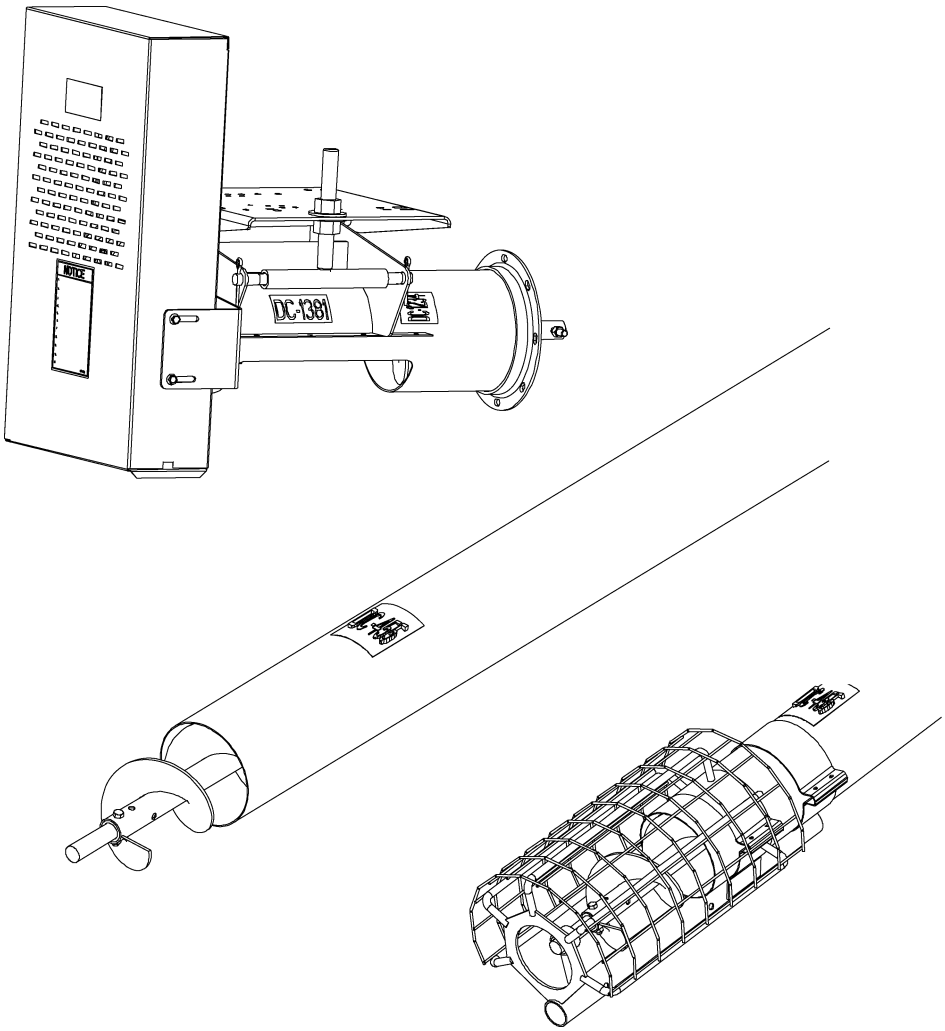


6", 8", 10" and 12" Custom Augers

Assembly and Operation Manual

PNEG-1445

Date: 10-08-10

GSI GROUP

GSI

PNEG-1445

Contents

General Information

READ THIS MANUAL carefully to learn how to properly use and install equipment. Failure to do so could result in personal injury or equipment damage.

INSPECT the shipment immediately upon arrival. The customer is responsible for ensuring that all quantities are correct. The customer should report and note any damage or shortage on the bill of lading to justify their claim to the transport company.

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your equipment and should be easily accessible when needed.

This warranty provides you the assurance that the company will back its products when defects appear within the warranty period. In some circumstances, the company also provides field improvements, often without charge to the customer, even if the product is out of warranty. Should the equipment be abused, or modified to change its performance beyond the factory specifications, the warranty will become void and field improvements may be denied.

Receiving Merchandise and Filing Claims

INSPECT the shipment immediately upon arrival. The customer is responsible for ensuring that all quantities are correct. Report any damage or shortages by recording a detailed description on the bill of lading to justify the customer's claim from the transport firm. When receiving merchandise, 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.

Capacity

A. The capacities may vary greatly under varying conditions. The following factors play a role in the performance of the auger:

- Speed
- Angle of operation
- Moisture content
- Amounts of foreign matter
- Different materials
- Methods of feeding

B. For example, a twenty-five percent (25%) moisture could cut capacity by as much as 40% under some conditions.

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.

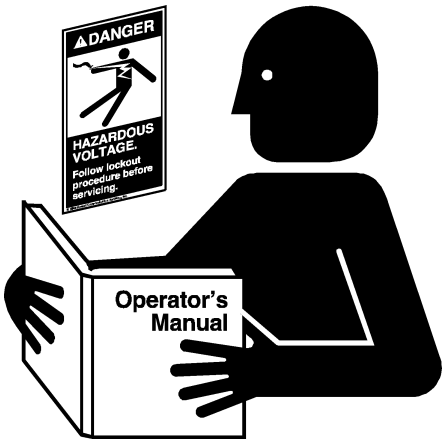
Follow Safety Instructions

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 Motor Properly

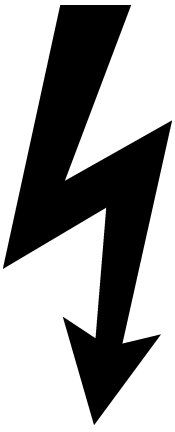
To avoid serious injury or death, stay away from unit and make sure everyone is clear of the equipment before starting or operating the unit.

All electrical connections should be made in accordance with the National Electric Code. Be sure equipment and bins are properly grounded.

Do not operate electric motor equipped units until motors are properly grounded.

Disconnect power on electrical driven units before resetting motor overloads.

Do not repetitively stop and start the drive in order to free a plugged condition. Jogging the drive in this manner can damage the equipment and/or drive components.



Electric Shock Hazard

Operate Unload Equipment Properly

Operate Unload Equipment Safely

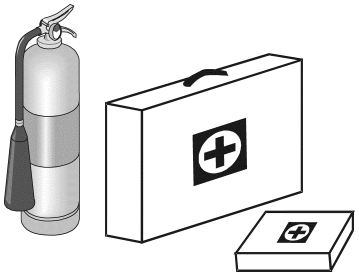
- Untrained operators subject themselves and others to **SERIOUS INJURY** or **DEATH**. **NEVER** allow untrained personnel to operate this equipment.
- **NEVER** work alone.
- Keep children and other unqualified personnel out of the working area at **ALL** times. Refer to the **Start-Up** section of 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.

Prepare for Emergencies

Be prepared if fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital and fire department near your telephone.



Keep Emergency Equipment Quickly Accessible

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.

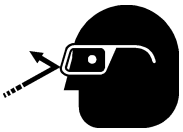
Wear steel toe boots to help protect your feet from falling debris. Tuck in any loose or dangling shoe strings.

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

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 1928.57 (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.

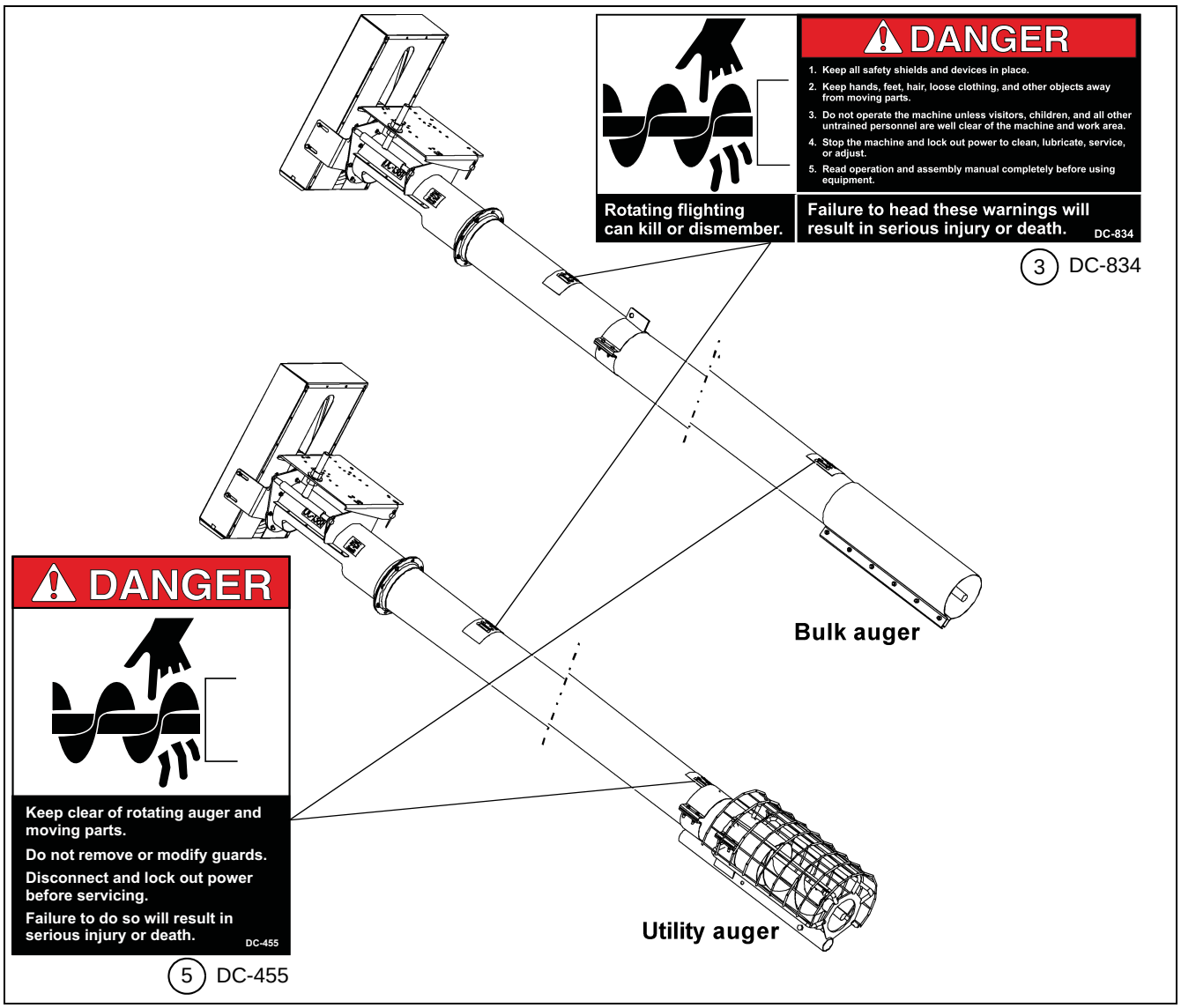
Date	***Employee Name***	***Supervisor Name***

3. Safety Decals

The decal list below has all the safety decals that should be included with the equipment. The following *Pages 11-12* show what the decals look like and where they should be located on the equipment. Inspect all decals and replace any that are illegible, worn, or missing. Contact your local dealer or the manufacturer to order replacement decals free of charge.

Contact:
The GSI Group
1004 E. Illinois Street
Assumption, IL. 62510
Phone: 1-217-226-4421

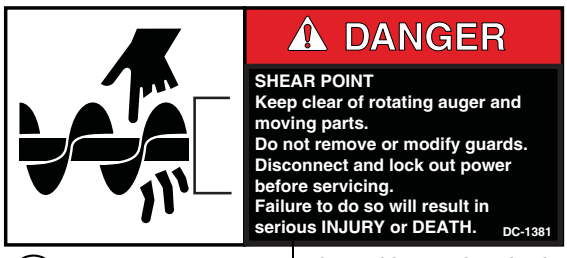
6", 8" and 10" Roof Auger Decal List			
Ref #	**Part #**	**Description**	**Size**
1	DC-1381	Danger - Shear Point	4-1/2" x 2"
2	DC-994	Danger - Shear Point	4-1/2" x 2"
3	DC-834	Danger - Unloading	9" x 3-3/4"
4	DC-1379	Notice - 1-11	5-1/8" x 7-3/8"
5	DC-455	Danger - Rotating Flight	4" x 5-3/4"
6	DC-1234	Caution	2-1/4" x 2-3/4"
7	DC-1395	Danger - Rotating Flight	4-1/4" x 6-1/4"



Check components shown below to ensure that the safety decals are in place and in good condition. If a decal cannot be easily read for any reason or has been painted over, replace it immediately. Contact your dealer or the manufacturer to order a replacement decal free of charge.

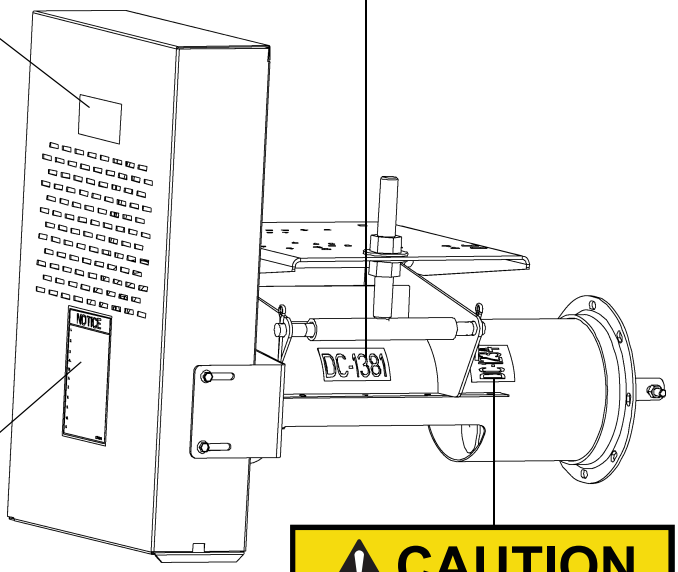
Contact:
The GSI Group
1004 E. Illinois Street
Assumption, IL. 62510
Phone: 1-217-226-4421

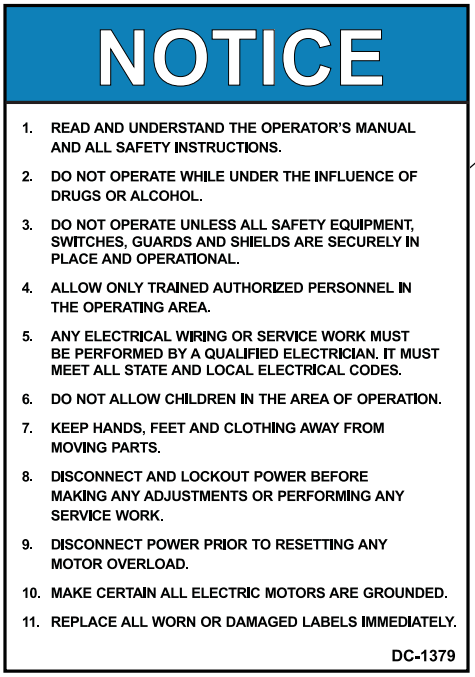
1 DC-994



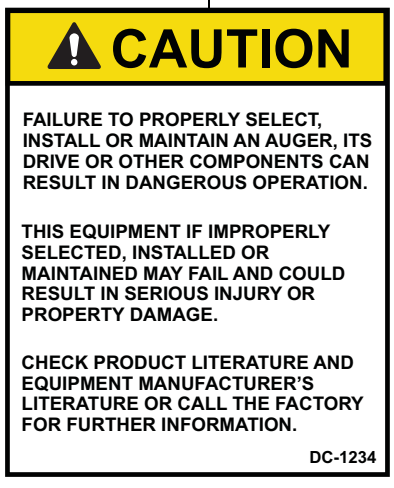
5 DC-1381

(Decal located on both sides of tube.)





4 DC-1379



6 DC-1234

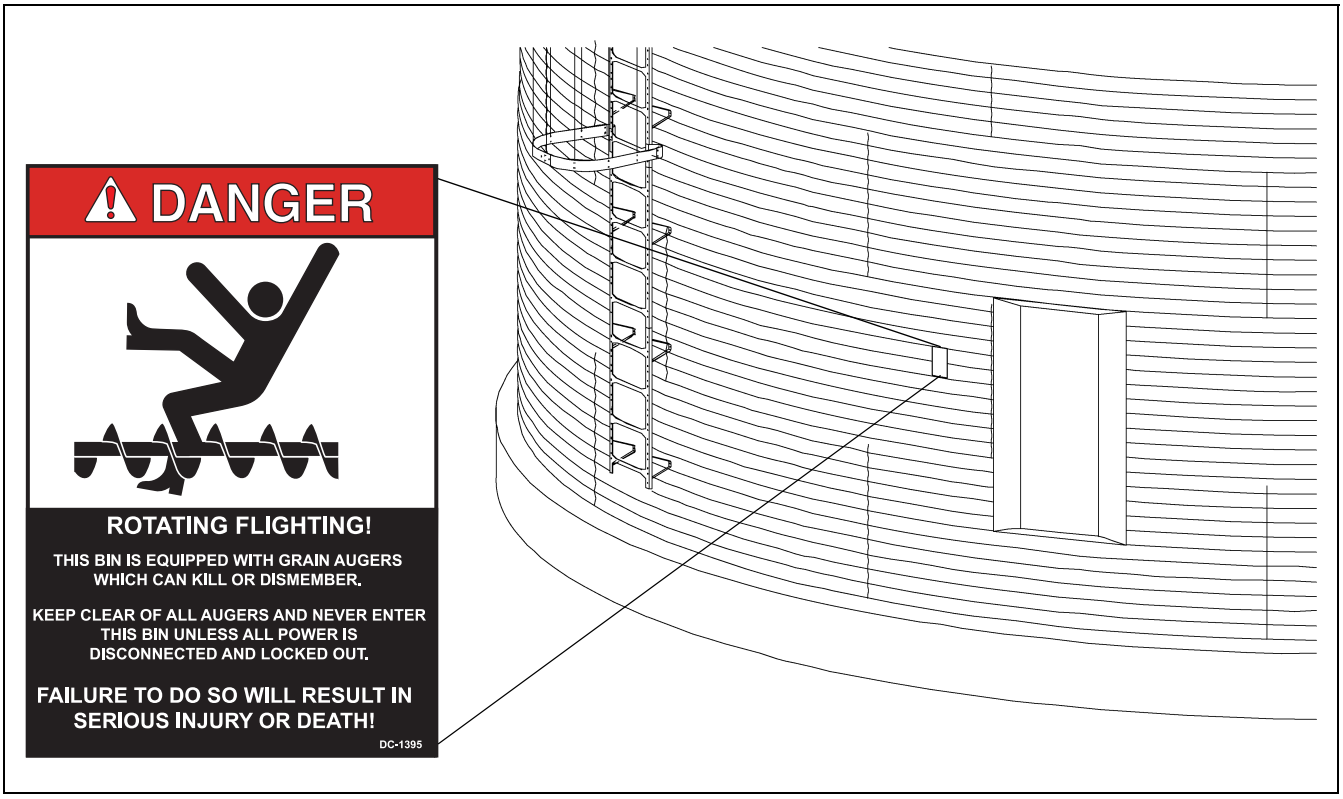
3. Safety Decals

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 your dealer, distributor or ordered from the factory.*

Order SAFETY SIGN NO. DC-1395

Motor Mount Installation Instructions for all 6", 8", 10" and 12" Custom Augers

Installing Drive Shaft

1. Insert the drive shaft into the opposite end of flight with keyway facing outward. Align the holes in the shaft and secure with grade 8 bolts and stover nuts. *(See Chart below* and *Figure 4A.)*

Flight Hardware	
6"	3/8"-16 x 2" Grade 8 Hex Bolts
8"	7/16"-14 x 3" Grade 8 Hex Bolts
10"	1/2"-13 x 3-1/2" Grade 8 Hex Bolts
12"	5/8"-11 x 4" Grade 8 Hex Bolts

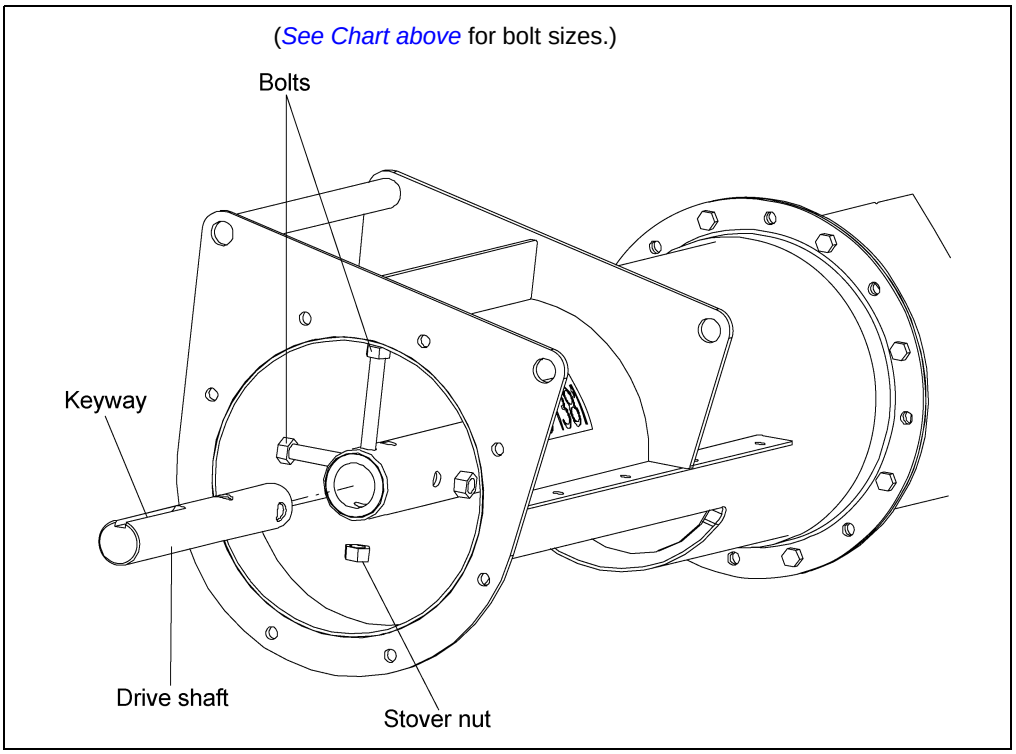


Figure 4A

Mounting Bearing to Bearing Plate

1. Align bolt holes on bearing flange with bolt holes on bearing plate.
2. Secure bearing to bearing plate using appropriate bolts, lock washers, and nuts. *(See Chart below* and *Figure 4B on Page 14.)*

Bearing Bolts	
6"	7/16"-14 x 1-1/2" Bolt
8" and 10"	1/2"-13 x 1-1/2" Bolt
12"	5/8"-11 x 2" Bolt

Mounting Bearing to Bearing Plate (Continued)

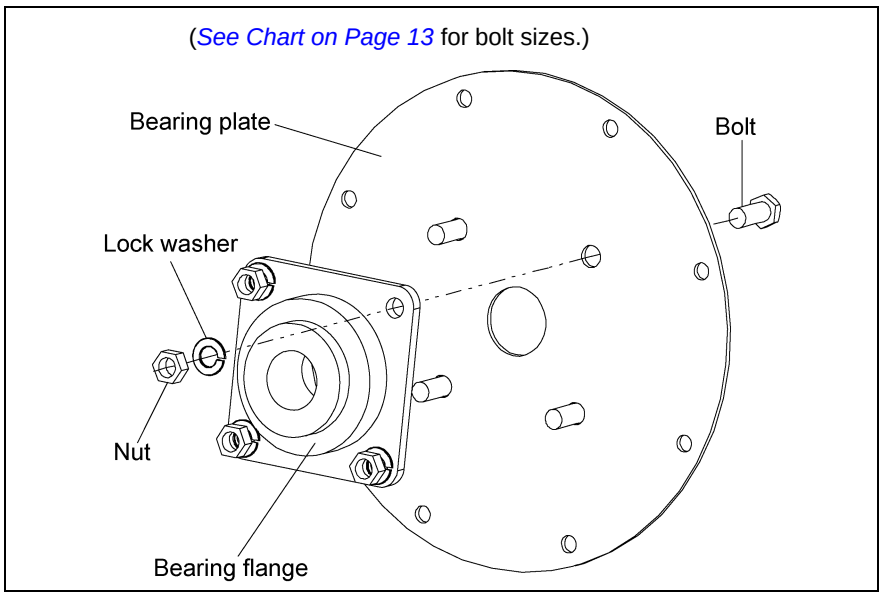


Figure 4B

Installing Bearing Plate onto Tube

1. Align bearing with drive shaft and slip shaft through bearing.
2. Rotate plate until bolt holes in tube flange and plate align. Secure with appropriate bolts and serrated flange nuts. *(See Chart below.)*
3. Only secure with UPPER and LOWER four (4) bolts. *(See Figure 4C.)* The other four (4) bolts will be installed later with the belt guard mounting brackets. *(See Chart below.)*

   NOTE: *On the 10" and 12" systems use the four (4) 3/8"-16 x 1" bolts in this step, the longer bolts will be used to attach the belt guard mounting brackets in a future step.*

Bearing Plate Bolts	
6" and 8"	5/16"-18 x 1" Bolt
10" and 12"	3/8"-16 x 1" Bolt

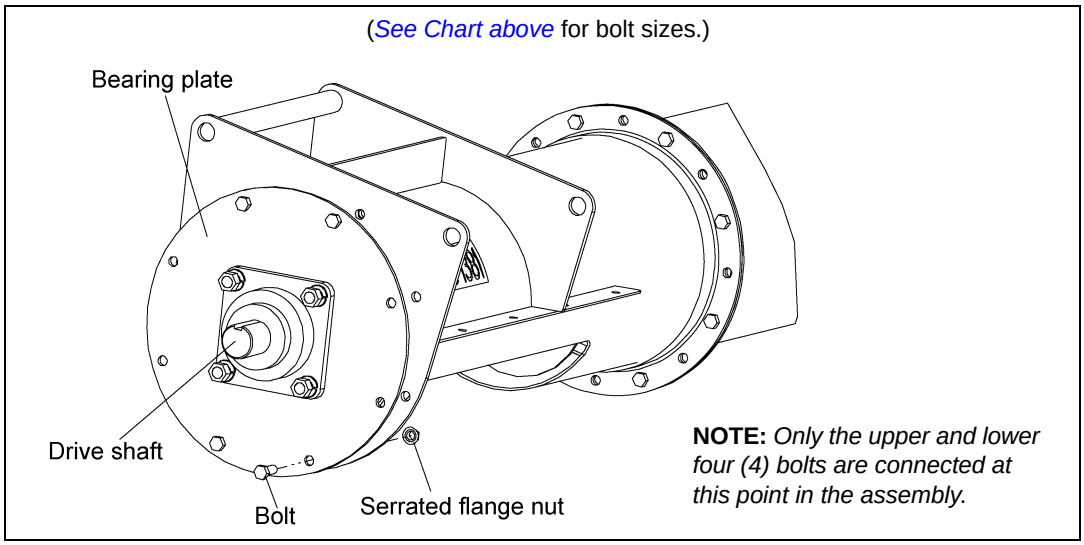


Figure 4C

Installing the Motor Mount Adjuster

1. Place motor mount adjuster between the back plate and head plate on the discharge tube.
2. Insert pivot rod through the tube plates and motor mount adjuster. Secure in place with two (2) 3/16" x 2" cotter pins. *(See Figure 4D.)*

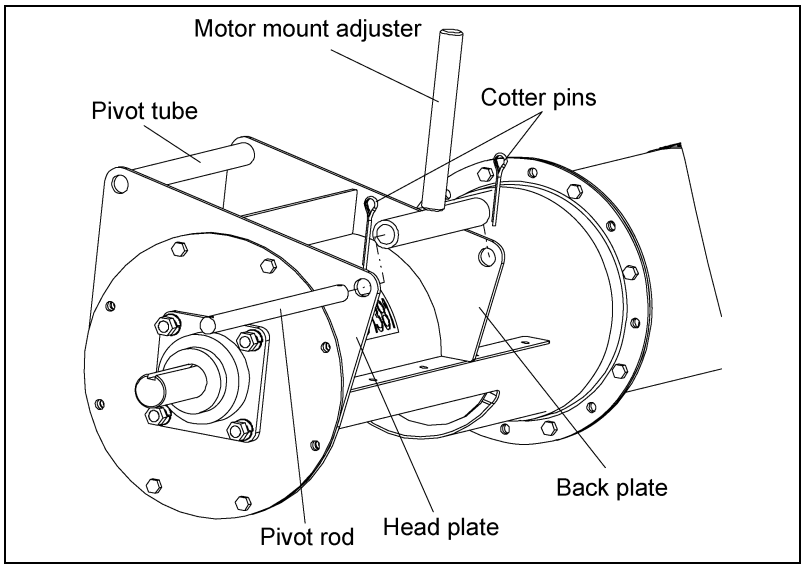


Figure 4D

Installing the Motor Mount Plate

1. Secure one (1) of the motor mount adjustment nuts and one (1) the motor mount adjustment washers approximately 3/4 of the way down the motor mount adjuster's threaded shaft.
2. Once the nut and washer is secure, slip the motor mount plate over the adjuster and align the pivot holes with the pivot tube. *(See Figure 4E.)*
3. Slide the motor mount pivot rod through the pivot tube on the discharge tube.

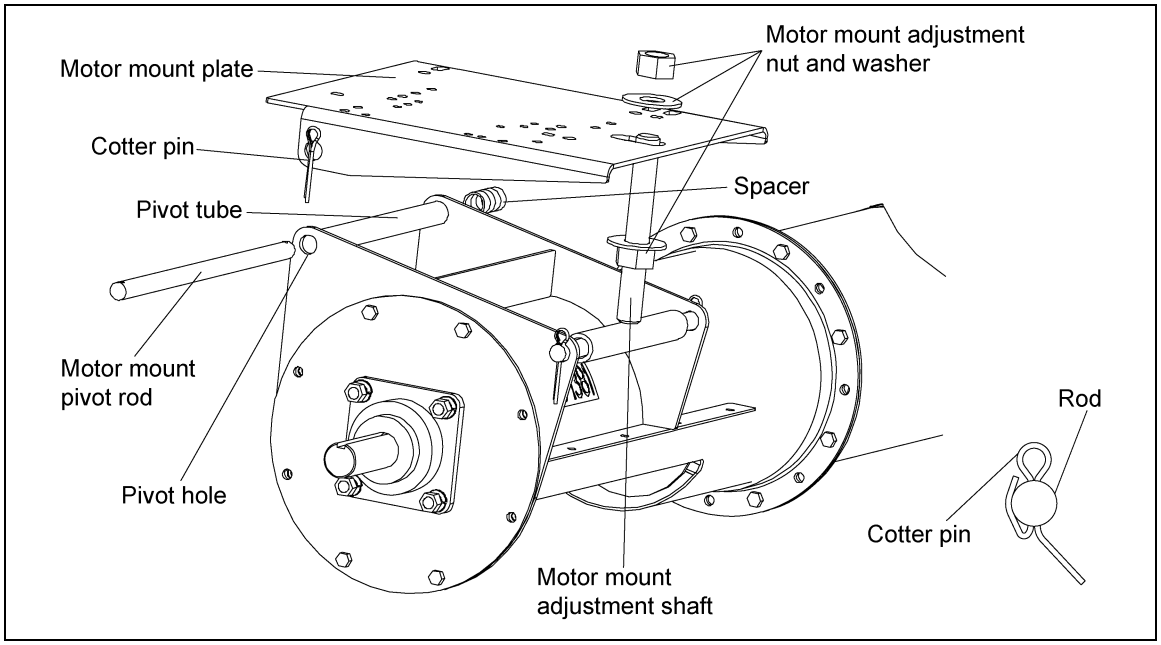


Figure 4E

Installing the Motor Mount Plate (Continued)

4. When the pivot rod begins to extend through the pivot tube install the spacers, BETWEEN the back plate and the inner face of the motor mount plate. *(See Figure 4F.)*

   NOTE: *The number of spacers will vary between each size of unloader.*

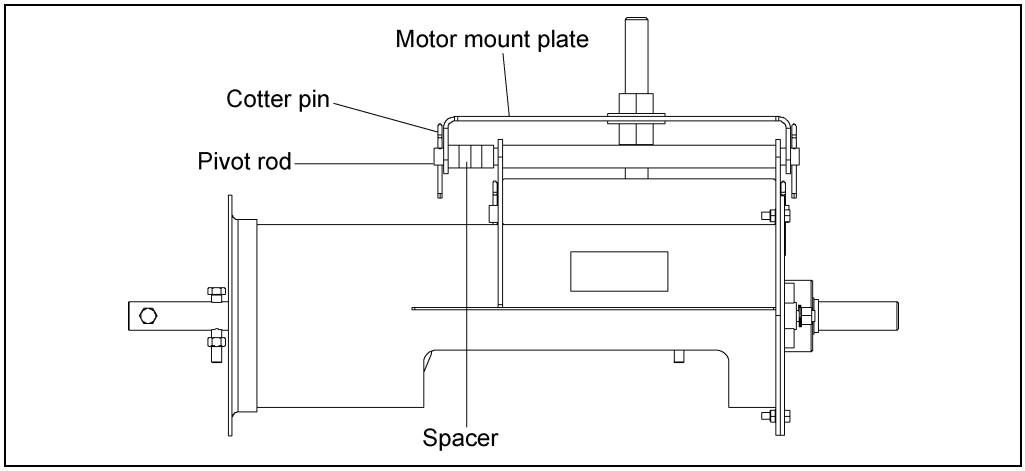


Figure 4F

Installing the Belt Guard Brackets

1. Align the holes on the bearing plate with the slots on the belt guard mounting brackets.
2. Secure the brackets with proper bolts, flat washers, and serrated flange nuts. *(See Chart below* and *Figure 4G.)*

   NOTE: *DO NOT tighten the bolts completely. The brackets will need to be rotated to align the slot in the belt guard with the shafts on the motor and flight.*

Belt Guard Bracket Bolts	
6" and 8"	5/16"-18 x 1" Bolt
10" and 12"	3/8"-16 x 1-1/4" Bolt

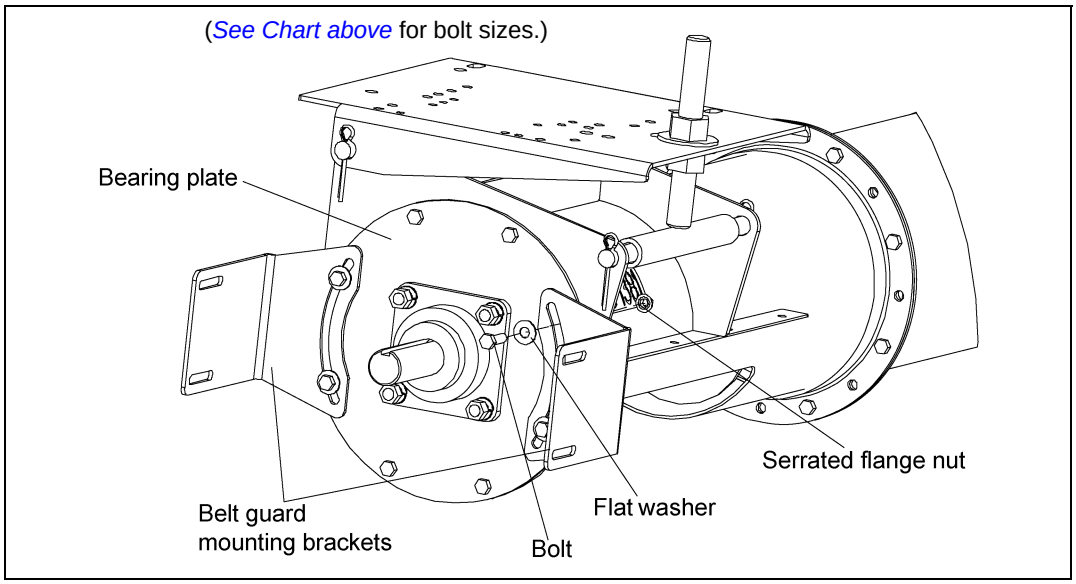


Figure 4G

Installing the Lock Collar

1. Slide the lock collar over the drive shaft, positioning it against the bearing. Do not tighten the lock collar at this time as it will be tightened later in the assembly. *(See Figure 4H.)*

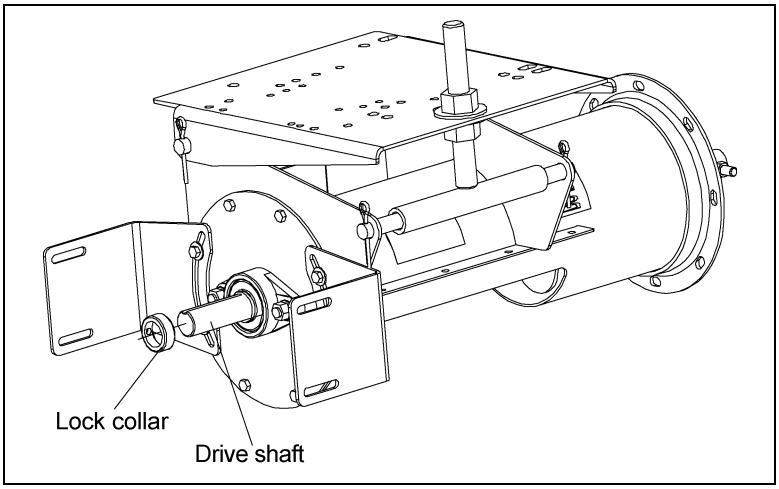


Figure 4H

Installing the Pulley

1. Place and position the key into the keyway located on the drive shaft.
2. Place the pulley onto the drive shaft with the set screw side of the pulley facing away from the bearing plate. Position the pulley so that it is as close to the lock collar as possible, but not touching it.
3. Once the pulley is appropriately positioned, tighten the set screw with a hex head wrench to secure it to the drive shaft. *(See Figure 4I.)*

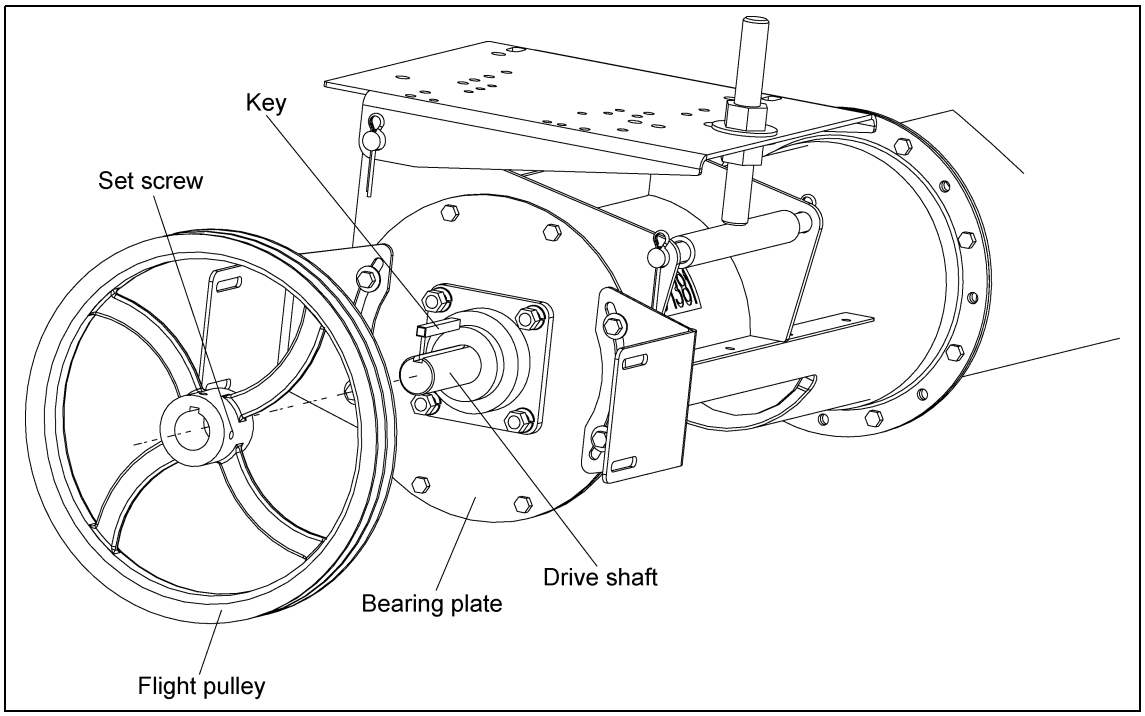


Figure 4I

Tightening the Lock Collar

1. Using a punch and hammer, drive the lock collar clockwise (the same direction as the shaft rotation). Once the lock collar is set in place, use a hex head wrench to tighten the lock collar by tightening the set screw.

   NOTE: *If the lock collar is not turned far enough, the set screw will not lock it into place.*

Installing the Motor (Not Provided)

1. Attach the motor to the motor mount plate using appropriate bolts, lock washers, and hex nuts. *(See Chart below.)*
2. Install pulley onto motor shaft making sure that it is aligned with the flight pulley. It may be necessary to move spacers to gain shaft alignment. *(See Figure 4J.)*

Motor Bolt Chart		
Motor Size	**Hex Bolt Size**	**Qty**
56 143T 145T	5/16"-18 x 1-1/4"	4
182T 184T 213T 215T	3/8"-16 x 1-1/4"	4
254T 256T	1/2"-13 x 1-3/4"	4

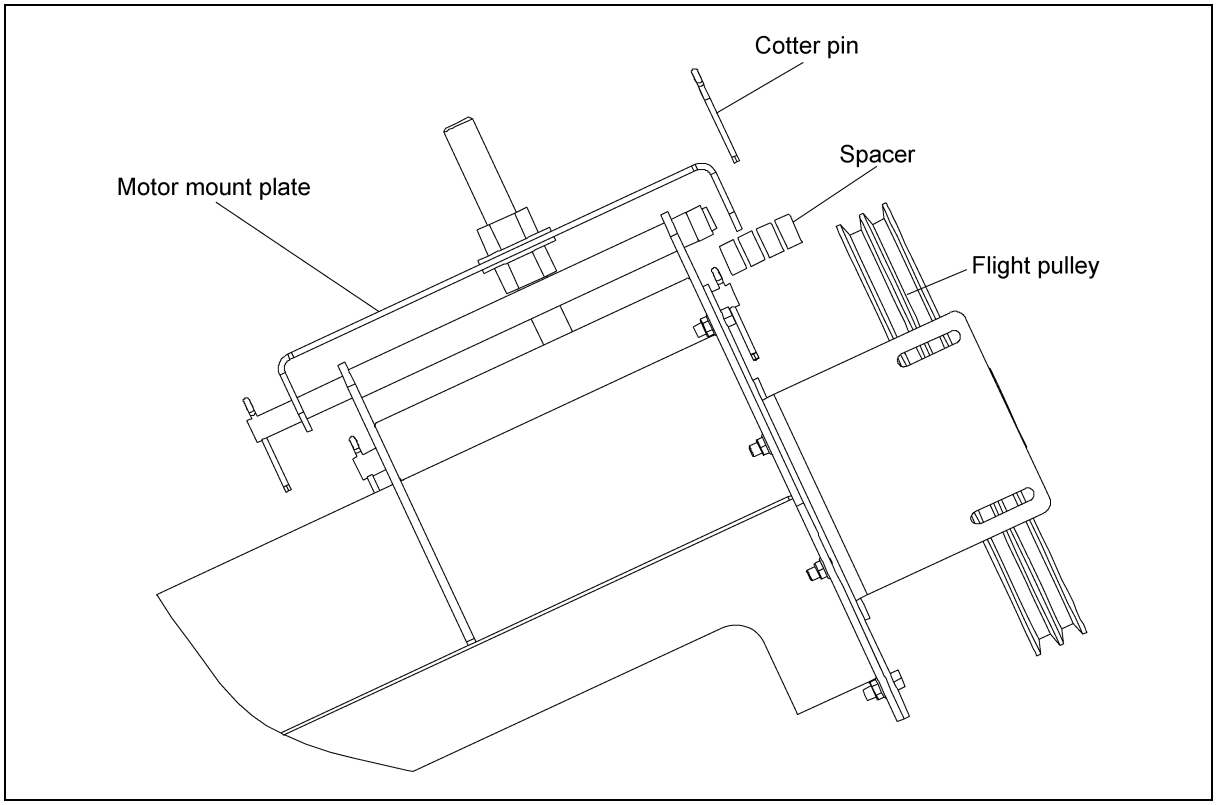


Figure 4J

Installing the Belts

1. Place the belts onto the pulleys.
2. First screw the lower motor mount adjustment nut upward, raising the motor mount plate and putting tension on the belts.
3. Once the desired tension is reached, tighten the upper motor mount adjustment nut down onto the motor mount plate locking it into place.

Installing the Belt Guard

1. With the belts properly tensioned, remove the bottom belt guard cover and slip belt guard down over the motor shaft.
2. Bolt the belt guard to the belt guard mounting brackets, the brackets should still be loose at this time.
3. Align the motor shaft and the flight drive shaft in the belt guard's slot, making sure that the belt guard DOES NOT contact either pulley, and tighten down the belt guard mounting brackets to the bearing plate. *(See Figure 4K.)*
4. Once the brackets are tightened, slide the bottom cover back into place and secure with supplied bolt.

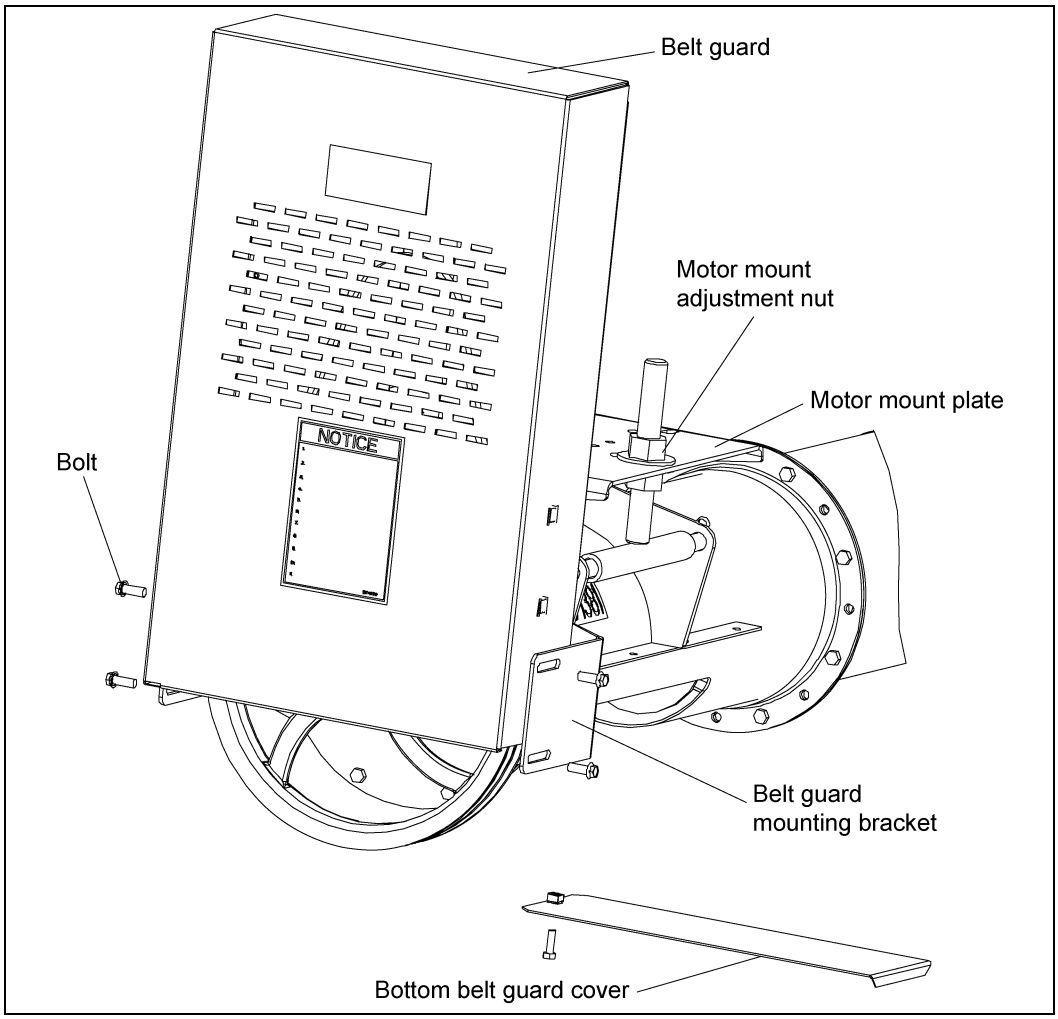


Figure 4K

Assembling the Flight Extension for all 6", 8", 10" and 12" Custom Augers

Standard Assembly without Bearings

NOTE: *If the auger does not include an extension skip ahead to Step 5 on Page 22.*

1. Begin by sliding the extension connecting band onto the main auger tube. *(See Figure 4L.)*
2. Slide the flight connecting shaft into the main section of flight and bolt together with grade 8 hex bolt and stover nut. Next slide extension flight onto connecting shaft and bolt together using proper grade 8 bolts and stover nuts. *(See Chart below* and *Figure 4M.)*

Flight Hardware	
6"	3/8"-16 x 2" Grade 8 Hex Bolts
8"	7/16"-14 x 3" Grade 8 Hex Bolts
10"	1/2"-13 x 3-1/2" Grade 8 Hex Bolts
12"	5/8"-11 x 4" Grade 8 Hex Bolts

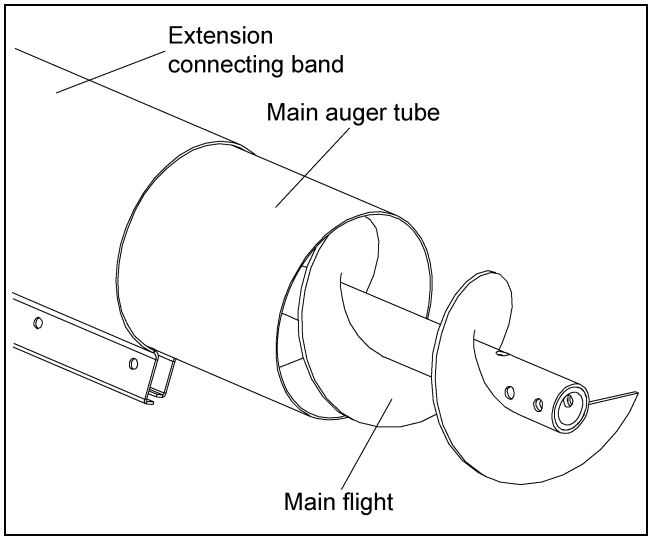


Figure 4L

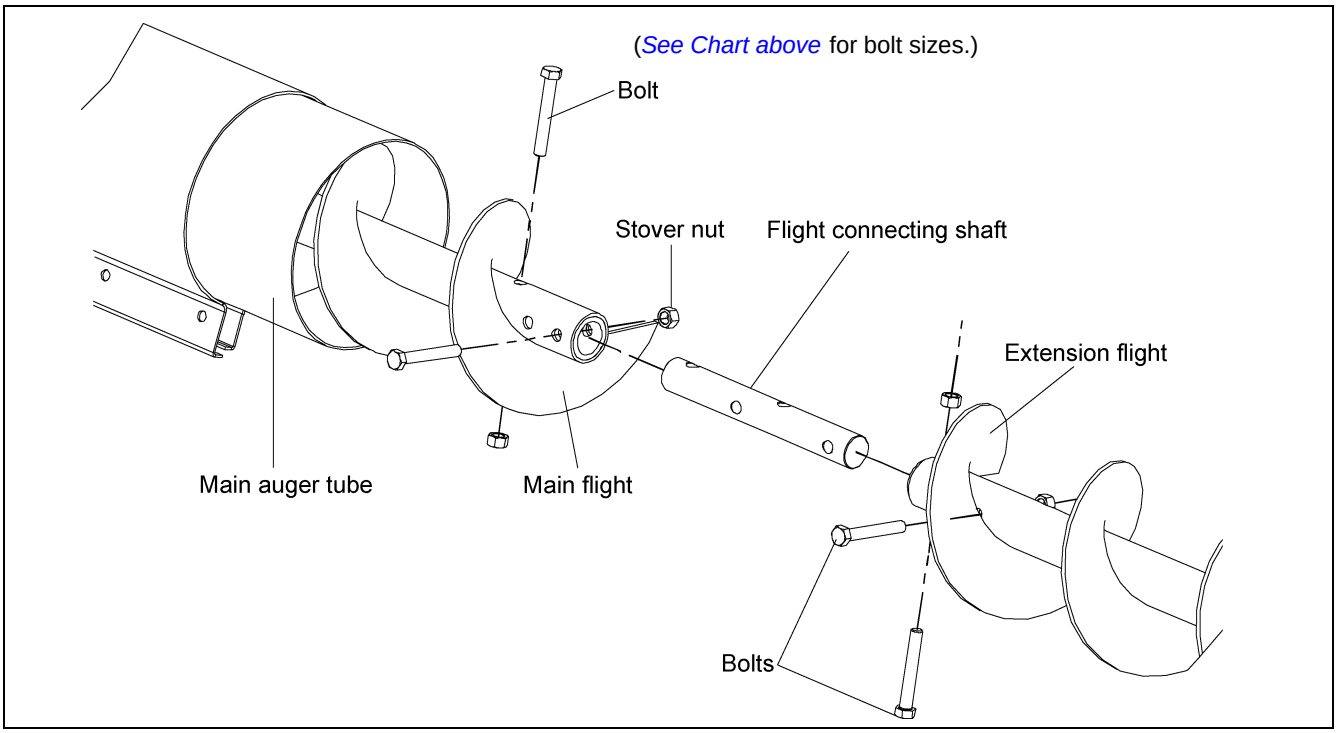


Figure 4M

Standard Assembly without Bearings (Continued)

3. Slide the extension tube over the extension flight, making sure the tube is pressed securely against the main auger tube. *(See Figure 4N.)*

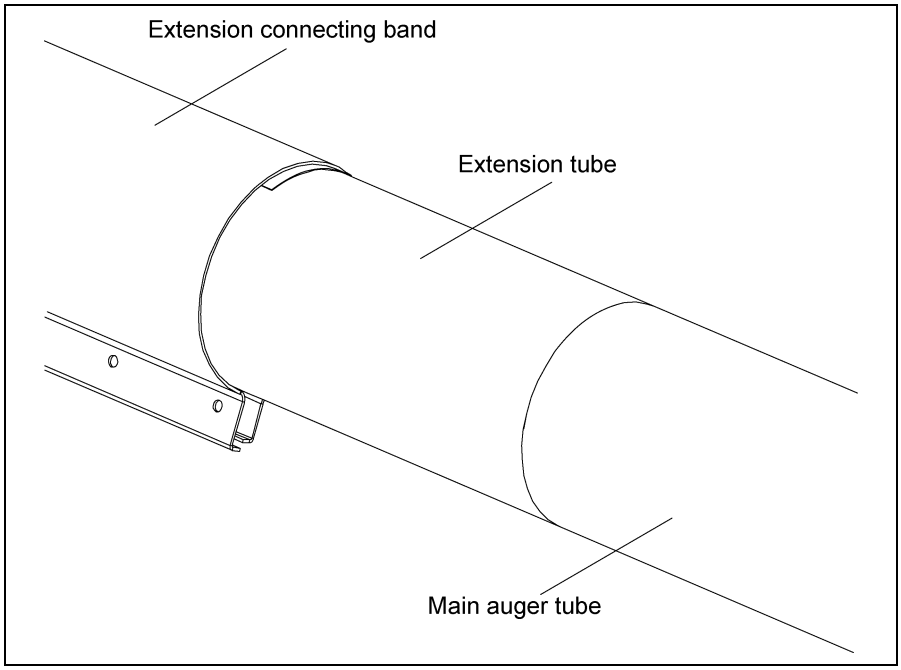


Figure 4N

4. Slide the extension connecting band over the two (2) sections of tube, making sure the connecting band is centered over the mated surfaces of the tubes. Tighten the connecting band down using the correct hex bolts and nylock nuts. *(See Chart below* and *Figure 4O.)*

Connecting Band Bolts	
6" and 8"	5/16"-18 x 1" Hex Bolt
10" and 12"	3/8"-16 x 1" Hex Bolt

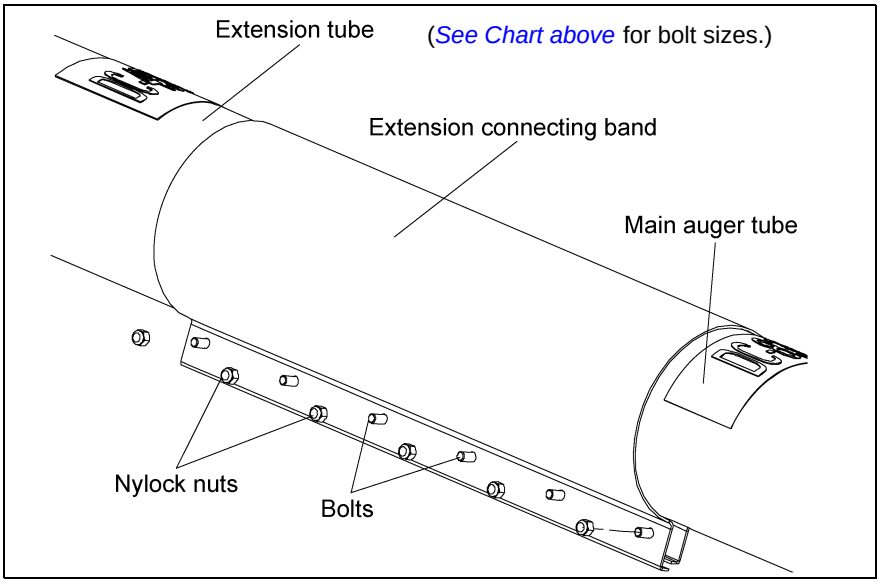


Figure 4O

Standard Assembly without Bearings (Continued)

5. Insert the intake shaft into the flight and connect with proper grade 8 bolt and stover nut. *(See Chart below* and *Figure 4P.)*

Flight Hardware	
6"	3/8"-16 x 2" Grade 8 Hex Bolts
8"	7/16"-14 x 3" Grade 8 Hex Bolts
10"	1/2"-13 x 3-1/2" Grade 8 Hex Bolts
12"	5/8"-11 x 4" Grade 8 Hex Bolts

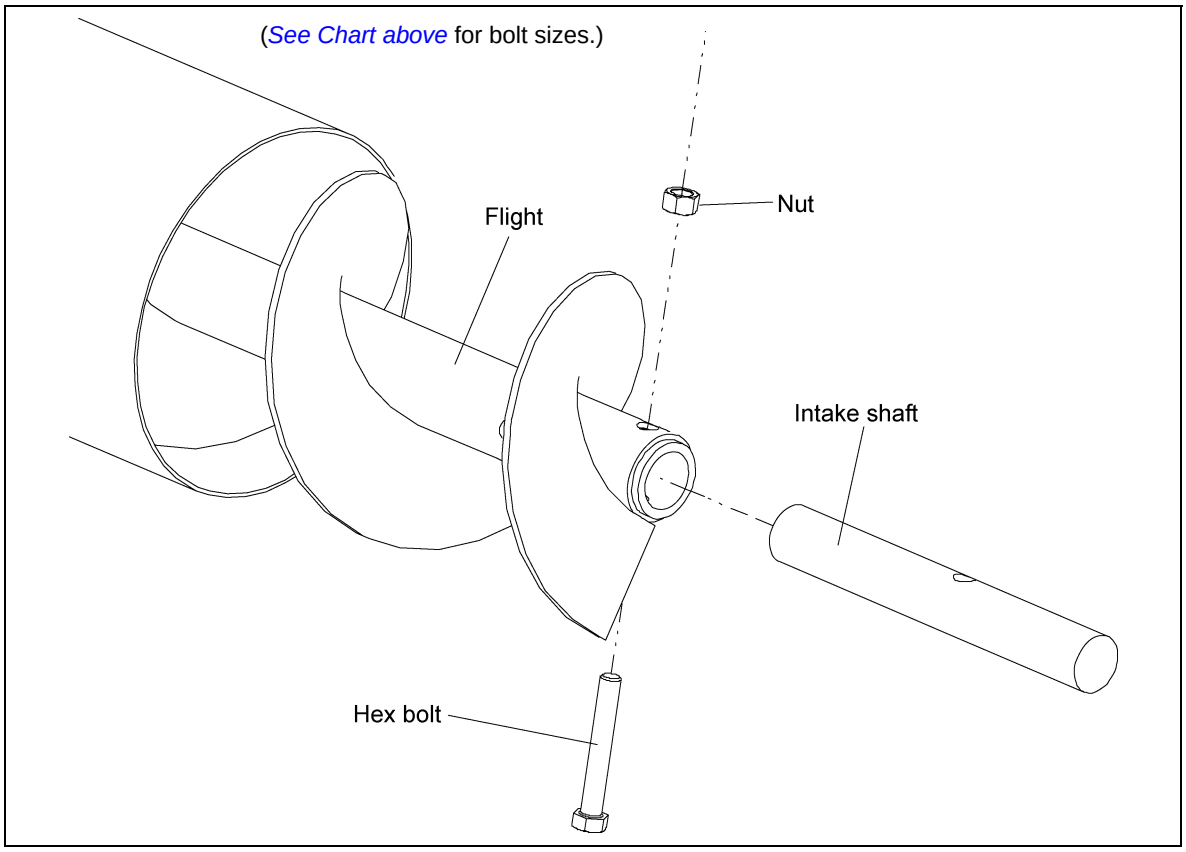


Figure 4P

Assemblies with Internal Bearings

1. Slide connecting band onto main auger tube, and attach connecting stub to main auger flight using the assigned hardware. *(See Chart below* and *Figure 4Q on Page 23.)*

Flight Hardware	
6"	3/8"-16 x 2" Grade 8 Hex Bolts
8"	7/16"-14 x 3" Grade 8 Hex Bolts
10"	1/2"-13 x 3-1/2" Grade 8 Hex Bolts
12"	5/8"-11 x 4" Grade 8 Hex Bolts

Assemblies with Internal Bearings (Continued)

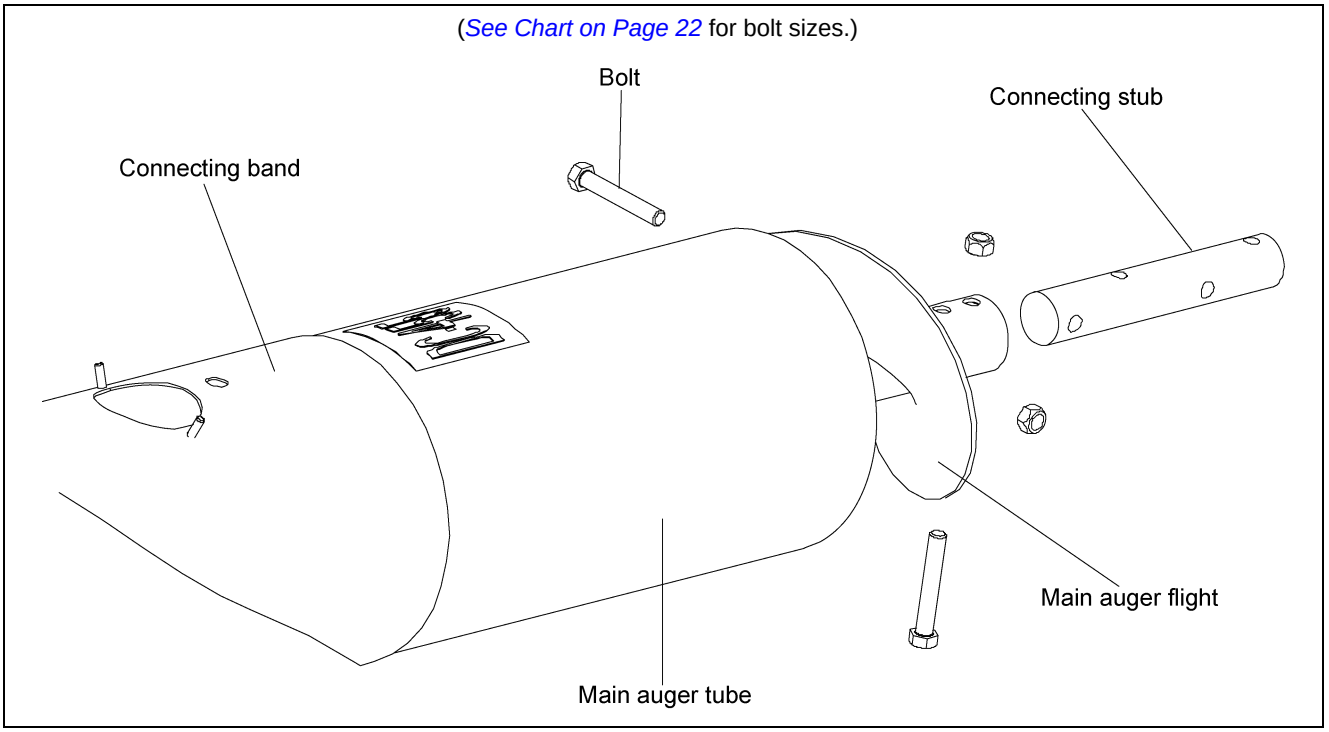


Figure 4Q

2. Slide hanger bearing onto connecting stub, followed by extension flight. Bolt extension flight to connecting stub using assigned hardware. *(See Chart on Page 22* and *Figure 4R.)*

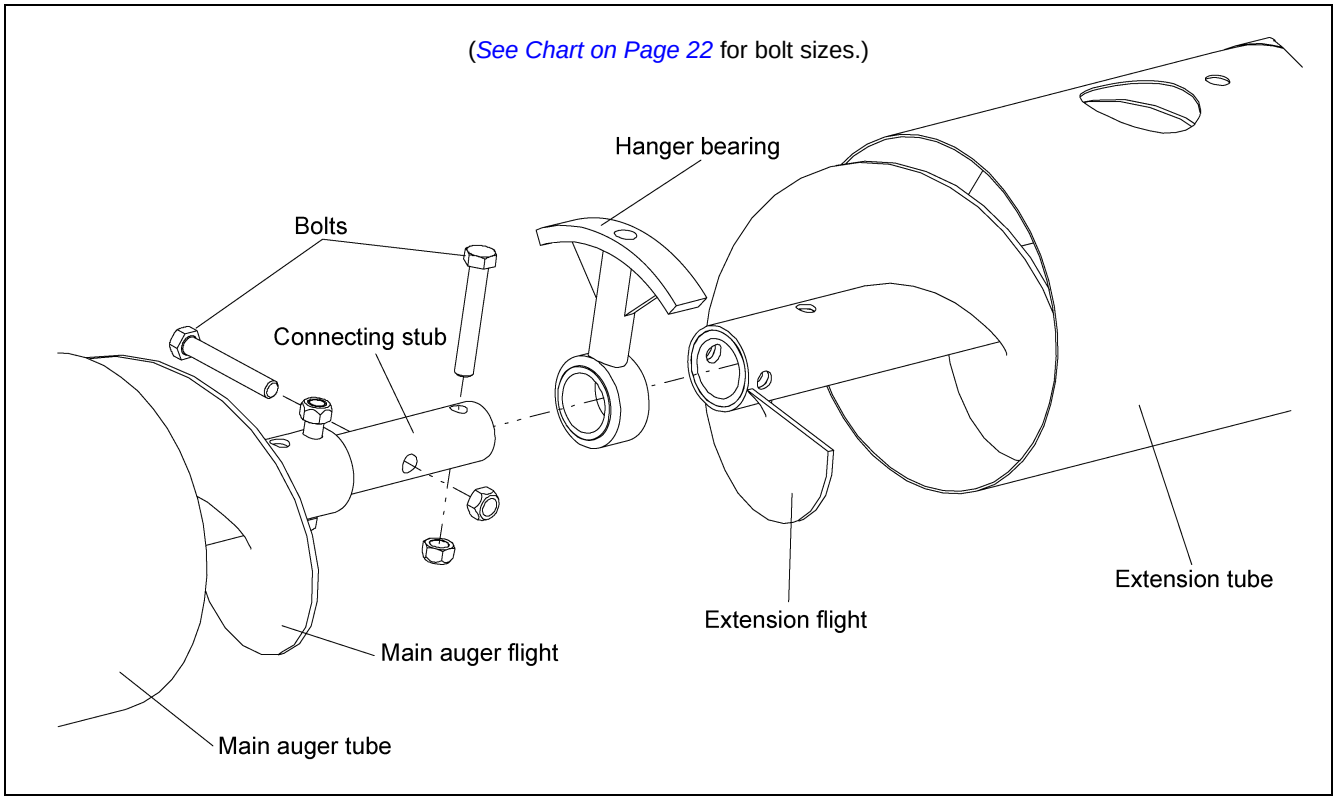


Figure 4R

Assemblies with Internal Bearings (Continued)

3. With flight sections bolted together slide extension tube flush against main auger tube. *(See Figure 4S.)*

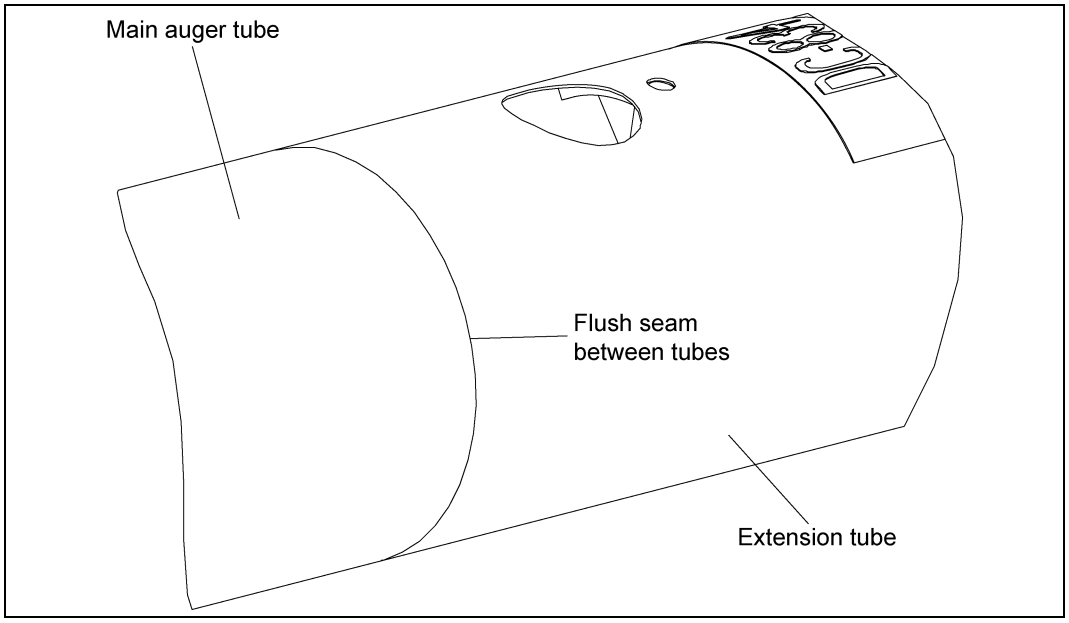


Figure 4S

4. With tube sections pressed flush against each other slide connecting band over the tubes aligning the holes. Reach through the access hole and align hanger bearing with the bolt hole. Attach the hanger bearing to the tube using assigned hardware. *(See Chart below* and *Figure 4T.)*

Hanger Bearing Bolt	
8"	5/8"-11 x 1-3/4" Grade 8 Bolt
10"	5/8"-11 x 1-3/4" Grade 8 Bolt
12"	3/4"-10 x 2" Grade 8 Bolt

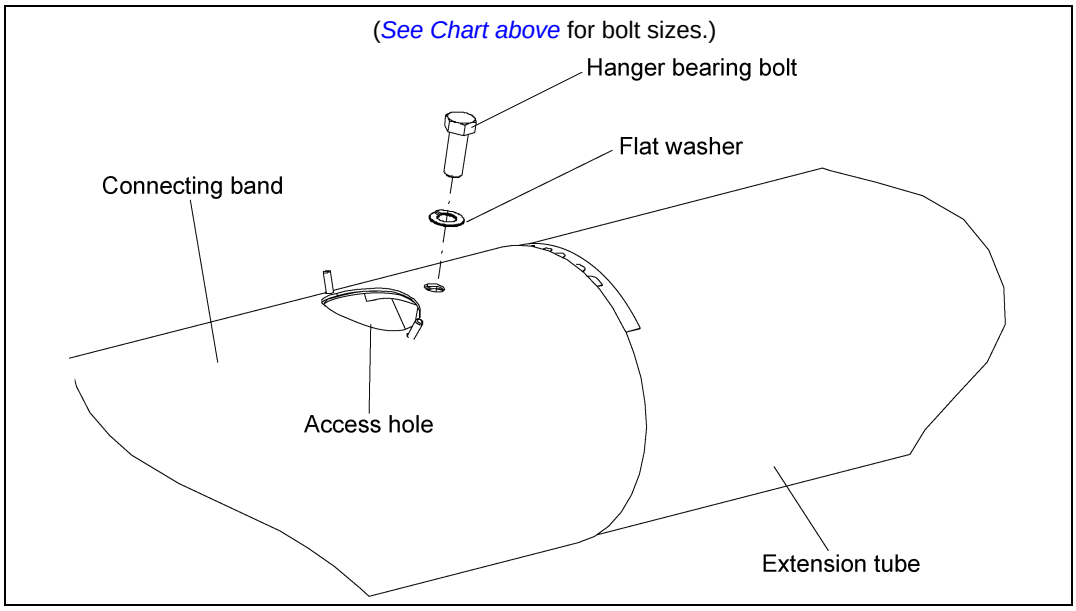


Figure 4T

Assemblies with Internal Bearings (Continued)

5. With hanger bearing secured bolt connecting band to tubes using the 3/8"-16 x 1-1/2" hex bolts and attach access cover using included nylock nuts. *(See Figure 4U.)*

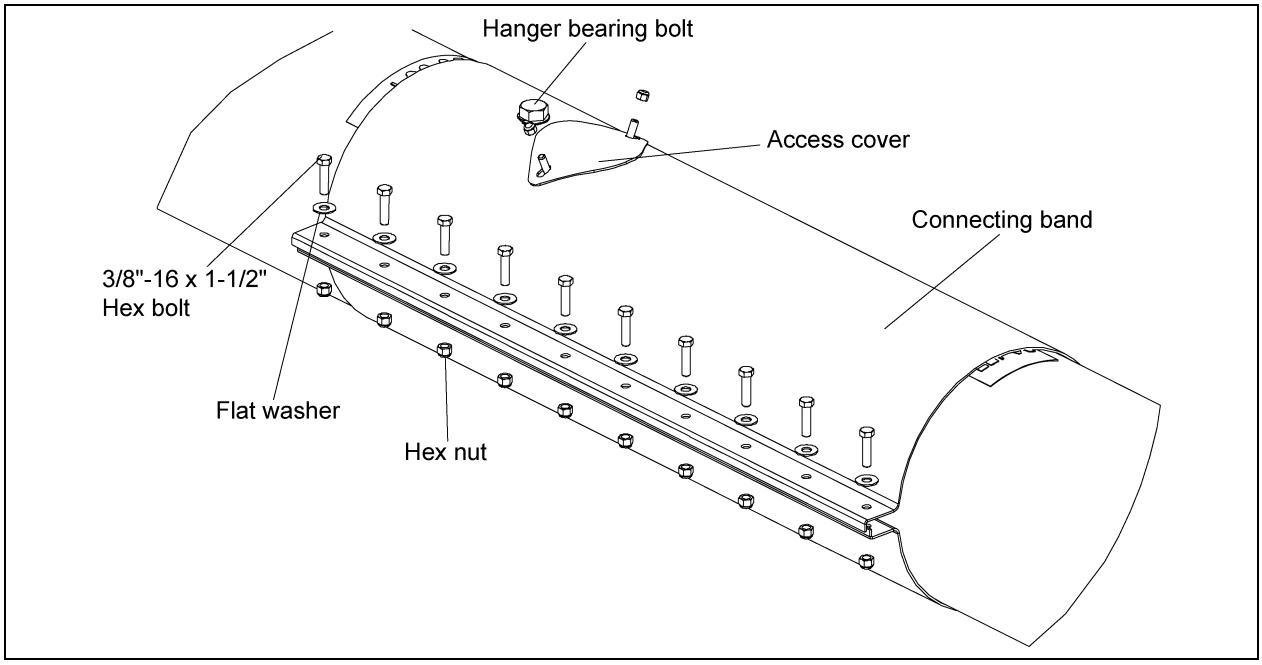


Figure 4U

Assembling the Intake Guard for all 6", 8", 10" and 12" Custom Augers

Installing the Intake Guard

NOTE: *For utility augers only*.

1. Slide the intake guard onto the auger tube aligning the intake shaft with the bronze bushing. *(See Figure 4V.)*

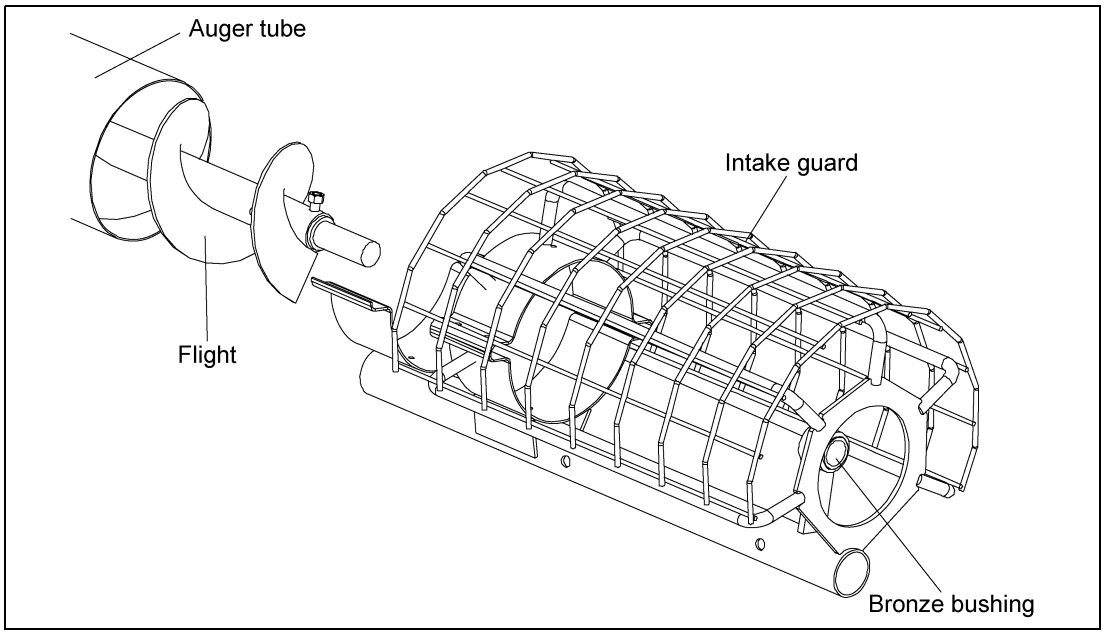


Figure 4V

Installing the Intake Guard (Continued)

2. With the intake shaft inserted in the bushing make sure to leave approximately 1/2" of clearance between the end of the flight and the face of the bushing. *(See Figure 4W.)*

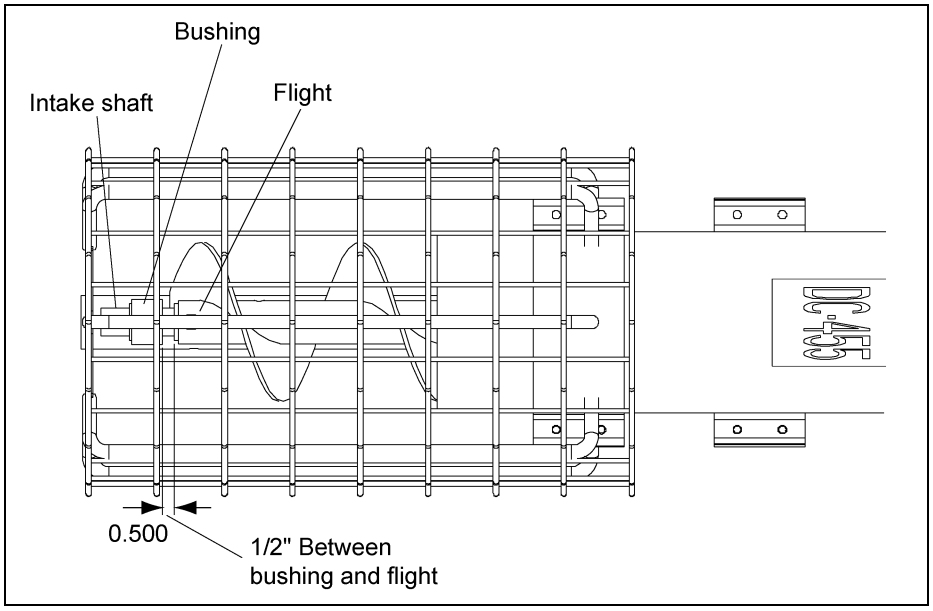


Figure 4W

3. Attach the intake guard to the tube using the proper hex bolts and nylock nuts through the half bands that are welded to the intake guard. *(See Chart below* and *Figure 4X.)*

Intake Guard Bolts	
6"	5/16"-18 x 1-3/4" Grade 5 Hex Bolt
8"	5/16"-18 x 1-3/4" Grade 5 Hex Bolt
10"	3/8"-16 x 1-1/2" Grade 5 Hex Bolt

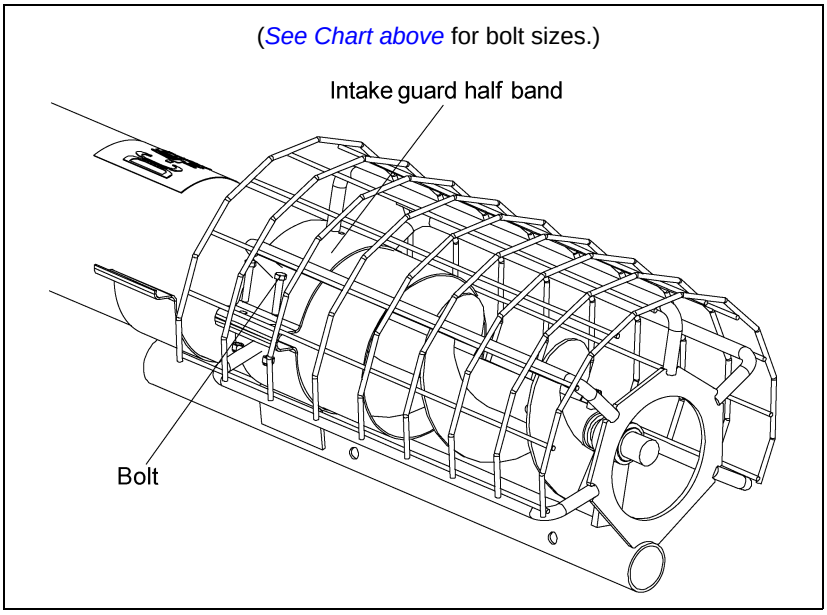


Figure 4X

Installing the Intake Guard (Continued)

4. Place intake guard half band above the lower half band on the intake guard and attach using proper hex bolts and nylock nuts. *(See Chart on Page 26* and *Figure 4Y.)*

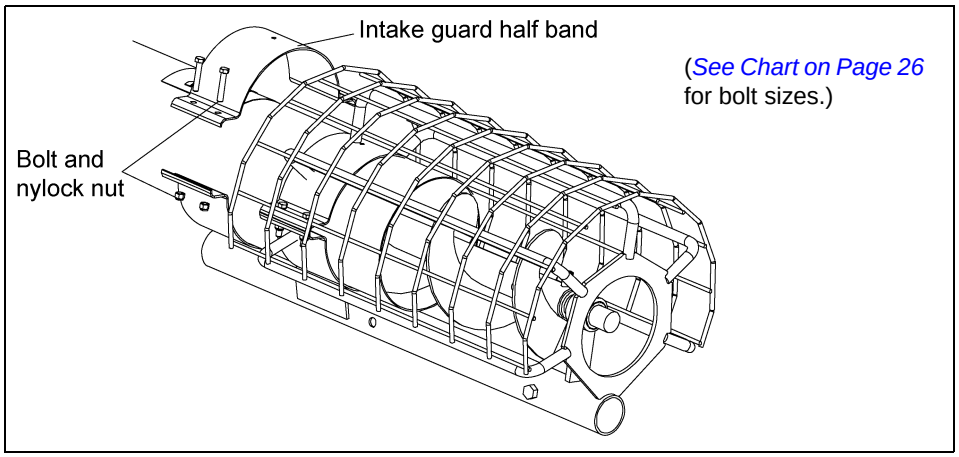


Figure 4Y

Assembling the Inlet Hopper with Bearings for all 6", 8", 10" and 12" Custom Augers

Installing Intake Shaft

1. Begin by assembling the intake shaft to the flight using the required grade 8 bolts and stover nuts. *(See Chart below* and *Figure 4Z.)*

Flight Hardware	
6"	3/8"-16 x 2" Grade 8 Hex Bolts
8"	7/16"-14 x 3" Grade 8 Hex Bolts
10"	1/2"-13 x 3-1/2" Grade 8 Hex Bolts

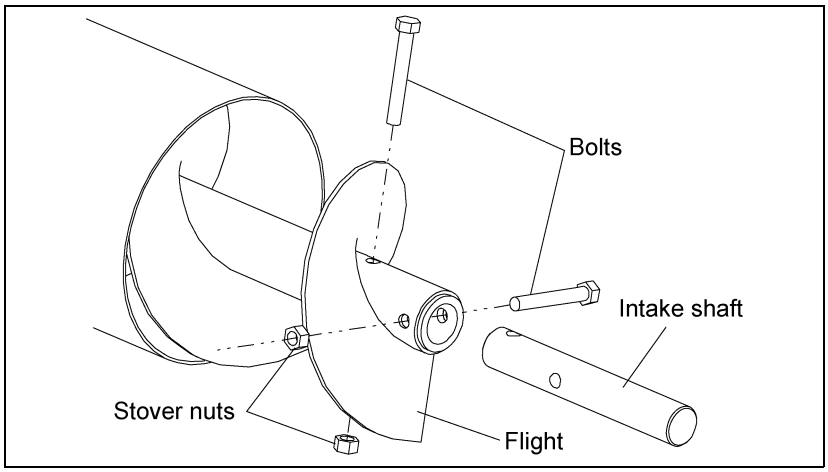


Figure 4Z

6" Units require 20". It is necessary to field cut auger tube lengths to accommodate required exposure. Butt the auger tube to the unloader tube and attach using a connecting band.

IMPORTANT: *Auger stub shaft supplied is designed to fit GSI 6" bulk tank augers. If using a different auger supplier it may be necessary to modify or fabricate a stub shaft for the unloader bearing.*

Installing Intake Shaft (Continued)

2. Next bolt the bearing with flangette to the studs on the hopper using the required lock washer and nut. *(See Chart below* and *Figure 4AA.)*

Hopper Bearing Nut	
6"	5/16"-18 Hex Nut
8"	3/8"-16 Hex Nut
10"	1/2"-13 Hex Nut

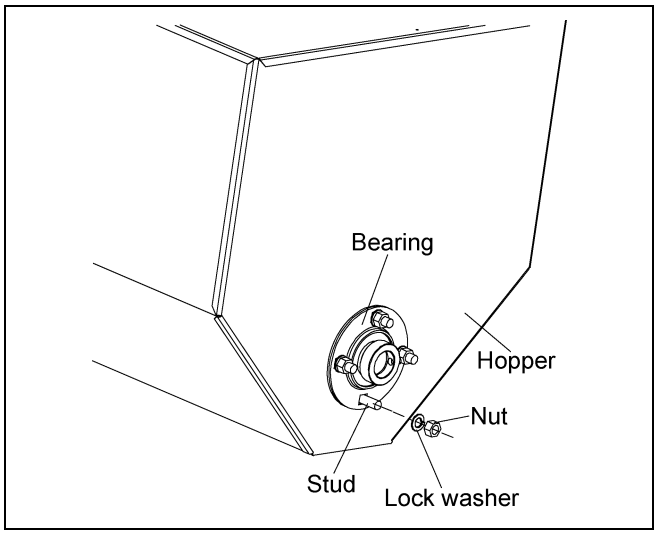


Figure 4AA

Attach Hopper

1. Slide the hopper onto the tube and align the end of the flight approximately 1/2" from the surface of the bearing. With the proper distance set, install the proper bolt, lock washer and nut, and secure the hopper to the tube. *(See Chart below* and *Figure 4AB.)*

Hopper Connecting Band Bolt	
6" and 8"	5/16"-18 x 1" Hex Bolt
10"	5/16"-18 x 1-1/2" Hex Bolt

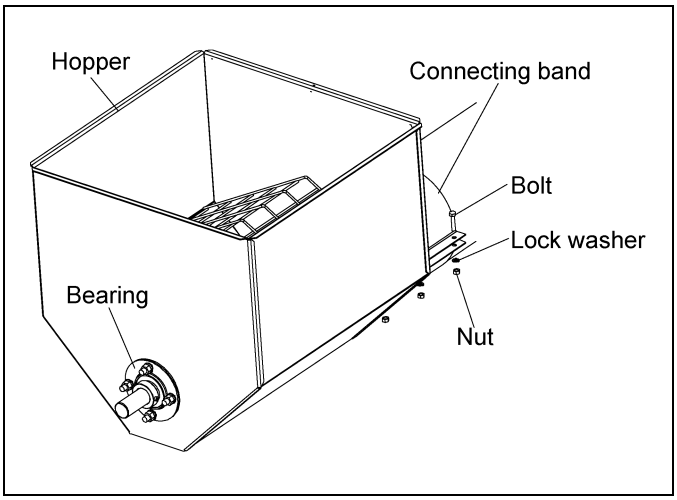


Figure 4AB

Outlet Cutting Guidelines

1. Before ordering, predetermine the location of the outlet drops. Make sure the outlet drops do not interfere with the connecting band locations.
2. When an outlet opening is cut, that section of tube loses much of its strength therefore additional support may be necessary.
3. If you have internal bearing flighting, outlets may be cut below internal bearings but a hole must cut in the spout half band allow access to internal hanger bearing.
4. We recommend removing flight before cutting the tube otherwise flight will be notched and/or rough edges will occur. This may not significantly impact the performance of the auger, but burrs and metal chips should be removed or abnormal wear will result. Also, grind down any rough edges on tubing for a better fit and smoother operation.
5. Carefully measure the outlet before cutting. Follow the recommended guidelines as shown *in Figure 4AC*. It is very important that the opening be large enough not to reduce capacity, but small enough so the outlet can be covered securely by the spout.

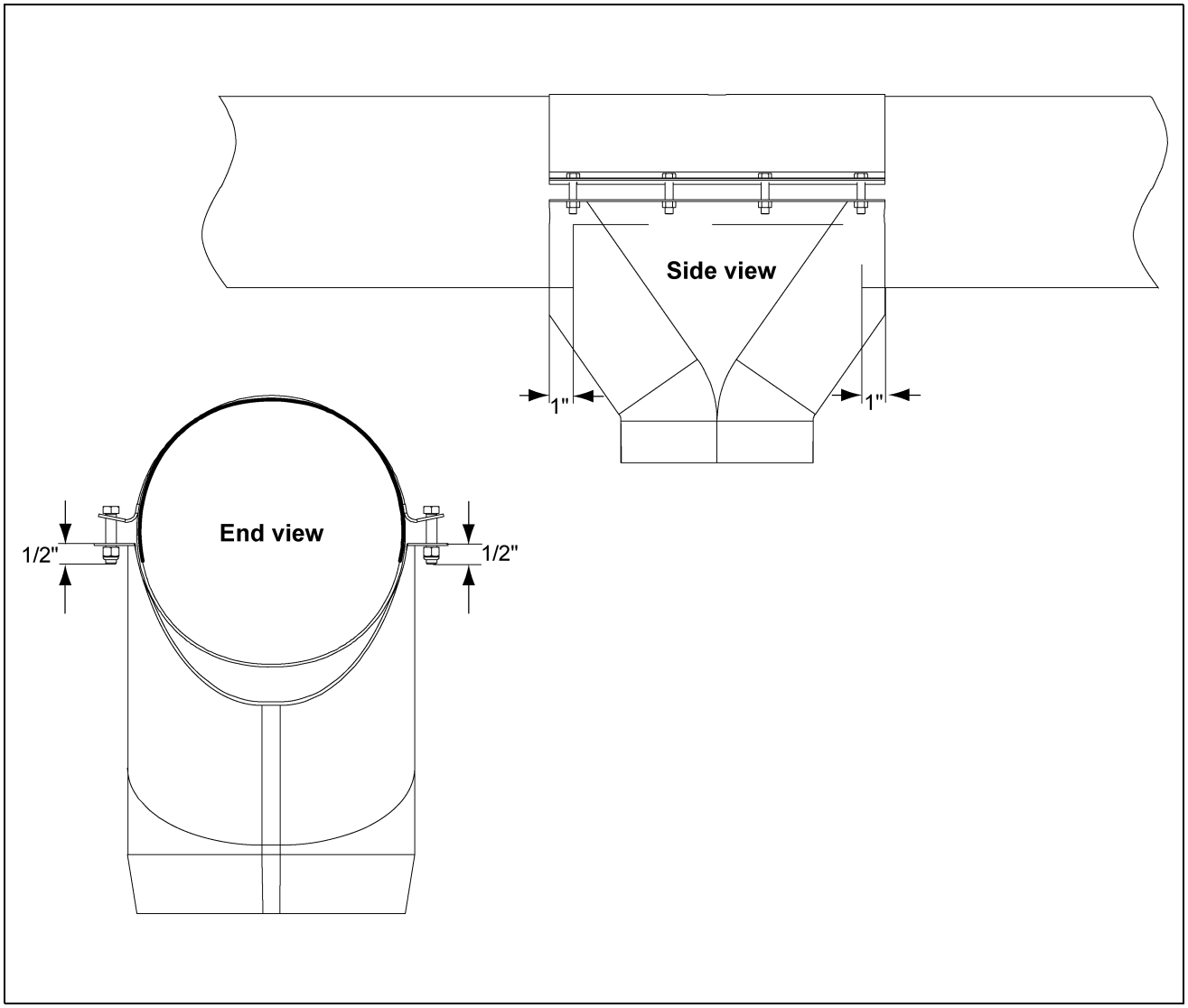


Figure 4AC

Enclosed Slide Gates with Rack and Pinion Control

1. Follow cutting guidelines *on Page 29*.
2. Attach spout to tube with backband.
3. Remove smaller outside nut from the rack and pinion connecting rod and insert rod through the hole in the angle on the slide gate and secure with the smaller outside nut.
4. Fully close slide gate. Using the pulley, adjust the half bands so they are located at the end of the control rod farthest from the spout. Then tighten the half bands to the tube.
5. Wrap rope or cable around the pulley, doubling it to prevent slippage.

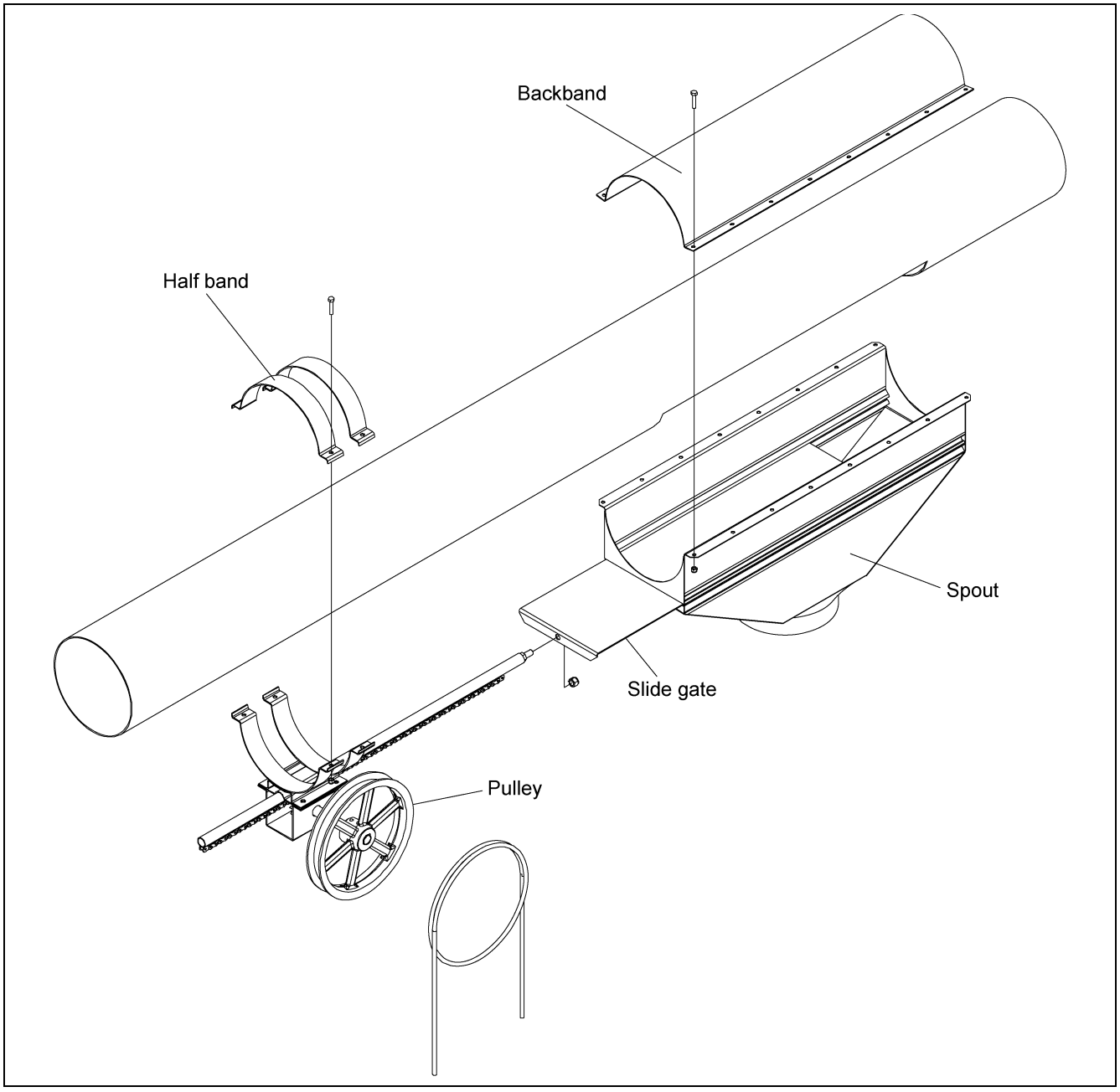


Figure 4AD *Rack and Pinion Control*

Basic Inlet Hoppers

1. Follow the cutting guidelines *on Page 29*.
2. Attach hoppers to tube as shown *in Figure 4AE*.
3. Follow the instructions below before cutting and installing inlet hopper.
    a. Slide ring flange onto the end of tube and weld, making sure the flange is mounted squarely.
    b. Bolt end plate to flange.
    c. Bolt bearing to end plate.
    d. Guide intake stub through bearing and tighten the lock collar.
    e. Install any covers if applicable.

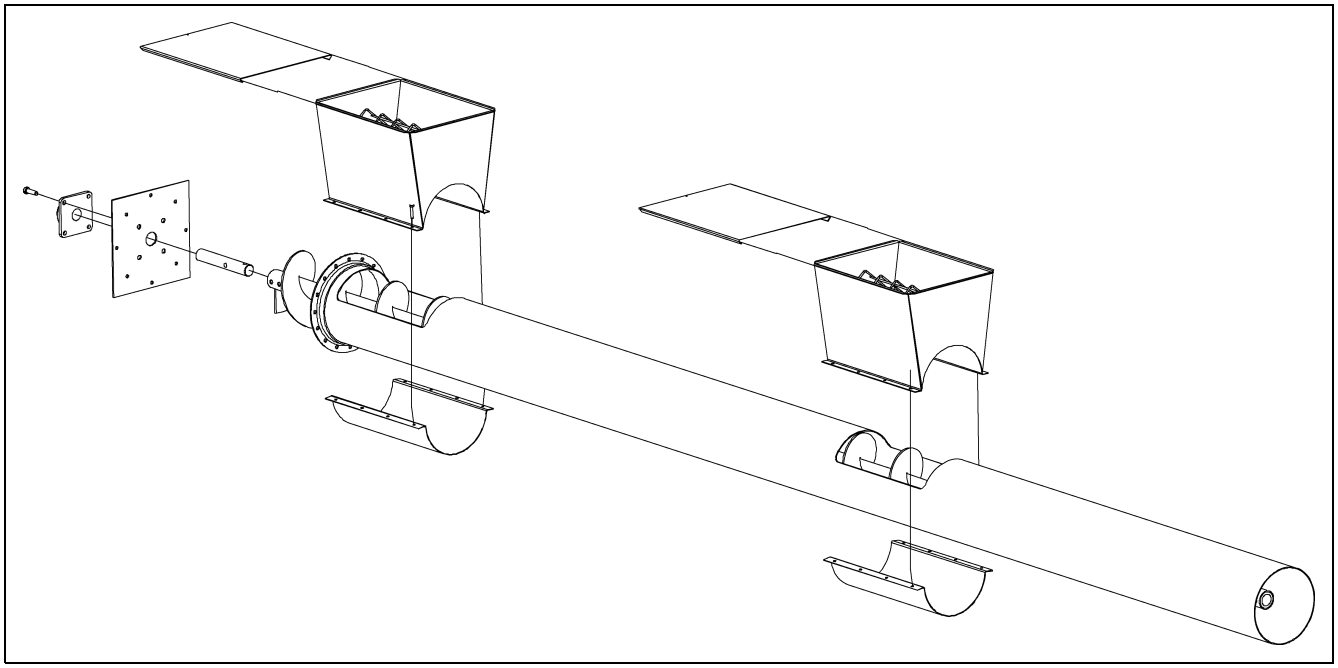


Figure 4AE

Spouting, Fittings and Truss Kits

Spouting and Fittings

To connect sections of spouting or to connect fittings to spouting, use one or all of the following procedures:

1. Spouting to Spouting - Slide flange rings over ends of spouting to be joined and weld in place. Make sure flanges are mounted squarely. Join flanges and bolt together.
2. Spouting to Fitting - Install ring flange on spouting as in *Step 1*. Join to flange on fitting (valve, dead head, slip joints, etc.)
3. Flange Clamps - Fit each half over flanges and tighten with bolts provided.
4. Quick Connect Flange Clamps - Fit each half over flange and tighten bolt. Do not use in location where permanent unions are required.

Truss Kits

Truss rod kits are designed to provide support for spouting and certain auger sections. There are two (2) different kits available for trussing. 20' to 30' Span kits and 30' to 40' span kits for spouting only. See the instructions that are included with the kit for proper installation.

Sample Custom Auger Configurations

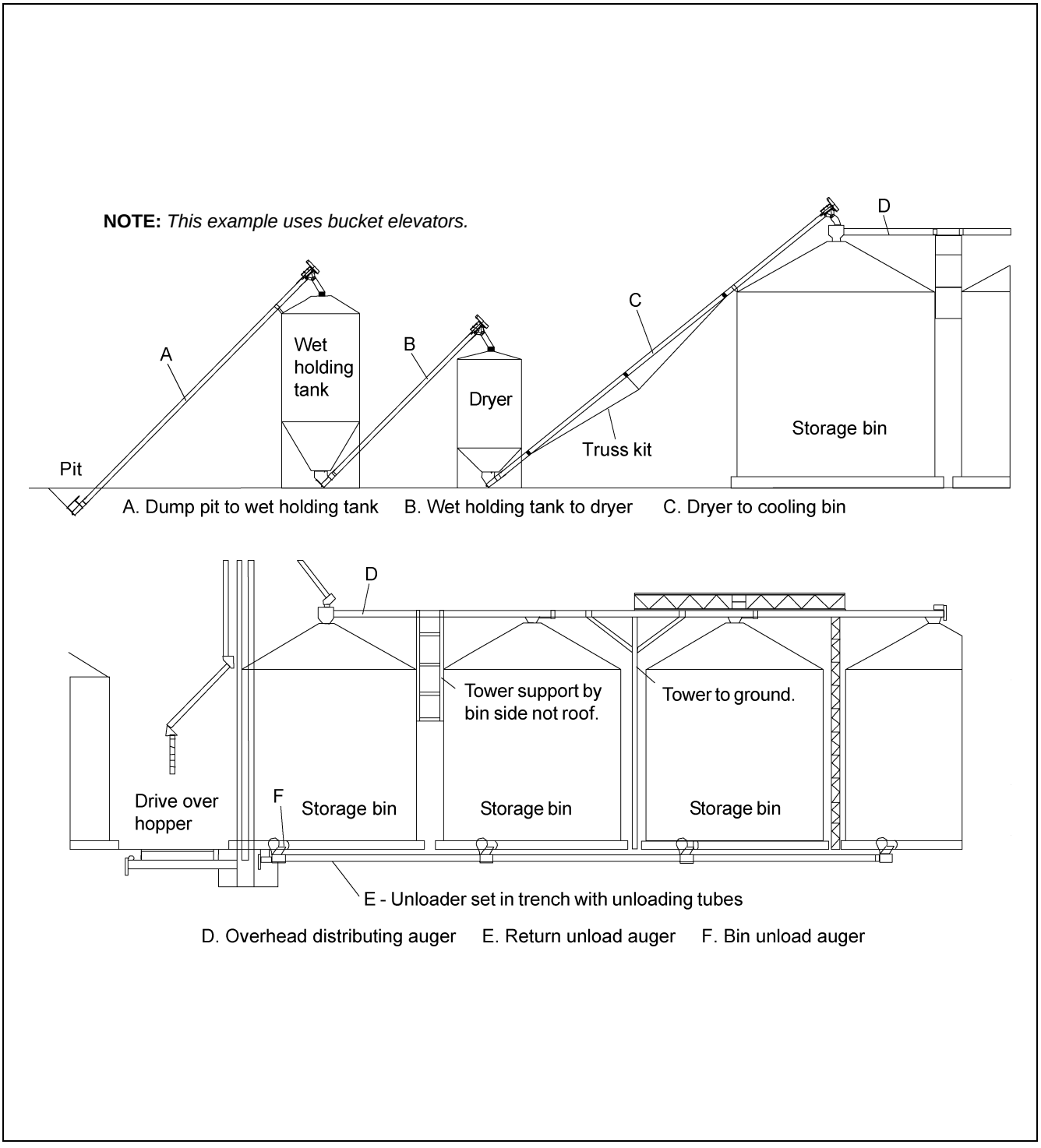


Figure 4AF

Power Source

1. Use electric motors that operate at 1750 RPM.
2. Electric motors and controls should be installed by a qualified electrician and must meet the standards set by the National Electrical Code and all local and state codes.
3. 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. Then the motor must be restarted manually. Some motors have built-in thermal overload protection. If this type motor is used, use only those with a manual reset.

	***A main power disconnect switch capable of being locked only in the OFF position shall be provided. This shall be locked whenever work is being done on the auger.***
CAUTION	***Disconnect power before resetting motor overloads.***
	***Make sure all electrical motors are grounded.***
	***Reset and motor starting and stopping controls must be located so that the operator has full view of the entire operation.***
	***Shut OFF power to adjust, service, or clean the machinery.***
	***Keep all safety guards and shields in place.***

Start-up and Break-in

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

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.
3. Double check the assembly instructions to see that all parts have been assembled properly.
4. During operation of equipment, one (1) person should be in a position to monitor the entire operation.

NOTE: *During the initial start-up and break-in period, the operator should note any unusual vibrations or noises and take the appropriate action.*

WARNING ***Make certain everyone is clear before operating or moving the machine.***

5. The bin well inside the bin should have a control gate. The gate should be closed before start-up and closed before shut down to allow the machine to clean out.
6. The controls for the control gate should either pull or push open, depending on the type of well in use. Use the control gate to regulate a flow of less than full capacity until several hundred bushels of grain have been augured to polish the flighting assembly and tube.
7. Any new screw conveyor or one that has set idle for a season should go through a “break-in” period. This “break-in” consists of running the auger at half capacity until the screw becomes polished and smooth before attempting to run at full capacity. It is recommended that several hundred bushels of grain be augured at partial capacity.

CAUTION ***Failure of the auger is very likely to occur if it is run at full capacity before the screw has become polished.***

CAUTION ***NEVER operate augers empty for any length of time as excessive wear will result.***

8. Do not stop or start augers under load, especially before the flight and tube become well polished, as this may cause the auger to “lock up”.

CAUTION ***Excessive wear will result if auger is run at speeds in excess of what is recommended.***

9. Do not run auger at too slow of a speed as this will load up or overload the auger. An loading up of the auger will cause the motor to overload and a higher torque will be required to turn the auger, which in turn may cause damage to the auger.

Operate the Auger

NOTE: *The auger capacity can fluctuate greatly under varying conditions. Moisture content, different commodities, amount of foreign matter and speeds all play a part in the performance of the auger. Twenty-five percent (25%) moisture may cut capacity by as much as 40% under some conditions.*

1. Make certain there are at least two (2) people in the work area to monitor operations at all times.
2. Visually inspect the auger periodically during operation.

> **WARNING** ***Be alert for any unusual vibrations, noises and the loosening of any fasteners. If anything unusual is detected, immediately shut down the auger, disconnect and lock out the power source before servicing.***

3. Consideration should be given to the proper size auger for a batch drying or any intermittent type operations. When augers are stopped and restarted under full load, it may result in damage to the auger. Using a larger diameter auger and reducing its load level will be far better than subjecting a smaller diameter auger to big loads. If an auger is kept from absolute filling, it will make start-up easier and will convey more efficiently.

Maintain the Auger

> **DANGER** ***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 the 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. Check the auger flighting to make sure it is in good working condition.
9. Check the internal bearing bracket, bearing and universal joint to make sure they are in good working order.
10. Grease bearing at least two (2) times each season.

Normal Shut Down

1. Make certain unloading tubes are empty before stopping the unit.
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. Disconnect and lock out the power source.
3. Close bin well control gates.
4. Clear out as much grain from the auger and hopper as possible.

> **CAUTION** ***Never restart when under a full load. Starting unit under load may result in damage to the machine. Such damage is considered abuse of the equipment.***

5. Reconnect and unlock the power source.
6. Gradually clear the auger until there is no grain or obstruction.

Lock Out

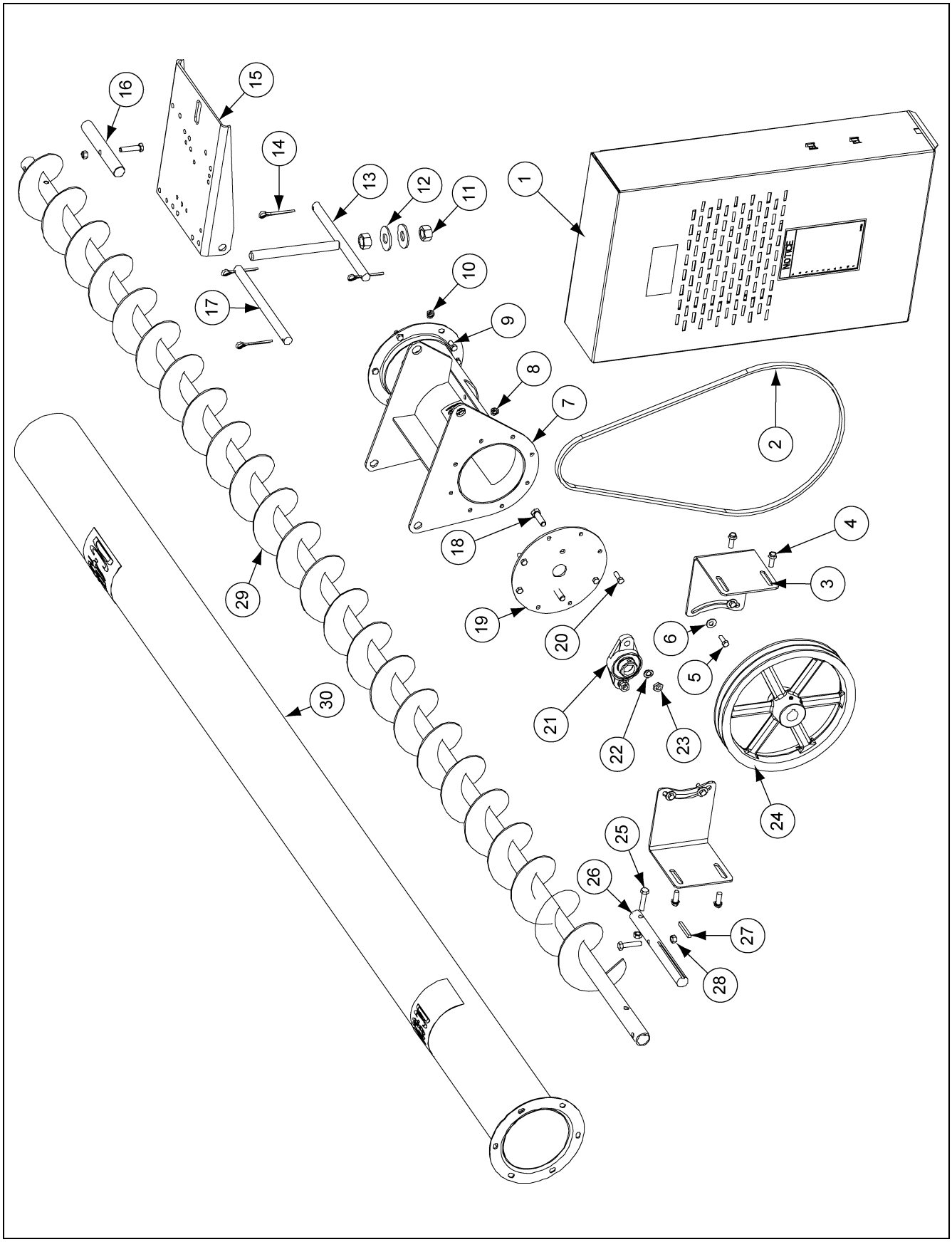
1. Always stop and disconnect the power source whenever the operator must leave the work area or for maintenance of the machinery.
2. Make sure equipment is locked out and that the machinery cannot be started while the operator is not in the work area.

> **WARNING** ***Use the type of main power disconnect switch that is capable of being locked only in the OFF position.***

Storage Preparation

1. Close all wells to discharge tube.
2. Be sure the unload tube is empty.
3. Make sure power source is disconnected and locked out.
4. Check to see that all fasteners are secure.

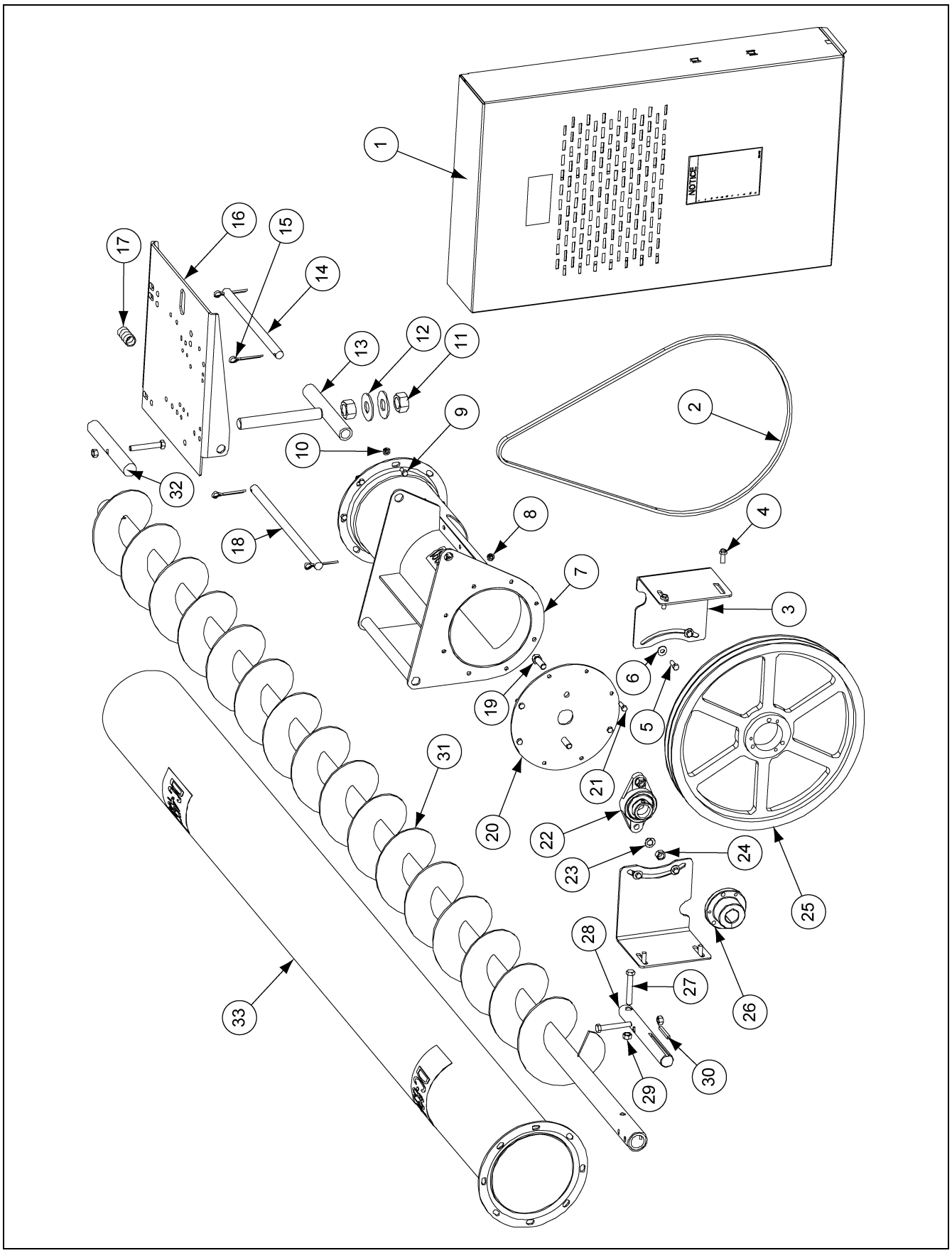
6" Custom Auger Parts



6" Custom Auger Parts

Ref #	Part #	Description
1	GK7005	15" Belt Guard Assembly
2	GK1323	V-Belt B48
2	GK2349	V-Belt B54
3	GK7062	6" Belt Guard Mounting Bracket
4	S-9065	Bolt Flanges 3/8"-16 x 1" ZN Grade 5
5	S-1196	Bolt HHCS 5/16"-18 x 1" ZN Grade 5
6	S-845	Flat Washer 5/16" USS SAE YDP Grade 2
7	GK6996	6" Horizontal Tube Assembly
8	S-3611	Nut Flanges 5/16"-18 YDP Grade 2
9	S-275	Bolt HH Bin 5/16"-18 x 3/4" YDP Grade 5
10	S-3611	Nut Flanges 5/16"-18 YDP Grade 2
11	S-234	Hex Nut 3/4"-10 ZN Grade 5, Zinc Plated
12	S-866	Flat Washer 3/4" USS ZN Grade 2
13	GK7060	6" Motor Mount Adjustment Rod Weldment
14	GK6994	Cotter Pin 3/16" x 2" ZN Grade 2
15	GK7052	6" Motor Plate
16	GK1117	1" x 7" Intake Shaft
17	GK7058	6" Motor Mount PLT Pivot Rod
18	S-7837	Bolt HHCS 7/16"-14 x 1-1/2" ZN Grade 5
19	GK7061	6" Horizontal Bearing Plate
20	S-1196	Bolt HHCS 5/16"-18 x 1" ZN Grade 5
21	GK1049	Light Duty 1" Bore 2 Hole Flange w/ Locking Collar Bearing
22	S-7014	7/16" Lock Washer
23	S-7332	Hex Nut 7/16"-14 YDP Grade 5
24	GK1309	12" x 1" 1 Belt Sheave
24	GK1321	12" x 1" 2 Belt Sheave
24	GK2544	15" x 1" 2 Belt Sheave
24	GK4643	12" x 1" 3 Belt Sheave
24	GK2545	15" x 1" 3 Belt Sheave
25	S-3727	Bolt HHCS 3/8"-16 x 1-3/4" YDP Grade 8
26	GK2025	1" O.D. x 10" Long Drive Shaft
27	S-4513	1/4" x 1/4" x 2" Key Stock for Shaft
28	S-8251	3/8"-16 Stover Nut
29	GK2854	6" x 11' Discharge Flight
29	GK2855	6" x 16' Discharge Flight
29	GK2856	6" x 21' Discharge Flight
30	GK7082	6" x 0.065" x 9' Discharge Tube
30	GK7083	6" x 0.065" x 14' Discharge Tube
30	GK7084	6" x 0.065" x 19' Discharge Tube

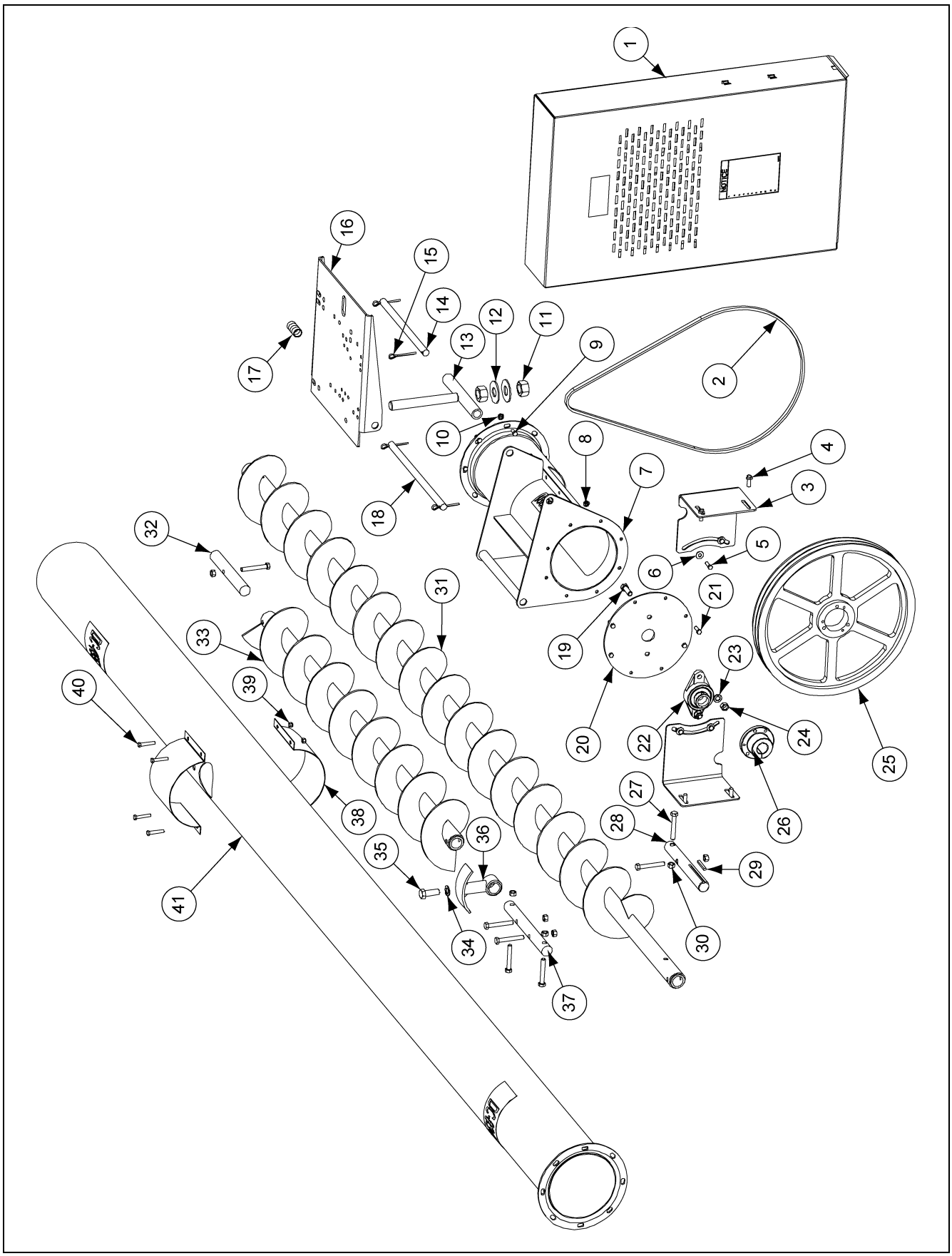
8" Custom Auger Parts



8" Custom Auger Parts

Ref #	Part #	Description
1	GK7005	15" Belt Guard Assembly
1	GK7068	19" Belt Guard Galvanized Assembly
2	GK1952	V-Belt B50
2	GK1346	V-Belt B57
2	MHC00160	V-Belt B64
3	GK7006	8" x 15" Belt Guard Mounting Bracket
3	GK7100	8" x 19" Belt Guard Mounting Bracket
4	S-9065	Bolt Flanges 3/8"-16 x 1" ZN Grade 5
5	S-1196	Bolt HHCS 5/16"-18 x 1" ZN Grade 5
6	S-845	Flat Washer 5/16" USS SAE YDP Grade 2
7	GK6997	8" Horizontal Tube Assembly
8	S-3611	Nut Flanges 5/16"-18 YDP Grade 2
9	S-275	Bolt HH Bin 5/16"-18 x 3/4" YDP Grade 5
10	S-3611	Nut Flanges 5/16"-18 YDP Grade 2
11	S-240	Hex Nut 1"-8 ZN Grade 5
12	S-7835	Flat Washer 1" I.D. x 2" O.D. ZN
13	GK7060	6" Motor Mount Adjustment Rod Weldment
14	GK7012	8" Motor Mount Adjustment Pivot Rod
15	S-6994	Cotter Pin 3/16" x 2" ZN Grade 2
16	GK6986	8"-12" Motor Plate
17	GK7014	Drive Unit Pivot Spacer Tube
18	GK7013	8" Motor Mount PLT Pivot Rod
19	S-8760	Bolt HHCS 1/2"-13 x 1-1/2" ZN Grade 5
20	GK6987	8" Horizontal Bearing Plate
21	S-1196	Bolt HHCS 5/16"-18 x 1" ZN Grade 5
22	GK1330	Light Duty 1-1/4" Bore w/ Locking Collar 2 Hole Flange Bearing
23	S-236	Lock Washer, 1/2" Zinc Plated
24	S-7510	Hex Nut 1/2"-13 ZN Grade 2
25	GK1335	12" x 1-1/4" 2 Belt Sheave
25	GK1869	15" x 1-1/4" 2 Belt Sheave
25	GK2567	18.4" 2 Belt Sheave
25	GK2234	15" x 1-1/4" 3 Belt Sheave
25	GK2570	18.4" 3 Belt Sheave
26	GCO7674	Bushing SK x 1-1/4" Bore
27	S-8316	Bolt HHCS 7/16"-14 x 3" ZN YDP Grade 8
28	GK1331	1-1/4" O.D. x 10-1/2" Drive Shaft
29	S-4513	1/4" x 1/4" x 2" Key Stock for Shaft
30	S-8317	7/16"-14 Stover Nut
31	GK2879	8" x 11' Discharge Flight
31	GK2880	8" x 16' Discharge Flight
31	GK2881	8" x 21' Discharge Flight
32	GK1884	1-1/4" x 9" Intake Shaft
33	GK7079	8" x 0.083" x 8' Discharge Tube
33	GK7080	8" x 0.083" x 13' Discharge Tube
33	GK7081	8" x 0.083" x 18' Discharge Tube

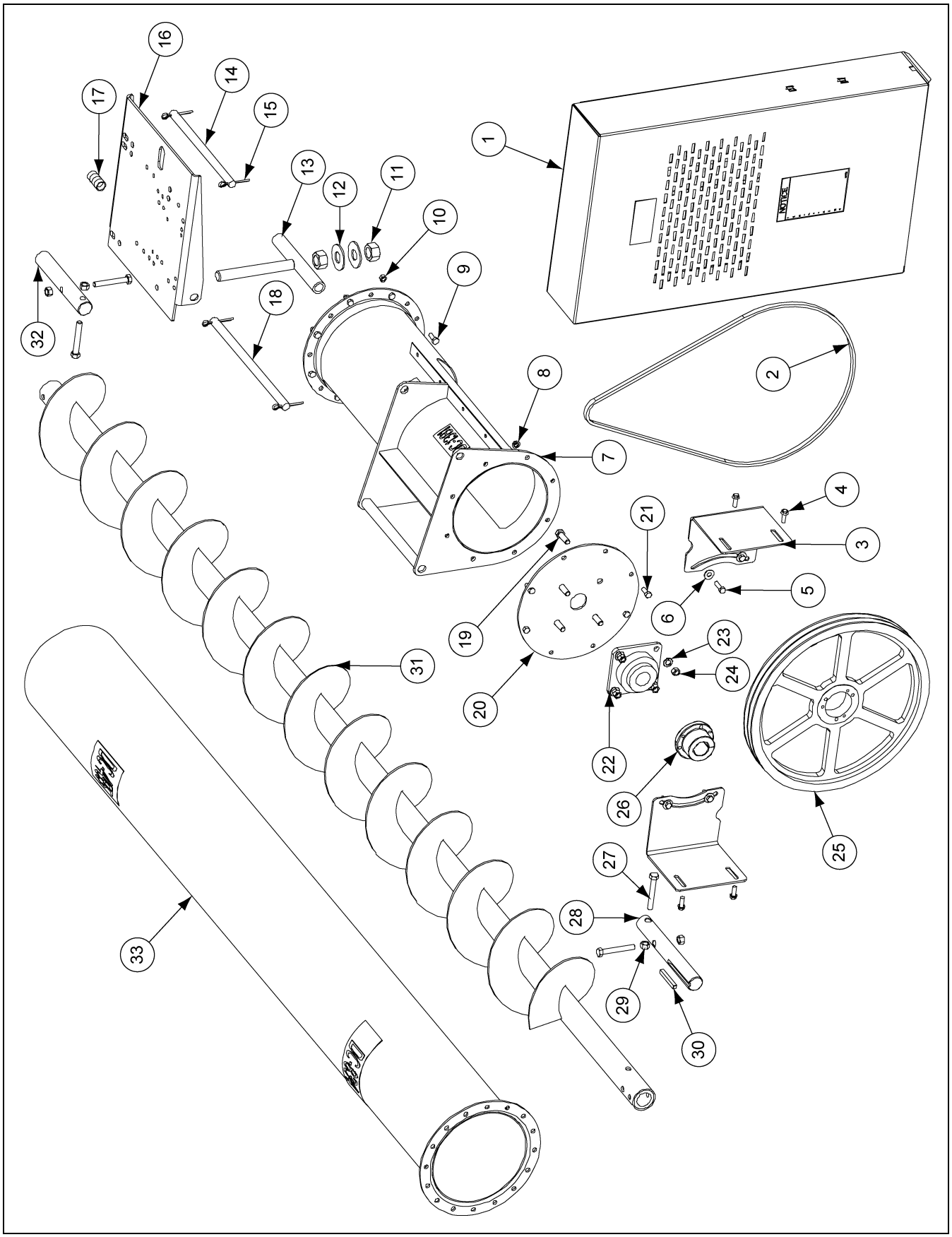
8" Internal Bearing Parts



8" Internal Bearing Parts

Ref #	Part #	Description
1	GK7005	15" Belt Guard Assembly
1	GK7068	19" Belt Guard Galvanized Assembly
2	GK1952	V-Belt B50
2	GK1346	V-Belt B57
2	MHC00160	V-Belt B64
3	GK7006	8" x 15" Belt Guard Mounting Bracket
3	GK7100	8" x 19" Belt Guard Mounting Bracket
4	S-9065	Bolt Flanges 3/8"-16 x 1" ZN Grade 5
5	S-1196	Bolt HHCS 5/16"-18 x 1" ZN Grade 5
6	S-845	Flat Washer 5/16" USS SAE YDP Grade 2
7	GK6997	8" Horizontal Tube Assembly
8	S-3611	Nut Flanges 5/16"-18 YDP Grade 2
9	S-275	Bolt HH Bin 5/16"-18 x 3/4" YDP Grade 5
10	S-3611	Nut Flanges 5/16"-18 YDP Grade 2
11	S-240	Hex Nut 1"-8 ZN Grade 5
12	S-7835	Flat Washer 1" I.D. x 2" O.D. ZN
13	GK7060	6" Motor Mount Adjustment Rod Weldment
14	GK7012	8" Motor Mount Adjustment Pivot Rod
15	S-6994	Cotter Pin 3/16" x 2" ZN Grade 2
16	GK6986	8"-12" Motor Plate
17	GK7014	Drive Unit Pivot Spacer Tube
18	GK7013	8" Motor Mount PLT Pivot Rod
19	S-8760	Bolt HHCS 1/2"-13 x 1-1/2" ZN Grade 5
20	GK6987	8" Horizontal Bearing Plate
21	S-1196	Bolt HHCS 5/16"-18 x 1" ZN Grade 5
22	GK1330	Light Duty 1-1/4" Bore w/ Locking Collar 2 Hole Flange Bearing
23	S-236	Lock Washer, 1/2" Zinc Plated
24	S-7510	Hex Nut 1/2"-13 ZN Grade 2
25	GK1335	12" x 1-1/4" 2 Belt Sheave
25	GK1869	15" x 1-1/4" 2 Belt Sheave
25	GK2567	18.4" 2 Belt Sheave
25	GK2234	15" x 1-1/4" 3 Belt Sheave
25	GK2570	18.4" 3 Belt Sheave
26	GC07674	Bushing SK x 1-1/4" Bore
27	S-8316	Bolt HHCS 7/16"-14 x 3" ZN YDP Grade 8
28	GK1331	1-1/4" O.D. x 10-1/2" Drive Shaft
29	S-4513	1/4" x 1/4" x 2" Key Stock for Shaft
30	S-8317	7/16"-14 Stover Nut
31	GK3735	8" x 10' 10-1/2" Discharge Flight
32	GK1884	1-1/4" x 9" Intake Shaft
33	GK4349	8" x 4' 9-3/8" Extension Flight
33	GK3736	8" x 9' 9-3/4" Extension Flight
34	S-3208	5/8" Lock Washer
35	S-7886	Bolt HHCS 5/8"-11 x 1-3/4" YDP Grade 8
36	GC06394	8" Hange Bearing Assembly
37	GK1736	1-1/4" O.D. x 11-1/2" Connecting Shaft
38	GK3669	Inspection Cover Hole Large 8"
39	S-7382	Nylock Nut 5/16"-18 ZN Grade 5
40	S-7149	Bolt HHTB 5/16"-18 x 1-3/4" ZN Grade 5
41	GK7093	8" x 0.083" x 13' IB Discharge Tube
41	GK7094	8" x 0.083" x 18' IB Discharge Tube

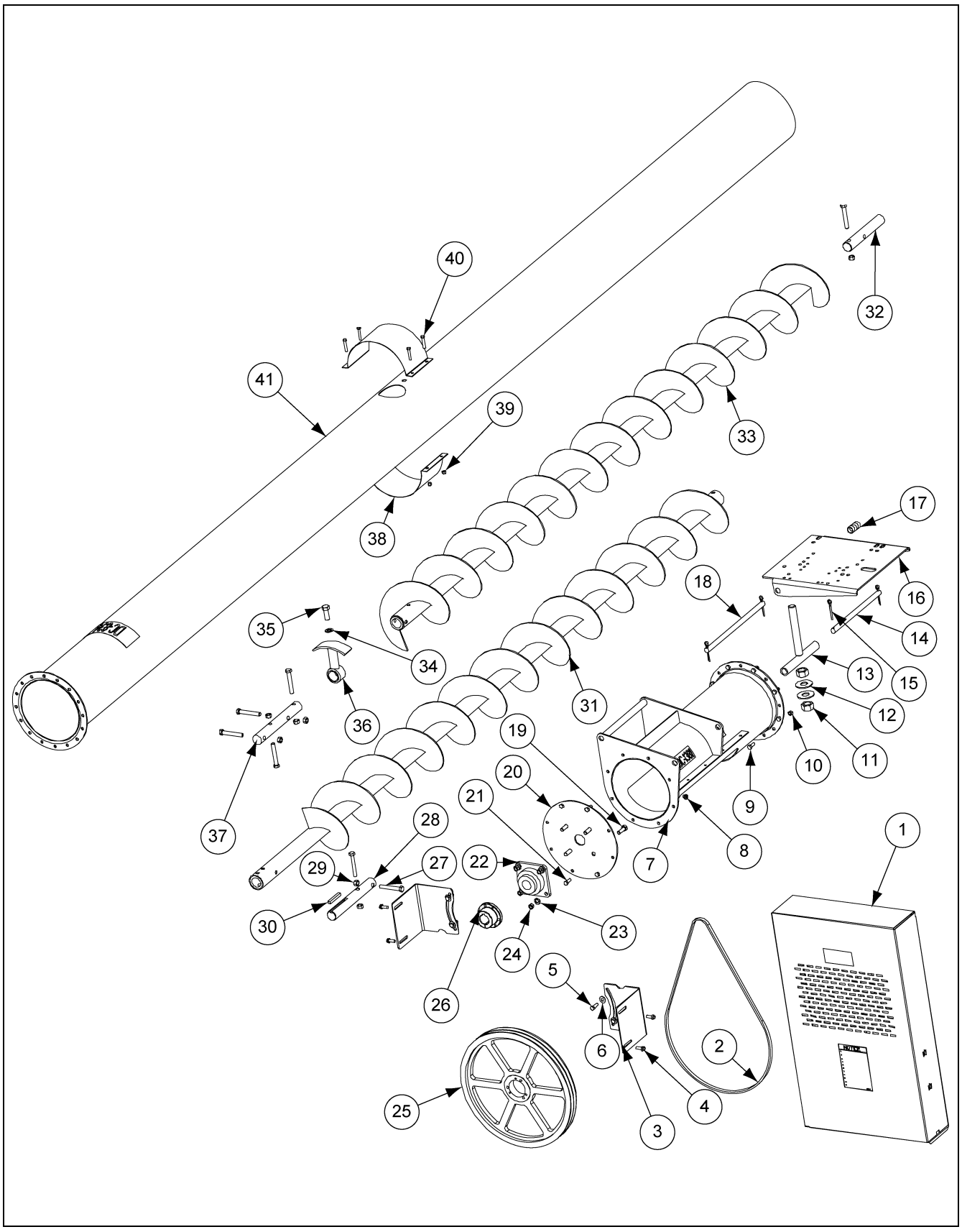
10" Custom Auger Parts



10" Custom Auger Parts

Ref #	Part #	Description
1	GK7005	15" Belt Guard Assembly
1	GK7068	19" Belt Guard Galvanized Assembly
2	GK1346	V-Belt B57
2	MHC00160	V-Belt B64
2	GK4441	V-Belt B60
3	GK7018	10" x 15" Belt Guard Mounting Bracket
3	GK7101	10" x 19" Belt Guard Mounting Bracket
4	S-9065	Bolt Flanges 3/8"-16 x 1" ZN Grade 5
5	S-2071	Bolt HHCS 3/8"-16 x 1-1/4" ZN Grade 5
6	S-248	Flat Washer 3/8" 7/16" I.D. 1" O.D. YDP
7	GK6998	10" Horizontal Tube Assembly
8	S-968	Nut Flanges 3/8"-16 ZN Grade 5
9	S-7520	Bolt HHCS 3/8"-16 x 1" ZN Grade 2
10	S-456	Hex Nut 3/8"-16 YDP Grade 5
11	S-240	Hex Nut 1"-8 ZN Grade 5
12	S-7835	Flat Washer 1" I.D. x 2" O.D. ZN
13	GK6942	8" Motor Mount Adjustment Rod Weldment
14	GK7012	8" Motor Mount Adjustment Pivot Rod
15	S-6994	Cotter Pin 3/16" x 2" ZN Grade 2
16	GK6986	8"-12" Motor Plate
17	GK7014	Drive Unit Pivot Spacer Tube
18	GK7013	8" Motor Mount PLT Pivot Rod
19	S-8760	Bolt HHCS 1/2"-13 x 1-1/2" ZN Grade 5
20	GK7017	10" Horizontal Bearing Plate
21	S-7469	Bolt HHCS 3/8"-16 x 1" ZN Grade 5
22	GK1343	Light Duty 1-1/2" Bore w/ Locking Collar 4 Hole FS Style Flange Bearing
23	S-236	Lock Washer, 1/2" Zinc Plated
24	S-7510	Hex Nut 1/2"-13 ZN Grade 2
25	GK1345	15" x 1-1/2" 2 Belt Sheave
25	GK2567	18.4" 2 Belt Sheave
25	GK1304	15" x 1-1/2" 3 Belt Sheave
25	GK2570	18.4" 3 Belt Sheave
26	GK4248	18.4" Sheave Bushing
26	D03-0264	15" 4 Belt Sheave Bushing
27	S-8314	Bolt HHCS 1/2"-13 x 3-1/2" YDP Grade 8
28	GK1289	1-1/2" O.D. x 12-1/2" Drive Shaft
29	S-9181	3/8" x 3" Square Key
30	S-8315	1/2"-13 Stover Nut
31	GK5143	10" x 11' x 3/16" Discharge Flight Weldment
31	GK5144	10" x 16' x 3/16" Discharge Flight Weldment
31	GK5130	10" x 21' x 3/16" Discharge Flight Weldment
32	GK2907	1-1/2" x 9-1/2" Intake Shaft
33	GK7095	10" x 0.109" x 7' 6" Discharge Tube
33	GK7096	10" x 0.109" x 12' 6" Discharge Tube
33	GK7097	10" x 0.109" x 17' 6" Discharge Tube

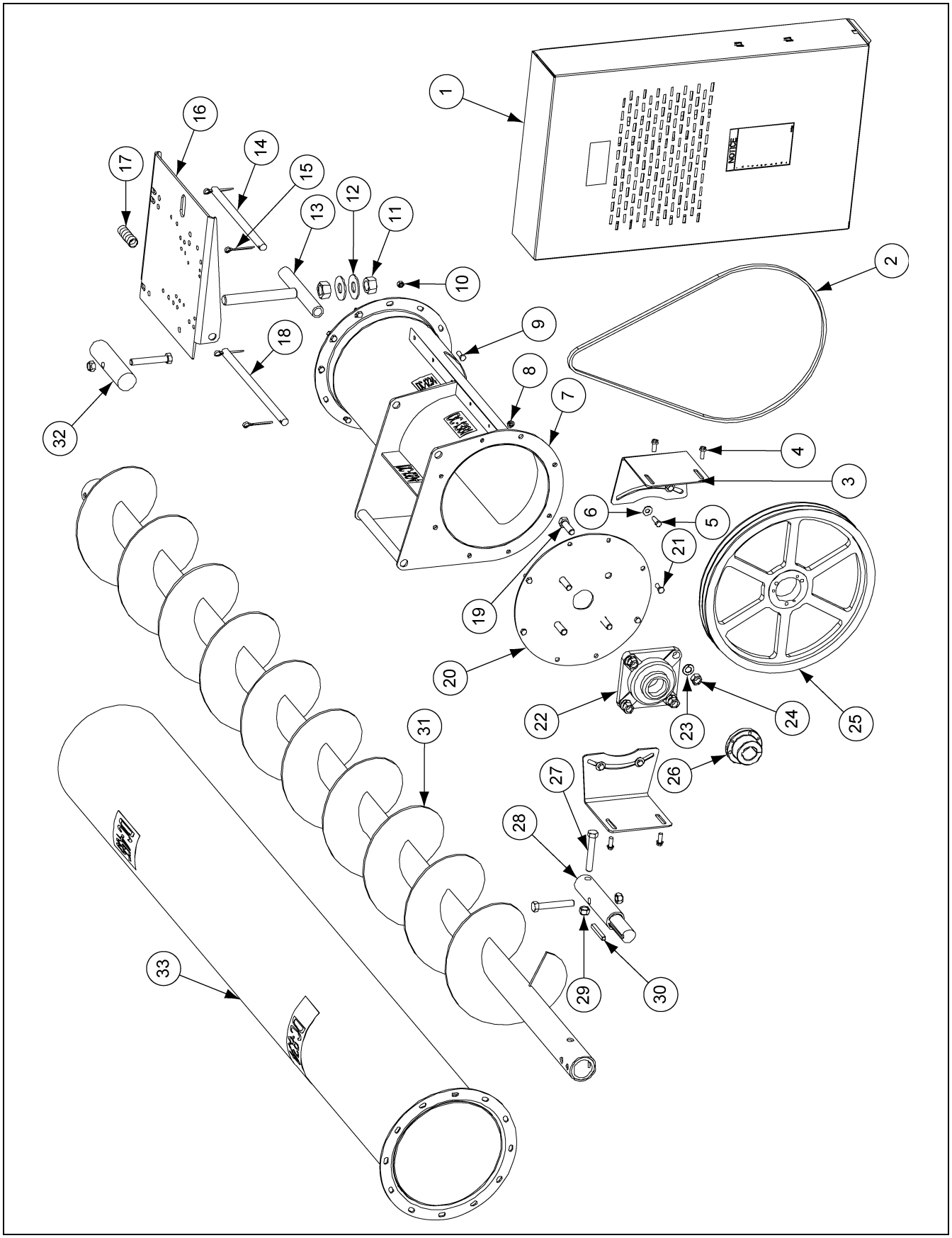
10" Internal Bearing Parts



10" Internal Bearing Parts

Ref #	Part #	Description
1	GK7005	15" Belt Guard Assembly
1	GK7068	19" Belt Guard Galvanized Assembly
2	GK1346	V-Belt B57
2	MHC00160	V-Belt B64
2	GK4441	V-Belt B60
3	GK7018	10" x 15" Belt Guard Mounting Bracket
3	GK7101	10" x 19" Belt Guard Mounting Bracket
4	S-9065	Bolt Flanges 3/8"-16 x 1" ZN Grade 5
5	S-2071	Bolt HHCS 3/8"-16 x 1-1/4" ZN Grade 5
6	S-248	Flat Washer 3/8" 7/16" I.D. 1" O.D. YDP
7	GK6998	10" Horizontal Tube Assembly
8	S-968	Nut Flanges 3/8"-16 ZN Grade 5
9	S-7520	Bolt HHCS 3/8"-16 x 1" ZN Grade 2
10	S-456	Hex Nut 3/8"-16 YDP Grade 5
11	S-240	Hex Nut 1"-8 ZN Grade 5
12	S-7835	Flat Washer 1" I.D. x 2" O.D. ZN
13	GK6942	8" Motor Mount Adjustment Rod Weldment
14	GK7012	8" Motor Mount Adjustment Pivot Rod
15	S-6994	Cotter Pin 3/16" x 2" ZN Grade 2
16	GK6986	8"-12" Motor Plate
17	GK7014	Drive Unit Pivot Spacer Tube
18	GK7013	8" Motor Mount PLT Pivot Rod
19	S-8760	Bolt HHCS 1/2"-13 x 1-1/2" ZN Grade 5
20	GK7017	10" Horizontal Bearing Plate
21	S-7469	Bolt HHCS 3/8"-16 x 1" ZN Grade 5
22	GK1343	Light Duty 1-1/2" Bore w/ Locking Collar 4 Hole FS Style Flange Bearing
23	S-236	Lock Washer, 1/2" Zinc Plated
24	S-7510	Hex Nut 1/2"-13 ZN Grade 2
25	GK1345	15" x 1-1/2" 2 Belt Sheave
25	GK2567	18.4" 2 Belt Sheave
25	GK1304	15" x 1-1/2" 3 Belt Sheave
25	GK2570	18.4" 3 Belt Sheave
26	GK4248	18.4" Sheave Bushing
26	D03-0264	15" 4 Belt Sheave Bushing
27	S-8314	Bolt HHCS 1/2"-13 x 3-1/2" YDP Grade 8
28	GK1289	1-1/2" O.D. x 12-1/2" Drive Shaft
29	S-9181	3/8" x 3" Square Key
30	S-8315	1/2"-13 Stover Nut
31	GK5143	10" x 11' x 3/16" Discharge Flight Weldment
32	GK2907	1-1/2" x 9-1/2" Intake Shaft
33	GK3708	10" x 4' 9-15/16" Extension Flight
33	GK3706	10" x 9' 9-3/4" Extension Flight
34	S-3208	5/8" Lock Washer
35	S-7886	Bolt HHCS 5/8-11" x 1-3/4" YDP Grade 8
36	GC06396	10" Hange Bearing Assembly
37	GK1951	1-1/2" O.D. x 11-1/2" Connecting Shaft
38	GK3670	10" Inspection Cover
39	S-7382	Nylock Nut 5/16"-18 ZN Grade 5
40	S-7149	Bolt HHTB 5/16"-18 x 1-3/4" ZN Grade 5
41	GK7098	10" x 0.109" x 12' 6" IB Discharge Tube
41	GK7099	10" x 0.109" x 17' 6" IB Discharge Tube

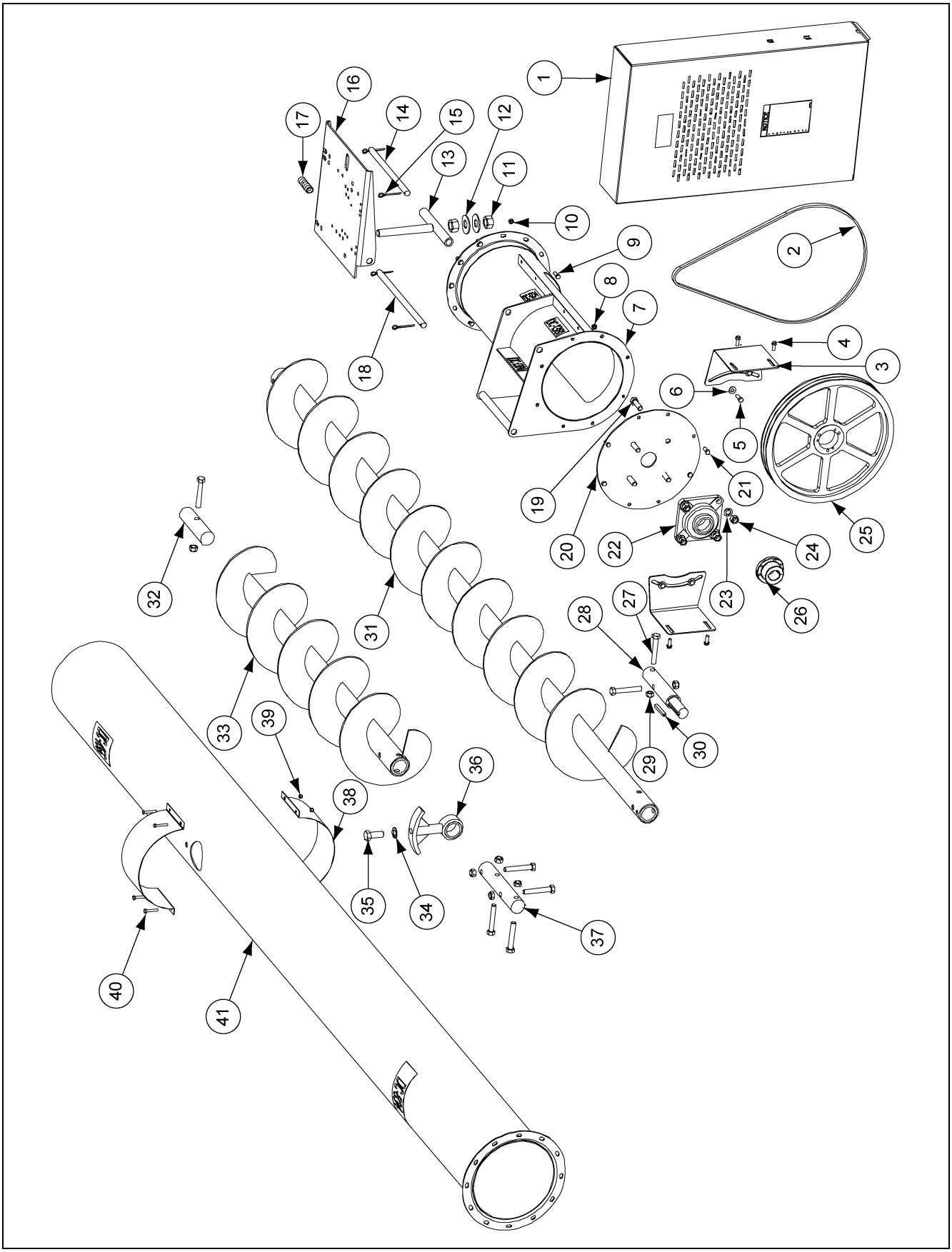
12" Custom Auger Parts



12" Custom Auger Parts

Ref #	Part #	Description
1	GK7068	19" Belt Guard Galvanized Assembly
2	MHC00485	2.6" - 18.4", 2 Belt, 3 HP - 5 HP System
2	MHC00020	2.6" - 18.4", 3 Belt, 7-1/2 HP - 10 HP System
2	MHC00616	3.4" - 15.4", 4 Belt, 15 HP System
3	GK7101	10" x 19" Belt Guard Mounting Bracket
4	S-9065	Bolt Flanges 3/8"-16 x 1" ZN Grade 5
5	S-2071	Bolt HHCS 3/8"-16 x 1-1/4" ZN Grade 5
6	S-248	Flat Washer 3/8" 7/16" I.D. 1" O.D. YDP
7	GK6999	12" Horizontal Tube Assembly
8	S-968	Nut Flanges 3/8"-16 ZN Grade 5
9	S-7520	Bolt HHCS 3/8"-16 x 1" ZN Grade 2
10	S-456	Hex Nut 3/8"-16 YDP Grade 5
11	S-240	Hex Nut 1"-8 ZN Grade 5
12	S-7835	Flat Washer 1" I.D. x 2" O.D. ZN
13	GK6942	8" Motor Mount Adjustment Rod Weldment
14	GK7012	8" Motor Mount Adjustment Pivot Rod
15	S-6994	Cotter Pin 3/16" x 2" ZN Grade 2
16	GK6986	8"-12" Motor Plate
17	GK7014	Drive Unit Pivot Spacer Tube
18	GK7013	8" Motor Mount PLT Pivot Rod
19	S-8399	Bolt HHTB 5/8"-11 x 2" ZN Grade 5
20	GK7064	12" Horizontal Bearing Plate
21	S-7469	Bolt HHCS 3/8"-16 x 1" ZN Grade 5
22	GK2004	Light Duty 2" Bore w/ Locking Collar 4 Hole Flange Bearing
23	S-3208	5/8" Lock Washer
24	S-4110	Hex Nut 5/8"-11 ZN Grade 5
25	GK2567	18.4" 2 Belt Sheave
25	GK2570	18.4" 3 Belt Sheave
25	GK3541	15" 4 Belt Sheave
26	GK4248	18.4" Sheave Bushing
26	D03-0264	15" 4 Belt Sheave Bushing
27	S-7893	Bolt HHCS 5/8"-11 x 4" YDP Grade 8
28	GK2006	2" O.D. x 12" 25° Drive Shaft
29	S-9181	3/8" x 3" Square Key
30	S-8606	5/8"-11 Stover Nut
31	GK5501	12" x 11' x 1/4" Discharge Flight Weldment
31	GK6567	12" x 16' Discharge Flight
31	GK5633	12" x 21' Discharge Flight
32	GK5313	2" x 7-3/4" Intake Shaft
33	GK7243	12" x 0.109" x 7' 6" Discharge Tube
33	GK7244	12" x 0.109" x 12' 6" Discharge Tube
33	GK7245	12" x 0.109" x 17' 6" Discharge Tube

12" Internal Bearing Parts



12" Internal Bearing Parts

Ref #	Part #	Description
1	GK7068	19" Belt Guard Galvanized Assembly
2	MHC00485	2.6" - 18.4", 2 Belt, 3 HP - 5 HP System
2	MHC00020	2.6" - 18.4", 3 Belt, 7-1/2 HP - 10 HP System
2	MHC00616	3.4" - 15.4", 4 Belt, 15 HP System
3	GK7101	10" x 19" Belt Guard Mounting Bracket
4	S-9065	Bolt Flanges 3/8"-16 x 1" ZN Grade 5
5	S-2071	Bolt HHCS 3/8"-16 x 1-1/4" ZN Grade 5
6	S-248	Flat Washer 3/8" 7/16" I.D. 1" O.D. YDP
7	GK6999	12" Horizontal Tube Assembly
8	S-968	Nut Flanges 3/8"-16 ZN Grade 5
9	S-7520	Bolt HHCS 3/8"-16 x 1" ZN Grade 2
10	S-456	Hex Nut 3/8"-16 YDP Grade 5
11	S-240	Hex Nut 1"-8 ZN Grade 5
12	S-7835	Flat Washer 1" I.D. x 2" O.D. ZN
13	GK6942	8" Motor Mount Adjustment Rod Weldment
14	GK7012	8" Motor Mount Adjustment Pivot Rod
15	S-6994	Cotter Pin 3/16" x 2" ZN Grade 2
16	GK6986	8"-12" Motor Plate
17	GK7014	Drive Unit Pivot Spacer Tube
18	GK7013	8" Motor Mount PLT Pivot Rod
19	S-8399	Bolt HHTB 5/8"-11 x 2" ZN Grade 5
20	GK7064	12" Horizontal Bearing Plate
21	S-7469	Bolt HHCS 3/8"-16 x 1" ZN Grade 5
22	GK2004	Light Duty 2" Bore w/ Locking Collar 4 Hole Flange Bearing
23	S-3208	5/8" Lock Washer
24	S-4110	Hex Nut 5/8"-11 ZN Grade 5
25	GK2567	18.4" 2 Belt Sheave
25	GK2570	18.4" 3 Belt Sheave
25	GK3541	15" 4 Belt Sheave
26	GK4248	18.4" Sheave Bushing
26	D03-0264	15" 4 Belt Sheave Bushing
27	S-7893	Bolt HHCS 5/8"-11 x 4" YDP Grade 8
28	GK2006	2" O.D. x 12" 25° Drive Shaft
29	S-9181	3/8" x 3" Square Key
30	S-8606	5/8"-11 Stover Nut
31	GK5501	12" x 11' x 1/4" Discharge Flight Weldment
32	GK5313	2" x 7-3/4" Intake Shaft
33	GK5566	12" x 4' 9-3/4" Extension Flight
33	GK4482	12" x 9' 9-3/4" Extension Flight
34	S-233	3/4" Lock Washer
35	S-869	Bolt HHCS 3/4"-10 x 2" YDP Grade 8
36	GC06398	12" Hange Bearing Assembly
37	GK2222	2" x 11-1/2" Connecting Shaft
38	GK5599	12" Inspection Cover
39	S-7382	Nylock Nut 5/16"-18 ZN Grade 5
40	S-7149	Bolt HHTB 5/16"-18 x 1-3/4" ZN Grade 5
41	GK7249	12" x 0.109" x 12' 6" IB Discharge Tube
41	GK7250	12" x 0.109" x 17' 6" IB Discharge Tube

Problem	Possible Cause	Solution
The auger is vibrating.	1. Damage can occur to the auger flighting, causing noise. Damage usually is caused from foreign material being run through the auger.	1. It may be necessary to remove the flighting for inspection.
	2. Drive belt may be overtightened, putting head stub and flight in a bind.	2. Loosen the drive belts.
Capacity is too low.	1. There may not be enough grain reaching the auger.	1. Make sure the intake has not bridged over, restricting flow. The flighting at the intake should be covered with grain for maximum capacity.
	2. The auger is moving too slowly.	2. Check the auger speed. Low capacity will result from speeds slower than recommended.
The auger plugs.	1. The auger may be “jamming” because too much grain is reaching the auger.	1. Use the control gates to decrease the amount of grain the auger is gathering.
	2. The grain may be wet.	2. If wet grain or other hard-to-move material is being augured, use a larger size motor than recommended for normal use.
	3. The auger may be jammed with foreign material.	3. Remove any foreign material in the auger.
	4. The motor may be to small or wired incorrectly.	4. Check wiring or consider using the next larger size motor.

GSI Group, LLC 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 (1-3/4" and 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 and Tower Dryers	2 Years
	Portable and 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.

9101239_1_CR_rev7.DOC (revised July 2009)

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