

PNEG-1101
3-10-05

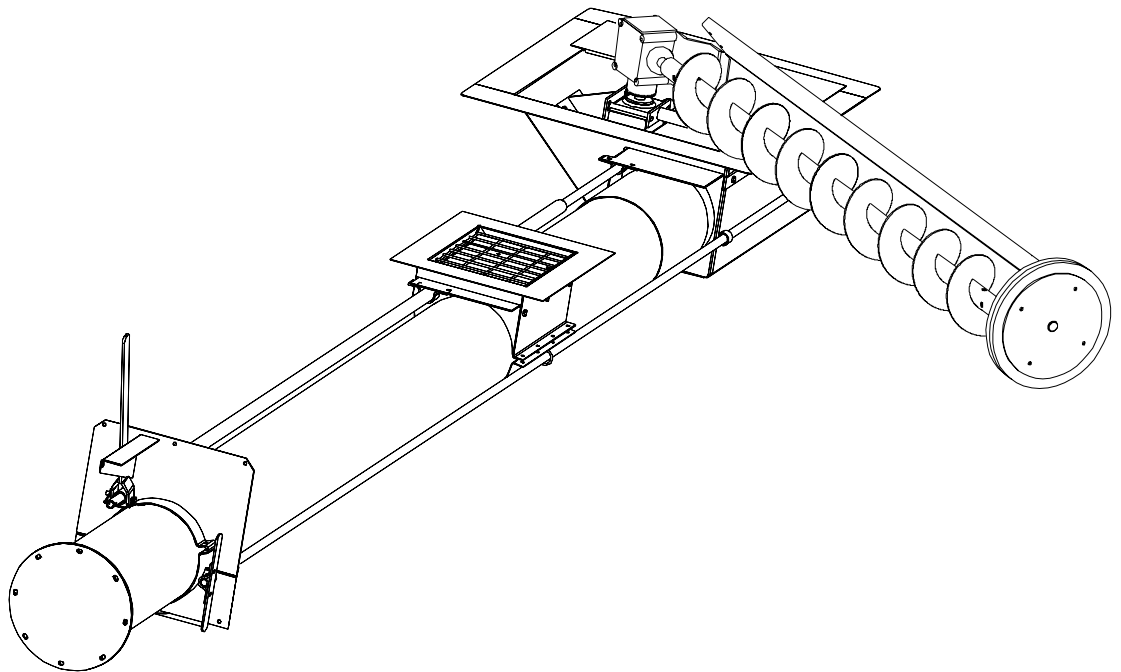
Direct Gear Drive Bin Sweep Auger

(with Roller Wells)

Direct Gear Drive Bin Sweep Auger

(with Roller Wells)

Assembly & Operation Manual

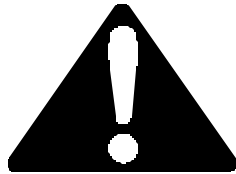


PNEG-1101
3-10-05

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.

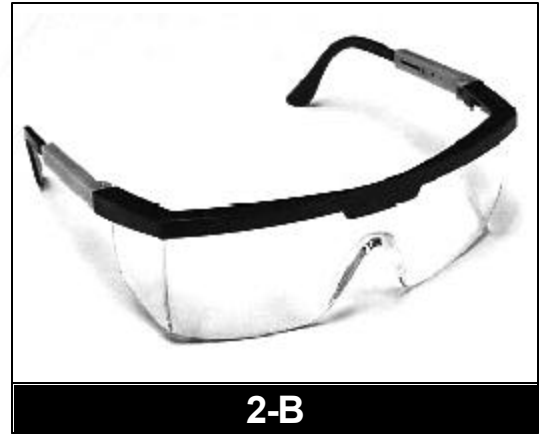
SAFETY GUIDELINES

1. General Safety Guidelines

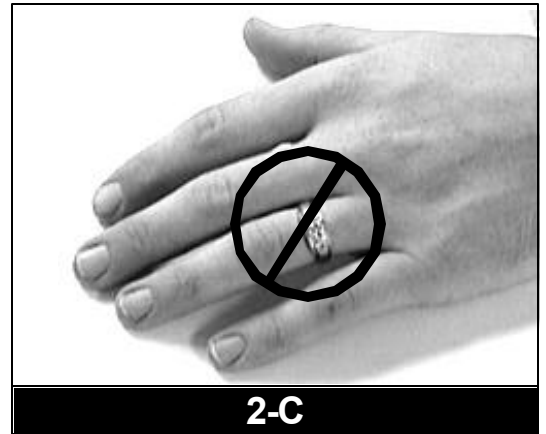
- A. **DO NOT** make any alterations to the equipment. Such alterations may produce a very dangerous situation, where **SERIOUS INJURY** or **DEATH** may occur.
- B. This equipment shall be installed in accordance with any regulations or installation codes that are required by law. Authorities having jurisdiction should be consulted before installations are made.
- C. Untrained operators subject themselves and others to **SERIOUS INJURY** or **DEATH**. **NEVER** allow untrained personnel to operate this equipment.
- D. Keep children and other unqualified personnel out of the working area at **ALL** times.
- E. **NEVER** start equipment until **ALL** persons are clear of the work area.
- F. Be sure **ALL** operators are adequately rested and prepared to perform **ALL** functions of operating this equipment.
- G. Keep hair, loose clothing, and shoestrings away from rotating and moving parts. **NEVER** wear loose fitting clothing when working around augers.
- H. **NEVER** allow any person intoxicated or under the influence of alcohol or drugs to operate the equipment.
- I. **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.
- J. Make sure someone is nearby who is aware of the proper shutdown sequence in the event of an accident or emergency.
- K. **NEVER** work alone.
- L. **ALWAYS** think before acting. **NEVER** act impulsively around the equipment.
- M. Make sure **ALL** equipment is locked in position before operating.
- N. Keep hands and feet away from the auger intake and other moving parts.
- O. **NEVER** attempt to assist machinery operation or to remove trash from equipment while in operation.
- P. Use ample overhead lighting after sunset to light the work area.
- Q. **ALWAYS** lockout **ALL** power to the equipment when finished unloading.
- R. Keep area around intake free of obstacles such as electrical cords, blocks, etc. that might trip workers.

2. Personal Protective Equipment

A. The proper personal protective equipment should be worn at **ALL** times by anyone in the work area.



B. **ALWAYS** wear safety glasses when in the work area.



C. The operator should **NEVER** wear jewelry.



D. Loose clothing should not be worn. Any clothing that becomes loosened should be tucked in tightly.

E. Loose or dangling shoe strings should be tucked in.



F. Long hair should be tied up and/or back.

3. Emergency Shutdown Sequence

- A. In an emergency, shutdown the power source.

4. Pinch Points



A Pinch Point is any place on the equipment which can injure the operator.

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

5. Shields and Guards

- A. **ALWAYS** keep **ALL** shields and guards in place during operation.

We will replace any missing shields or guards free of charge!

See (page vi) for more information on our Safety First program.

Safety **1st**

6. 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:
 - 1. Any person who has not read and/or does not understand all operation and safety procedures is not qualified to operate any auger systems.
 - 2. 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.
 - 3. Unqualified or incompetent persons are to remain out of the work area.
 - 4. 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. Subpart D, Section 19287.57 (a) (6).

6. Operator Qualifications (cont.)

B. As a requirement of OSHA, 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 persons 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	Employer's Signature	Employee Signature
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		

Safety 1st

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

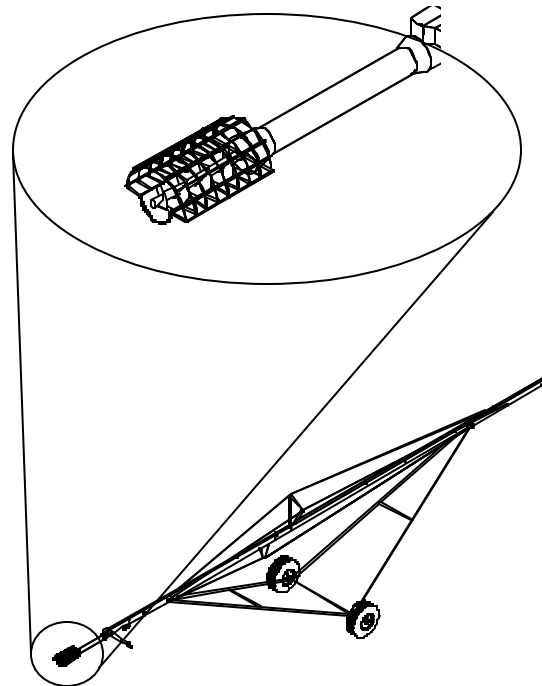
One of the most important aspects of our engineering is **SAFETY 1st** design throughout all product lines. At our company - safety is NO ACCIDENT!

That is why we have implemented a **SAFETY 1st** program. Should you ever need guards, shields, safety decals or owner/operator manuals, simply contact us or your local dealer, and we will supply you with them **FREE OF CHARGE!**

While it is our main goal for our company 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 any safety questions, please contact the manufacturer or your local dealer.

We replace missing guards and shields
FREE OF CHARGE!



General Information

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

1. General Information

- A. We reserve the right to improve our product whenever possible and practical to do so. We reserve the right to change, improve, and modify products at any time without obligation to make changes, improvements, and modifications on equipment sold previously.
- B. The Commercial Power Sweeps have been designed and manufactured to give years of dependable service. The care and maintenance of this machine will affect the satisfaction and service obtained. By observing the instructions and suggestions we have recommended, the owner should receive competent service for many years. If additional information or assistance should be required, please contact the factory or your local dealer.
- C. **Receiving Merchandise and Filing Claims**
 - 1. 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.

Table of Contents

TABLE OF CONTENTS

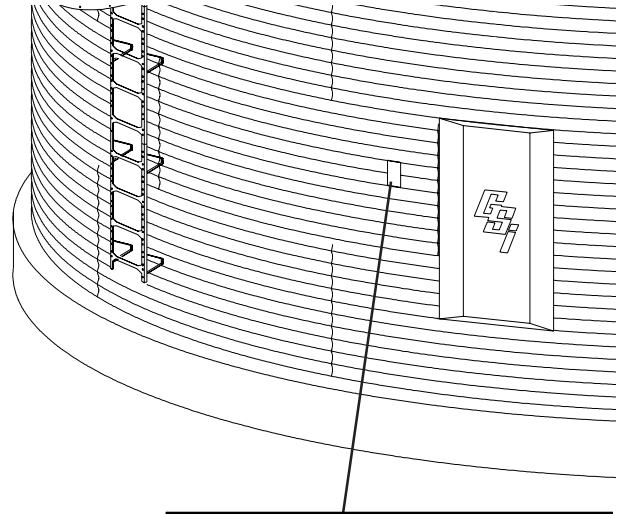
Safety	i
<i>SAFETY</i> 1 st	vi
General Information	vii
Table of Contents	viii
Decals	1
Assembly	3
Start-Up	15
Operation	17
Shutdown	20
Maintenance	21
Troubleshooting	22
Parts List	24
Warranty	

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

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.

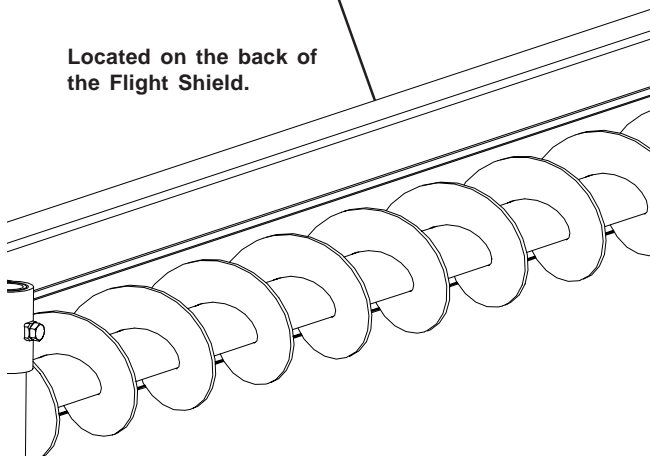
DANGER Sign No. DC-1395 was supplied with your bin unloading equipment. This safety sign should be applied to the side of the bin near the bin opening, so it will be viewed by people entering into the bin storage building. Do not cover any safety signs or any other signs that are already there.



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



Located on the back of the Flight Shield.



WARNING 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.

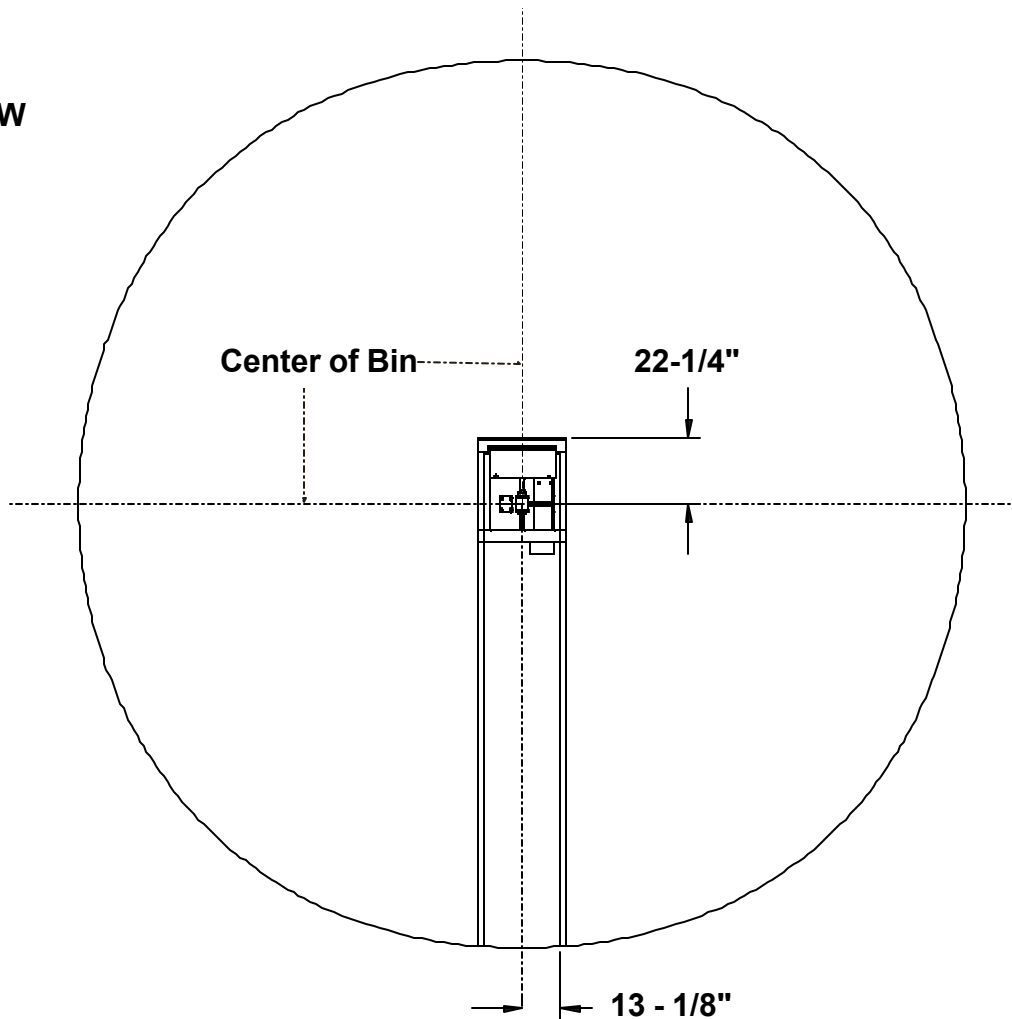
1. Power Sweeps in Bins with Concrete Floors

NOTE

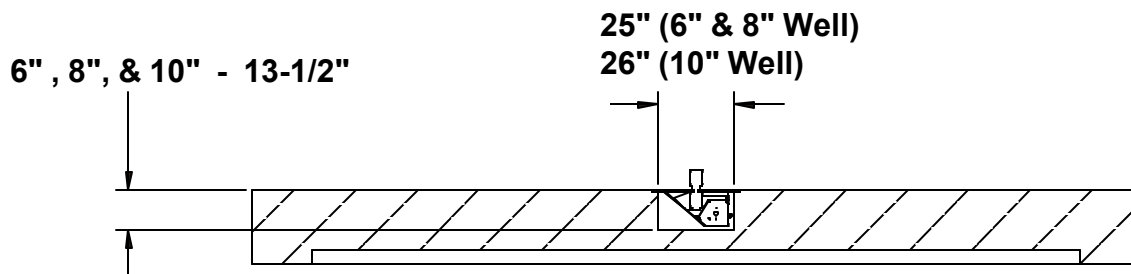
The company does not recommend setting the Direct Gear Drive Bin Sweep Auger unit in concrete. If installing a unit flush with a concrete floor, we recommend that the unit be installed in a preformed trench. Use the diagram below.

FIG.1 - CONCRETE TRENCH LAYOUT FOR 6", 8", & 10" POWER SWEEPS

TOP VIEW



SIDE VIEW



3. Intermediate Well Installation

- A. Cut openings in the bin floor for the intermediate wells. (See Fig. 2-A & 2-B on page 4.) The number of wells depends on bin size. The distances between intermediate wells and the center well should be equal. (See Fig. 3 and Chart below.)

BIN SIZE	NUMBER OF INTERMEDIATE WELLS	DISTANCE FROM CENTER OF BIN TO WALL (A)	DISTANCE BETWEEN WELLS (B)
15'	1	7' 5-1/2"	45"
18'	1	8' 11-7/16"	54"
21'	2	10' 5-5/16"	42"
24'	2	11' 11-1/4"	55-3/4"
27'	2	13' 5-3/16"	61-3/4"
30'	2	14' 11"	67-3/4"
33'	3	16' 4-15/16"	56-13/16"
36'	3	17' 10-7/8"	59-13/16"
39'	3	19' 4-3/4"	64-5/16"
42'	4	20' 10-11/16"	56-1/4"
48'	4	23' 10-1/2"	63-29/64"

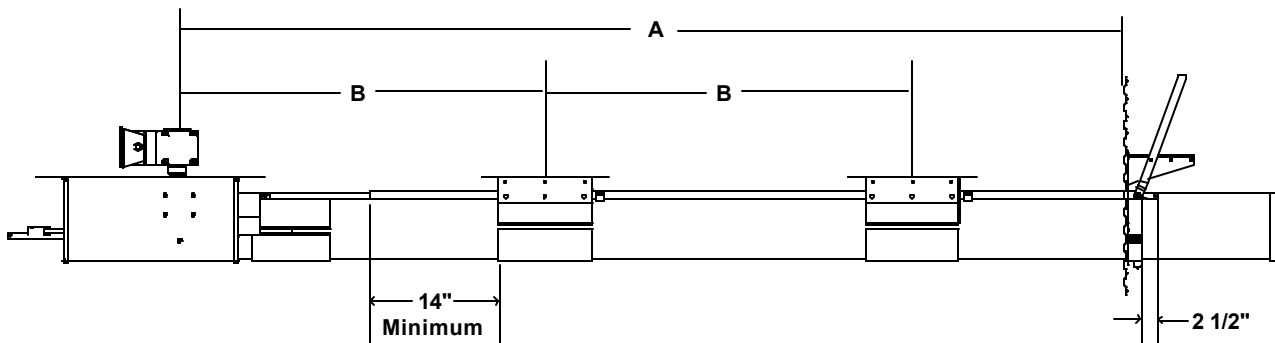


FIG. 3

4. Unload Tube Installation

- A. Cut an opening in the bin wall for the unloading tube. Locate the opening below the floor the same distance as the auger tube connection to the center well. Make sure the hole is in line with the tube on the center well. Use the chart below for the size of hole needed to be cut into bin wall. (See fig. 4-A)

Tube Size	Hole Size in Side of Bin
10"	13" Hole
8"	10 1/2" Hole
6"	8 1/2" Hole

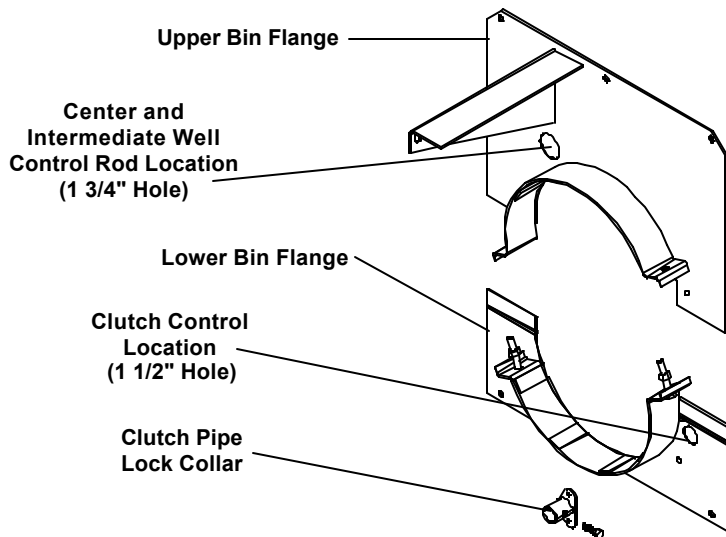
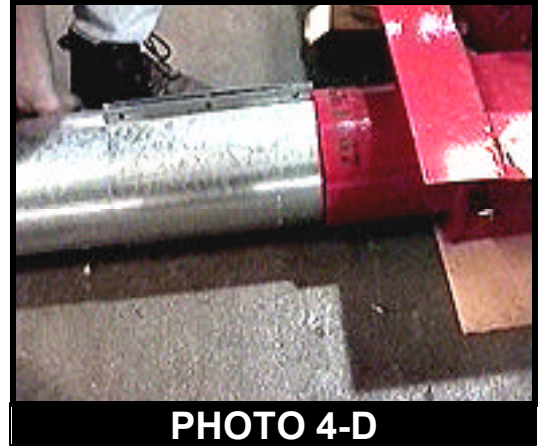


FIG. 4-A

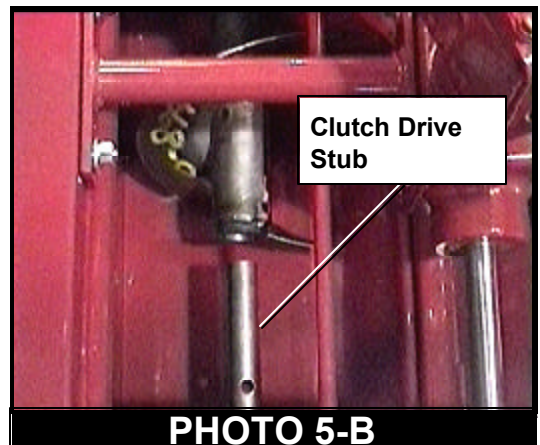
4. Install Unload Tube Flight (cont.)

- B. From the inside of the bin, insert the angle ring end of the unload tube through the hole in the bin sidewall.
- C. Place the connecting band onto the end of the unload tube closest to the center well.
- D. Position the unload tube against the center well tube. (See Photo 4-D)
- E. Slide the connecting band until it is equally positioned over both the unload tube and the center well tube. Position the connecting band so it will not interfere with the control rods.
- F. Secure the connecting band with three (3) 5/16" x 1-1/2" bolts and locknuts. (See Photo 4-F)
- G. Go back & double check all intermediate wells to make sure they are on straight and secure. The intermediate well opening cut into the tube should extend at least 1/2" inside the well on all four sides.



5. Install Unload Tube Flight

- A. Open the slide gate of the center well. Insert the unload flighting into the center well. (See Photo 5-A)
- B. Attach the unload flighting to the clutch drive stub using bolts (See NOTE) and locknuts. (See Photo 5-B)
- C. Tighten the bolts with a wrench.



NOTE	6" Two (2) 3/8" x 2-1/4" Bolts
	8" Two (2) 3/8" x 3" Bolts
	10" Two (2) 3/8" x 3" Bolts

6. Install Bin Flange

- A. Attach the upper & lower bin flanges to the auger tube using 5/16" x 1-1/2" bolts and nuts. (See fig. 6-A)
- B. Bolt the clutch lock collar to the lower bin flange half using two 1/4" x 3/4" carriage bolts. Install the bolt heads on the back side of the lower bin flange half, so they will be next to the bin wall when the flange is attached to the bin.
- C. Fasten the four corners of the bin flange to the bin by first drilling holes for 5/16" x 1" bolts in the bin wall through existing holes in the flange. Attach the decal plate to the upper flange while attaching flange to bin. (See fig. 6-A)
- D. Drill holes in the bin wall through the existing holes in the flange for the well control rods and clutch control rod. (See Fig. 4-A on page 5)

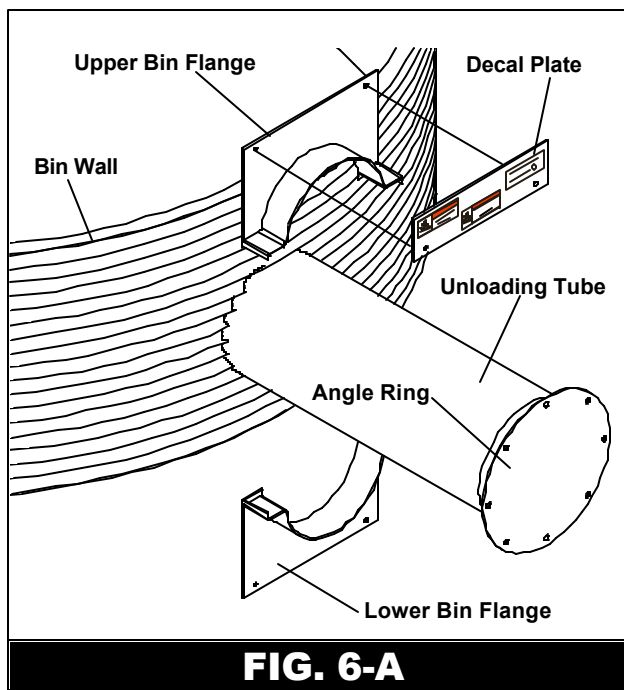


FIG. 6-A

7. Intermediate Slide Gate Assembly

- A. **Attach the intermediate bin well gate(s) to the 1-3/8" O.D. control pipe:**
 1. Close the intermediate bin well gates.
 2. Check length of control pipe by sliding it into place. One end should be centered between the center well and the 1st intermediate well. The other end should be lined up with the Bin Flange halfband. (See fig. ?)
 3. Attach the dimple clamp through 1st set of holes on the slide gate by drilling a 3/8" diameter hole through one side of the 1- 3/8" O.D. control pipe. The dimple of the control gate clamp will fit into this hole when clamped to the control gate. Determine the hole location by seeing where the dimple will hit the control pipe when it is bolted in place. (See Fig. ?)
 4. Fasten the control gate clamp to the control gate and control pipe. Secure in place by using two 5/16" x 1" long (grade 5) hex head capscrews, flat washers lock washers, and nuts. (See Fig. 7)
 5. Slide the gate open to attach the 2nd dimple clamp to the 2nd set of holes in the slide gate. Attach it the same as the 1st clamp as in steps 3 & 4 above.
 6. Follow steps 3 - 5 for all intermediate wells. Make sure the gates are in the closed position before starting a new slide control gate.

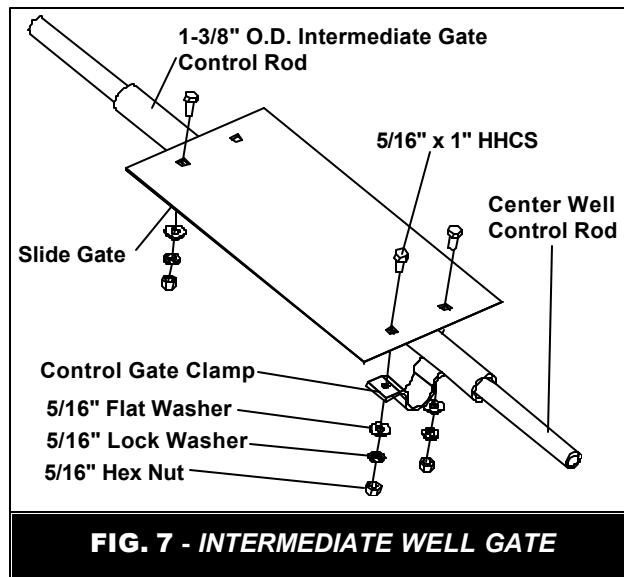
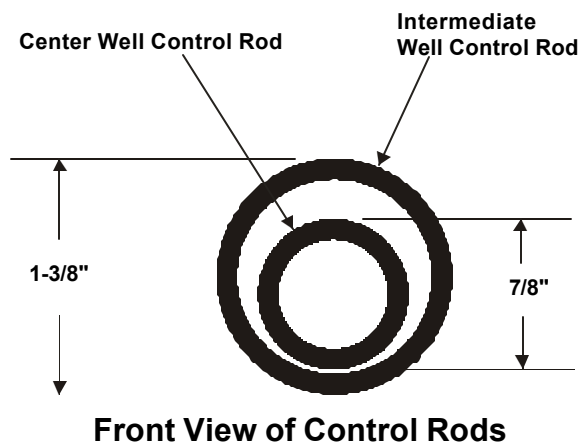


FIG. 7 - INTERMEDIATE WELL GATE



8. Center Well Slide Gate Assembly

C. Attach the center well gate to 7/8" O.D. control pipe for 6" & 8" Models

1. Close the center slide control gate.
2. Drill a 5/16" hole through both sides of the pipe, 5/8" from one of the ends. Insert this end through the intermediate control pipe.
3. Attach control gate to control rod with a 5/16" x 2" bolt, flat washer, lockwasher, and hex nut. (See Fig. 8-A)
4. When the control pipe is fastened to the control gate and the gate is closed, the center well control pipe should extend past the end of the intermediate well control pipe a minimum of 2-1/2".

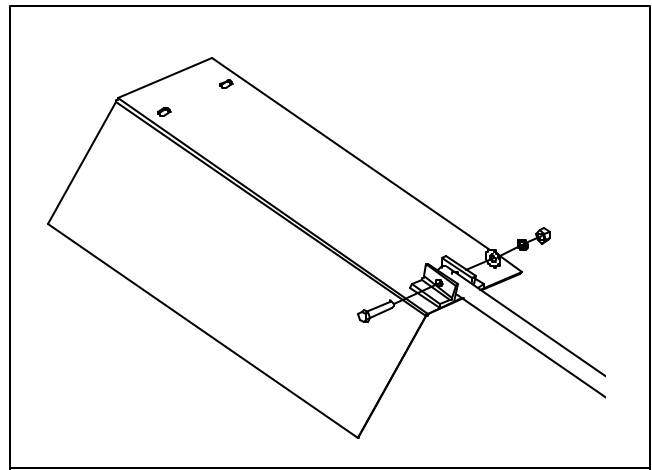


FIG. 8-A - 6" & 8" CENTER WELL GATE

C. Attach the center well gate to 7/8" O.D. control pipe for 10" Models

1. Close the center slide control gate.
2. Drill a 5/16" hole through both sides of the pipe, 5/8" from one of the ends. Insert this end through the intermediate control pipe.
3. Attach control gate clamp to control pipe by sliding 5/16" x 1-3/4" long roll pin through clamp and control pipe.
4. Fasten clamp to bottom side of control gate by using two 5/16" x 1-3/4" long (grade 5) carriage bolt, flat washers, lockwashers and nuts. Install nuts so they secure the 5/16" x 1-3/4" long roll pin in place. (See Fig. 8-B)
5. When the control rod is fastened to the control gate and the gate is closed, the center well control pipe should extend past the end of the intermediate well control pipe a minimum of 2-1/2". (See Fig. 8-C)

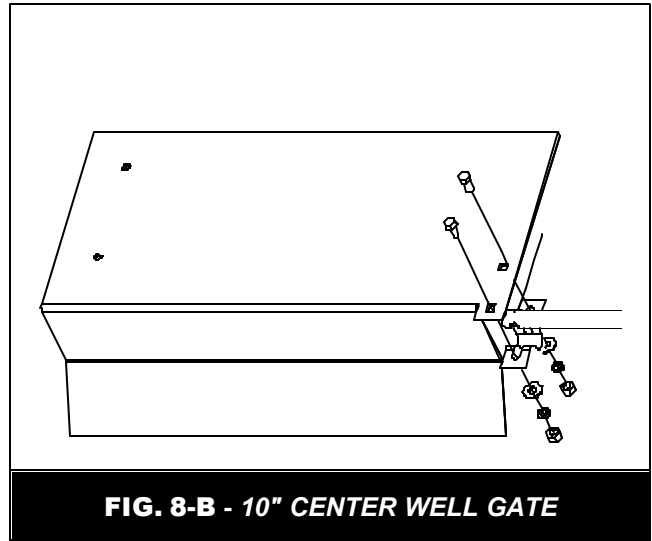


FIG. 8-B - 10" CENTER WELL GATE

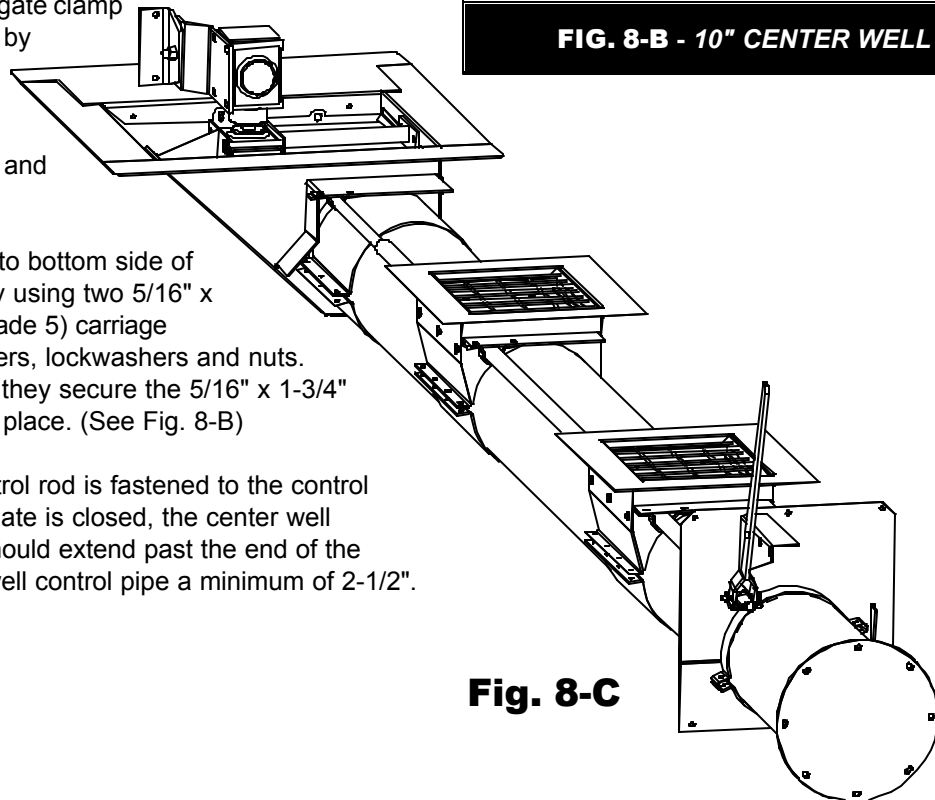


Fig. 8-C

9. Control Lever Installation

- A. Close all slide control gates & keep them closed.
- B. Make sure the end of the Intermediate control rod protrudes out from hole as far as the ring on the bin flange halfband. Cut off any excess.
- C. Make sure the center well control gate extends at least 2-1/2" past the end of the intermediate control rod. Cut off any excess. (See Fig. 9-B)
- D. Measure 5/8" from the end of the Intermediate well control rod and drill a 3/8" hole all the way through both control rods.
- E. Measure 5/8" from the end of the center well control rod and drill a 3/8" hole through both sides of the pipe.
- F. Attach the control lever by sliding the safety snap-on pin through the lever and both control rods as shown in figure 9-A and 9-B.
- G. Put the control lever in the 1st slot closest to the bin flange. This slot should be used to close the gates.

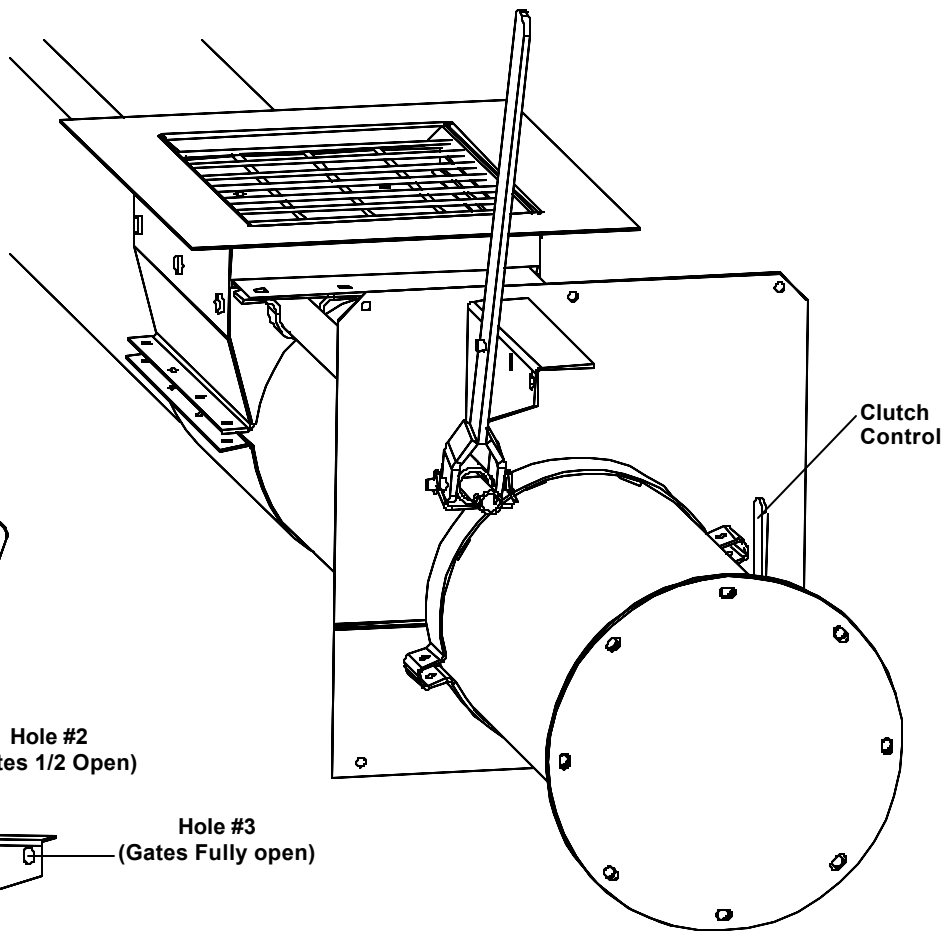


FIG. 9-A

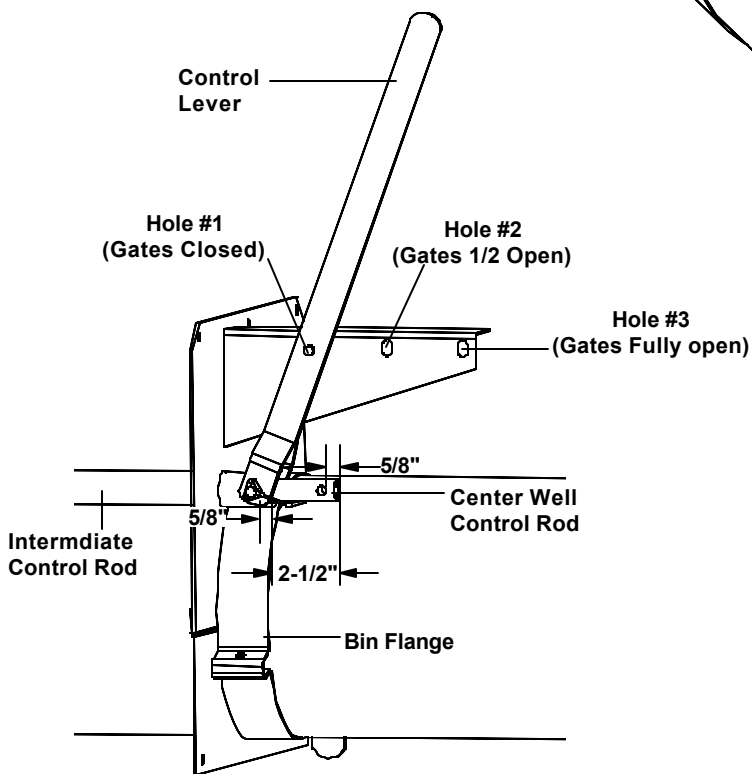


FIG. 9-B

10. Clutch Control Installation

- A. Slide clutch control pipe through the bin flange and the support rings on the intermediate and center wells. Slide clutch control pipe into collar of the center well. (See Fig. 10-A & 10-C)
- B. Bolt clutch control pipe to collar of the center well using a 5/16" x 1-1/2" long bolt with a lockwasher and non-lock nut.
- C. Attach clamp to control pipe by sliding 5/16" x 1-3/4" long roll pin through clamp and control pipe. Fasten clamp handle by using two 5/16" x 3/4" carriage bolts, flat washers, lock washers and nuts. Install nuts so they secure the 5/16" x 1 3/4" long roll pin in place. (See Fig. 10-B)
- D. Check operation of clutch by pulling the handle to engage the clutch and then pushing the handle to disengage. Control pipe should slide freely. Lock control pipe into disengaged position by tightening the bolt on the lock collar that is attached to the bin flange. (See Fig. 4-A page 5)

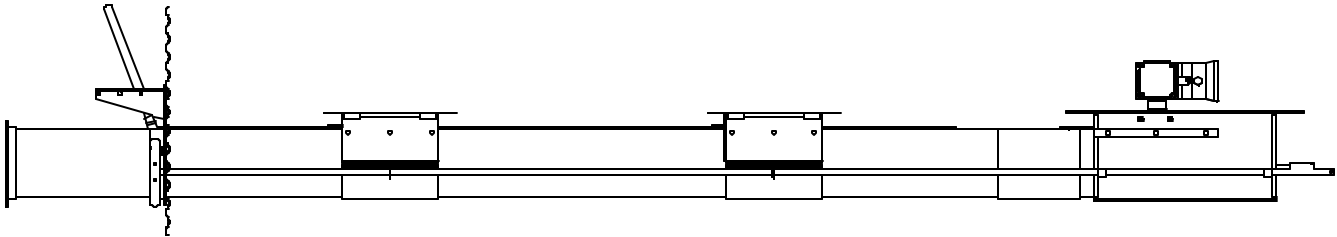


FIG. 10-A

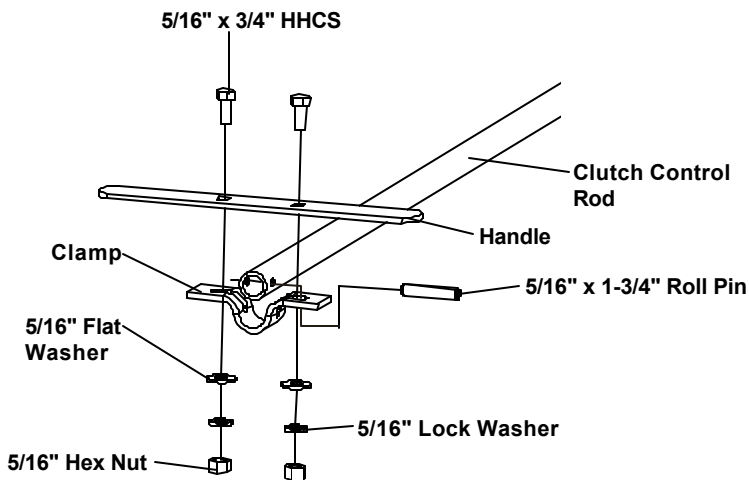


FIG. 10-B

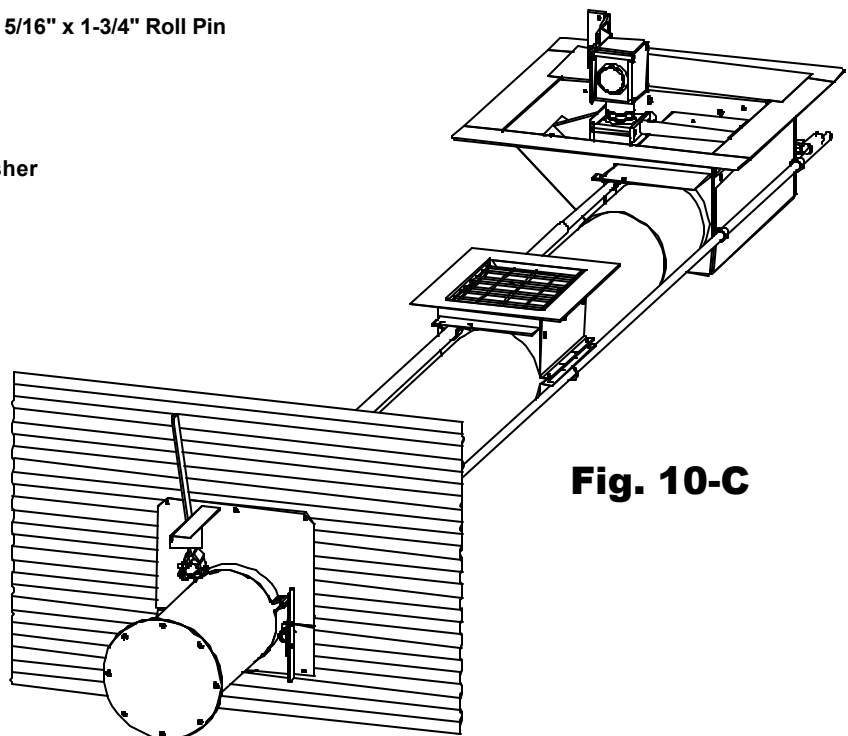


Fig. 10-C

11. Install the Sweep Flighting

A. Assemble the U-joint.

1. Insert the stub into the u-joint.
2. Secure the u-joint stub using a 5/16" x 2" roll pin. Drive the pin in with a hammer. (See Photo 11-A)

B. Attach the U-joint.

1. Slide the u-joint onto the top gear box output shaft.
2. Secure the u-joint using a 5/16" x 2" roll pin. (See Photo 11-B & 11-C)

C. Install the Pivot Bracket.

1. Attach the Pivot Bracket to the left side of the gear box using four (4) 3/8" x 1" bolts, flat washers, & lockwashers. (See Photo 11-D & Fig. 11)

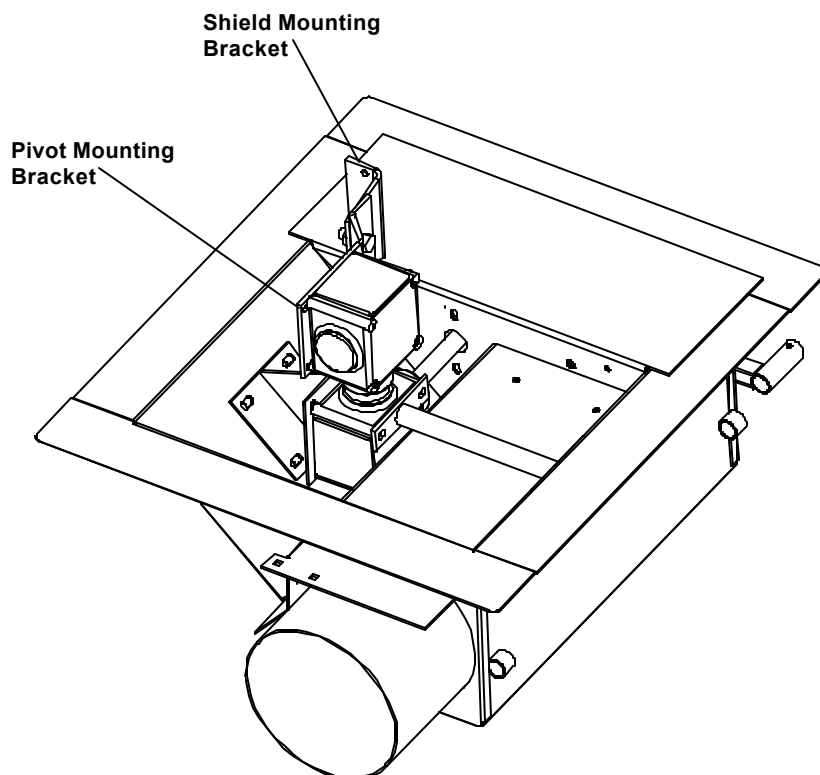


FIG. 11

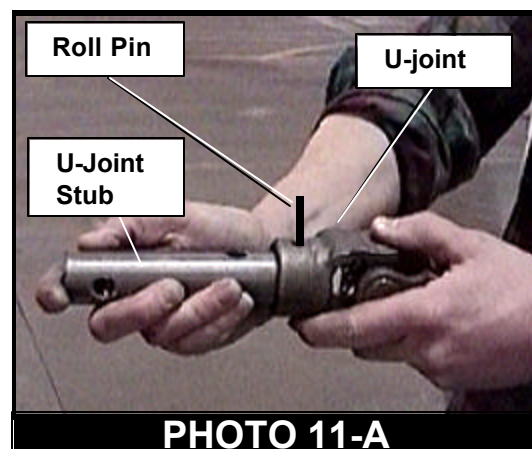


PHOTO 11-A

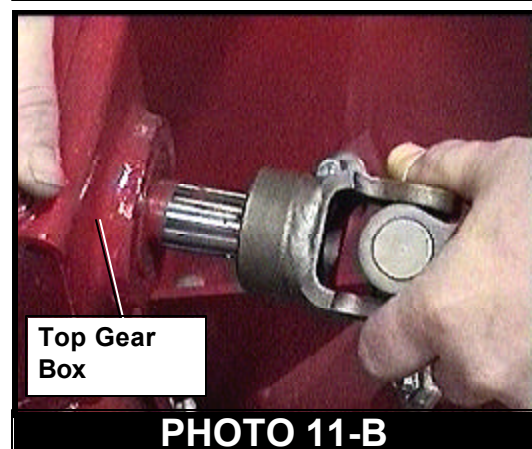


PHOTO 11-B

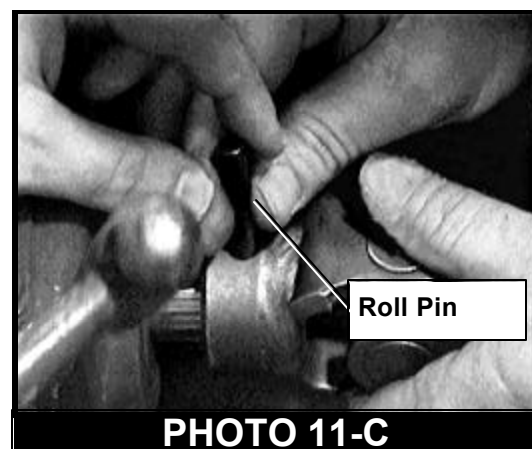


PHOTO 11-C

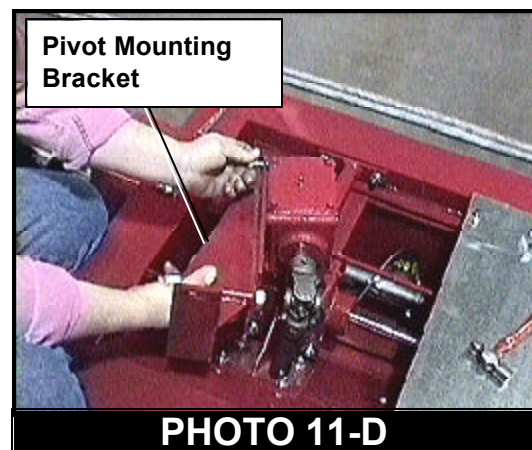


PHOTO 11-D

11. Install the Sweep Flighting (cont.)

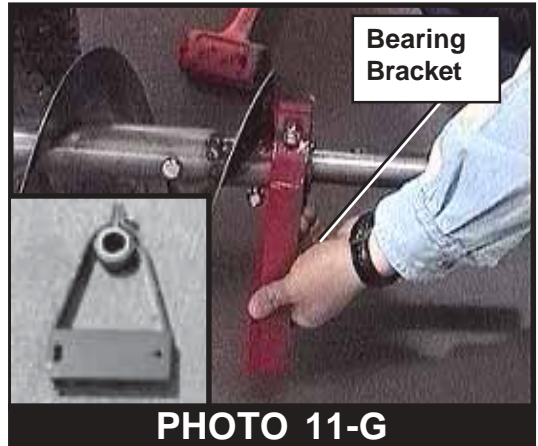
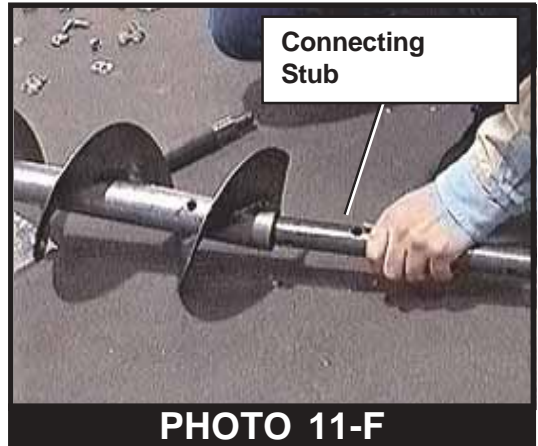
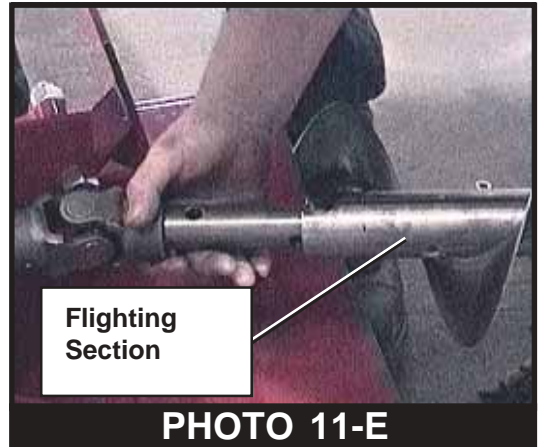
D. Install the Flighting.

1. Attach a flighting section to the u-joint stub located on the gearbox. Secure it with bolts (See NOTE), lockwashers and nuts.

NOTE	6"	Two (2)	3/8" x 1-3/4"	Bolts
	8"	Two (2)	7/16" x 2-1/4"	Bolts
	10"	Two (2)	7/16" x 2-1/4"	Bolts

NOTE	Use the chart below to determine the number of flighting and shield sections needed for the length of sweep to be used.
-------------	---

Bin Size	# of Flighting and Shields Required	Lengths
15'	1	5' 6"
18'	1	7' 0"
21'	1	8' 6"
24'	1	4' 4"
	1	5' 6"
27'	1	5' 6"
	1	5' 10"
30'	1	5' 6"
	1	7' 4"
33'	1	5' 10"
	1	8' 6"
36'	1	7' 4"
	1	8' 6"
39'	1	8' 6"
	1	8' 10"
42'	1	4' 4"
	1	7' 0"
	1	7' 4"
48'	1	7' 0"
	2	7' 4"



E. Install the Connecting Stub to Sweep Flight.

1. Insert the connecting stub into the flighting. Secure it with bolts (See NOTE), lock washers and nuts. (See Photo 11-F)

F. Install the Bearing Bracket.

NOTE	6"	Two (2)	3/8" x 1-3/4"	Bolts
	8"	Two (2)	7/16" x 2-1/4"	Bolts
	10"	Two (2)	7/16" x 2-1/4"	Bolts

1. Place the hanger bearing bracket onto the connecting stub. (See Photo 11-G)

11. Install the Sweep Flighting (cont.)

G. Install the Sweep Flighting.

1. Install the next section of flighting onto the connecting stub. Secure the flighting with bolts (See NOTE), and stover nuts.

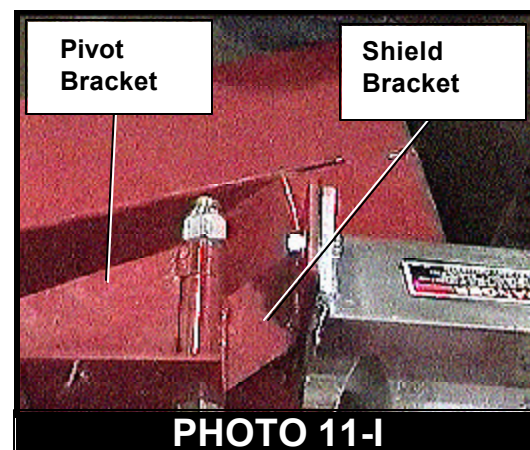
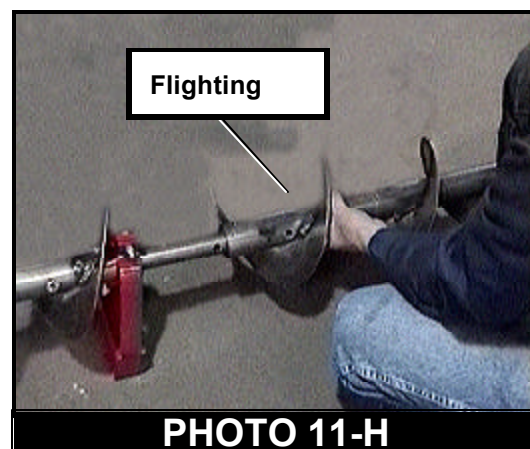
NOTE

6"	Two (2)	3/8" x 1-3/4"	Bolts
8"	Two (2)	7/16" x 2-1/4"	Bolts
10"	Two (2)	7/16" x 2-1/4"	Bolts

2. Keep repeating steps E - G for additional sections of flighting.

H. Install the Flighting Shield.

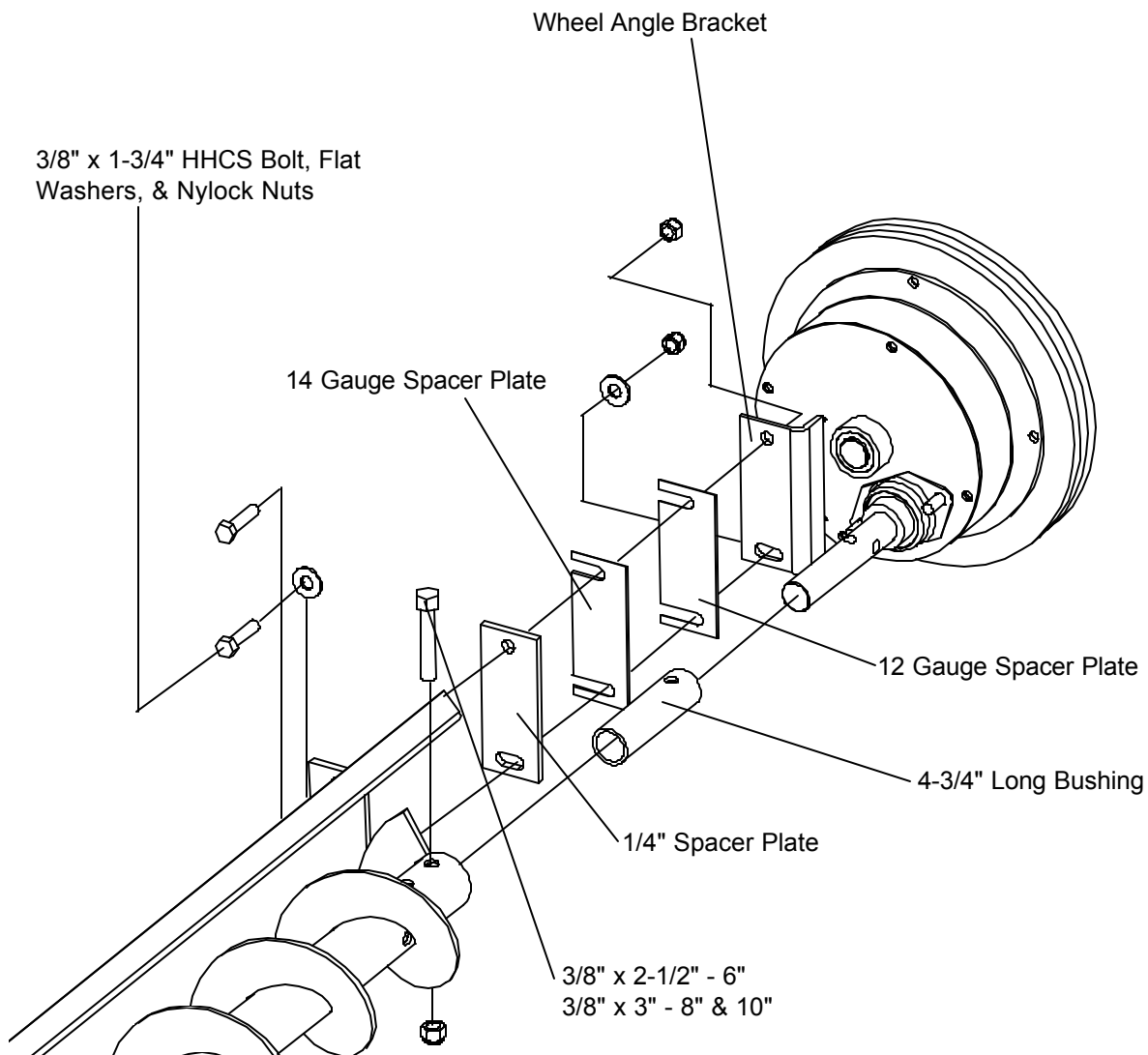
1. Install the first shield to the shield mounting bracket. Secure using two (2) 3/8" x 1-1/4" bolts, flat washers and nylon locknuts. Make sure the nut is on the side of the slotted hole for adjustment. (See Fig. 11 & Photo 11-I)
2. Fasten the shield bracket to the pivot bracket on the gearbox using one (1) 3/4" x 5-1/2" bolt, flat washer and locknut.
3. Install the first and second section of flighting shield to the hanger bearing bracket (when applicable.) Use two (2) 3/8" x 3" carriage bolts, lock washers and nuts to secure these together. (See Photo 11-J)



12. Sweep Wheel Installation

- A. Connect the reduction sweep wheel to the back shield using 3/8" x 1-3/4" HHCS Bolt, 3/8" flat washer, and locknuts. (See Fig. 12-A) Orient the bushing with the bolt hole nearest the wheel. Select one of the two holes in the flight and wheel shaft to line up with the holes in the bushing. Connect them all together using a 3/8" x 2-1/2" HHCS Bolt with locknut for 6" and a 3/8" x 3" HHCS Bolt with locknut for 8". Use spacers as necessary to connect the wheel angle bracket to the back shield.

FIG. 12-A
Reduction Wheel



13. Power Recommendations

- A. The horsepower recommendations are for augering reasonably dry grain. High moisture grain above (15%) will require greater power if maximum capacity is to be maintained. The maximum possible capacity will be less with high moisture grain than with dry grain. Use an electric motor of the correct size that operates at 1750 RPM. **DO NOT** use a motor size that is greater than what is shown for the largest bin size in your column.
- B. 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.

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.

Horsepower Chart

Bin Dia.	Horizontal Head			25 Degree Head			Vertical Head		
	6"	8"	10"	6"	8"	10"	6"	8"	10"
15'	3	3	--	3	5	--	5	5	--
18'	3	3	--	3	5	--	5	5	--
21'	3	5	--	5	5	--	5	7 1/2	--
24'	3	5	7 1/2	5	5	10	5	7 1/2	10
27'	5	5	7 1/2	5	5	10	5	7 1/2	10
30'	5	5	7 1/2	5	7 1/2	10	7 1/2	7 1/2	15
33'	5	5	7 1/2	5	7 1/2	10	7 1/2	7 1/2	15
36'	5	5	10	5	7 1/2	10	7 1/2	7 1/2	15
39'	--	7 1/2	10	--	10	15	--	--	--
42'	--	7 1/2	10	--	10	15	--	--	--
48'	--	7 1/2	10	--	10	15	--	--	--

▲ DANGER

1. Electric motors and controls must be installed by a qualified electrician and must meet the standards set by the National Electrical Code and all local and state codes.
2. 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.
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.
4. The motor starting controls must be located outside the bin. Locate the motor starting controls outside the bin but near the bin door so the operator has full view of the operation inside the bin.
5. Disconnect power before resetting motor overloads.
6. Reset and motor starting controls must be located so that the operator has full view of the entire operation.
7. Make certain electric motors are grounded.
8. Shut off power to adjust, service or clean.

14. Before Filling the Bin

- A. Close the center well and the intermediate well gates. Push the control pipes to close. (See Fig. 8-C on page 8)
- B. Disengage the power sweep clutch control. Push to disengage.
- C. Position the sweep auger long side the intermediate wells.

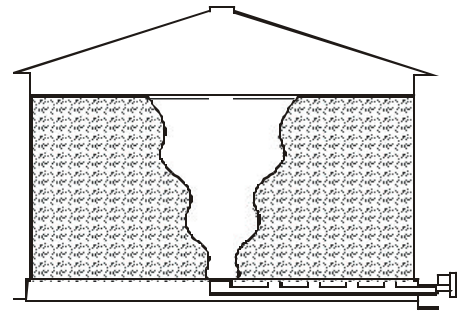


Figure 14-A

Abnormal grain flow can easily fall and bury a person, suffocating them. **DO NOT** enter a bin with abnormal grain flow.

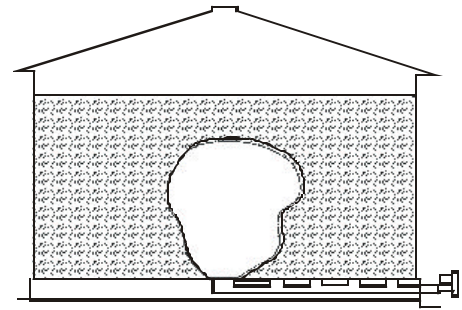



Figure 14-B

Bridged grain can easily break loose and bury a person, suffocating them. **DO NOT** enter a bin with bridged grain.

▲ DANGER

DO NOT enter the grain bin unless all power driven equipment has been shut down and locked out. Never enter the grain bin unless monitored by another person.

DO NOT enter the bin if the grain has bridged or has flowed abnormally out of the bin as shown in Fig. 14-A or Fig. 14-B. Suffocation can occur if grain suddenly breaks loose, burying persons who are inside the bin.



15. Perform Pre-start Checks

▲ CAUTION

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

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

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

▲ DANGER

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

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

▲ WARNING

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

16. Operation

CAUTION DO NOT start/stop the auger while it is under load, this may cause the auger to “jam.”

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

CAUTION Be aware of any unusual vibration or noises during the initial start-up and “break-in” period. If anything unusual is detected, immediately shutdown the auger, and disconnect and lockout the power supply before servicing. Visually inspect the auger periodically during operation.

- A. Start the unloading auger. The motor is located on the power head outside the bin on the unload tube. To figure out the horsepower needed for your equipment use the Horsepower Chart on page 15.
- B. The safety snap pin should be inserted through the center well control rod & the control lever. Make sure it has NOT been inserted through the intermediate control rod. (See Fig. 16-D)
- C. Place control lever in the second slot & pull lever to open gradually until the desired flow is established. (See Fig. 16-D) It shouldn't be necessary to open the gate more than 3" to 6".
- D. Always close center well gate and allow the unloader to clean out before stopping the unloader.
- E. When grain flow stops from the center well, close the center well gate. Insert the safety snap pin through the control lever and both the intermediate and center well control rods as shown in fig. 16-C. The remaining grain should look similar to fig 16-A.
- F. Gradually open gates using the middle pivot slot until the desired flow of grain is reached. You shouldn't have to open the gates more than 2 to 4 inches. If gates need to be opened further use the last slot for more leverage. (See Fig. 16-D) The remaining grain should look similar to fig 16-B.

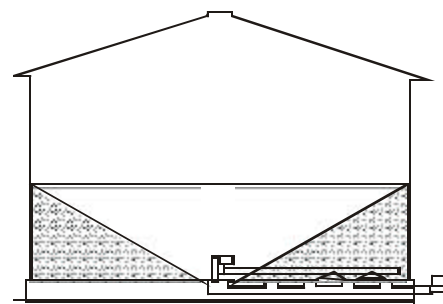


Fig. 16-A

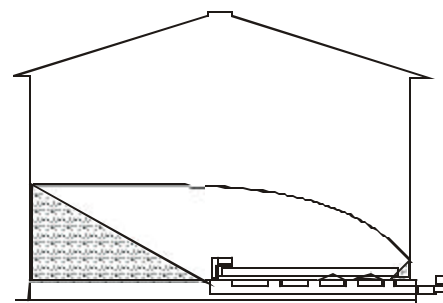


Fig. 16-B

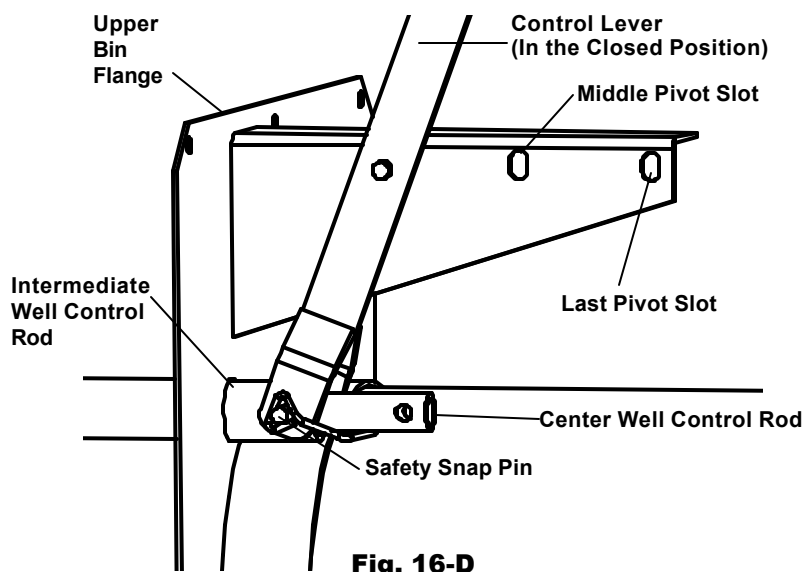


Fig. 16-D

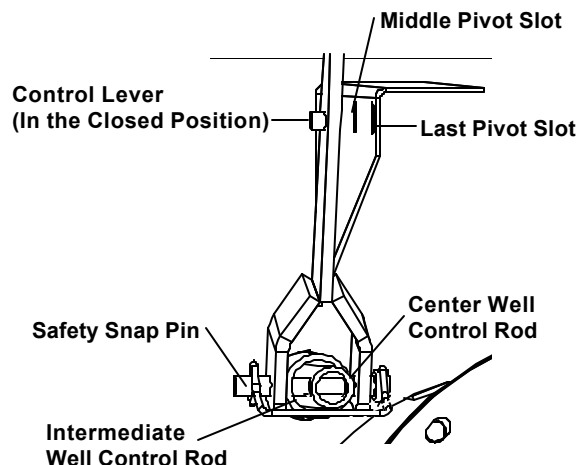


Fig. 16-C

17. Engaging the Clutch for Bin Sweep

- A. All power should be off & locked out before starting.
- B. Open belt guard and rotate the large sheave while pulling on the clutch control. (Make sure the set screw has been loosened.) The clutch control rod will move as the clutch engages. (See Fig. 17)
- C. Tighten set screw to hold the clutch engaged. Close the belt guard.

CAUTION

Center well slide gate must be fully open during sweep operation.

- D. Make sure all wells are fully open.
- E. Restore power and start Power Sweep motor. The sweep auger will start along with the unloading auger. The sweep auger will remain on the floor and clear most grain in one pass. A second pass will clean out additional grain, before final cleanout.

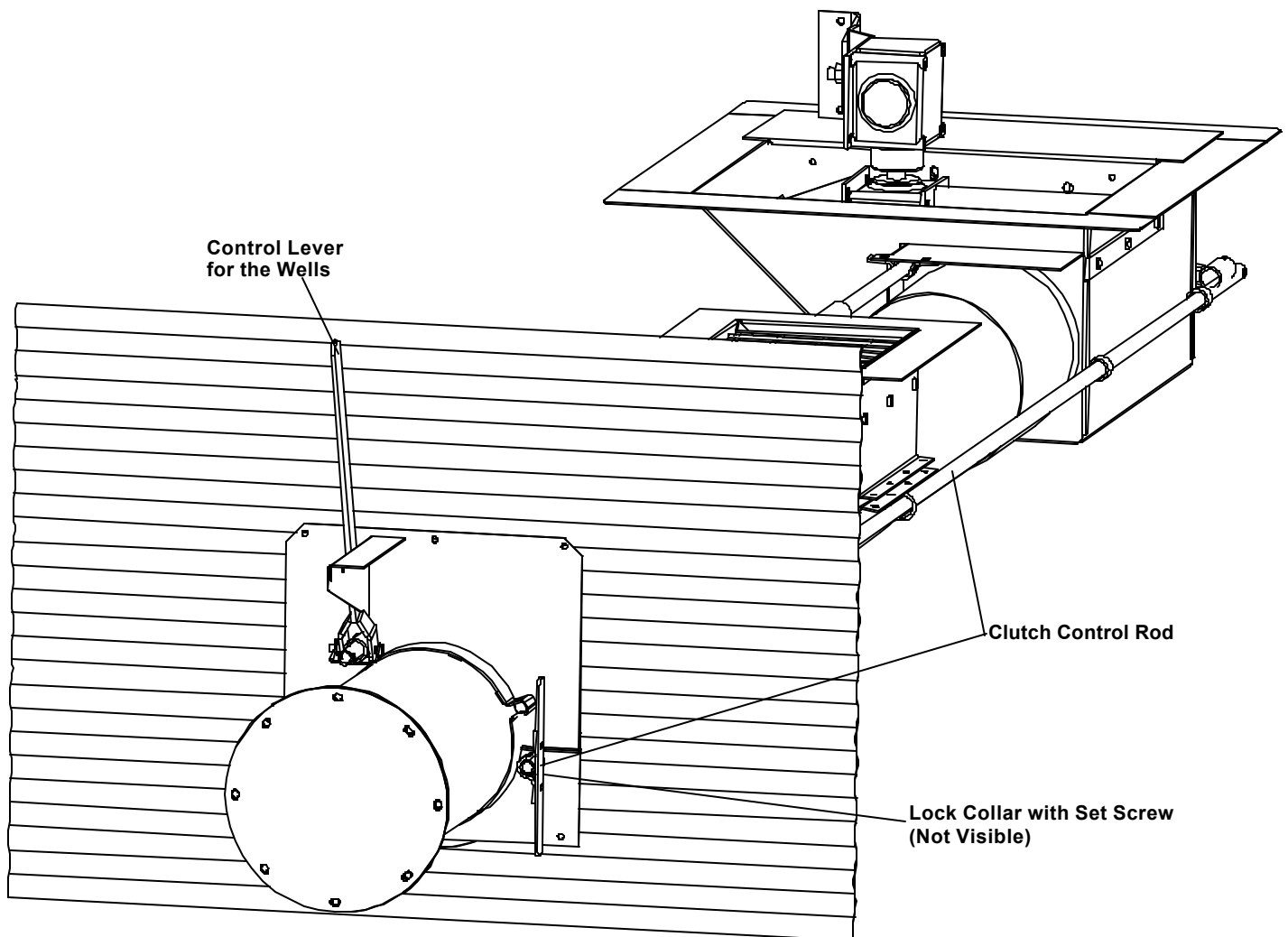


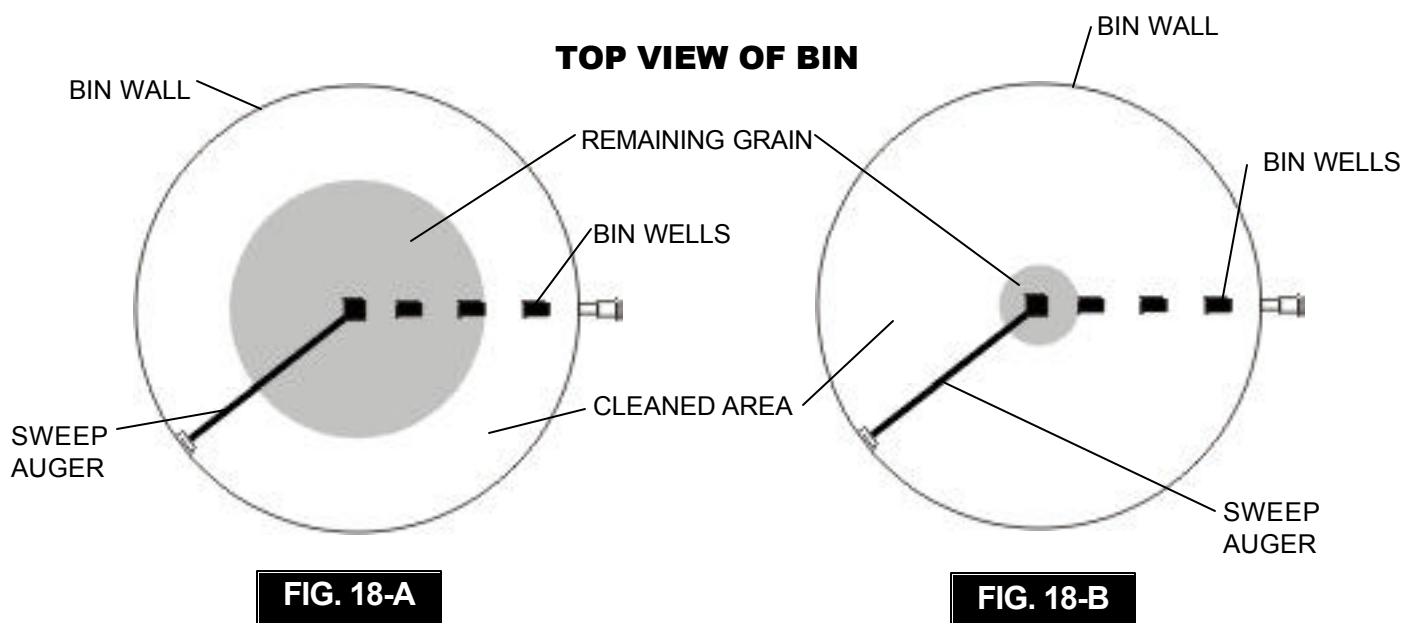
FIG. 17

18. FINAL CLEAN-OUT

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

⚠ DANGER DO NOT enter a grain bin unless all power driven equipment has been shut down and locked out.

1. Clean (scoop and sweep by hand) the outer area of the floor into a circular pile towards the center of the bin. (See Fig. 18-A)
2. Get out of the bin.
3. After making sure everyone is outside the bin and clear of the equipment, start the under floor unloader and the sweep auger. In a short time, the circular pile towards the center of the bin will have been removed.
4. Stop the equipment and lock out.
5. Scoop and sweep by hand the remaining floor area to the center of the bin. (See Fig. 18-B)
6. Get out of the bin.
7. Repeat steps 3, 4, 5, and 6 until all grain has been removed from the bin.



⚠ DANGER Keep out of bin while sweep is in operation. Rapidly traveling sweep auger. The sweep auger will move rapidly around the bin when the bin is nearly empty.

⚠ DANGER Stay clear of the under floor unloader at the bin wells. The under floor unloader is exposed at these locations in the bin floor.

19. Shutdown

A. Normal Shutdown.

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

B. Emergency Shutdown.

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

DANGER

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

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

C. Storage Preparation.

1. Close all wells to the discharge auger.
2. Position the direct gear drive sweep directly over the intermediate wells.

NOTE

Make sure that the clutch control rods are disengaged.

3. Be sure the unload tube is empty.
4. Shutdown the auger.
5. Make sure all fasteners are tight.

DANGER

DO NOT enter the grain bin unless all power driven equipment has been shutdown.

20. Maintain the Auger



Properly maintaining this equipment will help to ensure it continues to work properly. Failure to properly maintain this equipment may result in damage to the equipment or may cause **SERIOUS INJURY** or **DEATH** to the operator.

Failure to properly maintain this equipment may also be a misuse of the equipment. Any misuse of the equipment may void the warranty.

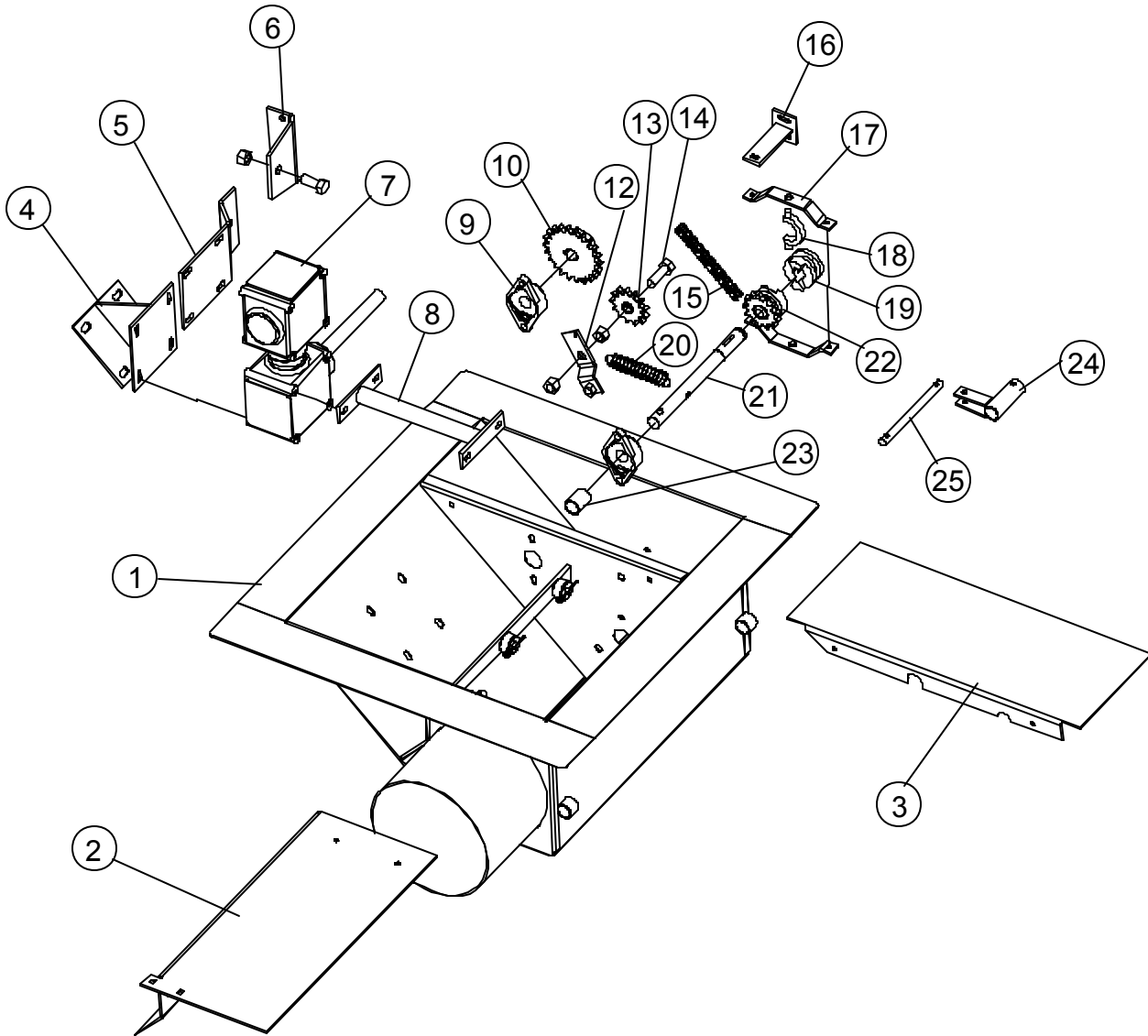
- A. The u-joint must be lubricated with SAE multipurpose grease every 10 operational hours, or after each use.
- B. When it is time to re-lubricate the gear boxes, do so as follows:
 - Upper:** Fill about half-full, or add approximately 14 fl. oz.
 - Lower:** Fill about half-full, or add approximately 14 fl. oz.
- C. Use caution when repairing or replacing equipment parts.
- D. Make sure ALL decals are legible and tightly attached to the auger. If necessary, replace them **FREE OF CHARGE** by contacting the dealer, warehouse or the manufacturer.
- E. Mount controls for any electric motors at a safe distance from the machine and in a location accessible in case of an emergency.
- F. Make sure ALL electrical wiring is not damaged, and that it meets proper wiring codes.
- G. Make sure ALL components are in good working condition before use.
- H. Make sure all components are in good working condition before use.

Troubleshooting

<i>Problem</i>	<i>Possible Cause</i>	<i>Solution</i>
1. The auger is vibrating.	A. The drive belt may be too tight, binding the head stub and flight. Damage can occur to the auger flighting, causing noise. Damage usually is caused from foreign material being run through the auger.	A1. Adjust the drive belt to the proper tightness. A2. It may be necessary to remove the flighting for inspection.
2. Capacity is too low.	A. There may not be enough grain reaching the auger.	A1. Make sure the intake has not bridged over, restricting flow. The flighting at the intake should be covered with grain for maximum capacity.
	B. The auger is moving too slowly.	B1. Check the auger speed. Low capacity will result from speeds slower than recommended.
3. The auger plugs.	A. The auger may be "jamming" because too much grain is reaching the auger.	A1. Decrease the amount of grain the auger is gathering.
	B. The motor may be too small or wired improperly.	B1. If the motor is a newer light weight aluminum type, the next larger size may be desirable.
	C. The grain may be wet.	C1. If wet grain or other hard-to-move material is being augered, use a larger size motor than recommended for normal use.
	D. The auger may be jammed with foreign material.	D1. Remove any foreign material in the auger.
	E. The discharge end may be plugged.	E1. Unplug any plugs at the discharge end of the auger.

<i>Problem</i>	<i>Possible Cause</i>	<i>Solution</i>
4. The sweep flight and shield are no longer moving.	A. Too much drag.	A1. Check the clearance between the shield and the bin floor. Make sure there is room for the auger to move. Adjusting the shield may be necessary.
	B. Worn sweep wheel.	B1. The sweep wheel wears down over time. Replace the wheel.
	C. Unconditioned grain.	C1. Moisture and/or insects can cause the grain to harden or "cake-up". Disconnect and lockout the power to the auger before going into the bin to correct this problem or to address any other problem.

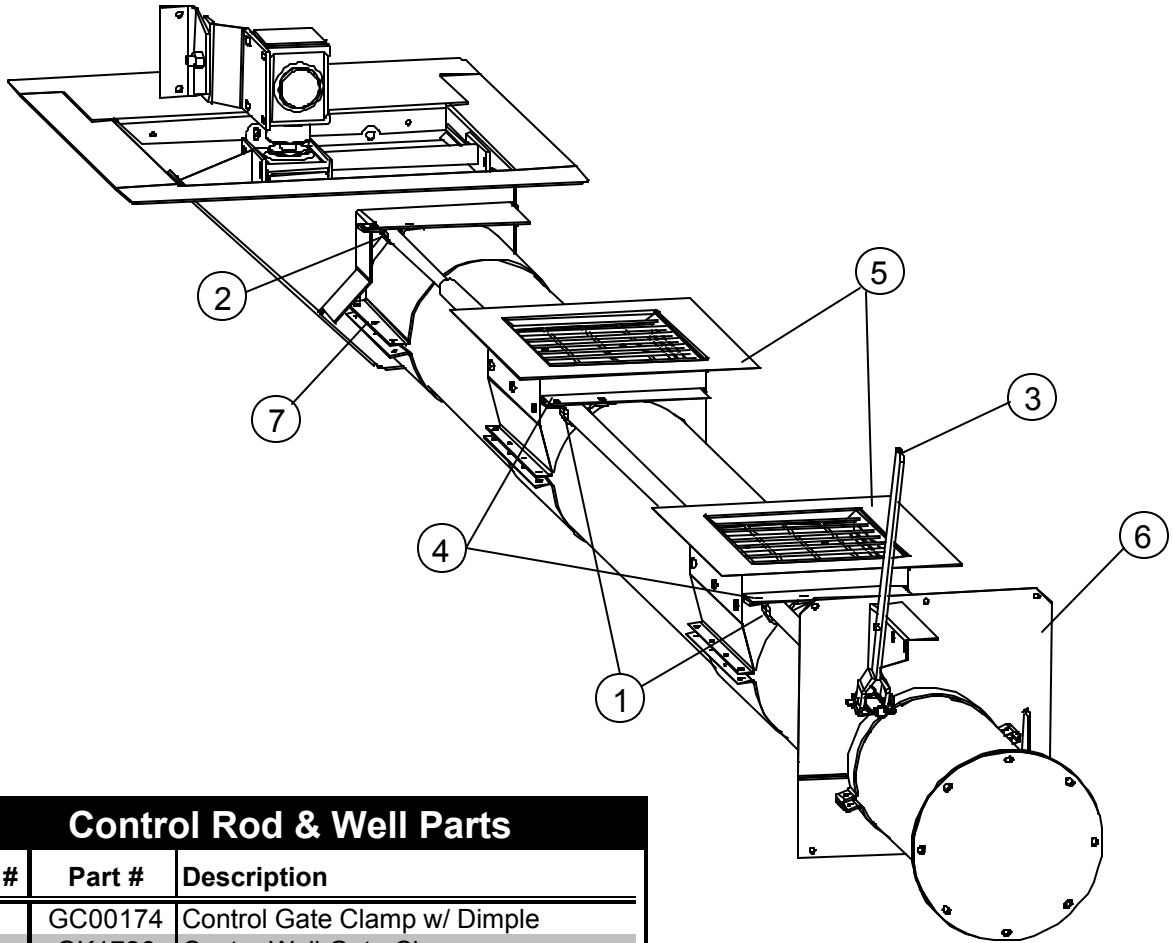
CENTER WELL PARTS



CENTER WELL PARTS

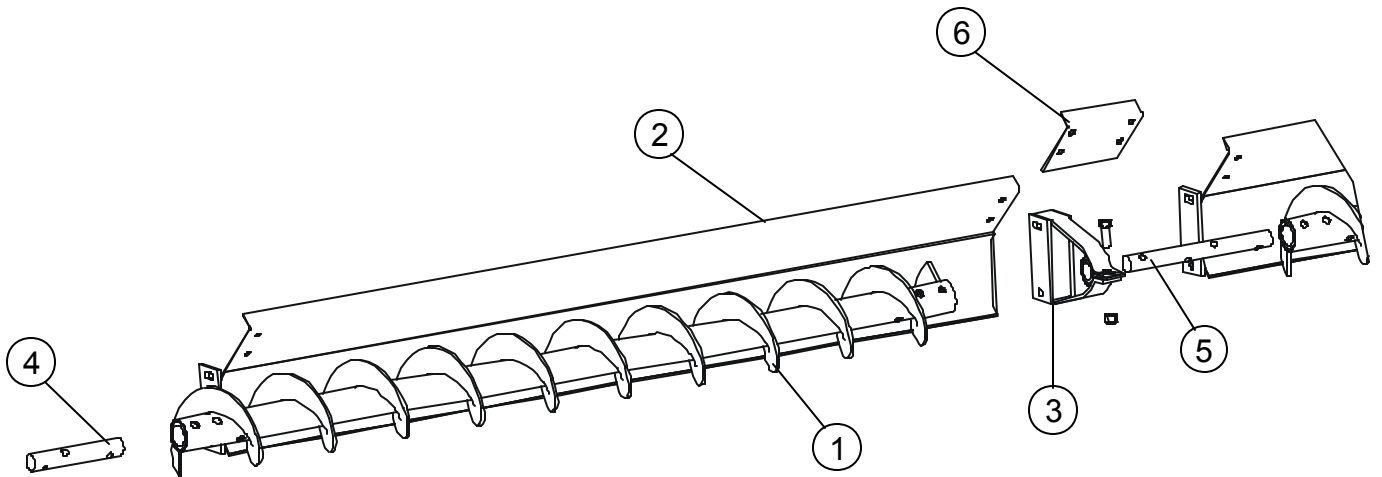
Center Well Parts		
Ref #	Part #	Description
1	GK4440	Weldment 10"
	GK1692	8"
	GK1634	6"
2	GC07898	Slide Gate 10"
	GK1687	6" & 8"
3	GK5009	Cover Plate 10"
	GK5215	6" & 8"
4	GK4429	Gearbox Mounting Bracket 10"
	GK1689	6" & 8"
5	GK4460	Shield Bracket 8" & 10"
		6"
6	GK4461	Bracket Attachment Plate 8" & 10"
		6"
7	GK5208	Gearbox w/ Clockwise Rotation - 6", 8" & 10"
8	GK4430	Rod Bracket Assembly 10"
	GK1688	6" & 8"
9	GK4410	2 Hole Bearing Flange
10	GK1110	Sprocket #50 22T 1" Bore
11	S-6494	5/8"-11 Deformed Lock Nut Zinc Grade 5
12	GK1702	Center Well Pivot Bracket
13	GK1701	Sprocket #50 13T 5/8" Bore
14	S-4329	5/8"-11 x 2" HHCS Bolt Zinc Grade 8
15	GK1705	#50 Roller Chain x 43P
16	GK1693	Clutch Pivot Bracket
17	GK1697	Clutch Yoke Bracket
18	GK1698	Clutch Yoke
19	GK1696	Clutch Yoke Driving JAW
20	GK1704	Spring Return
21	GK1703	Clutch Dr. Stub
22	GK1699	Clutch Yoke Driven JAW Assembly
23	GK1700	Center Well Bearing Spacer
24	GK1695	Clutch Control Rod
25		Clutch Control Arm
	GK1923	10"
	GK1694	6" & 8"

CONTROL ROD & WELL PARTS



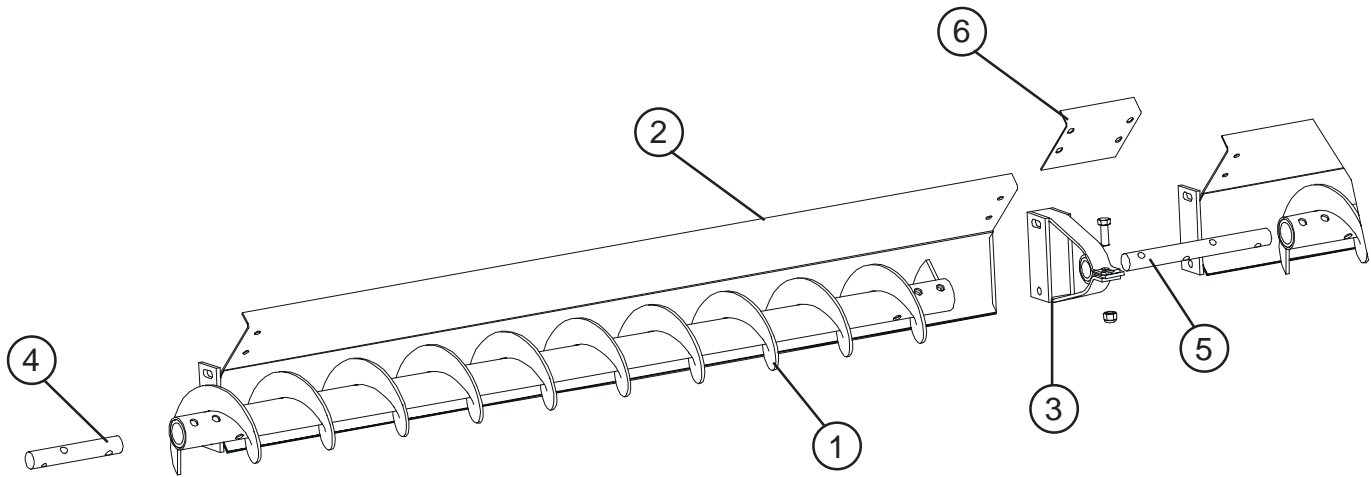
Control Rod & Well Parts		
Ref #	Part #	Description
1	GC00174	Control Gate Clamp w/ Dimple
2	GK1726	Center Well Gate Clamp
3	GC01192	Control Pipe Gate Handle
4		Intermediate Well Gates
	GK5179	6"
	GK5184	8"
	GK4968	10"
5		Intermediate well Flange
	GK5180	6"
	GK5185	8"
	GK4971	10"
6		Bin Flange
	GK5276	6"
	GK5277	8"
	GK5046	10"
7		Connecting Band
	GK1624	6"
	GK1677	8"
	GK1796	10"

FLIGHT & SHIELDS



6" Flight & Shields			
Ref #	Bundle #	Part #	Description
1	GK5680	6" x 5' 6" RH Bundle	
		GK5674	6" x 5' 6" Flight Weldment
2		GK5687	6" x 5' 6" Shield Assembly
1	GK5681	6" x 7' 0" RH Bundle	
		GK5675	6" x 7' 0" Flight Weldment
2		GK5688	6" x 7' 0" Shield Assembly
1	GK5682	6" x 8' 6" RH Bundle	
		GK5676	6" x 8' 6" Flight Weldment
2		GK5689	6" x 8' 6" Shield Assembly
1	GK5239	6" x 4' 4" RH Bundle	
		GK5363	6" x 4' 4" Flight Weldment
2		GK5605	6" x 4' 4" Shield Assembly
1	GK5240	6" x 5' 10" RH Bundle	
		GK2134	6" x 5' 10" Flight Weldment
2		GK4537	6" x 5' 10" Shield Assembly
1	GK5241	6" x 7' 4" RH Bundle	
		GK5364	6" x 7' 4" Flight Weldment
2		GK5606	6" x 7' 4" Shield Assembly
1	GK5242	6" x 8' 10" RH Bundle	
		GK4538	6" x 8' 10" Flight Weldment
2		GK5366	6" x 8' 10" Shield Assembly
3	--	GK1623	Hanger Bearing Bracket
4	--	GK1622	6" Stub Connector
5	--	GK1650	6" Connecting Stub
6	--	GK4229	Splicer Plate for Shield

FLIGHT & SHIELDS



8" & 10" Flight & Shields			
Ref #	Bundle #	Part #	Description
1	GK5243	8"/10" x 4' 4" RH Bundle	
		GK5367	8"/10" x 4' 4" Flight Weldment
2		GK5757	8"/10" x 4' 4" Shield Assembly
1	GK5683	8"/10" x 5' 6" RH Bundle	
		GK5677	8"/10" x 5' 6" Flight Weldment
2		GK5690	8"/10" x 5' 6" Shield Assembly
1	GK5244	8"/10" x 5' 10" RH Bundle	
		GK5368	8"/10" x 5' 10" Flight Weldment
2		GK4740	8"/10" x 5' 10" Shield Assembly
1	GK5245	8"/10" x 7' 4" RH Bundle	
		GK5369	8"/10" x 7' 4" Flight Weldment
2		GK5756	8"/10" x 7' 4" Shield Assembly
1	GK5685	8"/10" x 8' 6" RH Bundle	
		GK5679	8"/10" x 8' 6" Flight Weldment
2		GK5692	8"/10" x 8' 6" Shield Assembly
1	GK5246	8"/10" x 8' 10" RH Bundle	
		GK5370	8"/10" x 8' 10" Flight Weldment
2		GK4745	8"/10" x 8' 10" Shield Assembly
1	GK5684	8"/10" x 7' 0" RH Bundle	
		GK5538	8"/10" x 7' 0" Flight Weldment
2		GK5691	8"/10" x 7' 0" Shield Assembly
3	--	GK1675	Hanger Bearing Bracket
4	--	GK1678	6" Stub Connector
5	--	GK1736	6" Connecting Stub
6	--	GK4229	Splice Plate for Shield

WELLS, HARDWARE, & CONTROL RODS

Unload Tube w/ Intermediate Well & End Cap

Bin Size	10"	8"	6"	Length of Tube	# of Int. Wells
15'		GK5228	GK5220	8'	1 Intermediate Well
18'		GK5229	GK5221	10'	
21'		GK5230	GK5222	11'	2 Intermediate Wells
24'	GK5000	GK5231	GK5223	12' 6"	
27'	GK5001	GK5232	GK5224	14'	
30'	GK5002	GK5233	GK5225	15' 6"	3 Intermediate Wells
33'	GK5003	GK5234	GK5226	17' 6"	
36'	GK5004	GK5235	GK5226	18' 6"	
39'	GK5005	GK5236	GK5227	20'	
42'	GK5006	GK5237		22'	4 Intermediate Wells
48'	GK5007	GK5238		25'	

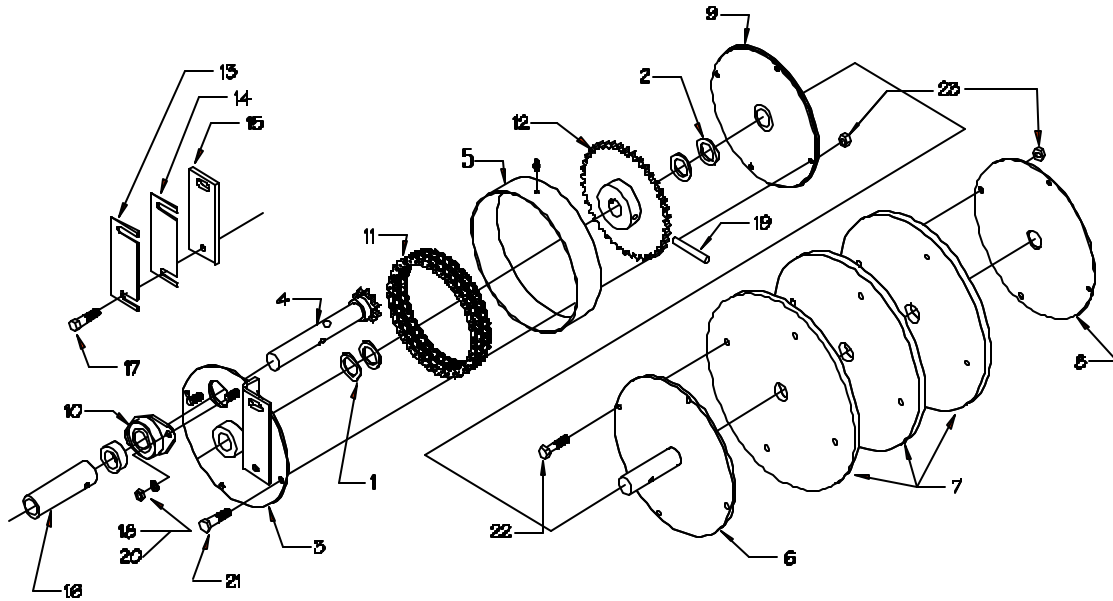
Hardware Packages

Part #	Description
GC08604	NSB - BOP for 6", with 1 Intermediate Well (15' & 18' Bins)
GC08605	NSB - BOP for 8", with 1 Intermediate Well (15' & 18' Bins)
GC09021	NSB - BOP for 6", with 2 Intermediate Wells (21' Bins)
GC09022	NSB - BOP for 8", with 2 Intermediate Wells (21' Bins)
GC08606	NSB - BOP for 6", with 2 Intermediate Wells (24', 27', & 30' Bins)
GC08607	NSB - BOP for 8", with 2 Intermediate Wells (24', 27', & 30' Bins)
GC08608	NSB - BOP for 10", with 2 Intermediate Wells (24', 27', & 30' Bins)
GC08609	NSB - BOP for 6", with 3 Intermediate Wells (33' & 36' Bins)
GC08610	NSB - BOP for 8", with 3 Intermediate Wells (33', 36', & 39' Bins)
GC08611	NSB - BOP for 10", with 3 Intermediate Wells (33', 36', & 39' Bins)
GC08612	NSB - BOP for 8", with 4 Intermediate Wells (42' & 48' Bins)
GC08613	NSB - BOP for 10", with 4 Intermediate Wells (42' & 48' Bins)

Control Rod Bundles

Part #	Description
GK5329	NSB Control Rod for 14' - 16'
GK5330	NSB Control Rod for 17' - 19'
GK5331	NSB Control Rod for 20' - 22'
GK5332	NSB Control Rod for 23' - 25'
GK5333	NSB Control Rod for 26' - 28'
GK5334	NSB Control Rod for 29' - 31'
GK5335	NSB Control Rod for 33'
GK5336	NSB Control Rod for 36'
GK5337	NSB Control Rod for 39'
GK5338	NSB Control Rod for 42'
GK5339	NSB Control Rod for 48'

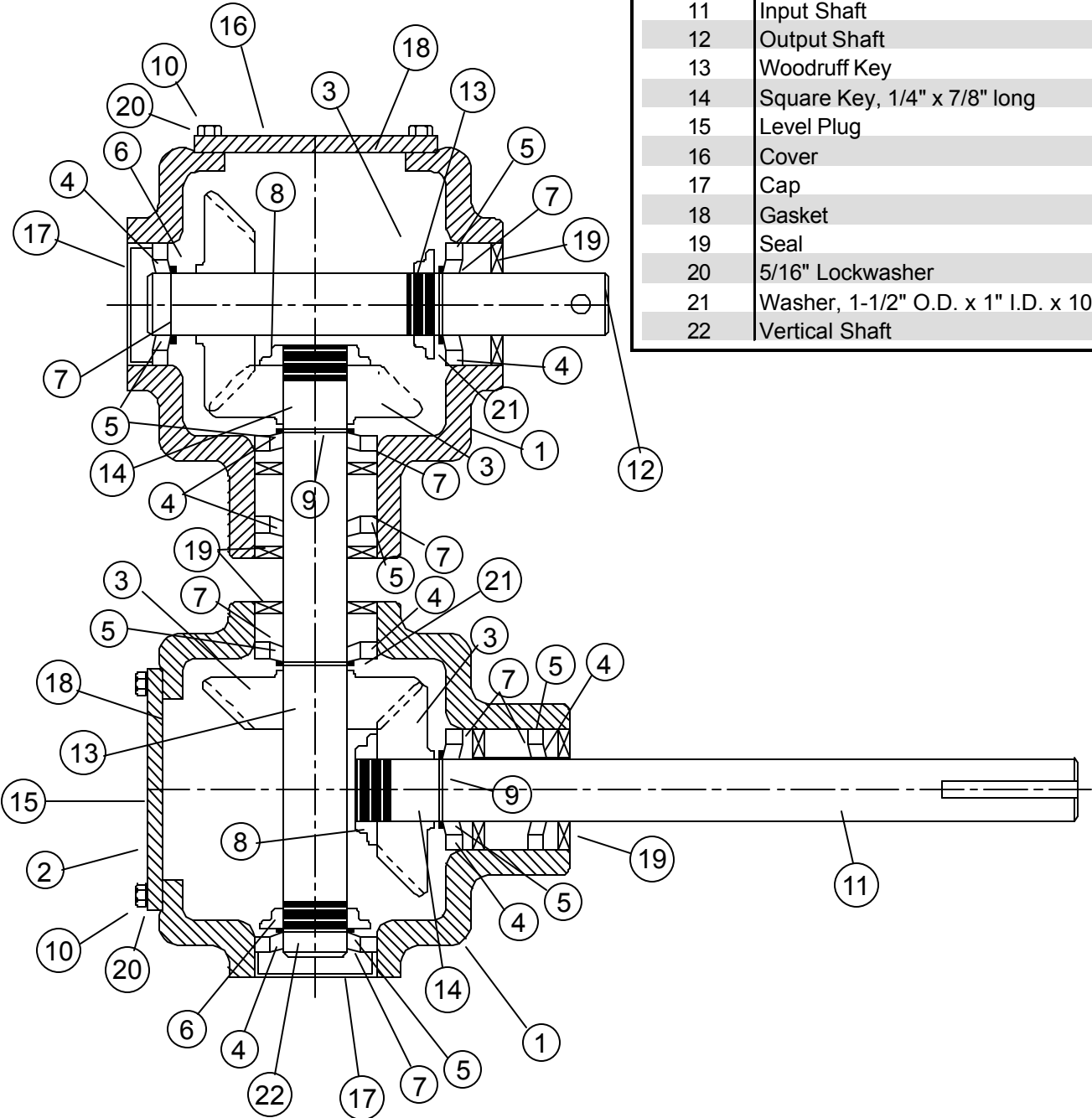
REDUCTION WHEEL



Ref #	Part #	Description
1	GK4210	1" x 1-1/2" 14 Ga. Galvanized Flat Washer
2	GK4211	1" x 1-1/2" 10 Ga. Galvanized Flat Washer
3	GK4213	Inner Drive Housing with Bushing -6"
	GK4228	Inner Drive Housing with Bushing -8"
4	GK4214	Drive Shaft Weldment 10T #40
5	GK4215	Housing Ring with Zerk
6	GK4217	Inner Wheel Weldment - 6"
	GK4242	Inner Wheel Weldment - 8"
7	GK4218	Rubber Wheel Disk 11" O.D. - 6"
	GK4241	Rubber Wheel Disk 13" O.D. - 8"
8	GK4219	Outer Wheel Disk - 6"
	GK4240	Outer Wheel Disk - 8"
9	GK4223	Outer Drive Housing with Bushing
10	GK4232	1" Bearing with 2 Hole Flange
11	GK4233	Chain Roller - #40 Double with Link
12	GK4234	40 Tooth Sprocket with Hub
13	GK4209	14 Gauge Spacer Plate - 6"
	GK4226	14 Gauge Spacer Plate - 8"
14	GK4208	12 Gauge Spacer Plate - 6"
	GK4225	12 Gauge Spacer Plate - 8"
15	GK4207	1/4" Spacer Plate - 6"
	GK4224	1/4" Spacer Plate - 8"
16	GK4205	1" I.D. x 1-1/4" O.D. x 4-3/8" Long Bushing - 6"
	GK4206	1" I.D. x 1-1/2" O.D. x 4-3/8" Long Bushing - 8"
17	GK3727	3/8" - 16 x 1-3/4" Zinc Grade 8 HHCS Bolt
18	S-1054	3/8" Zinc Split Lock Washer
19	S-4383	5/16" x 2-1/4" Rolled PinSpring
20	S-456	3/8" Zinc YDP Grade 5 Hex Nut
21	S-7076	5/16" - 18 x 2-1/2" Zinc Grade 5 HHCS Bolt
22	S-7329	5/16" - 18 x 2" Zinc Grade 2 HHCS Bolt
23	S-7382	5/16" - 18 zinc Grade 5 Nylock Nut

GK5208 - GEARBOX PARTS

Ref. #	Description
1	Housing
2	Cover w/ Hole
3	Forged Bevel Gear Tooth
4	Bearing Cone
5	Bearing Cup
6	Stake Nut, 1-1/8" -18 Thread
7	Snap Ring
8	Stake Nut, 1" -18 Thread
9	Snap Ring
10	Bolt (5/16" x 3/4" HHCS Gr. 5)
11	Input Shaft
12	Output Shaft
13	Woodruff Key
14	Square Key, 1/4" x 7/8" long
15	Level Plug
16	Cover
17	Cap
18	Gasket
19	Seal
20	5/16" Lockwasher
21	Washer, 1-1/2" O.D. x 1" I.D. x 10 ga.
22	Vertical Shaft



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

EXCEPT FOR THE ABOVE EXPRESS LIMITED WARRANTIES, THE COMPANY MAKES NO WARRANTY OF ANY KIND, EXPRESSED 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 THE COMPANY OR (ii) ANY ADVICE, INSTRUCTION, RECOMMENDATION OR SUGGESTION PROVIDED BY AN AGENT, REPRESENTATIVE OR EMPLOYEE OF THE COMPANY REGARDING OR RELATED TO THE CONFIGURATION, INSTALLATION, LAYOUT, SUITABILITY FOR A PARTICULAR PURPOSE, OR DESIGN OF SUCH PRODUCT OR PRODUCTS.

IN NO EVENT SHALL THE COMPANY BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOSS OF ANTICIPATED PROFITS OR BENEFITS. PURCHASER'S SOLE AND EXCLUSIVE REMEDY SHALL BE LIMITED TO THAT STATED ABOVE, WHICH SHALL NOT EXCEED THE AMOUNT PAID FOR THE PRODUCT PURCHASED. THIS WARRANTY IS NOT TRANSFERABLE AND APPLIES ONLY TO THE ORIGINAL PURCHASER. WE SHALL HAVE NO OBLIGATION OR RESPONSIBILITY FOR ANY REPRESENTATIVE OR WARRANTIES MADE BY OR ON BEHALF OF ANY DEALER, AGENT OR DISTRIBUTOR OF THE COMPANY.

THE COMPANY ASSUMES NO RESPONSIBILITY FOR FIELD MODIFICATIONS. MODIFICATIONS TO THE PRODUCT NOT SPECIFICALLY COVERED BY THE CONTENTS OF THIS MANUAL WILL NULLIFY ANY PRODUCT WARRANTY THAT MIGHT HAVE BEEN OTHERWISE AVAILABLE. THE USE OF OUR EQUIPMENT TO HANDLE MATERIALS OTHER THAN FREE FLOWING, NONABRASIVE AND DRY MATERIALS, AS INTENDED, WILL RESULT IN THE VOIDING OF THIS LIMITED WARRANTY.

THE FOREGOING WARRANTY SHALL NOT COVER PRODUCTS OR PARTS WHICH HAVE BEEN DAMAGED BY NEGLIGENT USE, MISUSE, ALTERATION, OR ACCIDENT. ANY NEGLIGENT USE, MISUSE, ALTERATION, OR DAMAGE DUE TO ACCIDENT, AS DETERMINED BY A COMPANY REPRESENTATIVE, MAY VOID THE WARRANTY. THIS WARRANTY COVERS ONLY PRODUCTS MANUFACTURED BY THE COMPANY. THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. WE RESERVES THE RIGHT TO MAKE DESIGN OR SPECIFICATION CHANGES AT ANY TIME, BEARING NO RESPONSIBILITY TO MAKE SIMILAR DESIGN OR SPECIFICATION CHANGES ON PREVIOUSLY SOLD MERCHANDISE.

PRIOR TO INSTALLATION, PURCHASER HAS THE RESPONSIBILITY TO RESEARCH AND COMPLY WITH ALL FEDERAL, STATE, AND LOCAL CODES WHICH MAY APPLY TO THE LOCATION AND INSTALLATION.

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 installation occurs.



**1004 East Illinois Street
Assumption, IL 62510
Ph: (217) 226-4421**
