

# Conditioning Hopper 6-8-10 Ton



Ref: 03-080-000

Owner's Manual for 6-8-10 Ton Conditioning Hopper

Important: Read the Safety Guidelines and All Instructions Carefully Before Operating

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### Introduction

### To The Owner \*

Congratulations on your selection of a Doyle Conditioning Hopper.

The Doyle Conditioning Hopper has been designed to provide years of profitable service. To assure maximum performance of your system, it is mandatory that you thoroughly study the owner's manual and follow its recommendations. Proper operation and maintenance are essential for safety, and to maximize machine life. It is the owner's responsibility to:

- Inspect hopper for damage in transit, fasteners that may have loosened in transit, and assemble hopper in accordance with the instructions in this manual.
- Install, operate and maintain this Doyle Conditioning Hopper in a safe manner and in accordance with all applicable local, state, and federal codes and/or laws.
- Make sure each and every operator has read this operator's manual and thoroughly understands safe and correct operating procedures.
- Make sure unauthorized people neither operate the hopper nor are in the vicinity of the hopper while it is in operation.
- Make sure the hopper is maintained to preserve and/or improve safety, accuracy and reliability of the system. Read and follow the maintenance schedule in this manual. Furthermore, as additional technology becomes available, the owner is responsible for improving the safety, accuracy and reliability of the hopper.
- Fulfill all warranty obligations so as not to void the warranties. The warranty in this manual outlines the warranty policy of Doyle Equipment Mfg. Co. Inc. and its suppliers.
- Doyle Equipment Mfg. Co. Inc. reserves the right to make product improvements to the equipment at any time.
- Doyle Equipment Mfg. Co. Inc. shall not be obligated to make such changes to machines already in service.

<sup>\*</sup> The owner, manager, and/or operator are responsible for safe, accurate operation, and maintenance of the Doyle Conditioning Hopper.

## Warranty

Doyle Equipment Mfg. Co., Inc. ("Doyle") has manufactured or is distributing the equipment to which this warranty is attached, and warrants to its original reseller including Dealers, Distributors and Original Equipment Manufacturers. This warranty will, under normal conditions of use and service, ensure that equipment will be free from material defects and faulty manufacturing for a period of one (1) year from date of delivery to the original user. For any equipment that does not conform to the aforesaid warranty within one (1) year from the date of delivery to the original user, Doyle will, at its option, repair, or replace parts. If Doyle determines that the defect is due to Doyle's material or workmanship, Doyle will repair such defect during normal working hours. Doyle will be specifying repair locations. This warranty includes only the original equipment manufactured by Doyle, and not any parts that may be added to the equipment or replaced by the dealer or user. The installation of any non-Doyle manufactured parts in the equipment will void this basic warranty in its entirety. In the event of a repair or replacement, the warranty period shall not be extended beyond the original warranty period.

#### Electronic parts coverage:

- 1. Electronic parts such as motors or switches are only covered if handled through Doyle Mfg.
- 2. Doyle Mfg. must be contacted for any electronic part repairs for the part to be covered under this warranty

#### The above warranties do not cover:

- 1. Equipment that is damaged by abuse, neglect, accident, or modification.
- 2. Fluids, towing, telephone, travel and cleaning cost.
- 3. Consequential damages, inconvenience, or commercial loss.
- 4. The equipment itself if non-Doyle manufactured parts are installed on the equipment.

### The above warranties do not apply under the following conditions

- 1. When equipment is used for purposes for which it was not originally designed or intended.
- 2. When equipment is used under abnormal operating conditions.
- 3. When the user fails to follow Doyle instructions regarding the equipment.

These warranties are extended only to the original dealer and are not transferable. In the event of a warranty claim, you should promptly notify Doyle by calling 1-800-788-8085, and provide the following:

- 1. Model number of the equipment.
- 2. Date of delivery to the original user.
- 3. Description of the difficulty encountered.

A representative of Doyle will contact you regarding instructions for repair, replacement, or refund, if the warranty claim can be validated.

Doyle Equipment Mfg. Co., Inc. P.O. Box 72
Palmyra, MO 62305
Phone: 1-800-788-8085
www.doylemfg.com

## Warranty

This form must be filled out and signed by the owner or manager of the company receiving the equipment to make the warranty effective. The warranty begins on the delivery date.

Company Name:				-
Address:				-
City:	_ State:	Zip:		
Be sure to list all the models that	at you purchase	d.		
Model:		_Serial:		<del>-</del>
Model:		_Serial:		-
Model:		_Serial:		-
Model:		_Serial:		-
Model:		_Serial:		-
Model:		_Serial:		<del>-</del>
I have received the above equipoperation and applicable warrar		ve been thoroughly instru	ucted as to care, a	djustments, safe
Owner's signature:			Date:	

Only one form needs to be filled out. Be sure all equipment is included on the same form. Make a copy of the completed form and mail to:

Doyle Equipment Mfg. Co., Inc. P.O. Box 72 Palmyra, MO 62305 Phone: 1-800-788-8085

www.doylemfg.com

Read and understand this manual and all safety signs before operating and maintaining. Review the safety instructions and precautions annually.

Accidents can be prevented by recognizing the causes or hazards before an accident occurs...and doing something about them.

Regardless of the care used in the design and construction of this equipment, there are some areas that cannot be completely safe-guarded without interfering with accessibility and efficiency of operation.



TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY AND THE SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.

#### THIS SYMBOL MEANS - ATTENTION! - BECOME ALERT! - YOUR SAFETY IS INVOLVED!



#### **SAFETY SIGNAL WORDS**

Use of the signal words DANGER, WARNING, CAUTION and NOTICE with the safety messages. The appropriate signal word for each has been selected using the following guidelines:

In this manual and on labels used on this machine, the words DANGER, WARNING, CAUTION and NOTICE are used to indicate the following:



Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations- typically for machine components which, for functional purposes, cannot be guarded.



Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



Highlights information that must be heeded.



### **General Safety Guidelines**

Safety of the operator and any bystanders is one of the main concerns in designing and developing a new piece of equipment. Designers and manufacturers build in as many safety features as possible. However, every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the following precautions in this section. To avoid personal injury, study the following precautions and insist those working with you, or for you, follow them.

Replace any CAUTION, WARNING, DANGER, NOTICE or instruction safety decal that is not readable or is missing. Location of decals is indicated in this booklet.

Do not attempt to operate this equipment under the influence of drugs or alcohol. Do not use the equipment is alertness or coordination is impaired.



Safety glasses and hard hat must be worn at all times.

Review the safety instructions with all users annually and be aware of all potential hazards.



This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible adult familiar with farm machinery and trained in this equipment's operations. DO NOT ALLOW PERSONS TO OPERATE OR ASSEMBLE THIS UNIT UNTIL THEY HAVE READ THIS MANUAL AND HAVE DEVELOPED A THOROUGH UNDERSTANDING OF THE SAFETY PRECAUTIONS AND OF HOW IT WORKS.

Do not paint over, remove or deface any safety signs or warning decals on your equipment. Observe all safety signs and practice the instructions on them.



Never exceed the limits of a piece of machinery. If its ability to do a job, or to do so safely, is in question - DON'T TRY IT.



Stay clear of any moving parts, such as shafts, couplings, and universal joints.

If adjustments need to be made, make them in small steps, shutting down all motions for each adjustment.

Assure that all bystanders are at a safe distance before operating or maintaining this equipment.



Safety instructions furnished by fertilizer manufacturers must be followed exactly to prevent serious harm to individuals and/or the environment.



ALWAYS SHUT OFF THE EQUIPMENT AND LOCK OUT THE SUPPLY OF ELECTRICITY (AND/OR OTHER SOURCE OF POWER) before making adjustments or repairs, or when the conditioning hopper is not in operation to prevent accidents or unauthorized operation.



Observe the IMPORTANT SAFETY INSTRUCTIONS listed below at all times. THE BEST KIND OF SAFETY IS A CAREFUL OPERATOR. Always wear protective clothing, goggles, respirator and gloves when handling fertilizer.



Observe all Federal and State EPA regulations and all Local, State and Federal codes and/or laws regarding licensing, handling, storage, transportation, application, and waste disposal of fertilizer.

Keep all unauthorized people away from the conditioning hopper.

Make sure everyone is clear of equipment before starting operation.

The motor controls and reset button must be located so that the operator has full view the entire operation.

During regular operation of the hopper, one person should be in a position to monitor the operation. A second person should always be nearby to shut down the hopper in case of an emergency.



KEEP ALL SHIELDS AND GUARDS IN PLACE.



Fertilizer is very corrosive and will oxidize steel over a period of time. This weakens steel parts and can cause failure to perform as intended and can cause possible safety hazards. Periodically check all safety shields for corrosion. Replace or repair anything that could cause a potential safety hazard.

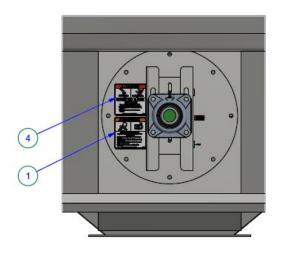
When operating unit, know your work area. This will prevent down time due to hitting obstacles such as posts, power lines or other equipment. Visually inspect the conditioning hopper periodically during operation for signs of excessive vibration, loose fasteners, and unusual noises.

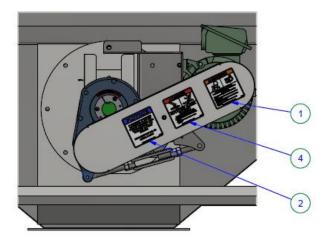
If the hopper, electric wiring, or any safety devices are not functioning properly, DO NOT USE the conditioning hopper. Remove it from service until it has been properly repaired by a qualified service technician. Do not replace components or parts with other than genuine Doyle Factory Service Parts. To do so may reduce effectiveness of safety features, decrease the accuracy of the unit, and void warranty.



### Safety Sign Location On Hopper Body (shown below)

Ref: 03-080-000







NOTICE IF EQUIPMENT IS CHANGED OR MODIFIED IN ANY WAY WITHOUT PERMISSION FROM

DOYLE EQUIPMENT, THE WARRANTY IS HEREBY

REVOKED.

DOYLE EQUIPMENT MFG. CO.

QUINCY, ILLINOIS

REPLACE IF DEFACED OR DAMAGED











Item 3 - P/N: DC114 Item 4 - P/N: DC115

Doyle Decal P/N: DC35G Doyle Corner Decal P/N: DC41G



### **Safety Decal Care**

Keep safety signs clean and legible at all times.

Replace safety signs that are missing or have become illegible.

Replaced parts that displayed a safety sign should also display the current sign.

Safety signs are available from your Distributor or Dealer Parts Department or the factory.

### **How to Install Safety Signs:**

Be sure that the installation area is clean and dry. Decide on the exact position before you remove the backing paper. Remove the smallest portion of the split backing paper. Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place. Slowly peel back the remaining paper and carefully smooth the remaining portion of the decal in place. Small air pockets can be pierced with a pin and smoothed out using the piece of decal backing paper.

### Safety Sign-Off

Operation of this conditioning hopper shall be limited to competent and experienced persons. Anyone operating a conditioning hopper must use good common sense and observe all safety procedures. In order to be a qualified operator, he/she must know and meet all other requirements, such as:

- 1. Some regulations specify that no one under the age of 16 may operate power machinery. It is your responsibility to know what these regulations are in your area or situation.
- 2. Current OSHA regulations state in part: "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."
- 3. Unqualified persons are to STAY OUT of the work area.
- 4. A person who has not read and understood all operating and safety instructions is not qualified to operate the machinery.
- 5. Keep the work area clear of grease, oil, water, and any other objects that could cause a slip or fall.

### FAILURE TO READ THIS MANUAL AND ITS SAFETY INSTRUCTIONS IS A MISUSE OF THE EQUIPMENT.

### Sign Off Sheet

As a requirement of OSHA, it is necessary for the employer to train the employee in the safe operation and safety procedures with this conditioning hopper. We include this sign off sheet for your convenience and personal record keeping.

Date	Employer's Signature	Employee's Signature

### Installation

### **General Information**

Read this manual carefully before attempting to operate this conditioning hopper. Keep the manual available for reference. It contains comprehensive operation, maintenance, and parts replacement data. Careful observation of the instructions in this manual can greatly add to the life of your equipment, safety of operators, and assure satisfactory performance.

This conditioning hopper handles most free flowing bulk material efficiently and reliably. This machinery is specifically engineered for service with corrosive material such as fertilizer. This hopper is constructed of carefully selected corrosion resistant components.



Re-read all safety information in this manual. Become familiar with all potential safety hazards.



Any reference to "right" or "left" are determined by facing the hopper at the intake end and looking toward the rear of the hopper.



Stay away from underneath the equipment when lifting or positioning hopper. Falling equipment may cause severe injury or death.



Wear gloves and long sleeves to prevent cuts when installing parts.



Be sure there is ample clearance around the hopper, and keep away from overhead wires and power lines.

Additional or specific information is always available on request from the factory.

Specifications are subject to change without notice.

### **Motor Install Instructions**



Have motor connected to power supply by a qualified and licensed electrician. Refer to electric motor manual for instructions.



You are working around high voltage. Be very careful. An electrical shock can cause severe injury or death.



Always shut off the electricity at the main disconnect switch before working on the electrical system or the motor. Serious injury or death could be caused by electrical shock.



Read carefully before installing and starting motor.

#### **Electric Motor Installation**

Qualified, trained personnel should install the electrical wiring. Electrical rotating equipment can cause property damage, serious injury or death when improperly installed. The wiring should be installed in accordance with the National Electrical Code, Local Codes and with NEMA MG2 Safety Standard for Construction and Guide for Selection, Installation and Use of Electric Motors and Generators.

The wiring should include a fuse box with a master disconnect switch and an operator's station with On/Off switches. The controls should include starters, contacts or other devices to start the motor. Be sure the wiring and other components being used are capable of handling the voltage and amperage by the motors being used. Install E-stop at critical locations.

Make sure any wall enclosures, control boxes, etc. are mounted in a clean, dry location.

All connections should be solid and preferably made with copper or brass lugs. Do not use wire nuts as they will come loose from vibration, causing damage to electrical parts.

### **RECEIVING**

- Check nameplate data.
- Check whether any damage has occurred during transportation.
- Turn shaft by hand to check that it turns freely.

#### **POWER SUPPLY & CONNECTIONS**

- Nameplate voltage and frequency should agree with power supply. Motor will operate satisfactorily
  online voltage within 10% of nameplate value; or frequency within 5%; combined variation not to
  exceed 10%.
- Dual voltage and single voltage motors can be connected for the desired voltage by following connection diagram – (labeled on the inner side of terminal cover, also shown on the nameplate) for voltages shown on nameplate.
- Wiring of motor and control, overload protection and grounding should be in accordance with National Electrical Code and local building codes.
- A magnetic starter should be used to protect your motor.
- Your motor must have a manual reset button/emergency stop.
- Disconnect power before resetting motor.

## General Operating Procedure



Have motor connected to power supply by a qualified and licensed electrician. Refer to electric motor manual for instructions.



Stay clear of moving parts.



Reducers are shipped without oil. Check that all bearings are lubricated before use.

Before operating the hopper, make an all over inspection to make sure that all fasteners are tight, there is no damage to components and that all guards are in place.

Run the hopper for a few minutes before use to check for proper and safe operation.

### **Hopper Operation**

 Check for free rotation of all elements. The input shaft of the reducer can be turned by hand even with a connected load, in most cases.



Always lock out power before making adjustments.

- Check that screen as clear of debris.
- After turning on power to motor- if any undue noise occurs, SHUT OFF POWER IMMEDIATELY.
- Start filling the hopper with fertilizer.
- Continue adding material as needed for load.



Use caution when loading the hopper with large equipment. Improper loading can damage the hopper body and internal components.

#### **General Maintenance**



Re-read all safety information in this manual. Become familiar with all potential safety hazards.



Always lock out and tag out per OSHA standards power and deenergized system before doing any maintenance on the V-belts, motor and other moving parts.



Do not put hands inside or near the unit or moving parts while the unit is running. Do not run with guards or cover off

Practice good housekeeping. Keep area around hopper clean and free of obstacles, to provide ease of access and to avoid interference with the function of the hopper.

Screens should be checked daily and cleaned at least once a week.

Tighten and check all bolts, belts and fluid levels at least once a week. If the unit is not being used for more than one week, run the entire unit for 15 minutes once a week to keep all moving parts free.

Periodic inspections should be made of the following:

- **Bearings** Check for proper lubrication. Lubricate all bearings in accordance with the manufacturer's instructions.
- **Gear Reducers** Check for proper lubrication. Lubricate all gear reducers in accordance with manufacturer's instructions.
- Drives- Check for wear on belts and proper tension. Replace belts as necessary.
- Auger- Check for damage, excessive wear and material buildup.
- Seals- Check for leakage. Adjust seal or replace packing as necessary.
- Assembly bolts- Check for tightness. Replace as necessary.
- Guards- Check for clearance and bolt tightness.
- **Belts** Belts should always be kept tight enough to ensure proper running of the units. If belts become worn, slick, or cracked, replace them.
- **Hopper Body** Check for damage to the hopper body. Make sure all Decals are in place and are readable. If not, replace.



### **Lockout / Tagout**

Service and maintenance of this equipment should be conducted only when the equipment is at a ZERO ENERGY STATE.

**Think, plan** and **check**. **Think** through the entire procedure and identify all the steps that are required. **Plan** what personnel will be involved, what needs to be shut down, what guards need to be removed, and how (and under what conditions) the power will be restarted. **Check** the machine over to verify all power sources and stored energy have been identified including engines, hydraulic and pneumatic systems, springs and accumulators, and suspended loads. Shutoff and lockout power before adjusting, servicing, maintaining, or clearing an obstruction from this machine. Failure to heed may result in serious injury or death. Communicate with everyone involved in a repair or maintenance operation, including bystanders, that work is being done which involves keeping this machine safety at a ZERO ENERGY STATE.

OSHA's requirements for lockout/tagout are covered in Section 1910.147 of the OSHA standards. The LOTO standard establishes the employer's responsibility to protect workers from hazardous energy. Employers are required to train each worker to ensure that they know, understand, and are able to follow the applicable provisions of the hazardous energy control procedures:

- Proper lockout/tagout (LOTO) practices and procedures safeguard workers from the release of hazardous energy. The OSHA standard for The Control of Hazardous Energy (Lockout/Tagout) for general industry, outlines specific action and procedures for addressing and controlling hazardous energy during servicing and maintenance of machines and equipment. Employers are also required to train each worker to ensure that they know, understand, and are able to follow the applicable provisions of the hazardous energy control procedures. Workers must be trained in the purpose and function of the energy control program and have the knowledge and skills required for the safe application, usage and removal of the energy control devices.
- All employees who work in the area where the energy control procedure(s) are utilized need to be
  instructed in the purpose and use of the energy control procedure(s) and about the prohibition
  against attempting to restart or reenergize machines or equipment that is locked or tagged out.
- All employees who are authorized to lockout machines or equipment and perform the service and
  maintenance operations need to be trained in recognition of applicable hazardous energy sources
  in the workplace, the type and magnitude of energy found in the workplace, and the means and
  methods of isolating and/or controlling the energy.
- Specific procedures and limitations relating to tagout systems where they are allowed.
- Retraining of all employees to maintain proficiency or introduce new or changed control methods.

OSHA outlines a six-step procedure for controlling hazardous energy:

- Step 1: Prepare for shutdown. It must be determined what type of power system is going to be deactivated including electrical, hydraulic, pneumatic or other energy sources. Knowledge of shut down methods is necessary.
- **Step 2: Shutdown the equipment**. This should be completed consistent with the manufacturer's instructions for the shutdown procedure and could be a simple as placing a switch in the "off" position or pressing a button.
- Step 3: Isolate the equipment. This step involves closing of valves, throwing the main disconnects or circuit breakers and disconnecting or capping any auxiliary power sources or secondary electrical systems.
- Step 4: Apply the lockout/tagout device. This is done to prevent restoration of the flow of energy and is done at all disconnect switches, valves or other energy isolating devices. Locks are the preferred method of controlling energy and should be supplemented with tags. Various lockout devices are available including group lockout hasps. Locks should be individually assigned and have only one key.
- Step 5: Control the stored energy. This step includes the release, disconnect or restraint of any
  residual hazardous energy which may be present and a check that all moving parts have stopped
  moving. It may also include the installation of "pancakes" or blanking of pipe flanges, the
  installation of ground wires to discharge electrical capacitors and the blocking or supporting of
  elevated equipment.
- Step 6: Verify isolation of equipment. Double-check the steps and verify that the equipment indeed has been shut down and that the lock and tag do control the stored energy. Employees should be warned and the system tested, including pressing of all start buttons to assure that the equipment will not start.

#### **Electric Motor**

Have the motor installed and serviced by a qualified electrician. Your Motor is pre-greased with Chevron "SRI" grease. Compatible greases are:

Exxon Unirex #2

Exxon Polyrex

Shell Oil Company's "Dolium R"

Texaco, Inc. "Premium RB".

Over greasing can cause premature bearing failure. On motors having drain plugs, remove grease drain plug and operate the motor for 20 minutes before replacing. Check the motor name plate on the motor for the NEMA frame size.

Be sure all fittings are thoroughly cleaned before grease in injected. Keep grease clean. Lubricate motors at a standstill. Remove and replace drain plugs at a standstill. Do not mix petroleum grease and silicone grease in motor bearings.

		TYPE OF SERVICE		GREASE
HORSE	FRAME	(24 hour Operation, dusty condition, vibration)		AMOUNT
POWER	RANGE	SEVERE	VERY SEVERE	OZ. (g)
		(Normal shock load)	(High shock load, confined)	OZ. (g)
25hp-50hp	284T-326T	1 year	120 days	1 oz. (30g)
Per MDS-O-0001 (Toshiba spec sheet)				

### **Bearing Lubrication**

Condition of Use	Definition	Lubrication Schedule
Very Severe Duty	24 hours a day, dusty condition, confined	Lubricate all bearings weekly
Severe Duty	24 hours a day, dusty condition	Lubricate all bearings monthly
Normal Duty 8 hours a day, dust free		Lubricate all bearings every 6 months
Light Duty	1-2 hours a day, dust free	Lubricate all bearings yearly

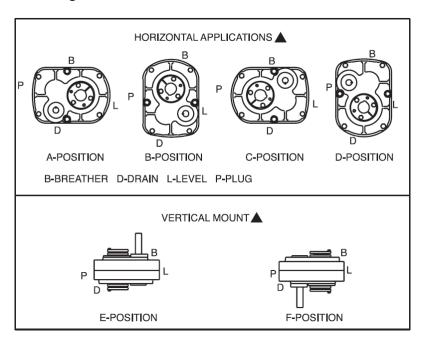
Grease in a bearing acts to prevent excessive wear of parts, protecting the ball races and balls from corrosion and aids in preventing excessive heat within the bearing. It is very important that the grease maintain its proper consistency during operation. It must be fluid and it must not channel.

Do not over grease.

Be sure all fittings are thoroughly cleaned before grease in injected. Keep grease clean.

### **Speed Reducer**

### **Mounting Positions**



Check the lubricant level in the speed reducer weekly. There is a check plug on the front of the case. It should be full of lubricant level with the check plug hole.

Change the lubricant in a new unit after the first two weeks of operation. After the first initial change, the lubricant should be changed yearly.

Drain, then flush with light flushing oil. The drain plug on the gearbox, which is magnetized, should be cleaned of all metal shavings and foreign material every oil change. This is to clean out any metal shavings that have accumulated or, water resulting from condensation during idle periods. Refill with lubricant.

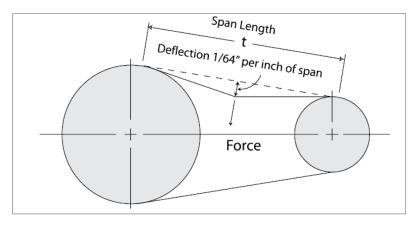
Lubricate with a non-corrosive type SAE 90 E.P. gear case confirming to MIL-L2105 B multi-purpose gear lubricating oil requirements (API Service GL4) with ambient temperatures from 40°F to 100°F. Ambient temperatures below 40°F require an SAE 80 E.P. lubricant; above 100°F, use an SAE 140 E.P. grade oil.

For synthetic oil use ISO220 EP 5 (SH7220 Synthetic) or IS150 (75W90 Synthetic)

#### "V" Belt Tension

"V" Belts should be just tight enough to keep them from slipping. If too tight, the belts will wear prematurely. Motor shaft or bearing failure can also result.

Inspect V-belts every 3 months for damage, wear, and proper tension and, adjust or replace as required. Replace shields when done. On the hopper, the Speed Reducer pivots on the Drive Drum Shaft to adjust Belt tension. Adjust with the hex nuts on the Speed Reducer torque rod.



BELT CROSS	SMALLER PULLEY	DEFLECTION FORCE	
SECTION	DIAMETER RANGE	Run-in (lbs.)	Normal (lbs.)
SECTION	(in.)	New belts	After break-in
ВХ	3.4 - 4.2	5.25	3.5
	4.4 - 5.2	7.125	4.75
	5.4 - 9.4	9	6
5V	7.1 - 10.9	16	8-12
	11.8 - 16.0	20	10-15

Ref: Baldor-Maska Sheave and Bushing Catalog pg. 187-188

### **Corrosion Control**

In fertilizer blending and handling equipment, the trend in recent years has shifted from using carbon steel to stainless steel due to its corrosion resistant properties.

The term "corrosion resistant" is often misinterpreted as being impervious to corrosion which is not true. In the fertilizer industry, under certain conditions, corrosion will attack stainless steel, mostly in the form of pitting.

Painting stainless steel may actually advance the start of corrosion rather the retard it. The simplest method of preventing corrosion is to keep equipment clean. Equipment stored inside fertilizer plants accumulates fertilizer and chemical dust, and may be severely pitted after a short period of use. Keep equipment stored inside clean to prolong life.

Order parts from the authorized dealer covering your area.

Always give the pertinent model and serial number.

For prompt service, please have the part name and part number ready.

Doyle Equipment Mfg. Co., Inc. P.O. Box 72 Palmyra, MO 62305 Phone: 1-800-788-8085 www.doylemfg.com

Also, please give the post office address, city, county, and state where parts are to be shipped and specify whether materials are to be shipped by freight, express, parcel post or United Parcel Post.

Confirm all telephone orders with written confirmation.

Unless claims for shortages or errors are made immediately upon receipt of goods, they will not be considered.



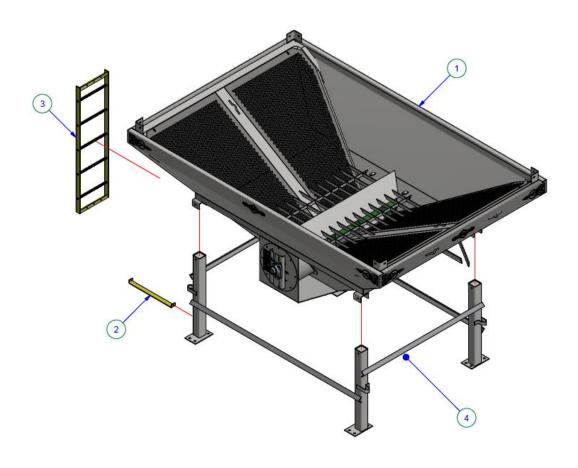
Inspect all goods received immediately upon receipt. When damaged goods are received, insist that a full description of the damage be made by the carrier agent on the freight bill.

If this description is insisted upon, full restitution can be collected from the transportation company. No responsibility is assumed for delays or damage to merchandise while in transit.

Dealer's responsibility ceases upon delivery of shipment to the transportation company from whom a receipt is received showing that shipment was in good condition when delivered to them; therefore, claims (if any) should be filed with the transportation company and not with the dealer.

Ref: 303-006-000

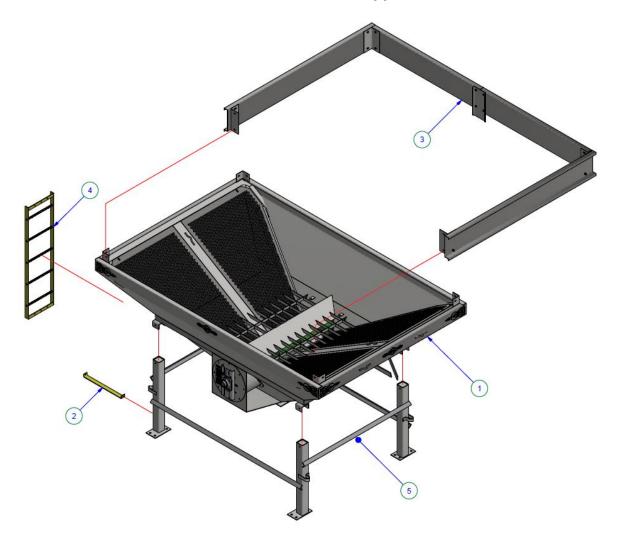
### **6 Ton Conditioner Hopper**



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	03-000-12	6 TON CONDITIONER HOPPER ASSEMBLY
2	1	03-661-1003	6, 8, 10 TON LADDER BRACE
3	1	03-908	LADDER WELDMENT - 6,8,& 10 TON
4	1	03-66-834-1002	6, 8, & 10 TON CONDITIONER LEG WELDMENT 304 STAINLESS
	1	03-66-834-1001	6, 8, & 10 TON CONDITIONER LEG WELDMENT MILD STEEL

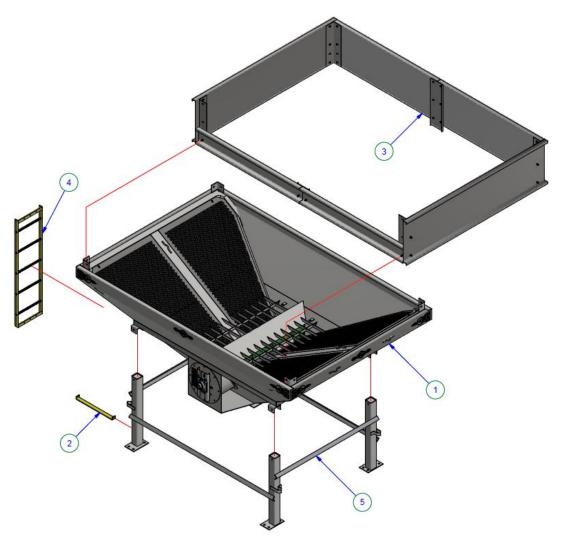
Ref: 03-080-000

### **8 Ton Conditioner Hopper**

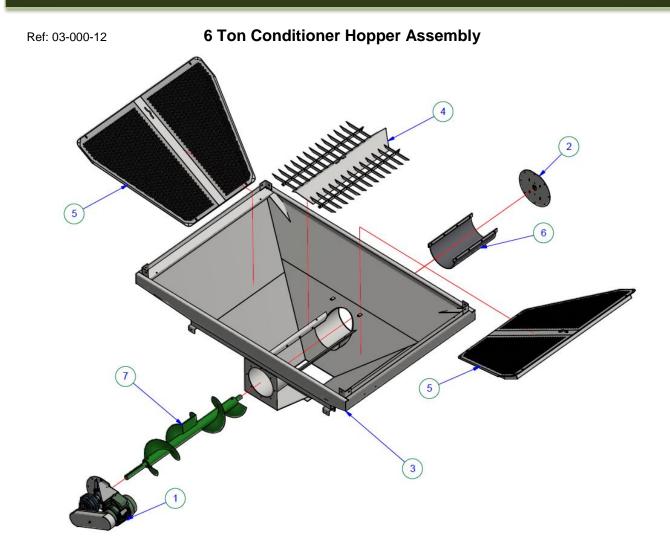


ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	03-000-12	6 TON CONDITIONER HOPPER ASSEMBLY
2	1	03-661-1003	6, 8, 10 TON LADDER BRACE
3	1	03-903	HOPPER EXTENSIONS- 8 TON
4	1	03-908	LADDER WELDMENT - 6,8,& 10 TON
5	1	03-66-834-1002	6, 8, & 10 TON CONDITIONER LEG WELDMENT 304 STAINLESS
	1	03-66-834-1001	6, 8, & 10 TON CONDITIONER LEG WELDMENT MILD STEEL

Ref: 303-010-000 **10 Ton Conditioner Hopper** 



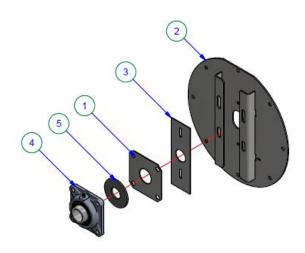
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	03-000-12	6 TON CONDITIONER HOPPER ASSEMBLY
2	1	03-661-1003	6, 8, 10 TON LADDER BRACE
3	1	03-905	10 TON HOPPER EXTENTION KIT
4	1	03-908	LADDER WELDMENT - 6,8,& 10 TON
5	1	03-66-834-1002	6, 8, & 10 TON CONDITIONER LEG WELDMENT 304 STAINLESS
	1	03-66-834-1001	6, 8, & 10 TON CONDITIONER LEG WELDMENT MILD STEEL



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	02-892	16" DIA. CONDITIONER DRIVE, 10HP
2	1	02-893	END CAP ASSEMBLY, BEARING END
3	1	03-66-834-1001	6 TON CONDITIONER HOPPER SHELL WELDMENT
4	1	03-928	SAFETY GRID WELDMENT
5	2	03-932	SCREEN HALF, 3/4" DIA. HOLES
6	1	16-911	AUGER SCREEN WELDMENT
7	1	16-912	AUGER WELDMENT, WH & VERT CONDITIONER

Ref: 02-893

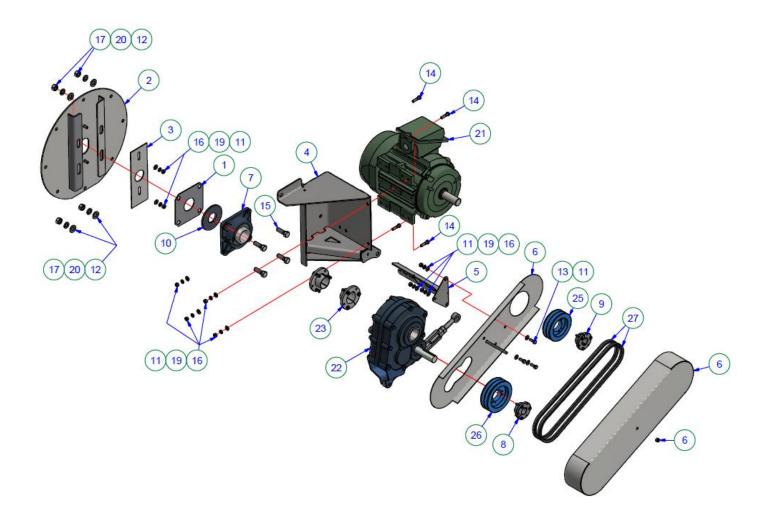
### **End Cap Assembly, Bearing End**



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	02-008	BEARING PLATE
2	1	02-894	END CAP FOR 1 15/16" BEARING
3	1	16-008	END CAP PLATE - BEARING END
4	1	BR2	BEARING, 1 15/16" 4 BOLT
5	2	FL2	FELT 1/4" X 4-3/4" X 1-15/16"

Ref: 02-892

16" Dia. Conditioner Drive, 10hp



Ref: 02-892

### 16" Dia. Conditioner Drive, 10hp

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	02-008	BEARING PLATE
2	1	02-890	END CAP WELDMENT FOR 2 3/16" BEARING
3	1	16-009	END CAP PLATE - GEAR BOX END
4	1	16-801	7.5 & 10 HP RIGHT HAND MOTOR PLATE STANDARD 16" AUGER
5	1	16-802	10 HP BELT GUARD BRACKET MOUNT 16" AUGER
6	1	16-905	BELT GUARD ASSY
7	1	BR42	BRNG.FLNG.SC,2-3/16, FOUR BOLT FLANGE BEARING
8	1	BS16	SDSX1-1/4 MASKA BUSHING
9	1	BS18	BUSHING SDSX 1 3/8"
10	1	FL2	FELT 1/4" X 4-3/4" X 1-15/16"
11	16	FW038SS	FLAT WASHER - STAINLESS - 3/8"
12	4	FW063SS	FLAT WASHER - STAINLESS - 5/8"
13	5	HB03816100SS	HEX BOLT - STAINLESS – 3/8" X 1"
14	4	HB03816150SS	HEX BOLT - STAINLESS – 3/8" X 1.5"
15	4	HB06311200SS	HEX BOLT, STAINLESS- 5/8" x 2"
16	9	HN03816SS	HEX NUT - STAINLESS - 3/8"
17	4	HN06311SS	HEX NUT- STAINLESS- 5/8"
18	2	HN07510G5	HEX NUT, 3/4"-10 UNC GRADE 5
19	9	LW038SS	LOCK WASHER - STAINLESS - 3/8"
20	4	LW063SS	LOCK WASHER - STAINLESS - 5/8"
21	1	975-010-200	MOTOR, 10 HP, 200 V
		975-010-480	MOTOR, 10 HP, 230/460 V
		975-010-575	MOTOR, 10 HP, 575 V
22	1	PC221	GEARBOX, TXT325
23	1	PC225	BUSHING KIT, 2 3/16"
24	1	PC239D	TORQUE ARM
25	1	SV19	SDS 2B5.0 MASKA SHEAVE 2 GROOVE
26	1	SV4	SHEAVE, 2B5.6 - SDS
27	2	BL45	V BELT BX48

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