

# MEYER'S

## HEAVY DUTY MANURE SPREADERS

MODEL: 390 Tandem



**DO NOT** operate this Spreader until you have read this book

**NEVER** repair or clean this Spreader while PTO is engaged



Manufactured in DORCHESTER, WISCONSIN by

**MEYER'S  
EQUIPMENT  
MFG. CORP.**

# INTRODUCTION

Congratulations on the purchase of your new Meyer's Manure Spreader. With its optional equipment this is the simplest, most flexible system on the market today. With proper operation and preventative maintenance it will last for years.



This **SAFETY ALERT SYMBOL** means **ATTENTION! BE CAREFUL! YOUR SAFETY IS INVOLVED!** It stresses an attitude of **HEADS UP FOR SAFETY**. When you see this symbol, be alert to the possibility of **PERSONAL INJURY** and carefully read the message that follows.



## **WARNING:**

**NEVER OPERATE WITHOUT ALL COVERS, SHIELDS AND GUARDS IN PLACE. KEEP HANDS, FEET AND CLOTHING AWAY FROM MOVING PARTS. SOME COVERS AND GUARDS HAVE BEEN REMOVED FOR ILLUSTRATIVE PURPOSES ONLY IN THIS MANUAL. FAILURE TO HEED MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH.**

At the front of this manual is a Product Registration and Inspection Certificate. Be sure your dealer has completed this certificate and forwarded a copy to the manufacturer to validate the manufacturer's warranty. The product model and serial number are recorded on this certificate for your convenience and for proper identification of your spreader by your dealer and the manufacturer when ordering repair parts.

The serial number plate is found on the upper left front corner of the spreader box or stamped in the left channel at the front. For information on ordering repair parts, refer to the repair parts section of this manual. Orders must list the complete description, correct part number, and total amount required.

All references to right hand and left hand apply to the product as viewed from the rear of the machine and facing the direction of forward travel.

You are urged to study this manual and follow the instructions carefully. Your efforts will be repaid in better operation and service as well as a savings in time and repair expense. Failure to read this manual and understand the machine could lead to serious injury. If you do not understand instructions in this manual, contact either your dealer or Meyer's Equipment Manufacturing Corp. at Dorchester, WI 54425.

This supersedes all previous published instruction.

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# ! SAFETY

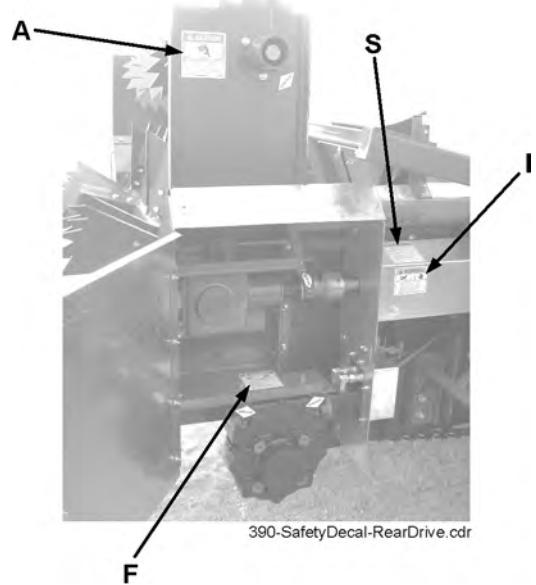
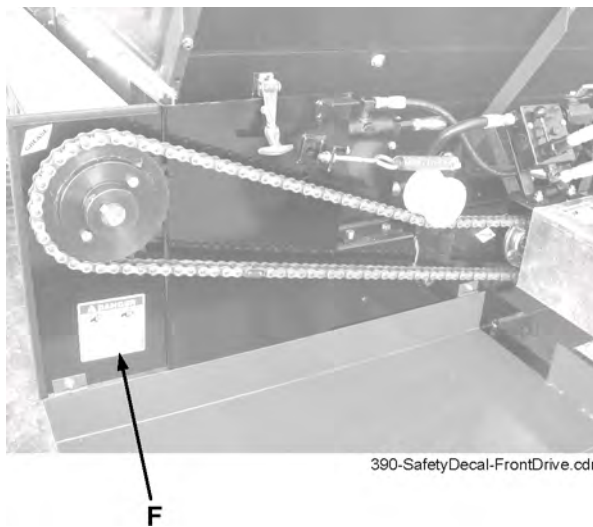
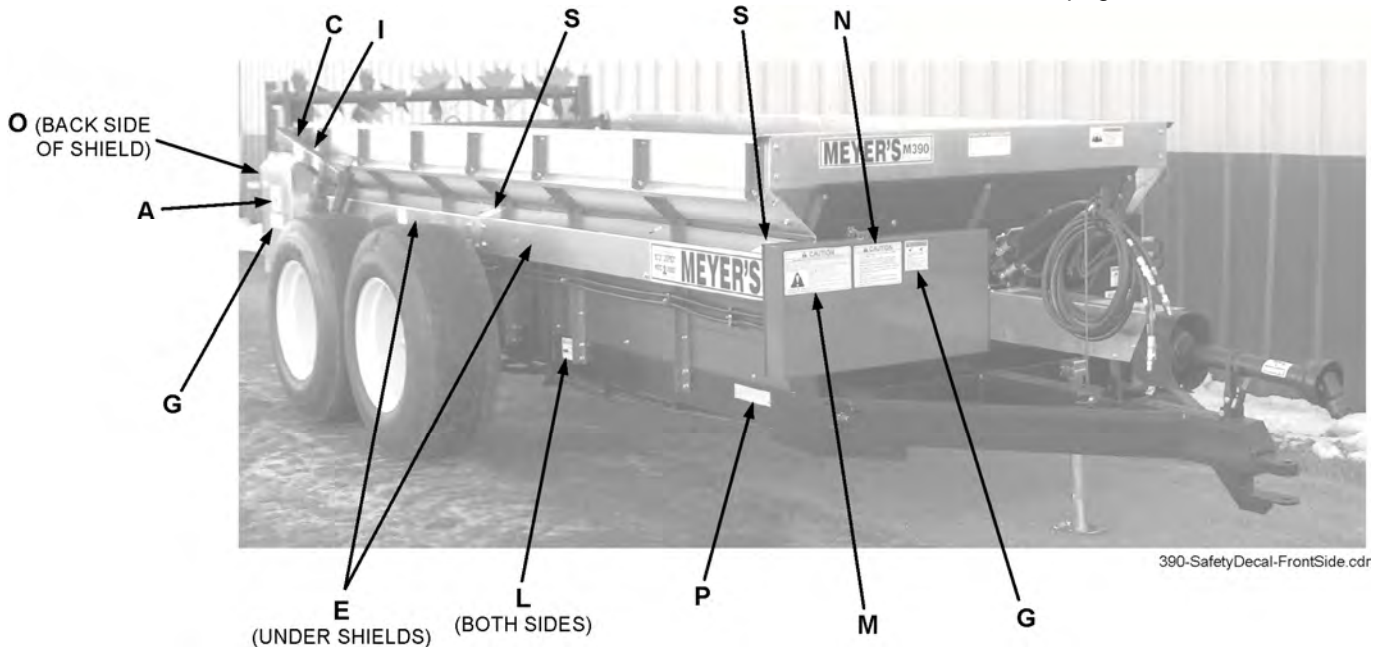
A brief definition of signal words that may be used in this manual:

**! DANGER:** Indicates an imminently hazardous situation that, if not avoided, will result in serious injury or death.

**! WARNING:** 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.

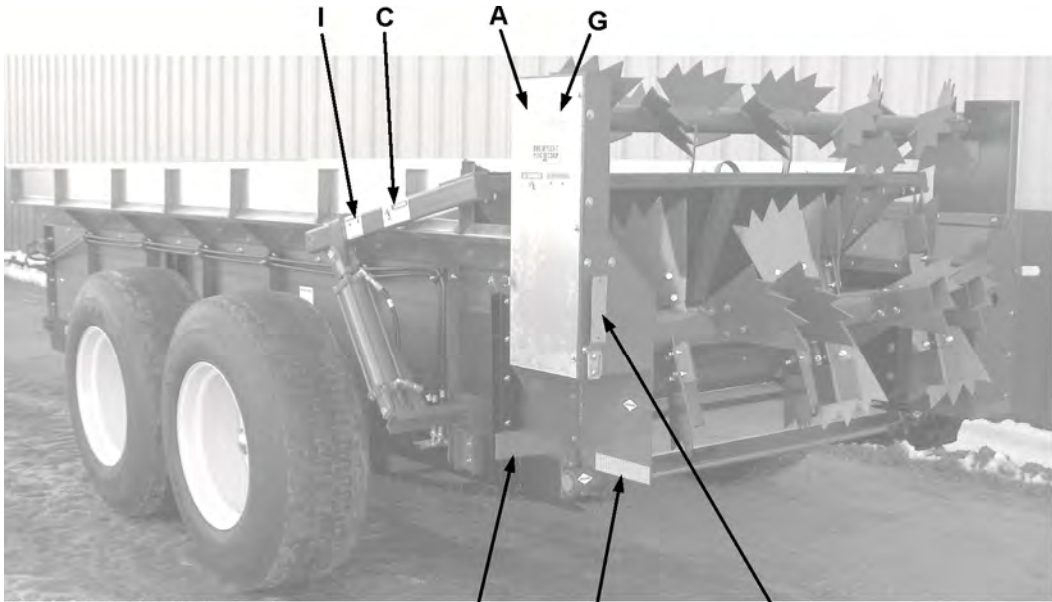
**! CAUTION:** Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury

See pages 6 and 7 for decals.



**! CAUTION:** IF ANY SAFETY DECAL BECOMES UNREADABLE FOR ANY REASON, THE DECAL MUST BE REPLACED WITH A NEW DECAL. IF THE SPREADER IS REPAINTED, ALL SAFETY DECALS MUST BE REPLACED. CONTACT YOUR DEALER OR MEYER'S EQUIPMENT MANUFACTURING CORP. IF YOU REQUIRE ANY SHIELD OR DECALS FOR REPLACEMENT.

# SAFETY

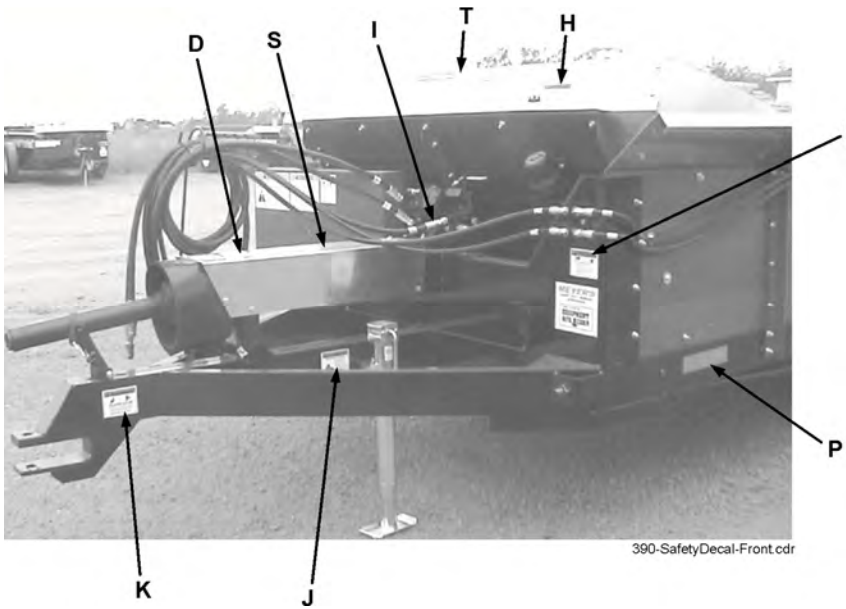


390-SafetyDecal-RearLeft.cdr

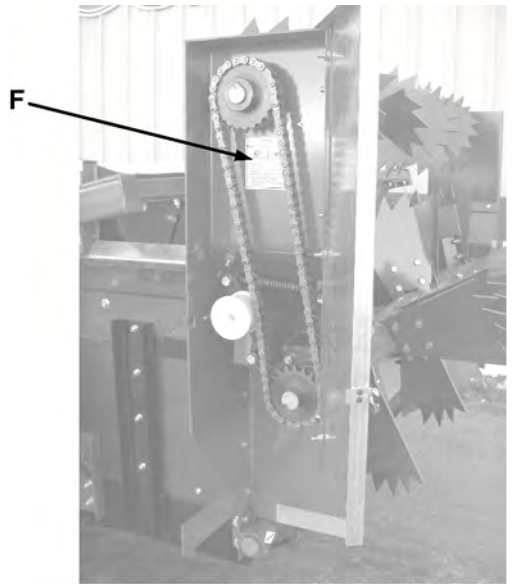
O  
P  
(BOTH SIDES)

INSTALL SMV SIGN HERE.  
(NOT ILLUSTRATED)

See pages 6 and 7 for decals.



390-SafetyDecal-Front.cdr



390-SafetyDecal-BeaterChain.cdr

**CAUTION:** IF ANY SAFETY DECAL BECOMES UNREADABLE FOR ANY REASON, THE DECAL MUST BE REPLACED WITH A NEW DECAL. IF THE SPREADER IS REPAINTED, ALL SAFETY DECALS MUST BE REPLACED. CONTACT YOUR DEALER OR MEYER'S EQUIPMENT MANUFACTURING CORP. IF YOU REQUIRE ANY SHIELD OR DECALS FOR REPLACEMENT.

# ! SAFETY DECALS

**! DANGER**

**ROTATING BEATER HAZARD**  
To prevent serious injury or death by entanglement:

- Do not clean, stand in, or climb on machine when operating.
- Place controls in neutral, stop engine, set park brake, remove ignition key and wait for all moving parts to stop before cleaning, servicing, adjusting, repairing or unplugging.

3000

DECAL A. PART NO. 3000

**! DANGER**

**HYDRAULIC ENDGATE HAZARD**  
To prevent serious injury or death from crushing:

- Stand clear to avoid being struck by endgate arms.
- Do not stand or climb on machine when operating.
- Stay away from beneath the endgate and gate arms when they are in the raised position or are being lowered.

3001

DECAL C. PART NO. 3001

**! DANGER**

**ROTATING DRIVELINE HAZARD**  
To prevent serious injury or death from rotating driveline:

- Keep all guards in place when operating.
- Operate only at 540 RPM.
- Keep hands, feet, hair and clothing away from moving parts.

SW104

DECAL D. PART NO. SW104

**! DANGER**

SHIELD MISSING  
DO NOT OPERATE

**! DANGER**

SHIELD MISSING  
DO NOT OPERATE

SW102

DECAL E. PART NO. SW102

**! DANGER**

**SHIELD MISSING DO NOT OPERATE**  
To prevent serious injury or death from moving parts:

- Close and secure guards and shields before starting.
- Keep hands, feet, hair and clothing away from moving parts.
- Disconnect and lockout power source before adjusting or servicing.
- Do not stand or climb on machine when operating.

SW404-1

DECAL F. PART NO. SW404-1

**! WARNING**

**MOVING PART HAZARD**  
To prevent serious injury or death from moving parts:

- Close and secure guards and shields before starting.
- Keep hand, feet, hair and clothing away from moving parts.
- Disconnect and lockout power source before adjusting or servicing.
- Do not stand or climb on machine when operating.

SW404

DECAL G. PART NO. SW404

**! WARNING**

**TO PREVENT SERIOUS INJURY OR DEATH:**

- **ALWAYS** operate equipment or machinery.
- DO NOT, adjust, repair, or work on this machine without first carefully reading and thoroughly understanding the entire contents of the operator's manual. (Require the name of all personnel who will operate this machine.)
- If operator's manual is lost, contact your nearest Meyer's Dealership or write or call: MEYER'S EQUIPMENT MFG. CORP. P.O. Box 408 • Durban, IA 54425 Phone: 1-800-790-8546

Please give your name, address, model and serial number of your machine. A reward will be furnished.

If you have any questions about operation or adjustments, and maintenance of this machine, contact your Meyer's Dealership or Meyer's Equipment Mfg. Corp. before starting or continuing the operation of this machine.

300

DECAL H. PART NO. 3006

**! WARNING**

**HIGH-PRESSURE FLUID HAZARD**  
To prevent serious injury or death:

- Relieve pressure on system before repairing or adjusting or disconnecting.
- Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands.
- Keep all components in good repair.

HW700

DECAL I. PART NO. 700

**! WARNING**

**CRUSHING HAZARD**  
Support jack is NOT intended to support a loaded spreader; box, mechanical damage to the jack and/or its support may result.

3003

DECAL J. PART NO. 3003

**! WARNING**

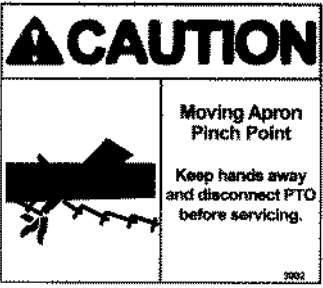
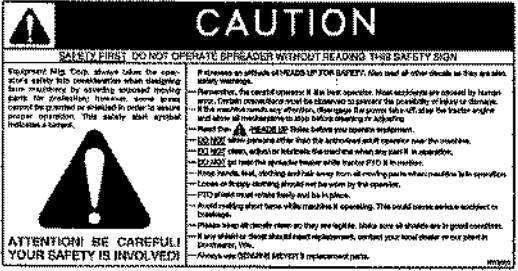

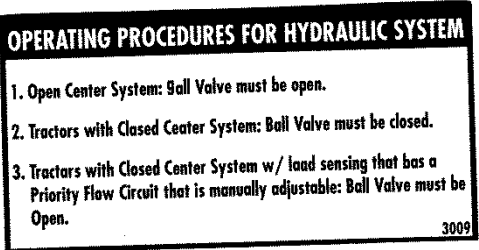
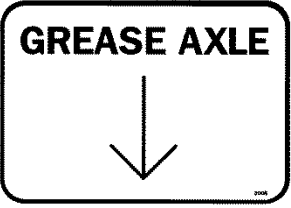

**CRUSHING HAZARD**  
To prevent serious injury or death:

- Keep hands and body out of hitch area when attaching towing vehicle.
- Keep body clear of crush point between towing vehicle and load.

DECAL K. PART NUMBER 3004

**! CAUTION:** IF ANY SAFETY DECAL BECOMES UNREADABLE FOR ANY REASON, THE DECAL MUST BE REPLACED WITH A NEW DECAL. IF THE SPREADER IS REPAINTED, ALL SAFETY DECALS MUST BE REPLACED. CONTACT YOUR DEALER OR MEYER'S EQUIPMENT MANUFACTURING CORP. IF YOU REQUIRE ANY SHIELD OR DECALS FOR REPLACEMENT.

# SAFETY DECALS

 <p><b>CAUTION</b></p> <p><b>Moving Apron Pinch Point</b></p> <p>Keep hands away and disconnect PTO before servicing.</p> <p>3002</p>	 <p><b>CAUTION</b></p> <p><b>SAFETY FIRST. DO NOT OPERATE SPREADER WITHOUT READING THIS SAFETY SIGN</b></p> <p>Equipment Mfg. Corp. always takes the operator safety into consideration when designing farm machinery by adding enclosed PTO shafts for protection. However, some farms cannot be equipped or modified in order to ensure proper operation. This safety sign is placed on the tractor to warn the operator of the danger of the PTO shaft.</p> <p>If you are an operator of a tractor, you must read all other decals as they are also safety warnings.</p> <p>Remember, the correct operator is the best operator. Most accidents are caused by human error. Certain instructions must be followed to prevent the possibility of injury or damage.</p> <p>If the machine cannot be started, check the PTO shaft oil level for tractor engine and adjust all mechanisms to allow proper starting in adjusting.</p> <p>Read the <b>SAFETY</b> section before you operate equipment.</p> <p><b>DO NOT</b> enter the PTO shaft area while the tractor is in operation.</p> <p><b>DO NOT</b> clean, adjust or lubricate the PTO shaft while any part is in operation.</p> <p><b>DO NOT</b> get near the PTO shaft while the tractor PTO is in motion.</p> <p>Keep hands, feet, clothing and hair away from all moving parts when machine is in operation.</p> <p>Loose or frayed clothing should not be worn by the operator.</p> <p>PTO shaft must rotate freely and lock in place.</p> <p>Avoid running about farm while machine is operating. This could cause serious accident or damage.</p> <p>Make sure all shields are in good condition.</p> <p>If any shield or decal should need replacement, contact your local dealer or our plant in Des Moines, IOWA.</p> <p>Always wear SEVERE WEAR replacement parts.</p> <p>ATTENTION! BE CAREFUL! YOUR SAFETY IS INVOLVED!</p> <p>SW2001</p>	
<p><b>DECAL L. PART NUMBER 3002</b></p>	<p><b>DECAL M. PART NUMBER SW2001</b></p>	
 <p><b>CAUTION</b></p> <p><b>Moving parts hazard- To avoid injury or death:</b></p> <ol style="list-style-type: none"> <li>1. Keep all shields in place.</li> <li>2. Stop engine before leaving operator's position to adjust, lubricate, clean or unplug machines, unless otherwise specifically recommended in the "Operator's Manual".</li> <li>3. Wait for all movement to stop before servicing the machine.</li> <li>4. Keep hands, feet and clothing away from power driven parts.</li> <li>5. Keep off equipment unless seat or platform for operation and observation is provided.</li> <li>6. Keep all others off.</li> <li>7. Use flashing warning lights when operating on highways except when prohibited by law.</li> <li>8. Make certain everyone is clear of machine before starting engine or operation.</li> </ol> <p>SW2000</p>	<p><b>DECAL O. REFLECTIVE TAPE-RED</b></p>	
<p><b>DECAL N. PART NUMBER SW2000</b></p>	<p><b>DECAL P. REFLECTIVE TAPE YELLOW PART NO. PM17-5910</b></p>	
 <p><b>OPERATING PROCEDURES FOR HYDRAULIC SYSTEM</b></p> <ol style="list-style-type: none"> <li>1. Open Center System: Ball Valve must be open.</li> <li>2. Tractors with Closed Center System: Ball Valve must be closed.</li> <li>3. Tractors with Closed Center System w/ load sensing that has a Priority Flow Circuit that is manually adjustable: Ball Valve must be Open.</li> </ol> <p>3009</p>	 <p><b>GREASE AXLE</b></p> <p>3008</p>	 <p><b>WARNING</b></p> <p><b>MOVING PART HAZARD</b></p> <p>To prevent serious injury or death from moving parts:</p> <ul style="list-style-type: none"> <li>• Close and secure guards and shields before starting.</li> <li>• Keep hand, feet, hair and clothing away from moving parts.</li> <li>• Disconnect and lockout power source before adjusting or servicing.</li> <li>• Do not stand or climb on machine when operating.</li> </ul> <p>SW406</p>
<p><b>DECAL Q. PART NO. 3009</b></p>	<p><b>DECAL R. PART NUMBER 3008</b></p>	<p><b>DECAL S. PART NO. SW406</b></p>
<p><b>START UP PROCEDURE</b></p> <ol style="list-style-type: none"> <li>1. Make certain everyone is clear of machine before starting engine or operation.</li> <li>2. Turn Flow Control to Slowest Position.</li> <li>3. Engage P.T.O.</li> <li>4. RAISE END GATE.</li> <li>5. Engage Tractor Hydraulic Lever to Full Flow Position.</li> <li>6. Start Apron by Rotating Flow Control Dial Clockwise.</li> </ol> <p><b>DECAL T. PART NO. 3011</b></p>		

**CAUTION:** IF ANY SAFETY DECAL BECOMES UNREADABLE FOR ANY REASON, THE DECAL MUST BE REPLACED WITH A NEW DECAL. IF THE SPREADER IS REPAINTED, ALL SAFETY DECALS MUST BE REPLACED. CONTACT YOUR DEALER OR MEYER'S EQUIPMENT MANUFACTURING CORP. IF YOU REQUIRE ANY SHIELD OR DECALS FOR REPLACEMENT.

# **MANURE SPREADER SAFETY**

## **CAUTION**

THERE ARE INHERENT HAZARDS ASSOCIATED WITH THE OPERATION OF A MANURE SPREADER.

FOR YOUR SAFETY:

- Never Enter Spreader Box While In Operation For Any Reason.
- Only Properly Instructed People Should Operate The Spreader. Do Not Allow Children Or Inexperienced Persons To Operate Spreader.
- Keep All Guards And Shields In Place. Moving Parts Can Crush And Dismember.
- Clear The Area Before Equipment Start Up.
- Keep Hands, Feet, And Loose Clothing Away From Moving Parts.
- Do Not Go Near The Spreader Beaters While Machine Is Operating.
- It Is Not Safe To Clean Or Service The Spreader With Power Operating. PTO Drive And Hydraulics Must Be Disconnected.
- Make Sure The PTO Is Securely Locked To Both The Tractor And Spreader Before Operating The Unit.
- Do Not Operate The PTO At Speeds Higher Than The Manufacturers Recommendations.
- Highway Traffic Is Not To Exceed 20 Mph. The Tires Supplied Are For Farm Use Only And Are Not Designed For Use Above This Speed.
- Use Adequate Safety Chains When Towing The Spreader.
- The Use Of A Slow Moving Vehicle Sign Is Required On All Public Roads. Obey All Applicable Highway Safety Laws And Rules.
- Always Use A Tractor Large Enough To Provide Sufficient Braking Assistance When Towing A Loaded Spreader.
- Use Caution When Traveling Over Uneven Terrain And When Approaching Stops.
- Do Not Load The Spreader Unless It Is Hitched To The Tractor.
- Do Not Unhitch A Loaded Spreader From The Tractor Leaving It Supported By Only The Jack.
- Park Your Spreader On Level Ground And Place Blocks Ahead Of And Behind The Wheels Before Unhooking From Tractor To Avoid Unexpected Rolling When Separated From The Tractor.

## **FAILURE TO HEED MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH**

## **CAUTION**

THERE ARE ADDITIONAL HAZARDS ASSOCIATED WITH THE SERVICE AND MAINTENANCE OF YOUR SPREADER.

FOR YOUR SAFETY:

- Inspect When First Delivered And Regularly Thereafter; That All Connections And Bolts Are Tight And Secure Before Operating.
- Retighten All Wheel Bolts After The First Hour Of Towing. Check Periodically Thereafter. See Maintenance, Wheels.
- Maintain Proper Tire Air Pressure At All Times. See Maintenance, Tire Pressure.
- Always Wear Eye Protection When Operating Or Servicing Spreader.
- Be Sure All Movement Has Stopped, The PTO Is Disconnected, The Tractor Is Shut Off And The Ignition Key Is Removed Before Servicing The Spreader Or Components.
- Escaping Hydraulic Fluid Under Pressure Can Penetrate The Skin And Cause Serious Injury. Relieve All Pressure From The Hydraulic System Before Connecting Or Disconnecting The Lines Or Making Repairs. Check All Hoses And Fittings Before Start-up And Periodically During Operation.
- Never Make Any Alterations Or Modifications To This Equipment.

## **FAILURE TO HEED MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH**



# **MANDATORY SAFETY SHUTDOWN PROCEDURE**

BEFORE unclogging, cleaning, adjusting, lubricating or servicing the unit:

1. Disengage the tractor PTO.
2. Shut off the tractor engine, remove the ignition key and take it with you.
3. Wait for all movement to stop.
4. Remove the Telescoping PTO Drive and ALL power connections from the tractor.

ONLY when you have taken these precautions can you be sure it is safe to proceed. Failure to follow the above procedure could lead to death or serious bodily injury.

Most farm accidents, like industrial, home and highway accidents, are caused by the failure of some individuals to observe simple and fundamental safety rules or precautions. For this reason, farm accidents, just as other types of accidents, can be prevented by recognizing the causes of accidents and doing something about them before an accident occurs.

Regardless of the care used in the design and construction of farm equipment, there are many points that cannot be completely safe-guarded without interfering with accessibility and efficient operation.

A careful operator is the best insurance against an accident.

The complete observance of one simple rule would prevent many thousand serious injuries each year. That rule is "NEVER ATTEMPT TO CLEAN, OIL, OR ADJUST A MACHINE WHILE IN MOTION".

NATIONAL SAFETY COUNCIL

**BEFORE ATTEMPTING TO OPERATE YOUR NEW SPREADER BE SURE TO READ THIS OWNERS MANUAL AND FAMILIARIZE YOURSELF WITH THE MACHINE!! OBSERVE THE PRECAUTIONS IN THIS MANUAL FOR SAFE OPERATION OF THIS MACHINE!!**

# PRE-OPERATION

## GENERAL

Read the entire Owner's Manual before attempting to operate this manure spreader. Before attempting any maintenance or repairs; always be sure all rotating parts have stopped and that the tractor is shut off, disconnect the PTO, relieve all hydraulic pressure and disconnect hydraulic hoses.

### WARNING

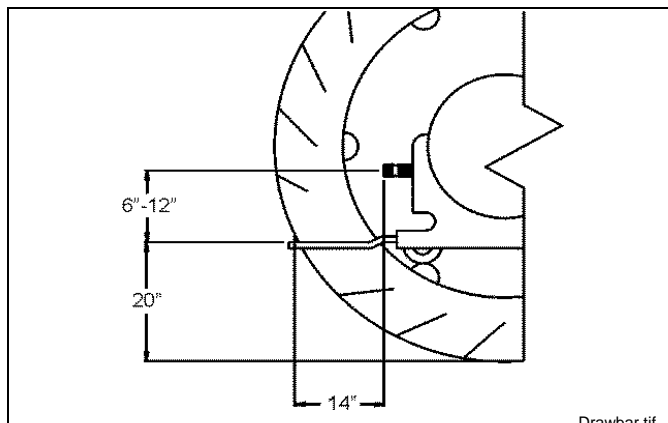
NEVER OPERATE SPREADER WITH ANY GUARDS OR SHIELDS REMOVED. FAILURE TO HEED MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH.

1. Completely lubricate the unit as described in the LUBRICATION Section.
2. Check and tighten the wheel lug nuts if required.
3. Check and maintain the tire pressure according to the manufacturer's recommendation.
4. Check the entire unit for loose bolts, damaged or loose hydraulic fittings and hoses or other damaged parts.
5. The tractor half of the PTO drive shaft assembly must be locked securely to the tractor output shaft.

## TRACTOR HOOKUP

### Tractor Requirements:

1. The spreader is designed to be operated by a 540 rpm PTO tractor output. In addition, 1 set of tractor remote hydraulic ports are required, to operate the apron drive and a second set of ports will be required for an optional hydraulic end gate.



**FIGURE 1. TRACTOR DRAWBAR & PTO SPECIFICATION**

2. The PTO drive shaft assembly is designed to operate with tractors conforming to the industry standard shown on Figure 1 for 540 RPM PTO output.

## Tractor Size

1. The spreader does not have brakes. Towing the spreader must be done safely. The ASAE (American Society of Agricultural Engineers) specifies that the towing vehicle should weigh at least 2/3 as much as the loaded implement to be reasonably safe towing at speeds up to 20 mph. This (20 mph) is also the maximum recommended towing speed for the spreader.

2. The loaded weight of your spreader will naturally vary with the moisture of the manure and you must consider that for your conditions. The loaded weight capacities as specified by the spreader manufacturer are as follows:

### Tractor Towing Size Requirements:

Use the following chart for calculating the minimum tractor weight.

MODEL (struck level)	SPREADER EMPTY WEIGHT + LOAD = GW	MINIMUM TRACTOR WEIGHT UP TO 20 MPH
<b>390</b> (245 cu ft)	5540 + _____ = _____	2/3 of spreader gross weight

### Material Estimated Weight Per Cubic Foot

Material	lbs / Cu. Ft.
Lime Sludge	110-115 LBS.
Dry Feedlot Manure	63-65 LBS.
Chicken Litter	63-65 LBS.
Cake Sludge	62-65 LBS.
Semi-Solid Manure	58-60 LBS.
Pen Packed Manure	30-35 LBS.
Liquid Manure	63-65 LBS.

SOURCE: ASAE

**NOTE:** HEAPED LOADS HAVE SIGNIFICANTLY HIGHER CAPACITIES RESULTING IN INCREASED WEIGHT AND HIGHER CENTER OF GRAVITY, REQUIRING EXTRA PRECAUTION DURING OPERATION.

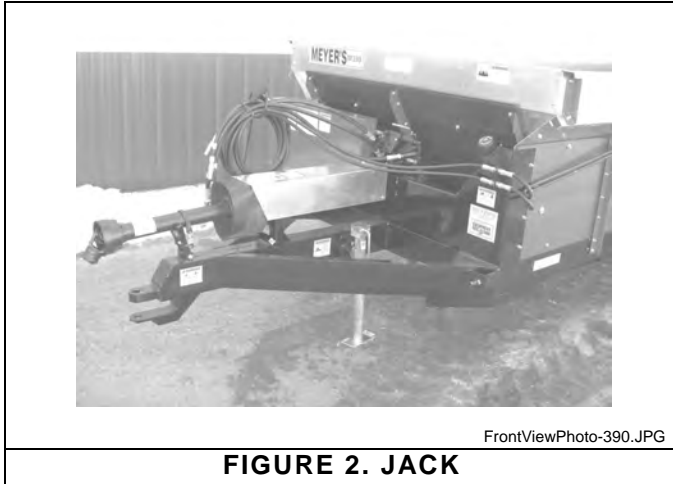
## Tractor Hookup

1. Hook the spreader hitch to the tractor drawbar with secured hitch pin conforming to the pin hole size in the spreader hitch.

2. Raise the jack off the ground. Remove the jack hub pin and rotate the jack to horizontal storage position and secure with the pin, Figure 2.
3. Connect the PTO drive shaft to the tractor PTO output shaft and be sure it is locked to the tractor shaft.
4. If your spreader has an optional fine spread pan, tie the rope control to a convenient place for operation from the tractor seat.

## Hydraulic Apron Drive

1. Connect the two hydraulic hoses for the apron drive



**FIGURE 2. JACK**

to a set of remote ports on the tractor. These are the two hoses coming from the hydraulic flow control valve.

**NOTE:** One of the lines going to the flow control has a check valve in it so that the apron cannot be operated in the wrong direction. This line must be connected to the tractor return port. If the hoses are reversed, the apron will not operate and the hoses should be switched, see Figure 3 or Figure 4.

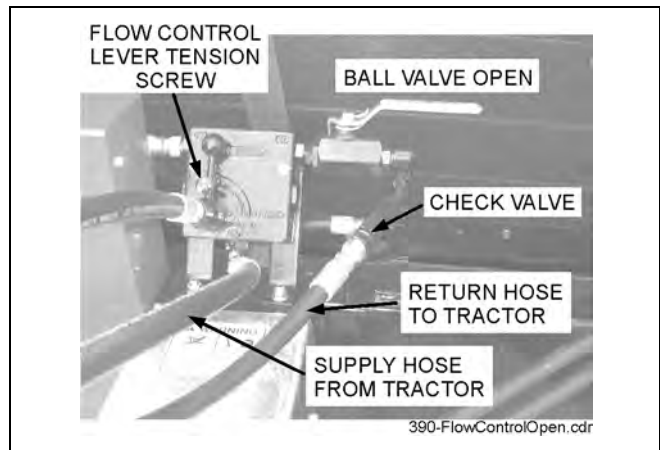
2. A “control hose” is connected to the flow control lever with the opposite end having a bracket to hook at a convenient location on the tractor for operator convenience. The flow control lever has a tension screw adjustment to regulate force to retain settings, see Figure 3 or Figure 4.

3. Connect the two hydraulic hoses for the end gate to a second pair of tractor remote ports.

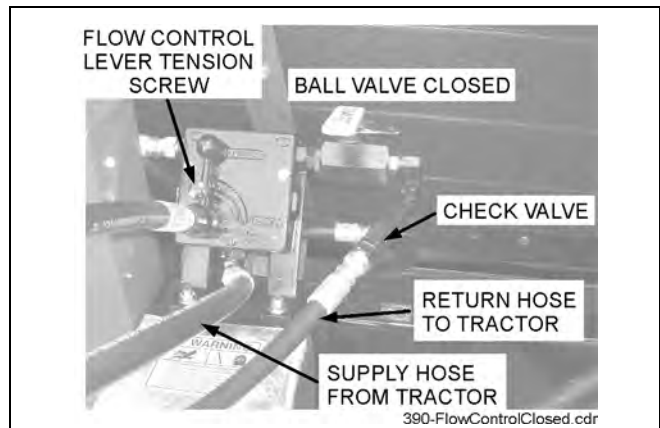
## Hydraulic System

1. Most late model tractors use a Closed Center hydraulic system which only pumps oil as required. Some other tractors may have an Open Center system which pumps oil continuously, in which case provision must be made to allow excess flow through the return hose back to the tractor reservoir. If you are not sure of your system, contact your tractor dealer.

2. The spreader is normally shipped with the apron drive flow control valve plumbed for Open Centers as illustrated on Figure 3. If you have a Closed Center, close the ball valve as shown on Figure 4.



**FIGURE 3. HYDRAULIC APRON DRIVE SET FOR OPEN CENTER TRACTOR HYDRAULIC SYSTEM**



**FIGURE 4. HYDRAULIC APRON DRIVE SET FOR CLOSED CENTER TRACTOR HYDRAULIC SYSTEM**

## TRANSPORTING

1. Check for traffic constantly. Be sure you can see that no one is attempting to pass you and that all traffic is sufficiently clear from you before making any turns.

### **WARNING**

BE SURE THE SLOW MOVING VEHICLE SIGN IS INSTALLED ON THE REAR OF THE SPREADER FOR TRANSPORTING ON ROADWAYS. KEEP THIS SIGN AND ALL REFLECTIVE DECALS CLEAN. FAILURE TO HEED MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH.

### **CAUTION**

REGULARLY CLEAN OFF THE REFLECTIVE TAPE AT THE REAR AND SIDES OF THE SPREADER WHEN TRANSPORTING IT ON THE HIGHWAY.

### **WARNING**

DO NOT TOW AT SPEEDS GREATER THAN 20 MPH. FAILURE TO HEED MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH.

2. Operating speed is dictated by the terrain over which you are traveling. Always use caution. Avoid traveling on slopes or hills that are unsafe. Also beware of slippery conditions such as traveling over areas previously spread with manure. If possible, avoid spreading over areas where manure has been previously applied.

3. If you will travel on public roadways and it is legal to do so, you must know all rules governing such operation. This will include lighting and brake requirements in addition to traffic rules. You may also be required to install a safety chain on the spreader.

## 4. Use Safety Chain:

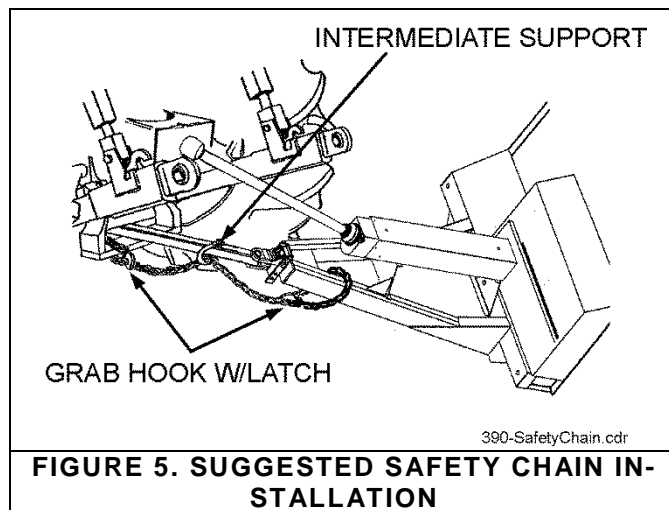
### **CAUTION**

A SAFETY CHAIN SHOULD BE INSTALLED TO RETAIN THE CONNECTION BETWEEN TRACTOR (OR OTHER TOWING VEHICLE) AND SPREADER WHENEVER TRAVELING ON PUBLIC ROADS. A SUGGESTED ATTACHMENT IS ILLUSTRATED ON Figure 5.

1. The chain must be strong enough to hold the weight of the loaded spreader. If using a grab hook at the end(s) of the chain to secure the chain to itself, a hook latch must be installed.

2. The length of the safety chain is not to be any longer than necessary to turn without interference. If any chain links or attachment hardware are broken or stretched, repair before using. Store chain so it does not corrode or become damaged. Do not use this chain for other implements because the strength and length of chain may not be adequate. Identify this chain for use on this particular spreader.

Safety chain designed for this spreader can be ordered on page 18.



# OPERATION



## CAUTION

DO NOT USE JACK EXCEPT WHEN SPREADER IS EMPTY. JACK WILL NOT SUPPORT ADDED WEIGHT FROM LOAD. UNBALANCED WEIGHT MAY RESULT IN UNEXPECTED “TIP UP” OF THE SPREADER.



## DANGER

NEVER ENTER THE SPREADER BOX FOR ANY REASON WITHOUT FIRST DISCONNECTING PTO SHAFT FROM TRACTOR. DO NOT ALLOW OTHERS IN THE BOX. ROTATING BEATER CAN DISMEMBER OR KILL.

## LOADING

1. If you have an optional hydraulic end gate or fine spread pan, be sure they are closed, Figure 6 and FIGURE 8. When the spreader is parked for loading, shift the tractor to neutral or park and set the brakes. The moisture content of the manure will determine how full the spreader can be loaded so that no manure spills out.

2. You will probably be able to load solid manure at least level with the top of the box while semi liquid and liquid slurries will have to be less than full in the spreader box.

**NOTE:** It is unlawful to allow slurry to splash or leak on to public roads.

## UNLOADING



## WARNING

MAKE CERTAIN EVERYONE IS CLEAR OF EQUIPMENT BEFORE APPLYING POWER. FAILURE TO HEED MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH.



## DANGER

KEEP AWAY AND KEEP OTHERS CLEAR OF ROTATING BEATERS AT REAR OF SPREADER. SERIOUS INJURY OR AMPUTATION COULD RESULT.

1. The rear beaters have been designed and tested to provide the best spread pattern for most liquids and semi solid manure. However, the pattern will vary for each specific condition. The factors that contribute most to differing patterns will be moisture content and the amount and length of bedding material. For most typical conditions, the spread pattern should be uniform and about the width of the spreader. Plan your spreading

patterns so you do not have to travel over previously spread manure which will be slippery, resulting in poor traction. Traction on wet grass is also poor. When the resulting pattern may require that you overlap during spreading, use precautions on slopes and hills where you will experience a loss of traction by traveling over ground with previously spread manure.

2. Perform the following operations when you are ready to begin spreading application on the field, depending on the options your spreader is equipped with.

## Hydraulic Apron Drive

1. Turn hydraulic power on with tractor hydraulic control and then start the apron chain. This is done from the tractor by turning the flow control clockwise, located at the front of the spreader. This control is operated from the tractor by twisting the “hose control”, Figure 7. “OFF” is when this control is rotated fully CCW. For solid manure, start the apron at a slow rate of speed. Start application onto the field. Increase speed of apron chain for a heavier application.

2. There is a tension screw that can be adjusted to regulate the force required to operate the flow control valve, see Figure 3 or Figure 4.

3. Further control of the application rate is possible by changing ground speed (transmission gear selection). For optimum trouble free performance it is recommended to operate at or near engine PTO speed.

4. When the spreader is unloaded, or when the manure level is below the beater, it is possible to stop the beater by disengaging the PTO on the tractor. This allows the spreader apron to continue without the beaters running for clean out.

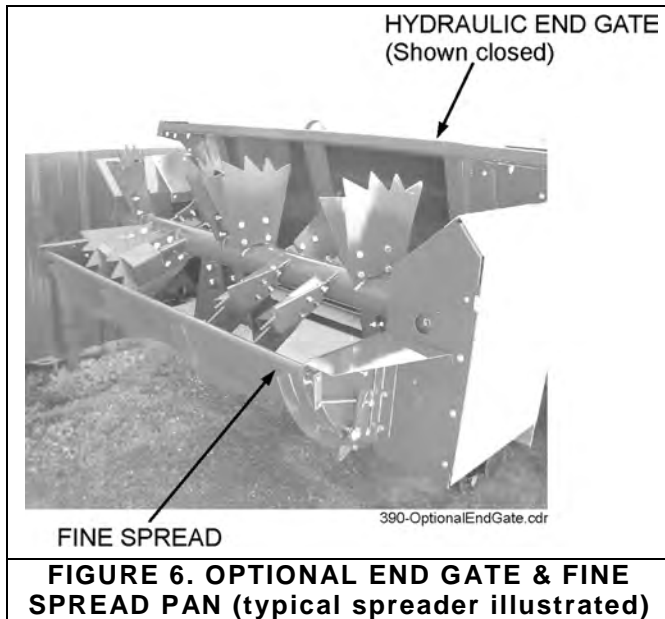
5. When the spreader is empty, stop the PTO and then stop the apron chain so there is no chain slat under the hydraulic end gate, FIGURE 8. Then close the end gate.

## Optional Fine Spread Pan

If the pan is left closed, the spread pattern will be thinner, more even, and narrower than normal. If normal spreading is desired, trip the pan by pulling the rope control immediately after beginning the spread application, see Figure 6.

## Hydraulic End Gate

1. Open the end gate with the tractor hydraulic control, FIGURE 8, and slowly engage the tractor PTO clutch. This can be done while traveling forward to avoid a heavier application at the edge of the field than desired. The end gate must be completely open.

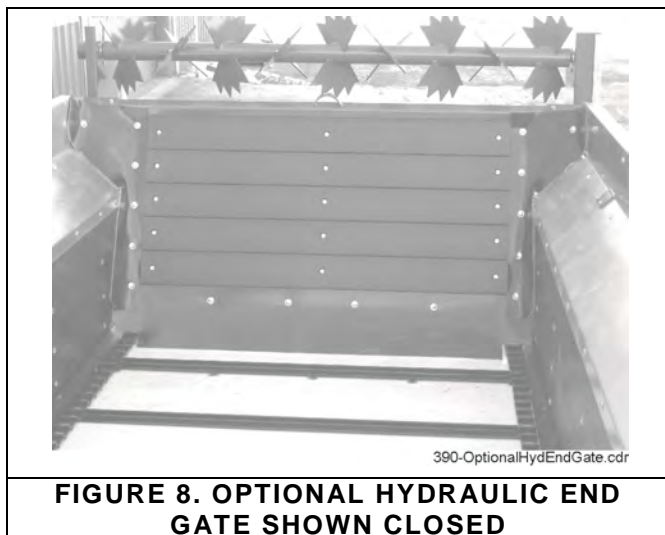


### CAUTION

DO NOT OPERATE APRON CHAIN WITHOUT RAISING END GATE FIRST. FAILURE TO HEED MAY RESULT IN EQUIPMENT DAMAGE.

2. Once the end gate has been fully opened, bring the PTO up to speed and start application onto the field.

3. When the spreader is empty, stop the PTO and disengage the hydraulic flow on the tractor so there is no chain slat under the hydraulic end gate if so equipped, FIGURE 8. Then close the end gate.



## UNHOOK SPREADER FROM TRACTOR

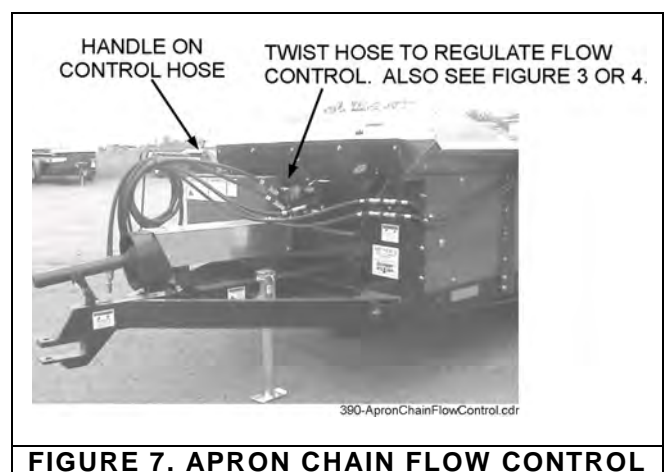
1. Park the spreader, set tractor parking brake, and turn off all power.
2. Park your spreader on level ground and place blocks ahead of and behind the wheels before unhooking from tractor.
3. If the fine spread pan was tripped, shut it by pulling it back to the closed position where it will latch in place.
4. Do not unhitch a loaded spreader from the tractor leaving it supported by only the jack.
5. Remove the PTO shaft from the tractor and the hydraulic hoses. Unhook the hitch.

## MANDATORY SAFETY SHUTDOWN PROCEDURE

BEFORE unclogging, cleaning, adjusting, lubricating or servicing the unit:

1. Disengage the tractor PTO.
2. Shut off the tractor engine, remove the ignition key and take it with you.
3. Wait for all movement to stop.
4. Remove the Telescoping PTO Drive and ALL power connections from the tractor.

ONLY when you have taken these precautions can you be sure it is safe to proceed. Failure to follow the above procedure could lead to death or serious bodily injury.



# MAINTENANCE, LUBRICATION & ADJUSTMENTS

## **WARNING**

DISCONNECT PTO DRIVE SHAFT AND HYDRAULIC HOSES BEFORE CLEANING, ADJUSTING OR SERVICING THIS MACHINE. FAILURE TO HEED MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH.

## **DANGER**

IT IS NOT SAFE TO CLEAN OR SERVICE THE SPREADER WITH POWER OPERATING. PTO DRIVE AND HYDRAULICS MUST BE DISCONNECTED.

**WHEELS:** Check after first hour of towing and periodically thereafter. The wheel studs should be torqued to 170 foot pounds, in a crisscross manner.

### **TIRE PRESSURE:**

22.5x8.25, recommended pressure 45-60 psi max.

W14Cx16.1, recommended pressure 36 psi max.

425-65R, recommended pressure 45-90 psi max.

## **WARNING**

NEVER INFLATE BEYOND RIM OR TIRE MANUFACTURER'S APPROVED PSI RATING. WHILE INFLATING, STAY OUT OF THE TRAJECTORY & STAND CLEAR OF TIRE/WHEEL ASSEMBLY. A TIRE BLOW OUT OR RIM/WHEEL FAILURE CAN CAUSE SERIOUS INJURY OR DEATH.

## **CLEANING AND STORAGE**

Before storing this spreader for an extended period of time, perform the following:

1. Allow the spreader to completely clean out the last load.
2. Hose off all manure from the spreader, particularly getting the end gate and spread pan mechanisms clean. The water can be drained into your manure storage pit or if the optional gate is left closed, the water can be taken to the field and spread.
3. If pressure washing spreader, be careful not to wash directly on or close to bearing seals. The high pressure can destroy the seal and force water into the bearing causing it to rust and fail. Avoid pressure washing painted areas of the spreader too close with washer as the pressure can strip paint on scratched areas caused from scraping clean.
4. Manure is acidic and should not be left on painted areas for a long time because it will lift paint from metal. Unpainted metal will corrode causing holes to rust through metal guards or even fall off the machine. If

this should happen, guards must be replaced immediately.









## **WARNING**

DO NOT OPERATE SPREADER WITH ANY GUARD OPEN OR MISSING. ROTATING PARTS CAN DISMEMBER OR KILL.

5. After cleaning, lube the spreader to exclude moisture from bearings and prevent condensation from forming during storage. Apply oil to roller chain drives.

6. This is a good time to inspect all adjustments and check for parts that need repair or replacement. Performing these tasks now will guarantee that the spreader is ready for use at the beginning of the next season.

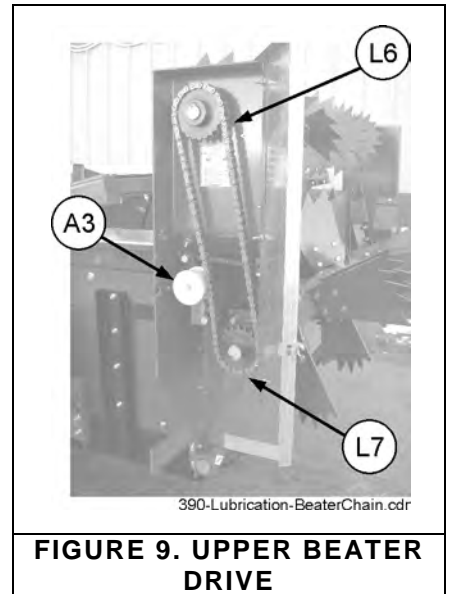
## **LUBRICATION**

-  **L1** Maintain oil level in the apron drive gear reducer at the check level plug, located at rear drive. When required, refill with SAE 85-140 Moly Fortified gear lube or Synthetic SAE 70-90 gear lube. Figure 11.
-  **L2** Maintain oil level in the beater drive gear reducer at the check level plug. When required, refill with SAE 85-140 Moly Fortified gear lube or Synthetic SAE 70-90 gear lube. Figure 11.
-  **L3** Grease the two upper bearings on the apron drive gear reducer, four pumps every 8 hours. Figure 11.
-  **L4** Grease the front bearing on the side drive shaft, one pump every 8 hours. Figure 12.
-  **L5** Grease three bearings on the side drive shaft, one pump every 8 hours. Figure 10.
-  **L6** Grease bearing at both ends of the top beater, one pump every 8 hours. Figure 9 and Figure 11.
-  **L7** Grease the bearing on the left end of the lower beater, one pump every 8 hours. Figure 9.
-  **L8** Grease the bearing on the right end of the rear apron drive shaft, right behind the apron drive gearbox, five pumps every 8 hours. Figure 11.

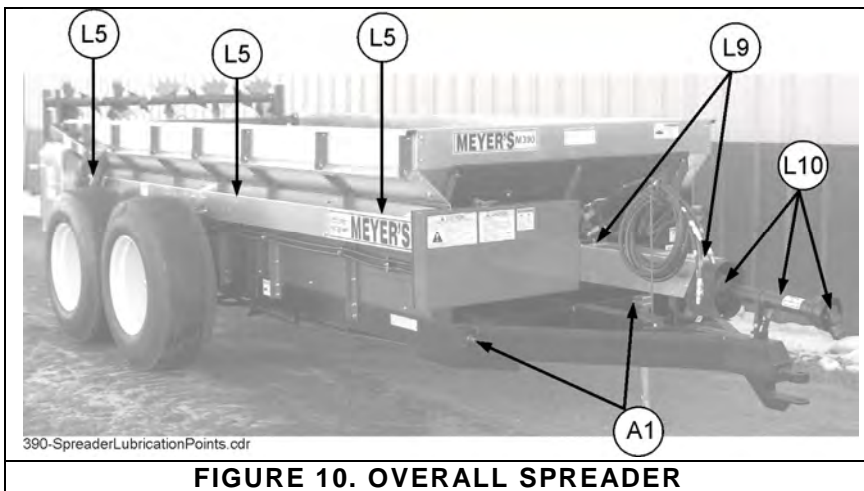
(L9) There is a bearing at each end of the shaft connecting the PTO shaft with the front roller chain drive. Grease these bearing one pump, every 8 hours. Figure 10.

(L10) Lubricate the PTO universal joints with 1 pump of grease every 8 hrs. Lubricate the telescoping members of the drive shaft with 4-8 pumps every 8 hrs. Figure 10.

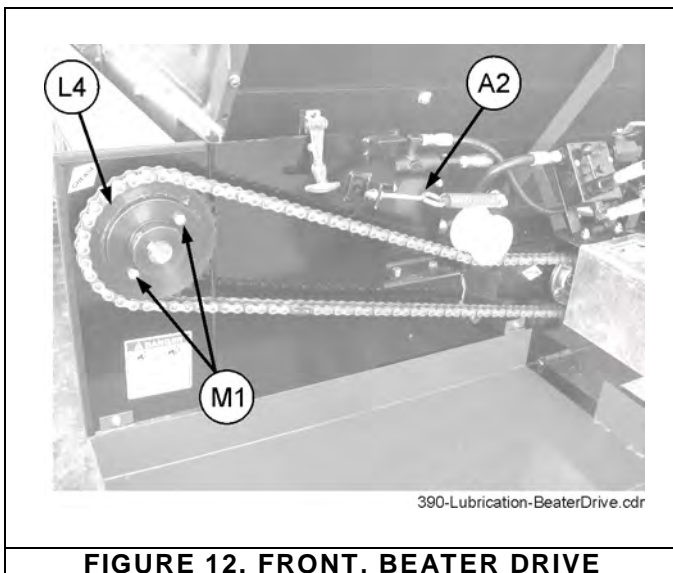
(L11) Grease the beater clutch, two pumps every 8 hours. **NOTE:** This clutch is used only for “over run” when the PTO is stopped, preventing damage to the tractor. Figure 11.



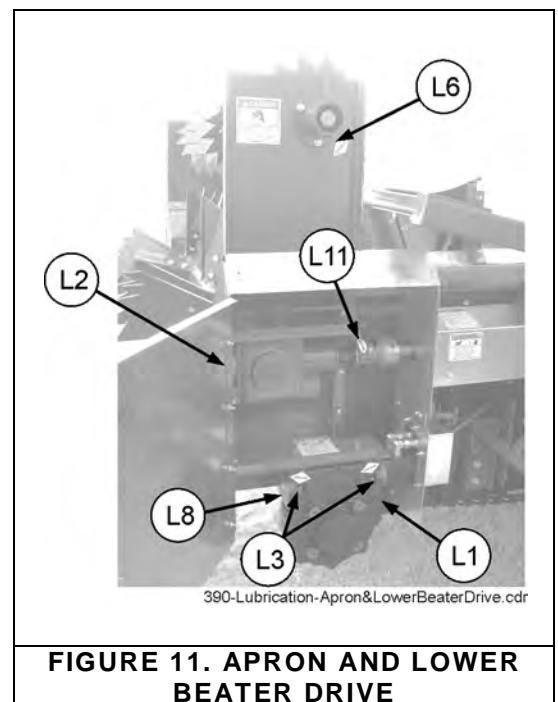
**FIGURE 9. UPPER BEATER DRIVE**



**FIGURE 10. OVERALL SPREADER**



**FIGURE 12. FRONT, BEATER DRIVE**



**FIGURE 11. APRON AND LOWER BEATER DRIVE**



## SHEAR PIN HUBS

1. The spreader drive train is protected with a shear pin hub at the front end of the side drive shaft. If the shear bolts shear, determine cause of overload and correct.

2. Realign holes in sprocket and shear pin hub and replace bolts. Snug lock nuts only enough to remove all slack. Do Not Tighten completely.

Ⓜ1 Use 3/8x1-1/4" Grade 2 bolts and 3/8" lock nuts only. Figure 12.

## ADJUSTMENT

### Apron Chain

ⓐ1 The apron chain is adjusted by (2) adjuster screws located on the front of the box frame. Adjust the screws so there is no chain sag on the return side and chain is never closer than 5" to the spreader axle. When there is no more adjustment left on the adjuster screws, loosen the nuts on the screws and push the screws in as far as they will go. Then remove a link from each chain and readjust the apron chain. Figure 10.

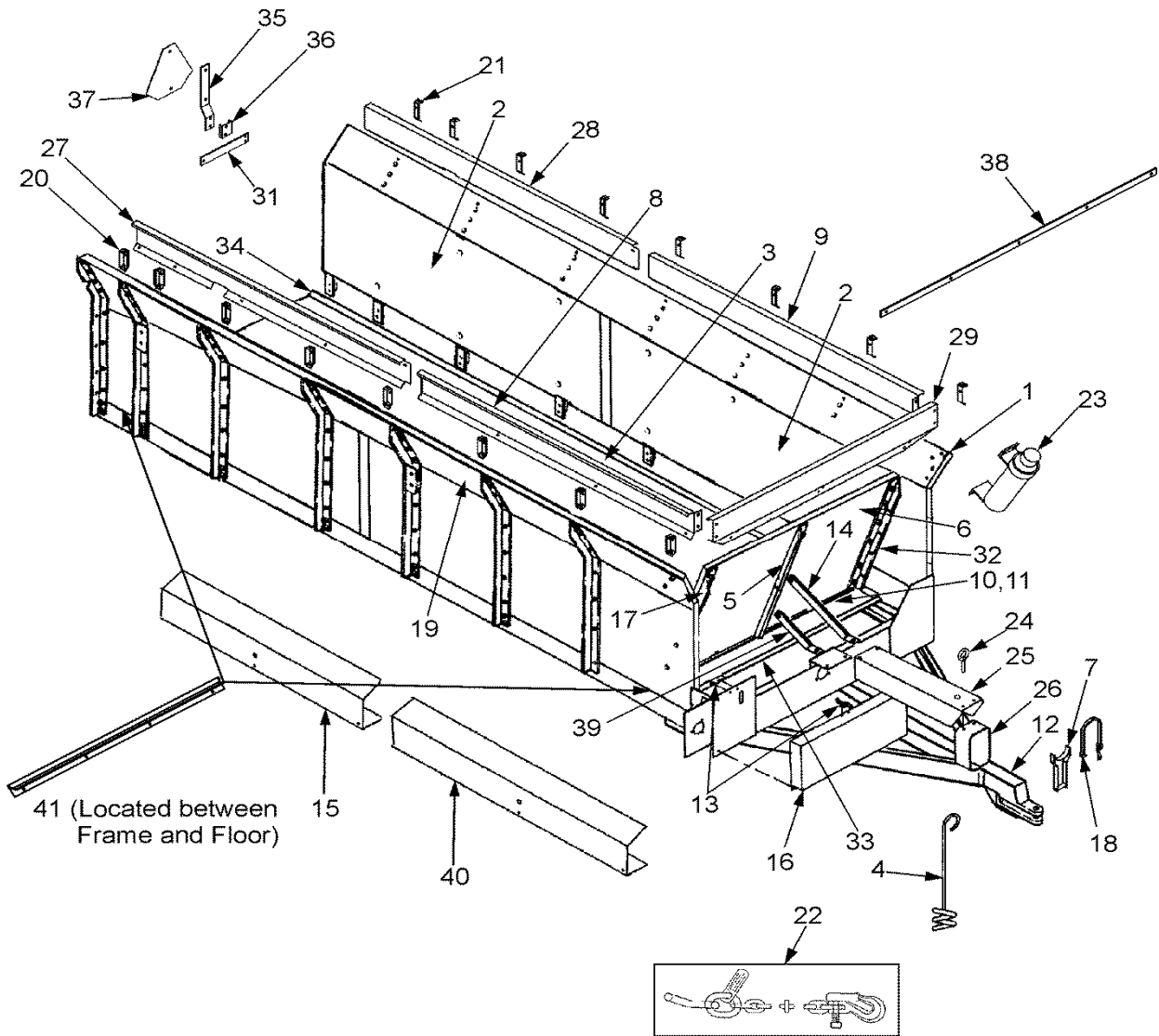
### Roller Chain Adjustment

ⓐ2 The front, main beater drive chain is automatically tensioned with a spring loaded tensioner. Proper chain tension is 1/2 to 3/4" of deflection at midspan on the loaded chain strand. The automatic tension can be adjusted with the spring eye bolt. Figure 12.

ⓐ3 The upper beater drive chain is automatically tensioned with a spring loaded tensioner. Proper chain tension is 1/2 to 3/4" of deflection at midspan on the loaded chain strand. The automatic tension can be adjusted with the spring eye bolt. Figure 9.

# REPAIR PARTS

## MAIN FRAME AND BOX PARTS

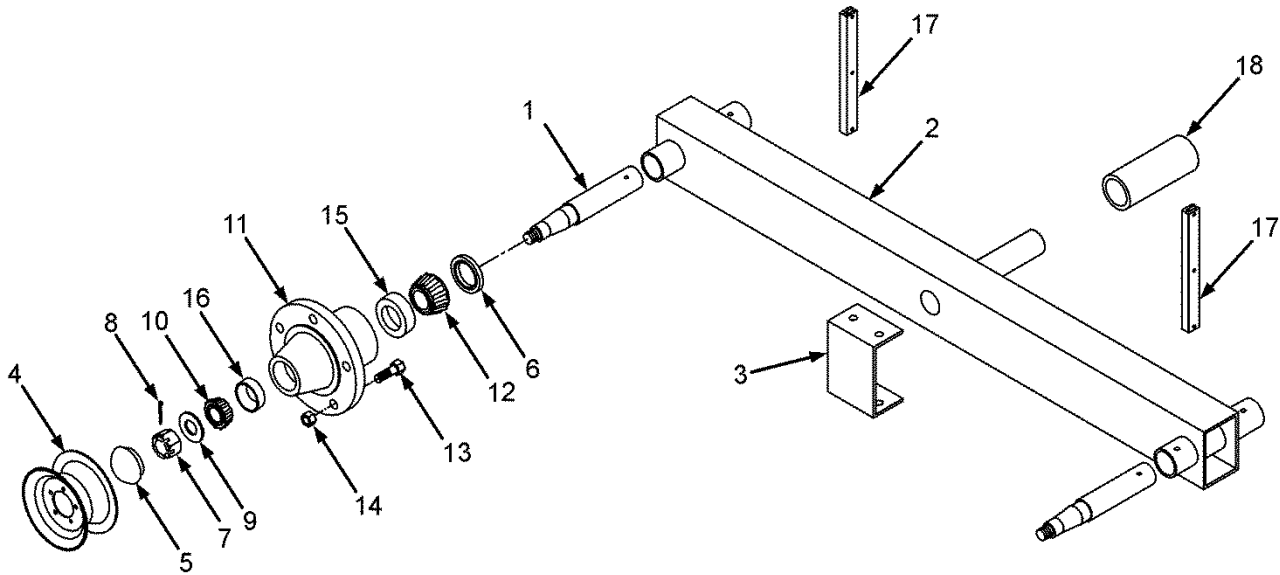


390-MainFrame&BoxParts.cdr

## MAIN FRAME AND BOX PARTS

KEY	PART NO.	QTY	DESCRIPTION
1	E01079	1	Flare Upper Left - Galvanized, 16' Long
2	E01082-12	4	Board, Side - Poly, 19-7/8" x 92.00"
3	E01086-97	1	Complete Floor, 59.5" x 182"
4	E00026	1	Hydraulic Hose Holder
5	E01089	1	Angle, Front Gate - Middle 1-1/2x2"
6	E01729-10	4	Board, Front, Poly 24" x 59 7/8"
7	E01122	1	PTO Stand
8	E01767-390	1	Upper Right Side Extension, Front
9	E01733-390	1	Upper Left Side Extension, Front
10	E01737	1	Belt, Front Gate 60" x 12"
11	E01740	1	Bar, Front Gate 3/16 x 5 x 59 3/4
12	E01097-390	1	Frame, Main
13	E00016	1	Lock Assembly Complete
14	E01116	1	Angle, Support - Front Gate, Upper
15	350-3	1	Side Shaft Shield, Back Half
16	E01102	1	Shield, Front Roller Chain
17	E01103	1	Angle, Front Gate - Right 1-1/2x2"
18	E01123	1	Rubber Strap, For PTO Stand
19	E01106	1	Flare, Upper Right-Galvanized, 16'
20	E01124	8	Bracket, Upper Extension, RH
21	E01125	8	Bracket, Upper Extension, LH
22		1	Safety Chain, Towing, 20000 lb., Optional
23	E21650	1	Manual Holder w/ Decal
24	E01647	1	Eyebolt/Rope Guide
25	E01760	1	Shield, PTO Drive Shaft
26	E01761	1	Rubber Strap - PTO Bell
27	E01762-390	1	Upper Right Side Extension, Rear
28	E01763-390	1	Upper Left Side Extension, Rear
29	E01766-390	1	Front Splash Pan
30	E01099	1	Angle, Support Front Gate - Lower
31	125-435-6	1	Bracket, Red Reflector
32	E01118	1	Angle, Front Gate - Left
33	E01770	1	Galv. Poly Floor Hold Down
34	E01121-10	2	16' Poly, Floor Chain Spacer
35	E21648	1	SMV Spade Mounting
36	E21649	1	SMV Socket Mounting
37	PM10-11-05	1	SMV Sign
38	SP123	1	Belt Hold Down, Front Gate
39	390-17	1	Frame
40	350-2	1	Side Shaft Shield, Front Half
41	225-435-2	2	Floor Hold Down

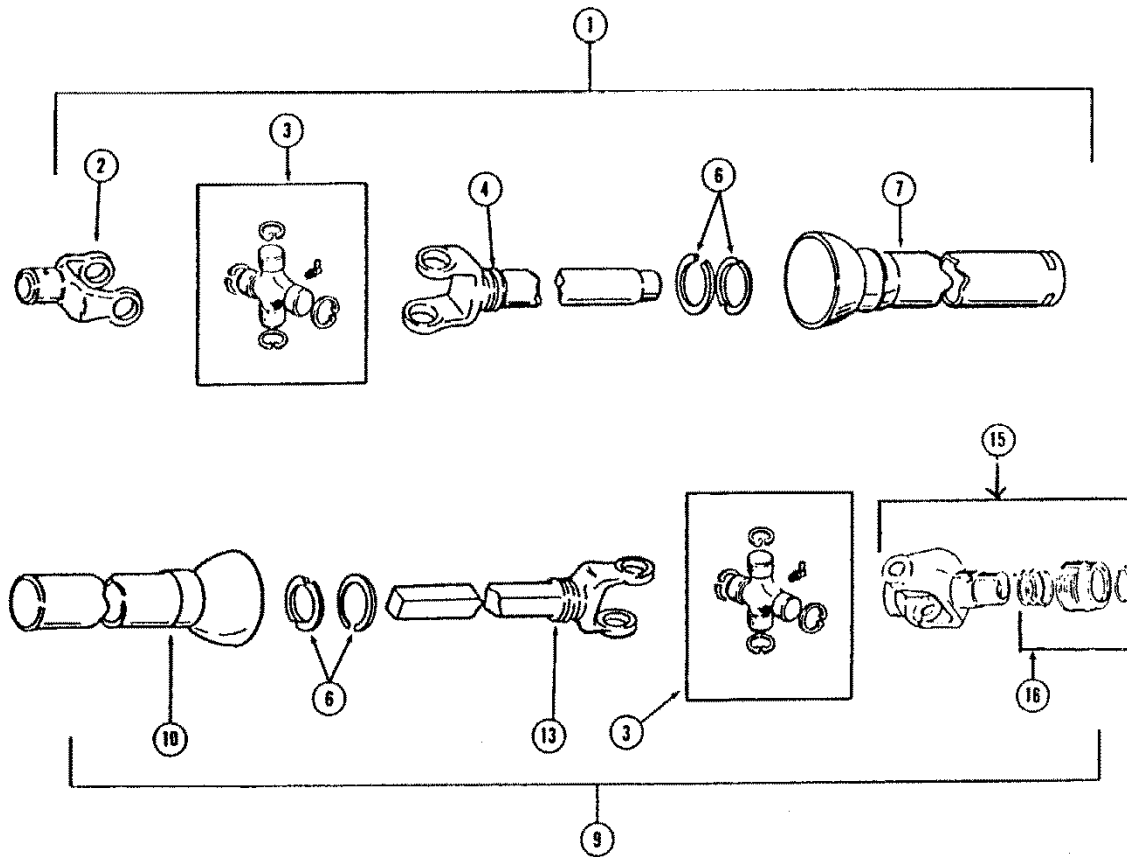
## AXLE, WHEELS, SPINDLES AND RELATED PARTS



390-Axle, Wheels&Spindles.cdr

KEY	PART NO.	QTY	DESCRIPTION
1	E01673-01	4	Spindle (For 20" & 22.5" Wheels)
	E00187-01	4	Spindle (For Special Flotation Wheels)
2	E00120-01	2	Oscillating Beam Only
3	E01156	2	Oscillating Beam Retainer
4	E01677	4	Wheel 22.5x8.25"
	E22142	4	Wheel 22.5x13.5 Optional
	E00135	4	Wheel 14Cx16.1 Special Flotation
5	E01679	4	Cap, Hub Dust
6	E01681	4	Seal, Hub, CR27394
7	E01683	4	Nut, Spindle
8	E01685	4	Pin, Cotter
9	E01687	4	Washer
10	E01689	4	Bearing, Outside Wheel LM501349
11	E01693	4	608 Hub w/Cups & Studs
12	E01695	4	Bearing, Inside Wheel JLM506849
13	E01698	32	Stud, Wheel
14	E01699	32	Nut, Wheel Stud
15	E01697	4	Inside Cup JLM506810
16	E01691	4	Outside Cup LM501310
17	E01700	4	Guide, Poly
18	AX425	4	Bushing, Bronze

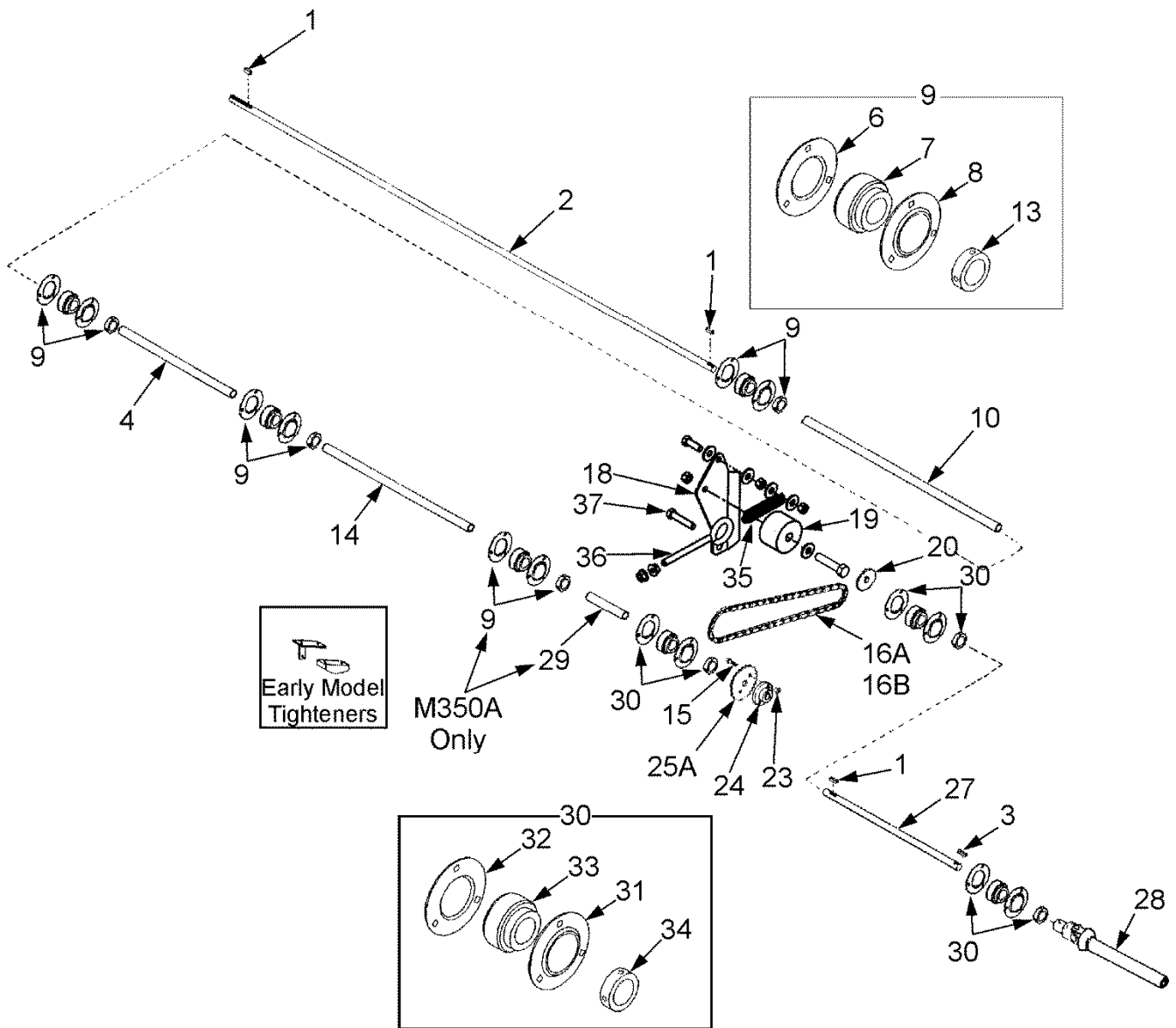
## PTO SHAFT ASSEMBLY (USED ON ALL MODELS)



PTOParts-125.TIF

KEY	PART NO.	QTY	DESCRIPTION
	E01817	1	Comp. 14NW Universal Joint Telescoping Assm. w/Guard - 232-9952
1	E01818	1	Joint and Tube Half Assm. w/Guard - 92-9952
2	E01819	1	Yoke - 1-1/4" Bore End - 14011-1240
3	E01820	2	14 NW Repair Kit - 03-10134
4	E01821	1	Yoke & Tube - 98-9952
6	E01822	2	Nylon Bearing Kit - Bearing & Snap Ring - 19-11104
7	E01823	1	Guard, Male (spreader half) - 96-9952
9	E01824	1	Joint and Shaft Half Assm. w/Guard - 93-9952
10	E01825	1	Guard, Female (for tractor half) - 97-9952
11	E01826	1	Safety Decal (not pictured), 13-10021
13	E01827	1	Yoke and Shaft- 99-9952
15	E01828	1	Spring Lock Yoke Assembly - 14121-1010
16	E01829	1	Spring Lock Repair Kit - 26-10070

# FRONT AND SIDE DRIVE SHAFT AND RELATED PARTS

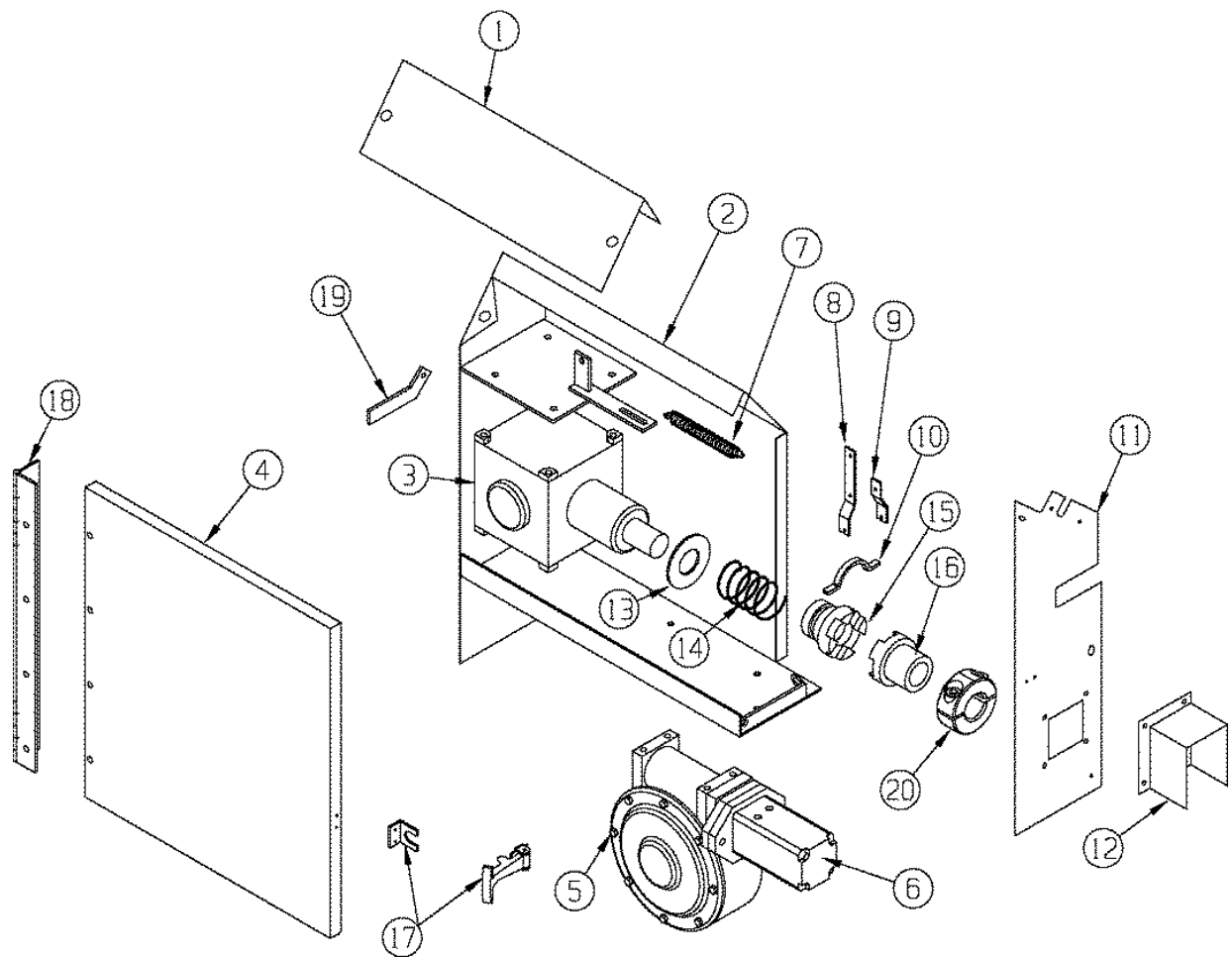


390-Front&SideDriveShaft.cdr

## FRONT AND SIDE DRIVE SHAFT AND RELATED PARTS

KEY	PART NO.	QTY	DESCRIPTION
1	E01774	3	Key, Square - 3/8x1-3/8" Long
2	E01184	1	Shaft, Side - 191" Long - For Standard Drive & Hydraulic
3	E01181	1	Key, Square - 3/8" x 1-1/2" Long
4	E01187	1	Guard, Shaft - 51-15/16"
6	E01784	4	Flange 3-Hole 62mm-3
7	E01782	4	Bearing, FH206-20G-1-1/4" Greaseable
8	E01780	4	1-1/4" Flange, 3-Hole 62mm-3-90°Z-Greaseable
9	E01786	4	1-1/4" FH206-20G Bearing w/Flanges Complete
10	E01197	1	Guard, Shaft - 33-1/4" Long
13	REF	4	Collar, (not sold separately)
14	E01199	1	Guard, Shaft - 57-3/8" Long
15	E01200	2	Bolt, Shear - Grade 2 - 3/8"x1-1/4"
16A	E01201	1	Chain, Front Drive Roller (#60H-120 Pitches, 540 RPM Only)
16B	E01201-10	1	Chain, Front Driver Roller (#60H-122 Pitches, 1000 RPM Only)
18	E00307-10	1	Bracket, Front Chain Tightener
19	E00311-00	1	Tension Adjuster, 1/2" Bore, Rubber
20	E01798	1	Sprocket, Front Drive, 60B20 x 1-1/4", 3/8" K.W.
23	E01205	2	3/8" Jam Nut, Shear Bolt
24	E01206	1	Hub, Front Shear - 3/8" x (1-1/4" Bore)
25A	E01801	1	60A30 Sprocket, Side Shaft Drive, 1-1/4" Bore, 540 RPM Only
	EMC-48	1	60A34 Sprocket, Side Shaft Drive, 1-1/4" Bore, 1000 RPM Only
27	E01802	1	Shaft, Front Drive - 33-1/2" Long
28	REF	1	Shaft, PTO Drive (see separate listing)
29	E01209	1	Guard, Shaft - 33-1/8" Long
30	E01803	3	1-1/4" HC20720 Bearing w/Flanges Complete
31	E01804	3	1-1/4" Flange, 3-Hole 72mm-3-90°Z-Greaseable
32	E01805	3	Flange, 3-Hole - 72mm-3
33	E01806	3	Bearing, HC20720-1-1/4" H.D. Greaseable
34	REF	3	1-1/4" H.D. Collar (not sold separately)
35	E00313	1	Front Chain Tension Spring Only
36	E01647-10	1	Eyebolt, Tensioner 6-1/4"
37	E20934	1	Shoulder Bolt, Tension Arm

# APRON AND BEATER DRIVE CLUTCH AND RELATED PARTS



RearHydDrive-300.tif

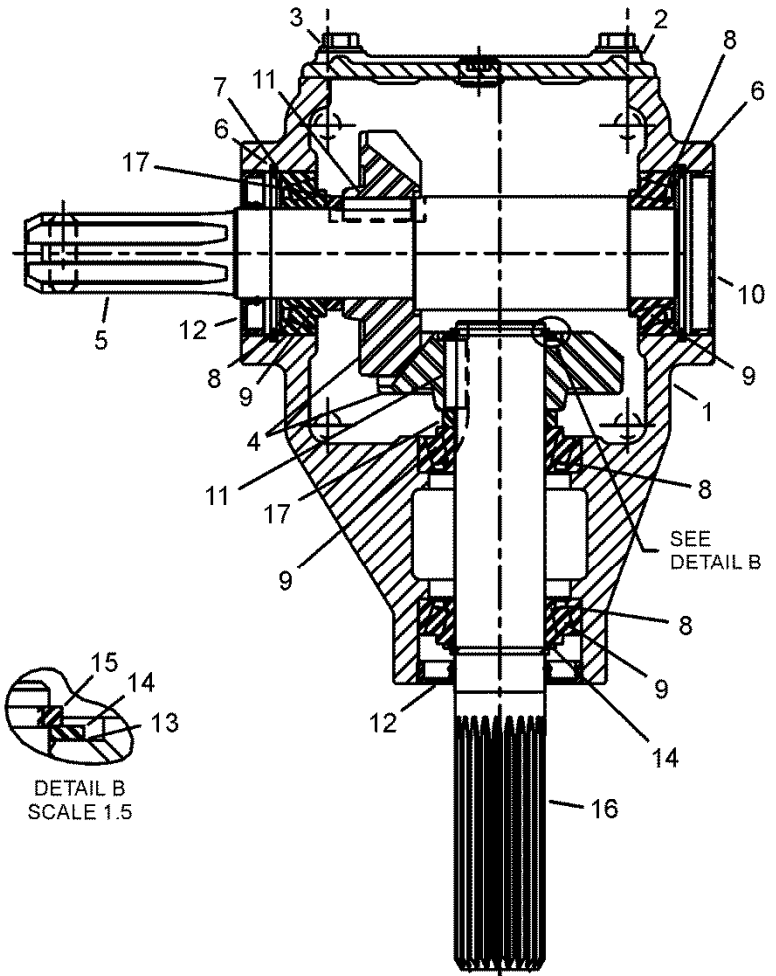
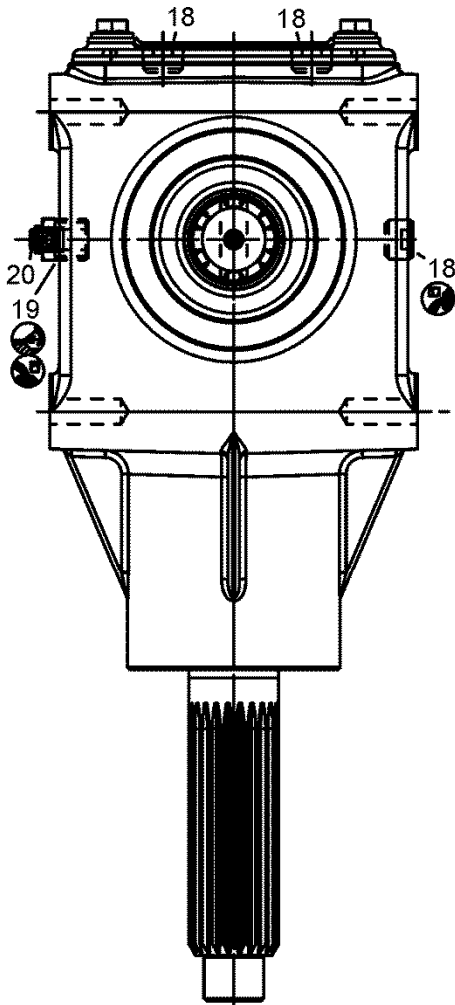


## APRON AND BEATER DRIVE CLUTCH AND RELATED PARTS

KEY	PART NO.	QTY	DESCRIPTION
1	E01247-04	1	Shield, Top
2	E01284-09S	1	Bracket, Main Gear Case
3	E01300	1	Gear Box, Beater Drive
4	E01272-04	1	Cover, Main Gear Case
5	REF	1	Gear Box, Apron Drive (see separate listing)
6	REF	1	Motor, Hydraulic (see separate listing)
7	E00313	1	Spring Clutch Pull
8	E01250	1	Slide Clutch Long Half
9	E01251	1	Slide Clutch Short Half
10	E01253	1	Yoke, Brass
11	E01286-04	1	Shield, Gear Case Side
12	E01287	1	Shield, Motor
13	E02004	1	Washer, Flat 1-1/2"
14	E01254	1	Spring Push
15	E01256	1	Clutch Half, Splined
16	E01257	1	Clutch Half, Keyed
17	E00016	1	Lock Assy Complete
18	E01273	1	Hinge
19	E01274	1	Door Stop
20	E01275	1	Shaft Collar, Split

# 5490-0672 GEAR BOX COMPLETE 540 RPM BEATER DRIVE GEARBOX

Used 11/13 and Later



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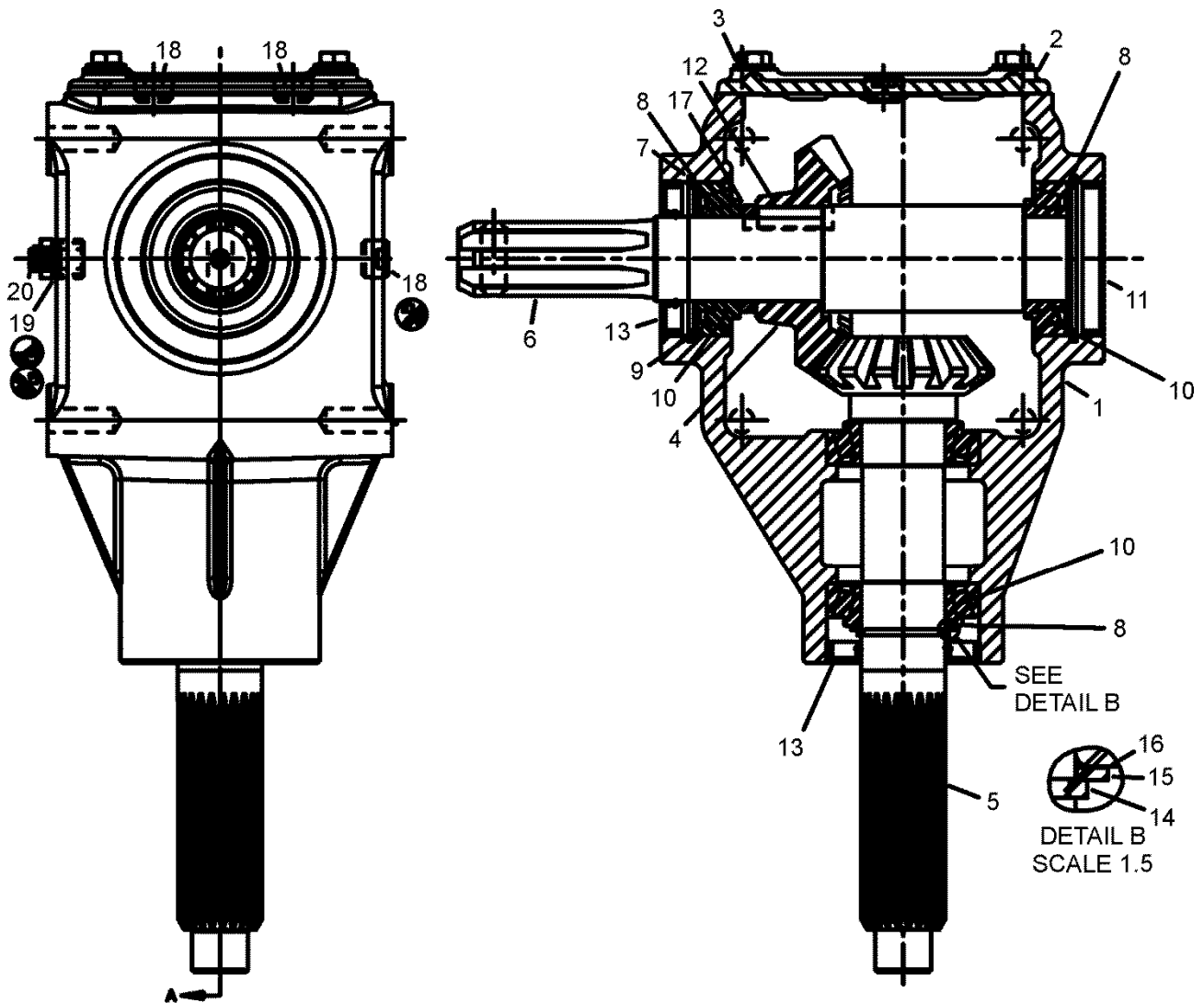
## 5490-0672 540 RPM BEATER DRIVE GEARBOX

Used 11/13 and Later

KEY	PART NO.	QTY.	DESCRIPTION
1	70-06130	1	Machined Housing
2	E01302	1	Machined End Cap
3	E21146-W	4	Bolt 5/16-18x3/4 11-20439
4	E21144-W	2	Gear DP 4 Teeth 17 71-06100 w/ 11-40608 Spacer
5	E01309-W	1	Cross Shaft Output Shimming Required 03/06 - 10/13
6	E01879	2	Snap Ring 24-15269
7	19-16593	AR	Spacer Kit
8	E01367	4	Bearing Cup (13620)
9	E01366	4	Bearing Cone (13687)
10	E01316	1	Stamping Cover 28-11029 (69 X 9.5)
11	11-61035	2	9.5 X 29 Square Key
12	28-11024	2	Seal (1.50 X 2.721 X 0.375)
13	19-16605	AR	Shim Kit - Not Required On E01300-W Box
14	11-40599	2	Spacer
15	24-15265	2	Retaining Ring
16	09-70139	1	Shaft Input
17	11-40608	2	Spacer
18	E21142	3	3/8 NPT Pipe Plug K38
19	11-81051	1	3/8 NPT to 1/8 NPT Bushing
20	E01320	1	1/8 NPT Relief Plug K112
	5490-0672	1	Gear Box Complete

**5490-0685 GEAR BOX COMPLETE  
1000 RPM BEATER DRIVE GEARBOX**

Used 11/13 and Later



300-350-Gearbox-5490-0685.cdr

## 5490-0685 1000 RPM BEATER DRIVE GEARBOX

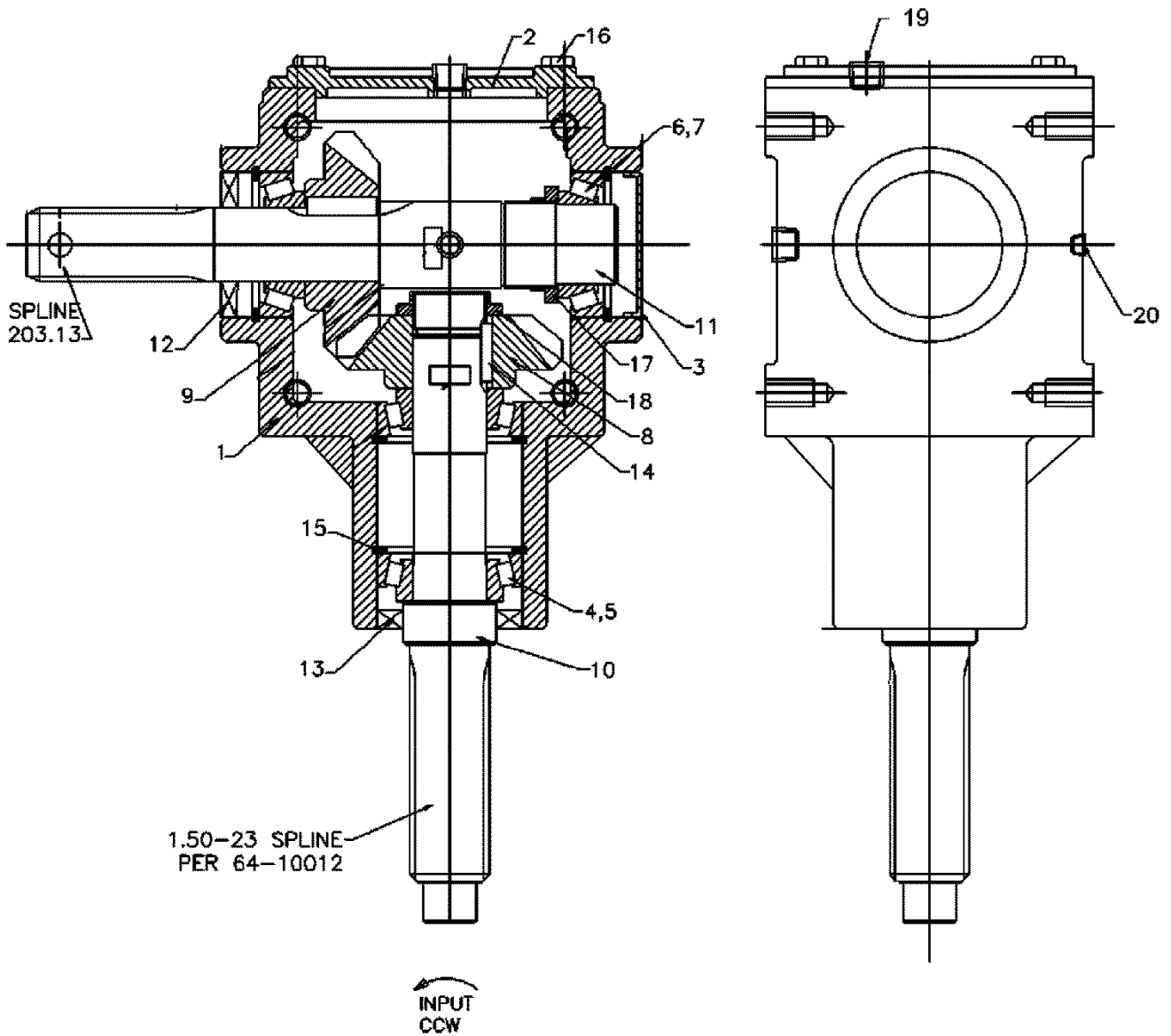
Used 11/13 and Later

KEY	PART NO.	QTY.	DESCRIPTION
1	E0307-13	1	Housing 70-00166
2	70-16084	1	Machined End Cap
3	11-20439	4	Screw, 5/16-18 X .88, Grade 5
4	71-06105	1	Gear, 21 Teeth/M=5.25
5	71-06106	1	Gear Shaft, 14 Teeth/M=5.25
6	E01309-W	1	Cross Shaft, Output w/ Gear Shimming Required 03/06 - 10/13
7	E01879	2	Retaining Ring, 24-15269
8	19-16593	AR	Spacer Kit Not Used On 4190-0532 Box
9	E01367	4	Bearing Cup (13620)
10	E01366	4	Bearing Cone (13687)
11	E01316	1	Stamping Cover, 26-11029 69 X 9.5
12	11-61035	1	9.5 X 29 Square Key
13	28-11024	2	Seal (1.50 X 2.721 X 0.375)
14	24-15265	1	Retaining Ring
15	11-40599	1	Spacer
16	19-16605	AR	Shim Kit
17	11-40608	1	Spacer
18	E21142	3	3/8" NPT Pipe Plug K38
19	11-81051	1	3/8 NPT To 1/8 NPT Bushing
20	E01320	1	1/8 - 27 NPT Relief Plug
	5490-0685	1	Gear Box Complete

# E01300W GEAR BOX COMPLETE 540 RPM BEATER DRIVE GEARBOX

Used 03/06 - 10/13

Last Serial No. 18T13



300-350-Gearbox-E01300W.cdr

**E01300W GEAR BOX COMPLETE  
540 RPM BEATER DRIVE GEARBOX**

Used 03/06 - 10/13

Last Serial No. 18T13

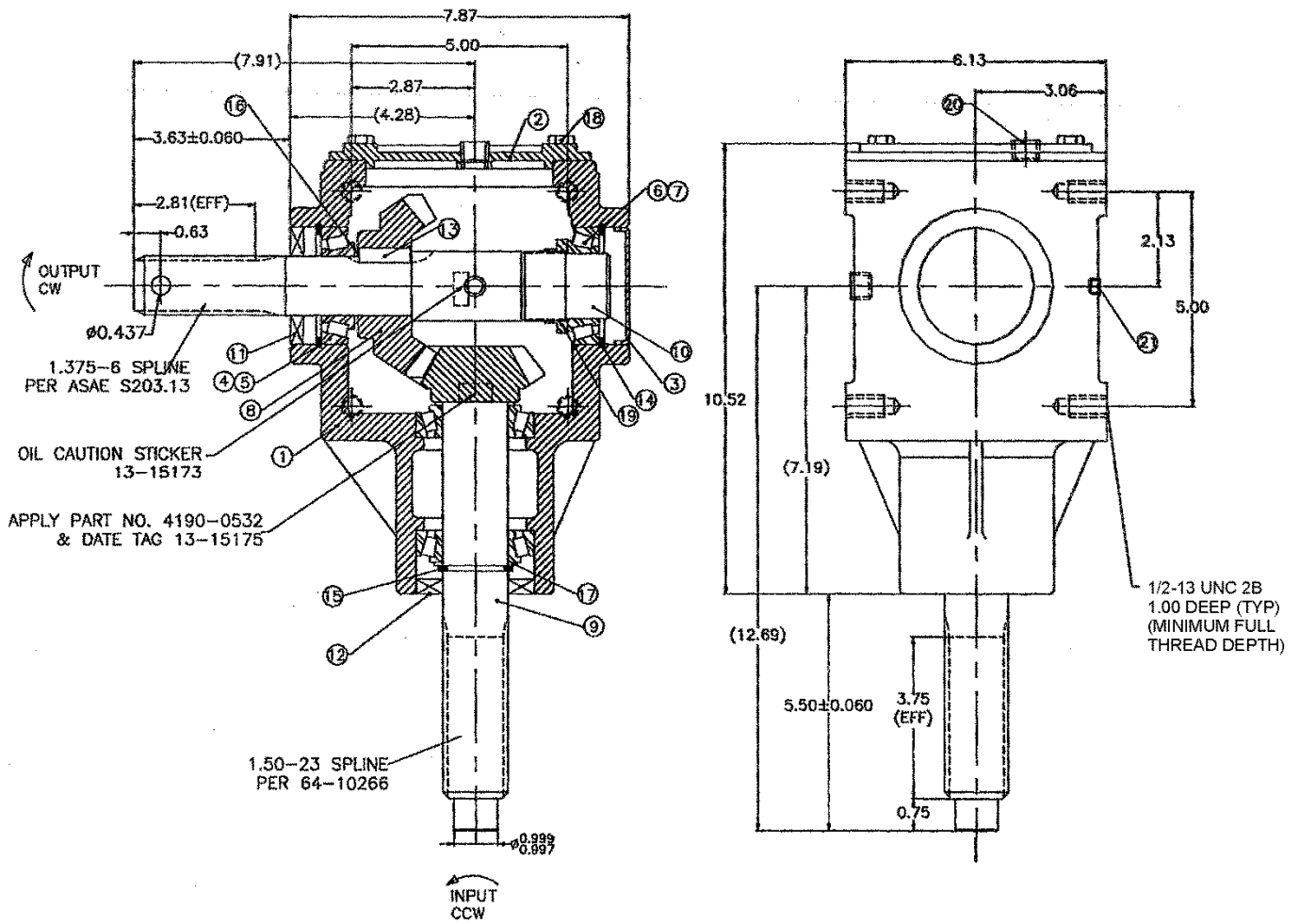
KEY	PART NO.	QTY.	DESCRIPTION
1	E01307-W	1	Housing 70-00167
2	E01302	1	End Cap A40 -15
3	E01316	1	Stamping Cover K155
4	E01914	3	Bearing Cone (14137A)
5	E01915	3	Bearing Cup (14276)
6	E01366	1	Bearing Cone (13687)
7	E01367	1	Bearing Cup (13620)
8	E21143-W	1	Gear DP 4 Teeth 17 71-00049
9	E21144-W	1	Gear DP 4 Teeth 17 71-00037
10	E01314-W	1	Shaft Input
11	E01309-W	1	Cross Shaft Output
12	E01369	1	Nat. #410984 (1.500X2.720X0.468)
13	E01917	1	Nat. #323119 (1.750X2.721X0.437)
14	E21145-W	2	Square Key (3/8X1.14)
15	E01879	4	Snap Ring 71-60009
16	E21146-W	4	Bolt 5/16-18x3/4
17	E01301	1	Locknut 1 5/8-18 D113
18	E21147-W	1	Locknut 1 3/8 - 18 UNC
19	E21142	2	3/8 NPT Pipe Plug K38
20	E01877	1	1/8 NPT Pipe Plug K34
21	E01320	1	1/8 NPT Relief Plug K112
	E01300-W	1	Gear Box Complete

# 4190-0532 GEAR BOX COMPLETE 1000 RPM BEATER DRIVE GEARBOX

Used 04/07 - 11/13

First Serial No. 5639007

Last Serial No. 2243513



390-BeaterDriveGearBox-1000RPM.cdr



**4190-0532 GEAR BOX COMPLETE  
1000 RPM BEATER DRIVE GEARBOX**

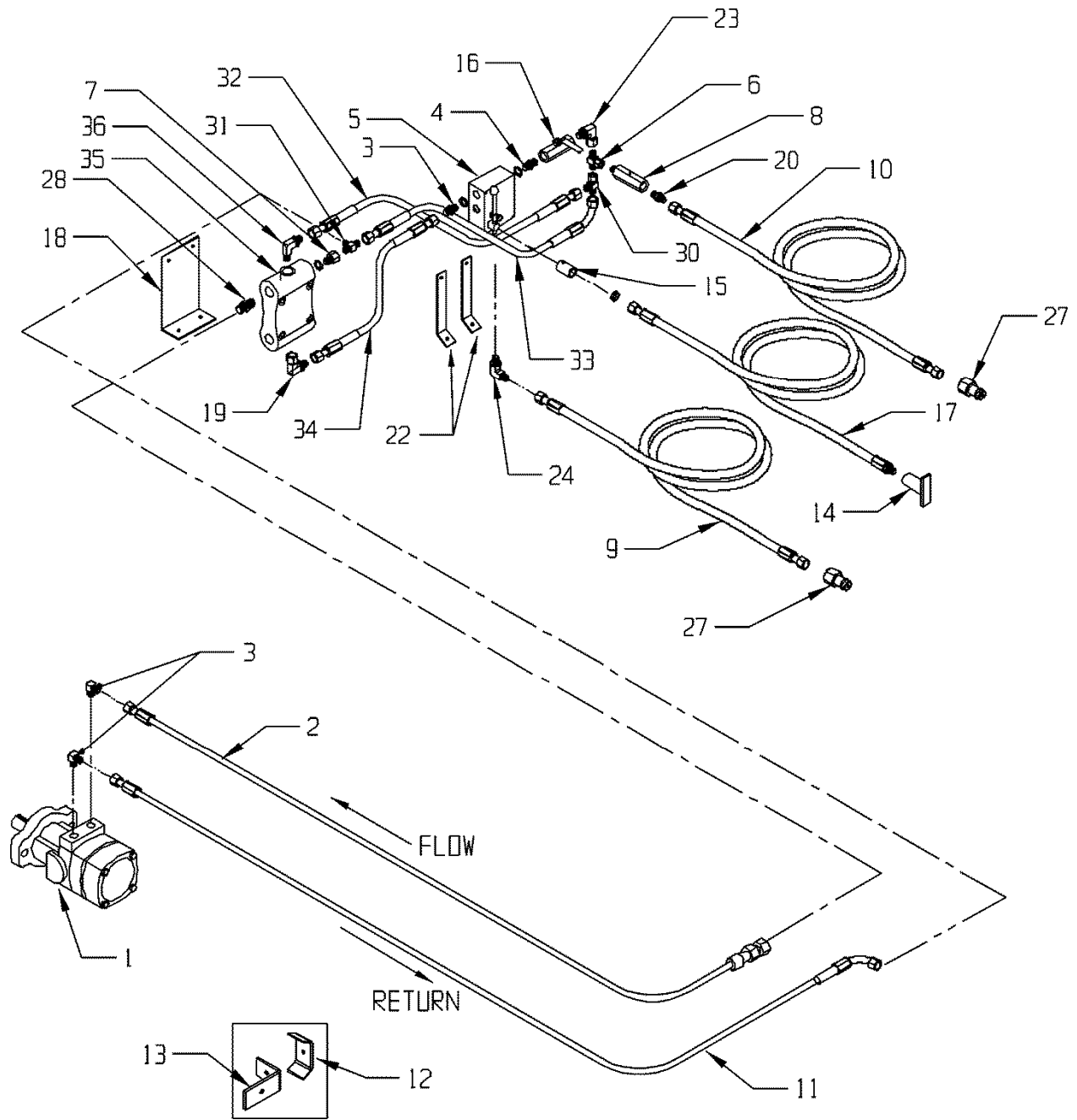
Used 04/07 - 11/13

First Serial No. 5639007

Last Serial No. 2243513

KEY	PART NO.	QTY.	DESCRIPTION
1	E01307-W	1	Housing 70-00167
2	E01302	1	End Cap A40 -15
3	E01316	1	Stamping Cover K155
4	E01914	1	Bearing Cone (14137A)
5	E01915	1	Bearing Cup (14276)
6	E01366	3	Bearing Cone (13687)
7	E01367	3	Bearing Cup (13620)
8	E21143-W	1	Gear DP 4 Teeth 17 71-00049
9	71-10603	1	Shaft w/Gear
10	E01309-W	1	Cross Shaft Output
11	71-40101	1	Seal 1.375 x 2.72 x 0.315
12	E01917	1	Nat. #323119 (1.750X2.721X0.437)
13	E21145-W	1	Square Key (3/8X1.14)
14	E01879	2	Snap Ring 71-60009
15	71-60009	1	Snap Ring
16	71-50131	1	Spacer
17	71-50132	2	Spacer
18	E21146-W	4	Bolt 5/16-18x3/4
19	E01301	1	Locknut 1 5/8-18 D113
20	E21142	2	3/8 NPT Pipe Plug K38
21	E01320	1	1/8 NPT Relief Plug K112
	4190-0532	1	Gear Box Complete
22	E01877	1	1/8 NPT Pipe Plug K34

# HYDRAULIC SYSTEM PARTS

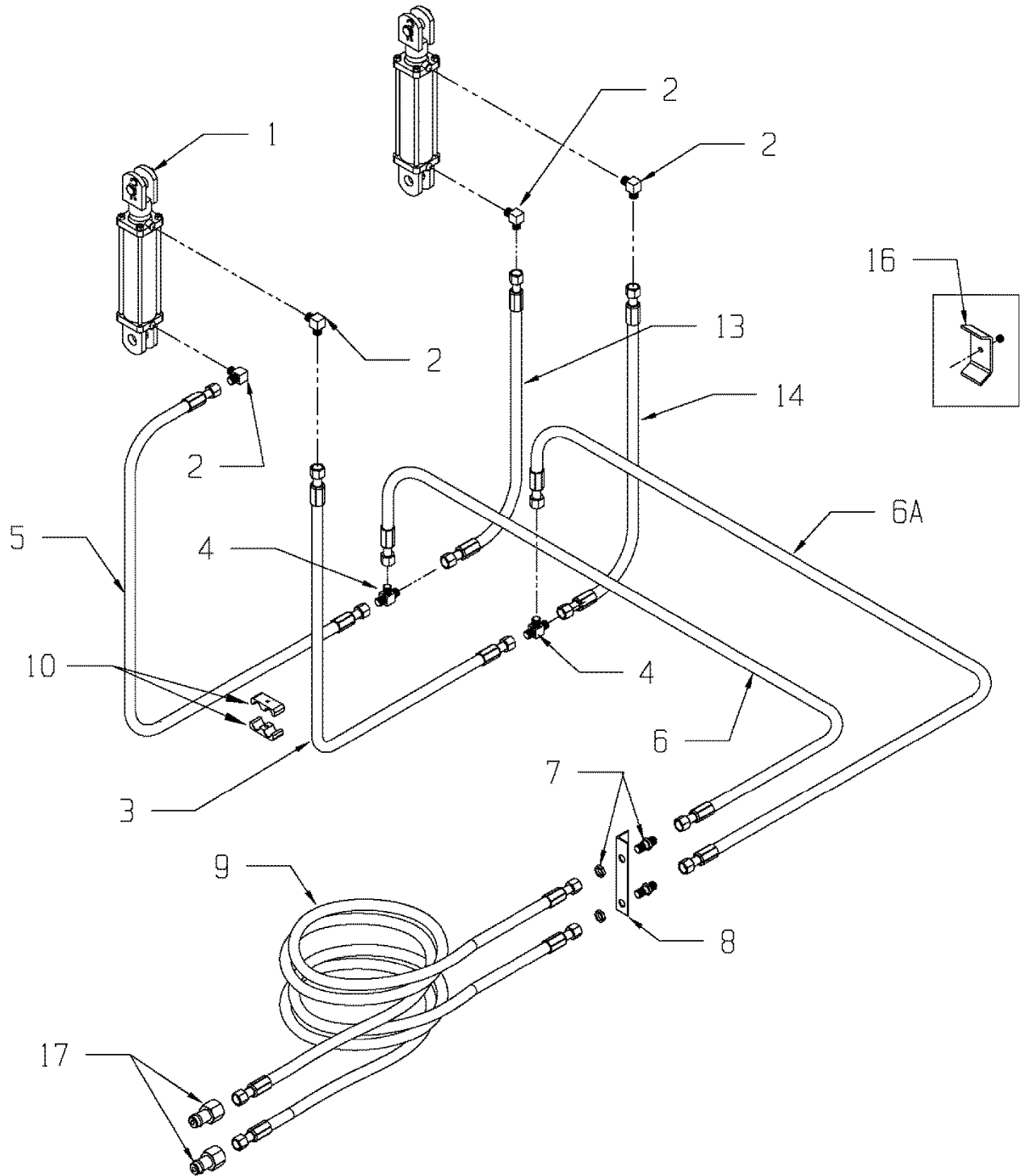


HydraulicParts-390.tif

## HYDRAULIC SYSTEM PARTS

KEY	PART NO.	QTY	DESCRIPTION
1	E01440	1	Motor Hydraulic RS-9902010 (see separate listing on page 40)
2	E00483-06	1	Hose, Flow Line
3	E00484-00	3	Adapter, JIC to O-Ring 6400-8-10
4	E00485-00	1	O-Ring Adapter 6403NWO-10-8
5	E00486-00	1	Valve, Motor Flow Control
6	E00487-00	1	Tee, 6803-8-8
7	E21458	1	O-Ring Adapter 6410-12-8
8	E00489-00	1	Check Valve, LTF-8-OW
9	REF	1	Hose, Hydraulic, 8M3K-8FJX-8MP-92"
10	REF	1	Hose, Hydraulic, 8M3K-8FJX-8MP-92"
11	E00492-06	1	Hose, Return Line
12	E02119	6	Clamp, Tube
13	E02118	6	Bracket, Clamp
14	E00495	1	Hose Handle
15	E00496	1	Hose Control Adapter
16	E00497-00	1	Ball Valve (72-903)
17	E01347-01	1	Control Hose 8G2-8G-8MP-8G-8MP-112"
18	E01321	1	Bracket, Controlled Flow Valve
19	E23579	1	O-Ring to JIC 90° Adapter 6801-8-12
20	E21447	1	O-Ring Adapter 6400-8-8
22	E01117	2	Bracket, Flow Control Valve
23	E00505	1	90° O-Ring Adapter to JIC 6809-8-8
24	E21442	1	O-Ring Adapter to JIC 90° 6801-8-10
27	E01591	2	Quick Couplers
28	E21450	1	Adapter 6400-8-12 O-Ring
30	E21451	1	Tee 6602-8
31	E21452	1	Tee 6804-8-8
32	E01322		Hose/Relief Dump Line 6M3K-6FJX-8FJX-23"
33	E01323		Hose/Flow Control Ex to Return 8M3K-8FJX-8FJX90S-22"
34	E01324		Hose/In 14gpm Control to CF on Flow Control 8M3K-8FJX-8FJX-15"
35	E21456	1	Valve Controlled Flow BGR-57.5-2000-12 SAE
36	E21457	1	Adapter 2501-6-6 3/8" Male Pipe to JIC 90°

# END GATE HYDRAULIC PIPING FOR OPTIONAL END GATE

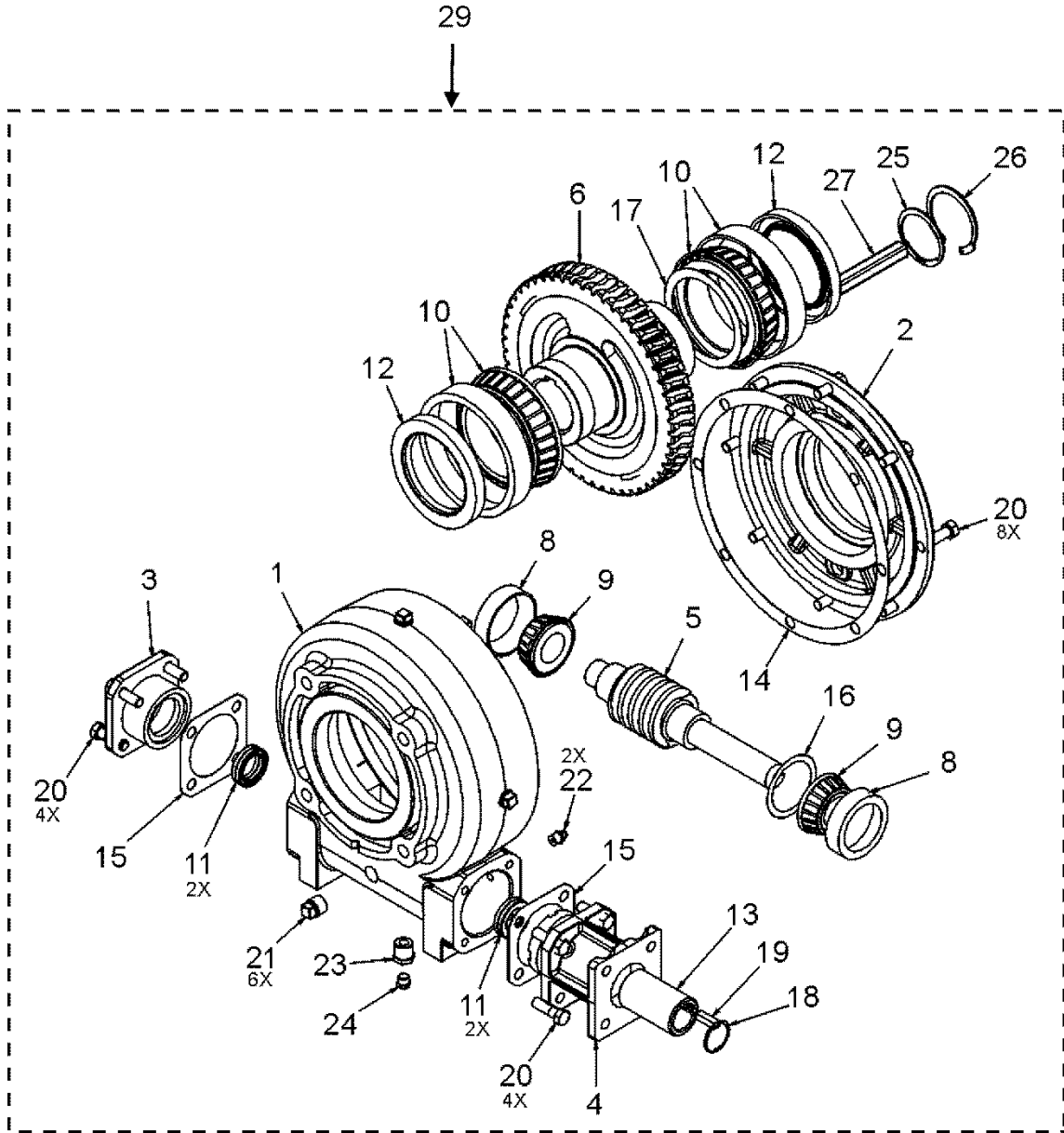


HydEndGatesParts-300-350-390.tif

## END GATE HYDRAULIC PIPING FOR OPTIONAL END GATE

KEY	PART NO.	QTY	DESCRIPTION
1	REF.	2	Cylinder, Hydraulic, see separate listing on page 48.
2	E00067-04	4	Male JIC to Male ORB 90° Adapter
3	E02100-04	1	Hose, Hydraulic - 6M3K-6G8FJX-6G8FJX-90"
4	E00069-00	2	Bulk Head Run Tee 2704-LN-8
5	E02105-04	1	Hose, Hydraulic - 6M3K-6G8FJX-6G8FJX-78"
6	E01577-04	1	Hose Hyd, 6M3K-6G8FJX-6G8FJX-196"
6A	E01582-04	1	Hose, Hydraulic - 6M3K-6G8FJX-6G8FJX-195"
7	E21445	2	Adapter JIC Bulkhead 2700-LN-8
8	E00074	1	Bracket
9	E01590	2	Hose, Hydraulic - 6M3K-6G8FJX-6G8MP-102"
10	E00079	2	3/8" Hose Bracket
13	E01583-04	2	Hose, Hydraulic - 6M3K-6G8FJX-6G8FJX-18"
14	E02117-04	2	Hose, Hydraulic - 6M3K-6G8FJX-6G8FJX-28"
16	E02119	7	Clamp, Hose
17	E01591	2	Quick Coupler 8010-4P

# APRON DRIVE GEAR BOX

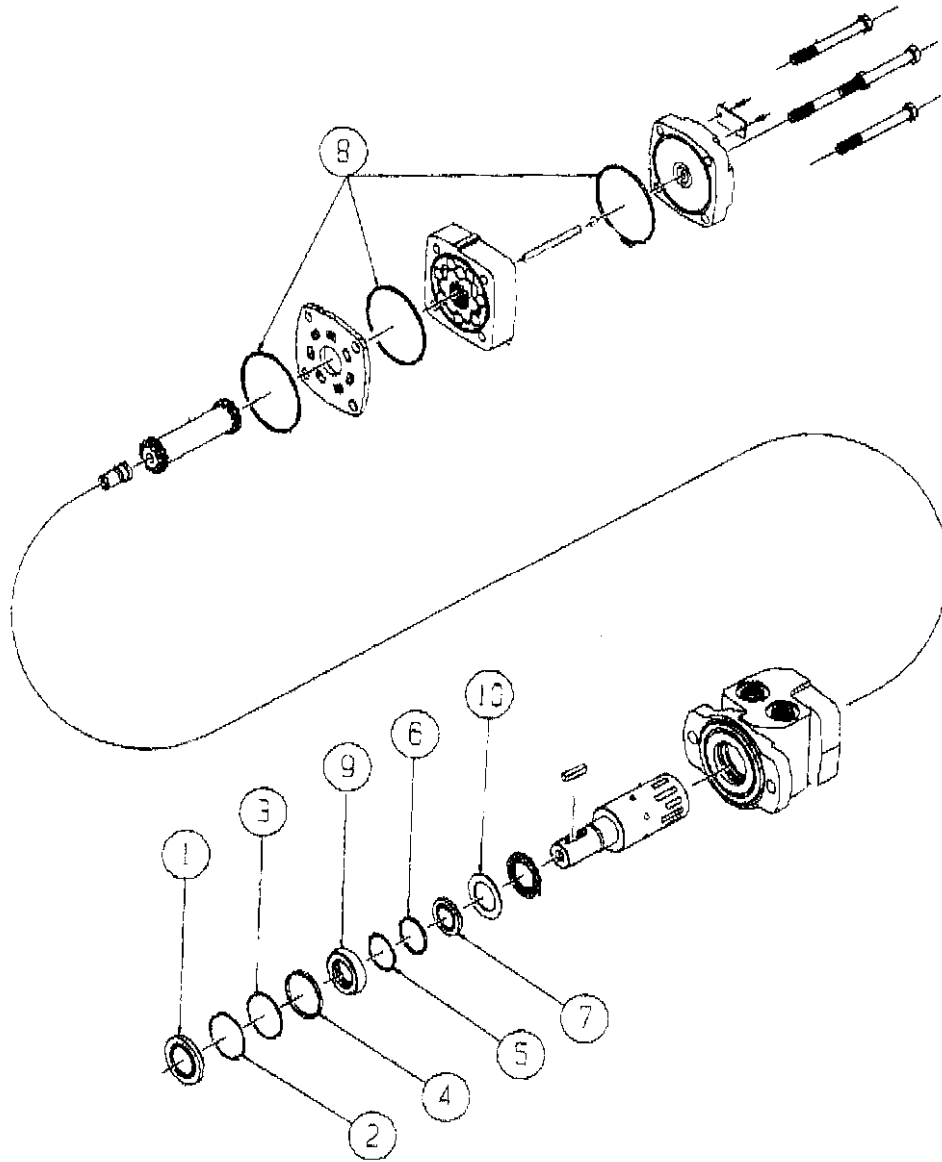


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## APRON DRIVE GEAR BOX

KEY	PART NO.	QTY.	DESCRIPTION
1	I260-020M-D0431	1	Housing
2	I260-010M-D0432	1	Cover, Endcap
3	I260-010M-D0164	1	Endcap
4	I260-062M-D0090	1	Hydraulic Adapter
5	I260-100B-J0100	1	Shaft, Input Worm
6	I260-2MPJ-D0427	1	Gear, Wheel
7	I260-4500-D0434	1	Cover Cap (Not Shown)
8	X000-4300-D0226	2	Bearing, Input Cup
9	X000-4300-D0227	2	Bearing, Input Cone
10	X000-4300-D0228	2	Bearing, Output Cup/Cone
11	I260-4500-D0170	4	Seal, Input
12	I260-4500-D0229	2	Seal, Output
13	I260-3800-D0435	1	Coupler
14	I260-4500-D0436	1	Gasket, Cover
15	I260-4500-D0437	2	Gasket, Input
16	I260-4200-D0176	AR	Shim, Input
17	I260-4200-D0230	AR	Shim, Output
18	I260-4200-D0214	1	Retaining Ring
19	I260-4200-D0212	1	Key
20	X000-41AB-C0050	16	Bolt 3/8-16 x 1.00
21	X000-41DA-C0372	6	Plug, 3/8-18 NPT
22	X000-4100-E0542	2	Zerk, Grease, 1/8-27 NPT
23	X000-41FG-C0329	1	Bushing 3/8-18 / 1/8-27
24	2003PR	1	Plug, 5 PSI
25	I260-4200-D0231	1	Retaining Ring Ext
26	I260-4200-D0232	1	Retaining Ring Int
27	X000-4200-G0046	1	Key
28	X000-48D0-A0167	AR	Lube, EP 85W140 (Not Shown)
29	I260-9MPA-HO382	1	Complete Gearbox

# APRON DRIVE HYDRAULIC MOTOR



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## APRON DRIVE HYDRAULIC MOTOR

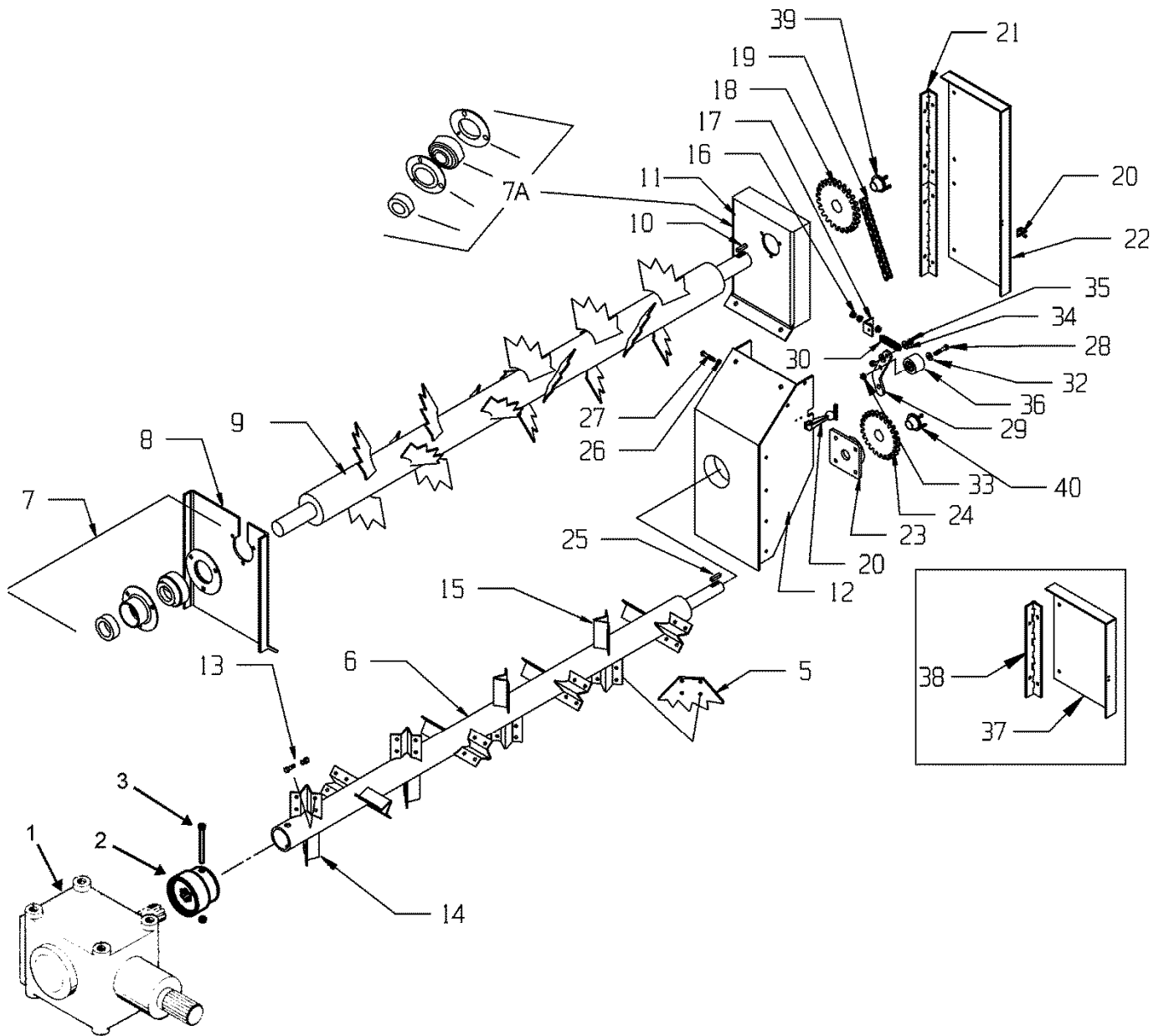
KEY	PART NO.	QTY	DESCRIPTION
1		1	Dust Seal
2		1	Split Wire Ring
3		1	Metal Backup Shim
4		1	High Pressure Seal
5		1	Metal Backup Shim
6		1	Teflon Backup Shim
7		1	Shaft Seal
8		3	Body Seals
9		1	Seal Carrier
10		1	Thrust Washer
			Items 1-10 Included in Seal Kit: 200222001
			Items 1-8 Included in Seal Kit: 200222002
			Items 9-10 Included in Seal Kit: 200222003
	E01440	1	Hyd. Motor RS-9902010



## APRON AND RELATED PARTS

KEY	PART NO.	QTY	DESCRIPTION
	E02026	1	Apron, Standard Complete - #67P11 - 21-57" Slats/250 Links
	E01493	1	Apron, Complete - #67 Pitch - 22 - 57" Slats/262 Links (Optional)
1	E02027	250	Link, 67P11
	E02000	262	Link, T-Bar Positive Lock #67 (Optional)
2	E02028	21	Slat w/Links, 57" Overall #67P11
	E02003	22	Slat, w/links - 57" Overall (Optional) #67
3	E02029	1	Spacer, 2-15/16" Long (For Standard Apron)
	E02025	1	Spacer, 2-3/4" Long (For Optional Apron)
4	E02030	1	Spacer, 2-9/16" Long (For Standard Apron)
	E02023-390	1	Spacer 2-3/8" Long (For Optional Apron)
5	E02005-390	2	Bearing, Bronze
6	E02017	2	Holder, Bearing
7	E00242-00	2	Sprocket, Apron - #67-7Tooth
8	E01501-390	1	Shaft, Apron - 2" Stress Proof - 72-3/4"
10	E00238	2	Key, Square 1/2x2-1/4"
15	E22442	1	Step Key, Drive, 3/8x1/2x4-3/8"
17	REF	1	Gear Box, Apron Drive (see separate listing)
18	E02015-390	1	Shield, Apron Drive Shaft
21	E02024	1	Tightener Weldment, RH
22	E02034	2	Roller, Nylon
23	E02035	2	Pin, Cotter
24	E20728	2	Washer, Machinery
25	E02020	4	Nut, 3/4" NC
26		2	Bolt, 3/8-16x1
27		2	Washer, 3/8 Flat
28		2	Nut, 3/8-16
29	E02038	1	Tightener, Complete, RH
30	E02039	1	Tightener, Complete, LH
31	E02037	1	Tightener Weldment, LH

# BEATERS AND RELATED PARTS

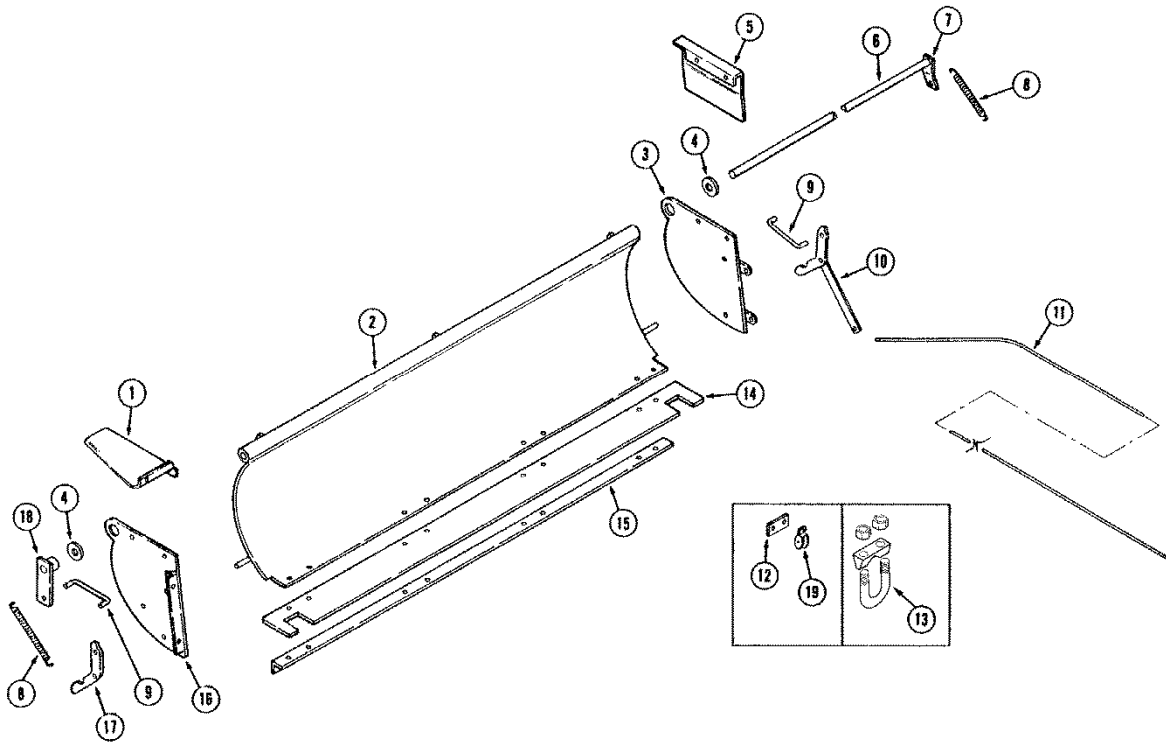


390-BeaterParts.cdr

## BEATERS AND RELATED PARTS

KEY	PART NO.	QTY.	DESCRIPTION
1	REF	1	Gear Box, Beater Drive (see separate listing)
2	E01469-10	1	Coupler, Coarse Splined
3	E01470	1	7/16x5" - GR8 Bolt - w/locking nut
4			
5	E01979	16	Paddle, Beater - SP14
6	E01473-11	1	Beater Only (less paddles) 9" Paddle Mount
7	E01987	1	Bearing Assy, GRA106RRB w/Flanges And Guard
7A	E01987-L	1	Bearing Assy, GRA106RRB w/Flanges
8	E02124	1	Bracket, Upper Beater, RH
9	E02125	1	Upper Beater w/Weld On Paddles
10	E01978	1	Key, 3/8x3/8x1-3/8 Long
11	E02126	1	Bracket Weldment, Upper Beater, LH
12	E01478-390	1	Bracket, Beater - Left
13	E01986	64	Bolts for Paddles 1/2x1-1/2" - GR5
14	E01985-11	8	RH Beater Ears, Weld On 9"
15	E01984-11	8	LH Beater Ears, Weld On 9"
16		3	Nut, 3/8-16 Flange
17	E02127	1	Angle, Tensioner Anchor
18	E01972-10	1	Sprocket, QD-60SDS22H
19	E02128	1	Roller Chain, 84 Pitches, #60H
20	E00016	1	Lock Assembly, Complete
21	E02129	2	Hinge
22	E02130	1	Door, Upper Beater Drive
23	E00261	1	Bearing
24	E02132-10	1	Sprocket, QD-60SDS20H
25	E01978	1	Key, 3/8x3/8x1-3/8 Long
26		1	Washer, 3/8 Flat
27	E02133	1	HHCS 3/8-16
28	E20944	1	Shoulder Bolt, Tension Arm
29	E02134	1	Tensioner Arm
30	E00313	1	Spring
31	E02135	1	Bushing
32		1	Washer, Flat
33		1	Lock Nut
34		1	Washer, Flat
35		1	Nut
36	E00311-00	1	Rubber Rear Tension Roller
37	E02136	1	Door, Lower, Used w/No Top Beater
38	E02137	1	Hinge, Used w/No Top Beater
39	E02138	1	Bushing, QD-SDS-1-3/8 S
40	E02139	1	Bushing, QD-SDS-1-1/2
41	E01973	1	Bearing Assy FH207-226 1-3/8" w/2-72 mm - 3 Flange

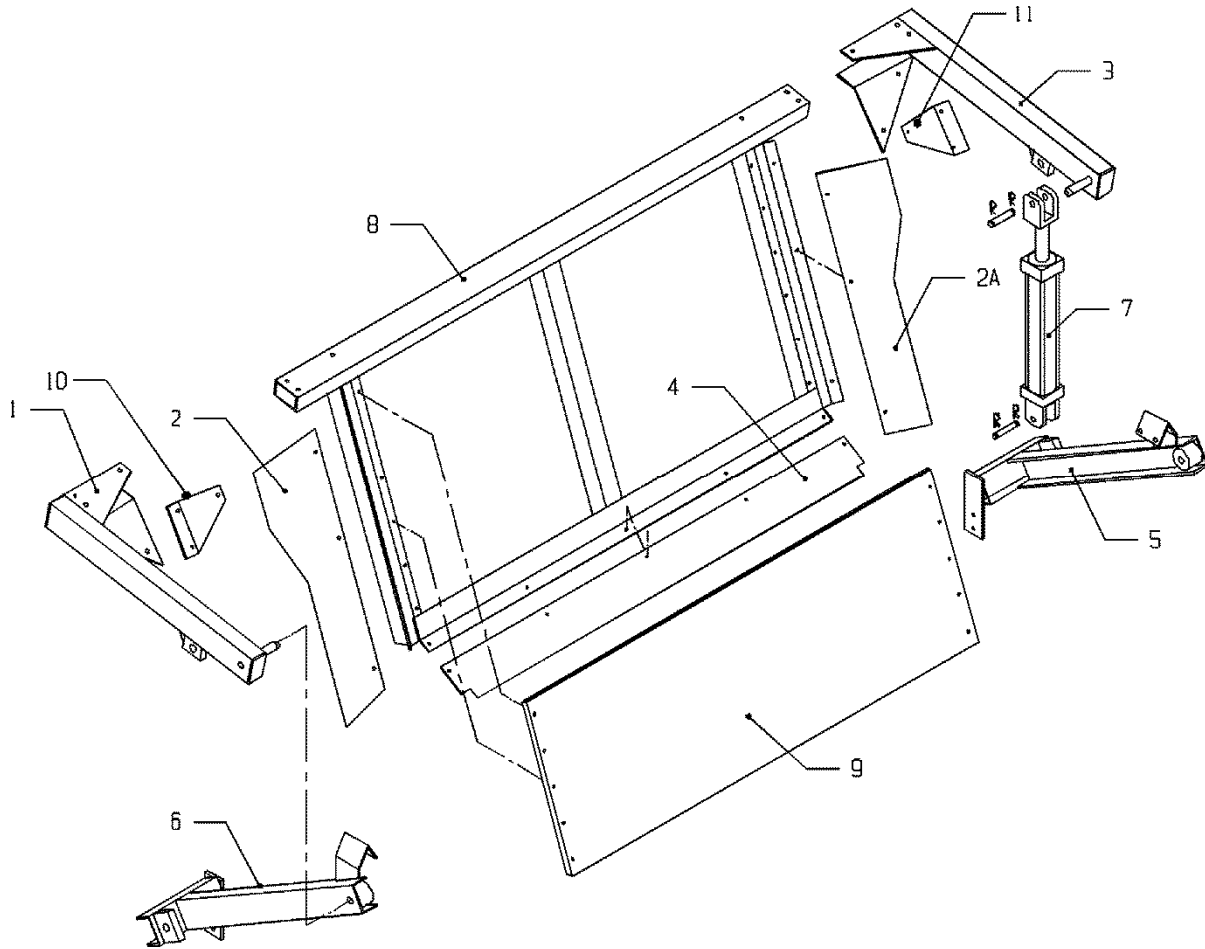
## OPTIONAL FINE SPREAD PAN AND RELATED PARTS



SpreadPanParts-125.tif

KEY	PART NO.	QTY	DESCRIPTION
1	E01519	1	Shield, Right Side
2	E01520	1	Pan, Fine Spread Only
3	E01521	1	Mounting Plate, Left Side
4	E02039	2	Washer, Flat - 5/8"
5	E01523	1	Shield, Left Side
6	E02043	1	Rod, Spread Pan
7	E02044	1	Lever, Left Catch
8	E01807	2	Spring
9	E02046	2	Rod, Catch
10	E01528	1	Catch, Left - for Pan
11	E01530	1	Cable, Spread Pan
12	E02051	1	Bracket, Cable Pulley
13	E02052	2	Clamp, Cable
14	E02055	1	Belt, Spread Pan 60" Long x 6" Wide
15	E02058	1	Hold-Down, Belt
16	E01537	1	Mounting Plate, Right Side
17	E01538	1	Catch, Right - for Pan
18	E01539	1	Lever, Right Catch
19	E02062	1	Pulley, Pan
20	E02063	3	Spring, Pan Belt (not pictured)

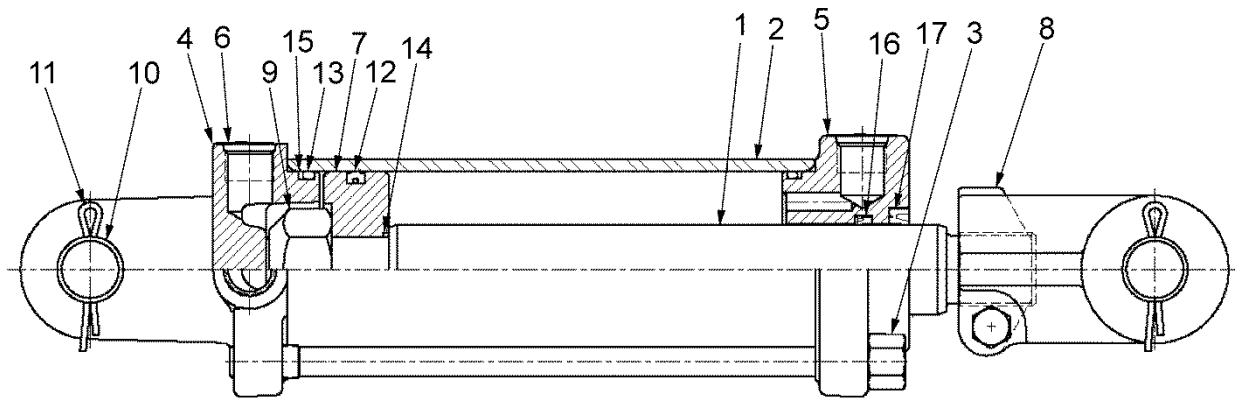
## HYDRAULIC END GATE & RELATED PARTS



EndGateParts-390.tif

KEY	PART NO.	QTY	DESCRIPTION
1	E01551-390	1	Arm, Right Tube, 40"
2	E01552-390	1	Belt, Right Side
2A	E01553-390	1	Belt, Left Side
3	E01554-390	1	Arm, Left Tube, 40"
4	E02080	1	Belt, Bottom End Gate 60-1/2" Long x 10" Wide
5	E01556	1	Bracket, Left Hand Mounting
6	E01557	1	Bracket, Right Hand Mounting
7	REF	2	Cylinder, Hydraulic, see separate listing on page 48.
8	E01558	1	Gate Hydraulic Only w/Poly Boards 53" wide
9	E02088-10-390	1	End Gate Insert
10	E02089	1	Right Belt Support Bracket
11	E02090	1	Left Belt Support Bracket

## END GATE HYDRAULIC CYLINDER

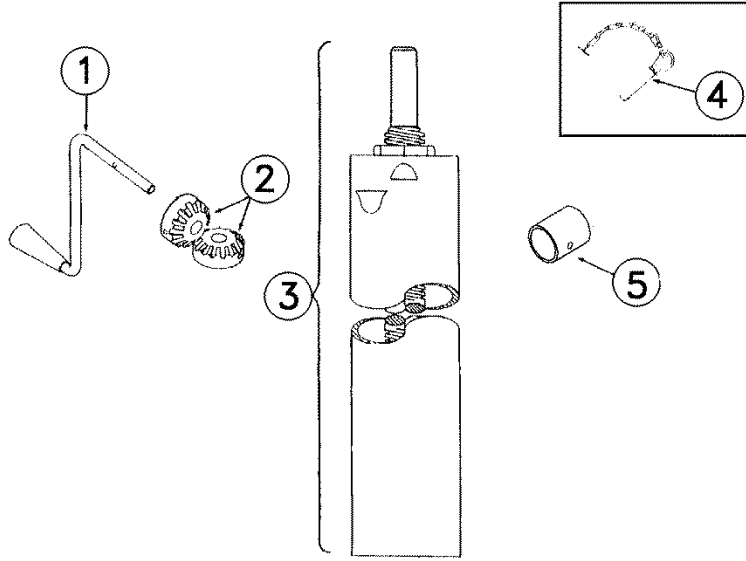


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KEY	PART NO.	QTY	DESCRIPTION
	E00090-09	2	Cylinder, Hydraulic w/O-Ring Ports 3" x 12" & 1 3/8" Piston Rod
1	E00100-09	1	1 3/8" Piston Rod 010715750C
2	E00097-09	1	Tube, Cylinder 051512063A
3	E00096-09	4	Nut, Tie Rod Assy 170201142
4	E00098-09	1	Butt 1415005SF
5	E00101-09	1	Gland 0815BBGSF
6	E00108-09	3	Plug, Port O-Ring 200300040
7	E00099-09	1	Piston 071500244
8	E00094-09	1	Clevis Assy 100000423
9	E00095-09	1	Nut, Piston 1.00-14 220000210
10	E00092-09	2	Clevis Pin 190400001
11	E00091-09	4	Clevis Pin Retainer 220001504
12	E00103-09	1	Crown Seal 240060334
13	E00104-09	2	O-Ring 240000232
14	E00105-09	1	O-Ring 240000022
15	E00106-09	2	BU Washer 240061232
16	E00107-09	1	U-Cup 240037106
17	E00110-09	1	Wiper, Seal For 1 3/8" Rod 250014137
	E00109-09	1	Packing Kit PMCK-F300000 (Inc. Item 12-14)



# JACK



KEY	PART NO.	QTY	DESCRIPTION
	E01956	1	Jack Assembly - 3SM-15-0
1	E01957	1	Kit, Handle Repair (consists of a clevis, bolt, crank and handle grip assembly)
2	E01958	1 pr.	Gears, Bevel
3	E01959	1	Kit, Inner Ram (includes inner ram, screw, nut & bearing)
4	E01960	1	Pin, Hitch
5	E01961	1	Mount, Weld On

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## LIMITED WARRANTY STATEMENT

Meyer's Equipment Mfg. Corp. warrants each new Meyer's E.M.C. product to be free from: defects in material and workmanship. This warranty is applicable only for the normal service life expectancy of the product or components, not to exceed 12 consecutive months from the date of delivery of the new Meyer's E.M.C. product to the original purchaser.

Genuine Meyer's E.M.C. replacement parts and components will be warranted for 365 days from date of purchase, or the remainder of the original equipment warranty period, whichever is longer.

Under no circumstances will it cover any merchandise or components thereof, which, in the opinion of the company, has been subjected to misuse, unauthorized modifications, alteration, and accident or if repairs have been made with parts other than those obtainable through Meyer's E.M.C.

Our obligation under this warranty shall be limited to repairing or replacing, free of charge to the original purchaser, any part that, in our judgment, shall show evidence of such defect, provided further that such part shall be returned within thirty (30) days from date of failure to Meyer's E.M.C., routed through the dealer and distributor from whom the purchase was made, transportation charges prepaid. Labor charges will be paid at a specified rate. Mileage will not be paid.

This warranty shall not be interpreted to render Meyer's E.M.C. liable for injury or damages of any kind or nature to person or property. This warranty does not extend to the loss of crops, loss because of delay in harvesting, or any expense or loss incurred for labor, substitute machinery, rental or for any other reason.

In addition to the above limited warranty statement the following applies:

Meyer's E.M.C. will replace (F.O.B. Dorchester) as Meyer's E.M.C. elects, for 10 years from purchase date - any polyethylene plastic boards which compromises the floor, sides, rear or front of the box portion of the manure spreader box (not labor) from rotting under normal usage to the original owner.

Except as set forth above, **Meyer's E.M.C. shall have no obligation or liability of any kind on account of any of its equipment and shall not be liable for special or consequential damages. Meyer's E.M.C. disclaims any implied warranty or merchantability or fitness for a particular purpose. Some states or provinces do not permit limitations or exclusions of implied warranties or incidental or consequential damages, so the limitations or exclusion in this warranty may not apply.**