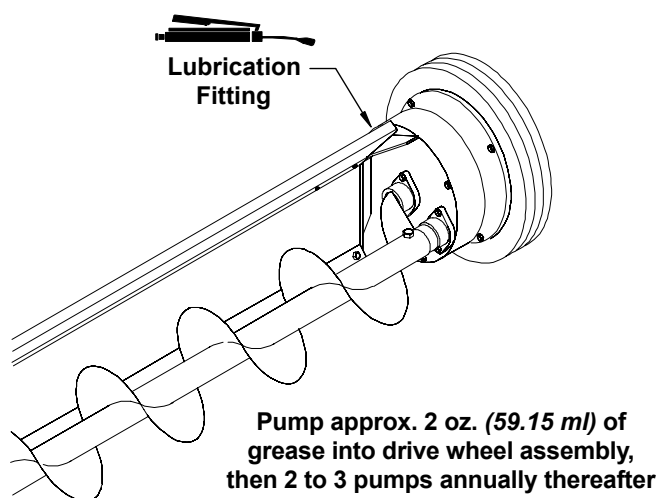
Procedure:

1. Visually inspect the chain and the components that work in conjunction with the chain.
2. Verify the chain idler/tension sprocket spring is intact.
3. Verify the chain is in good condition.
4. Add 90W oil to the chain if needed, as needed.

Sweep Drive Wheel

During assembly of the sweep, pump approximately 2 oz. (59.15 ml) of good quality SAE multi-purpose grease into the drive wheel assembly. Thereafter, add two to three pumps of grease to the drive wheel annually. Keep the chain drive inside the wheel assembly properly greased.

Frequency: As required



8. Troubleshooting

Find causes and solutions to common problems that can be encountered.

If there is a problem that is difficult to solve, even after having read through this section, please contact your representative or AGI. Have this manual and the serial number available.

Problem: **Sweep running but not advancing.**

Cause	Solution
Grain condition wet, hard-packed, moldy.	Sweep will perform poorly if grain is out of condition.

Problem: **Belt is moving, motor is running, but sweep is not moving.**

Cause	Solution
Set screws and keys on pulleys not installed or too loose.	Check set screws and keys to ensure they are tight.

Problem: **Sweep advancing too rapidly, pushing sweep into pile aggressively.**

Cause	Solution
Sweep operating too fast.	Decrease drive sheave to lower capacity.

Problem: **Sweep stops traveling around the bin.**

Cause	Solution
<ul style="list-style-type: none"> Sweep isn't adjusted correctly and is hitting a high spot in the aeration floor. Obstruction in sweep. 	<ul style="list-style-type: none"> Adjust sweep height. Remove obstruction.

Problem: **Sweep will not function.**

Cause	Solution
Obstruction in sweep.	Remove obstruction.

Problem: **Sweep flight stops when moving product.**

Cause	Solution
<ul style="list-style-type: none"> Electric motor belts are not tight enough. Electric motor is not large enough to power entire system. Obstruction in underfloor auger. 	<ul style="list-style-type: none"> Tighten belts. Replace electric motor with a larger model. Remove obstruction.

Problem: **Sweep will not turn or is noisy.**

Cause	Solution
Check that flights are not catching on floor.	Raise flighting.

Problem: **Sweep is making loud distinct squeaking noise.**

Cause	Solution
Flight out of alignment on bushings.	Straighten flight, check alignment between flights.

Problem: **Underfloor auger plugs when initially starting the sweep.**

Cause	Solution
<ul style="list-style-type: none"> Intermediate wells are not closed. Obstruction in underfloor auger. 	<ul style="list-style-type: none"> Close intermediate wells. Remove Obstruction.

Problem: Poor product flow from sweep.

Cause	Solution
<ul style="list-style-type: none"> Sweep flighting is not timed correctly. Obstruction in sweep. Damaged or bent flighting. 	<ul style="list-style-type: none"> Time flight properly. Remove obstruction. Bend flighting back to original shape. If this does not work, replace flighting.

Problem: Underfloor auger is not able to move grain that the sweep is dumping into the center well.

Cause	Solution
<ul style="list-style-type: none"> Obstruction in center well. Intermediate wells are open, flooding the underfloor auger. 	<ul style="list-style-type: none"> Remove obstruction. Close intermediate wells.

Problem: Grain is flowing over backboard of sweep.

Cause	Solution
This is normal and grain will be picked up on the second pass of the sweep.	No solution needed, part of normal sweep operation.

9. Specifications

9.1. Power Requirements

Note

Use a 60 Hz electric motor that operates at 1750 RPM (50 Hz@1460 RPM).

Table 2. Horsepower Requirements

Bin Diameter	Horizontal Head	25 Degree Head	Vertical Head	Lowboy Head
	6"	6"	6"	6"
15'	3 hp (2.2 kw)	3 hp (2.2 kw)	3 hp (2.2 kw)	6" x 20' 5 hp (4 kw)
18'	3 hp (2.2 kw)	3 hp (2.2 kw)	3 hp (2.2 kw)	
21'	3 hp (2.2 kw)	5 hp (4 kw)	5 hp (4 kw)	All Others Up to 36' 7.5 hp (5.5 kw)
24'	3 hp (2.2 kw)	5 hp (4 kw)	5 hp (4 kw)	
27'	5 hp (4 kw)	5 hp (4 kw)	5 hp (4 kw)	
30'	5 hp (4 kw)	5 hp (4 kw)	7.5 hp (5.5 kw)	
33'	5 hp (4 kw)	5 hp (4 kw)	7.5 hp (5.5 kw)	
36'	5 hp (4 kw)	5 hp (4 kw)	7.5 hp (5.5 kw)	
39'	—	—	—	—
42'	—	—	—	—
48'	—	—	—	—

Note

- The horsepower recommendations are based on clean, dry shelled corn or wheat. High moisture grain, above 15% will require greater power (the maximum possible capacity will be less with high moisture grain than with dry grain).
- High moisture grain (above 15%) will require greater power.
- The maximum possible capacity will be less with high moisture grain than with dry grain. Use [Table 2](#) to determine size of motor required.

9.2. Auger Speeds

Proper auger flight speed is important for efficient operation of the Power Sweep.

1. If the flight speed is too fast, excessive wear will result.
2. If the flight speed is too slow and the auger flighting is permitted to “load-up”, high torque will be required to turn the auger flighting, this can result in damage to the auger. Use the well slide-gates to control the amount of grain fed into the unloading tube.

Table 3. Power Head Information

	Horizontal Head	25 Degree Head	Vertical Head	Lowboy Head
	6"	6"	6"	6"
Motor Pulley Diameter	3.5" O.D. (89 mm)	3.5" O.D. (89 mm)	4.5" O.D. (114 mm)	3.5" O.D. (89 mm)
Driven Pulley Diameter	12" O.D. (305 mm)	12" O.D. (305 mm)	12" O.D. (305 mm)	12" O.D. (305 mm)
Unloading Auger Speed	490 RPM	490 RPM	440 RPM	620 RPM
Sweep Auger Speed	290 RPM	290 RPM	260 RPM	366 RPM

Note





Electric motor pulleys are not furnished.

10. Appendix

10.1. Bolt Torque

Table 4 gives the correct torque values for various hardware. Tighten all bolts to the torque specified, unless otherwise noted. Check tightness periodically, using Table 4 as a guide. Replace the hardware with the same strength bolt, contact Hutchinson | Mayrath if you are unsure.

Table 4. 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	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%.

11. Certifications

	EC Declaration of Conformity	
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AUTHORIZED REPRESENTATIVE: Managing Director, AGI-PTM, Via Mario Tognato
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Authorized Representative: Contact in the European Community for information about AGI product compliance.

PRODUCT DESCRIPTION:

Power Sweep Auger Models:

6" (152 mm) Power Sweep Auger, w/ Bin Diameters 15' to 48'

8" (203 mm) Power Sweep Auger, w/ Bin Diameters 15' to 54'

10" (254 mm) Power Sweep Auger, w/ Bin Diameters 15' to 54'

APPLICABLE EUROPEAN DIRECTIVES AND STANDARDS:

Applicable Directives	Applicable Standards	Certification Method
Machinery Directive 2006/42/EC	EN ISO 12100-1:2005, EN ISO 12100-2:2005, EN ISO 13857:2008, EN ISO 14121-1:2007	Self Certified, per Article 12 of the Directive

NOTIFIED BODY - Not Applicable

The product described in this Declaration of Conformity complies with the Applicable European Directives and relevant sections of the Applicable International Standards. A Technical Construction File is available for inspection by designated bodies.

12. Warranty

AG GROWTH INTERNATIONAL INC. – FORM OF LIMITED WARRANTY

Ag Growth International Inc. ("AGI") warrants that the goods and/or services being supplied (the "Goods") will be free from defects in materials and workmanship under normal conditions, use, service, and maintenance, for a period of twelve (12) months from the date of first operation of the Goods, but in no event more than eighteen (18) months from the date of delivery of the Goods to the end-user (the "Warranty Term"). If the Goods are being used for rental purposes, the Warranty Term for the subject Goods shall be limited to 90 days.

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The customer shall not assert a claim that the Goods are defective unless the customer gives written notice to AGI of such defect within forty-eight (48) hours of discovering such defect. In the event of a warranty claim, the customer must complete any and all information required by AGI in order to properly assess or investigate the claim. AGI shall be given a reasonable opportunity to inspect and test the Goods in question. Failure by the customer to notify AGI of such claim within 48 hours shall operate as a waiver of any and all such claims by the customer.

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