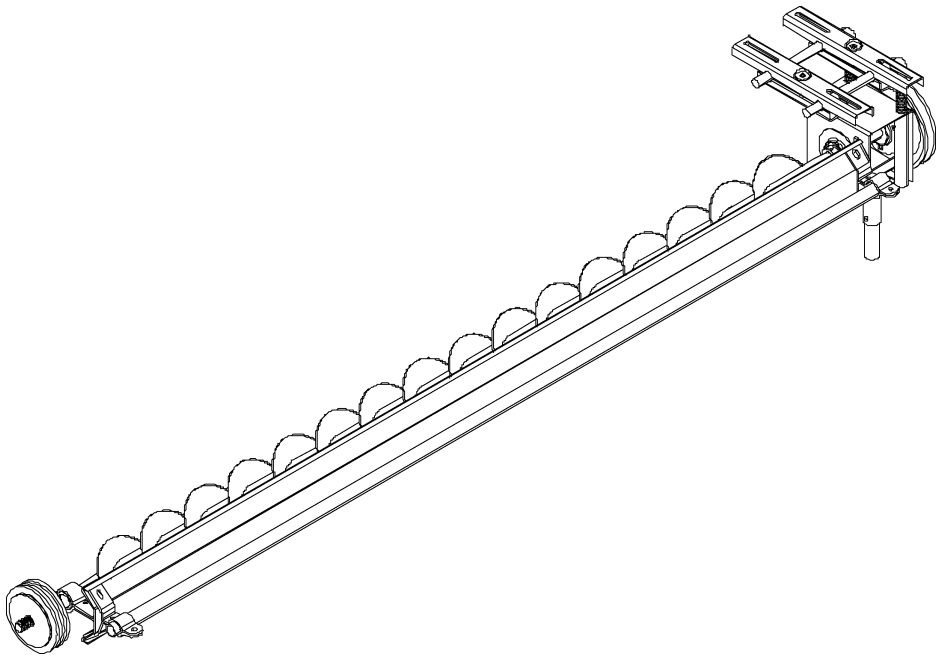


6", 8" and 10" Bin Sweep Auger

Installation and Operation Manual

PNEG-1020

Date: 12-06-08

GSI GROUP

GSI®

PNEG-1020

Personnel operating or working around this equipment should read this manual. This manual must be delivered with equipment to its owner. Failure to read this manual and its safety instructions is a misuse of the equipment. Any misuse of the equipment may void the warranty.

Contents

Table of Contents

Product Information

1. The bin sweep auger includes a motor mount and drive assembly, auger, auger shield assembly and rubber end wheel.
2. The unit will operate only in a round grain bin equipped with a center bin well in the bin floor.

NEVER enter a grain bin unless ALL power driven equipment has been shut down. Disconnect and lock out power before entering the bin or servicing the equipment.

General Information

1. We reserve the right to change, improve and modify products at any time without obligation to make changes, improvements and modifications on equipment sold previously.
2. This new bin sweep auger has been engineered and manufactured to give years of dependable service. The care and maintenance of this equipment will affect the satisfaction and service obtained. By following the instructions and suggestions recommended, the owner should receive quality service for many years. If additional information or assistance should be required, please contact your dealer or the manufacturer.
3. It is important to check both the quantity of parts and their descriptions with the packing list enclosed within each package. All claims for freight damage or shortage must be made by the consignee within ten (10) days from the date of the occurrence of freight damage. The consignee should accept the shipment after noting the damage or loss.

Electric Motor Drives

Electrical controls and wiring should be installed by a qualified electrician. The motor disconnect switches and conductor cables should comply with the National Electrical Code and any local codes which apply. Reset and motor starting stations should be located so that the operator can see that all personnel are clear of the equipment.

NOTE: *Use an electric motor that operates at 1750 RPM. Use a 2.5" (6.35 cm) motor pulley for a recommended auger speed of 625 RPM. Motor pulleys are not furnished with the auger.*

NOTE: *Use an electric motor that operates at 1750 RPM. Use a 3" (7.62 cm) motor pulley for a recommended auger speed of 525 RPM. Motor pulleys are not furnished with the auger.*

NOTE: *The horsepower recommendations are for augering reasonably dry grain. High moisture grain (greater than 15%) will require greater power for maximum capacity. The maximum capacity will be less with high moisture grain than with dry grain.*

1. A magnetic starter should be used to protect the motor when starting and stopping. It should stop the motor in case of power interruption, conductor fault, low voltage, circuit interruption or motor overload. The motor must be restarted manually. Some motors have built-in thermal overload protection. If this is the type of motor being used, use only those with a manual reset.
2. The motor starting controls must be located outside the bin. They must NEVER be installed on the bin sweep auger inside the bin.

Electric Motor Drives (Continued)

3. Disconnect and lock out the power before resetting motor overloads.
4. Disconnect and lock out the power before entering the bin.
5. Disconnect and lock out the power before servicing the equipment.
6. Position the reset and motor starting controls so that the operators have full view of the equipment working.

There should ALWAYS be two (2) people in the work area.

7. Make sure electric motors are grounded.

NOTE: *A main power disconnect switch capable of being locked only in the OFF position should be used. It should be locked whenever work is being done on the bin sweep auger.*

Safety Guidelines

This manual contains information that is important for you, the owner/operator, to know and understand. This information relates to protecting ***personal safety*** and ***preventing equipment problems***. It is the responsibility of the owner/operator to inform anyone operating or working in the area of this equipment of these safety guidelines. To help you recognize this information, we use the symbols that are defined below. Please read the manual and pay attention to these sections. Failure to read this manual and its safety instructions is a misuse of the equipment and may lead to serious injury or death.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

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

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTE indicates information about the equipment that you should pay special attention.

Safety Instructions

Our foremost concern is your safety and the safety of others associated with this equipment. We want to keep you as a customer. This manual is to help you understand safe operating procedures and some problems which may be encountered by the operator and other personnel.

As owner and/or operator, it is your responsibility to know what requirements, hazards and precautions exist, and to inform all personnel associated with the equipment or in the area. Safety precautions may be required from the personnel. Avoid any alterations to the equipment. Such alterations may produce a very dangerous situation where SERIOUS INJURY or DEATH may occur.

This equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installations are made.

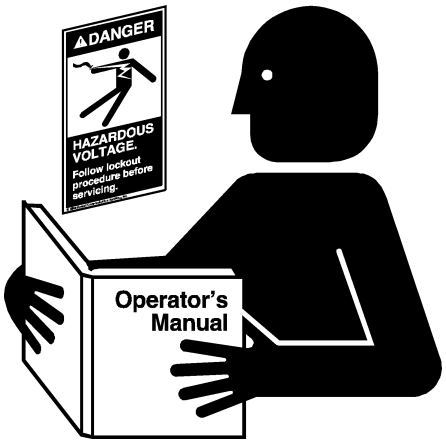
Follow Safety Instructions

Carefully read all safety messages in this manual and safety signs on your machine. Keep signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from the manufacturer.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machinery in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual or need assistance, contact your dealer.



Read and Understand Manual

Operate Unload Equipment Properly

Operate Unload Equipment Safely

- Untrained operators subject themselves and others to **SERIOUS INJURY** or **DEATH**. **NEVER** allow untrained personnel to operate this equipment.
- **NEVER** work alone.
- Keep children and other unqualified personnel out of the working area at **ALL** times. Refer to the **Start-Up** section of this manual for diagrams of the work area.
- Make sure **ALL** equipment is locked in position before operating.
- **NEVER** start equipment until **ALL** persons are clear of the work area.
- Keep hands and feet away from the auger intake and other moving parts.
- **NEVER** attempt to assist machinery operation or to remove trash from equipment while in operation.
- Be sure all operators are adequately rested and prepared to perform all functions of operating this equipment.
- **NEVER** allow any person intoxicated or under the influence of alcohol or drugs to operate the equipment.
- Make sure someone is nearby who is aware of the proper shut down sequence in the event of an accident or emergency.
- **ALWAYS** think before acting. **NEVER** act impulsively around the equipment.
- **NEVER** allow anyone inside a bin, truck or wagon which is being unloaded by an auger or conveyor. Flowing grain can trap and suffocate in seconds.
- Use ample overhead lighting after sunset to light the work area.
- Keep area around intake free of obstacles such as electrical cords, blocks, etc., that might trip workers.
- **NEVER** drive, stand or walk under the equipment.
- Use caution not to hit the auger when positioning the load.
- **ALWAYS** lock out **ALL** power to the equipment when finished unloading a bin.
- Be aware of pinch points. A pinch point is a narrow area between two surfaces that is likely to trap or catch objects and so is a potential safety hazard.

Wear Protective Clothing

Wear close fitting clothing and safety equipment appropriate to the job.

Remove all jewelry.

Long hair should be tied up and back.

Safety glasses should be worn at all times to protect eyes from debris.

Wear gloves to protect your hands from sharp edges on plastic or steel parts.

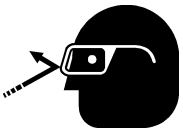
Wear steel toe boots to help protect your feet from falling debris. Tuck in any loose or dangling shoe strings.

A respirator may be needed to prevent breathing potentially toxic fumes and dust.

Wear hard hat to help protect your head.

Wear appropriate fall protection equipment when working at elevations greater than six feet (6').

Eye Protection



Gloves

Steel Toe Boots

Respirator

Hard Hat

Fall Protection

Emergency Shut Down Sequence

1. In an emergency, shut down the power source.

Pinch Points

NOTE: *A pinch point is any place on the equipment which can injure an operator.*

1. Components of this equipment have sharp edges which can scrape and/or cut an operator.
2. A moving auger can sever an operator's limbs or even kill.

Shields and Guards

1. ALWAYS keep belt guards in place during operation.

Operator Qualifications

A. The User/Operator must be competent and experienced to operate auger equipment. Anyone who works with or around augers must have good common sense in order to be qualified. These persons must also know and meet all other qualifications, such as:

i. Any person who has not read and/or does not understand all operation and safety procedures is not qualified to operate any auger systems.

ii. Certain regulations apply to personnel operating power machinery. Personnel under the age of 18 years may not operate power machinery, including augers. It is your responsibility, as owner and/or supervisor, to know what these regulations are in your area or situation.

iii. Unqualified or incompetent persons are to remain out of the work area.

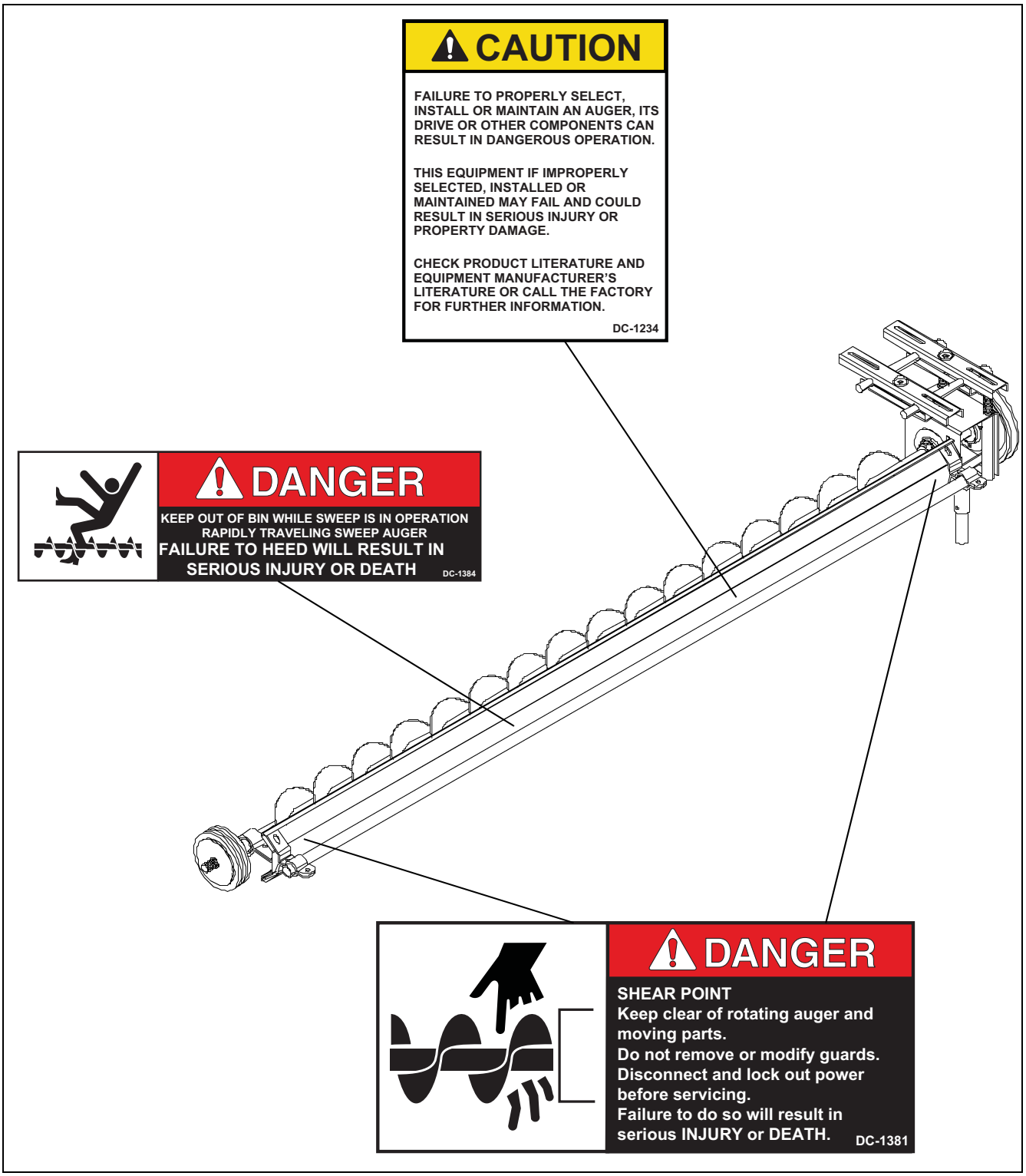
iv. O.S.H.A. (Occupational Safety and Health Administration) regulations state: “At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee in the safe operation and servicing of all equipment with which the employee is, or will be involved”. (Federal Occupational Safety and Health Standards for Agriculture. Subpart D, Section 19287.57 (a) (6)).

B. As a requirement of O.S.H.A., it is necessary for the employer to train the employee in the safe operating and safety procedures for this auger. The sign-off sheet is provided for your convenience and personal record keeping. All unqualified persons are to stay out of the work area at all times. It is strongly recommended that another qualified person who knows the shut down procedure is in the area in the event of an emergency.

Date	***Employee Name***	***Supervisor Name***

3. Safety Decals

The images below show the location of the decals and safety signs which should appear on the auger.



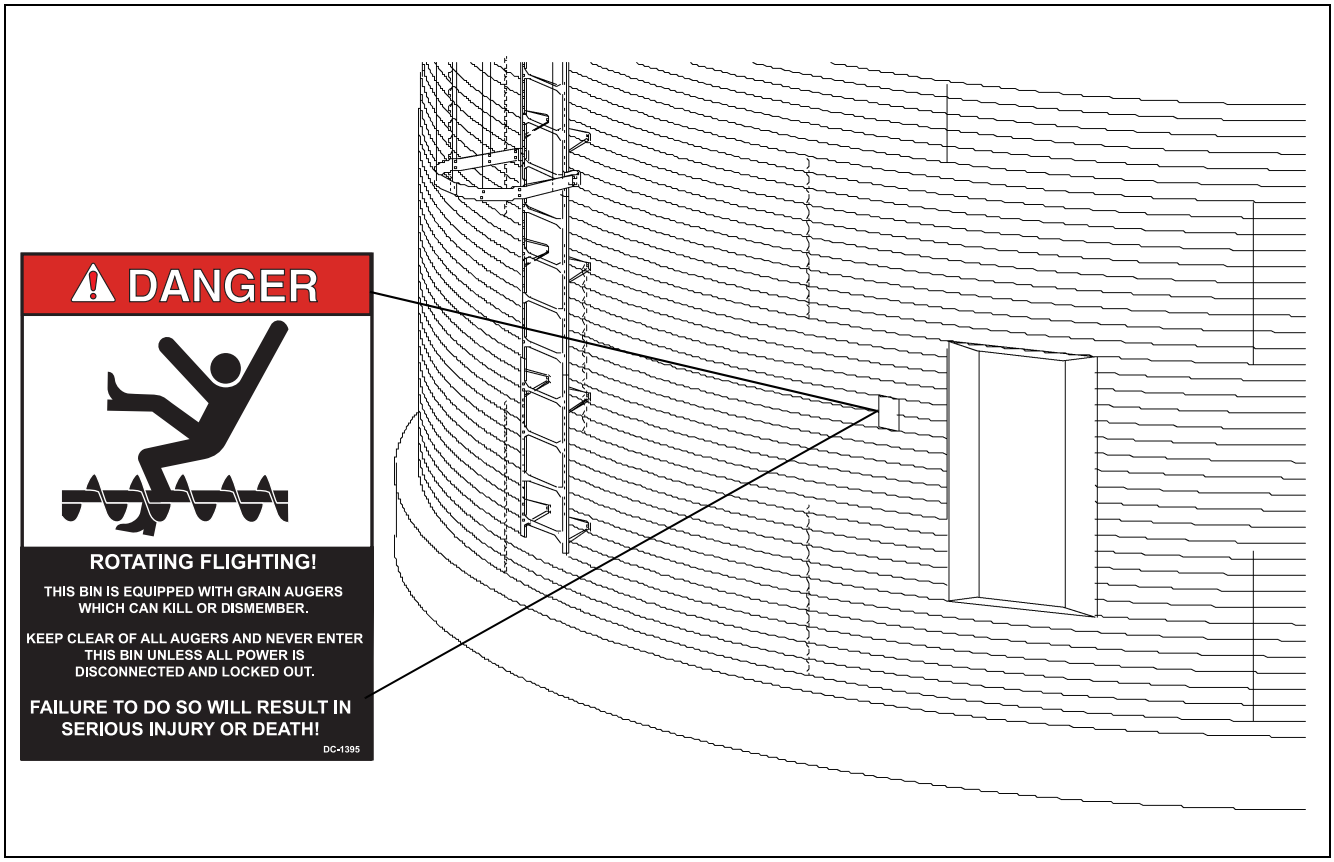
NOTE: *Please remember safety signs provide important safety information for people working near bin unloading equipment that is in operation.*
Any safety signs that are worn, missing, illegible or painted over should be replaced immediately. Obtain FREE replacements by contacting your dealer.

A. DANGER Sign No. DC-1395 was supplied with your bin unloading equipment. This safety sign should be applied to the side of the bin near the bin opening, so it will be viewed by people entering into the bin storage building. Do not cover any safety signs or any other signs that are already there.

B. If the safety sign location suggested is not in full view because of equipment modifications, other equipment in the area or any reason, then locate the safety sign in a more suitable location.

C. Be certain the surface is clean, dry and free of dirt and oil. Peel paper backing from decals and stick into place. The adhesive backing will bond on contact.

NOTE: *Please remember, safety signs provide important safety information for people working near bin unloading equipment that is in operation.*



NOTE: *If the Safety Sign cannot be easily read for any reason or has been painted over, replace it immediately. Additional Safety Signs may be obtained free of charge from the dealer, distributor or ordered from the factory.*

Order *SAFETY SIGN NO. DC-1395*

Install the Motor Mount on the Flighting Drive End

1. Assemble the flange bearings on each side of the motor mount assembly, using 5/16" x 3/4" carriage bolts with lock washers and nuts.
2. Tighten the carriage bolts and nuts.

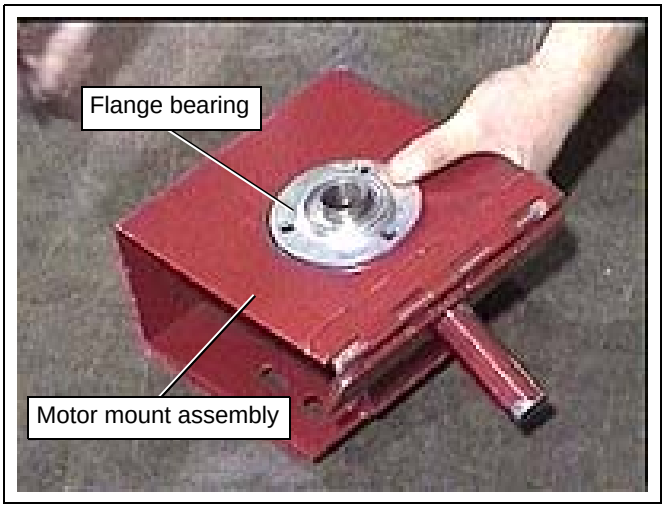


Figure 4A

Figure 4B

3. Place a lock collar onto the shaft. Do not tighten.
4. Place the motor mount assembly onto the shaft making sure that the hinge of the motor mount assembly is facing outward.

NOTE: *The bearing and motor mount assembly is placed on the end of the flighting shaft that is the longest without flight.*

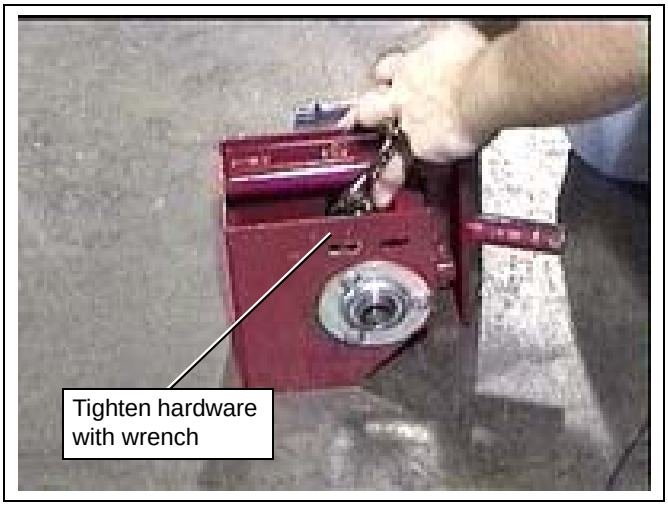


Figure 4C

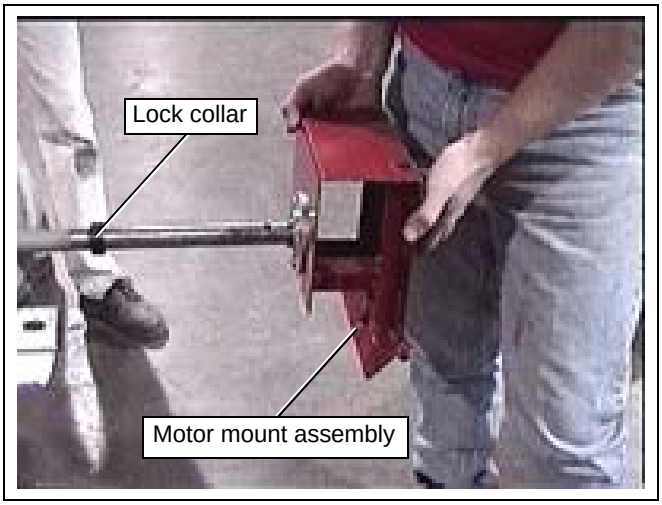


Figure 4D

Install the Motor Mount on the Flighting Drive End (Continued)

5. Place the outer lock collar onto the shaft. This lock collar will be located on the opposite side of the motor mount assembly as the first one. Do not tighten the collar.

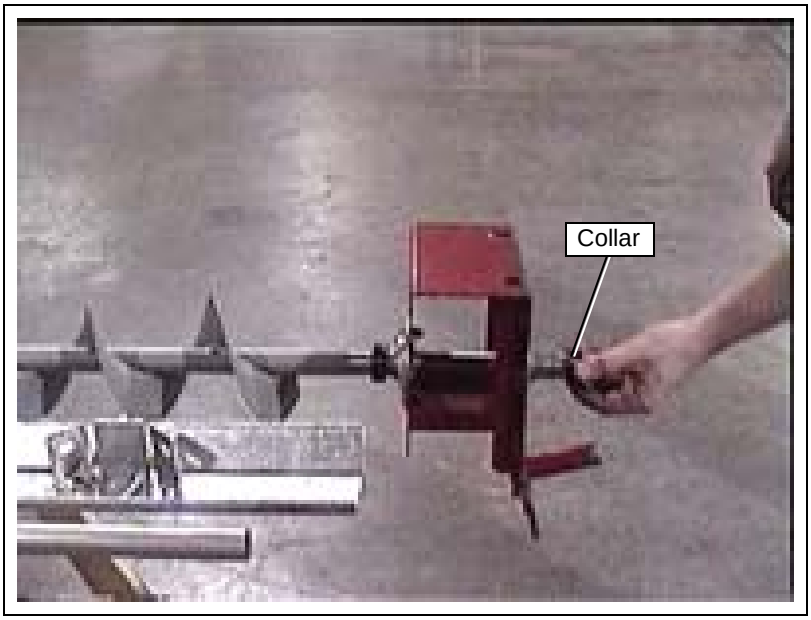


Figure 4E

Install the Pulley

1. Place the pulley onto the shaft making sure that the stub of the pulley is facing inward toward the motor mount assembly.

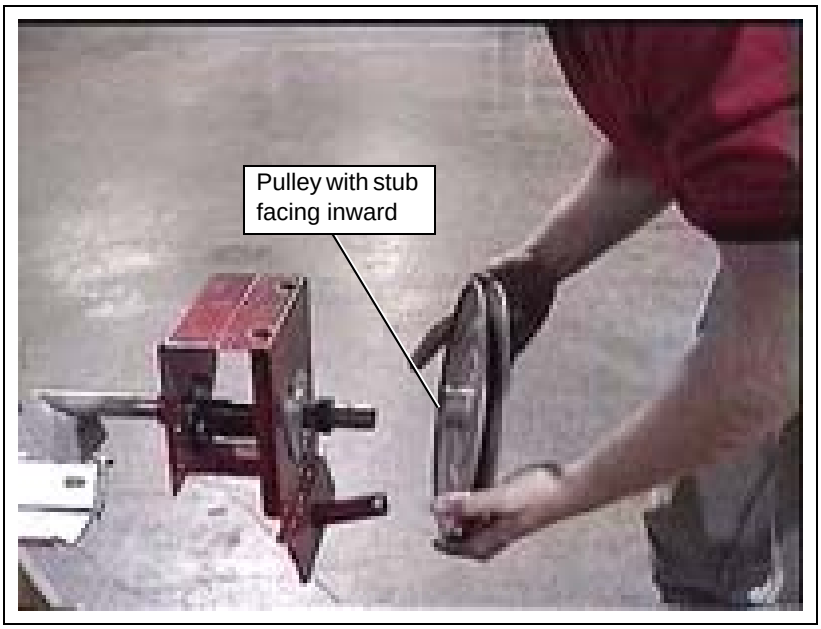


Figure 4F

Install the Pulley (Continued)

2. Turn the pulley wheel so that the roll pin hole on the pulley shaft and the roll pin hole on the tube align.

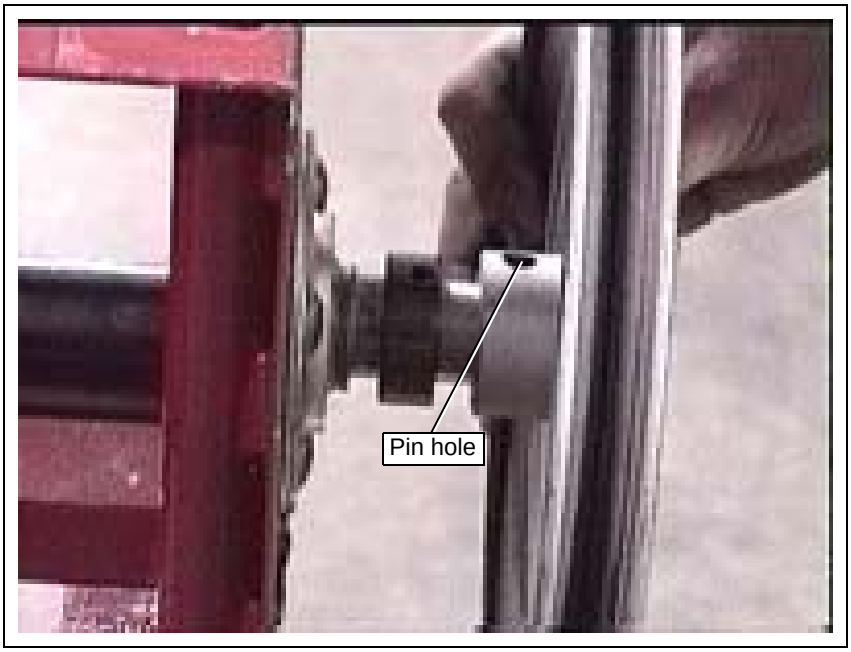


Figure 4G

3. Insert a 5/16" x 2" roll pin into pin hole located on the pulley stub. Drive the roll pin, with a hammer and a punch, equally through both sides of pulley.

NOTE: *It may be necessary to pre-start the roll pin. The pulley is separate from the shaft as seen in Figure 4H corner picture.*

Figure 4H

Position the Motor Mount Assembly and Tighten the Lock Collars

1. Slide the motor mount assembly toward the pulley until there is an 1/8" to 1/4" gap between each.

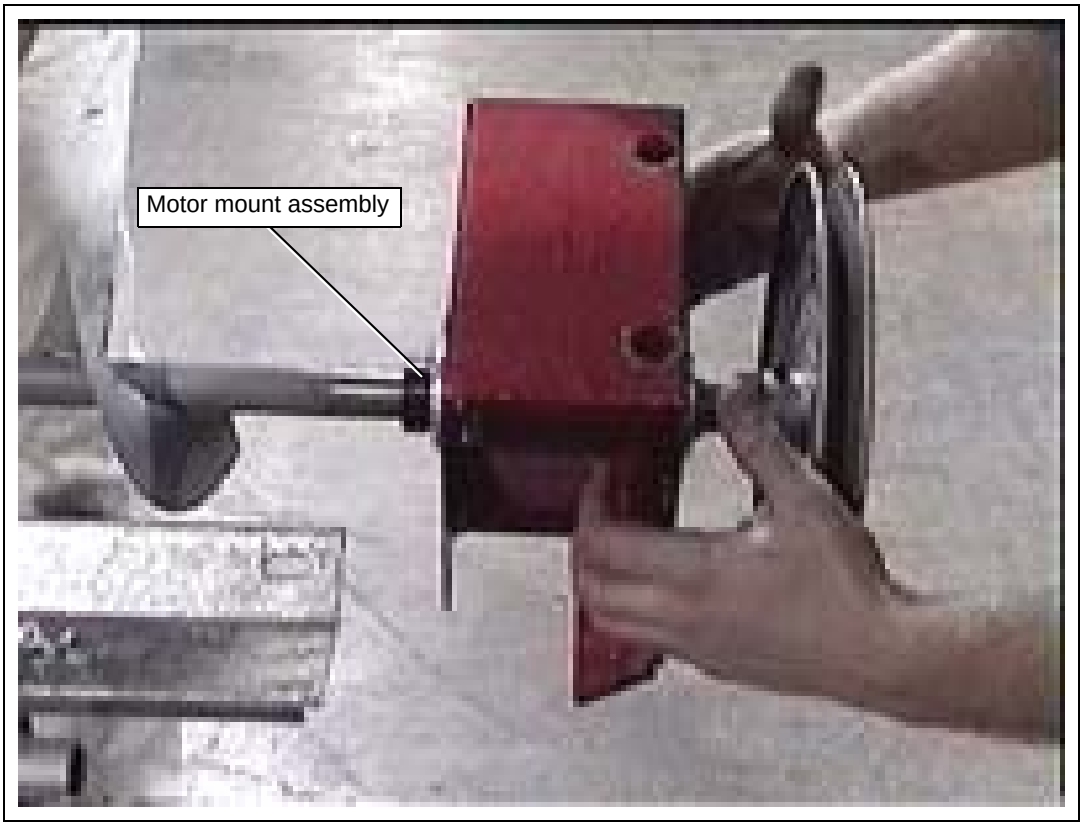


Figure 4I

2. When the motor mount assembly is positioned properly, tighten the lock collars. To tighten the lock collars, use a punch and hammer to drive the collar, closest to the flighting, clockwise and the collar, closest to the pulley, counterclockwise, until tight (noted in *Figure 4J*). Then proceed to tighten with an 1/8" hex-head wrench (shown in *Figure 4K*).

Figure 4J

Figure 4K

Install the Shield Support Bracket

1. Mount the shield support bracket to the motor mount assembly using two (2) 5/16" x 1" bolts, four (4) flat washers, two (2) lock washers and two (2) nuts. Bolt the shield support bracket to the inside of the motor mount assembly.

NOTE: *Do not completely tighten the bolt on the shield support bracket. They will be tightened later in the assembly.*

Figure 4L

Install the Torque Tube Clamp

1. Using four (4) 5/16" x 1" bolts, lock washers, and nuts, attach the torque tube clamps to the torque tube. Place the torque tube clamps together first and place the middle bolt on them to hold them together. The tube will correspond to the length of the sweep.
2. Slide the torque tube brackets onto the torque tube. Do not tighten completely.

Figure 4M

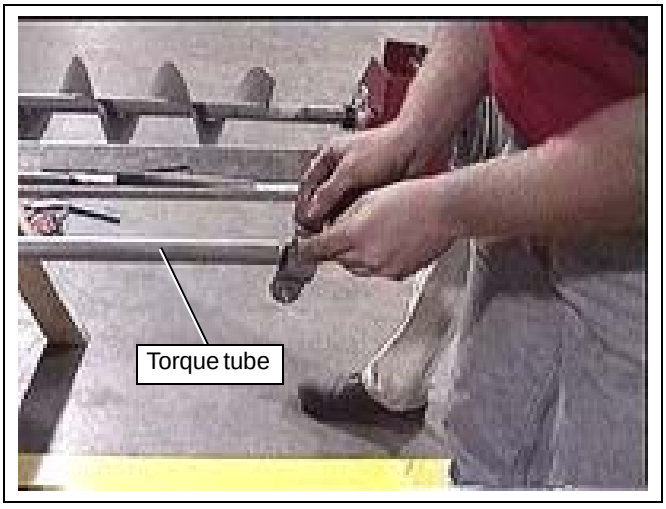


Figure 4N

Install the Shield

1. Position the torque tube clamp underneath the shield. Align holes in torque tube clamps with holes in backshield.

Figure 4O

2. Tighten the bolts and nuts that hold the tube to the torque tube clamps.

Figure 4P

Install the Bearing Clamp Brackets

1. Place a bronze bushing onto the flighting shaft opposite the end of the motor mount assembly. The middle bushing is already pre-placed on longer models.
2. Place the bearing clamps together over both bronze bushings using one (1) 5/16" bolt, lock washer and nut for each bearing clamp. Tighten the bolts.

Figure 4Q

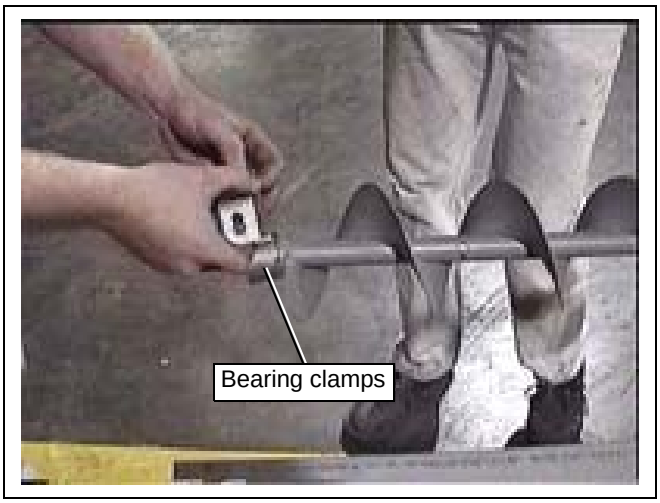


Figure 4R

Attach the Flighting to the Shield

1. Connect the shield support bracket and the torque clamp to the shield using two (2) 5/16" x 1" bolts, lock washers and nuts as shown in *Figure 4S*.
2. Connect the bearing brackets and the torque tube clamps to the shield using four (4) 5/16" x 1" bolts, washers and nuts for each area as shown in *Figure 4T*.

NOTE: *Make sure to place the head of the bolts on the inside of the shield with the threaded end protruding to the outside.*

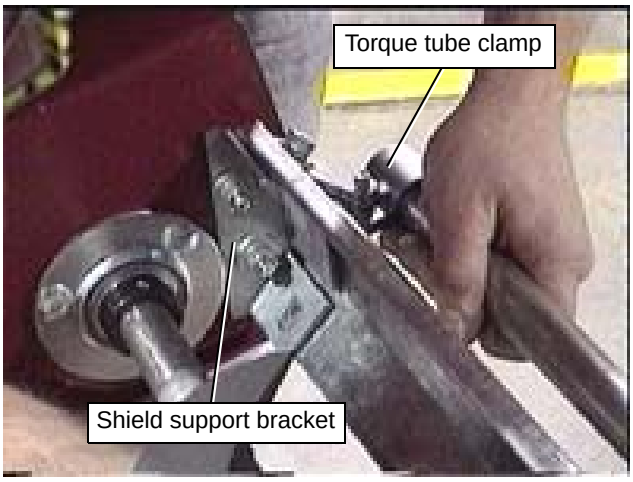


Figure 4S

Figure 4T

Wheel Assembly

1. Insert the sweep wheel shaft with non-threaded end into the flighting tube securing it with a 5/16" x 2" roll pin placed in the hole located in the flighting tube.

NOTE: *Make sure to place the 5/16" x 2" pin in the inner positioned hole located on the sweep wheel shaft leaving one (1) hole exposed.*
Use a hammer and if needed a punch to center the pin.

2. Insert the 5/16" x 1" pin into the hole on the sweep wheel shaft. Drive the pin into the shaft until it is centered in the wheel shaft.

Figure 4U

Figure 4V

3. Place two (2) steel discs onto the shaft followed by five (5) rubber discs, followed by two (2) steel disc.

	6" Sweep		8" Sweep	Qty
	4-1/4" O.D. Flighting	5" O.D. Flighting		
Steel	4"	5"	5"	4
Rubber	5"	6"	6"	5

Figure 4W

Wheel Assembly (Continued)

4. When finished, the wheel assembly should appear as shown in *Figure 4X*.

5. Place one (1) 3/4" lock washer and one (1) 3/4" nut onto the shaft and tighten.

Figure 4X

Figure 4Y

Install the Motor Mount Rods

1. Place one (1) 3/4" nuts onto each of the motor mount rods.

2. Install both top motor mount clip and both bottom motor mount clip onto the motor mount rods with a two (2) 3/8" x 2-1/2" carriage bolt, lock washer and nut.

Figure 4Z

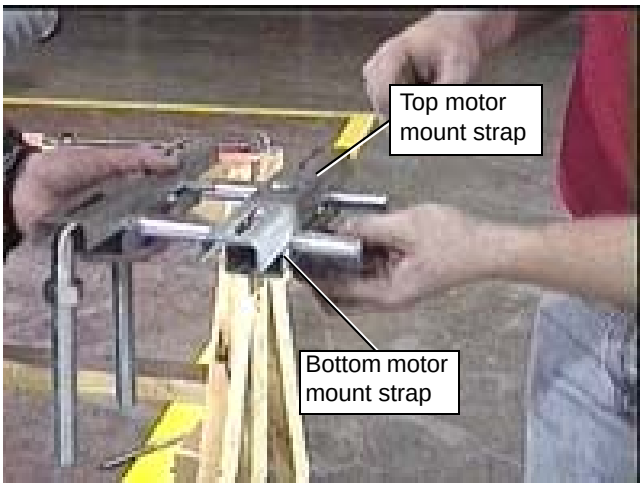


Figure 4AA

Install the Motor Mount Rods (Continued)

3. Insert the threaded ends of the motor mount rods into the motor mount. The motor mount rods should be facing away from the pulley as shown in *Figure 4AB*.

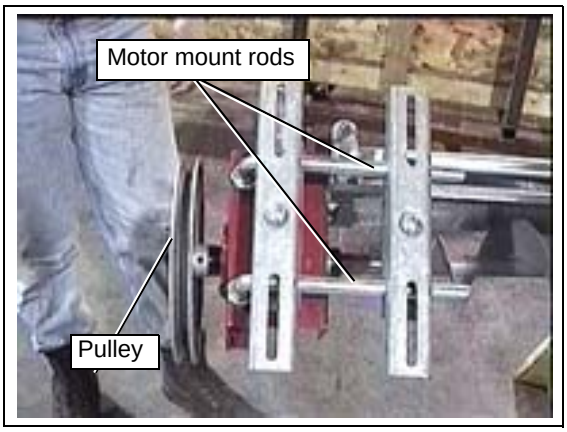


Figure 4AB

Install the Pivot Pin Extension (If needed)

1. Slide the pivot pin extension over the pivot tube located on the motor mount assembly.

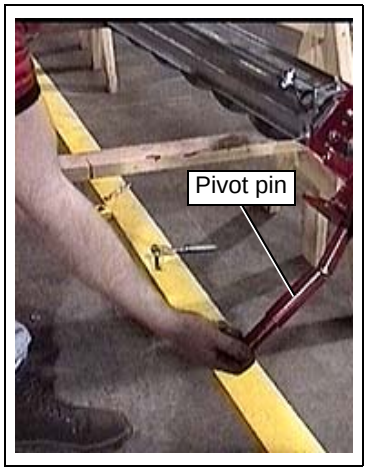


Figure 4AC

Install the Bin Sweep into the Bin

1. After removing all grain from the center well and intermediate well, place the bin sweep auger in the bin.
2. Place the pin, located on the sweep motor mount, into the tube provided on top of the well.
3. Lay the sweep auger on the pile of sloping grain.
4. Use the extension tube between the motor mount and the bin well, if desired.
5. Attach the suitable electric wiring to the motor in a manner that will permit the sweep to rotate around the bin.

NOTE: *The motor starting controls must be located outside the bin. They must **NEVER** be installed on the sweep inside the bin.*

Install the Motor Mount on the Flighting Drive End

1. Assemble the flange bearings on each side of the motor mount assembly, using 5/16" x 3/4" carriage bolts with lock washers and nuts.
2. Tighten the carriage bolts and nuts.

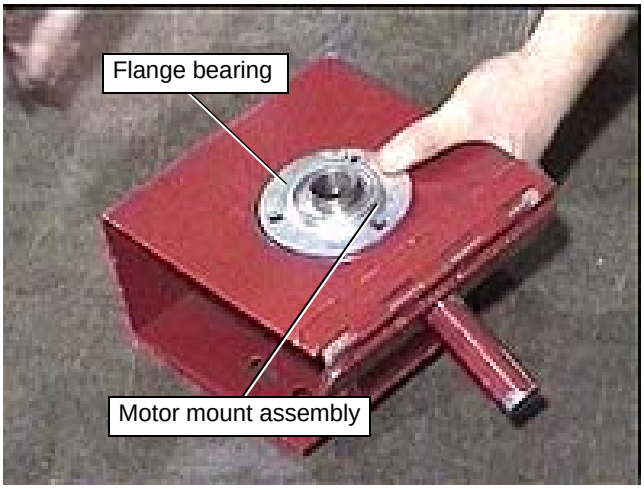


Figure 5A

Figure 5B

3. Place a lock collar onto the shaft. Do not tighten.
4. Place the motor mount assembly onto the shaft of the small flighting section making sure that the hinge of the motor mount assembly is facing outward.

NOTE: *The bearing and motor mount assembly is placed on the end of the flighting shaft that is the longest without flight.*

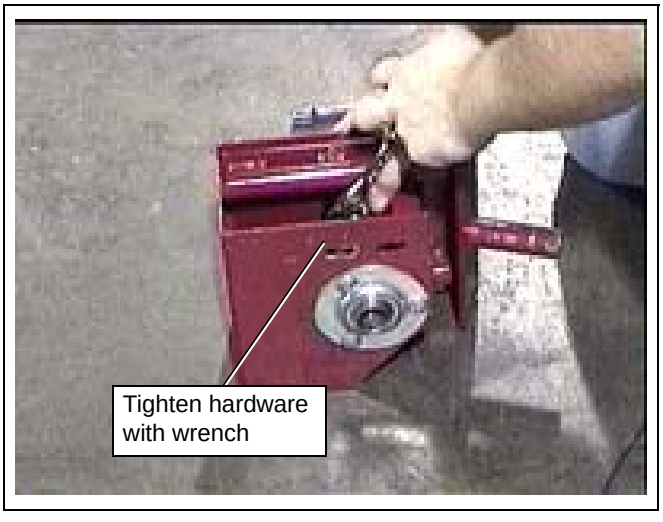


Figure 5C

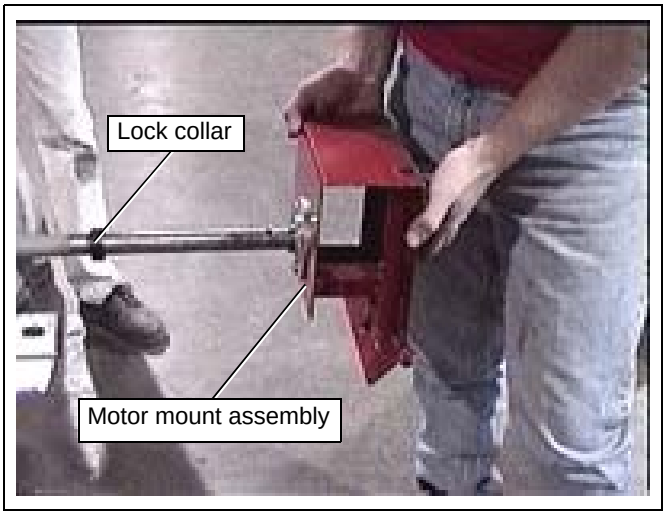


Figure 5D

Install the Motor Mount on the Flighting Drive End (Continued)

5. Place the outer lock collar onto the flighting shaft. This lock collar will be located on the opposite side of the motor mount assembly as the first one. Do not tighten the collar.

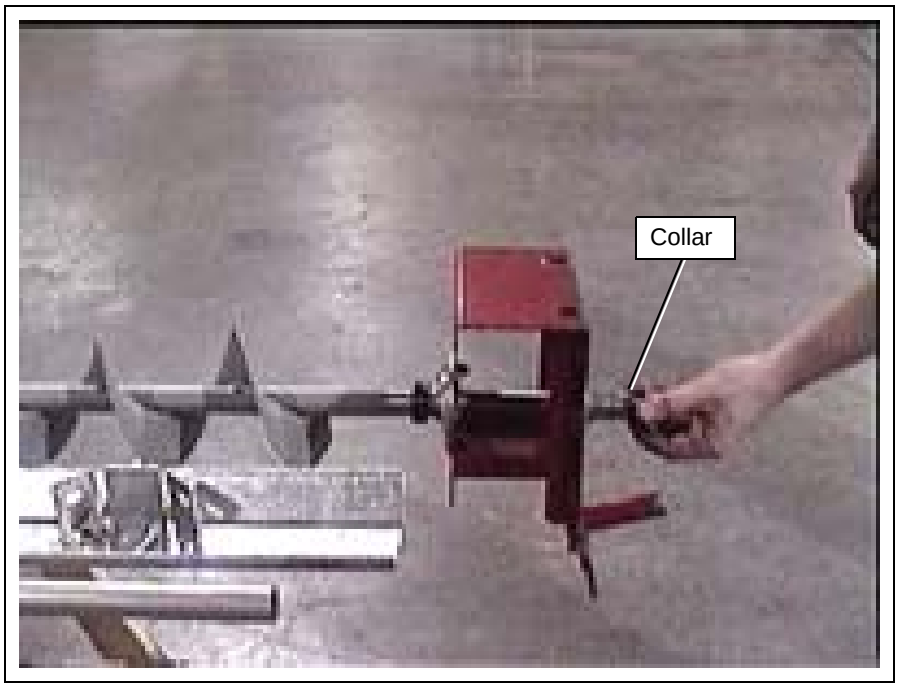


Figure 5E

Install the Pulley

1. Place the pulley onto the flighting shaft making sure that the stub of the pulley is facing inward toward the motor mount assembly.

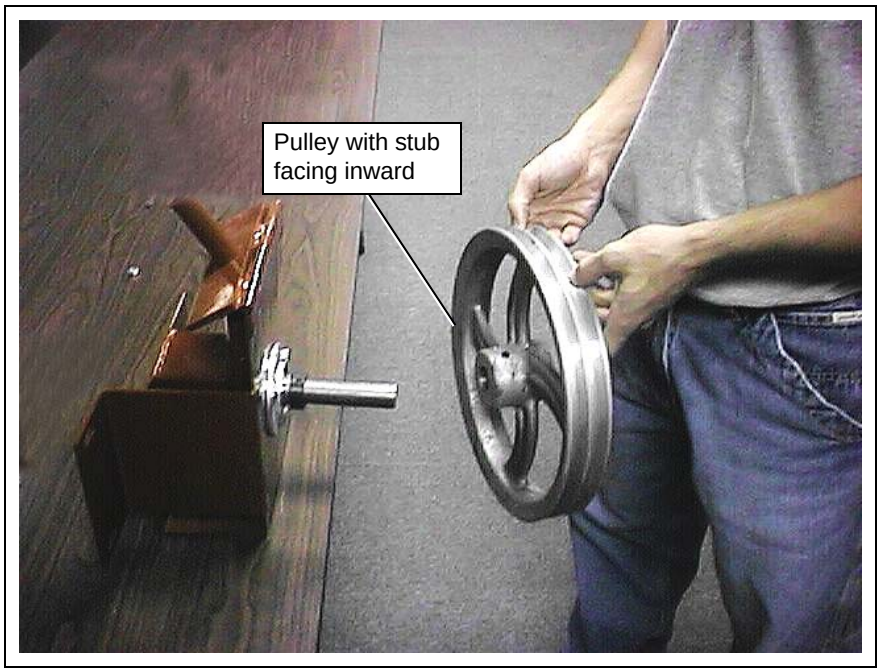


Figure 5F

Install the Pulley (Continued)

2. Turn the pulley wheel so that the roll pin hole on the pulley shaft and the roll pin hole on the tube align.
3. Insert a 5/16" x 2" roll pin into pin hole located on the pulley stub. Drive the roll pin, with a hammer and a punch, equally through both sides of pulley.

NOTE: *It may be necessary to pre-start the roll pin. The pulley is separate from the shaft as seen in Figure 5H corner picture.*

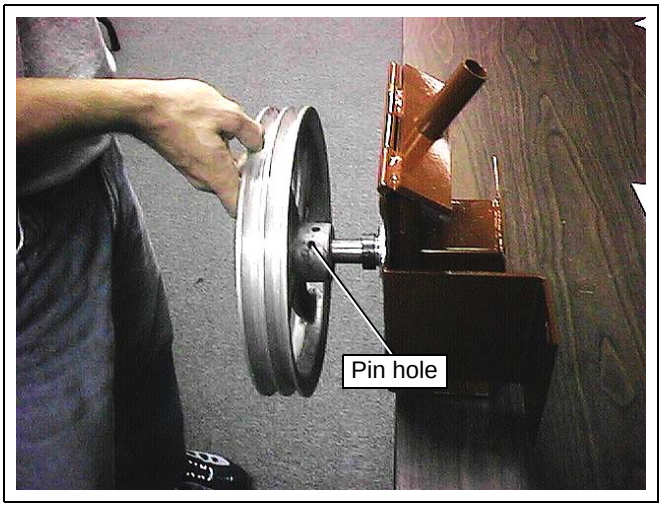


Figure 5G

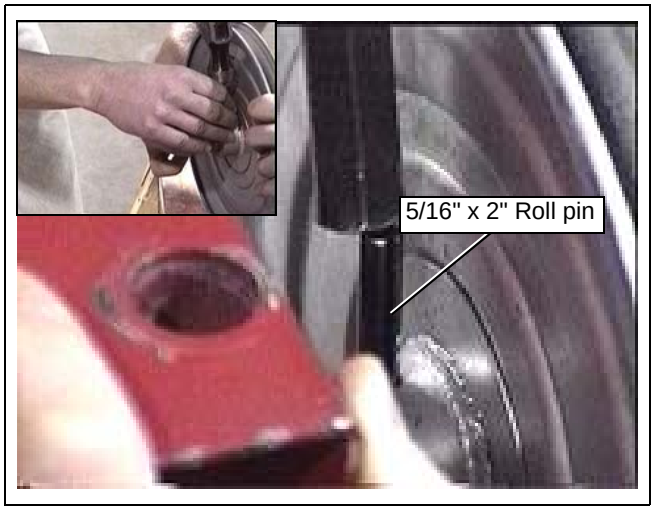


Figure 5H

Position the Motor Mount Assembly and Tighten the Lock Collars

1. Slide the motor mount assembly toward the pulley until there is an 1/8" to 1/4" gap between each.

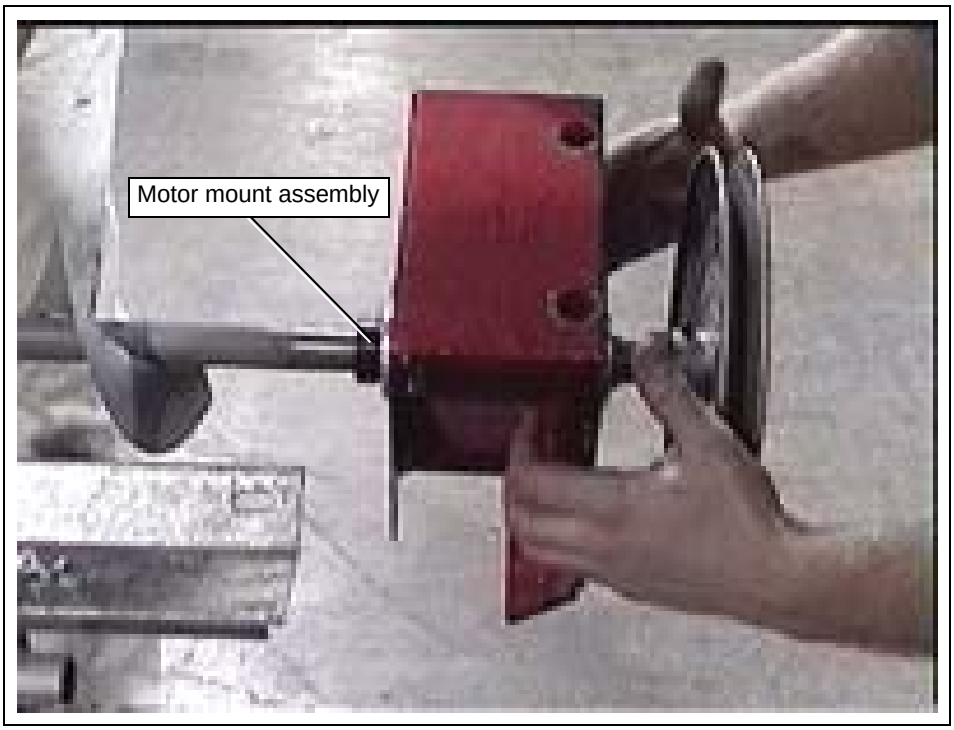


Figure 5I

Position the Motor Mount Assembly and Tighten the Lock Collars (Continued)

2. When the motor mount assembly is positioned properly, tighten the lock collars. To tighten the lock collars, use a punch and hammer to drive the collar, closest to the flighting, clockwise and the collar, closest to the pulley, counterclockwise, until tight (noted in *Figure 5J*). Then proceed to tighten with an 1/8" hex-head wrench (shown in *Figure 5K*).

Figure 5J

Figure 5K

Install the Flighting

1. Insert the connecting stub into the small section of flighting. Secure it with bolts, lock washers and nuts.

NOTE: *Use the Chart below to determine the number of flighting and shield sections needed for the length of sweep to be used.*

10" Bin Sweep Flight/Shield Combinations					
Bin	**3' 9"**	**5' 3"**	**6' 9"**	**8' 3"**	**9' 9"**
24'		2			
27'		1	1		
30'			2		
33'			1	1	
36'				2	
39'				1	1
42'					2

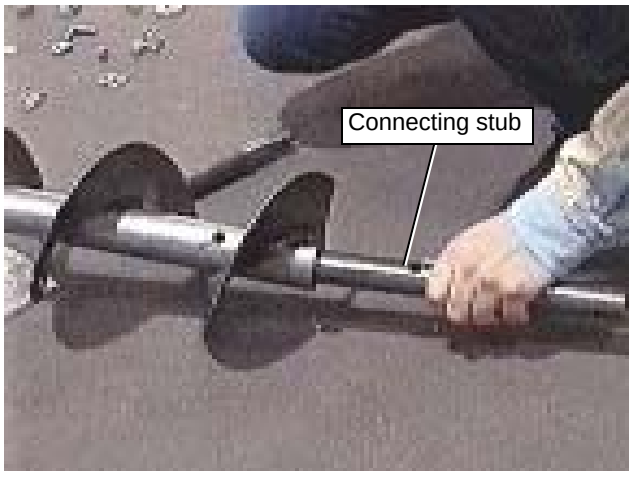


Figure 5L

Install the Bearing Bracket

1. Place the hanger bearing bracket onto the connecting stub.

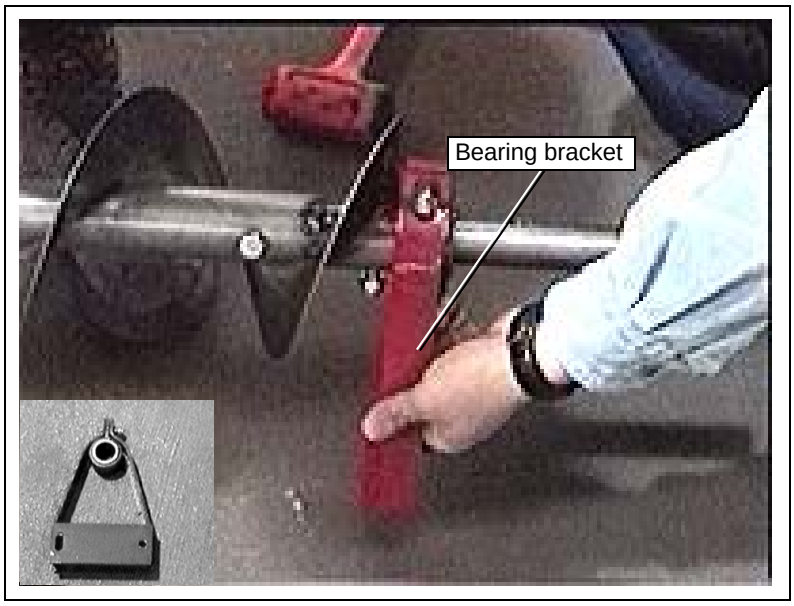


Figure 5M

Install the Sweep Flighting

1. Install the next section of flighting. Secure the flighting with bolts, lock washers and nuts.

Figure 5N

Install the Flighting Shield

1. Install the smallest shield to the shield mounting bracket located on the motor mount assembly. Secure using two (2) 3/8" x 3" bolts and lock nuts. Make sure the nut is on the side of the slotted hole for adjustment.

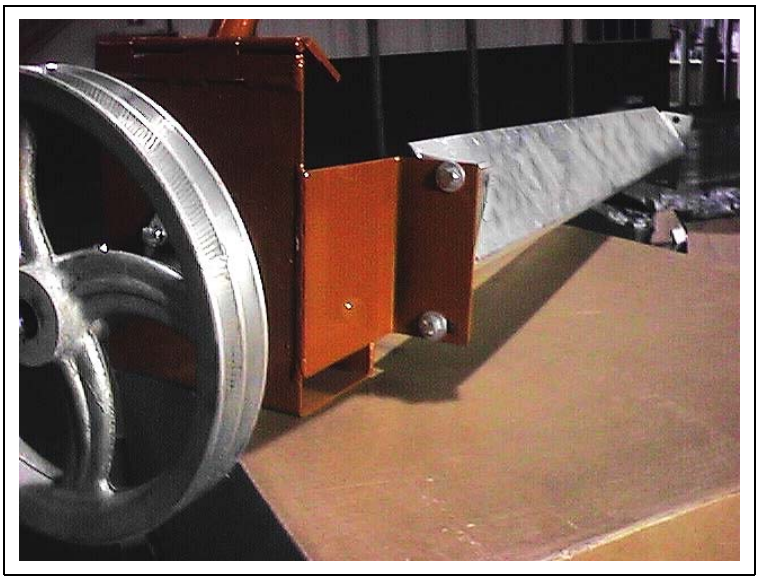


Figure 5O

2. Install the first and second section of flighting shield to the hanger bearing bracket (when applicable). Use two (2) 3/8" x 3" bolts, lock washers and nuts to secure these together.

Figure 5P

Assemble the Wheel Shaft

1. Place one (1) steel disc onto the wheel shaft. Place three (3) rubber discs onto the wheel shaft followed by one (1) steel disc. Secure the wheel shaft assembly with a 3/4" lock washer and left handed nut. Tighten the left handed nut with a wrench.

	10" Sweep	Qty
Steel	6"	4
Rubber	7"	5

Figure 5Q

Install the Hanger Bearing Bracket

1. Place the hanger bearing bracket onto the wheel shaft.

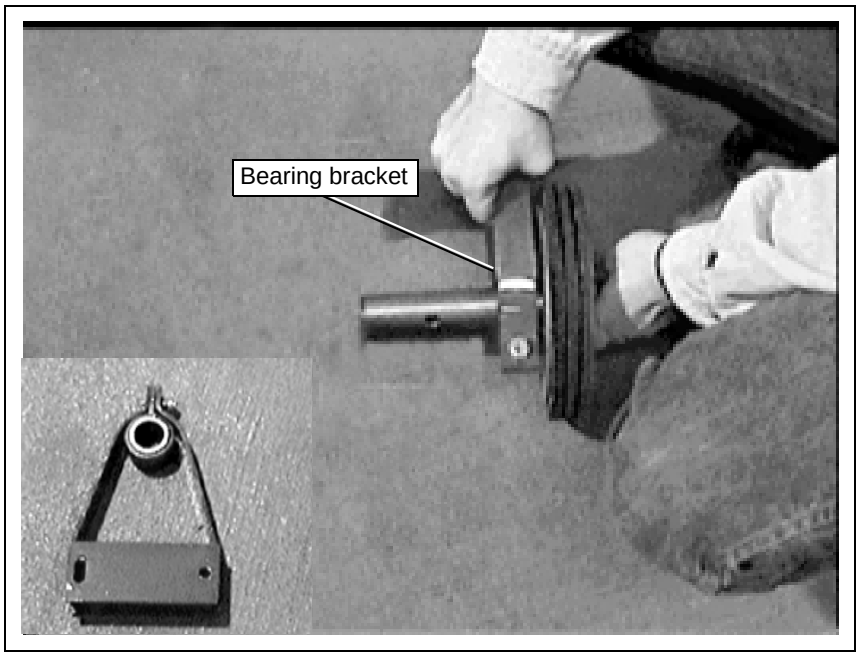


Figure 5R

Install the Wheel Shaft

1. Slide the wheel shaft into the flighting. Secure the wheel shaft to the flighting with one (1) 7/16" x 2-1/4" bolt and lock nut. Tighten with a wrench.
2. Attach the last shield section to the hanger bearing bracket and secure it using two (2) 3/8" x 3" bolts, flat washers and lock nuts.

Figure 5S

Figure 5T

Install the Motor Mount Rods

1. Place one (1) 3/4" nuts onto each of the motor mount rods.
2. Install both top motor mount clip and both bottom motor mount clip onto the motor mount rods with a two (2) 3/8" x 2-1/2" carriage bolt, lock washer and nut.

Figure 5U

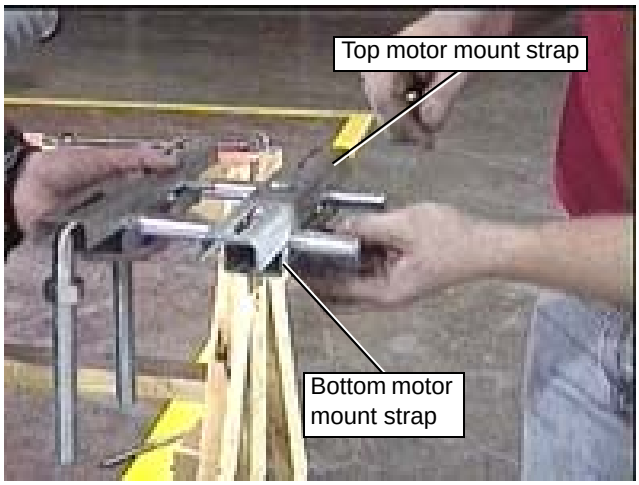


Figure 5V

Install the Motor Mount Rods (Continued)

3. Insert the threaded ends of the motor mount rods into the motor mount. The motor mount rods should be facing away from the pulley as shown in *Figure 5W*.

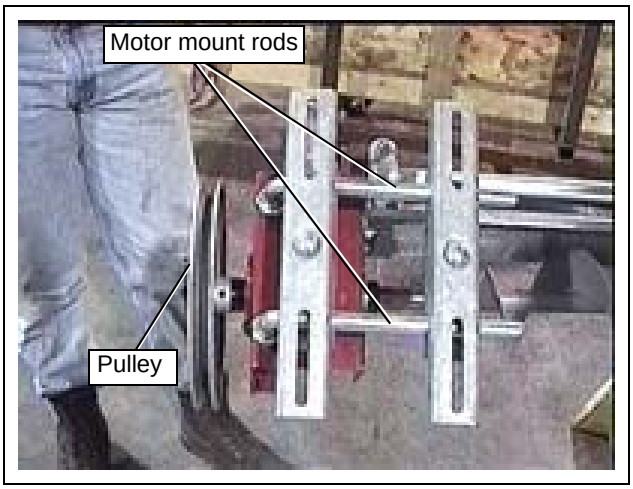


Figure 5W

Install the Pivot Pin Extension (If needed)

1. Slide the pivot pin extension over the pivot tube located on the motor mount assembly.

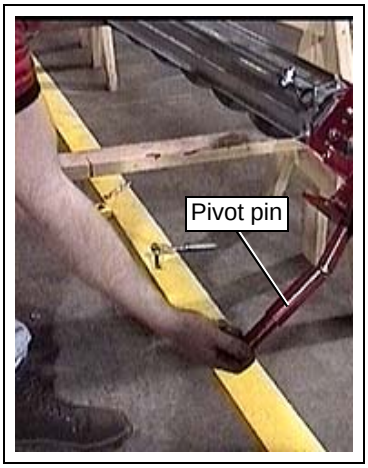


Figure 5X

Install the Bin Sweep into the Bin

1. Place the bin sweep auger in the bin after all the grain that can be removed through the center well and intermediate well have been removed.
2. Place the pin, located on the sweep motor mount, into the tube provided on top of the well.
3. Lay the sweep auger on the pile of sloping grain.
4. Use the extension tube between the motor mount and the bin well, if desired.
5. Attach the suitable electric wiring to the motor in a manner that will permit the sweep to rotate around the bin.

NOTE: *The motor starting controls must be located outside the bin. The must **NEVER** be installed on the sweep inside the bin.*

Perform Pre-Start Checks

DANGER

Failure to perform any or all of these pre-start checks may cause damage to the equipment and/or cause SERIOUS INJURY or DEATH to those in the work area.

Failure to perform any or all of these pre-start checks may also be a misuse of the equipment. Any misuse of the equipment may void the warranty.

1. Make sure ALL belts are tensioned properly.
2. Make sure ALL shields are in place and that the belt(s) and pulley(s) are able to move freely.

WARNING

ALWAYS keep ALL guards and shields in place, until all the power is disconnected and locked out.

3. Inspect the drive unit for any problems or potential problems.
4. Be aware of any emergency shut down procedures. Two (2) people must always be in a position where the operation of the equipment can be monitored.
5. Before starting the auger for the first time, make sure that all parts are assembled correctly according to the instructions in this manual.

WARNING

Make certain ONLY trained operators are in the work area before operating or moving the machine. Two (2) people must always be in a position where the operation of the equipment can be monitored.

Start the Auger

1. Start the auger.

CAUTION

DO NOT start or stop the auger while it is under load. Doing so may cause the auger to "jam".

2. Run the auger through a "break-in" period, if it is being used for the first time.
3. Polish the flighting by running the auger at partial capacity until it is smooth, before attempting full capacity.

CAUTION

Failures may occur if the auger is run full before it has been "polished" during the "break-in" period.

CAUTION

NEVER operate the auger empty. Operating augers empty for any length of time will cause excessive wear.

NEVER operate the auger at speeds higher than recommended. Auger flight speed in excess of recommended speed causes excessive wear.

CAUTION

Be aware of any unusual vibration or noises during the initial start-up and "break-in" period. If anything unusual is detected, immediately shut down the auger, and disconnect and lock out the power supply before servicing.

Operate the Bin Sweep Auger

DANGER

Keep out of the bin while the bin sweep auger is in operation. The rapidly moving sweep auger can cause SERIOUS INJURY or DEATH.

1. Start the bin unloading equipment before starting the bin sweep auger.

NOTE: *The bin sweep auger will work toward the floor. When it reaches the floor, it should empty the bin in one (1) revolution.*

2. Shut down the auger as soon as the bin is empty.

3. Remove the sweep auger from the bin before refilling the bin.

NOTE: *The shield must be adjusted to clear the floor at a minimum of 1/2" to allow the sweep wheel to move the sweep properly into the grain.*

DANGER

DO NOT leave the bin sweep inside the bin during filling.

NEVER enter the bin while the bin sweep is in operation.

DANGER

NEVER attempt to control the operation of the bin sweep by depressing the operating controls with shovels, brooms or any other objects other than the hands.

DO NOT attempt to restrain movement of the bin sweep with ropes, bars or other devices.

NEVER allow an operator to manually restrain the bin sweep.

Normal Shut Down

1. Before shutting down the unit, be sure the hoppers and augers are empty.
2. Disconnect and lock out the power source before leaving the work area.

Emergency Shut Down

1. Know how to shut down the auger in case of an emergency.
2. Do not restart the auger while it is under load.

NEVER start the equipment under load. Doing so may cause damage. This type of damage is considered a misuse of the equipment. Any misuse of the equipment may void the warranty.

3. Close the bin well control gates.
4. Reconnect and unlock the power source.
5. Clear the auger gradually, until there is no grain and there are no obstructions.

Storage Preparation

1. Close all wells to the discharge auger.
2. Be sure the unload tube is empty.
3. Shut down the auger.
4. Make sure all fasteners are tight.

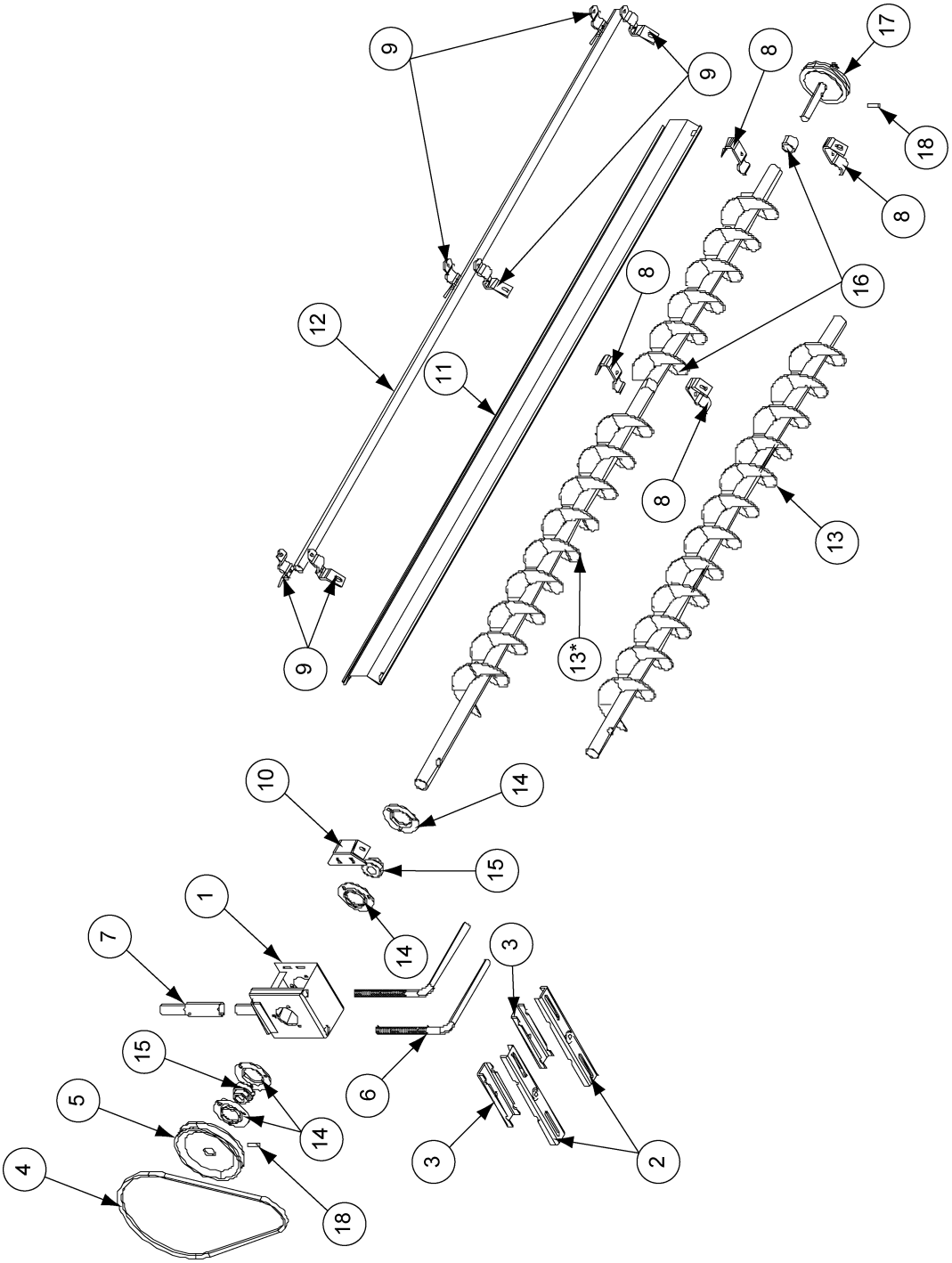
Maintain the Auger

ALWAYS shut down and disconnect the power supply before adjusting, servicing or cleaning the equipment.

1. Use caution when repairing or replacing equipment parts.
2. Make sure ALL decals are legible and tightly attached to the auger. If necessary, replace them **FREE OF CHARGE** by contacting your dealer or the manufacturer.
3. Ensure that ALL electric motors, etc., are operating at the proper speed.
4. Maintain proper adjustments on the belt(s).
5. Mount controls for any electric motors at a safe distance from the machine and in a location accessible in case of an emergency.
6. Make sure ALL electrical wiring is not damaged, and that it meets proper wiring codes.
7. Make sure ALL components are in good working condition before use.
8. Make sure all components are in good working condition before use.
9. Grease the bearing at least two (2) times each season.

NOTES

6" Bin Sweep Auger



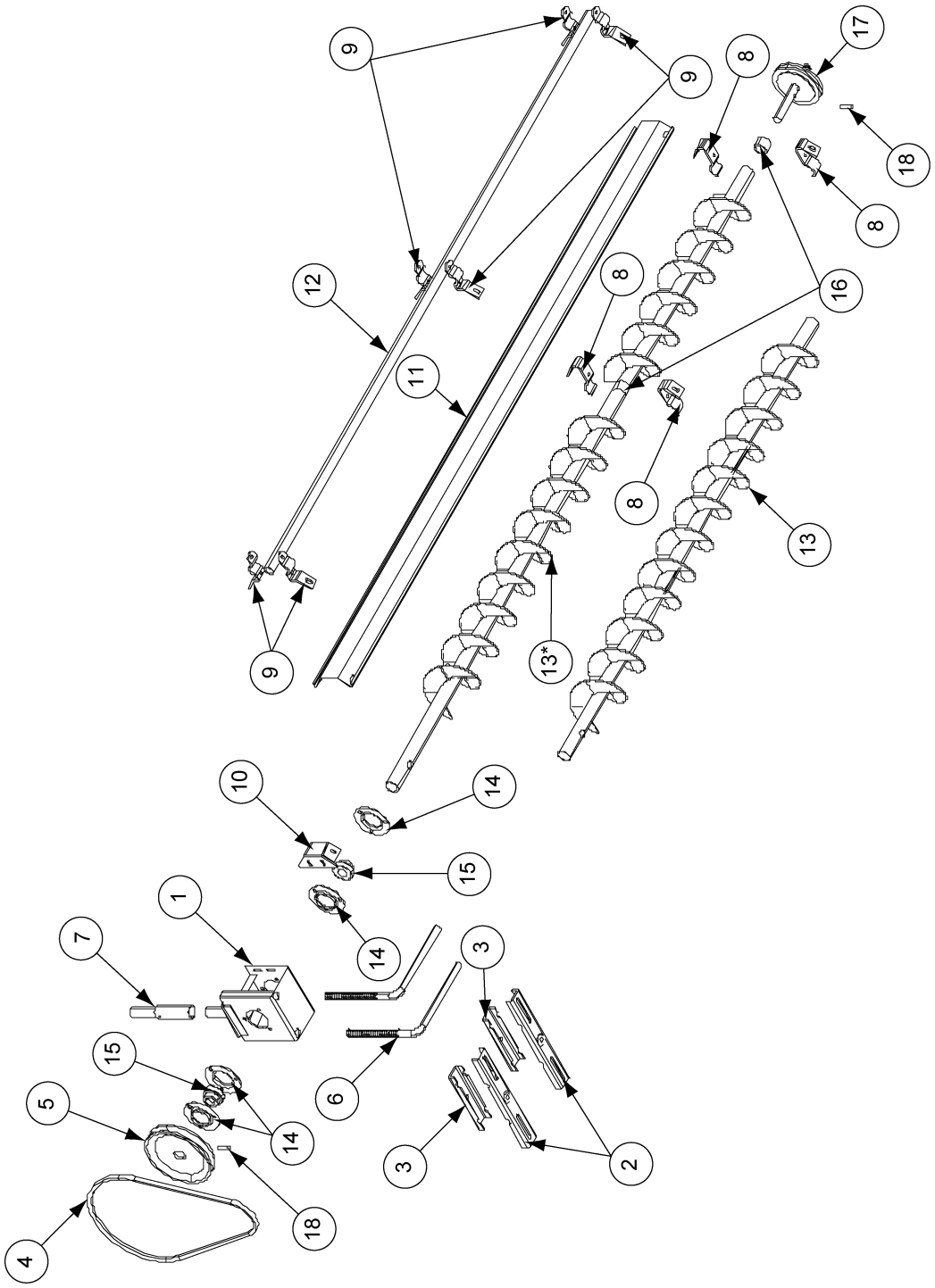
*A center bushing is welded in the center of two (2) lengths of flighting connecting them together on sweeps for bins larger than 29' in diameter.

6" Bin Sweep Auger

Ref #	Part #	Description	Bin Diameter (ft.)	Qty
1	GK1235	Motor Mount Assembly	15-36	1
2	GK1063	Top Motor Mount Clip	15-36	2
3	GK1064	Bottom Motor Mount Clip	15-36	2
4	GK1236	B38 Belt	15-36	1
5	GK1237	7" (17.78 cm) Sheave - 1" (2.54 cm) Bore	15-36	1
6	GK1239	Motor Mount Rods	15-36	2
7	GK1073	Extension for Pivot Pin Tube	15-36	1
8	GK1074	Bearing Clamp Bracket	15-36	1 Pair
9	GK1078	Torque Tube Clamp	15-36	2 Pair
10	GK1075	Shield Support Bracket	15-36	1
11	GK1079	Shield: 76" Long	15	1
11	GK1084	Shield: 94" Long	18	1
11	GK1071	Shield: 112" Long	21	1
11	GK1091	Shield: 130" Long	24	1
11	GK1095	Shield: 148" Long	27	1
11	GK1100	Shield: 166" Long	30	1
11	GK1262	Shield: 184" Long	33	1
11	GK1273	Shield: 202" Long	36	1
12	GK1080	Torque Tube: 76" Long	15	1
12	GK1817	Torque Tube: 94" Long	18	1
12	GK1088	Torque Tube: 112" Long	21	1
12	GK1092	Torque Tube: 130" Long	24	1
12	GK1096	Torque Tube: 148" Long	27	1
12	GK1101	Torque Tube: 166" Long	30	1
12	GK1270	Torque Tube: 184" Long	33	1
12	GK1274	Torque Tube: 202" Long	36	1
13	GK1234	Flighting: 84" Long	15	1
13	GK1242	Flighting: 102" Long	18	1
13	GK1244	Flighting: 120" Long	21	1
13	GK1246	Flighting: 138" Long	24	1
13	GK1248	Flighting: 156" Long	27	1
13	GK1251	Flighting: 174" Long	30	1
13	GK1252	Flighting: 192" Long	33	1
13	GK1254	Flighting: 210" Long	36	1
14	GK1319	1" (2.54 cm) Bearing Flangette	15-36	2
15	GK1318	1" (2.54 cm) Bearing w/ Lock Collar	15-36	2
16	GK1070	1.03" (2.62 cm) I.D. 1" (2.54 cm) Bronze Bushing	15-36	1
17**	N/A	Wheel Assembly	15-36	1
18	S-4377	5/16" Roll Pin: 2" Long	15-36	2

***See Page 44* for a component breakdown of the wheel assembly.

8" Bin Sweep Auger



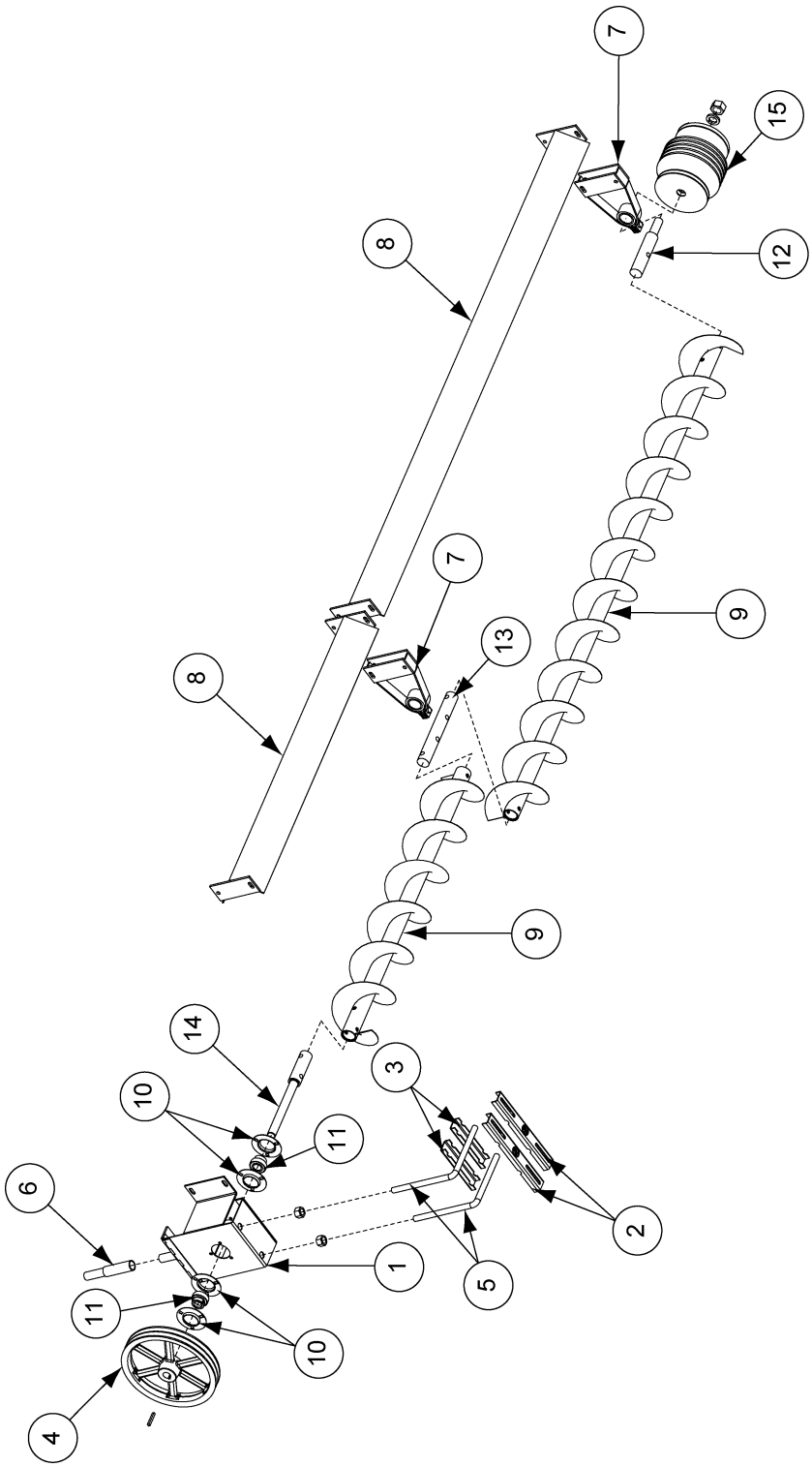
*A center bushing is welded in the center of two (2) lengths of flighting connecting them together on sweeps for bins larger than 29' in diameter.

8" Bin Sweep Auger

Ref #	Part #	Description	Bin Diameter (ft.)	Qty
1	GK1062	Motor Mount Assembly	15-36	1
2	GK1063	Top Motor Mount Clip	15-36	2
3	GK1064	Bottom Motor Mount Clip	15-36	2
4	GK1065	B42 Belt - For 15'-27' Bins	15-36	1
4	GK1099	B44 Belt - For 30'-36' Bins	15-36	1
5	GK1066	10" (25.40 cm) Sheave - 1" (2.54 cm) Bore	15-36	1
6	GK1239	Motor Mount Rods	15-36	2
7	GK1073	Extension for Pivot Pin Tube	15-36	1
8	GK1074	Bearing Clamp Bracket	15-36	1 Pair
9	GK1078	Torque Tube Clamp	15-36	2 Pair
10	GK1075	Shield Support Bracket	15-36	1
11	GK1079	Shield: 76" Long	15	1
11	GK1084	Shield: 94" Long	18	1
11	GK1071	Shield: 112" Long	21	1
11	GK1091	Shield: 130" Long	24	1
11	GK1095	Shield: 148" Long	27	1
11	GK1100	Shield: 166" Long	30	1
11	GK1262	Shield: 184" Long	33	1
11	GK1273	Shield: 202" Long	36	1
12	GK1080	Torque Tube: 76" Long	15	1
12	GK1817	Torque Tube: 94" Long	18	1
12	GK1088	Torque Tube: 112" Long	21	1
12	GK1092	Torque Tube: 130" Long	24	1
12	GK1096	Torque Tube: 148" Long	27	1
12	GK1101	Torque Tube: 166" Long	30	1
12	GK1270	Torque Tube: 184" Long	33	1
12	GK1274	Torque Tube: 202" Long	36	1
13	GK1081	Flighting: 84" Long	15	1
13	GK1086	Flighting: 102" Long	18	1
13	GK1089	Flighting: 120" Long	21	1
13	GK1093	Flighting: 138" Long	24	1
13	GK1097	Flighting: 156" Long	27	1
13	GK1258	Flighting: 174" Long	30	1
13	GK1271	Flighting: 210" Long	33	1
13	GK1275	Flighting: 210" Long	36	1
14	GK1319	1" (2.54 cm) Bearing Flangette	15-36	2
15	GK1318	1" (2.54 cm) Bearing w/ Lock Collar	15-36	2
16	GK1070	1.03" (2.62 cm) I.D. 1" (2.54 cm) Bronze Bushing	15-36	1
17**	N/A	Sweep Wheel Shaft	15-36	1
18	S-4377	5/16" Roll Pin: 2" Long	15-36	2

***See Page 44* for a component breakdown of the wheel assembly.

10" Bin Sweep Auger



*A center bushing is welded in the center of two (2) lengths of flighting connecting them together on sweeps for bins larger than 29' in diameter.

10" Bin Sweep Auger

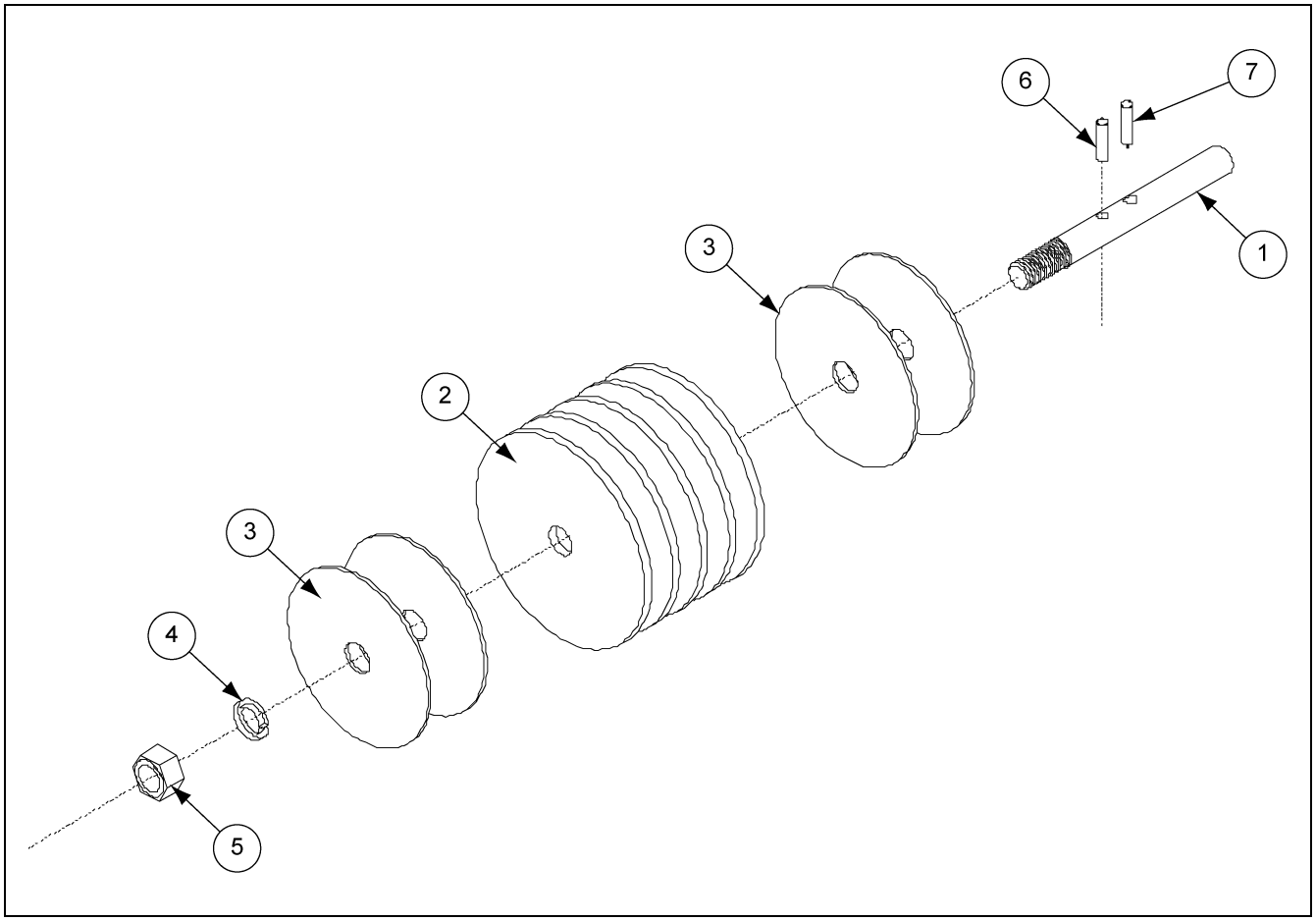
Ref #	Part #	Description	Bin Diameter (ft.)	Qty
1	GK1948	Motor Mount Assembly	24-42	1
2	GK1063	Top Motor Mount Clip	24-42	2
3	GK1064	Bottom Motor Mount Clip	24-42	2
4	GK1321	12" Sheave 2B Groove w/ 1" Bore	24-42	1
5	GK1239	Motor Mount Rods	24-42	2
6	GK1073	Extension for Pivot Pin Tube	24-42	1
7	GK1954	Bearing Clamp Bracket	24-42	1 Pair
8	GK1957	Shield: 3' 9" Long	*See Table Below*	*See Table Below*
8	GK1962	Shield: 5' 3" Long	*See Table Below*	*See Table Below*
8	GK1959	Shield: 6' 9" Long	*See Table Below*	*See Table Below*
8	GK1968	Shield: 8' 3" Long	*See Table Below*	*See Table Below*
8	GK1965	Shield: 9' 9" Long	*See Table Below*	*See Table Below*
9	GK1956	Flighting: 3' 9" Long	*See Table Below*	*See Table Below*
9	GK1961	Flighting: 5' 3" Long	*See Table Below*	*See Table Below*
9	GK1958	Flighting: 6' 9" Long	*See Table Below*	*See Table Below*
9	GK1967	Flighting: 8' 3" Long	*See Table Below*	*See Table Below*
9	GK1964	Flighting: 9' 9" Long	*See Table Below*	*See Table Below*
10	GK1319	1" (2.54 cm) Three Hole Bearing Flangette	24-42	4
11	GK1318	1" (2.54 cm) Bearing w/ Lock Collar	24-42	2
12**	GK1953	Sweep Wheel Shaft	24-42	1
13	GK1951	Connecting Stub	24-42	1
14	GK1949	Head Shaft	24-42	1
15	N/A	Wheel Assembly	24-42	1

***See Page 44* for a component breakdown of the wheel assembly.

10" Bin Sweep Auger Flight/Shield Combinations

Bin	3' 9"	5' 3"	6' 9"	8' 3"	9' 9"
24'		2			
27'		1	1		
30'			2		
33'			1	1	
36'				2	
39'				1	1
42'					2

6", 8" and 10" Bin Sweep Auger Wheel Assembly



6", 8" and 10" Bin Sweep Auger Wheel Assembly

Ref #	Part #	Description	Qty
1	GK1077	Sweep Wheel Stub for 6" and 8" BSA	1
1	GK1953	Sweep Wheel Stub for 10" BSA	1
2	GK1238	5" (12.70 cm) O.D. Rubber Disc Wheel for use with 4-1/4" O.D. Flighting (some 6" BSA)	5
2	GK1067	6" (15.24 cm) O.D. Rubber Disc Wheel for use with 5" O.D. Flighting (some 6" and all 8" BSA)	5
2	GK1671	8" (20.32 cm) O.D. Rubber Disc Wheel for use with 7" O.D. Flighting (all 10" BSA)	5
3	GK1232	4" (10.16 cm) O.D. Steel Wheel Disc for use with 4-1/4" O.D. Flighting (some 6" BSA)	4
3	GK1076	5" (12.70 cm) O.D. Steel Wheel Disc for use with 5" O.D. Flighting (some 6" and all 8" BSA)	4
3	GK1670	7" (17.78 cm) O.D. Rubber Disc Wheel for use with 7" O.D. Flighting (all 10" BSA)	4
4	S-233	3/4" Split Lock Washer Zinc Grade 2	1
5	S-234	3/4"-10 Hex Nut Zinc Grade 5	1
6	S-4377	5/16" x 2" (5.08 cm) Long Roll Pin	1
7	S-7058	5/16" x 1-1/8" (2.8575 cm) Long Roll Pin	1

Problem	Possible Cause	Solution
Low Capacity	1. Sweep capacity is too small for unload capacity.	1. Sweep with larger capacity.
	2. Horsepower is too low or the motor pulley size is incorrect.	1. Make sure the correct horsepower is being used. 2. Make sure the correct motor pulley size is being used. If a greater or lower capacity is desired, it may be possible to change the motor pulley which will change the sweep flight speed. DO NOT operate a sweep that is overfeeding the unloading auger unit. The slide gate in the center well should be left full open during sweep operation.
Auger plugs	1. Excessive drag.	1. Check the clearance between the shield and the bin floor for excessive drag. Adjust the shield and carriers to clear metal floor splices or cracks in concrete floors.
	2. Worn wheel.	2. Check the sweep wheel. Extensive use may have worn down the wheel so that the diameter is no longer large enough to move the sweep properly. Order a replacement wheel or wheel parts from the dealer.
	3. Unconditioned grain.	3. The grain may have become unconditioned due to moisture or insect activity, making it hard or caked. Stop the sweep auger before entering the bin to correct this or any other difficulty. NEVER enter a bin while the auger is in operation. Disconnect and lock out the power before entering a bin or when servicing the equipment.
	4. Sweep capacity too large for unload capacity.	4. Sweep with less capacity.

NOTES

GSI GROUP

Limited Warranty

The GSI Group, LLC. ("GSI") warrants products which it manufactures to be free of defects in materials and workmanship under normal usage and conditions for a period of 12 months after sale to the original end-user or if a foreign sale, 14 months from arrival at port of discharge, whichever is earlier. The end-user's sole remedy (and GSI's only obligation) is to repair or replace, at GSI's option and expense, products that in GSI's judgment, contain a material defect in materials or workmanship. Expenses incurred by or on behalf of the end-user without prior written authorization from the GSI Warranty Group shall be the sole responsibility of the end-user.

Warranty Extensions: The Limited Warranty period is extended for the following products:

	Product	Warranty Period
AP Fans and Flooring	Performer Series Direct Drive Fan Motor	3 Years
	All Fiberglass Housings	Lifetime
	All Fiberglass Propellers	Lifetime
Cumberland Feeding/Watering Systems	Feeder System Pan Assemblies	5 Years **
	Feed Tubes (1.75" & 2.00")	10 Years *
	Centerless Augers	10 Years *
	Watering Nipples	10 Years *
Grain Systems	Grain Bin Structural Design	5 Years
Grain Systems Farm Fans Zimmerman	Portable & Tower Dryers	2 Years
	Portable & Tower Dryer Frames and Internal Infrastructure †	5 Years

* Warranty prorated from list price:
0 to 3 years – no cost to end-user
3 to 5 years – end-user pays 25%
5 to 7 years – end-user pays 50%
7 to 10 years – end user pays 75%

** Warranty prorated from list price:
0 to 3 years – no cost to end-user
3 to 5 years – end-user pays 50%

† Motors, burner components and moving parts not included. Portable Dryer screens included. Tower Dryer screens not included.

GSI further warrants that the portable and tower dryer frame and basket, excluding all auger and auger drive components, shall be free from defects in materials for a period of time beginning on the twelfth (12^{th}) month from the date of purchase and continuing until the sixtieth (60^{th}) month from the date of purchase (extended warranty period). During the extended warranty period, GSI will replace the frame or basket components that prove to be defective under normal conditions of use without charge, excluding the labor, transportation, and/or shipping costs incurred in the performance of this extended warranty.

Conditions and Limitations:

THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE LIMITED WARRANTY DESCRIPTION SET FORTH ABOVE. SPECIFICALLY, GSI MAKES NO FURTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE IN CONNECTION WITH: (i) PRODUCT MANUFACTURED OR SOLD BY GSI OR (ii) ANY ADVICE, INSTRUCTION, RECOMMENDATION OR SUGGESTION PROVIDED BY AN AGENT, REPRESENTATIVE OR EMPLOYEE OF GSI REGARDING OR RELATED TO THE CONFIGURATION, INSTALLATION, LAYOUT, SUITABILITY FOR A PARTICULAR PURPOSE, OR DESIGN OF SUCH PRODUCTS.

GSI shall not be liable for any direct, indirect, incidental or consequential damages, including, without limitation, loss of anticipated profits or benefits. The sole and exclusive remedy is set forth in the Limited Warranty, which shall not exceed the amount paid for the product purchased. This warranty is not transferable and applies only to the original end-user. GSI shall have no obligation or responsibility for any representations or warranties made by or on behalf of any dealer, agent or distributor.

GSI assumes no responsibility for claims resulting from construction defects or unauthorized modifications to products which it manufactured. Modifications to products not specifically delineated in the manual accompanying the equipment at initial sale will void the Limited Warranty.

This Limited Warranty shall not extend to products or parts which have been damaged by negligent use, misuse, alteration, accident or which have been improperly/inadequately maintained. This Limited Warranty extends solely to products manufactured by GSI.

Prior to installation, the end-user has the responsibility to comply with federal, state and local codes which apply to the location and installation of products manufactured or sold by GSI.

This equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installations are made.

GSI GROUP

GSI Group
1004 E. Illinois St.
Assumption, IL 62510-0020
Phone: 1-217-226-4421
Fax: 1-217-226-4420
www.gsiag.com