6", 8", and 10" Vertical Bin Unload Auger

PNEG-1079
03-06-02
Revision No. 1

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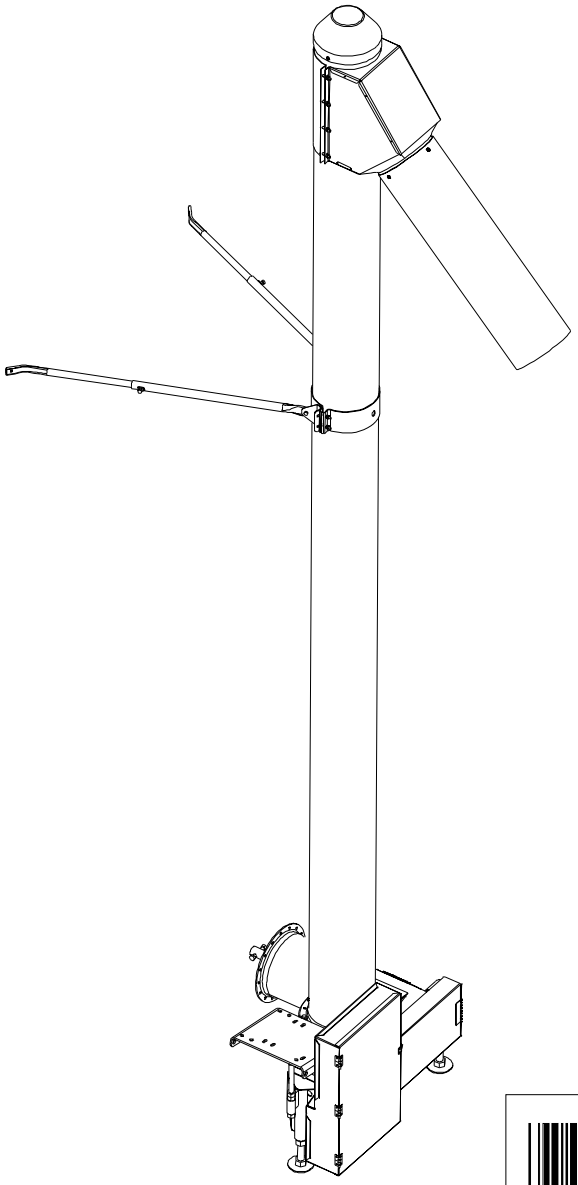
Assembly & Operation Manual



PNEG-1079

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

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

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

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

NOTE **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. **NEVER** stand or walk under the equipment.

Q. Use caution not to hit the auger when positioning the load.

R. Use ample overhead lighting after sunset to light the work area.

S. **ALWAYS** lockout **ALL** power to the equipment when finished unloading.

T. Keep area around intake free of obstacles such as electrical cords, blocks, etc. that might trip workers.

SAFETY GUIDELINES

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.

2-B

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

2-C

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.

2-D, E

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

2-F

SAFETY GUIDELINES

3. Emergency Shutdown Sequence

A. In an emergency, shutdown the power source.

4. Pinch Points

NOTE **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).

SAFETY GUIDELINES

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	
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	3	
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	21	
	22	

SAFETY GUIDELINES

Safety 1st

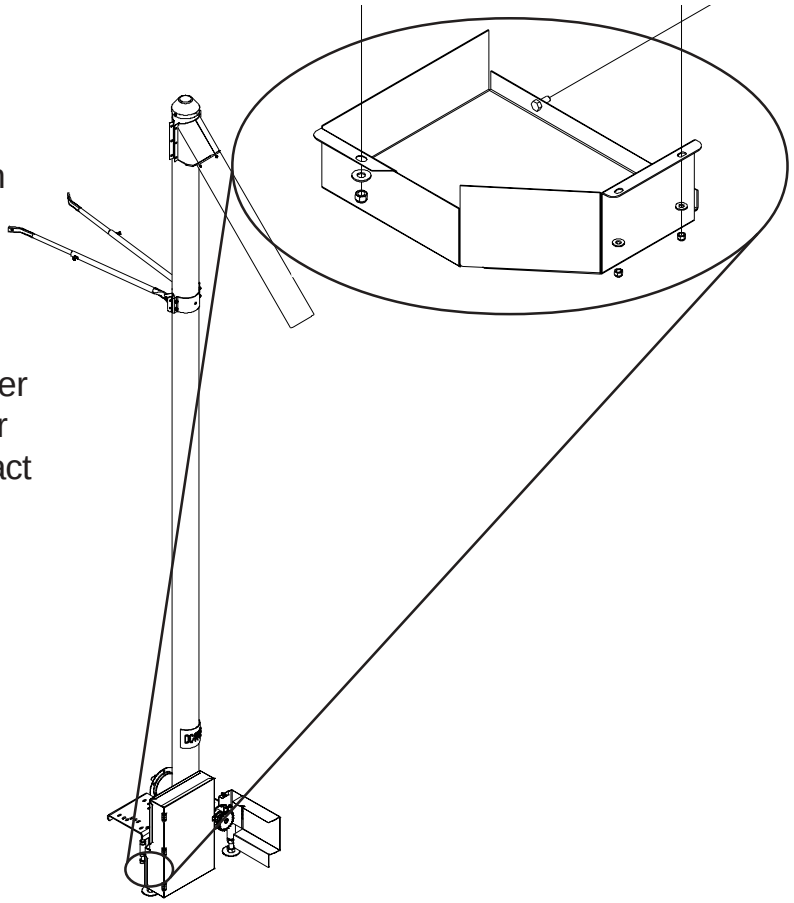
Our equipment is built to provide many years of dependable service to our customers through durable craftsmanship.

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.

We replace missing guards and shields ***FREE OF CHARGE****!*

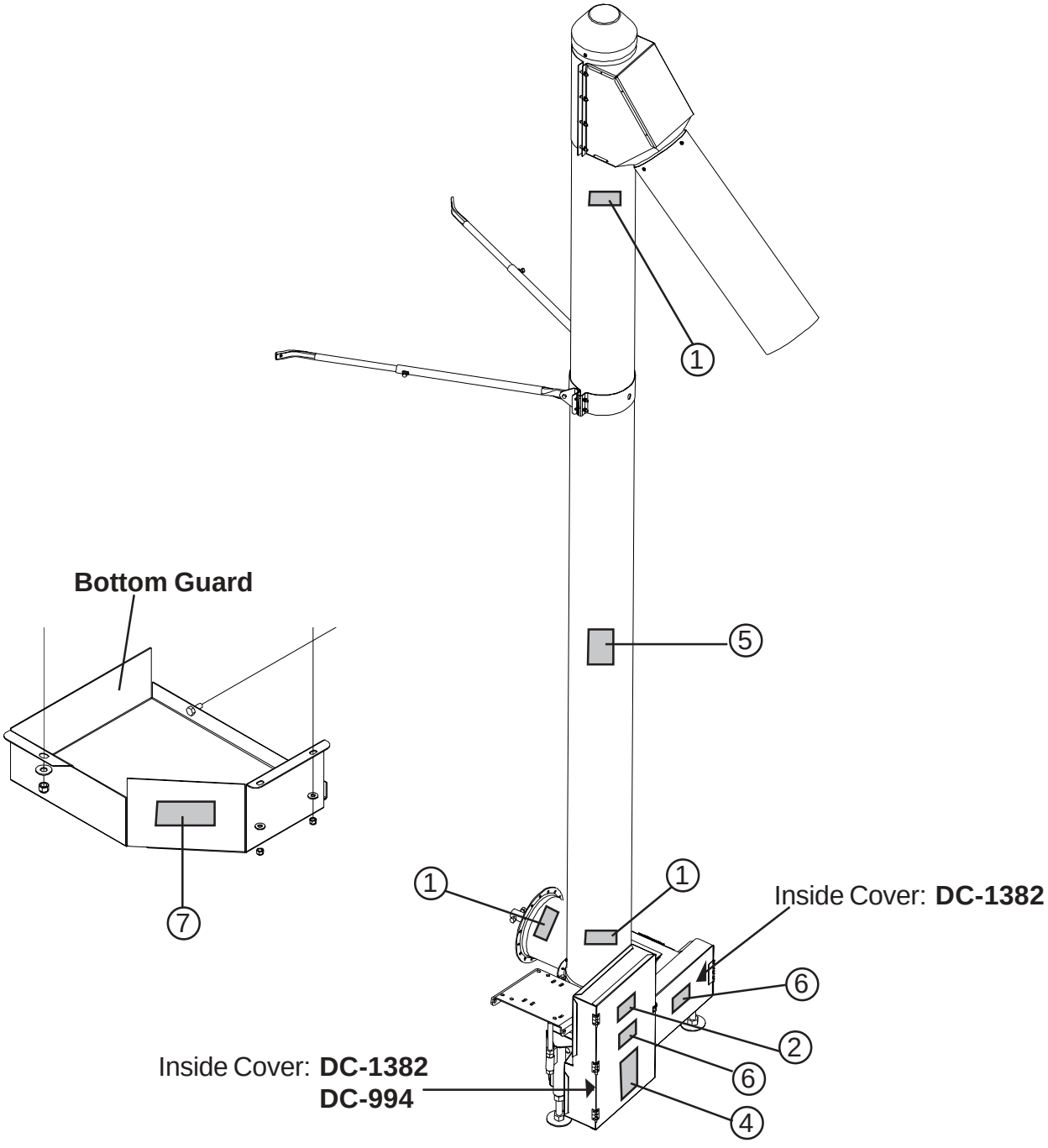


If you need any of the above listed safety items or have any safety questions, please contact the manufacturer or your local dealer.

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

A. The image below shows the location of the decals and safety signs which should appear on the Commercial Vertical Bin Unload Auger. Samples and explanations of these decals are shown on page 2 & 3.



NOTE

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

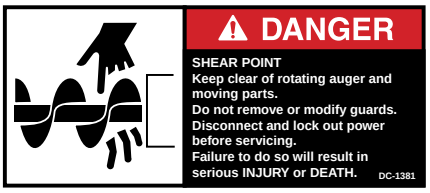
Safety Decals

The Safety Decals chart below lists all the safety decals that should be included with the auger. Inspect all decals and replace any that are illegible, worn, or missing. Contact your dealer or the manufacturer to order replacement decals.

Safety Decals

Ref. #	Part #	Qty.	Description	Size
1	DC-1381	3	**Danger - Shear Point (Auger)**	4-1/2" x 2"
2	DC-995	1	**Warning—Shear Point (Belt)**	4-1/2" x 2"
3	DC-994	1	**Danger - Shear Point (Belt)**	4-1/2" x 2"
4	DC-1379	1	**Notice**	5-1/8" x 7-3/8"
5	DC-1234	1	**Caution**	2-1/4" x 2-3/4"
6	DC-1386	2	**Warning—Shear Point (Chain)**	4-1/2" x 2"
7	DC-1382	3	**Danger - Shear Point (Chain)**	4-1/2" x 2"
8	DC-1395	1	**Danger - Rotating Flight (for bin)**	4-1/4" x 6"

1



2

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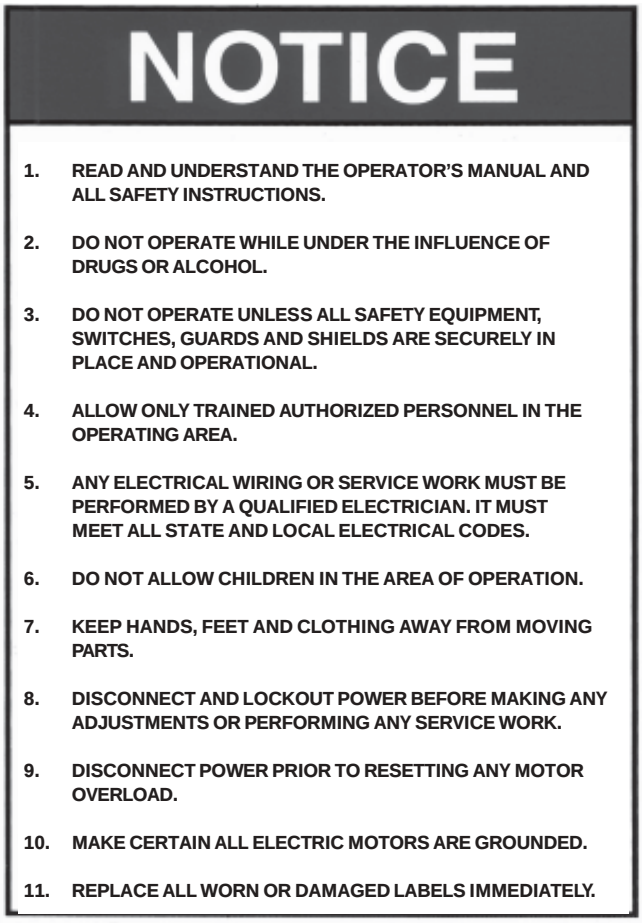


Safety Decals

5

⚠ CAUTION

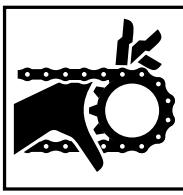
FAILURE TO PROPERLY SELECT, INSTALL OR MAINTAIN AN AUGER, ITS DRIVE OR OTHER COMPONENTS CAN RESULT IN DANGEROUS OPERATION.

THIS EQUIPMENT IF IMPROPERLY SELECTED, INSTALLED OR MAINTAINED MAY FAIL AND COULD RESULT IN SERIOUS INJURY OR PROPERTY DAMAGE.

CHECK PRODUCT LITERATURE AND EQUIPMENT MANUFACTURER'S LITERATURE OR CALL THE FACTORY FOR FURTHER INFORMATION.

DC-1234

6

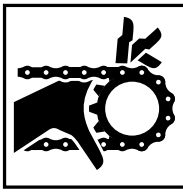


⚠ WARNING

SHEAR POINT
Moving parts can crush and cut. Keep hands clear of sprocket and chain.

DC-1386

7



⚠ DANGER

SHEAR POINT
Moving parts can crush and cut. Keep hands clear of sprocket and chain.

DC-1382

8

⚠ DANGER

ROTATING FLIGHTING!

THIS BIN IS EQUIPPED WITH GRAIN AUGERS WHICH CAN KILL OR DISMEMBER.

KEEP CLEAR OF ALL AUGERS AND NEVER ENTER THIS BIN UNLESS ALL POWER IS DISCONNECTED AND LOCKED OUT.

FAILURE TO DO SO WILL RESULT IN SERIOUS INJURY OR DEATH!

DC-1395

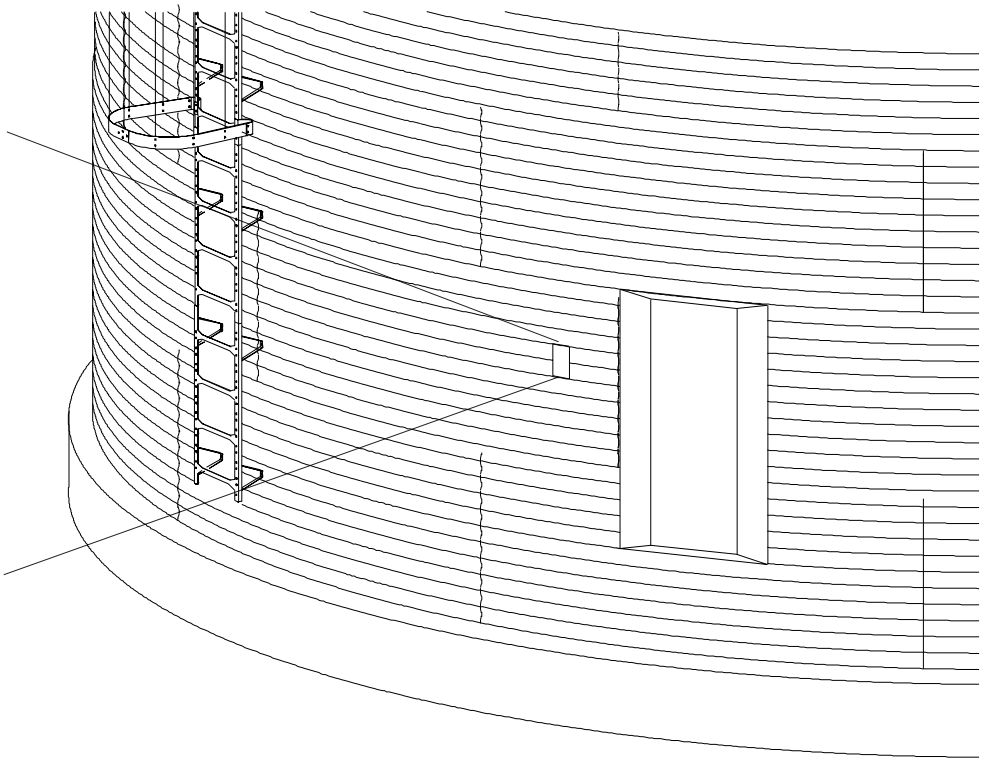
Safety Decals

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

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

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

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



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.**

Order SAFETY SIGN NO. DC-1395

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 6", 8", & 10" Vertical Bin Unload Augers 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. 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.

2. Capacity

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

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

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

NOTES

1. Attaching Vertical to Bin

Connecting Stub Bolts
6" - Use two **3/8" x 2"** bolts.
8" - Use two **7/16" x 2-1/2"** bolts.
10" - Use two **1/2" x 3"** bolts.

A. First, slide out enough bin unload flight (1) to connect it to the connecting stub (2).

B. Attach the bin unloading flight (1) and the horizontal flight (3) to the connecting stub (2) using two 3/8" x 2" hex head capscrew for 6", two 7/16" x 2-1/2" hex head capscrews for 8", or two 1/2" x 3" hex head capscrews for 10" with locknuts. (See Chart) *(See chart on page 9 for proper bin unloading flight.)*

C. Slide bin unloading flight (1) into unloading tube. With vertical auger (13) in upright position, attach flanges (4) together using 5/16" x 3/4" bolts with hex nuts. (See Fig. 1 & 2)

D Adjust stands (5) so they hold the weight of the vertical auger. (See Fig. 1)

E. Using the same u-bolts (6) and nuts, attach ears (7) and halfband (8) to vertical tube at the same. For maximum stability, locate the bands on the upper half of the tube. (See Fig. 2)

F. Bolt telescoping tubes (9) to the ears (7) using two 3/8" x 1" bolts & nylock nuts. (See Fig. 2)

G. Secure telescoping tube (10) inside of tube (9) at appropriate length with 3/8" x 3/4" hex head set screws.

H. Attach telescoping tube (10) to bin structure. (Hardware not included.)

I. Assemble spout (12) to vertical auger (13) over discharge opening with halfband (11) using 5/16" x 1-3/4" hex head capscrews and locknuts.

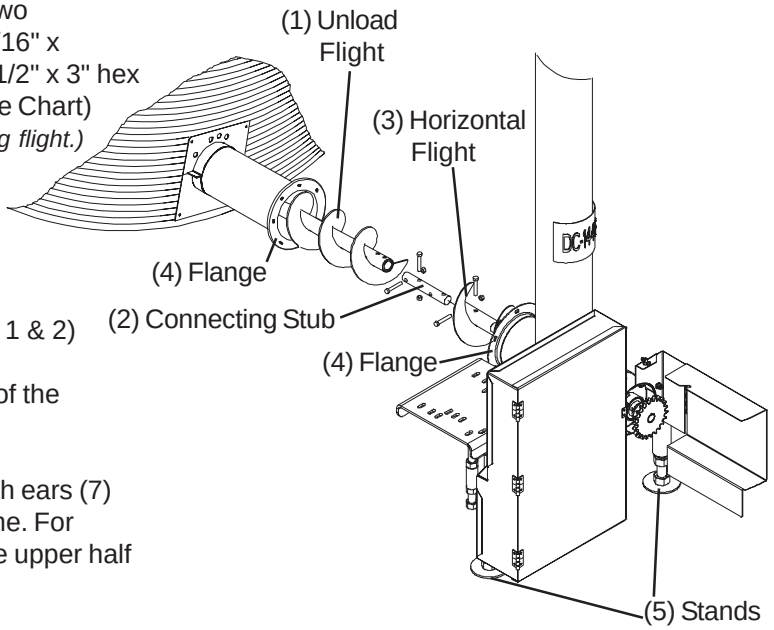


FIG. 1
(8" Shown)

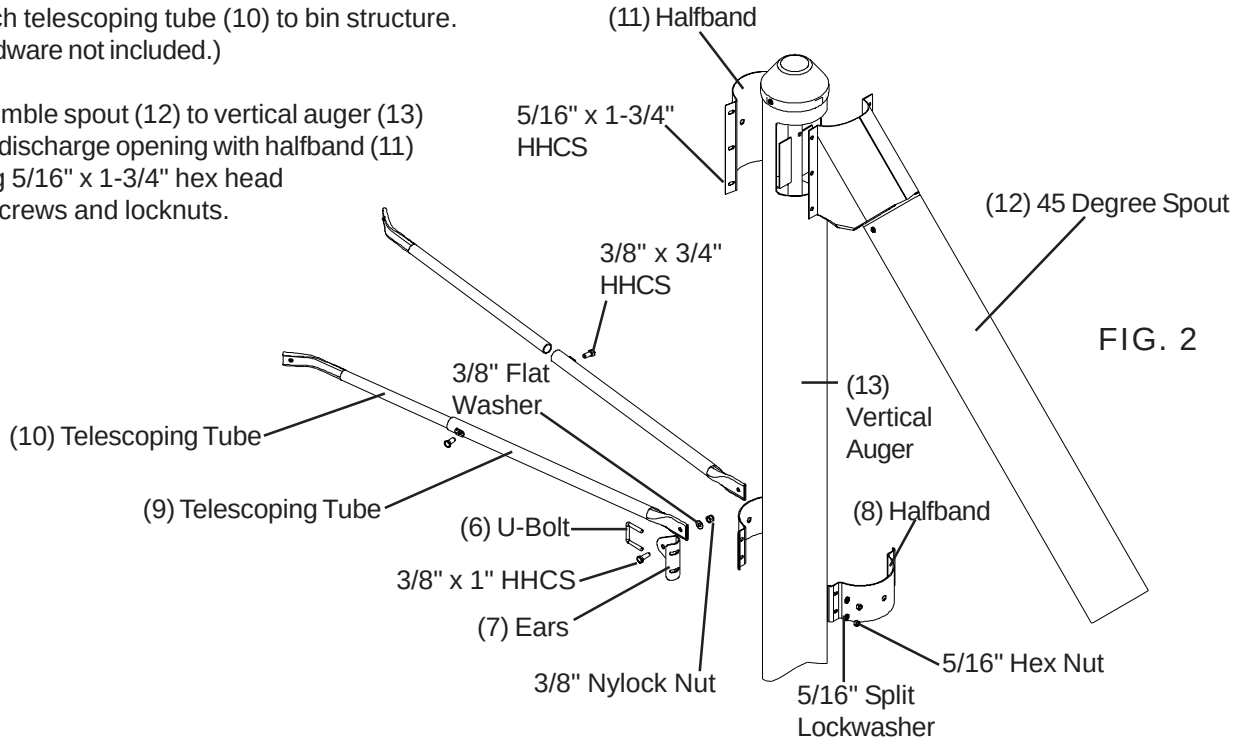


FIG. 2

2. Electric Motor Drive

A. Assemble a 3/4" nut onto threaded adjustment rod (1). Then thread adjustment rod into the 3/4" nut that is welded onto the sleeve of vertical. (See Fig. 1)

B. Slide motor mount plate (2) onto pivot rod weldment of vertical. Install cotter pin to hold motor mount plate place.

C. Attach belt guard (3) to belt guard mounting brackets with four 3/8" x 3/4" long HHCS and nylon locknuts.

D. **6" & 8":** Attach hinged side chain guard (4) to vertical with two 5/16" x 3/4" long HHCS, flatwashers and nylon locknuts. Hold chain guard closed by using a 5/16" flat washer and wing nut. (See Fig. 3)

10": Attach hinged side chain guard (4) to vertical with two 5/16" x 3/4" long HHCS, flat washers, & nylock nuts. Hold chain guard (4) closed by attaching it to the lower chain guard (5) using a 5/16" nylock nut. (See Fig. 4)

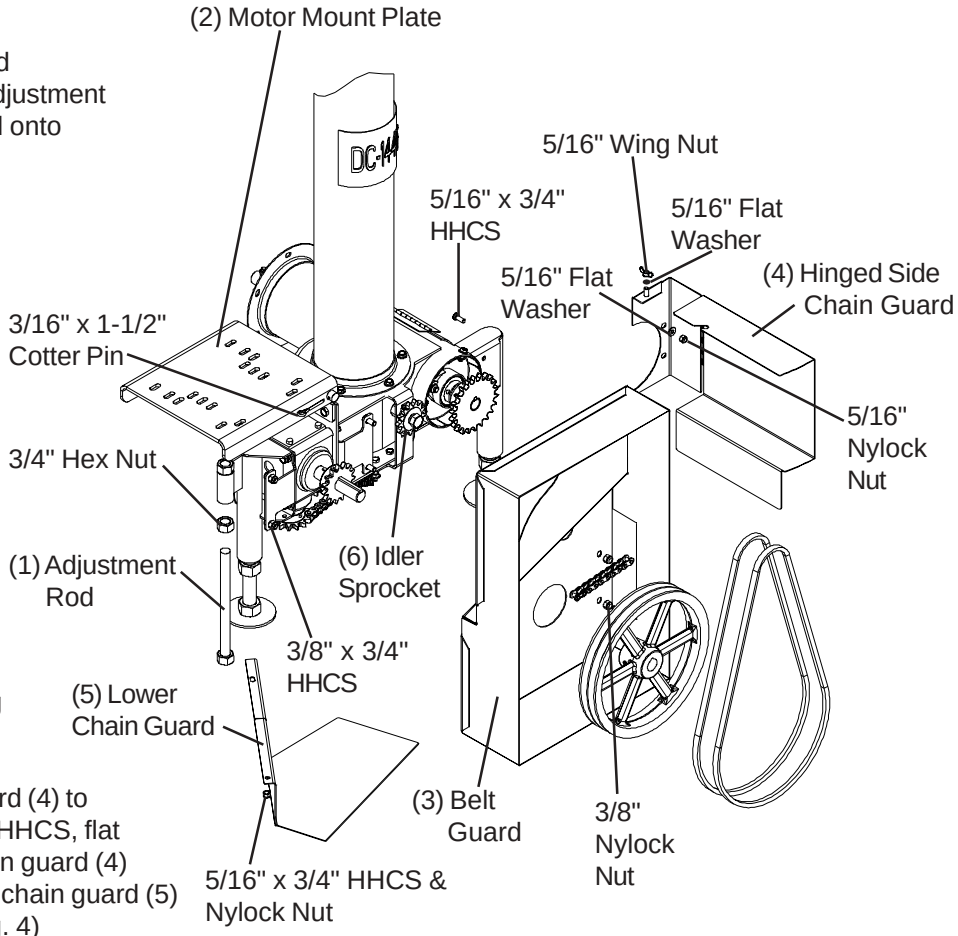


FIG. 3
6" & 8" Vertical

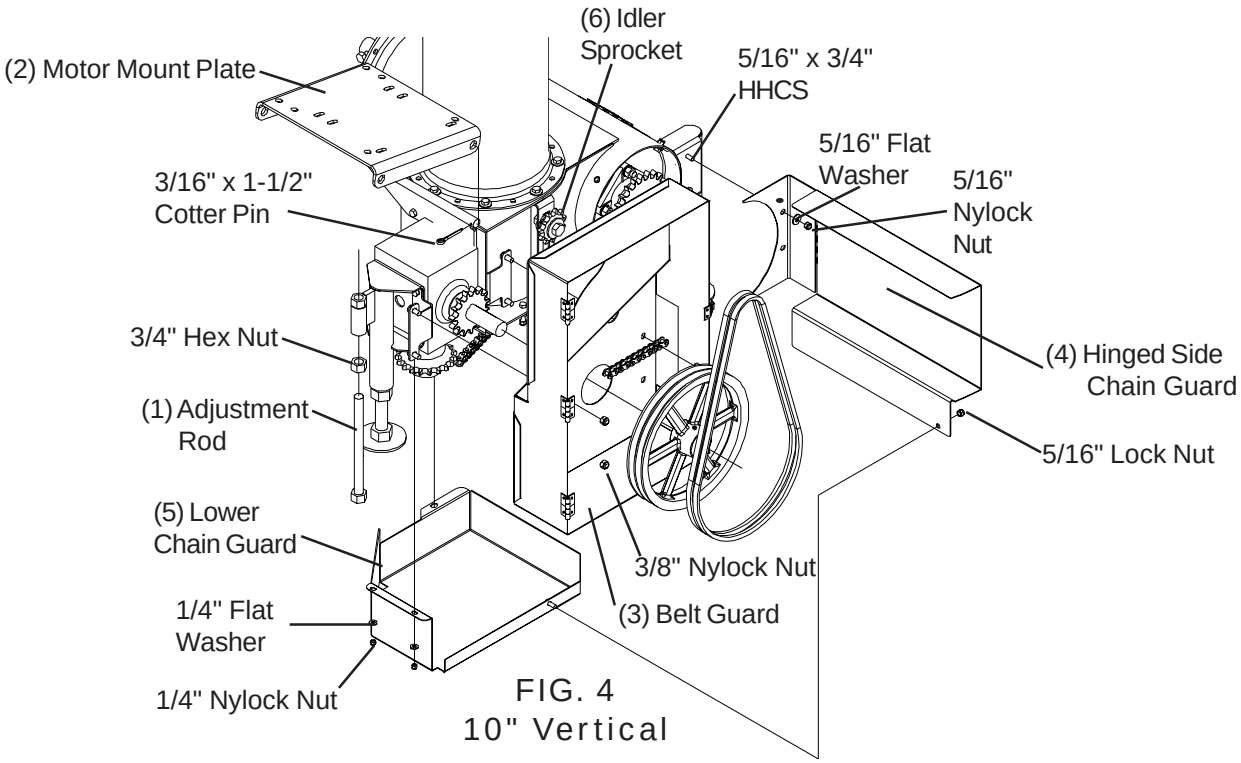


FIG. 4
10" Vertical

2. Electric Motor Drive *(Cont.)*

E. **6"& 8":** Bolt lower chain guard to underside of vertical using (2) 5/16" x 3/4" long HHCS and nylon locknuts. (See Fig. 3)

10": Bolt lower chain guard (5) to underside of vertical using one 3/8" x 1" HHCS flat washer, and 3/8" nylock nut through the flange with one hole. On the flange with two holes, use two 1/4" x 3/4" HHCS, flat washers and nylock nuts. (See Fig. 4 & 5)

F. Assemble chain onto sprockets. Tighten the chain using the idler sprocket (6), which should be attached with two 5/8" x 2" HHCS, three flat washers, one split lock washer and nylock nut. (The chain should run underneath idler sprocket.) (See Fig. 6)

G. Install a 4-1/2" O.D. pulley for 6" & 8" models on motor and for 10" models use a 4" O.D. pulley on motor. *(This pulley not furnished.)* Install 12" pulley on gearbox shaft as close to the sprocket as possible that is already mounted there. Using the 1/4" square key, which should already be in place, tighten setscrews in pulleys. (See Fig. 3 & 4)

H. Install belts onto pulleys and tighten by using the adjustment rod (1) to raise motor mount plate (2). Once the belts are tight, use locking nut to secure adjustment rod in place.

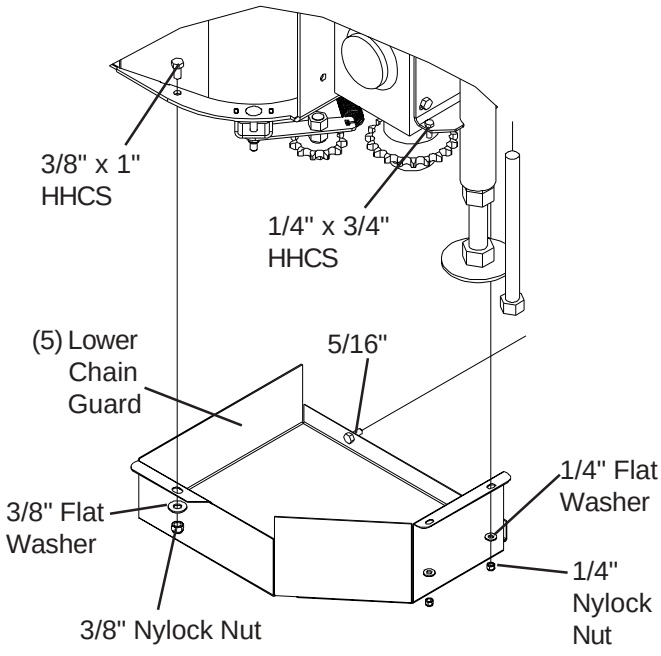


Fig. 5
Lower Chain Guard
for 10"

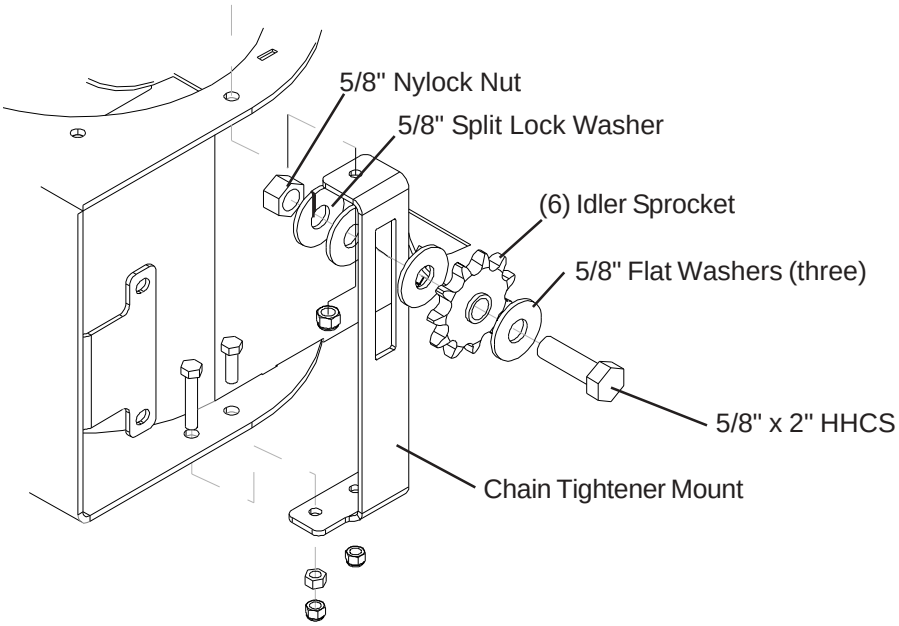


Fig. 6
Idler Sprocket

1. INSPECT THE AUGER

After delivery of your new auger and/or completion of assembly and before each use, inspection of the machine is mandatory. This inspection should include, but not be limited to:

1. Check to see that all guards listed in the assembly instructions are secured in place and functional.
2. Check all safety signs and replace any that are worn, missing or illegible. They are listed in the front in the decal section of this manual. Safety signs may be obtained from your Dealer or ordered from the factory.
3. Check to see if all the fasteners are tight.

2. DESIGNATE A WORK AREA

Designate a large perimeter around the auger for a work area.

⚠WARNING	**Under no circumstances should persons not involved in the operation be allowed to trespass into the work area.**

⚠WARNING	**It shall be the duty of all operators to see that children and/or other persons stay out of the work area! If anyone not involved in the actual operation trespasses into the work area, it shall result in an immediate shutdown by the operator.**

⚠DANGER	**It shall be the responsibility of all operators to see that the work area has secure footing, is clean and free of all debris and tools which might cause accidental tripping and/or falling.**

3. OPERATING PROCEDURES

During the operation of the auger, one person shall be in a position to monitor the operation. Inspect the drive before adding power and know how to shut down in an emergency. (See page 11) Visually inspect the auger periodically during operation. For efficient and safe operation, be aware of all the adjustments and checks which should be performed.

⚠WARNING	**Make certain everyone is clear before operating equipment.**
⚠CAUTION	**The operator shall be aware of any unusual vibrations, noises and the loosening of any fasteners.**
⚠DANGER	**Keep all safety shields and devices in place.**
⚠DANGER	**Keep hands, feet, and clothing away from moving parts**
⚠DANGER	**Shut off and lock out power to adjust, service or clean.**

The auger may be operated at speeds from 500 to 750 RPM. Operating speeds of 650 to 730 RPM are recommended to achieve rated capacity. Auger flight speed in excess of recommended speed causes excessive wear. Do not attempt full load operation at speeds below 350 RPM as high torque requirements may damage the auger.

4. BREAK-IN PERIOD

CAUTION **Before operating the unit, add #90 weight non-foaming oil to the gearbox until it reaches the level check plug in the side of the gearbox.**

Any screw conveyor when it is new or after it sets idle for a season should go through a “break-in” period. The auger should be run at partial capacity until several hundred bushels of grain have been augered. This polishes the flighting assembly and tube. Once this is accomplished, the auger can be operated at full capacity. The auger should not be operated empty except at start-up and during clean-out.

5. PTO DRIVE

Only use a tractor with 540 RPM Power Take-Off. If the tractor output PTO shaft is operated at 540 RPM, the auger will have a 540 RPM auger flight speed.

NOTE: The PTO driveline furnished with the auger is equipped with a “SPRING-LOCK” coupler at the tractor end. This type coupler is spring loaded and will fit the standard 1-3/8" x 6 spline PTO output shaft from a tractor. The retaining balls of the coupler lock into the ring groove of the tractor PTO output shaft to prevent inadvertent detachment. The PTO driveline is a pin stop-type; that is, the two telescoping sections will not separate. It is a good practice to operate the PTO driveline in as short a configuration as possible and keep in line with the tractor as much as possible during operation.

DOUBLE CHECK THE FOLLOWING BEFORE ADDING POWER:

⚠CAUTION **Before starting the tractor, be certain power to PTO is off.**

CAUTION **Be certain that the PTO driveline is securely attached to the auger and the tractor.**

⚠CAUTION **Use a PTO driveline with a rotating shield in good working order that can be turned freely on the shaft.**

CAUTION **Align PTO driveline with tractor.**

Engage PTO at a slow RPM to minimize shock loads. Then work up RPM to recommend speed.

Never Operate the auger empty for any length of time, as excessive wear will result. If at all possible, don’t stop or start the auger under load, especially before the flight and tube have become well polished, as this may cause the auger to “freeze-up.” (See Break-In Period above.)

TO START AUGER:

1. Before starting the tractor, be certain power to PTO is off.
2. Start Tractor.
3. Engage PTO at a slow RPM to minimize shock loads. Then work up RPM to recommended speed.

TO STOP AUGER:

1. Let auger empty of grain before stopping.
2. Disengage PTO and lockout.

6. ELECTRIC MOTOR DRIVE

Use a 1750 RPM motor with H.P. as suggested in the chart below. Electric motors and controls shall be installed by a qualified electrician and must meet the standards set by the National Electrical Code and all local and state codes. Use a 4-1/2" motor pulley (not furnished) for 650 RPM flight speed (6" & 8"). **Use a 4" motor pulley for 580 RPM flight speed (10").**

A magnetic starter should be used to protect the motor when starting and stopping. It should stop the motor in case of power interruption, conductor fault, low voltage, circuit interruption, or motor overload. Then the motor must be restarted manually. Some motors have built-in thermal overload protection. If this type motor is used, use only one with manual reset.

⚠ DANGER **Reset and motor starting controls must be located so that the operator has full view of the entire operation. A main power disconnect switch capable of being locked only in the OFF position shall be provided. This shall be locked whenever servicing or adjusting the auger.**

The horsepower recommendations are based on clean, dry shelled corn or wheat. High moisture grain (above 15%) will require greater power. The maximum possible capacity will be less with high moisture grain than with dry grain.

Horizontal Flight and Horsepower Required

Bin Dia.	Horizontal Flight Length			Vertical Horsepower		
	6"	8"	10"	6"	8"	10"
14'-16'	8'-9"	8'-10"	--	3	7-1/2"	--
17'-19'	10'-9"	10'-10"	--	3	7-1/2"	--
20'-22'	11'-9"	11'-10"	--	5	7-1/2"	--
23'-25'	13'-3"	13'-4"	13'-6"	5	7-1/2"	10
26'-28'	14'-9"	14'-10"	15'-0"	5	7-1/2"	10
29'-31'	16'-3"	16'-4"	16'-6"	5	7-1/2"	10
32'-34'	18'-3"	18'-4"	18'-0"	7-1/2"	10	15
35'-37'	19'-3"	19'-4"	19'-6"	7-1/2"	10	15

NOTE: For higher moisture grain (up to 25%) the next larger motor may be used as a maximum.

⚠ DANGER **Disconnect power before resetting motor overloads. Make certain electric motor is grounded.**

Never operate the auger empty for any length of time as excessive wear will result. If at all possible, do not stop or start the auger under load, especially before the flight and tube become well polished, as this may cause the auger to “freeze-up” (See “Break-In Information” on page 11)

CHECK THE FOLLOWING BEFORE ADDING POWER:

1. Double check to make sure the guards are secured in place and functional.

TO START AUGER

1. Start electric motor before conveying grain.

TO STOP AUGER

1. Let auger empty of grain before stopping.

2. Shut off electric motor and lockout.

7. NORMAL SHUTDOWN

Make certain that the auger is empty before stopping the unit. Before the operator leaves the work area, the power source shall be locked out. (See LOCKOUT below.)

8. INTERMITTENT OPERATION SHUTDOWN

When an auger is stopped and restarted under full load, it may result in damage to the auger. Therefore, if intermittent operation is to be carried out, it is advisable to reduce the load level. When kept from absolute filling, auger start-up is easier and operation is more efficient.

9. EMERGENCY SHUTDOWN

Should the auger be immediately shutdown under load, first disconnect and lockout all power source. Clear as much grain from the auger as you can using the clean-out doors. Never attempt to restart auger when full.

⚠ DANGER **Whenever you must service or adjust your equipment, make sure to stop motor and lockout your power source!**

NOTE **Starting the unit under load may result in damage to the auger. Such damage is considered abuse of the equipment. When as much grain as possible has been cleared, reconnect power source and clear auger gradually.**

10. LOCKOUT

⚠ WARNING **If the operator must leave the work area, or whenever servicing or adjusting, the unloading auger must be stopped and the power source locked out. Precautions should be made to prevent anyone from operating the auger when the operator is absent from the work area.**

PTO Drive: Remove ignition key or coil wire from power source. (If this is impossible, remove the PTO driveline from the work area.)

Electric Motor Drive: Use a main disconnect switch capable of being locked only in the off position.

11. CAPACITY

The results or capacities of screw conveyors or augers can vary greatly under divers conditions. Different materials, moisture content, amounts of foreign matter, angle of operation, methods of feeding and speed all play a role in performance of the auger. Capacities listing in the chart below will be achieved when augering reasonably dry grain. Maximum possible capacity will be less with high moisture grain (above 15%) than with dry grain.

UNIT	CAPACITY BPH
6"	850-1250
8"	2000-2500
10"	3250-3750

12. CLEAN-UP

1. Check to see that all guards listed in the assembly instructions are in place and secured and functional.
2. Check all safety decals and replaced any that are worn, missing or illegible. The safety decals are listed on pages 2 & 3. Safety decals may be obtained free of charge from your dealer or ordered from the factory.
3. Check to see that all fasteners are securely in place.

13. STORAGE PREPARATION

A. Close all wells to discharge tube.

B. Be sure the unload tube is empty.

C. Make sure power source is disconnected and locked out.

D. Check to see that all fasteners are secure.

14 LUBRICATION & MAINTENANCE

The flange bearing on the head and tail ends of the auger should be lubricated at frequent intervals.

Check belt tension on motor drive belts for electric drive units.

Lubricate and check drive chain at frequent intervals. Adjust chain tension, if necessary.

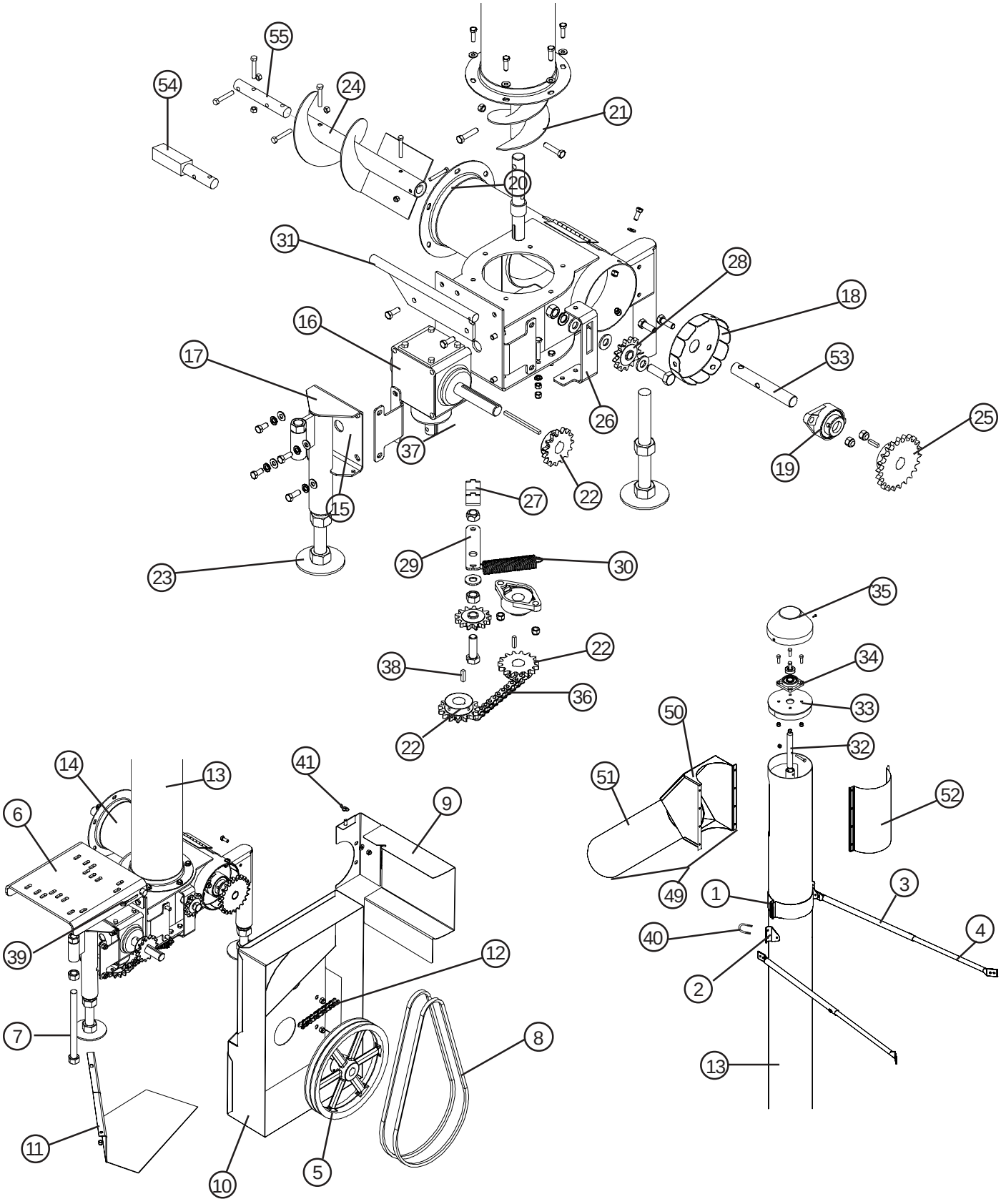
Check to make sure all guards are in place.

⚠ DANGER **Never Clean, adjust or lubricate a machine that is in operation.**

Problem	Possible Cause	Solution
1. The auger is vibrating.	A. Damage can occur to the auger flighting, causing noise. Damage usually is caused from foreign material being run through the auger.	A1. It may be necessary to remove the flighting for inspection.
	A. Drive belt may be overtightened, putting head stub and flight in a bind.	A1. Loosen the drive belts.
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. Use the control gates to decrease the amount of grain the auger is gathering.
	B. The grain may be wet.	B1. If wet grain or other hard-to-move material is being augured, use a larger size motor than recommended for normal use.
	C. The auger may be jammed with foreign material.	C1. Remove any foreign material in the auger.
	D. The motor may be to small or wired incorrectly.	D1. Check wiring or consider using the next larger size motor.

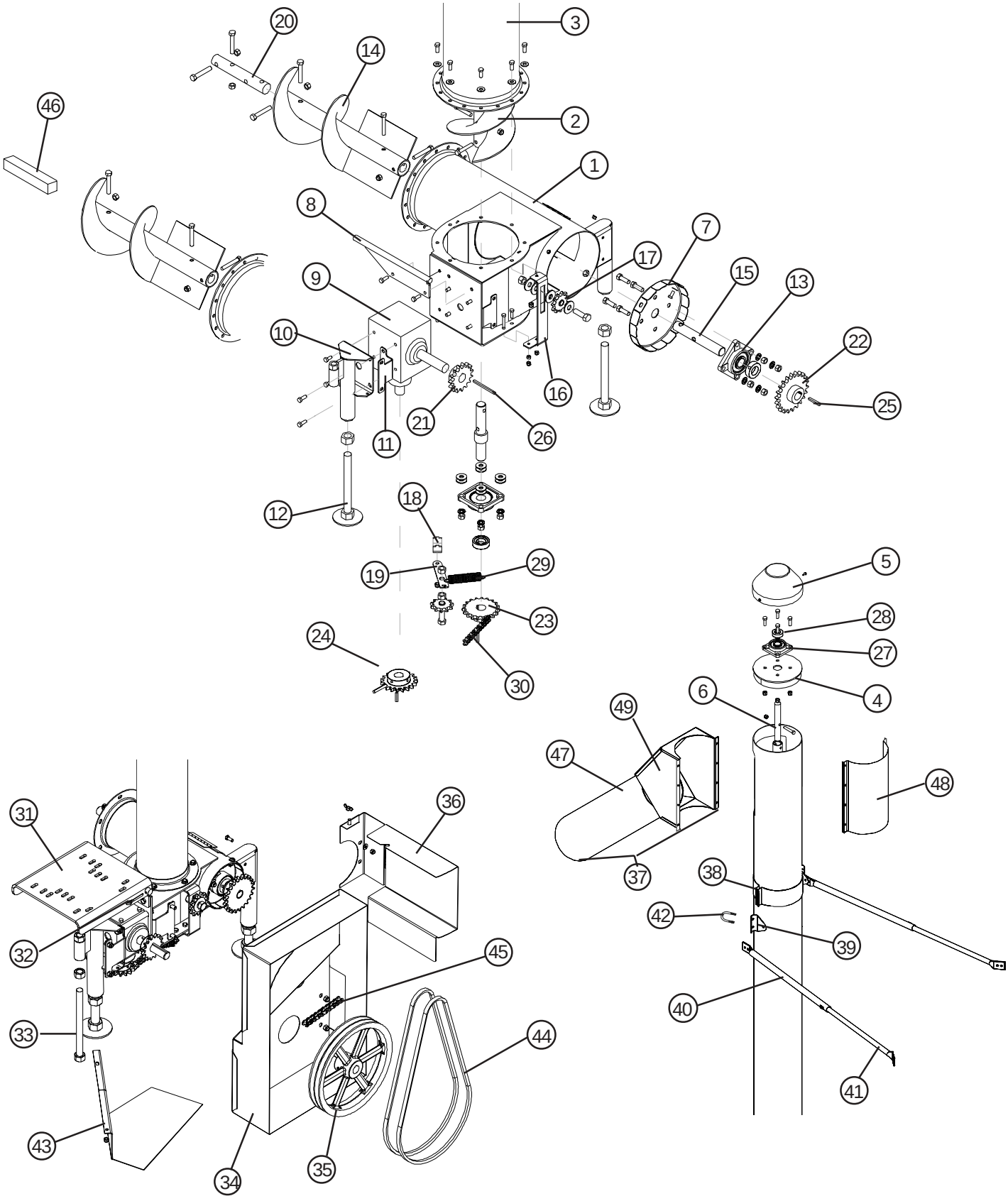
6" Verticle Unload Parts		
Ref #	**Part #**	**Description**
N/S	GK5093	6" Vertical Unload Assembly
1	GK1122	Halfband 6" x 4" Wide
2	GK1034	Adjusting Mounting Ears
3	GK1028	28" Telescoping Tube (Outer Leg)
3	GK1892	External Adjusting Tube f/ Power Sweeps (36")
4	GK1033	Inside Telescoping Tube
4	GK1891	Internal Adjusting Tube f/ Power Sweeps (32")
5	GK1321	12" Sheave 2B 1" Bore w/ Set Screws
6	GK4907	6" & 8" Motor Mount Plate
7	GK4909	Motor Mount Adjustment Rod
8	GK1323	Belt V B-48
9	GK1915	6" Hinged Chain Guard
10	GK4916	Belt Guard Weldment
11	GK4931	6" Bottom Guard
12	GK4914	# 50 Roller Chain 66 Pitch w/ Conn. Link
13	GK5068	6" Vetical Tube w/ Tube
14	GK4905	6" Cross Weldment
15	GK4913	6" & 8" Belt Guard Mount Bracket
16	GK1007	Gearbox: Bevel 1:1 A115
17	GK4910	Support Stand Weldment
18	GK4912	6" End Plate
19	GK1049	Bearing 2 Hole Flange 1" Bore w. Lock Collar
20	GK4904	Drive Stub 1" to 1-1/4" x 8. 063
21	GK4903	6" Vertical Flight Weldment
22	GK1014	15 Tooth Sprocket 1" Dia. Bore
23	GK4908	Support Stand Foot Weldment
24	GK2180	6" Horizontal Auger Weldment
24	GK2180	Horizontal Flight for Power Sweep
25	GK1110	Sprocket 22T #50 w/ Keyway 1" Bore
26	GK4911	6" Chain Tightener Mount
27	GK4917	Idler Arm Mount
28	GK1701	13 Tooth Idler Sprocket #50 x 5/8" Bearing
29	GK4918	Idler Arm
30	GK1704	5" Extension Spring
31	GK4906	6" & 8" Motor Mount Pivot Weldment
32	GK1117	Intake Shaft 1" O.D.x 7"
33	GK1114	6" Top Bearing Plate - Vertical
34	GK1583	1" Bearing and Lock Collar
35	GK1115	6" Vertical Cap
36	GK1705	#50 Roller Chain 43 Pitch w/ Conn. Link
37	S-8679	1/4" x 4" Long Square Key
38	D01-0098	1/4" x 1" Long Square Key
39	S-8312	Cotter Pin 3/16" Dia. X 1-1/2"
40	S-7079	U-Bolt 5/16" - 18 x 1-3/4"
41	S-4301	Wing Nut 5/16" - 18 Zinc Grade 2
49	GK1043	6" Verticle Auger Spout w/ Band
50	GK1123	6" 45 Degree Spout Weldment
51	GK1124	6" x 42" Tube Extension
52	GK1125	6" x 10" Halfband 16 Ga. Galvanized
53	GK1116	Drive Stub 1" x 7-7/8" Long f/ Power Sweeps
54	GK2020	Square to Round Stub (1" x 9-3/4") f/ Power Sweeps
55	GK1125	6" x 10" Halfband 16 Ga. Galvanized
N\S	GK1318	1" Bearing

6" PARTS ILLUSTRATION



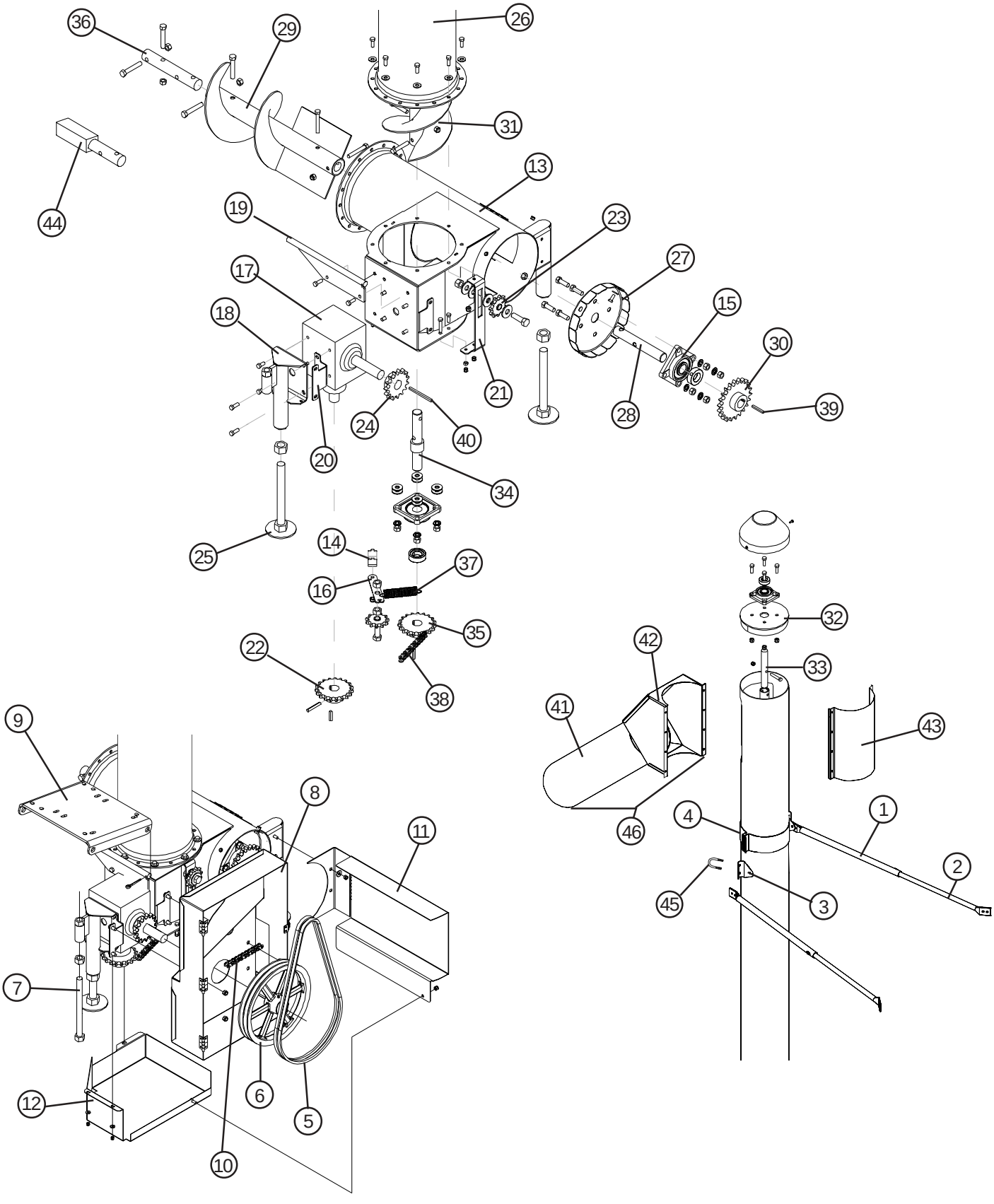
8" Verticle Unload Parts		
Ref #	**Part #**	**Description**
N\S	GK5210	8" Vertical Unload Assembly
1	GK4922	8" Cross Weldment
2	GK4920	8" Vertical Flight Weldment
3	GK5096	8" Vetical Tube w/ Decal
4	GK1010	Top Bearing Plate
5	GK1011	Vertical Cap
6	GK1012	Shaft: Top 1 1/4" x 6-3/4"
7	GK4924	8" End Plate
8	GK4906	6" & 8" Motor Mount Pivot Weldment
9	GK1007	Gearbox: Bevel 1:1 A115
10	GK4910	Support Stand Weldment
11	GK4913	6" & 8" Belt Guard Mount Bracket
12	GK4908	Support Stand Foot Weldment
13	GK1017	1-1/4" in 4 Hole Flange Bearing w/ Lock Collar
14	GK1005	Horizontal Flight Weldment
15	GK1018	1-1/4" Drive Shaft
16	GK4923	8" Chain Tightener Mount
17	GK1701	13 Tooth Idler Sprocket #50 x 5/8" Bearing
18	GK4917	Idler Arm Mount
19	GK4918	Idler Arm
20	GK1328	Connection Shaft 1-1/4" x 9-1/2"
21	GK1014	Sprocket 15 Tooth 1" Dia. Bore
22	GK1022	Sprocket 22T #50 w/ Keyway 1.25" Bore
23	GK4928	Sprocket 19 Tooth 1.25" Dia. Bore #50 Chain
24	GK4927	Sprocket 19 Tooth 1" Dia. Bore #50 Chain
25	D01-0098	1/4" x 1" Long Square Key
26	S-8679	1/4" x 4" Long Square Key
27	GK1009	4 Hole Flangette for 1-1/4" Bearing
28	GK1008	1-1/4" Bearing w/ Lock Collar
29	GK1704	5" Extension Spring
30	GK4929	#50 Roller Chain 45 Pitch w/ Conn. Link
31	GK4907	6" & 8" Motor Mount Plate
32	S-8312	Cotter Pin 3/16" Dia. X 1-1/2"
33	GK4909	Motor Mount Adjustment Rod
34	GK4916	Belt Guard Weldment
35	GK1321	12" 2 Belt Sheave w/ 1" Bore & Set Screw
36	GK4925	8" Hinged Chain Guard
37	GK1002	45 Degree Spout w/ Extention Tube
38	GK1059	8" x 4" Wide Halfband
39	GK1034	Adjustable Mounting Ears
40	GK1028	Outer Telescoping Tube - 28"
40	GK1892	Outer Telescoping Tube - 36" for Power Sweep
41	GK1033	Internal Adjustable Mounting Tube - 26"
41	GK1891	Internal Adjustable Mounting Tube - 32" for Power Sweep
42	GK7079	U-Bolt 5/16" - 18 x 1-3/4"
43	GK4932	8" Bottom Guard
44	GK4926	V B-51 Belt
45	GK1024	Roller Chian Assembly - 69 Pitch
46	GK1032	Square Drive Stub 1" x 8-5/8" Long f/ Power Sweeps
47	GK1039	8" Spout Extention - 3' 8"
48	GK1505	8" x 14" 14 Ga. Galv. Halfband
49	GK1038	45 Degree Spout Weldment

8" PARTS ILLUSTRATION



10" Verticle Unload Parts		
Ref #	**Part #**	**Description**
N/S	GK1028	10" Vertical Unload Assembly
1	GK1028	Outer Telescoping Tube
2	GK1033	Inner Telescoping Tube
3	GK1034	Adjustable Mounting Ears
4	GK1301	10" x 4" 12 Ga. Galvanized Halfband
5	GK1952	V B-50 Belt
6	GK2332	3 Belt Aluminum Sheave - 12" x 1-1/4" Bore
7	GK4909	Motor Mount Adjustment Rod
8	GK4916	Belt Guard Weldment
9	GK4938	10" Motor Mount Plate
10	GK4944	Roller Chain #60 x 70 Pitch
11	GK4945	10" Hinged Chain Guard
12	GK4948	10" Bottom Guard
13	GK4936	Cross Weldment
14	GK4917	Idler Arm Mount
15	GK1017	1-1/4" Bearing 4 Hole
16	GK4918	Idler Arm
17	GK2320	1-1/4" Gearbox
18	GK4910	Support Stand Weldment
19	GK4937	Motor Mount Pivot Weldment
20	GK4942	Belt Guard Mounting Bracket
21	GK4939	Chain Tightener Mount
22	GK4946	Sprocket 22 Tooth #60 1-1/4" Bore
23	GK4941	Idler Sprocket #60 11 Tooth - 5/8" Bearing
24	GK2323	Sprocket 15 Tooth 1-1/4" Bore #60 Chain
25	GK4908	Support Stand Foot Weldment
26	GK4933	Verticle Tube Unload Weldment
27	GK4940	10" End Plate
28	GK1018	1-1/4" Drive Shaft
29	GK5284	10" Horizontal Flight - 23" Long
30	GK2324	Sprocket 22 Tooth #60 1-1/4" Bore
31	GK4934	Verticle Flight Weldment
32	GK2315	Head Plate Weldment
33	GK1884	Top Stub Shaft: 1-1/4" x 9"
34	GK4921	1.6875" x to 1.25" x 8-13/16" Drive Stub
35	GK3244	Sprocket 60B 19 Tooth - 1-1/4" Bore
36	GK1339	1-1/2" x 9-1/2" Long Stub Shaft
37	GK1704	5" Extension Spring
38	GK4947	#60 Roller Chain 45 Pitch w/ Connection Link
39	S-4513	1/2" x 2" Long Square Key
40	S-8679	1/4" x 4" Long Square Ley
41	GK1885	10" Spout Tube 3' Long
42	GK1881	45 Degree Spout Less Back Band
43	GK2333	Halfband for Spout
44	GK4935	Sq. to Rnd Stub f/ Power Sweeps - 1.25" x 1.5" x 9.5" Long
45	S-7079	U-Bolt 5/16" x 1-3/4"

10" PARTS ILLUSTRATION



NOTES

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07/21/98

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.

a division of

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