

## 6", 8", 10", & 12" Custom Augers

Assembly & Operation Manual

**PNEG-1445**

**Date: 05-08-07**

GSI GROUP



PNEG-1445



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# 1. INTRODUCTION

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## 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.

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

WARRANTY is provided as part of the company's support program for customers who use and maintain their equipment as described in the manual. The warranty is explained on the warranty page located on the inside of the back cover.

## 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

1. 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
2. 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 it's 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 to.

## 2. SAFETY

### Safety Instructions

Our principle concern is your safety and the safety of others associated with grain handling 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.

#### **Operate Unload Equipment Properly**

Make sure ALL equipment is locked in position before operating.

NEVER start equipment until ALL persons are clear of the work area.

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.

NEVER work alone.

Make sure someone is near by who is aware of the proper shutdown 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 lockout ALL power to the equipment when finished unloading a bin.



**Operate Unload  
Equipment Safely**

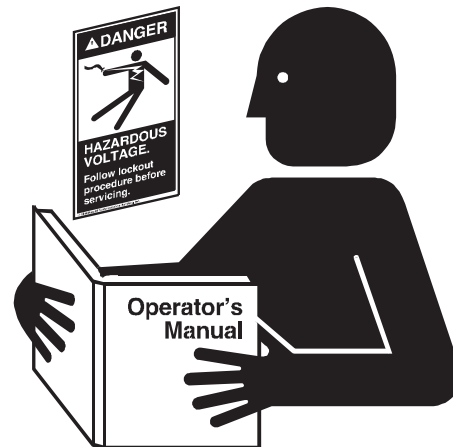
### Follow Safety Instructions

Carefully read all safety messages in this manual and on your machine safety signs. 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 and need assistance, contact your dealer.



**Read and Understand Manual**

### Install & Operate Electrical Equipment Properly

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

Electrical 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.

Disconnect and lock out all power sources before installing wires/cables or servicing equipment.

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 type of condition can damage the equipment.



**Electric Shock Hazard**

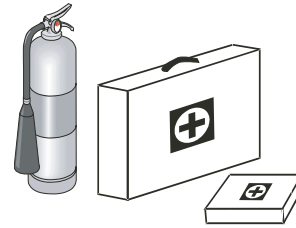
## 2. SAFETY

### 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.



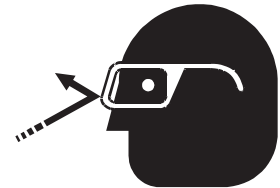
**Keep Emergency Equipment Quickly Accessible.**

### Wear Protective Clothing

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

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

**Eye Protection**



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

**Gloves**



Wear steel toe boots to help protect your toes from falling debris.

**Steel Toe Boots**



A respirator may be needed if a hog house has poor ventilation. Waste fumes can be toxic.

**Respirator**



Remove all jewelry.

Tuck in any loose or dangling shoe strings.

Long hair should be tied up and back.

Wear hard hat to help protect your head.

**Hard Hat**





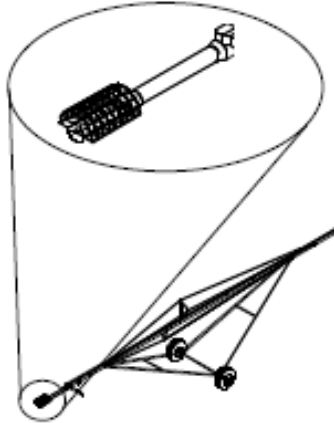
### Operator Qualifications

1. 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:
  - A. Any person who has not read and/or does not understand all operation and safety instructions is not qualified to operate any auger systems.
  - B. 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.
  - C. Unqualified or incompetent persons are to remain out of work area.
  - D. O.S.H.A. (Occupational Safety & 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 & Health Standards for Agriculture. Sub part D, Section 19287.57 (a) (6).
  
2. 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. We included this sign-off sheet for your convenience and personal record keeping. All unqualified people are to stay out of the work area at all times. It is strongly recommended that another qualified person who knows the shutdown procedure is in the area in the event of an emergency. A person who has not read this manual and understands all operating and safety instructions, is not qualified to operate the machine.

| Date | Employees Name (Printed) | Employees Signature |
|------|--------------------------|---------------------|
| 1    |                          |                     |
| 2    |                          |                     |
| 3    |                          |                     |
| 4    |                          |                     |
| 5    |                          |                     |
| 6    |                          |                     |
| 7    |                          |                     |
| 8    |                          |                     |
| 9    |                          |                     |
| 10   |                          |                     |
| 11   |                          |                     |
| 12   |                          |                     |
| 13   |                          |                     |
| 14   |                          |                     |
| 15   |                          |                     |
| 16   |                          |                     |
| 17   |                          |                     |
| 18   |                          |                     |
| 19   |                          |                     |
| 20   |                          |                     |

# SAFETY 1<sup>st</sup>

**Replace missing guards and shields  
FREE OF CHARGE!**



Our equipment is built to provide many years of dependable service to our customers through durable craftsmanship.

One of the most important aspects of our engineering is **SAFETY 1<sup>st</sup>** design throughout all product lines. Safety is NO ACCIDENT!

That is why we are implementing its **SAFETY 1<sup>st</sup>** program. Should you ever need guards, shields, safety decals, or owner/operator manuals, simply contact us, and we will supply you with them **FREE OF CHARGE!**

While it is our main goal to be the world leader in auger manufacturing, it is always our first priority to keep our customers safe.

If you need any of the above listed safety items or have safety questions, please contact:

The GSI Group  
PO Box 20  
1004 E. Illinois Street  
Assumption, IL 62510  
Ph: 1-217-226-4421

### 3. SAFETY DECALS

The Decal List below has all the safety decals that should be included with your equipment. The following pages 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  
 Ph: (217)-226-4421



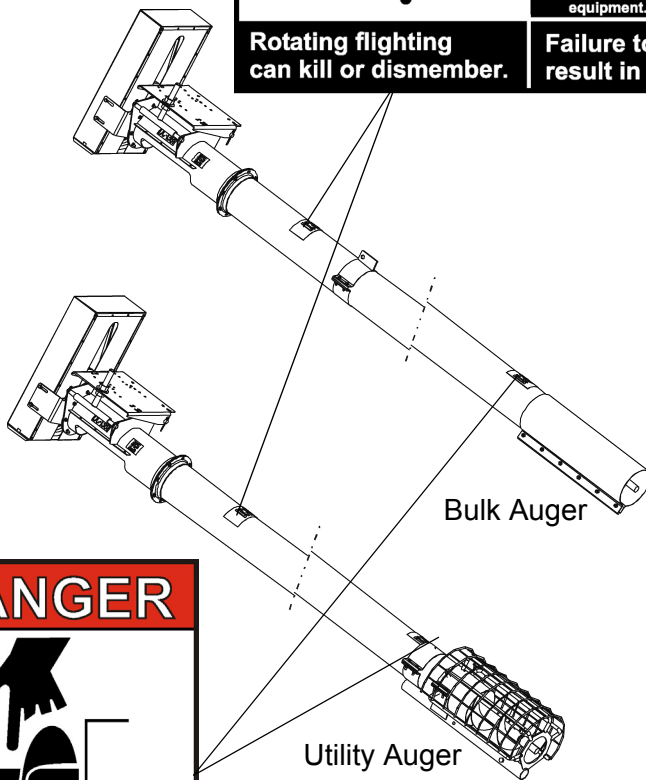
**⚠ DANGER**

1. Keep all safety shields and devices in place.
2. Keep hands, feet, hair, loose clothing, and other objects away from moving parts.
3. Do not operate the machine unless visitors, children, and all other untrained personnel are well clear of the machine and work area.
4. Stop the machine and lock out power to clean, lubricate, service, or adjust.
5. Read operation and assembly manual completely before using equipment.

**Rotating flighting can kill or dismember.**

**Failure to heed these warnings will result in serious injury or death.** DC-834

③ DC-834



**⚠ DANGER**



**Keep clear of rotating auger and moving parts.**

**Do not remove or modify guards.**

**Disconnect and lockout power before servicing.**

**Failure to do so will result in serious injury or death.** DC-455

⑤ DC-455

| 6", 8", & 10" Roof Auger Decal List |          |                 |                          |
|-------------------------------------|----------|-----------------|--------------------------|
| Ref #                               | Part #   | Size            | Description              |
| 1                                   | DC-1381  | 4-1/2" x 2"     | Danger - Shear Point     |
| 2                                   | DC-994   | 4-1/2" x 2"     | Danger - Shear Point     |
| 3                                   | DC-834   | 9" x 3-3/4"     | Danger - Unloading       |
| 4                                   | DC-1379  | 5-1/8" x 7-3/8" | Notice -1 - 11           |
| 5                                   | DC-455   | 4" x 5-3/4"     | Danger - Rotating Flight |
| 6                                   | DC-12L34 | 2-1/4" x 2-3/4" | Caution                  |
| 7                                   | DC-1395  | 4-1/4" x 6-1/4" | Danger - Rotating Flight |

### 3. SAFETY DECALS

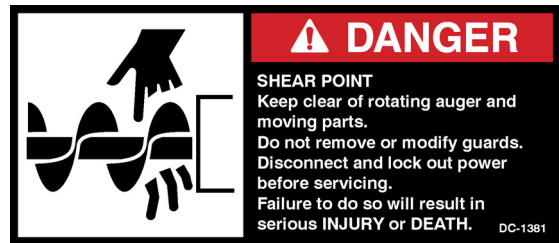
Check components shown below to insure that the safety decals are in place and in good condition. If a decal cannot be easily read for any reason or has been painted over, replace it immediately. Contact your dealer or the manufacturer to order a replacement Decal free of charge.

**Contact:**

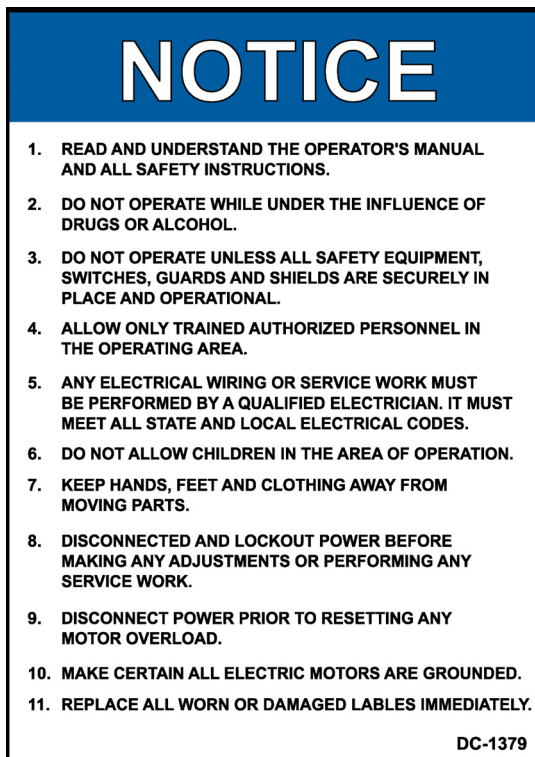
The GSI Group  
 1004 E. Illinois Street  
 Assumption, IL 62510  
 Ph: (217)-226-4421



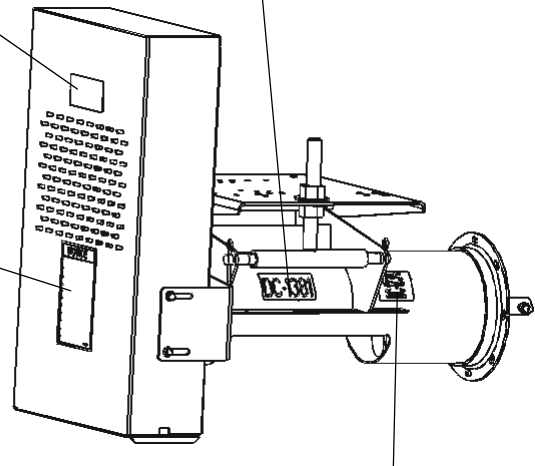
① DC-994



⑤ DC-1381



④ DC-1379



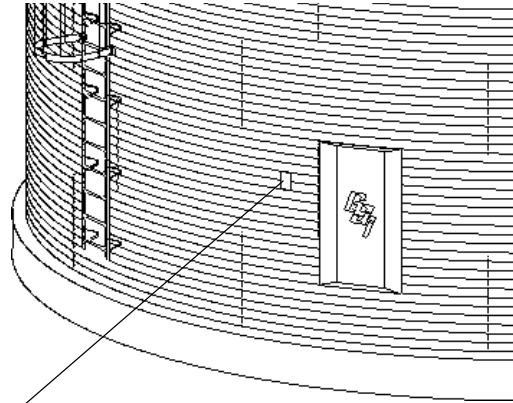
⑥ DC-1234

### 3. SAFETY DECALS

Check components shown below to insure 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.

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.



⑥ DC-1395

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

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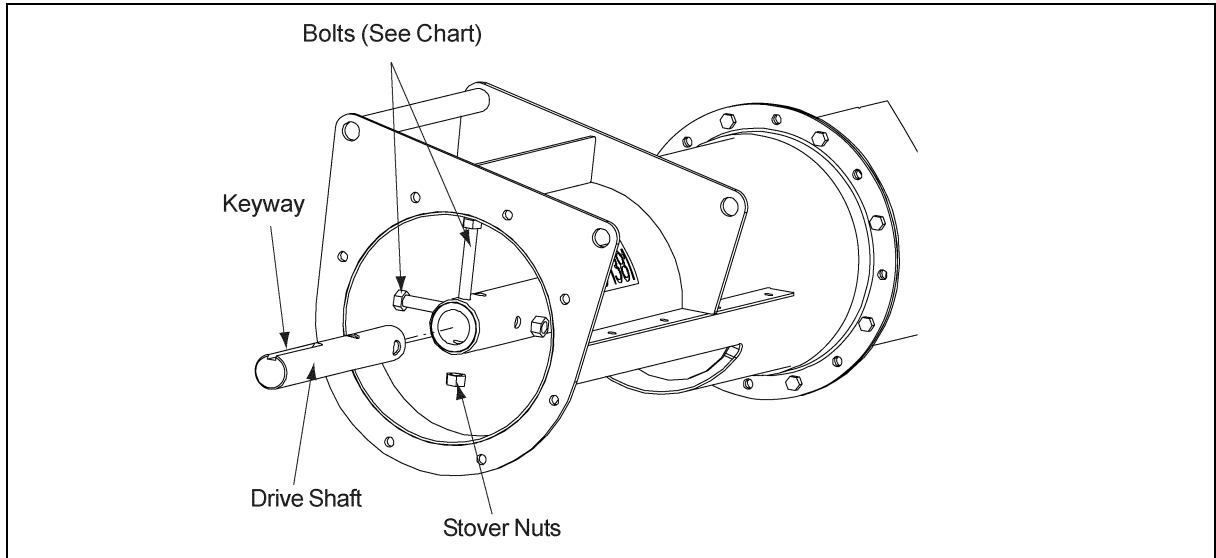
## 4. ASSEMBLY

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

#### 1. Installing Drive Shaft

- A. 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 for Bolt Sizes), (See Figure 4A).*

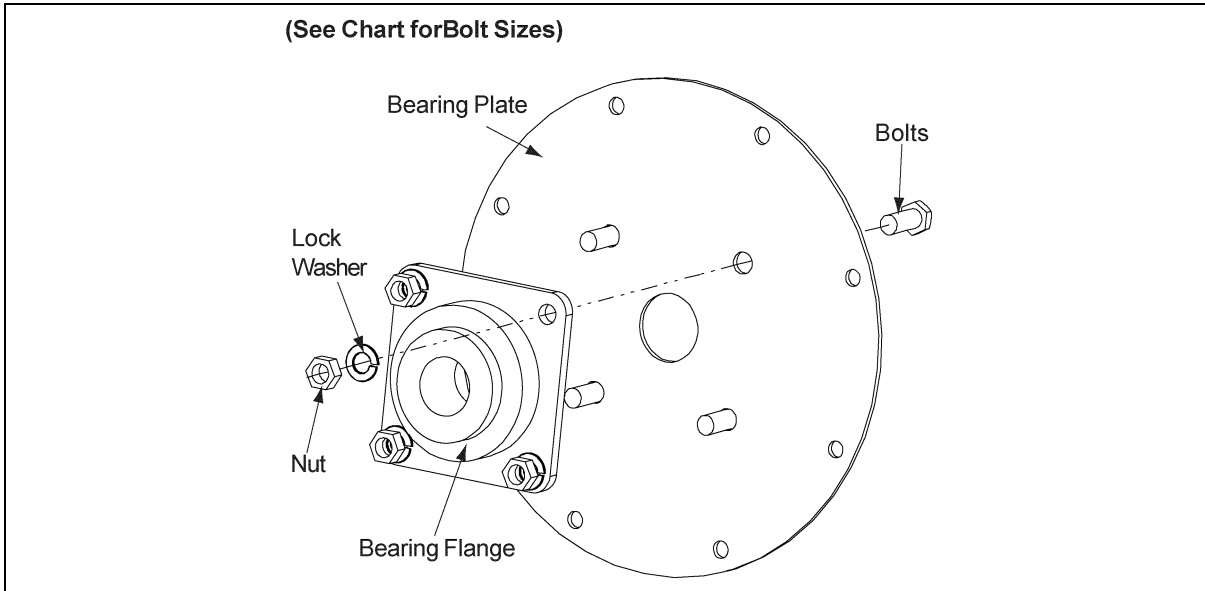


**Figure 4A**

| 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 Bolt      |

## 2. Mounting Bearing to Bearing Plate

- A. Align bolt holes on Bearing Flange with bolt holes on Bearing Plate.
- B. Secure Bearing to Bearing plate using appropriate bolts, lock washers, and nuts. *(See Chart for Bolt Sizes), (See Figure 4B).*



**Figure 4B**

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

## 4. ASSEMBLY

### 3. Installing Bearing Plate onto Tube

- A. Align Bearing with Drive Shaft and slip Shaft through bearing.
- B. Rotate Plate until bolt holes in tube flange and plate align. Secure with appropriate bolts, and Serrated Flange nut (*See Chart for Bolt Sizes*).
- C. Only Secure with UPPER and LOWER four (4) bolts (*See Figure 4G*). The other four (4) bolts will be installed later with the Belt Guard Mounting Brackets. (*See Chart for Bolt Sizes*).

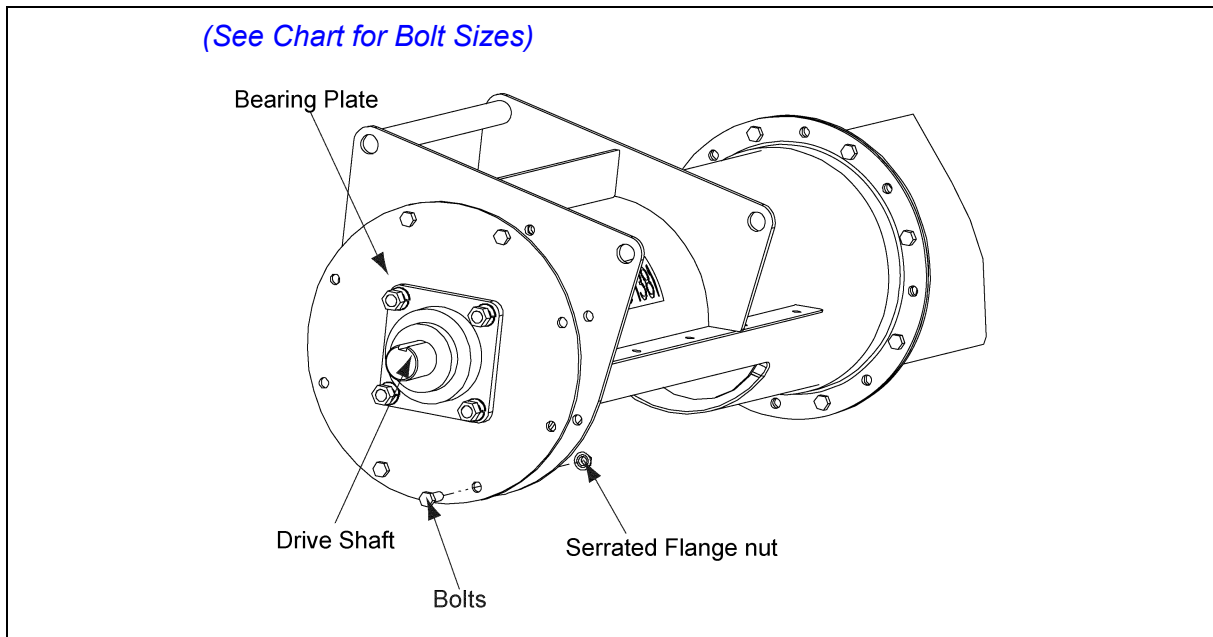


Figure 4C

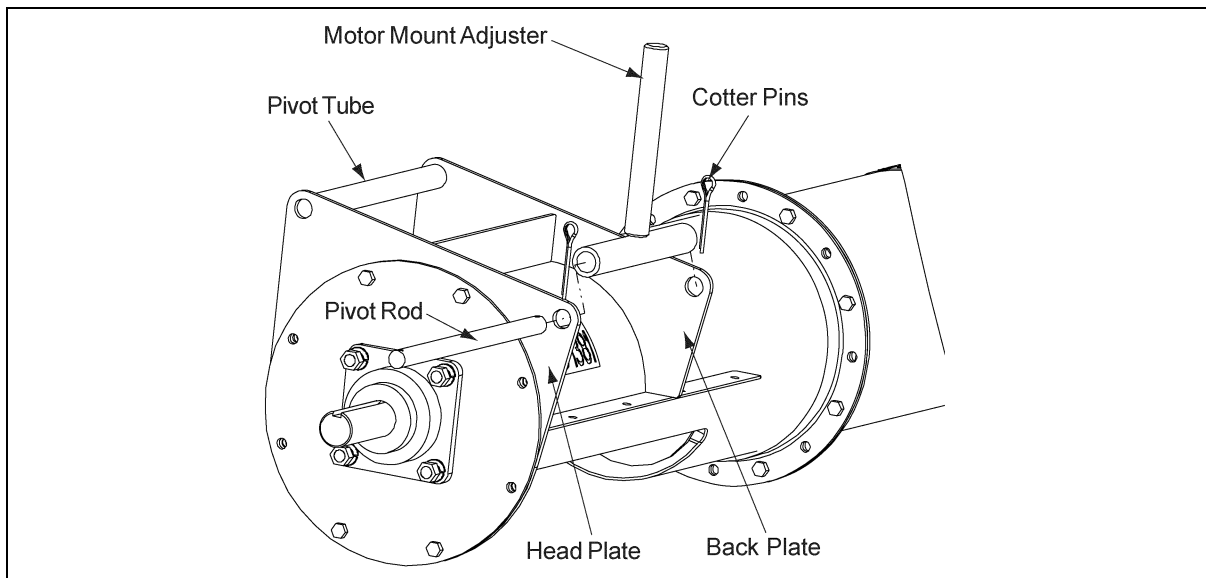
| Bearing Plate Bolts |                      |
|---------------------|----------------------|
| 6" & 8"             | 5/16" - 18 x 1" Bolt |
| 10" & 12"           | 3/8" - 16 x 1" Bolt  |

**Note:** On the 10" & 12" systems use the four (4) 3/8" x 1" -16 bolts in this step, the longer bolts will be used to attach the Belt Guard Mounting Brackets in a future step.

### 4. Installing the Motor Mount Adjuster

- A. Place Motor Mount Adjuster between the Back Plate and Head Plate on the Discharge Tube.
- B. 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*).

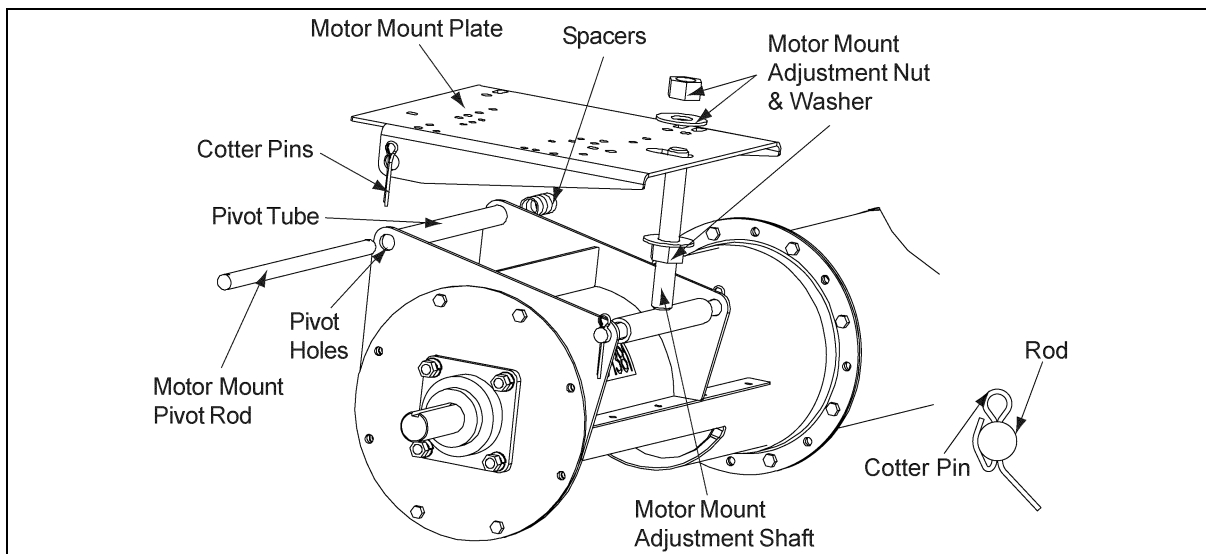




**Figure 4D**

### 5. Installing the Motor Mount Plate

- A. 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.
- B. 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).



**Figure 4E**

- C. Slide the Motor Mount Pivot Rod through the pivot tube on the Discharge Tube.
- D. 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).

## 4. ASSEMBLY

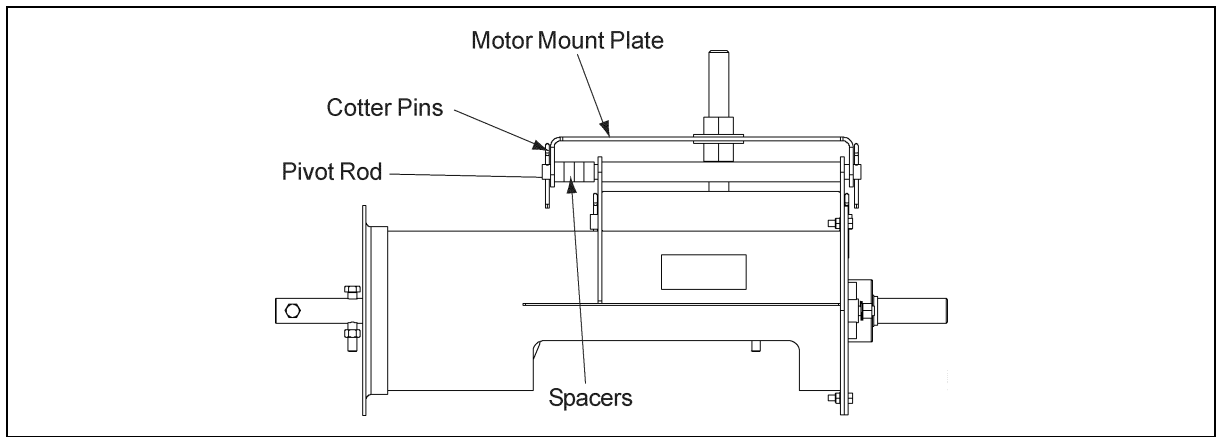


Figure 4F

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

### 6. Installing the Belt Guard Brackets

- A. Align the holes on the Bearing Plate with the slots on the Belt Guard Mounting Brackets.
- B. Secure the Brackets with proper bolts, flat washers, and Serrated Flange nut .  
(See Chart for Bolt Sizes), (See Figure 4G).

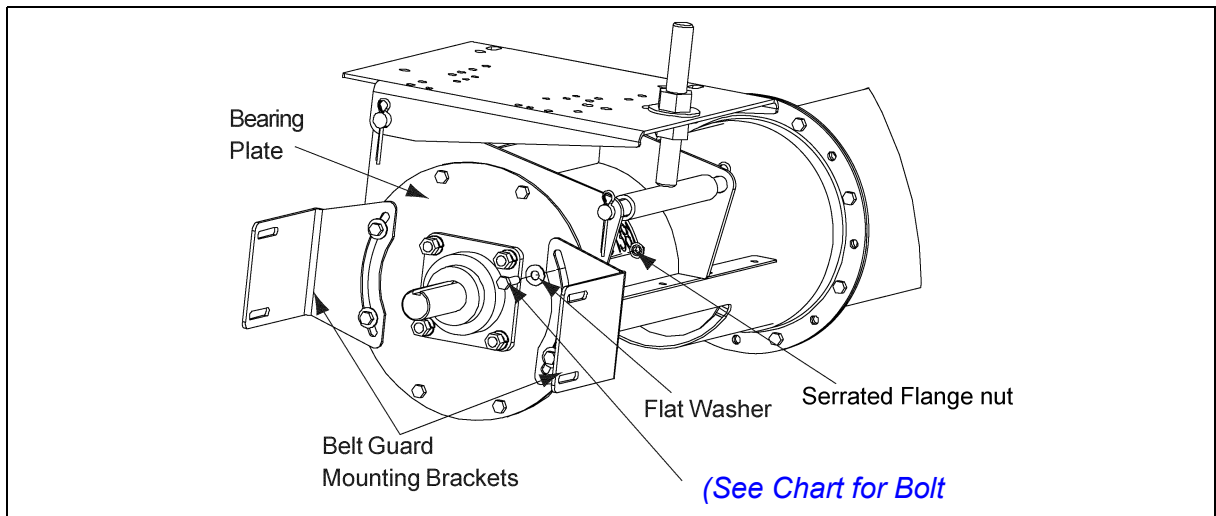


Figure 4G

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

**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.*

### 7. Installing the Lock Collar

- A. 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](#)).

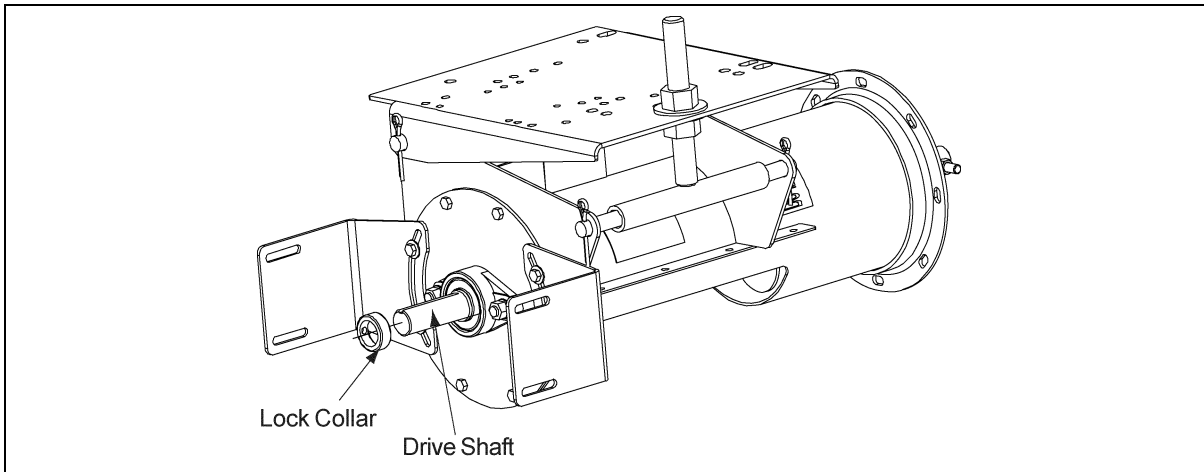


Figure 4H

### 8. Installing the Pulley

- A. Place and position the key into the keyway located on the Drive Shaft.
- B. Place the pulley onto the Drive Shaft with the setscrew 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.
- C. Once the pulley is appropriately positioned, tighten the setscrew with a hex head wrench to secure it to the drive shaft. (See [Figure 4I](#)).

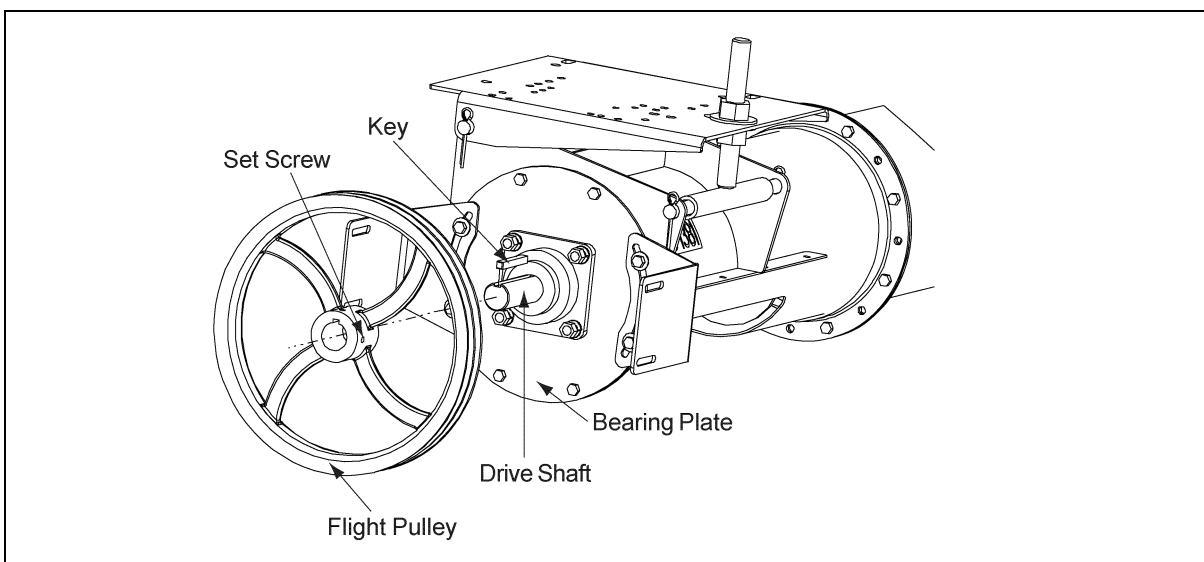


Figure 4I

## 4. ASSEMBLY

### 9. Tightening the Lock Collar

- A. 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 setscrew.

**Note:** *If the lock collar is not turned far enough, the setscrew will not lock it into place.*

### 10. Installing the Motor (Not Provided)

- A. Attach the Motor to the Motor Mount Plate using appropriate bolts, lock washers, and hex nuts. (See [Chart for Bolt Sizes](#)).
- B. 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](#)).

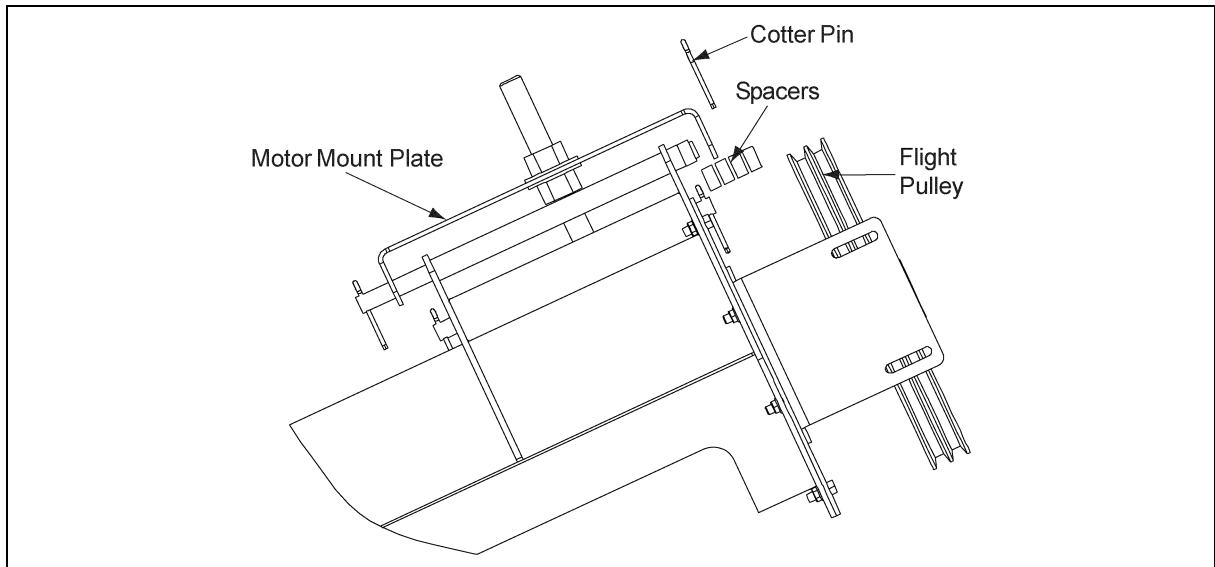


Figure 4J

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

### 11. Installing the Belts

- A. Place the belts onto the pulleys.
- B. First screw the lower Motor Mount Adjustment Nut upward, raising the Motor Mount Plate, putting tension on the belts.
- C. Once the desired tension is reached tighten the Upper Motor Mount Adjustment Nut down onto the Motor Mount Plate locking it into place.

### 12. Installing the Belt Guard

- A. With the belts properly tensioned remove the bottom Belt Guard cover and slip Belt Guard down over motor shaft.
- B. Bolt the Belt Guard to the Belt Guard Mounting Brackets, the brackets should still be loose at this time.
- C. 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).
- D. Once the brackets are tightened slide the bottom cover back into place and secure with supplied bolt.

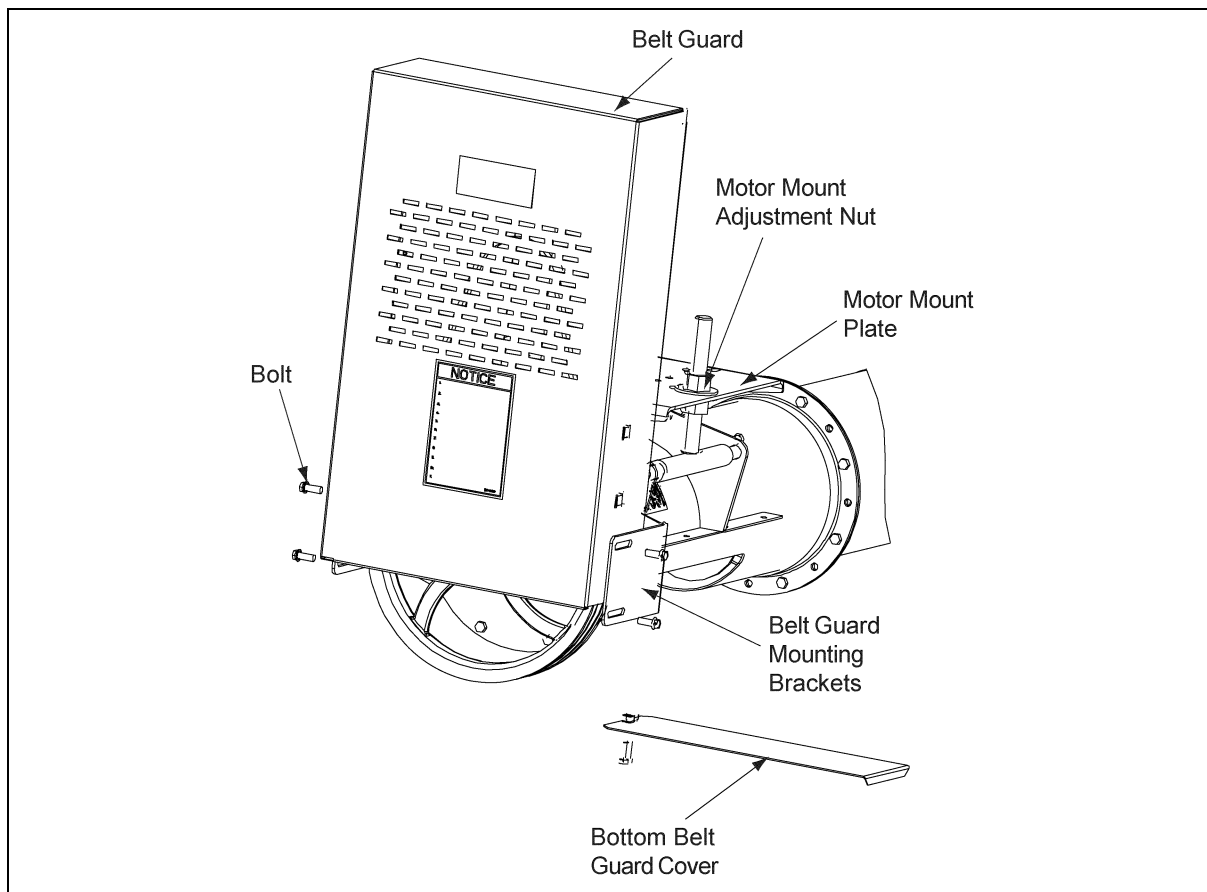


Figure 4K

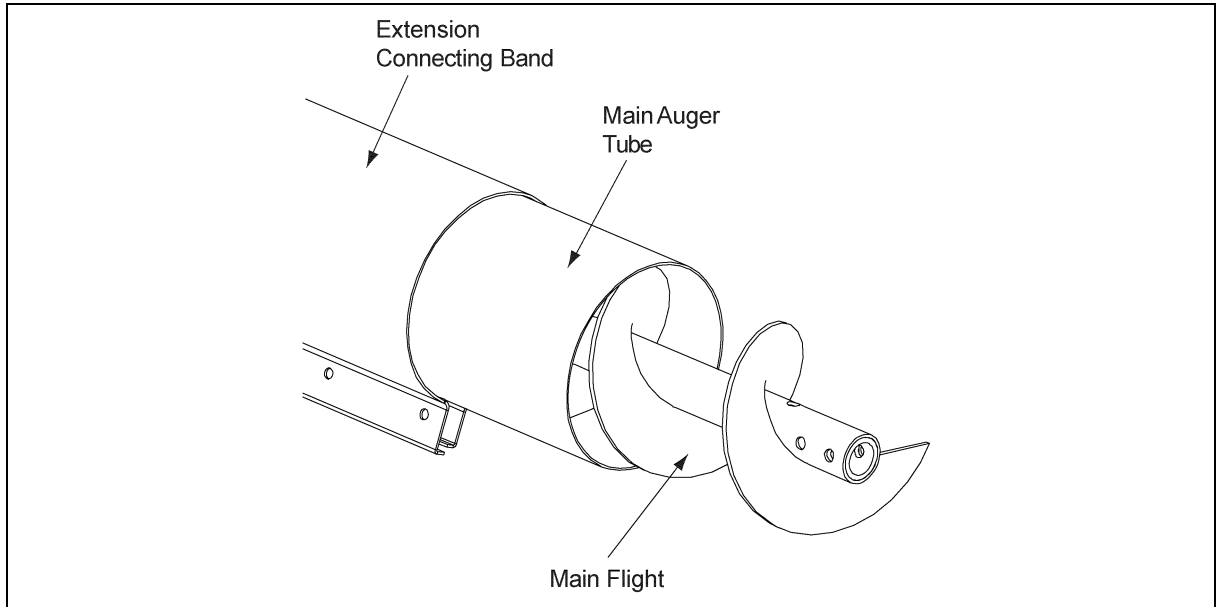
## 4. ASSEMBLY

### Assembling the Flight Extension for All 6", 8", 10" & 12" Custom Augers

#### 13. Standard Assembly without Bearings

**Note:** If your auger does not include an extension skip ahead to [Step - 13E](#).

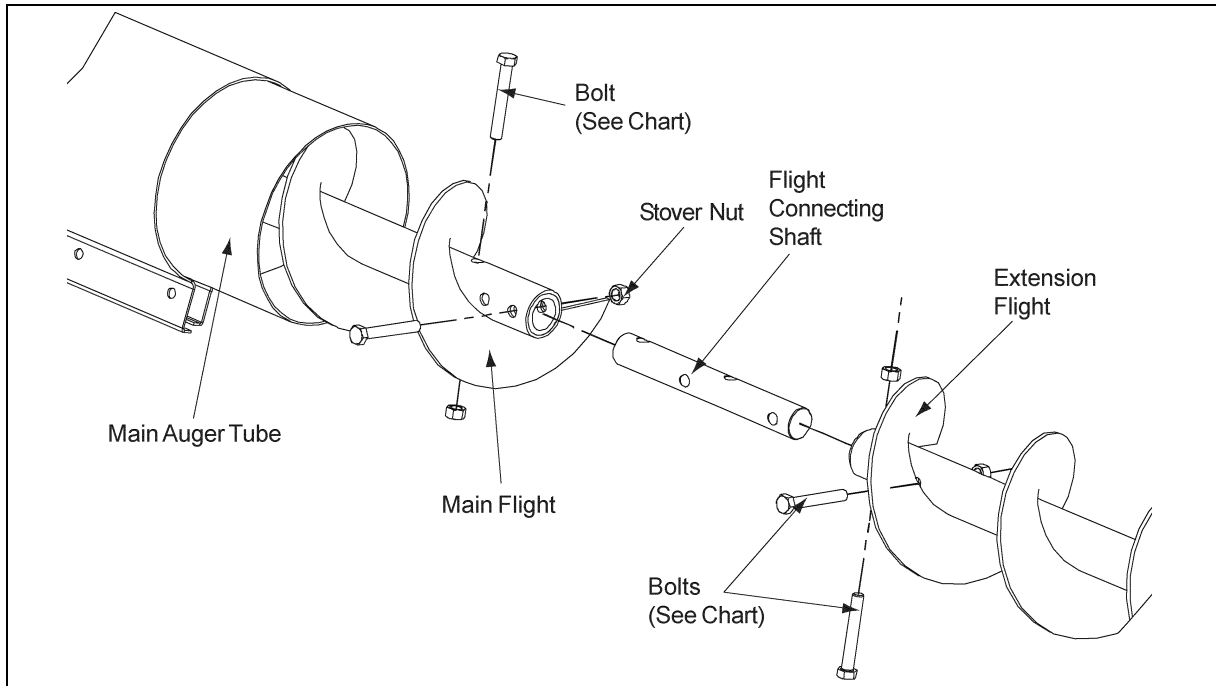
- A. Begin by sliding the extension connecting band onto the main auger tube.  
(See [Figure 4L](#)).



**Figure 4L**

## 4. ASSEMBLY

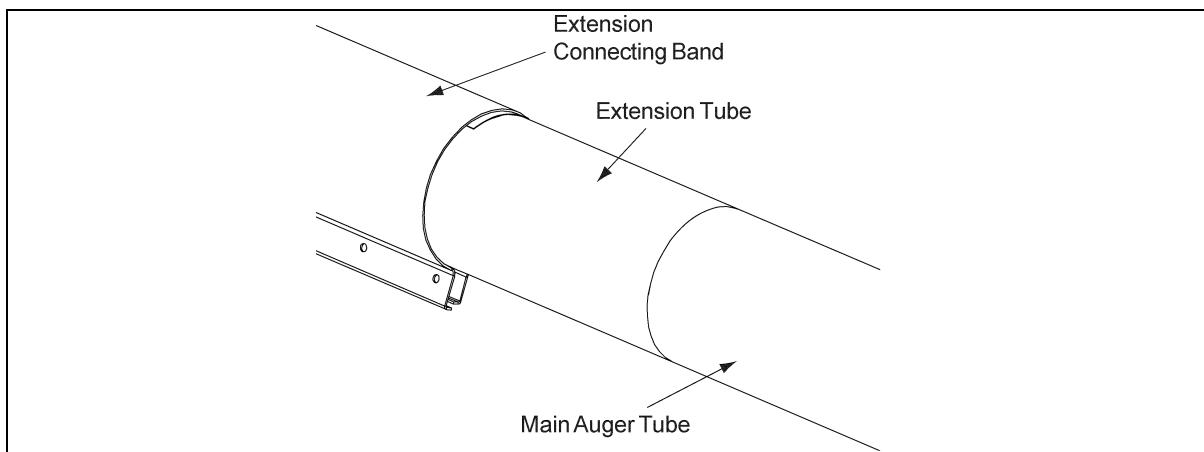
- B. Slide the flight connecting shaft into the main section of flight and bolt together with Grade 8 Hex Bolt and Stover nut. Next slide extension flight onto connecting shaft and bolt together using proper grade 8 bolts and stover nuts. (See Chart for Bolt Sizes), (See Figure 4M).



**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 Bolt      |

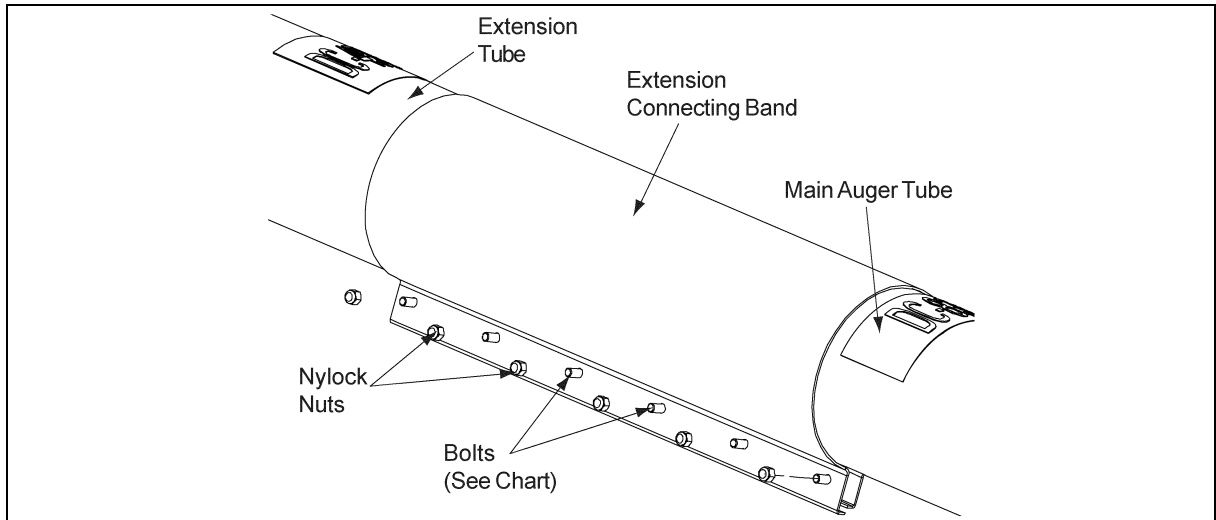
- C. Slide the extension tube over the extension flight, making sure the tube is pressed securely against the main auger tube. (See Figure 4N).



**Figure 4N**

## 4. ASSEMBLY

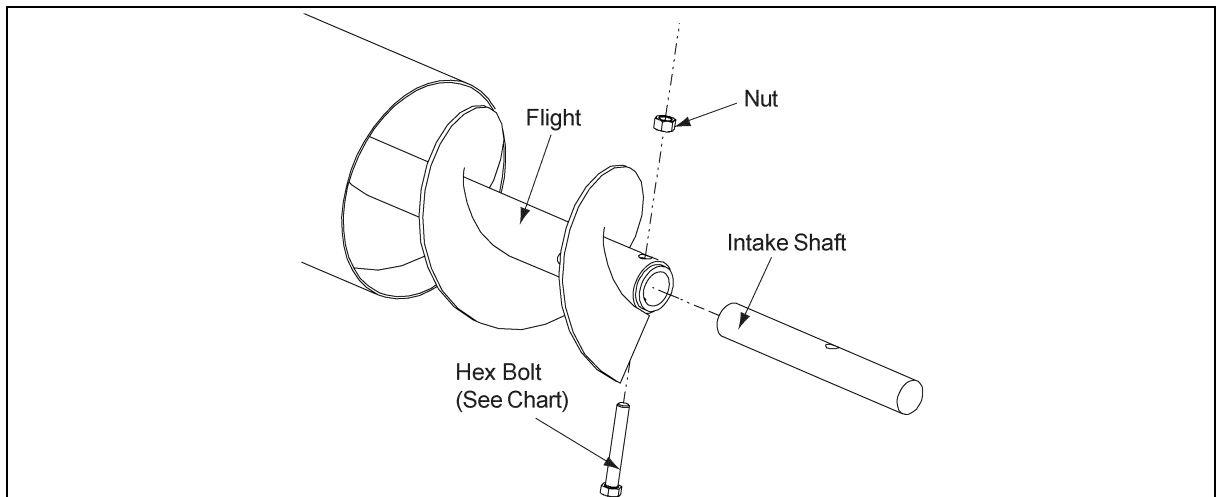
- D. Slide the extension connecting band over the two sections of tube, making sure the connecting band is centered over the mated surfaces of the tubes. Tighten the connecting band down using the correct Hex Bolts and Nylock nuts. *(See Chart for Bolt Sizes), (See Figure 4O).*



**Figure 4O**

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

- E. Insert the intake shaft into the flight and connect with proper grade 8 bolt and stover nut. *(See Chart for Bolt Sizes), (See Figure 4P).*



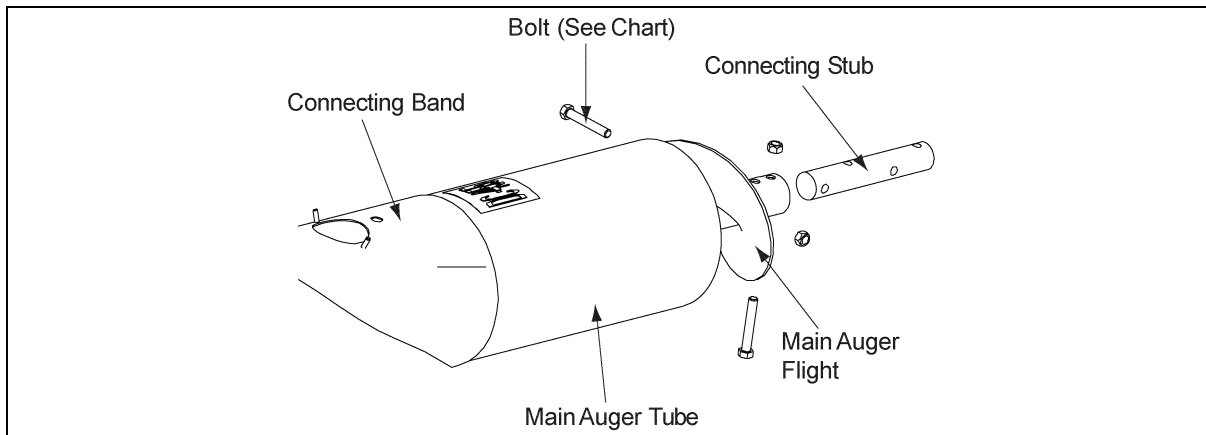
**Figure 4P**

| 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 Bolt      |



## 14. Assemblies with Internal Bearings

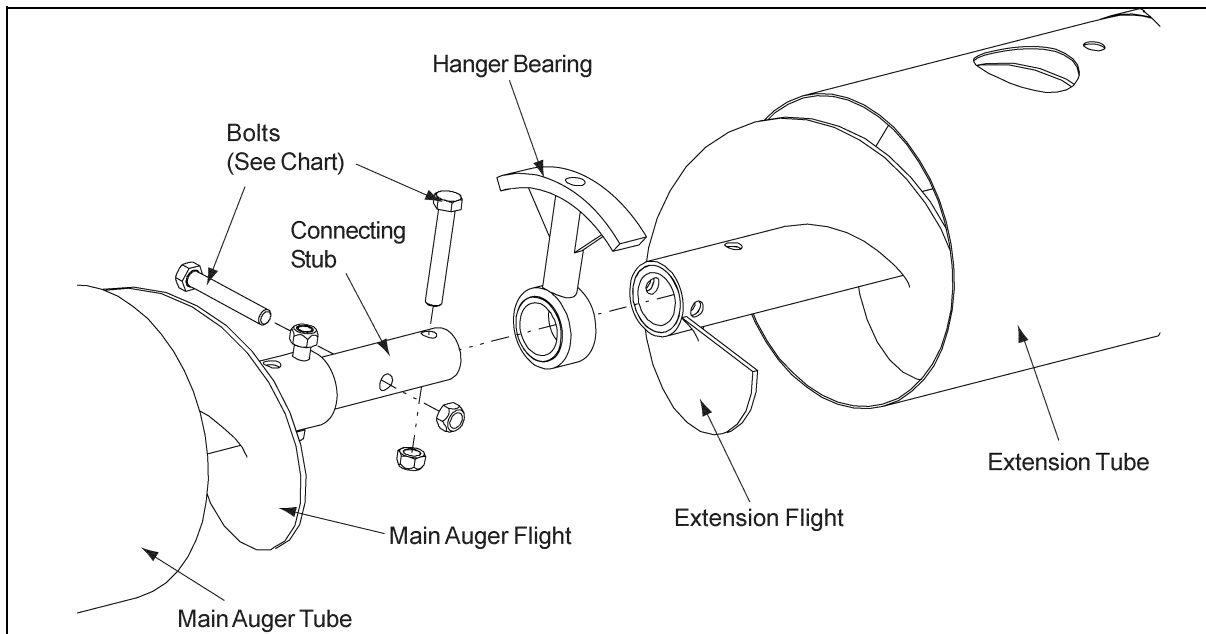
A. Slide Connecting Band onto main auger tube, and attach Connecting Stub to main auger flight using the assigned hardware. (See Chart for Bolt Sizes), (See Figure 4Q).



**Figure 4Q**

| 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 Bolt      |

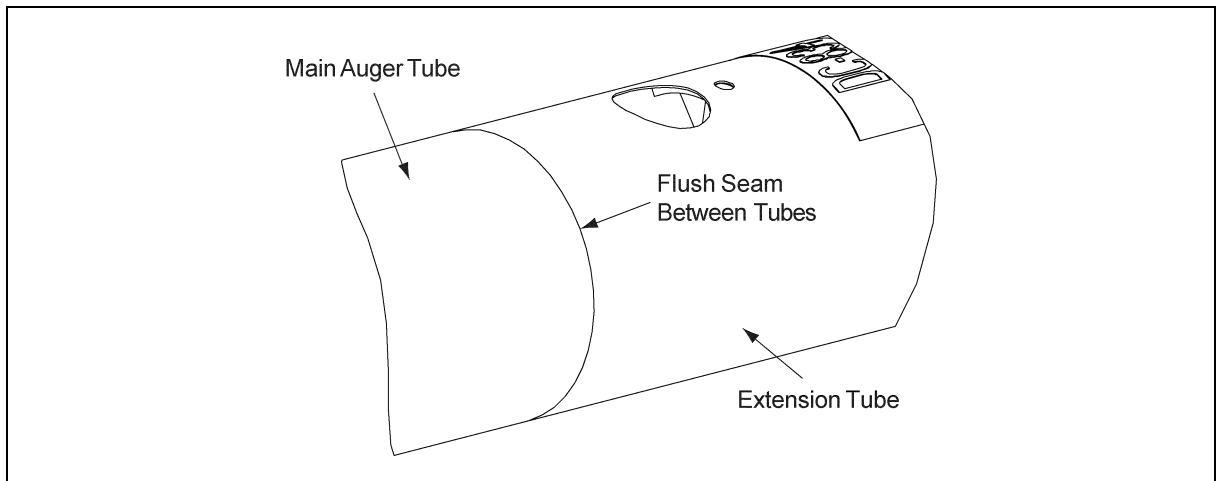
B. Slide Hanger Bearing onto Connecting Stub, followed by Extension Flight. Bolt Extension Flight to Connecting Stub using assigned hardware. (See Chart Above), (See Figure 4R).



**Figure 4R**

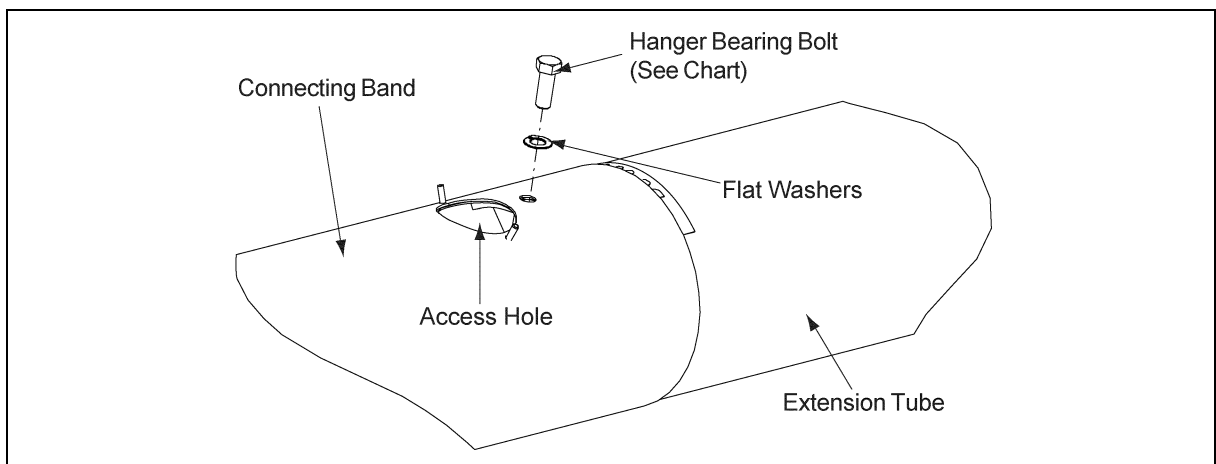
## 4. ASSEMBLY

- C. With flight sections bolted together slide Extension Tube flush against Main Auger Tube. (See Figure 4S).



**Figure 4S**

- D. 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 for Bolt Sizes), (See Figure 4T).



**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     |

## 4. ASSEMBLY

- E. 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).

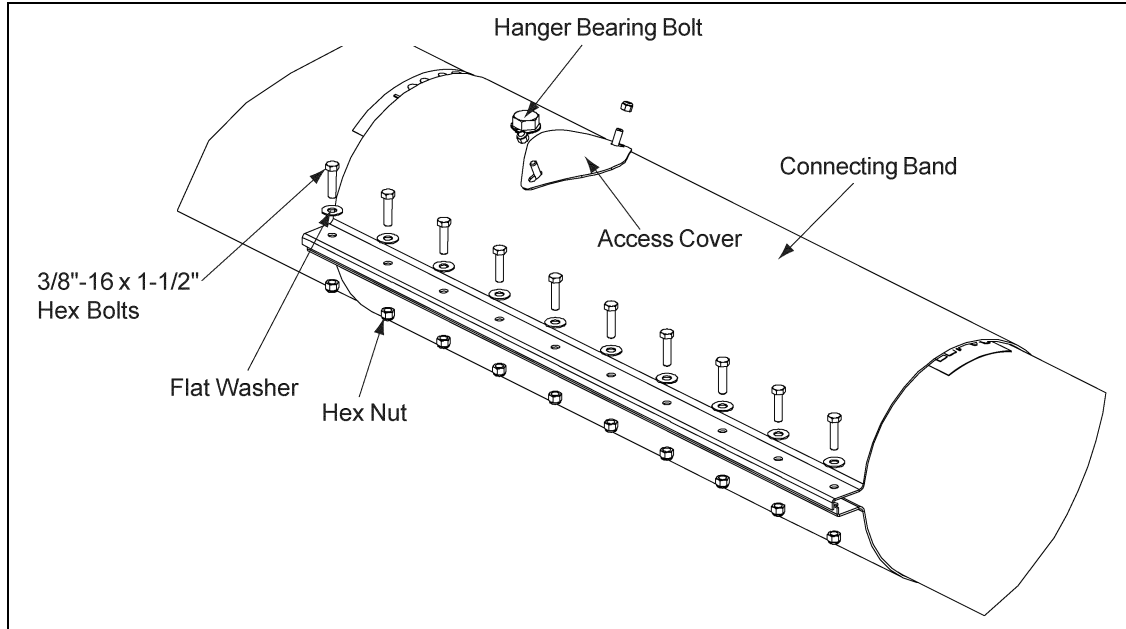


Figure 4U

### Assembling the Intake Guard for All 6", 8", 10" & 12" Custom Augers

#### 15. Installing the Intake Guard

**Note: For Utility Augers Only.**

- A. Slide the Intake guard onto the Auger Tube aligning the intake shaft with the bronze bushing. (See Figure 4V).

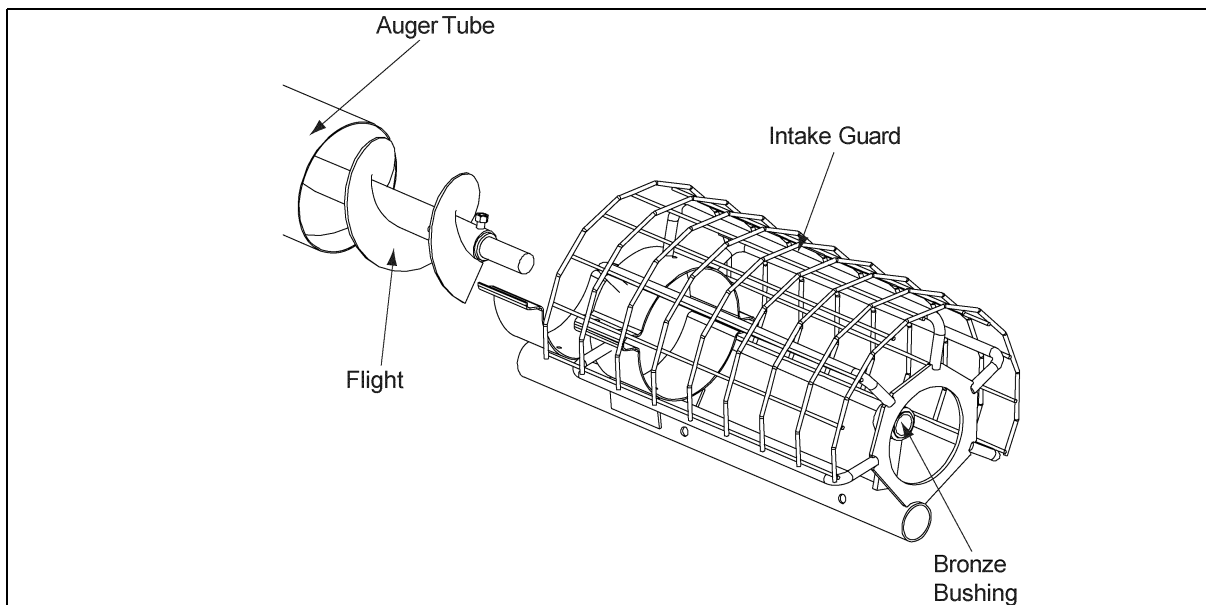
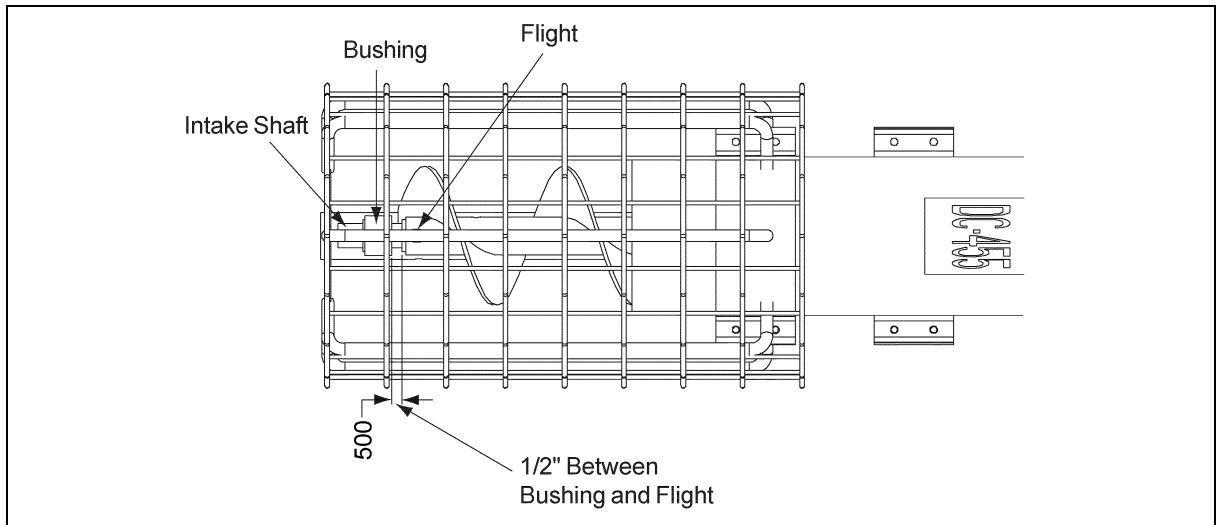


Figure 4V

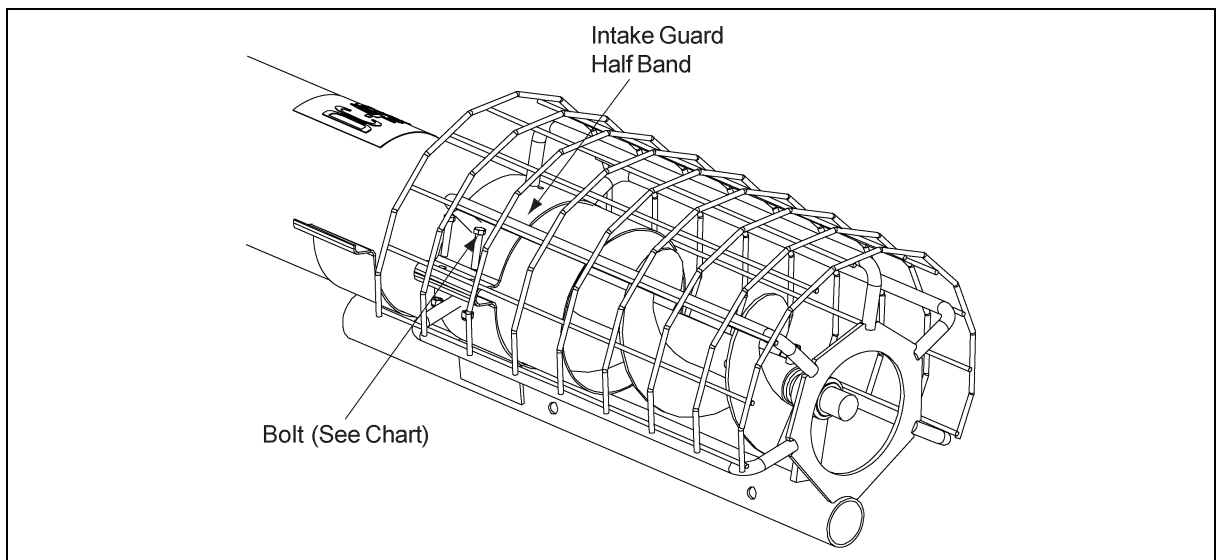
## 4. ASSEMBLY

- B. 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**

- C. 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 for Bolt Sizes), (See Figure 4X).



**Figure 4X**

| Intake Guard Bolts |                                  |
|--------------------|----------------------------------|
| 6"                 | 5/16" - 18 x 1-3/4" GR5 Hex Bolt |
| 8"                 | 5/16" - 18 x 1-3/4" GR5 Hex Bolt |
| 10"                | 3/8" - 16 x 1-1/2" GR5 Hex Bolt  |

## 4. ASSEMBLY

- D. 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 Above), (See Figure 4Y).

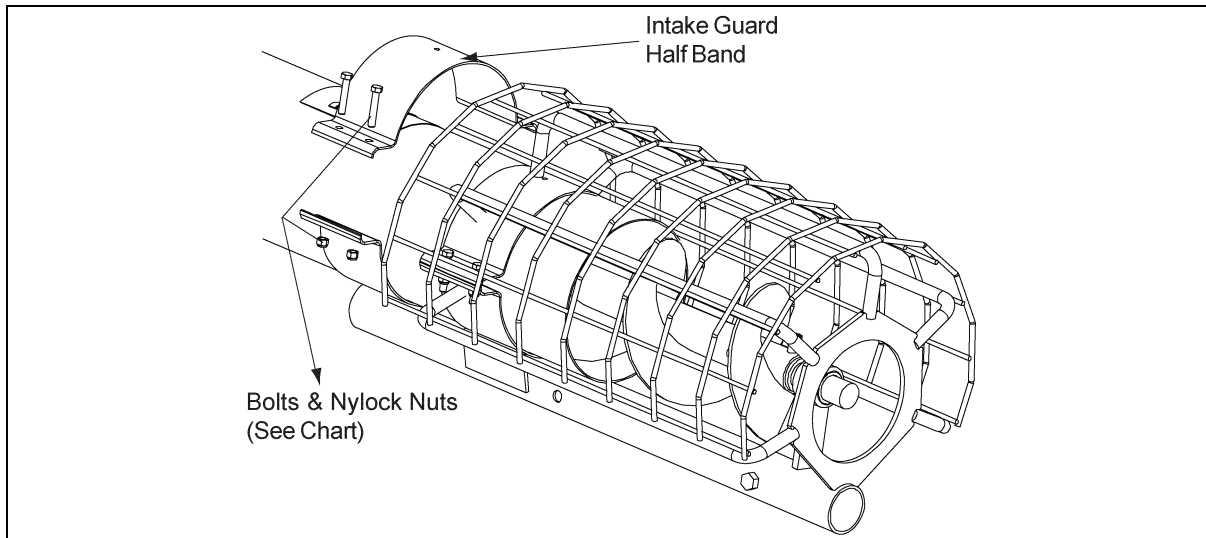


Figure 4Y

### Assembling the Inlet Hopper with Bearings for All 6", 8", 10" & 12" Custom Augers

#### 16. Installing Intake Shaft

- A. Begin by assembling the intake shaft to the flight using the required Grade 8 bolts and stover nuts. (See Chart for Bolt Sizes), (See Figure 4Z).

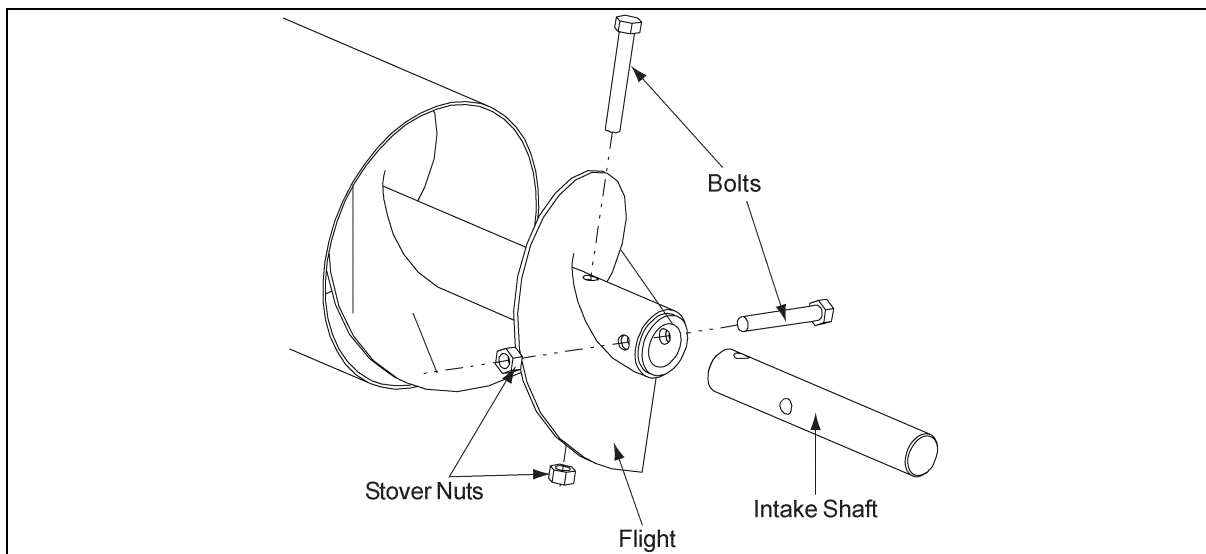
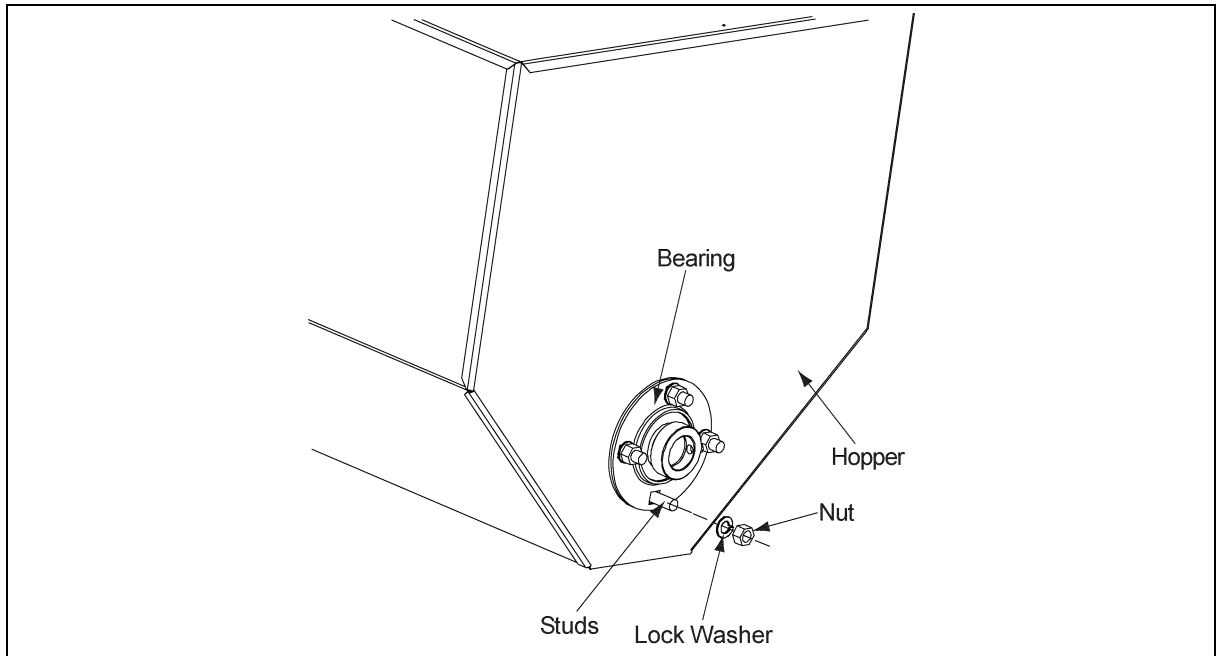


Figure 4Z .

| 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 |

## 4. ASSEMBLY

- B. Next bolt the bearing with flange to the studs on the hopper using the required lock washer and nut. (*See Chart for Bolt Sizes*), (*See Figure 4AA*).



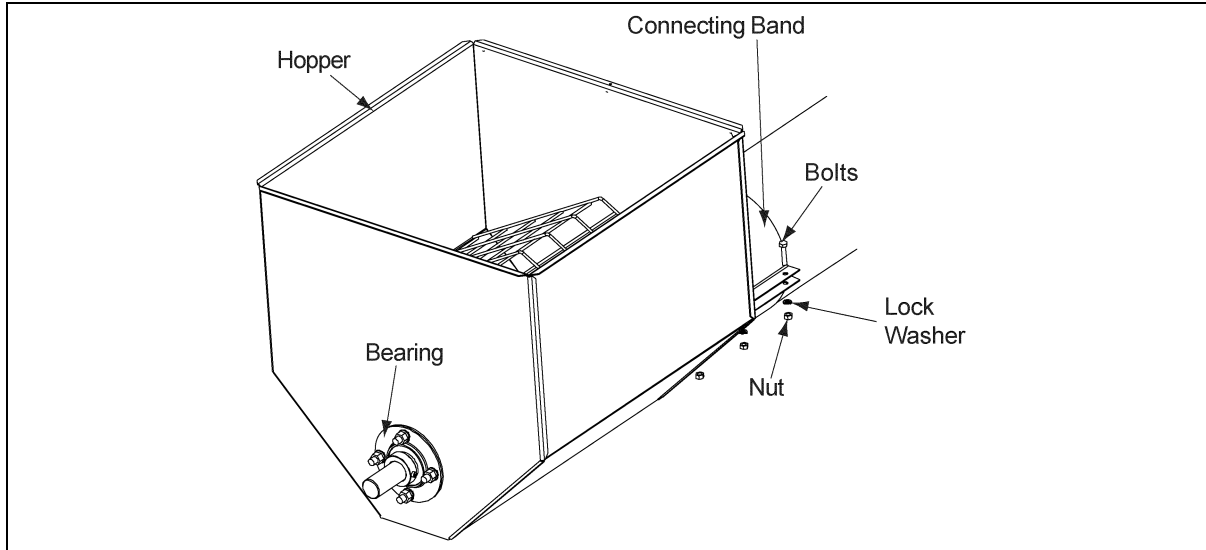
**Figure 4AA**

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

## 17. Attach Hopper

- A. 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 for Bolt Sizes](#)), (See [Figure 4AB](#)).



**Figure 4AB**

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

## 4. ASSEMBLY

### 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 halfband 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 your outlet before cutting. Follow the recommended guidelines as shown below. 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.

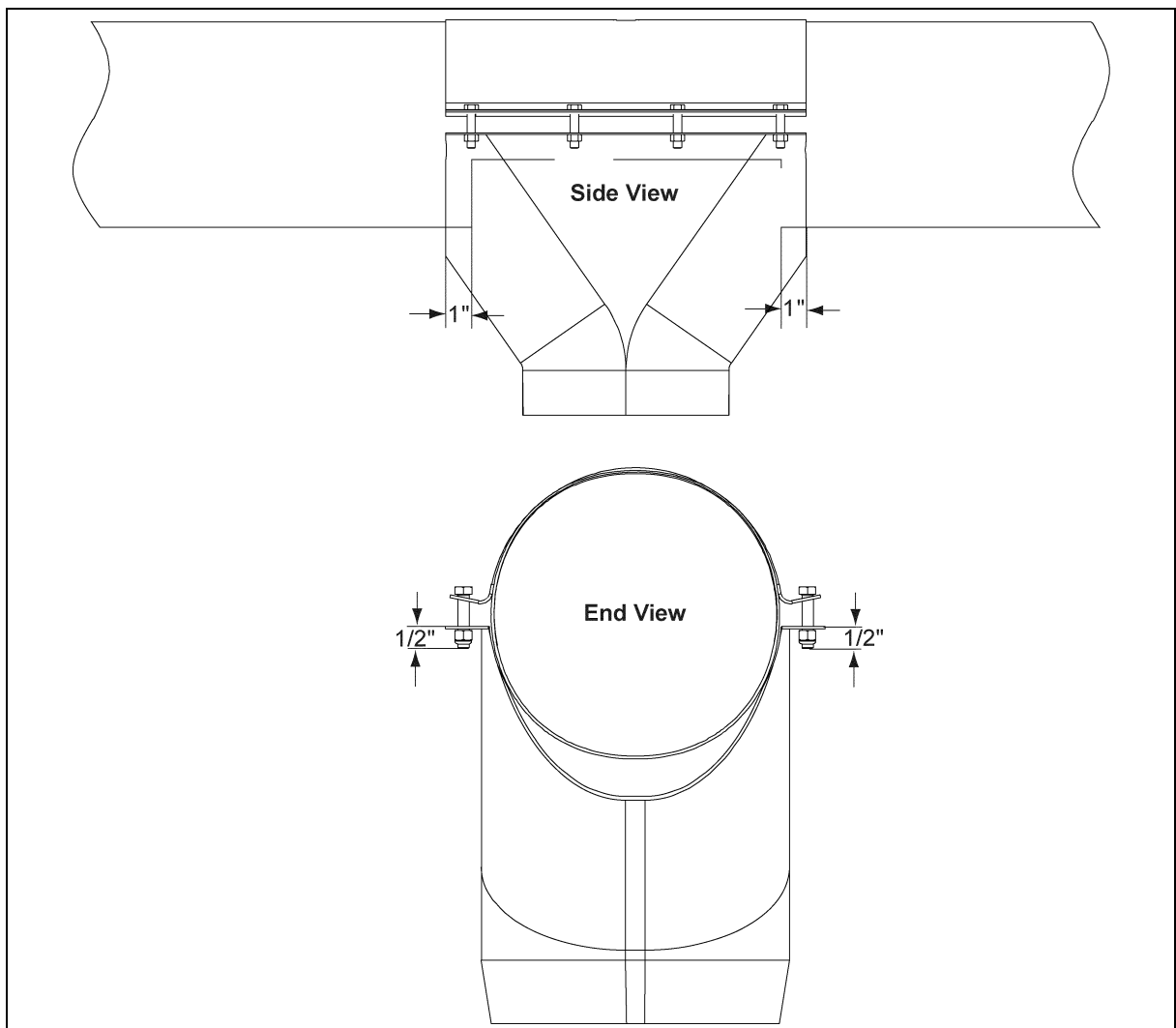


Figure 4AC



### Enclosed Slide Gates with Rack and Pinion Control

1. Follow cutting guidelines [on Page - 34](#).
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 halfbands so they are located at the end of the control rod farthest from the spout. Then tighten the halfbands to the tube.
5. Wrap rope or cable around the pulley, doubling it to prevent slippage.

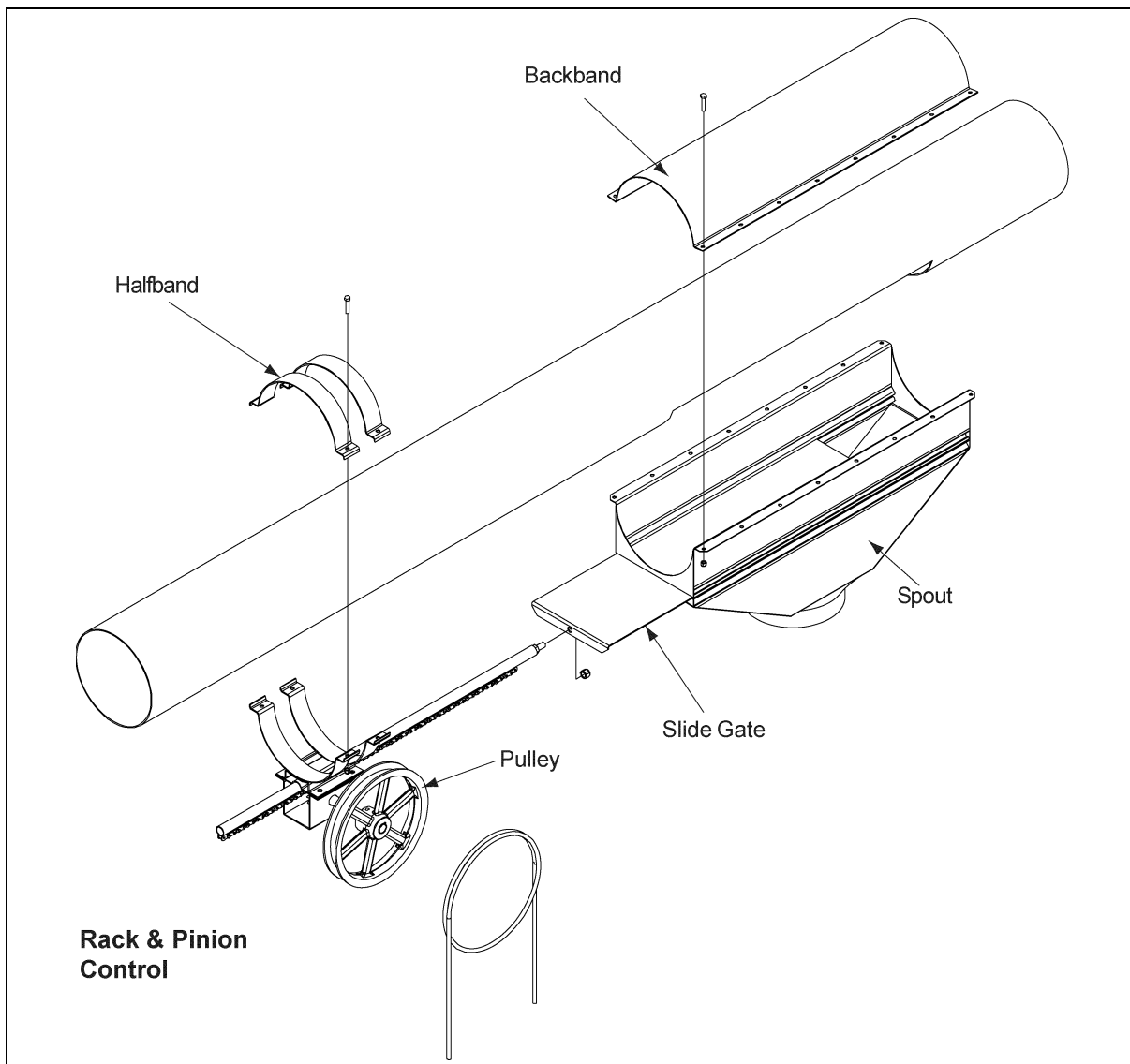


Figure 4AD

## 4. ASSEMBLY

### Basic Inlet Hoppers

1. Follow the cutting guidelines on [on Page - 34](#).
2. Attach hoppers to tube as shown below.
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.

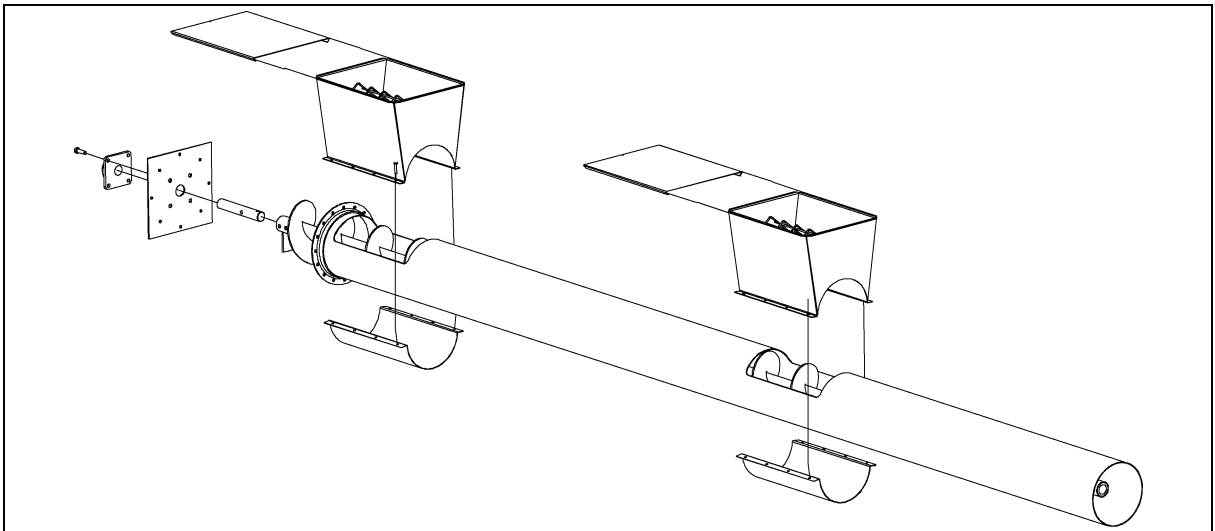


Figure 4AE

### Spouting, Fittings and Truss Kits

#### Spouting and Fittings

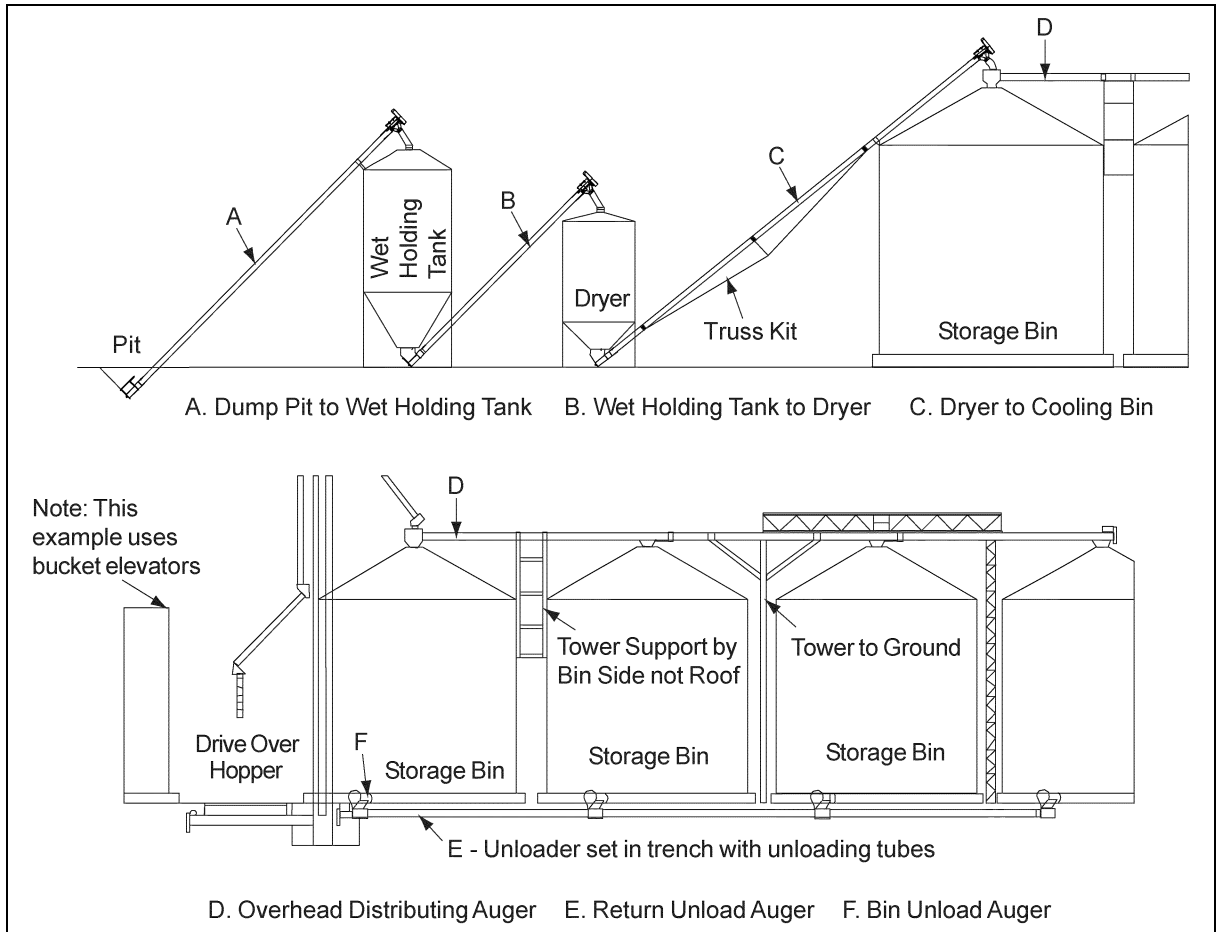
To connect sections of spouting or to connect fittings to spouting, use one or all of the following procedures:

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 support for spouting and certain auger sections. There are two 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 your kit for proper installation.

**Sample Custom Auger Configurations**



**Figure 4AF**

## 5. ELECTRIC DRIVE MOTORS

---

### Power Source

1. Use electric motors that operate at 1750 R.P.M
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 your 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.

---

### **WARNING**

---

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.

---

---

### **WARNING**

---

Make sure all electrical motors are grounded.

---

---

### **WARNING**

---

Reset and motor starting and stopping controls must be located so that the operator has full view of the entire operation.

---

---

### **DANGER**

---

Shut off power to adjust, service, or clean the machinery.

---

---

### **DANGER**

---

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 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 shutdown 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 you have. Use the control gate to regulate a flow of less than full capacity until several hundred bushels of grain have been augered 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 augered at partial capacity.

---

## CAUTION

---

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

---

## 6. START-UP

---

### **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 “lockup”.

### **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 speed, 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 shutdown the auger, disconnect and lockout 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 startup easier and will convey more efficiently.

## 7. OPERATION/MAINTENANCE

---

### Maintain the Auger

---

## **DANGER**

---

**ALWAYS** shutdown 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. 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 Shutdown

1. Make certain unloading tubes are empty before stopping the unit.
2. Disconnect and lockout the power source before leaving the work area.

### Emergency Shutdown

1. Know how to shutdown the auger in case of an emergency.
2. Disconnect and lockout the power source.
3. Close bin well control gates.
4. Clear out as much grain from the auger and hopper as you can.

---

### 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 obstructions.

### Lockout

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 auger 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.

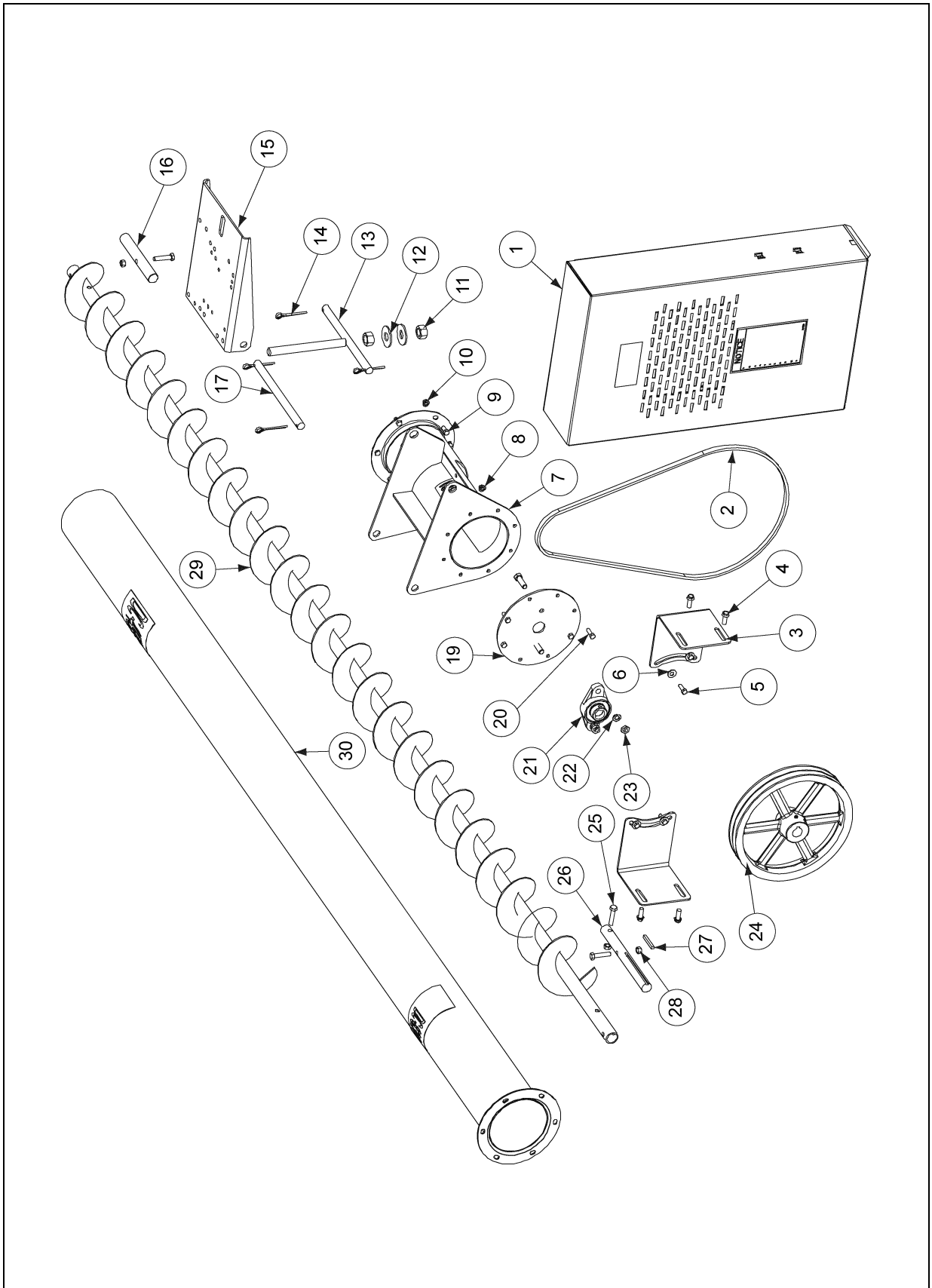
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# NOTES

1. 6" Custom Auger Parts
2. 8" Custom Auger Parts
3. 8" Internal Bearing Parts
4. 10" Custom Auger Parts
5. 10" Internal Bearing Parts
6. 12" Custom Auger Parts
7. 12" Internal Bearing Parts

# 9. PARTS LIST

## 6" Custom Auger Parts



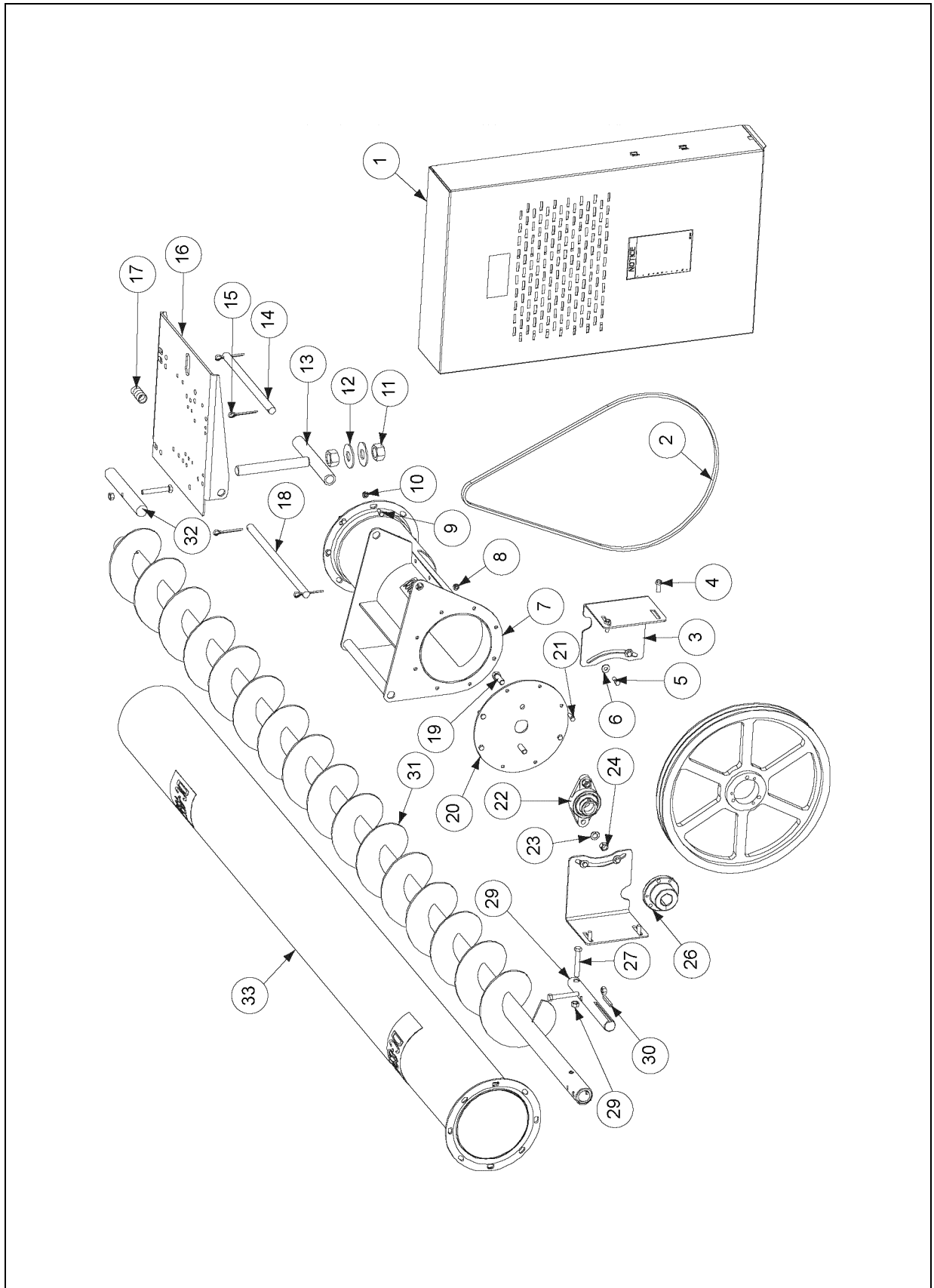
## 9. PARTS LIST

### 6" Custom Auger Parts

| Ref # | Part #  | Description                       |
|-------|---------|-----------------------------------|
| 1     | GK7005  | Belt Guard Assembly               |
| 2     | S-1323  | B48 V-Belt (12" Sheaves)          |
|       | GK2349  | B54 V-Belt (15" Sheaves)          |
| 3     | GK-7062 | Belt Guard Mounting Bracket       |
| 4     | S-9065  | 3/8" - 16 x 1" Flange Bolt        |
| 5     | S-1196  | 5/16" - 18 x 1" Bolt              |
| 6     | S-845   | 5/16" Flat Washer                 |
| 7     | GK-6996 | Horizontal Power Head Tube        |
| 8     | S-3611  | 5/16" - 18 Serrated Flange Nut    |
| 9     | S-275   | 5/16" - 18 x 3/4" Bolt            |
| 10    | S-3611  | 5/16" - 18 Serrated Flange Nut    |
| 11    | S-234   | 3/4" - 10 Hex Nut                 |
| 12    | S-866   | 3/4" Flat Washer                  |
| 13    | GK-7060 | Motor Mount Adjuster              |
| 14    | GK6994  | 3*16" x 2" Cotter Pin             |
| 15    | S-7052  | Motor Plate                       |
| 16    | S-1117  | 1" x 7" Intake Shaft              |
| 17    | S-7058  | Motor Mount Pivot Rod             |
| 18    | S-7837  | 7/16" - 14 x 1-1/2" Bolt          |
| 19    | GK7061  | Bearing Plate                     |
| 20    | S-1196  | 5/16" - 18 x 1" Bolt              |
| 21    | GK1049  | 1" ID w/ 2 Hole Flangette Bearing |
| 22    | S-7014  | 7/16" Lock Washer                 |
| 23    | S-7332  | 7/16" - 14 Nut                    |
| 24    | GK1309  | 12" x 1.0" 1 Belt Sheave          |
|       | GK1321  | 12" x 1.0" 2 Belt Sheave          |
|       | GK2544  | 15" x 1.0" 2 Belt Sheave          |
|       | GK4643  | 12" x 1.0" 3 Belt Sheave          |
|       | GK2545  | 15" x 1.0" 3 Belt Sheave          |
| 25    | S-3727  | 3/18" - 16 x 1-3/4" Grade 8 Bolt  |
| 26    | GK2025  | 1" x 10" Drive Shaft              |
| 27    | S-4513  | 1/4" x 1/4" x 2" Square Key       |
| 28    | S-8251  | 3/8" - 16 Stover Nut              |
| 29    | GK2854  | 6" x 11' Discharge Flight         |
|       | GK2855  | 6" x 16' Discharge Flight         |
|       | GK-2856 | 6" x 21' Discharge Flight         |
| 30    | GK-7082 | 6" x 9' Tube                      |
| 30    | GK7083  | 6" x 14' Tube                     |
|       | GK7084  | 6" x 19' Tube                     |

# 9. PARTS LIST

## 8" Custom Auger Parts



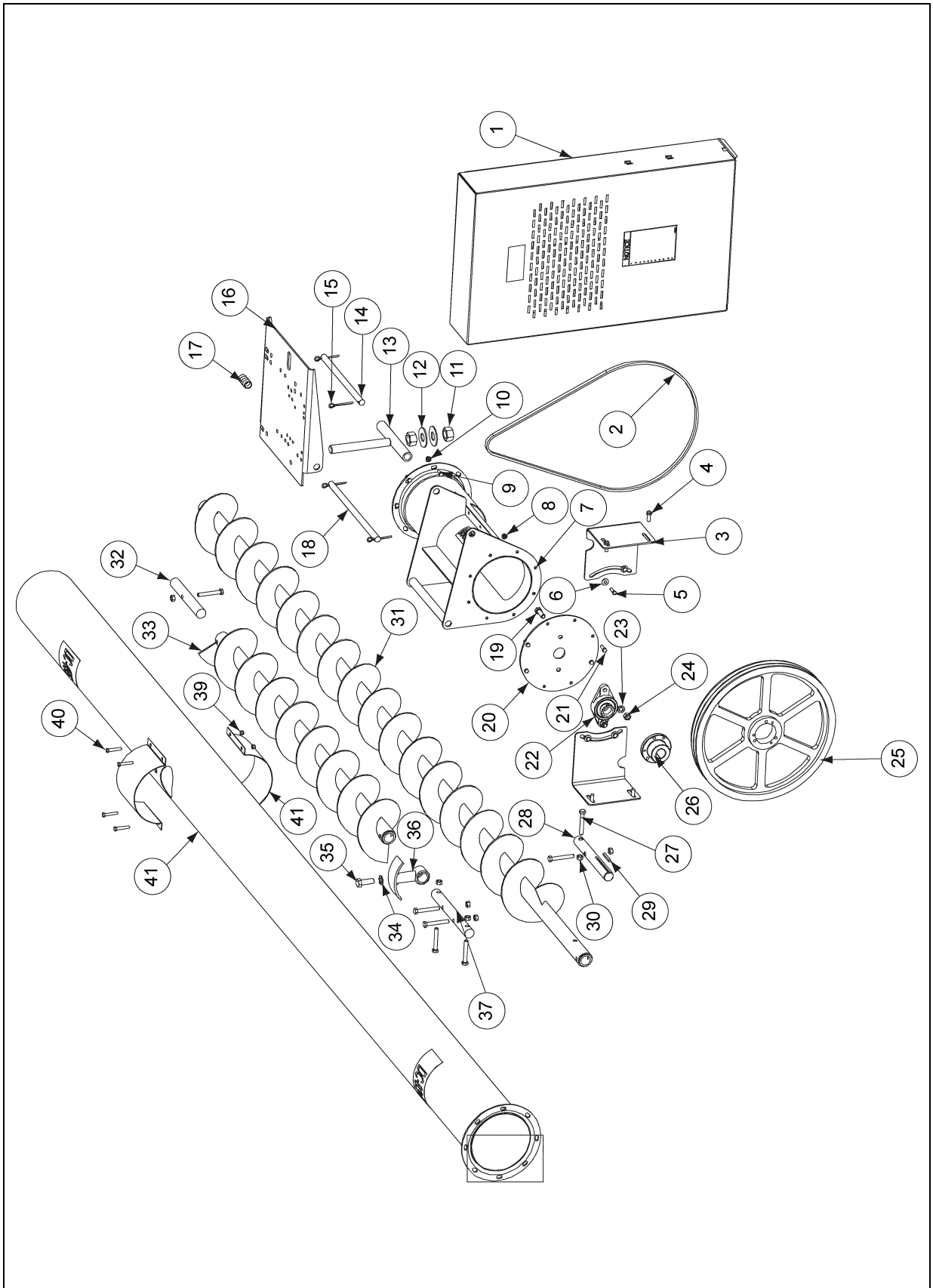
## 9. PARTS LIST

### 8" Custom Auger Parts

| Ref # | Part #   | Description                           |
|-------|----------|---------------------------------------|
| 1     |          | Belt Guard Assembly                   |
|       | GK7005   | 12" & 15" Sheaves                     |
|       | GK7068   | 18.4" Sheaves                         |
| 2     | GK1952   | B50 V-Belt (12" Sheaves)              |
|       | GK-1346  | B57 V-Belt (15" Sheaves)              |
|       | MHC00160 | B64 V-Belt (18.4" Sheaves)            |
| 3     |          | Belt Guard Mounting Bracket           |
|       | GK7006   | 12" & 15" Sheaves                     |
|       | GK7100   | 18.4" Sheaves                         |
| 4     | S-9065   | 3/8" - 16 x 1" Flange Bolt            |
| 5     | S-1196   | 5/16" - 18 x 1" Bolt                  |
| 6     | S-845    | 5/16" Flat Washer                     |
| 7     | GK6997   | Horizontal Power Head Tube            |
| 8     | S-2611   | 5/16" - 18 Serrated Flange Nut        |
| 9     | S-275    | 5/16" - 18 x 3/4" Bolt                |
| 10    | S-3611   | 5/16" - 18 Serrated Flange Nut        |
| 11    | S-240    | 1" - 8 Hex Nut                        |
| 12    | S-7835   | 1" Flat Washer                        |
| 13    | GK7060   | Motor Mount Adjuster                  |
| 14    | GK7012   | Motor Mount Adjustment Rod            |
| 15    | S-6994   | 3*16" x 2" Cotter Pin                 |
| 16    | GK6986   | Motor Plate                           |
| 17    | GK7014   | Pivot Tube Spacer                     |
| 18    | GK7013   | Motor Mount Pivot Rod                 |
| 19    | S-8760   | 1/2" - 13 x 1-1/2" Bolt               |
| 20    | GK6987   | Bearing Plate                         |
| 21    | S-1196   | 5/16" - 18 x 1" Bolt                  |
| 22    | GK1330   | 1-1/4" ID w/ 2 Hole Flangette Bearing |
| 23    | S-236    | 1/2" Lock Washer                      |
| 24    | S-7510   | 1/2" - 13 Nut                         |
| 25    | GK1335   | 12" x 1.25" 2 Belt Sheave             |
|       | GK1869   | 15" x 1.25" 2 Belt Sheave             |
|       | GK2567   | 18.4" x 1.25" 2 Belt Sheave           |
|       | GK2234   | 15" x 1.25" 3 Belt Sheave             |
|       | GK2570   | 18.4" x 1.25" 3 Belt Sheave           |
| 26    | GCO7674  | 1-1/4" Bushing for 18.4" Sheaves      |
| 27    | S-8316   | 7/16" - 14 x 3" Grade 8 Bolt          |
| 28    | GK1331   | 1-1/4" x 10" Drive Shaft              |
| 29    | S-4513   | 1/4" x 1/4" x 2" Square Key           |
| 30    | S-8317   | 7/16" - 14 Stover Nut                 |
| 31    | GK2879   | 8" x 11' Discharge Flight             |
|       | GK2880   | 8" x 16' Discharge Flight             |
|       | GK2881   | 8" x 21' Discharge Flight             |
| 32    | GK1884   | 1-1/4" x 9" Intake Shaft              |
| 33    | GK7079   | 8" x 8' Tube                          |
|       | GK7080   | 8" x 13' Tube                         |
|       | GK7081   | 8" x 18' Tube                         |

# 9. PARTS LIST

## 8" Internal Bearing Parts





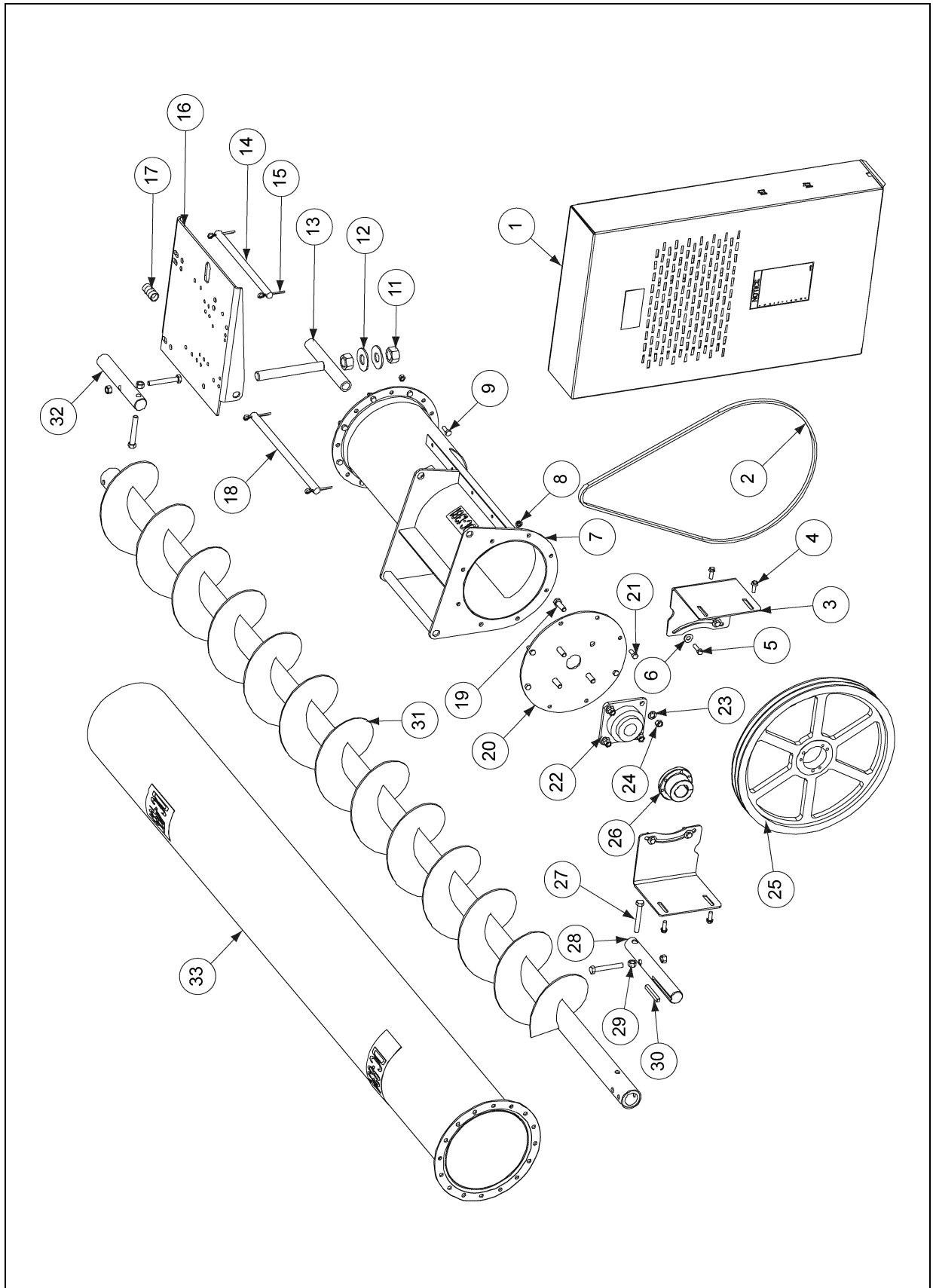
## 9. PARTS LIST

### 8" Internal Rearing Parts

| Ref # | Part #   | Description                           |
|-------|----------|---------------------------------------|
| 1     |          | Belt Guard Top Assembly               |
|       | GK7005   | 12" & 15" Sheaves                     |
|       | GK7068   | 18.4" Sheaves                         |
| 2     | GK1952   | B50 V-Belt (12" Sheaves)              |
|       | GK1346   | B57 V-Belt (15" Sheaves)              |
|       | MHC00160 | B64 V-Belt (18.4" Sheaves)            |
| 3     |          | Belt Guard Mounting Bracket           |
|       | GK7006   | 12" & 15" Sheaves                     |
| 3     | GK7100   | 18.4" Sheaves                         |
| 4     | S-9065   | 3/8" - 16 x 1" Flange Bolt            |
| 5     | S-1196   | 5/16" - 18 x 1" Bolt                  |
| 6     | S-845    | 5/16" Flat Washer                     |
| 7     | GK6997   | Horizontal Power Head Tube            |
| 8     | S-3611   | 5/16" - 18 Serrated Flange Nut        |
| 9     | S-275    | 5/16" - 18 x 3/4" Bolt                |
| 10    | S-3611   | 5/16" - 18 Serrated Flange Nut        |
| 11    | S-240    | 1" - 8 Hex Nut                        |
| 12    | S-7835   | 1" Flat Washer                        |
| 13    | GK7060   | Motor Mount Adjuster                  |
| 14    | GK7012   | Motor Mount Adjustment Rod            |
| 15    | S-6994   | 3*16" x 2" Cotter Pin                 |
| 16    | GK6986   | Motor Plate                           |
| 17    | GK7014   | Pivot Tube Spacer                     |
| 18    | GK7013   | Motor Mount Pivot Rod                 |
| 19    | S-8760   | 1/2" - 13 x 1-1/2" Bolt               |
| 20    | GK6987   | Bearing Plate                         |
| 21    | S-1196   | 5/16" - 18 x 1" Bolt                  |
| 22    | GK1330   | 1-1/4" ID w/ 2 Hole Flangette Bearing |
| 23    | S-236    | 1/2" Lock Washer                      |
| 24    | S-7510   | 1/2" - 13 Nut                         |
| 25    | GK1335   | 12" x 1.25" 2 Belt Sheave             |
|       | GK1869   | 15" x 1.25" 2 Belt Sheave             |
|       | GK2567   | 18.4" x 1.25" 2 Belt Sheave           |
|       | GK2234   | 15" x 1.25" 3 Belt Sheave             |
|       | GK2570   | 18.4" x 1.25" 3 Belt Sheave           |
| 26    | GC07674  | 1-1/4" Bushing for 18.4" Sheaves      |
| 27    | S-8316   | 7/16" - 14 x 3" Grade 8 Bolt          |
| 28    | GK1331   | 1-1/4" x 10" Drive Shaft              |
| 29    | S-4513   | 1/4" x 1/4" x 2" Square Key           |
| 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       |
|       | GK3736   | 8" x 9' 9-3/4" Extension Flight       |
| 34    | S-3208   | 5/8" Lock Washer                      |
| 35    | S-7886   | 5/8" -11 x 1-3/4" Grade 8 Bolt        |
| 36    | GC06394  | 8" Hanger Bearing Assembly            |
| 37    | GK1736   | 1-1/4" x 11-1/2" Connecting Shaft     |
| 38    | GK3669   | 8" Inspection Cover                   |
| 39    | S-7382   | 5/16" - 18 Nylock Nut                 |
| 40    | S-7149   | 5/16" - 18 x 1-3/4" Bolt              |
| 41    | GK7093   | 8" x 13' Tube                         |
|       | GC06394  | 8" x 18' Tube                         |

# 9. PARTS LIST

## 10" Custom Auger Parts



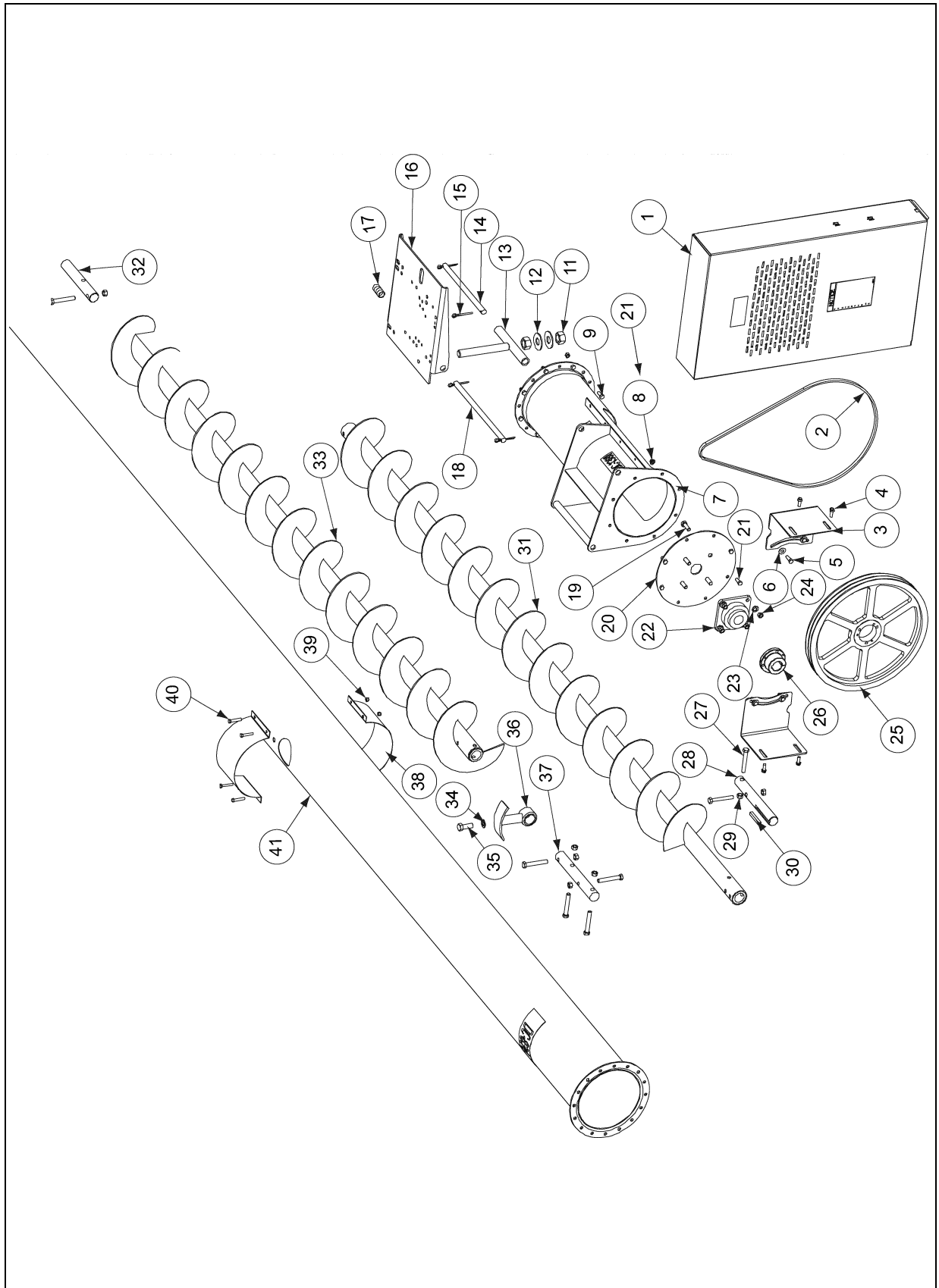
## 9. PARTS LIST

### 10" Custom Auger Parts

| Ref # | Part #   | Description                           |
|-------|----------|---------------------------------------|
| 1     |          | Belt Guard Top Assembly               |
|       | GK7005   | 15" Sheaves                           |
|       | GK7068   | 18.4" Sheaves                         |
| 2     | GK1346   | B57 V-Belt (15" Sheaves)              |
|       | MHC00160 | B64 V-Belt (18.4" Sheaves)            |
|       | GK4441   | B60 V-Belt (15" 4 BeltSheave)         |
| 3     |          | Belt Guard Mounting Bracket           |
|       | GK7018   | 15" Sheaves                           |
|       | GK7101   | 18.4" Sheaves                         |
| 4     | S-9065   | 3/8" - 16 x 1" Flange Bolt            |
| 5     | S-2071   | 3/8" - 16 x 1-1/4" Bolt               |
| 6     | S-248    | 3/8" Flat Washer                      |
| 7     | GK6998   | Horizontal Power Head Tube            |
| 8     | S-968    | 3/8" - 16 Serrated Flange Nut         |
| 9     | S-7520   | 3/8" - 16 x 1" Bolt                   |
| 10    | S-456    | 3/8" - 16 Nut                         |
| 11    | S-240    | 1" - 8 Hex Nut                        |
| 12    | S-7835   | 1" Flat Washer                        |
| 13    | GK6942   | Motor Mount Adjuster                  |
| 14    | GK7012   | Motor Mount Adjustment Rod            |
| 15    | S-6994   | 3*16" x 2" Cotter Pin                 |
| 16    | GK6986   | Motor Plate                           |
| 17    | GK7014   | Pivot Tube Spacer                     |
| 18    | GK7013   | Motor Mount Pivot Rod                 |
| 19    | S-8760   | 1/2" - 13 x 1-1/2" Bolt               |
| 20    | GK7017   | Bearing Plate                         |
| 21    | S-7469   | 3/8" - 16 x 1" Bolt                   |
| 22    | GK1343   | 1-1/2" ID w/ 4 Hole Flangette Bearing |
| 23    | S-236    | 1/2" Lock Washer                      |
| 24    | S-7510   | 1/2" - 13 Nut                         |
| 25    | GK1345   | 15" x 1-1/2" 2 Belt Sheave            |
|       | GK2567   | 18.4" 2 Belt Sheave                   |
|       | GK1304   | 15" x 1-1/2" 3 Belt Sheave            |
|       | GK2570   | 18.4" 3 Belt Sheave                   |
| 26    | GK4248   | 18.4" Sheave Bushing                  |
|       | D03-0264 | 15" 4 Belt Sheave Bushing             |
| 27    | S-8314   | 1/2" - 13 x 3-1/2" Grade 8 Bolt       |
| 28    | GK1289   | 1-1/2" x 11.5" Drive Shaft            |
| 29    | S-9181   | 3/8" x 3/8" x 3" Square Key           |
| 30    | S-8315   | 1/2" - 13 Stover Nut                  |
| 31    | GK5143   | 10" x 11' Discharge Flight            |
|       | GK5144   | 10" x 16' Discharge Flight            |
|       | GK5130   | 10" x 21' Discharge Flight            |
| 32    | GK2907   | 1-1/2" x 9-1/2" Intake Shaft          |
| 33    | GK7095   | 10" x 7' 6" Tube                      |
|       | GK7096   | 10" x 12' 6" Tube                     |
|       | GK7097   | 10" x 17' 6" Tube                     |

# 9. PARTS LIST

## 10" Internal Bearing Parts



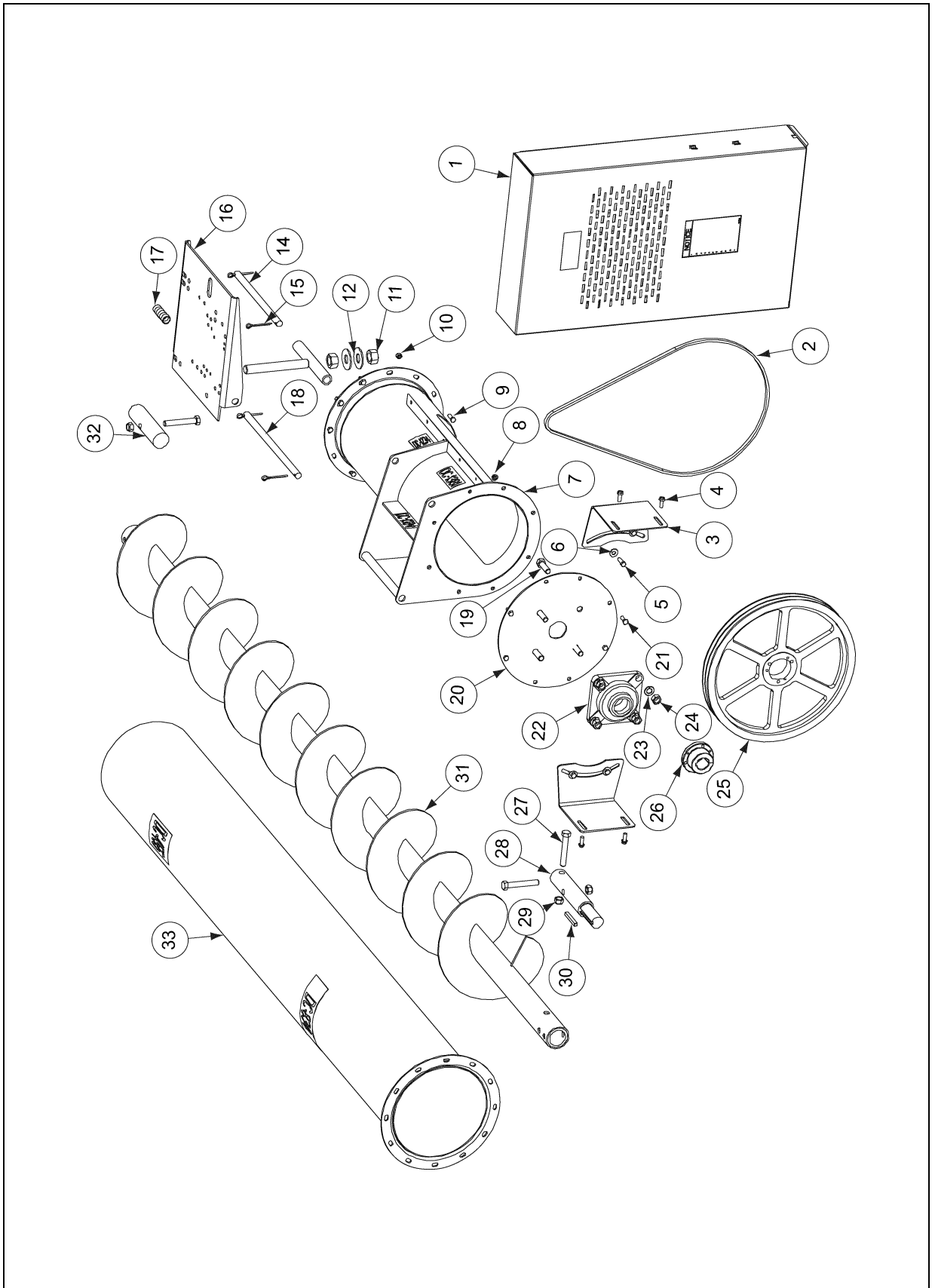
## 9. PARTS LIST

### 10" Internal Bearing Parts

| Ref # | Part #   | Description                           |
|-------|----------|---------------------------------------|
|       |          | Belt Guard Top Assembly               |
| 1     | GK7005   | 15" Sheaves                           |
|       | GK7068   | 18.4" Sheaves                         |
| 2     | GK1346   | B57 V-Belt (15" Sheaves)              |
|       | MHC00160 | B64 V-Belt (18.4" Sheaves)            |
|       | GK4441   | B60 V-Belt (15" 4 BeltSheave)         |
| 3     |          | Belt Guard Mounting Bracket           |
|       | GK7018   | 15" Sheaves                           |
|       | GK7101   | 18.4" Sheaves                         |
| 4     | S-9065   | 3/8" - 16 x 1" Flange Bolt            |
| 5     | S-2071   | 3/8" - 16 x 1-1/4" Bolt               |
| 6     | S-248    | 3/8" Flat Washer                      |
| 7     | GK6998   | Horizontal Power Head Tube            |
| 8     | S-968    | 3/8" - 16 Serrated Flange Nut         |
| 9     | S-7520   | 3/8" - 16 x 1" Bolt                   |
| 10    | S-456    | 3/8" - 16 Nut                         |
| 11    | S-240    | 1" - 8 Hex Nut                        |
| 12    | S-7835   | 1" Flat Washer                        |
| 13    | GK6942   | Motor Mount Adjuster                  |
| 14    | GK7012   | Motor Mount Adjustment Rod            |
| 15    | S-6994   | 3*16" x 2" Cotter Pin                 |
| 16    | GK6986   | Motor Plate                           |
| 17    | GK7014   | Pivot Tube Spacer                     |
| 18    | GK7013   | Motor Mount Pivot Rod                 |
| 19    | S-8760   | 1/2" - 13 x 1-1/2" Bolt               |
| 20    | GK7017   | Bearing Plate                         |
| 21    | S-7469   | 3/8" - 16 x 1" Bolt                   |
| 22    | GK1343   | 1-1/2" ID w/ 4 Hole Flangette Bearing |
| 23    | S-236    | 1/2" Lock Washer                      |
| 24    | S-7510   | 1/2" - 13 Nut                         |
| 25    | GK1345   | 15" x 1-1/2" 2 Belt Sheave            |
|       | GK2567   | 18.4" 2 Belt Sheave                   |
|       | GK1304   | 15" x 1-1/2" 3 Belt Sheave            |
|       | GK2570   | 18.4" 3 Belt Sheave                   |
| 26    | GK4248   | 18.4" Shave Bushing                   |
|       | D03-0264 | 15" 4 Belt Shave Bushing              |
| 27    | S-8314   | 1/2" - 13 x 3-1/2" Grade 8 Bolt       |
| 28    | GK1289   | 1-1/2" x 11.5" Drive Shaft            |
| 29    | S-9181   | 3/8" x 3/8" x 3" Square Key           |
| 30    | S-8315   | 1/2" - 13 Stover Nut                  |
| 31    | GK5143   | 10" x 11' Discharge Flight            |
| 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   | 5/8" - 11 x 1-3/4" Grade 8 Bolt       |
| 36    | GC06396  | 10" Hanger Bearing Assembly           |
| 37    | GK1951   | 1-1/2" x 11-1/2" Connecting Shaft     |
| 38    | GK3670   | 10" Inspection Cover                  |
| 39    | S-7382   | 5/16" - 18 Nylock Nut                 |
| 40    | S-7149   | 5/16" - 18 x 1-3/4" Bolt              |
| 41    | GK7098   | 10" x 12' 6" Tube                     |
|       | GK7099   | 10" x 17' 6" Tube                     |

# 9. PARTS LIST

## 12" Custom Auger Parts



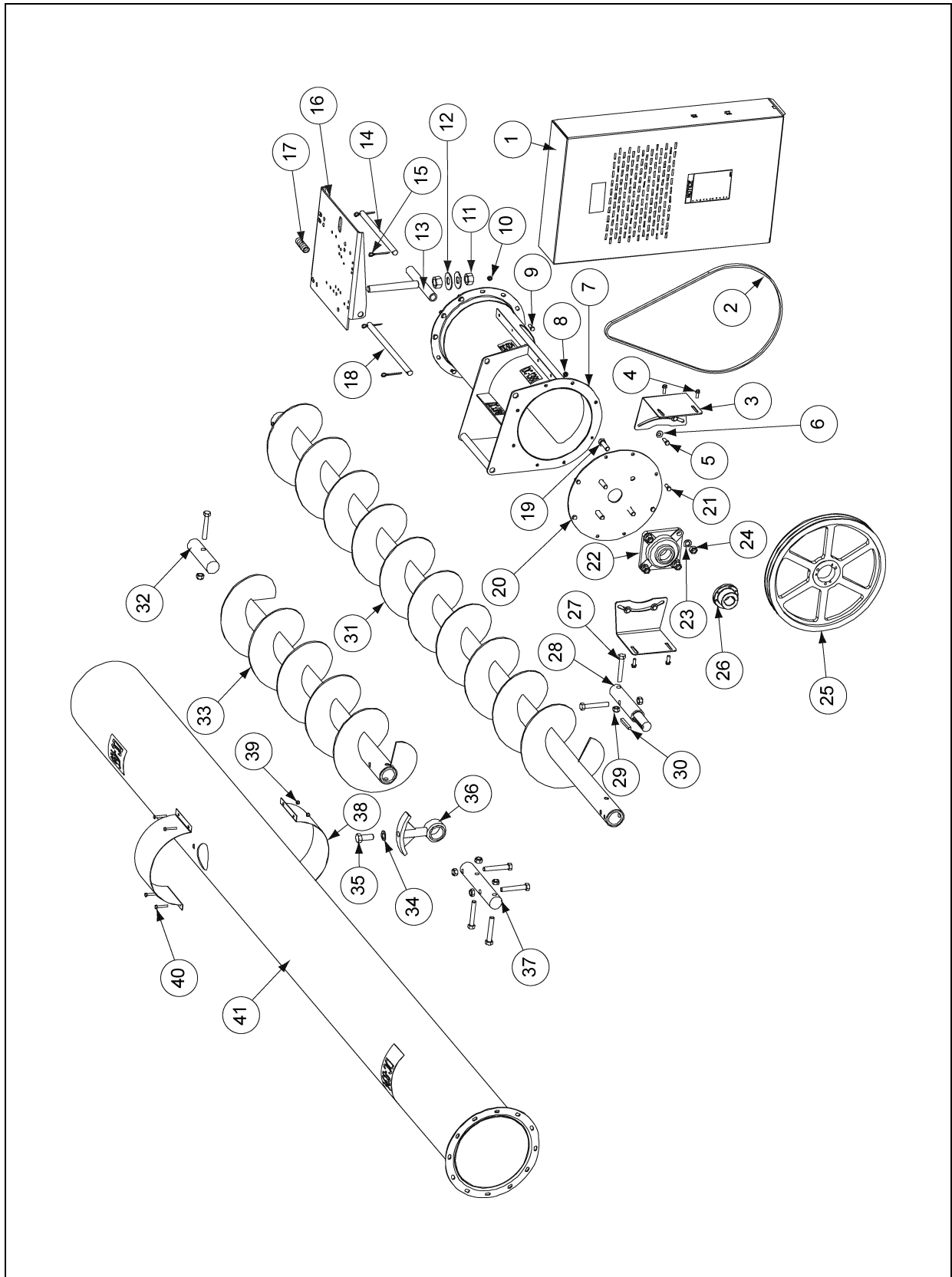
## 9. PARTS LIST

### 12" Custom Auger Parts

| Ref # | Part #   | Description                    |
|-------|----------|--------------------------------|
| 1     | GK7068   | Belt Guard Top Assembly        |
| 2     | GK4129   | B58 V-Belt (15" Sheaves)       |
|       | PT1172   | B73 V-Belt (18.4" Sheaves)     |
| 3     | GK7101   | Belt Guard Mounting Bracket    |
| 4     | S-9065   | 3/8" - 16 x 1" Flange Bolt     |
| 5     | S-2071   | 3/8" - 16 x 1-1/4" Bolt        |
| 6     | S-248    | 3/8" Flat Washer               |
| 7     | GK6999   | Horizontal Power Head Tube     |
| 8     | S-968    | 3/8" - 16 Serrated Flange Nut  |
| 9     | S-7520   | 3/8" - 16 x 1" Bolt            |
| 10    | S-456    | 3/8" - 16 Nut                  |
| 11    | S-240    | 1" - 8 Hex Nut                 |
| 12    | S-7835   | 1" Flat Washer                 |
| 13    | GK6942   | Motor Mount Adjuster           |
| 14    | GK7012   | Motor Mount Adjustment Rod     |
| 15    | S-6994   | 3*16" x 2" Cotter Pin          |
| 16    | GK6986   | Motor Plate                    |
| 17    | GK7014   | Pivot Tube Spacer              |
| 18    | GK7013   | Motor Mount Pivot Rod          |
| 19    | S-8399   | 5/8" - 11 x 2" Bolt            |
| 20    | GK7064   | Bearing Plate                  |
| 21    | S-7469   | 3/8" - 16 x 1" Bolt            |
| 22    | GK2004   | 2" ID w/ 4 Hole Flange Bearing |
| 23    | S-3208   | 5/8" Lock Washer               |
| 24    | S-4110   | 5/8" - 11 Nut                  |
| 25    | GK2567   | 18.4" 2 Belt Sheave            |
|       | GK2570   | 18.4" 3 Belt Sheave            |
|       | GK3541   | 15" 4 Belt Sheave              |
| 26    | GK4248   | 18.4" Sheave Bushing           |
|       | D03-0264 | 15" 4 Belt Sheave Bushing      |
| 27    | S-7893   | 5/8" - 11 x 4" Grade 8 Bolt    |
| 28    | GK2006   | 2" x 12" Drive Shaft           |
| 29    | S-9181   | 3/8" x 3/8" x 3" Square Key    |
| 30    | S-8606   | 5/8" - 11 Stover Nut           |
| 31    | GK5501   | 12" x 11' Discharge Flight     |
|       | GK6567   | 12" x 16' Discharge Flight     |
|       | GK5633   | 12" x 21' Discharge Flight     |
| 32    | GK5313   | 2" x 7-3/4" Intake Shaft       |
| 33    | GK7243   | 12" x 7' 6" Tube               |
|       | GK7244   | 12" x 12' 6" Tube              |
|       | GK7245   | 12" x 17' 6" Tube              |

# 9. PARTS LIST

## 12" Internal Bearing Parts





## 9. PARTS LIST

### 12" Internal Bearing Parts

| Ref # | Part #   | Description                      |
|-------|----------|----------------------------------|
| 1     | GK7068   | Belt Guard Top Assembly          |
| 2     | GK4129   | B58 V-Belt (15" Sheaves)         |
|       | PT1172   | B73 V-Belt (18.4" Sheaves)       |
| 3     | GK7101   | Belt Guard Mounting Bracket      |
| 4     | S-9065   | 3/8" - 16 x 1" Flange Bolt       |
| 5     | S-2071   | 3/8" - 16 x 1-1/4" Bolt          |
| 6     | S-248    | 3/8" Flat Washer                 |
| 7     | GK6999   | Horizontal Power Head Tube       |
| 8     | S-968    | 3/8" - 16 Serrated Flange Nut    |
| 9     | S-7520   | 3/8" - 16 x 1" Bolt              |
| 10    | S-456    | 3/8" - 16 Nut                    |
| 11    | S-240    | 1" - 8 Hex Nut                   |
| 12    | S-7835   | 1" Flat Washer                   |
| 13    | GK6942   | Motor Mount Adjuster             |
| 14    | GK7012   | Motor Mount Adjustment Rod       |
| 15    | S-6994   | 3*16" x 2" Cotter Pin            |
| 16    | GK6986   | Motor Plate                      |
| 17    | GK7014   | Pivot Tube Spacer                |
| 18    | GK7013   | Motor Mount Pivot Rod            |
| 19    | S-8399   | 5/8" - 11 x 2" Bolt              |
| 20    | GK7064   | Bearing Plate                    |
| 21    | S-7469   | 3/8" - 16 x 1" Bolt              |
| 22    | GK2004   | 2" ID w/ 4 Hole Flange Bearing   |
| 23    | S-3208   | 5/8" Lock Washer                 |
| 24    | S-4110   | 5/8" - 11 Nut                    |
| 25    | GK2567   | 18.4" 2 Belt Sheave              |
|       | GK2570   | 18.4" 3 Belt Sheave              |
|       | GK3541   | 15" 4 Belt Sheave                |
| 26    | GK4248   | 18.4" Sheave Bushing             |
|       | D03-0264 | 15" 4 Belt Sheave Bushing        |
| 27    | S-7893   | 5/8" - 11 x 4" Grade 8 Bolt      |
| 28    | GK2006   | 2" x 12" Drive Shaft             |
| 29    | S-9181   | 3/8" x 3/8" x 3" Square Key      |
| 30    | S-8606   | 5/8" - 11 Stover Nut             |
| 31    | GK5501   | 12" x 11' Discharge Flight       |
| 32    | GK5313   | 2" x 7-3/4" Intake Shaft         |
| 33    | GK5566   | 12" x 4' 9-3/4" Extension Flight |
|       | GK4482   | 12" x 9' 9-3/4" Extension Flight |
| 34    | S-233    | 3/4" Lock Washer                 |
| 35    | S-869    | 3/4" -10 x 2" Grade 8 Bolt       |
| 36    | GC06398  | 12" Hanger Bearing Assembly      |
| 37    | GK2222   | 2" x 11-1/2" Connecting Shaft    |
| 38    | GK5599   | 12" Inspection Cover             |
| 39    | S-7382   | 5/16" - 18 Nylock Nut            |
| 40    | S-7149   | 5/16" - 18 x 1-3/4" Bolt         |
| 41    | GK7249   | 12" x 12' 6" Tube                |
|       | GK7250   | 12" x 17' 6" Tube                |

## 10. TROUBLE SHOOTING

| Problem                    | Possible Cause  | Corrective Action  |
|----------------------------|---|--|
| 1. The Auger is vibrating. | <ol style="list-style-type: none"> <li>1. Damage can occur to the auger flighting, causing noise. Damage usually is caused from foreign material being run through the auger.</li> <li>2. Drive belt may be overtightened, putting head stub and flight in a bind.</li> </ol>           | <ol style="list-style-type: none"> <li>1. It may be necessary to remove the flighting for inspection.</li> <li>2. Loosen the drive belts.</li> </ol>   |
| 2. Capacity is too low.    | <ol style="list-style-type: none"> <li>1. There may not be enough grain reaching the auger.</li> <li>2. The auger is moving too slowly.</li> </ol>  | <ol style="list-style-type: none"> <li>1. Make sure the intake has not bridged over, restricting flow. The flighting at the intake should be covered with grain for maximum capacity.</li> <li>2. Check the auger speed. Low capacity will result from speeds slower than recommended.</li> </ol>  |
| 3. The Auger plugs.        | <ol style="list-style-type: none"> <li>1. The auger may be "jamming" because too much grain is reaching the auger.</li> <li>2. The grain may be wet.</li> <li>3. The auger may be jammed with foreign material.</li> <li>4. The motor may be too small or wired incorrectly.</li> </ol> | <ol style="list-style-type: none"> <li>1. Use the control gates to decrease the amount of grain the auger is gathering.</li> <li>2. If wet grain or other hard-to-move material is being augered, use a larger size motor than recommended for normal use.</li> <li>3. Remove any foreign material in the auger.</li> <li>4. Check wiring or consider using the next larger size motor.</li> </ol> |

## 11. WARRANTY

THE GSI GROUP, INC. (GSI) WARRANTS ALL PRODUCTS WHICH IT MANUFACTURES TO BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP UNDER NORMAL USAGE AND CONDITIONS FOR A PERIOD OF 12 MONTHS AFTER RETAIL SALE TO THE ORIGINAL END USER. THE PURCHASER'S SOLE REMEDY AND GSI'S ONLY OBLIGATION SHALL BE TO REPAIR OR REPLACE, AT GSI'S OPTION AND EXPENSE, PRODUCTS THAT, IN GSI'S SOLE JUDGMENT, CONTAIN A MATERIAL DEFECT DUE TO MATERIALS OR WORKMANSHIP. ALL DELIVERY AND SHIPMENT CHARGES TO AND FROM GSI'S FACTORY WILL BE PURCHASER'S RESPONSIBILITY. EXPENSES INCURRED BY OR ON BEHALF OF THE PURCHASER WITHOUT PRIOR WRITTEN AUTHORIZATION FROM AN AUTHORIZED EMPLOYEE OF GSI SHALL BE THE SOLE RESPONSIBILITY OF THE PURCHASER.

EXCEPT FOR THE LIMITED WARRANTY EXPRESSED ABOVE, 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 (I) 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.

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THE FOREGOING WARRANTY SHALL NOT EXTEND TO PRODUCTS OR PARTS WHICH HAVE BEEN DAMAGED BY NEGLIGENT USE, MISUSE, ALTERATION OR ACCIDENT. THIS WARRANTY EXTENDS SOLELY TO ONLY PRODUCTS MANUFACTURED BY GSI. THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. GSI RESERVES THE RIGHT TO MAKE DESIGN OR SPECIFICATION CHANGES AT ANY TIME.

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(revised December 2005)

**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.**

G S I G R O U P



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