



**362-12
MANURE SPREADER
TRAILER UNIT**

**MODEL NUMBER
362-12 SPREADER**

**OPERATOR'S MANUAL
MAINTENANCE AND REPAIR PARTS**

**ROTO-MIX LLC
2205 E. Wyatt Earp
PO Box 1724
Dodge City, Kansas 67801
(620) 225-1142**

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INTRODUCTION

Congratulations on the purchase of your new spreader from Roto-Mix. With proper operation and preventative maintenance it will last for years.



This **SAFETY ALERT SYMBOL** indicates important safety messages in the manual. 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/photographic purposes only in this manual. However, equipment should never be operated in this condition. Keep all shields in place. If shield removal becomes necessary for repairs, replace the shield prior to use.

The Guarantee appears in the front of this book along with the Registration and Inspection Certificate.

For information on ordering repair parts, refer to the Repair Parts section at the back of this book.

The serial number plate is on the Drivers side lower front of the main frame. This number should be recorded on the Registration and Inspection Certificate for your reference and for proper identification of your spreader by Roto-Mix.

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 and understand the machine or the system could lead to serious injury. If you do not understand the instructions in this manual contact either your dealer or Roto-Mix at Dodge City, Kansas 67801.

This supersedes all previous published instructions.



Limited Warranty Statement

ROTO-MIX LLC warrants to the original purchaser all products manufactured by it to be free from defects in material and workmanship under normal use and service.

ROTO-MIX's obligation under this warranty is limited to repairing or replacing, as the company may elect, free of charge and without charge for installation, at the place of business of a dealer or distributor authorized to handle the equipment covered by this warranty or at a ROTO-MIX facility, any parts that prove, in the company's judgment, to be defective in material or workmanship within one (1) year after delivery to the original purchaser, and still owned by the original purchaser. This warranty shall in no way make ROTO-MIX liable to anyone for personal injuries or damages, loss of time, or expense of any kind either direct or indirect resulting from part failure or defect. This warranty is subject to acts of God, fire and existing conditions of supply and demand, or production, or ability or inability to deliver, or for any other valid reason beyond the reasonable control of ROTO-MIX, to obtain materials, manufactured replacement parts, or make delivery thereof. No distributor, dealer, agent, or ROTO-MIX employee (other than the CEO or President in writing) is authorized to extend any other or further express or implied warranty or incur any additional obligation on ROTO-MIX's behalf in connection with the sale of this product.

If ROTO-MIX, or its duly authorized representative, shall find that such returned part or parts are defective and such defects, or defect, are included in and covered by said warranty, then such defective part or parts shall promptly be replaced without charge to the purchaser, F.O.B. the ROTO-MIX plant.

Product Registration - It is a condition of this warranty that the original purchaser must fill out the warranty card furnished by ROTO-MIX and that it be returned to ROTO-MIX within 10 days of purchase and be recorded in ROTO-MIX's owner file for this warranty to be valid. In the event an owner's card is not on file at the ROTO-MIX office, the warranty period will extend only from date equipment was picked up or shipped from the ROTO-MIX plant.

Maintenance - It is the customer's responsibility to maintain their equipment in accordance with the instructions provided in the Operator's Manual. ROTO-MIX recommends that you keep records and receipts; you may be asked to prove that maintenance instructions have been followed.

Operation - It is the customer's responsibility to operate the equipment only for the purpose for which it was designed and in accordance with all safety and operational recommendations contained in the Operators Manual. If a defect in materials or workmanship occurs, it is the customer's responsibility to cease operating the equipment until authorized repairs are made. **Damage, which occurs from continued operation, may not be covered by this warranty.**

What this Warranty Covers

This warranty covers failures caused by defects in materials or workmanship only.

This Warranty does not cover failures caused by:

- Improper operation
- Natural calamities
- Unauthorized modifications
- Unauthorized repairs
- Use of Non ROTO-MIX parts
- Neglected maintenance
- The use of PTO Shaft Adaptors
- Usage contrary to the intended purpose of the product

This Warranty does not cover replacement of Wear or Maintenance Items including, but not limited to.

- Lubricants
- Filters
- Hoses
- Tires
- Augers
- Wipers
- Chains
- Idlers
- Batteries
- Blades
- Belts

This Warranty does not cover:

- Pickup and delivery of the equipment
- Service Calls or Travel Time to and from sites
- Rental of replacement equipment during repair period
- Products that have been declared a total loss and subsequently salvaged
- Overtime labor charges
- ROTO-MIX is not responsible and will not be liable for damage caused to persons or property, commercial loss, loss of time or production, loss of use by reason of the installation or use of ROTO-MIX products or their mechanical failure.

Right to Make Changes

ROTO-MIX reserves the right to make any changes to a ROTO-MIX product at any time without incurring any obligation with respect to any product previously ordered, sold or shipped, with or without notice.

Parts Warranty

ROTO-MIX warranties replacement parts against defects in materials or workmanship for a period of 90 days or the remainder of the product warranty, whichever is longer. Remedy for defective replacement parts for units that are beyond the original product warranty, will be limited to replacement of the failed part. Failures that are due to damage, improper installation, lack of maintenance or improper operation will not be covered.

ROTO-MIX 2205 East Wyatt Earp Blvd., Dodge City, KS 67801 (620) 225-1142 Fax: (620) 225-6370

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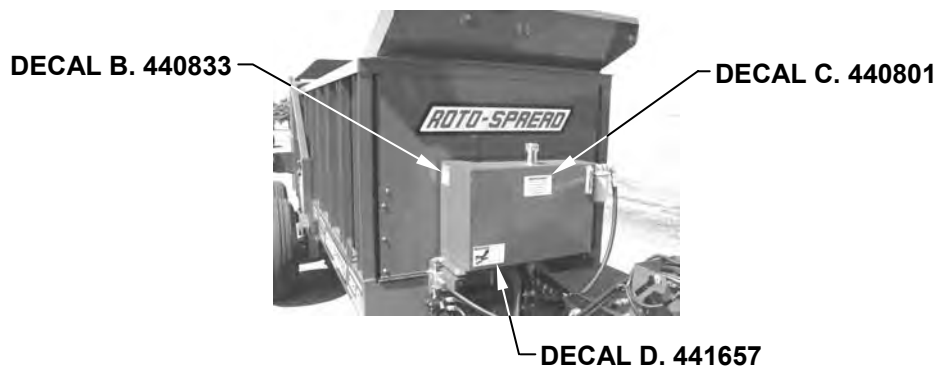
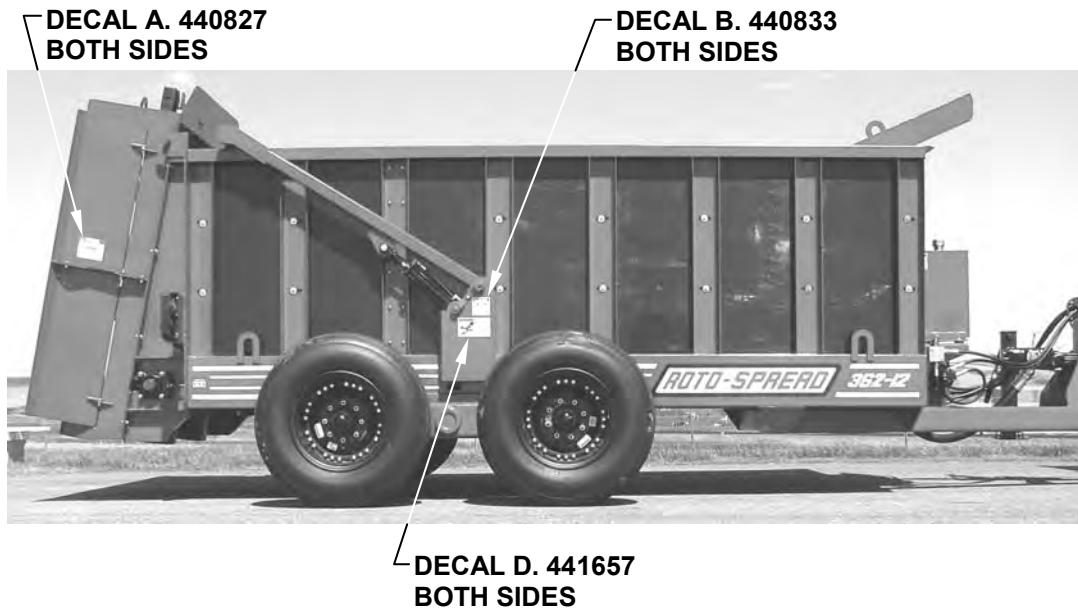
SAFETY - SPREADER

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 death or serious injury.

⚠ 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 These Decals On Page 6

⚠ CAUTION READ ALL SIGNS ON THE MACHINE AND IN THIS MANUAL. REPLACE ANY LOST OR DAMAGED SIGN BY ORDERING THE PART NUMBERS SHWN ON THE SAFETY DECAL PAGE.

SAFETY DECALS



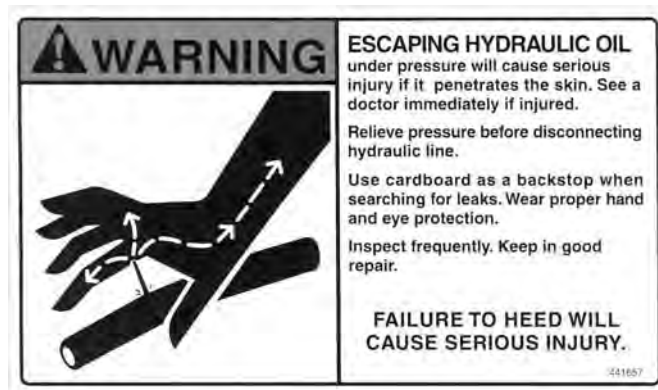
DECAL A. 440827



DECAL C. 440801



DECAL B. 440833



DECAL D. 441657

NOTE: Complete decal kit par number 630004.

SPREADER SAFETY

⚠ CAUTION

Do not operate your spreader until you have read this Owner's Manual, the Tractor Owner's Manual, and understand the danger associated with its operation.

This spreader is comprised of rotating drive shafts and rotating beaters. Any exposure to these spreader components can result in serious personal injury or death.

Study the safety decal page and understand where the danger points are.

⚠ CAUTION

THERE ARE INHERENT HAZARDS ASSOCIATED WITH THE OPERATION OF YOUR SPREADER.

FOR YOUR SAFETY:

- Do Not Operate, Service, Inspect Or Otherwise Handle This Equipment Unless You Have Read The Owner's Manual And Have Been Properly Trained In Its Intended Usage.
- Do Not Attempt To Operate This Equipment Under The Influence Of Drugs Or Alcohol.
- Do Not Allow Personnel Other Than The Qualified Operator Near The Machine.
- Require All Personnel Who Will Operate This Machinery Or Perform Service, To Read And Understand The Safe Operating Practices And Safety Precautions In This Manual.
- Before Starting Tractor Engine, Be Sure PTO Shields Turn Freely.
- Do Not Operate Until All Shields, Covers And Guards Are In Place.
- Do Not Allow Children Or Inexperienced Persons To Operate This Machine.
- Keep Hands, Feet And Clothing Away From Power Take-Off Shaft.
- Loose Or Floppy Clothing Should Not Be Worn By The Operator. Wear Close Fitting Clothing.
- Stop The Engine And Be Sure PTO Drive line Is Stopped Before Making Adjustments, Connections, Or Cleaning Out PTO Driven Equipment.
- Do Not Climb On Or Enter Machine While In Operation.
- Do Not Allow Riders On The Spreader.
- Rotating Parts Can Crush Or Dismember Causing Personal Injury Or Death.
- Rotating Parts Can Entangle Or Strike People, Resulting In Personal Injury Or Death.
- Operate The Spreader From The Operator's Seat Only.
- Clear The Area Before Equipment Start Up.
- Do Not Go Near The Spreader Beaters While Machine Is Operating.
- Stay Clear Of Rotating Drive lines
- Entanglement In Rotating Drive line Can Cause Serious Injury Or Death.

- Make Sure Rotating Shields Turn Freely.
- Do Not Exceed Load Capacity Of The Spreader (See Specifications).
- Always Use A Tractor Large Enough To Provide Sufficient Braking Assistance When Towing A Loaded Spreader.
- 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.
- Reduce Speed When Turning Or Traveling On Rough Terrain. Avoid Traveling Over Loose Fill, Rocks, Ditches Or Holes.
- Do Not Operate On Steep Slopes As Overturn May Result. Operate Up And Down (Not Across) Intermediate Slopes. Avoid Sudden Starts And Stops. Pick The Most Level Possible Route When Transporting Across Fields. Avoid The Edges Of Ditches Or Gullies And Steep Hillsides.
- Use Caution When Traveling Over Uneven Terrain And When Approaching Stops.
- Keep Transmission In Gear When Traveling Downhill.
- Keep Tractor Master Shield And Drive line Shields In Place At All Times.
- Avoid Overhead Wires Or Other Obstacles. Contact With Overhead Lines Could Cause Serious Injury Or Death.
- Highway Travel 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.
- As A Precaution, Always Recheck The Hardware On Spreader Following Every 100 Hours Of Operation. Correct All Problems. Follow The Maintenance Safety Procedures.

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:

- Always Wear Eye Protection When Operating Or Servicing Spreader.
- Disengage Power Take-Off And Remove Keys From Tractor Or Truck Before Servicing Spreader.
- Do Not Attempt To Clean, Oil Or Adjust Spreader While It Is In Motion.
- Stop The Engine And Be Sure PTO Drive line Is Stopped Before Making Adjustments, Connections, Or Cleaning Out PTO Driven Equipment. Disconnect PTO Shaft.
- Make Sure There Is Plenty Of Ventilation. Never Operate The Engine Of The Towing Vehicle In A Closed Building. The Exhaust Fumes May Cause Asphyxiation.
- Before Working On The Spreader, Stop The Towing Vehicle, Set The Brakes, Disengage The PTO And All Power Drives, Shut Off The Engine And Remove The Ignition Keys.
- 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, Tires.
- Be Certain All Moving Parts On Attachments Have Come To A Complete Stop Before Attempting To Perform Maintenance.
- Before Entering Mixing Chamber Or Servicing Spreader, Disconnect Main Power Source And Lock The Disconnect Device In Off Position To Prevent Accidental Start-Up.
- Do Not Work Under A Spreader Without Supporting With Suitable Support Stands. Always Use A Safety Support And Block The Wheels. Never Use A Jack To Support The Machine.
- Do Not Work Under A Spreader Without Blocking The Wheels To Prevent Rolling.
- A Fire Extinguisher And First Aid Kit Should Be Kept Readily Accessible While Performing Maintenance On This Spreader.
- Escaping Hydraulic Fluid Under Pressure Can Penetrate The Skin Causing Serious Injury Or Death.
- Avoid Hydraulic Hazard By Relieving Hydraulic Pressure Before Disconnecting Hydraulic Or Other Lines. Tighten All Connections Before Applying Pressure.
- Search For Hydraulic Leaks With A Piece Of Cardboard. Protect Hands And Body From High Pressure Fluids. Never Use Your Hands To Locate Hydraulic Leaks On Attachments.
- Replace All Shields And Guards After Servicing And Before Moving.
- Never Replace Hex Bolts With Less Than Grade Five (5)Bolts Unless Otherwise Specified.

FAILURE TO HEED MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH.

REMEMBER:

Your best assurance against accidents is a careful and responsible operator. If there is any portion of this manual or function you do not understand, contact your dealer or the ROTO-MIX plant.

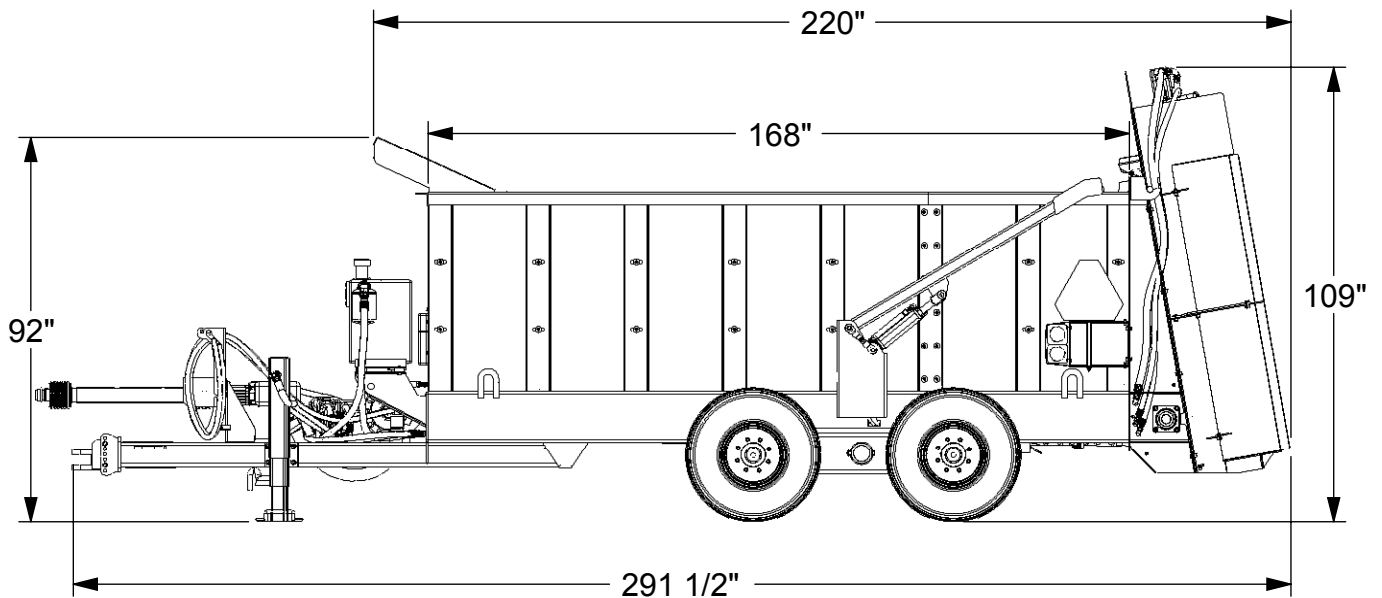
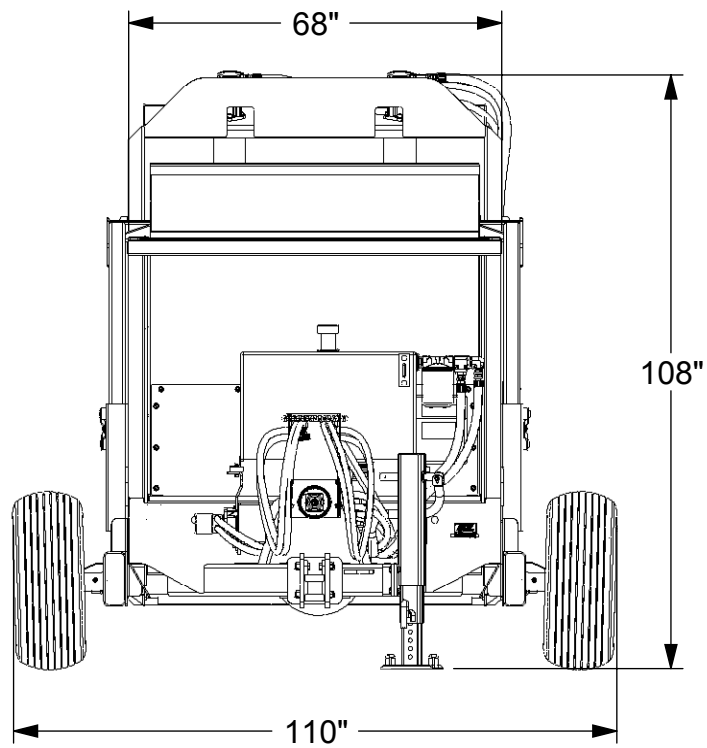
Safety Decal Care

1. Keep safety decals and signs clean and legible at all times.
2. Replace safety decals and signs that are missing or have become illegible.
3. Replaced parts that displayed a safety sign should also display the current sign.
4. Safety decals or signs are available from your dealer or the ROTO-MIX manufacturing plant.
5. How to Install Safety Decals:
 - A. Be sure that the installation area is clean and dry.
 - B. Decide on the exact position before you remove the backing paper.
 - C. Remove the smallest portion of the split backing paper.
 - D. Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.
 - E. Slowly peel back the remaining paper and carefully smooth the remaining portion of the decal in place.
 - F. Small air pockets can be pierced with a pin and smoothed out using the piece of decal backing paper.

FAILURE TO HEED MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH.

SPECIFICATIONS

DIMENSIONAL DATA - 362-12 SPREADER



All Dimensions & Specifications are Approximate and Subject to Change Without Notice.

TRACTOR HYDRAULIC SYSTEM RECOMMENDATIONS

10 GPM Minimum
2000 to 3750 PSI Operating Range
Hydraulic system should be self purging.

FEATURES

Capacity: 362 Cubic Foot- Heaped; 240 Cubic Foot- Struck Level; 1,795 Gallon
Patent Pending Belt & Retention Gate System
Hydraulic Motor & Planetary Gearbox For Belt & Retention Gate System- Operates From Tractor Hydraulics
5/16" 350 psi PVC Belt
C131 Moline Combination Chain for Belt & Retention Gate Drive System
Hydraulic Operated End Gate
7000# Drop Leg Jack
120 HP Tractor (Minimum)
1000 RPM PTO Drive
5' Wide x 12' Long Inside Dimension
High-Density Polyethylene on Floor, Side Walls, and End Gate
Two High Speed Vertical Beaters with Spinners, Flighting & Chisel Point Kickers
Independent PTO Driven Hydraulic Pumps & Motors For Beater Drive System
Adjustable Wings on Beater Assembly for Variable Discharge Width
Heavy Duty Uni-Body Tube Frame Trailer
Oscillating Tandem Axle Undercarriage with 4-8,000# Spindles & Heavy Duty 8 Bolt Hubs
4-12.5 x 15 Recap Tires With 8 Bolt Wheels

OPTIONAL EQUIPMENT

Remote Electric Flow Control Kit - ILS
4- New 33 x 16.5-16 Ply Low Pro Tires with 8 Bolt Wheels- ILS
4- New H40 x 14.5 Recaped Airplane Tires with 8 Bolt Wheels- ILS

PRINCIPLE OF OPERATION

Two vertical spinning beaters at the rear of the spreader expel manure in a uniform spread pattern. Each beater is driven by a hydraulic motor. A PTO driven hydraulic power supply on the spreader provides power to the beaters. The hydraulic pump is two stage thereby supplying independent power to each beater motor.

A wide heavy duty belt covers the box floor. At the front of the spreader, this belt is attached to a sliding gate. At the rear, this belt goes around a winged idler pulley and on the lower side is connected to a drive chain. At the front of the spreader, this chain is driven by a hydraulic motor driving a planetary gear box and sprocket that is powered by the tractor hydraulic system. See figure 1. Driving the belt toward the rear of the spreader pulls the sliding gate rearward to move the load toward the beaters. A manually adjustable flow control in the drive chain motor circuit regulates the speed the gate moves.

An end gate at the rear of the spreader is raised and lowered by two hydraulic cylinders, powered by the tractor hydraulic system. See figure 5. This gate must be lowered during loading to prevent packing of the material into the beaters and to help prevent leakage during transport.

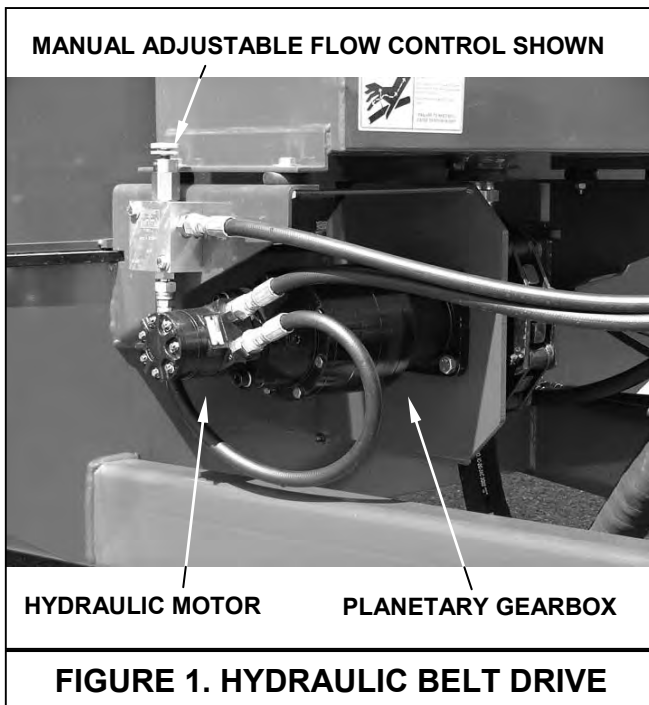
PRE OPERATION

UNDERSTAND THE CONTROLS

Rear Gate

The rear gate cylinders are hydraulically controlled by a tractor spool valve. It is recommended that the hoses be connected to the tractor so pulling the spool valve lever back raises the gate and pushing the valve lever forward closes it. Make it a habit to connect the hoses the same so the operator is familiar with this operation.

Sliding Gate



The unloading belt which moves the sliding gate is powered by a hydraulic motor and planetary gearbox. This motor is powered from the tractor hydraulic system and started and stopped by the tractor spool valve for the port to which this motor is connected. It is recommended that the hoses be connected to the tractor so pulling the spool valve lever back starts the gate rearward and pushing the valve lever forward returns the gate to the front. The gate can be stopped by moving the spool valve lever to the neutral detent. Make it a habit to connect the hoses the same so the Operator is familiar with this operation.

When the sliding gate reaches the rear of the spreader (see figure 5) it will bear against mechanical stops. The tractor hydraulic system will sense increased hydraulic pressure and return the spool valve to the neutral OFF position. The same process occurs when returning the gate to the front.

Rate Of Application

The rate of application is determined by how fast the sliding gate and belt (floor) progresses toward the rear of the spreader. This is regulated by a manually adjusted flow control valve on the spreader or a remote adjusted flow control valve in the tractor. See figure 1. Turn the flow control knob CW to increase the rate and CCW to decrease the rate. Completely CCW is OFF.

NOTE: If the belt speed is too fast the material will overload the beaters and cause them to stall.

Always turn power off when making this adjustment. Start with a slow rate and then increase as required. Once adjusted, the unloading rate will remain constant for the same type of material. Further application rate adjustment can be obtained by regulating the tractor ground speed. The application rate is not affected by engine RPM.

Spread Pattern

The spread pattern is affected by the speed of the rotating beaters. The two beater hydraulic motors are powered independently by a two stage hydraulic pump on the spreader. This pump is powered by the tractor PTO. The spreader is designed to give a uniform spread pattern when the tractor engine is operated at 1000 PTO RPM for typical materials. Adjustment of the beater speed and spread pattern is regulated by the engine speed.

TRACTOR DRAWBAR

Set tractor drawbar as shown in figure 2.

CAUTION FAILURE TO SET DRAWBAR PROPERLY MAY CAUSE SHAFT TO OVER EXTEND AND SEPA-RATE OR BEND WHEN CORNERING OR TRANSPORTING RESULTING IN DEATH OR PERSONAL INJURY.

Spreaders are available for 1000 RPM drive line only. Match tractor PTO with the spreader drive line.

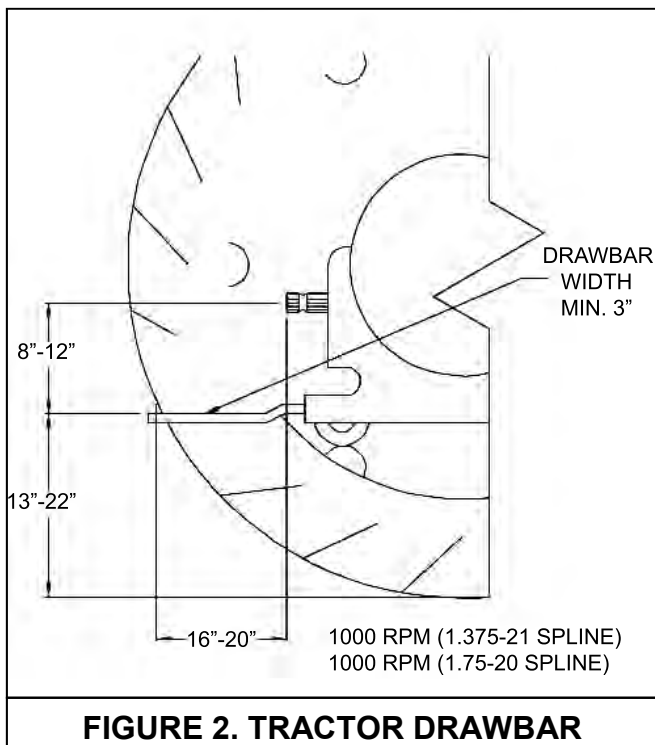


FIGURE 2. TRACTOR DRAWBAR

IMPORTANT: To prevent drive line damage, adjust tractor drawbar to recommended setting. Disengage tractor PTO before turning.

Adjust Trailer Hitch Clevis

Spreader should be approximately level when attached to tractor.

Adjust clevis by changing hole location on trailer tongue.

PRE OPERATION CHECKLIST

1. Carefully study and understand this manual.
2. Do not wear loose fitting clothing, which may catch in moving parts.
3. Always wear protective clothing and substantial shoes.
4. Keep wheel lug nuts or bolts tightened to specified torque.
5. Be sure that agricultural implement tires are inflated evenly and at proper pressure.
6. Give the unit a visual inspection for any loose bolts, worn parts or cracked welds, and make necessary repairs. Follow the maintenance safety instructions included in this manual.
7. Check to see that no obstructions are present in the spreader prior to start up.

8. Be sure that there are no tools lying on or in the spreader.
9. Do not use the unit until you are sure that the area is clear, especially children and animals.
10. The ball valve in the suction line must be open prior to engaging PTO (handle parallel with valve housing). Because it is possible that this spreader may be
 11. used in dry areas or the presence of combustibles, special precautions should be taken to prevent fires and fire fighting equipment should be readily available.
 12. Don't hurry the learning process or take the unit for granted. Ease into it and become familiar with
 13. your new spreader.
 14. Practice operation of your spreader and its attachments. Completely familiarize yourself and other operators with its operation before using.
 15. Securely attach to towing unit. Use a high strength, appropriately sized hitch pin with a mechanical retainer.
 16. Do not allow anyone to stand between the tongue or hitch and the towing vehicle when backing up to the spreader.

HIGHWAY AND TRANSPORT OPERATION

1. Adopt safe driving practices:
2. Always drive at a safe speed relative to local conditions and ensure that your speed is low enough for an emergency stop to be safe and secure. Keep speed to a minimum.
3. Reduce speed prior to turns to avoid the risk of overturning.
4. Avoid sudden uphill turns on steep slopes.
5. Always keep the tractor in gear to provide engine braking when going downhill. Do not coast.
6. Do not drink and drive.
7. Comply with state and local laws governing highway safety and movement of farm machinery on public roads.
8. Use approved accessory lighting flags and necessary warning devices to protect operators of other vehicles on the highway during daylight and night time transport.
9. The use of flashing amber lights is acceptable in most localities. However, some localities prohibit their use. Local laws should be checked for all

highway lighting and marking requirements.

10. 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.
11. When driving the tractor and spreader on the road or highway under 20 MPH at night or during the day, use flashing amber warning lights and a slow moving vehicle (SMV) identification emblem.
12. Be sure the slow moving vehicle sign is installed on the rear of the spreader for transporting on road ways.
13. Plan your route to avoid heavy traffic.
14. Be a safe courteous driver. Always yield to
15. oncoming traffic in all situations, including narrow bridges, intersections, etc.
16. Be observant of bridge loading ratings. Do not cross bridges rated lower than the gross weight at which you are operating.
17. Watch for obstructions overhead and to the side while transporting. Make allowances for increased length and weight of the spreader when making turns, stopping the unit, etc.
18. Install safety chains as illustrated on figure 3. This is a requirement for travel on public road ways. They are installed to retain the connection between tractor (or other towing vehicle) and spreader when ever traveling on public roads.

Lighting and Marking

It is the responsibility of the customer to know the lighting and marking requirements of the local highway authorities and to install and maintain the equipment to provide compliance with the regulations. Add extra lights when transporting at night or during periods of limited visibility.



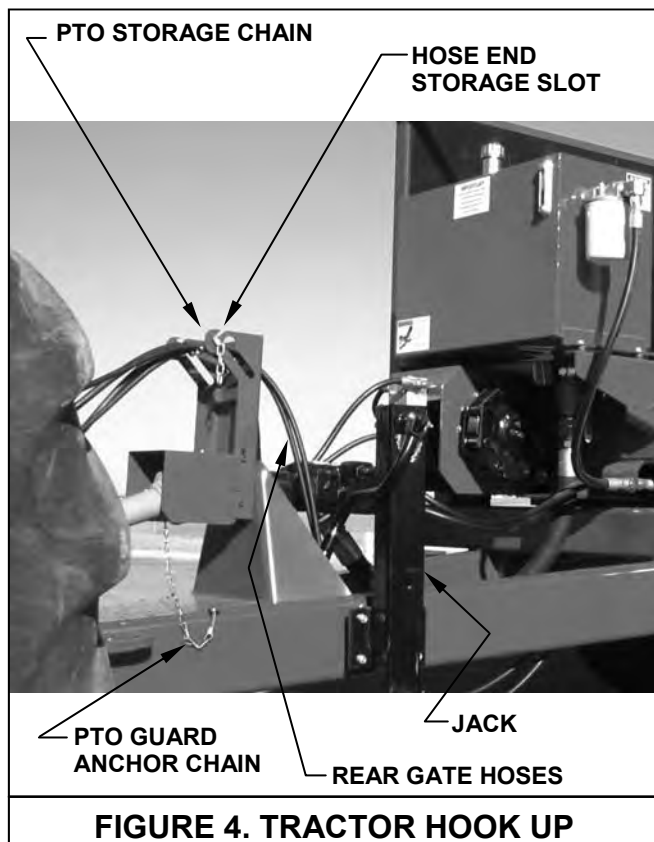
OPERATION

⚠ DANGER DO NOT CLIMB ON OR ENTER THE SPREADER WHILE IN OPERATION

⚠ WARNING CLEAR THE AREA OF ALL PERSONS BEFORE BEGINNING OPERATION.

TRACTOR HOOKUP

See figure 4.



1. Back tractor so draw bar aligns with spreader hitch. Put tractor in PARK, set park brake and turn off engine before dismounting.
2. Connect the spreader hitch to the tractor drawbar with a 1-1/4" hitch pin. The hitch pin must have a security clip or retainer to prevent it from accidentally coming out of the hitch.
3. Install safety chain around tractor drawbar support and secure with safety latched grab hook. See figure 3.
4. Crank the spreader jack completely up.
5. Remove the pair of hydraulic hoses coming from the spreader hydraulic pump from their storage

bracket and connect the ends a tractor port. See Understand The Controls on page 13 for recommended connection.

6. Remove the pair of hydraulic hoses coming from the spreader rear gate hydraulic cylinders from their storage bracket and connect the ends a tractor port. See Understand The Controls on page 13 for recommended connection.
7. Unhook the PTO storage chain from the slotted storage bracket and slide the PTO drive shaft yoke onto the splined tractor or PTO shaft. Be sure the yoke securely snaps onto the retention groove of the tractor shaft.
8. Connect the PTO Guard anchor chain to the anchor loop on the spreader hitch.
9. Place the PTO storage chain back in the slotted storage bracket so it does not dangle.
10. Remove wheel chocks.

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

LOADING

⚠ CAUTION SPREADER MUST BE HITCHED TO TRACTOR FOR LOADING. THE JACK CAN NOT SUPPORT THE LOADED SPREADER WEIGHT AND/OR UNEXPECTED "TIP UP" OF THE SPREADER CAN RESULT.

1. Park the spreader for loading. Put the tractor in PARK or NEUTRAL and apply the parking brake.
2. Close the hydraulic rear gate before loading.
3. It is unlawful to allow any manure spillage to occur on public roadways. Be sure rear gate is fully closed and sliding gate scrapers are adjusted so no liquid leakage occurs. Do not heap load such that manure is allowed to fall off spreader during transporting on roadways.
4. Load the spreader. The moisture content will determine how full it can be loaded. See SPECIFICATIONS for capacity. Solid manure can generally be loaded level to slightly heaped. High moisture slurries are heavier and loading may be limited.

UNLOADING

⚠ DANGER KEEP AWAY AND KEEP OTHERS AWAY FROM THE ROTATING BEATERS. BEATERS CAN CRUSH, DISMEMBER OR KILL.

⚠ WARNING CLEAR THE AREA OF ALL PERSONS BEFORE BEGINNING OPERATION.



1. Engage the tractor PTO to start the beaters and increase engine speed to 1000 PTO RPM.
2. Raise the hydraulic rear gate completely up. See figure 5
3. Start the sliding gate.
4. When material begins discharging from the beaters, begin forward motion.

NOTE: Performing the preceding steps while moving forward will minimize heavy discharge onto the field during startup.

5. Plan application onto the field so that you do not travel over previously spread manure which is slippery. Travel cautiously on hills and slopes. Proceed up and down slopes instead of along them.

SHUT DOWN

1. When the load has been discharged, the hydraulic control to the sliding gate will return to neutral, OFF. Allow the beaters to operate for a few seconds to clear out any remaining material and then stop the PTO.
2. Start the sliding gate to return to the front of the spreader. When it reaches the front the hydraulic control to the sliding gate will return to neutral, OFF.
3. Once the sliding gate moves forward, all the way to the front, completely close the rear gate.

UNHOOK THE TRACTOR

1. Park the spreader on level ground. Put the tractor in PARK, set the park brake, and turn the engine off before dismounting.
2. Place wheel chocks in front and in back of two spreader wheels on opposite sides to prevent the spreader from rolling after the tractor is unhooked.
3. Remove the PTO drive shaft yoke from the splined tractor PTO shaft. Unhook the PTO storage chain from the slotted storage bracket and pivot the PTO drive shaft up and into the storage bracket. Reconnect the storage chain in the slotted storage bracket to secure the PTO shaft
4. Remove the hydraulic hose ends from the tractor hydraulic ports and store the hose ends in the slotted hose storage brackets to keep them from dragging on the ground. See figure 4.
5. Crank the spreader jack down until the spreader hitch lifts off the tractor draw bar.
6. Remove the hitch pin.
7. Unhook safety chain from tractor drawbar support. See figure 4.
8. Slowly drive the tractor away from the spreader.

STORAGE AND CLEANING

⚠ WARNING DISCONNECT PTO DRIVE SHAFT AND HYDRAULIC HOSES BEFORE CLEANING, ADJUSTING, LUBRICATING, OR SERVICING THIS MACHINE.

1. The spreader must be thoroughly cleaned for extended storage. Manure is acidic and will damage paint and cause rusting of metal components.
2. Allow the spreader to completely unload.
3. Return the sliding gate to the front of the spreader.
4. To clean the spreader, raise the rear gate.

⚠ WARNING TURN OFF ALL POWER DURING CLEANING AND INSPECTION. DO NOT USE POWER TO MOVE ANY COMPONENTS OR TO DISCHARGE MATERIAL WHILE CLEANING OR INSPECTING.

5. Hose off manure from the outside and inside of the spreader. Completely clean manure from moving mechanisms such as the beaters, winged pulley, sliding gate, chain drive and rear gate. Remove accumulation in confined areas or pockets that trap manure.
6. Avoid directing high pressure spray directly on bearings, seals and flow control valve.
7. Keep high pressure spray moving on painted surfaces. Sustained spray on cracks or scratches in paint can result in paint peeling.
8. Allow machine to dry.
9. Lower rear gate completely down before storing spreader.
10. Inspect the spreader for loose connections, damaged hydraulic hoses or connections and for other damaged components. Repair if necessary so the spreader is ready for future operation.

MAINTENANCE

⚠ WARNING PUT THE TRACTOR IN PARK, APPLY THE PARKING BRAKE, TURN OFF ENGINE AND REMOVE IGNITION KEY BEFORE CLEANING, ADJUSTING, LUBRICATING OR SERVICING THIS MACHINE. FAILURE TO HEED MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH.

⚠ WARNING DISCONNECT PTO DRIVE SHAFT AND HYDRAULIC HOSES BEFORE CLEANING, ADJUSTING, LUBRICATING, OR SERVICING THIS MACHINE.

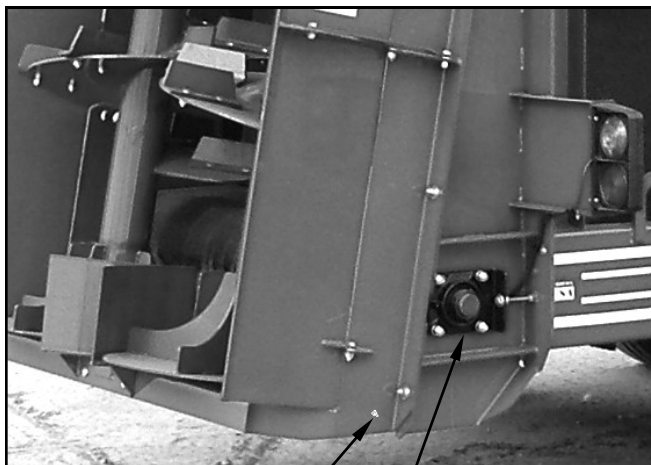
READ THE FOLLOWING BEFORE WELDING ON THIS MACHINE

1. When welding on your spreader, do not allow the current to flow through the ball bearings or the roller chains. Ground directly to the item being welded.
2. The battery should always be disconnected before welding on the spreader. If the spreader is a trailer type, always disconnect from the towing vehicle.

LUBRICATION

Bearings

Grease 2 lower beater bearings and 2 wing pulley bearings every 100 hours of operation with 2 pumps of grease. (See figure 6.)



LOWER BEATER BEARINGS GREASE ZERKS (ONE EACH SIDE)

BELT PULLEY BEARING (ONE EACH SIDE)

FIGURE 6. BEARING LUBRICATION

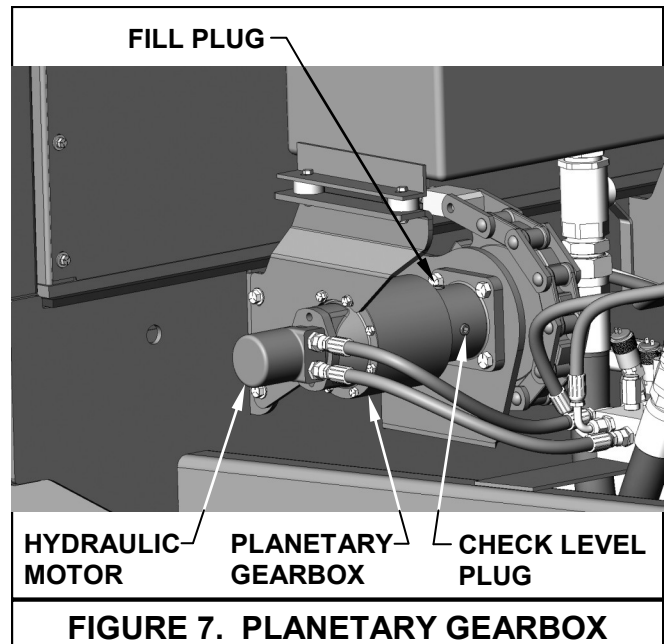


FIGURE 7. PLANETARY GEARBOX

PTO Drive Shaft

1. The PTO drive shaft yoke cross bearings must be greased, both ends of assembly. Grease every 8 hrs of operation with one pump.
2. There is also a zerk at the center of the shaft assembly to grease the telescoping shafts. It is accessible through a slot in the guard. Grease every 8 hrs of operation with 4 pumps.

Drive Chain Planetary Gear box

(See figure 7.)

Oil Specification: Mobil Delvac Synthetic Gear Oil 75W-90 .

There is a check plug half way up on the gear box. Maintain the oil level to this check plug. Fill plug is located on the top of the gear box.

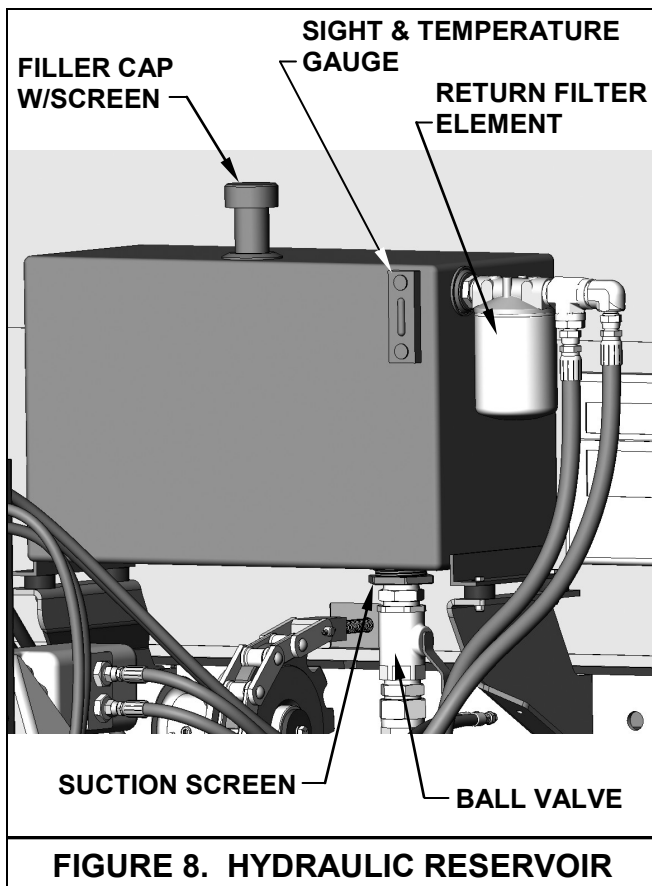


FIGURE 8. HYDRAULIC RESERVOIR

Wheel Hubs

Clean and repack wheel hubs annually with quality axle grease.

HYDRAULIC SYSTEM

(See figure 8)

1. Oil Specification: CITGO Transgard Tractor Hydraulic Fluid - Material Code 633310001
2. Capacity: 40 gallon
3. Maximum allowable operating temperature 240° F.
4. Check the oil level in the reservoir daily. It should be maintained 1" from the top level on the sight gauge.
5. Oil is added through a filter screen inside the filler neck. Before filling, remove the screen, inspect and clean if required.
6. Carefully clean dirt from the return filter head and element. Replace the filter element every 500 hrs of operation.
7. Drain reservoir and refill with new oil every 2000 hrs or annually, whichever occurs first. If the oil becomes contaminated and appears milky

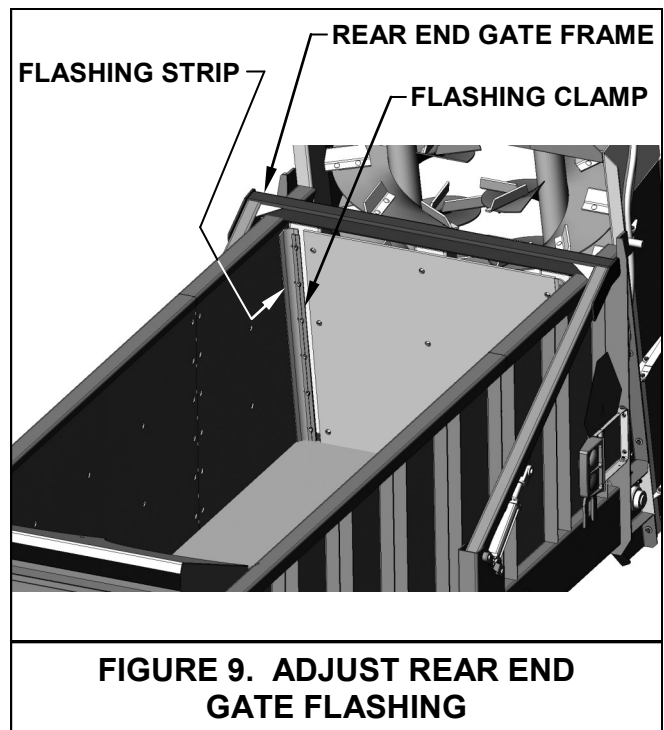


FIGURE 9. ADJUST REAR END GATE FLASHING

colored, replace immediately.

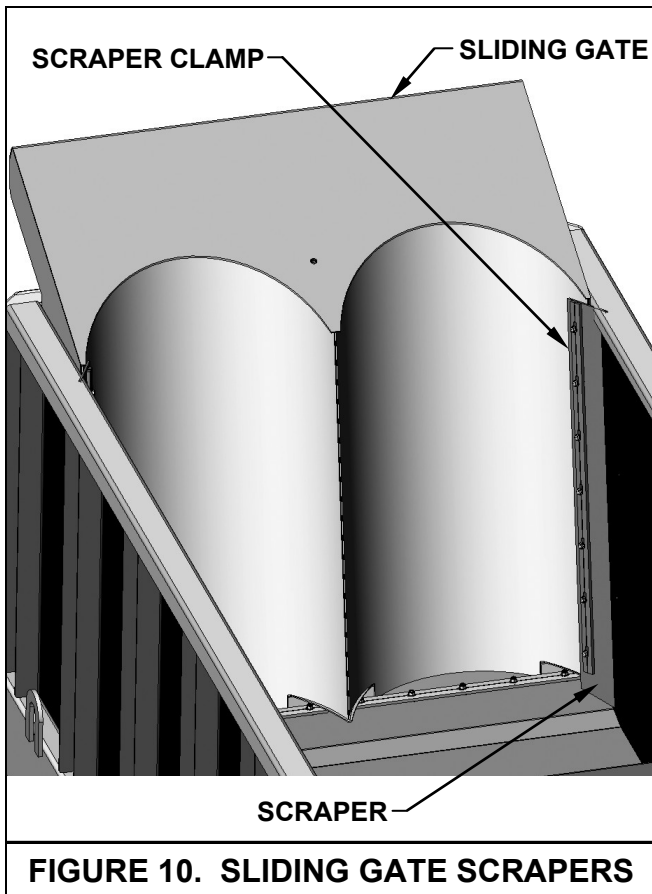
8. Every 100 hrs of operation, inspect all hydraulic hoses, hose connections, pump seals and motor seals for leakage. Tighten loose connections and replace damaged components.
9. A ball valve is provided at the bottom of the reservoir where the suction hose is connected. Turn this valve off to service hydraulic components. This prevents draining of the reservoir, however it is necessary to catch the oil that drains from disconnected hoses into a suitable container for proper disposal. Always check and refill the reservoir as required when servicing is completed.

ADJUSTMENTS

Rear Gate Flashing

(See figure 9.)

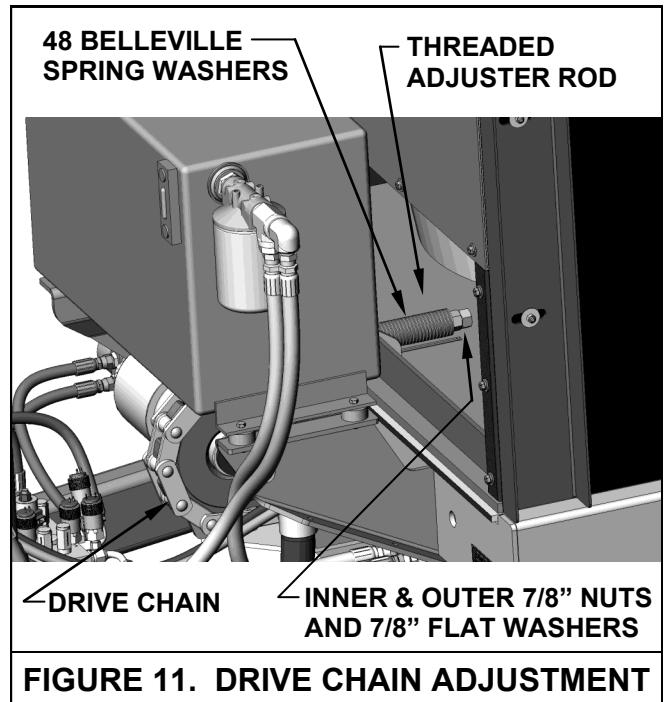
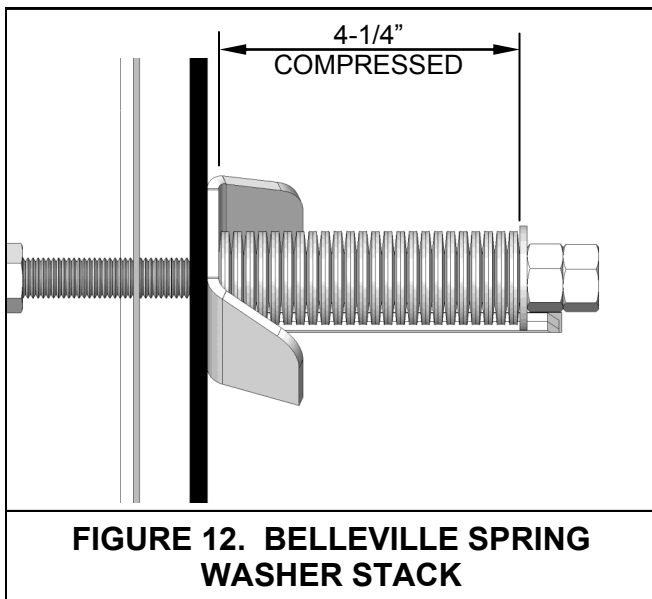
1. Swinging gate flashing strips are clamped to both vertical sides of the rear gate frame. These strips must bear against the vertical box sides to minimize leakage.
2. To adjust, loosen the six 3/8" carriage bolts clamping the flashing.
3. Move the flashing strips so they contact against the box wall and retighten bolts.



Sliding Gate Scrapers

(See figure 10)

1. A high density polyethylene scraper bar is clamped to the vertical edges of the sliding gate. These scrapers must contact the vertical box walls to clean material.



2. To adjust, loosen the seven 3/8 carriage bolts clamping the scraper.
3. Move the scrapers so they contact against the box wall and retighten bolts.

Drive Chain Slack

(See figure 11)

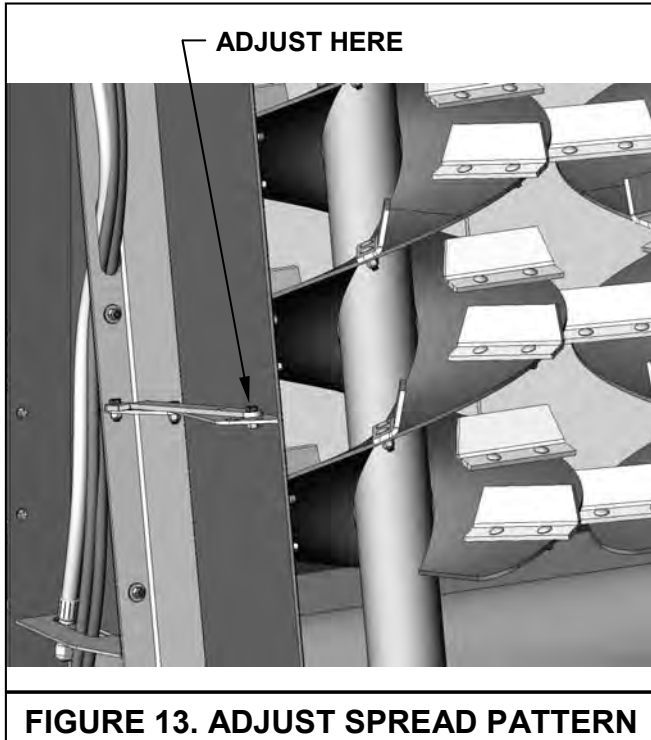
1. A threaded adjuster rod is provided where the drive chain attaches to the sliding gate. It is factory preset, but may require adjustment with usage. (CHECK CHAIN TENSION WEEKLY)
2. Loosen the two 7/8" hex nuts on the end of the threaded rod. Tighten the inner nut until the forty eight Belleville washers are almost fully compressed (approximately 4.-1/4"). Tighten the outer nut against the inner to lock the adjustment.

NOTE: The belleville washers are assembled in "tail to tail" pairs and stacked per figure 12.

Adjust Spread Pattern

(See figure 13)

The deflectors at the rear of the spreader can be set for wide spreading or they can be hinged inward to spread straight behind the spreader.



Adjust Pressure Switches

(See figure 14 & 15)

NOTE: PRESSURE SWITCHES ARE PRESET AT THE FACTORY.

⚠ DANGER BEFORE ATTEMPTING TO DO THE FOLLOWING PROCEDURES, BE SURE TO CLEAR THE BEATER AREA AND PUT BARRIERS AROUND THE BACK OF THE SPREADER TO PREVENT ACCIDENTAL CONTACT WITH THE BEATERS WHILE THEY ARE RUNNING.

Setting “Stall” Pressure Switches:

1. To adjust the stall warning horn switches (green wire), block ONE beater. (Be sure that the switch you are adjusting is in the same line as the blocked beater.) Engage PTO.

2. Loosen the setscrew and turn the adjusting sleeve in (clockwise) until the warning horn stops. Then unscrew the adjusting sleeve (counter clockwise) until the warning horn sounds and tighten the setscrew. [If the warning horn does not sound to start with, turn the adjusting sleeve (counter clockwise) until it sounds].
3. To check horn operation, disengage PTO, and then re-engage PTO again to make sure the horn still sounds. If not readjust and try again.
4. Follow the same procedure as above for the other beater and switch.

Setting “Spread Light” Pressure Switch

1. To adjust the floor interruption switches (Orange wires) block a beater as above and pressurize front gate belt motor the "back" position. Engage the PTO.
2. If the floor keeps moving, unscrew the adjusting sleeve until the floor stops plus 1/8 turn more.
3. If the floor does not move then turn the adjusting sleeve in (clockwise) until the floor moves toward the beaters. Then unscrew the adjusting sleeve (c' clockwise) until the floor stops plus 1/8 turn more and tighten the setscrew.
4. Follow the same procedure again for the opposite beater and switch.
5. Note: The floor interruption switches are normally closed and have the spade terminals wide spaced as opposed to the horn pressure switches which the spade terminals are spaced narrow.

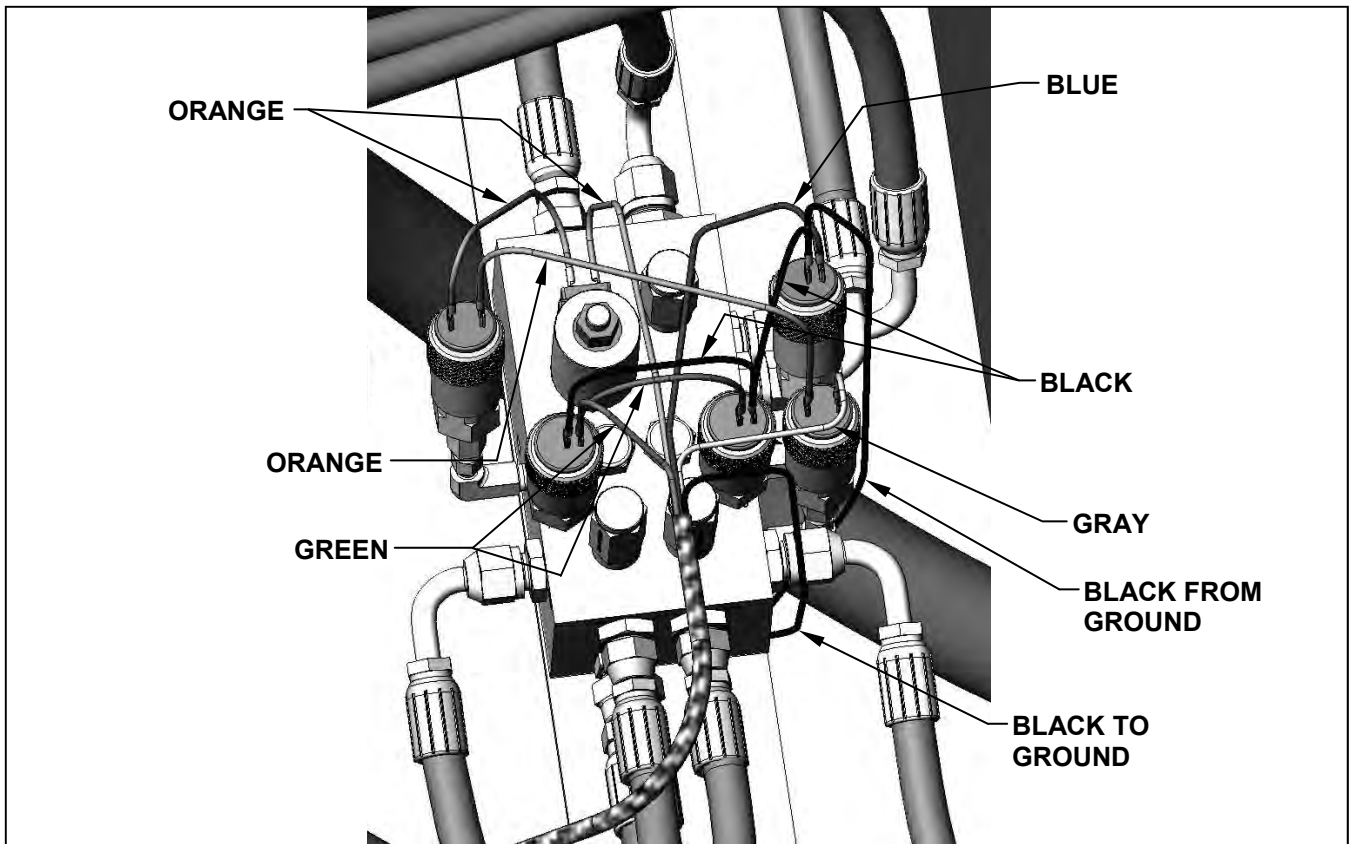


FIGURE 14. (CURRENT MANIFOLD BLOCK) ADJUST PRESSURE SWITCHES

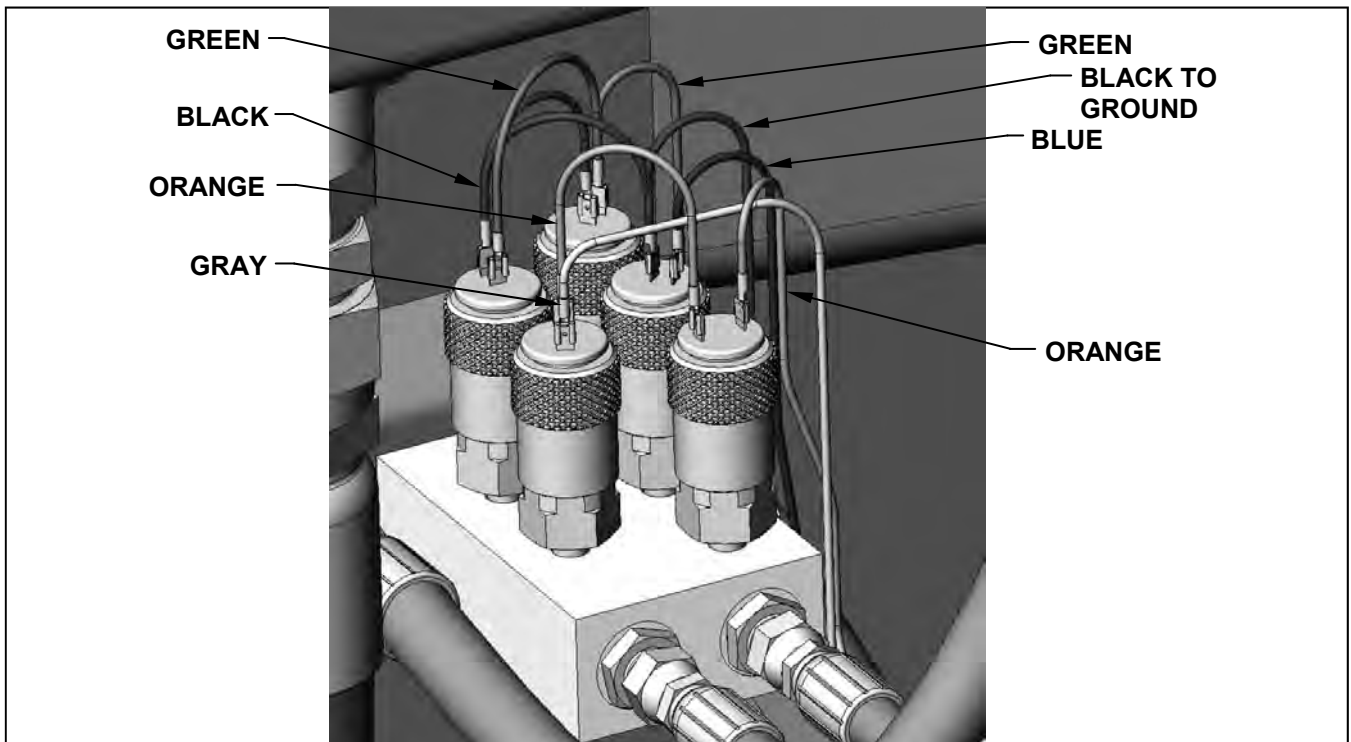


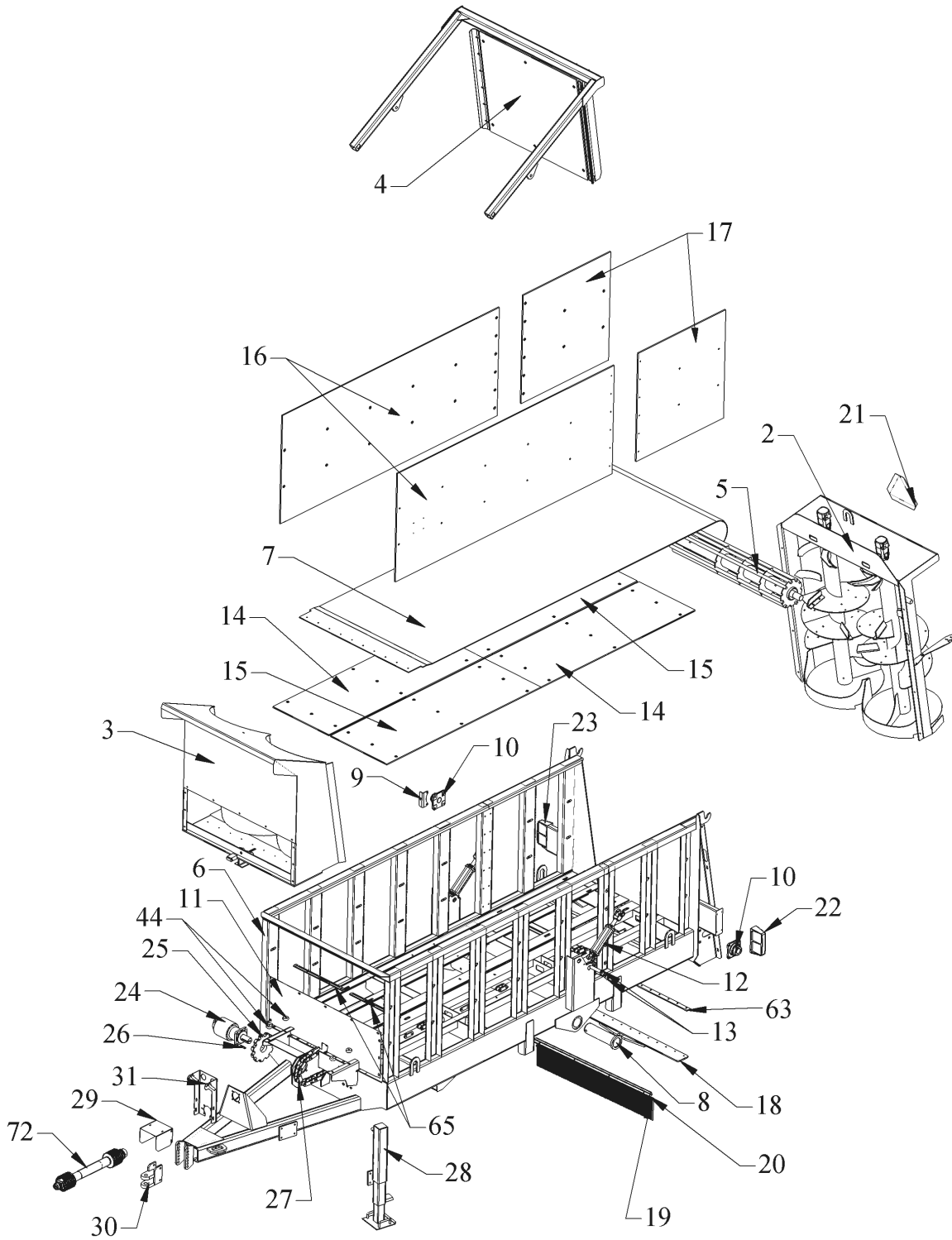
FIGURE 15. (OLD MANIFOLD BLOCK) ADJUST PRESSURE SWITCHES

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362-12 SPREADER
REPAIR PARTS
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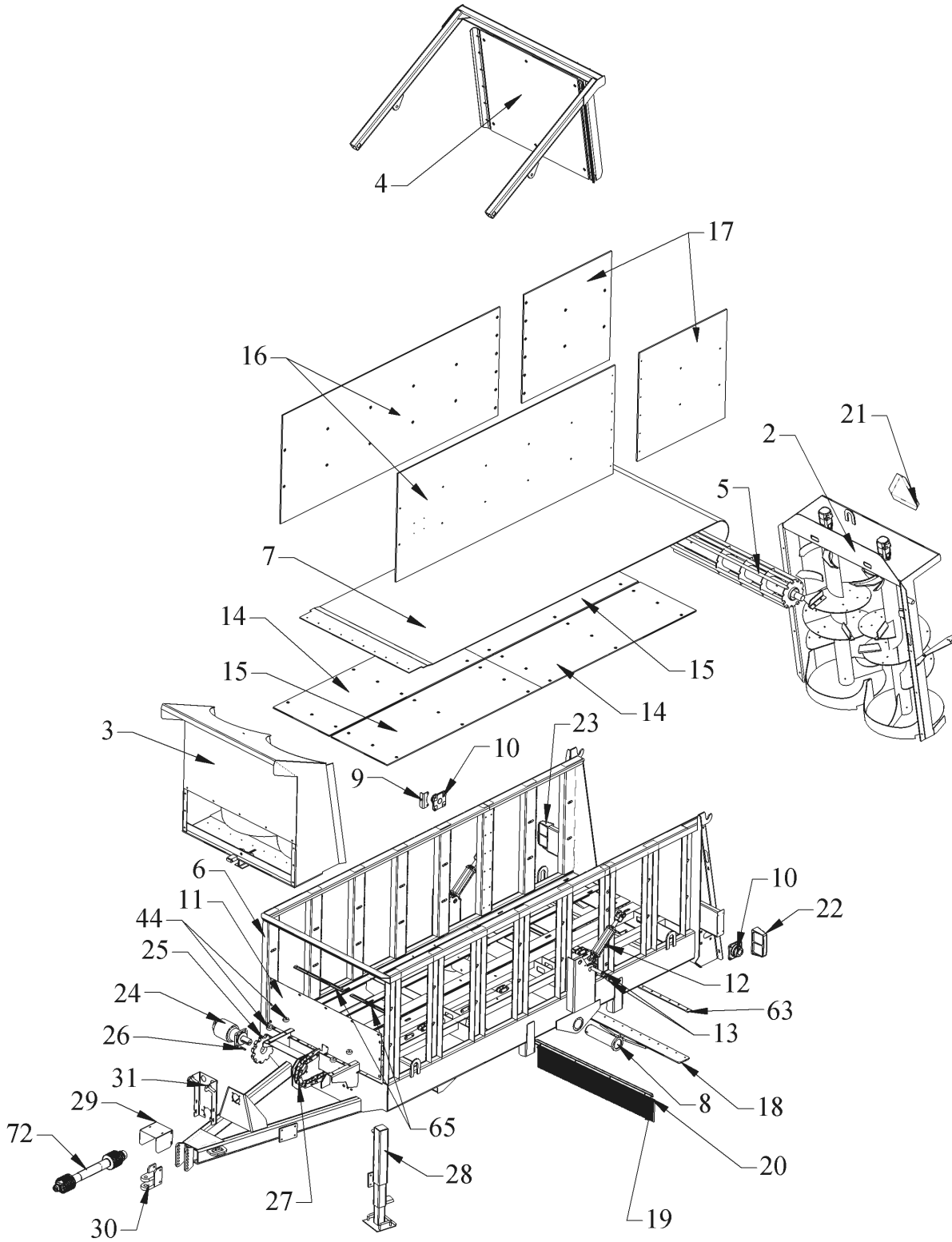
| | |
|---|----------------|
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| PTO Drive Shaft Assembly | 30 |
| 362-12 Trailer Spreader Walking Beam | 31 |
| 362-12 Hub and Wheel Assembly | 32 - 33 |
| 362-12 Beater Assembly | 34 - 37 |
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| Sliding Gate Assembly | 39 |
| 362-12 Spreader Decals | 40 - 41 |
| 362-12 Spreader Hydraulic Assembly | 42 - 45 |

362-12 SPREADER BOX ASSEMBLY (1 of 2)



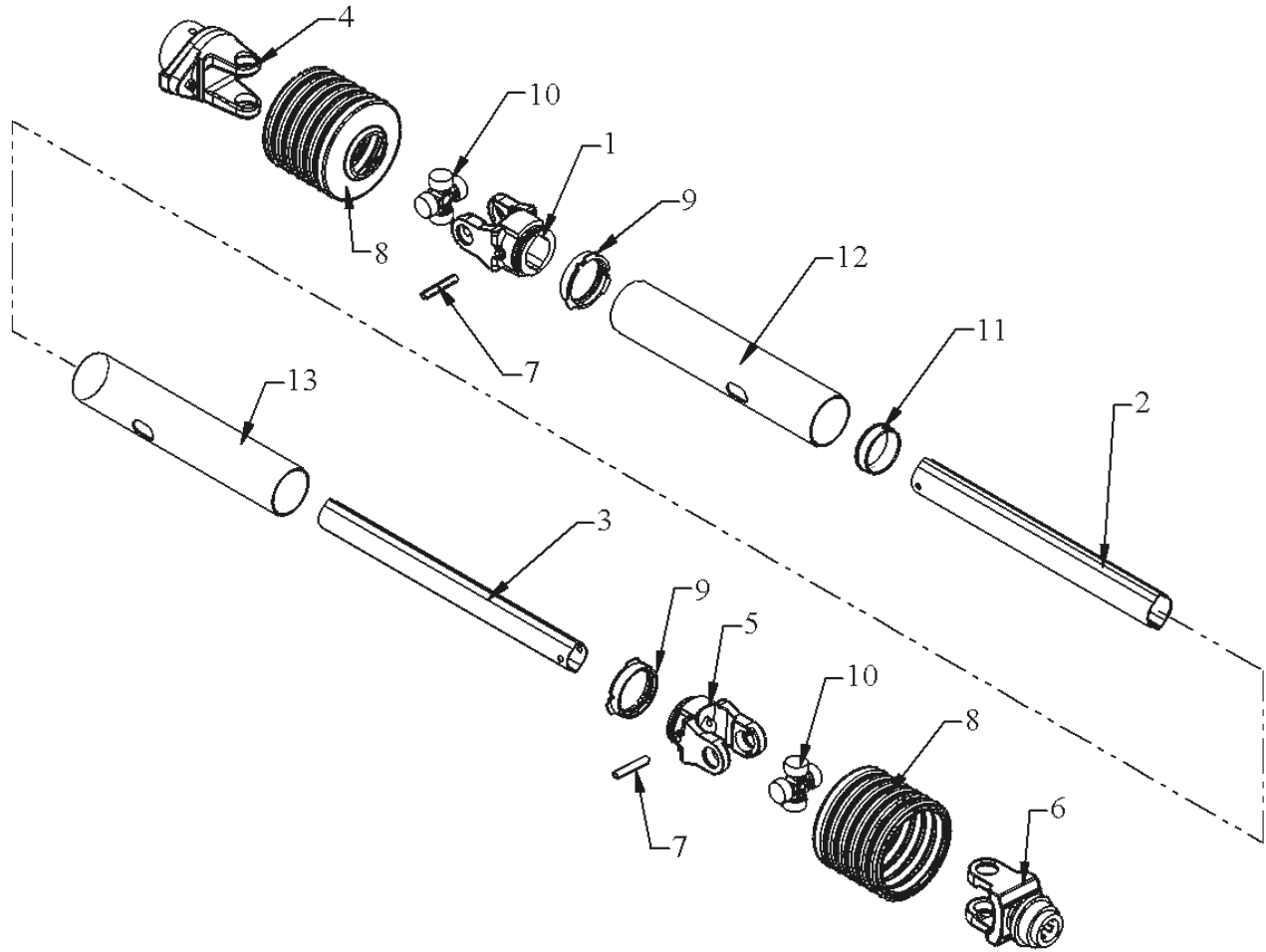
| Key | Part No. | Description | Qty. |
|-----|----------|--|------|
| 2 | 730113 | Verticle Beater Assy. | 1 |
| 3 | 730114 | Sliding Gate Assy. | 1 |
| 4 | 730116 | Swinging Gate W.A. | 1 |
| 5 | 830260 | Belt Idler Pulley W.A. | 1 |
| 6 | 830250 | Spreader Box W.A. | 1 |
| 7 | 351027 | Belt, 5/16" X 60.5" X 195" Lg | 1 |
| 8 | 130549 | Walking Beam Axle | 2 |
| | 130584 | Axle Retainer | 2 |
| | 405792 | HHCS 3/4"-10 x 6 1/2", #5 PLTD | 2 |
| | 401112 | Hex NylocNut 3/4"-10, 5 PLTD | 2 |
| 9 | 130316 | Bracket, Belt Adjuster | 1 |
| 10 | 340436 | Fafnir 2 3/16" Bearing | 2 |
| | 407121 | CHCS 5/8"-11 x 2" | 8 |
| 11 | 130372 | Sliding Gate Cover | 1 |
| | 407900 | HHCS 3/8" -16 X 3/4", #5 PLTD | 11 |
| | 402406 | Flat Washer 3/8" Med PLTD | 11 |
| 12 | 364072 | Hyd Cylinder, 2" x 8" x 20-1/4" | 2 |
| 13 | 830235 | Pivot Pin W/A | 4 |
| 14 | 130481 | HDPE-UVI Floor Strip 1/2 x 30 x 84 5/8 | 2 |
| 15 | 130482 | HDPE-UVI Floor Panel 1/2 x 30 x 84-5/8 | 2 |
| 16 | 130320 | Side, Front - 532 Spreader | 2 |
| 17 | 130420 | HDPE-UVI Side, Rear (Small Spreader) | 2 |
| 18 | 830263 | Chain - Belt Adapter W/A | 1 |
| 19 | 351048 | Broom 9" Bristles X 60" Lg | 1 |
| 20 | 130450 | Broom Clamp | 1 |
| 21 | 441405 | SMV Decal Plate | 1 |
| | 150151 | SMV Decal Plate | 1 |
| NS | 400113 | Hex Nut 1/4"-20 NC Whiz | 8 |
| NS | 405604 | HHCS 1/4"-20 x 1", #5 PLTD | 8 |
| 22 | 357512 | Light Assy, L/H | 1 |
| 23 | 357513 | Light Assy, R/H | 1 |
| 24 | 344141 | Heco Gear box, 27:1 Reduction | 1 |
| | 405754 | HHCS 5/8"-11 x 2",#5 PLTD | 4 |
| | 406101 | HHCS 1/2"-20 x 1", #5 PLTD | 1 |
| | 407901 | HHCS 3/8 x 1 Whiz | 2 |
| | 409063 | SHCS 1/2" x 1 3/4" Lg | 2 |
| | 185493 | Washer Scale Hinge, 2 1/2" OD | 1 |
| 25 | 830264 | Sprocket W/A | 1 |
| 26 | 185485 | Key, 1/2" x 1/2" x 2-1/2" Lg. | 1 |
| 27 | 322559 | Combination Chain, 15.5" x 3.075" Pitch | 1 |
| 28 | 872090 | 9T Drop Leg Jack W.A. | 1 |
| 29 | 185302 | P.T.O. Shield 9" x 22 9/16" | 1 |
| | 401105 | Hex Nyloc Nut 5/16"-18, #5 PLTD | 4 |
| | 407410 | Shoulder Bolt, 3/8" Dia x 3/8" Lg (5/16 Thd) | 4 |

362-12 SPREADER BOX ASSEMBLY (2 Of 2)



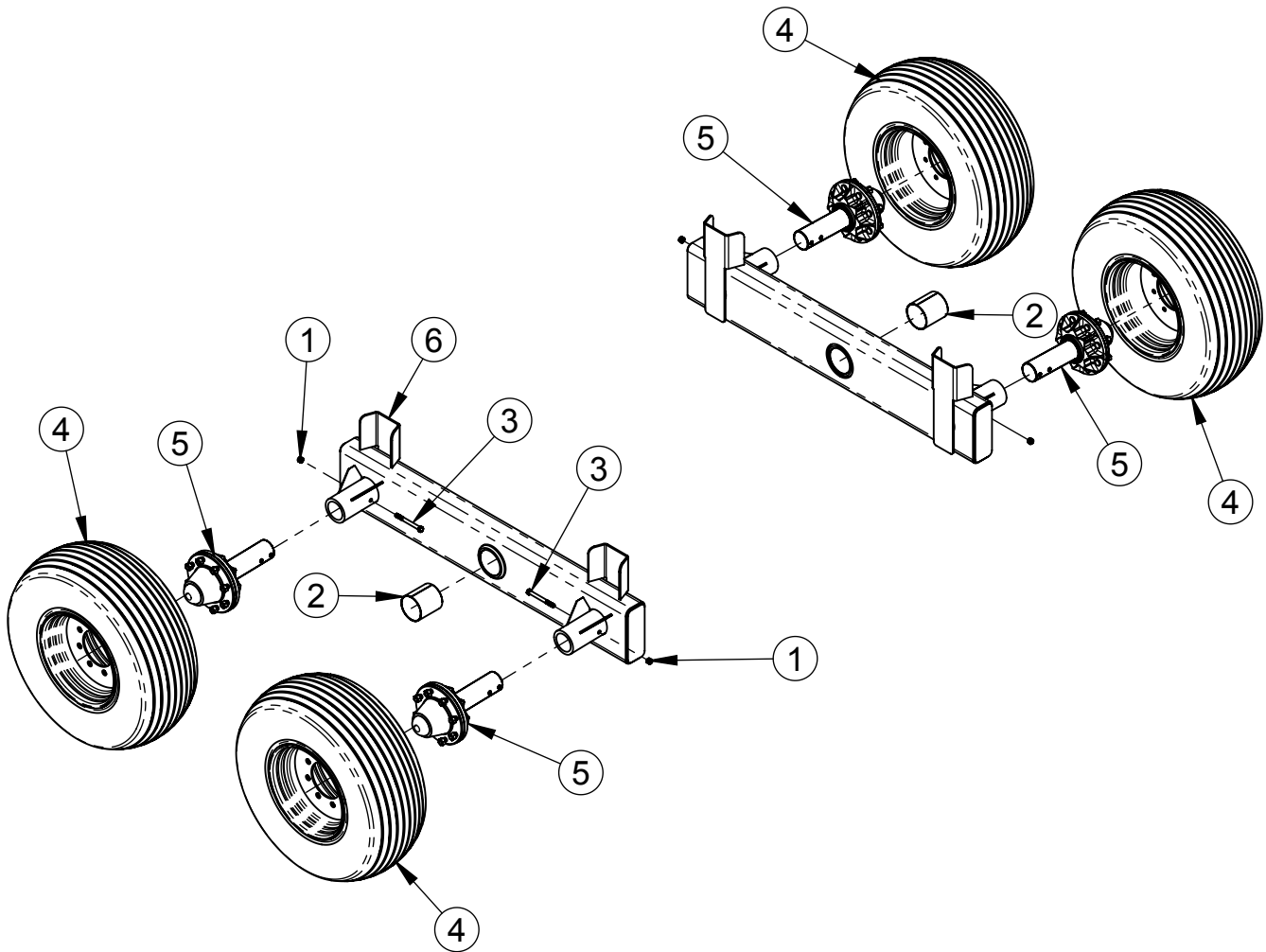
| Key | Part No. | Description | Qty. |
|-----|----------|--|------|
| 30 | 872094 | Trailer Clevis W.A. | 1 |
| | 402012 | Lock Washer, Pltd. 3/4" | 4 |
| | 405780 | Hhcs #5 Pltd., 3/4" 10 X 2 1/4" | 4 |
| | 400312 | Hex Nut #5 Pltd. 3/4" - 16 | 4 |
| 31 | 130561 | Pto Shield Mtg Bracket | 1 |
| | 405719 | HHCS #5 Pltd., 1/2"-13 X 7" | 4 |
| 44 | 351990 | Trans. Mount Grommet 2-2133 | 4 |
| | 405656 | HHCS #5 Pltd 3/8-16 x 1 3/4 | 4 |
| | 401106 | Hex Nyloc Nut #5 Pltd 3/8" -16 | 92 |
| 63 | 130451 | Plate Belt Clamp | 1 |
| 65 | 130452 | Belt Clamp | 2 |
| 72 | 338028 | Drive Shaft, 1000 RPM (See Page 28) | 1 |
| NS | 402408 | Flat Washer Med Pltd 1/2 | 5 |
| NS | 401108 | Hex NylocNut 5 Pltd 1/2-13 | 5 |
| NS | 405716F | HHCS #5 Pltd 1/2-13 x 5 1/2 FUL | 1 |
| NS | 400208 | Hex Nut #5 Pltd 1/2-13 | 2 |
| NS | 402606 | Fender Washer Pltd. 3/8" X 1 1/2" | 88 |
| NS | 402508 | SAE Flat Washer Pltd 1/2 | 2 |
| NS | 130314 | Spacer, 9/16 Dia x 9/16 Lg | 64 |
| NS | 407042 | Car. Bolt #5 Pltd 3/8-16 x x1 1/2 | 13 |
| NS | 400107 | Hex Nut #5 Pltd., 3/8"-16 | 15 |
| NS | 405654 | HHCS #5 Pltd 3/8-16 x 1 1/4 | 10 |
| NS | 402006 | Spring Lock W Med Pltd 3/8 | 10 |
| NS | 402008 | Spring Lock W Med pltdd 1/2 | 3 |
| NS | 400115 | Hex Nut Serrated Flange #5, 5/8"-11 | 12 |
| NS | 405050 | Truss Hd Screw, 3/8"-16 X 1 1/4" Lg | 88 |
| NS | 400114 | Hex Nut, Serrated Flange #5 Pltd., 1/2"-13 | 8 |

PTO DRIVE SHAFT ASSEMBLY



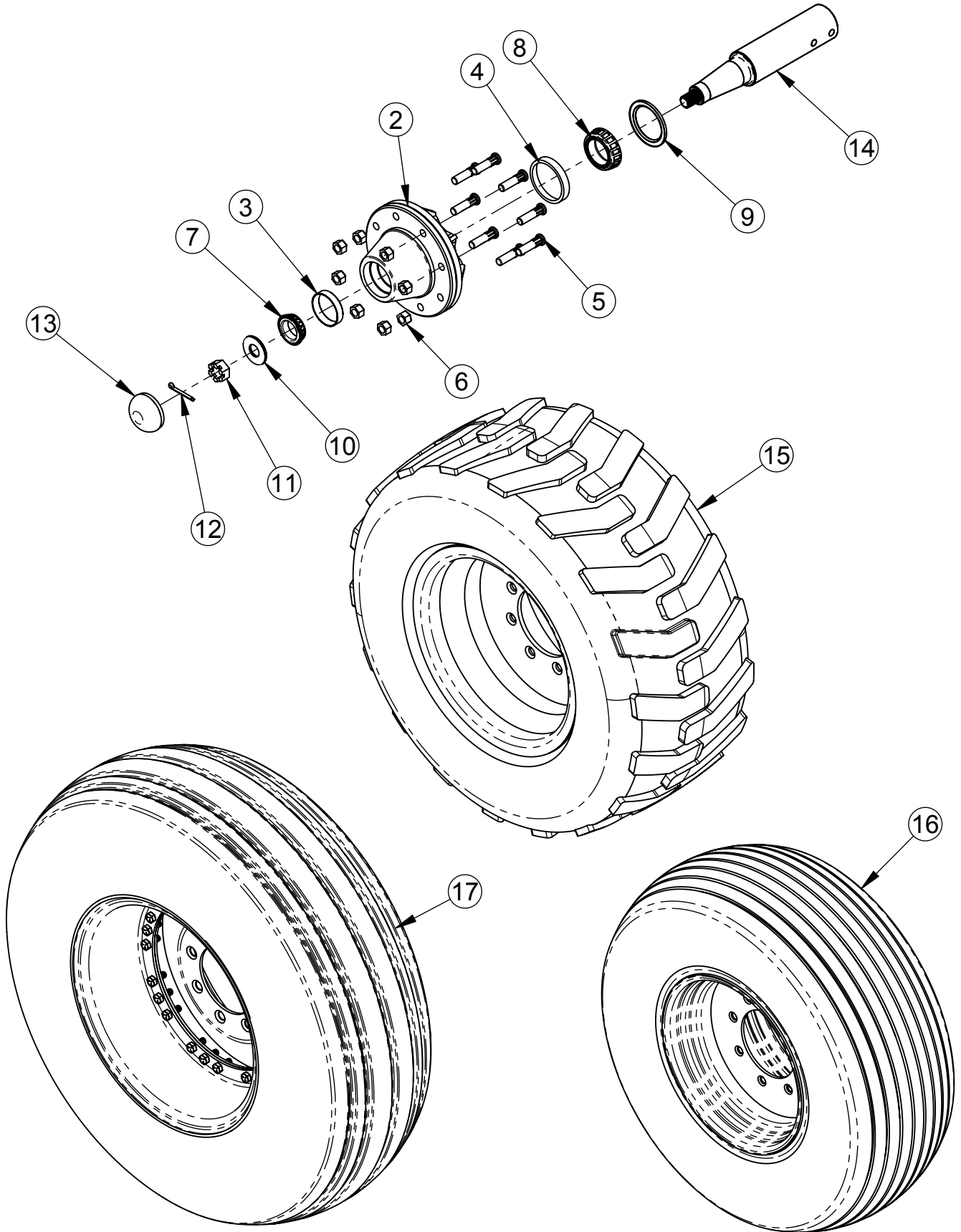
| Key | Part No. | Description | Qty. |
|-----|----------|---------------------------|------|
| 1 | 338452 | Inboard Yoke 2a | 1 |
| 2 | 338573 | Profile & Sleeve W.A. | 1 |
| 3 | 338572 | Inner Profile 11b | 1 |
| 4 | 338478 | Shearbolt Clutch | 1 |
| 5 | 338450 | Inboard Yoke | 1 |
| 6 | 338444 | Yoke 1 3/8"- 6 Spline ASG | 1 |
| 7 | 338473 | Spring Pin 10 x 80 | 2 |
| 8 | 338486 | Shield Cone 6 Rib | 2 |
| 9 | 338489 | Bearing Ring Sc 25 | 2 |
| 10 | 338443 | Cross & Bearing Kit | 2 |
| 11 | 338503 | Support Bearing | 1 |
| 12 | 338575 | Inner Shield Tube Round | 1 |
| 13 | 338574 | Outer Shield Tube Oval | 1 |

362-12 TRAILER SPREADER WALKING BEAMS



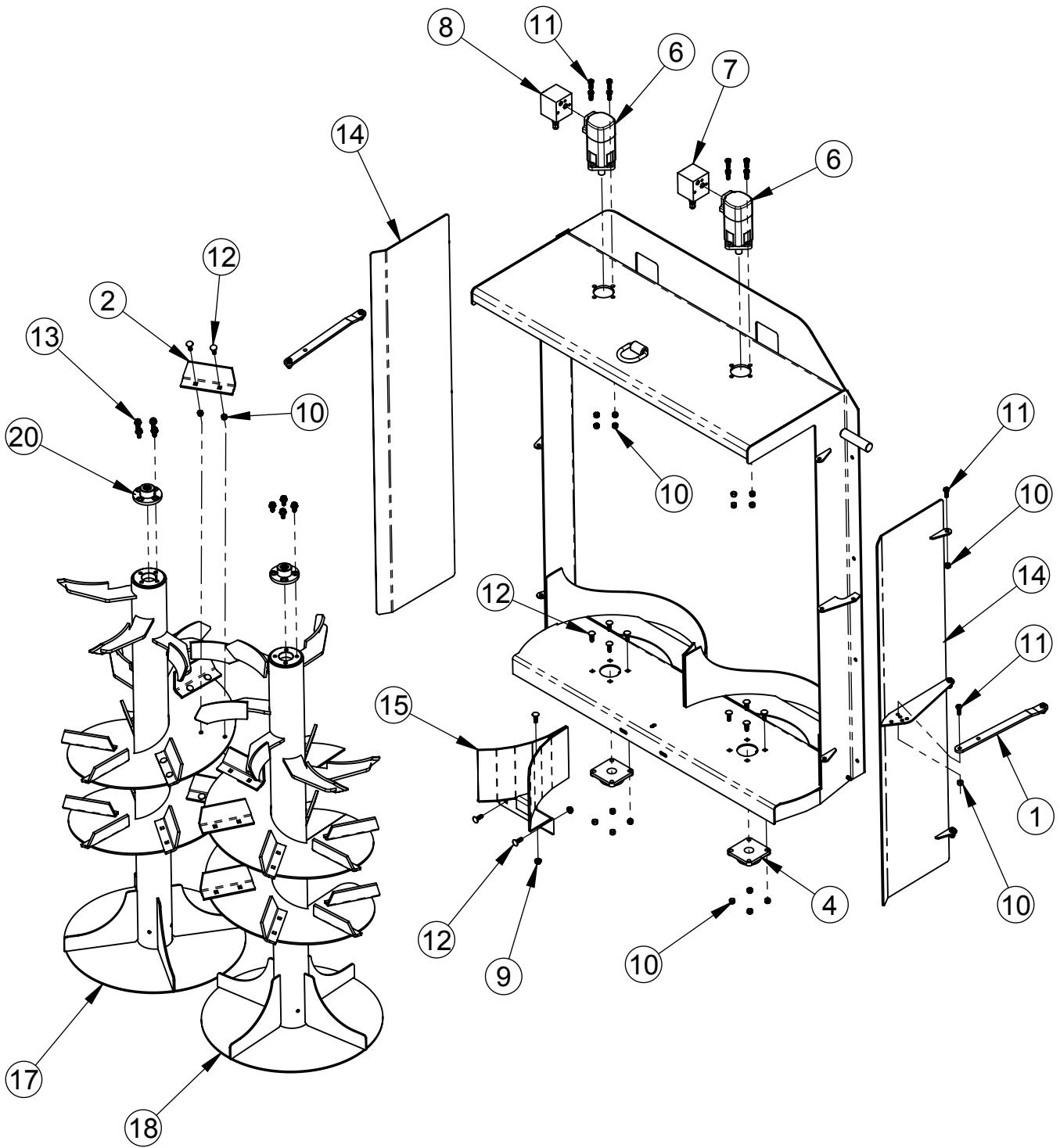
| ITEM # | PART NO. | DESCRIPTION | QTY. |
|--------|----------|---|------|
| 1 | 401108 | HEX NYLOC NUT #5 Pltd., 1/2-13 | 4 |
| 2 | 404463 | BUSHING, 4.000" I.D. x 4.188" O.D. x 4.500" | 2 |
| 3 | 405715 | HHCS, 1/2" X 5" | 4 |
| 4 | 760098 | TIRE & WHEEL ASSY, FHS 12.5L x 15" | 4 |
| 5 | 781106 | 8000 LB. 8 BOLT HUB KIT | 4 |
| 6 | 830265 | WALKING BEAM TRAILER W.A. L/H | 1 |
| 7 | 830266 | WALKING BEAM TRAILER W.A. R/H | 1 |

362-12 HUB & WHEEL ASSEMBLY



| ITEM # | PART NO. | DESCRIPTION | QTY. |
|--------|----------|---|------|
| 1 | 781106 | HUB & SPINDLE KIT - 8,000LB. - 8 BOLT | 4 |
| 2 | 372207 | HUB, 8 BOLT, 8000 LB. | 1 |
| 3 | 342208 | BEARING RACE, 2.891" OD | 1 |
| 4 | 342207 | BEARING RACE, 3.813"OD | 1 |
| 5 | 407723 | STUD BOLT, 5/8", WILTON | 8 |
| 6 | 400101 | LUG NUT, 5/8", WILTON | 8 |
| 7 | 342206 | BEARING CUP, 1.625" BORE | 1 |
| 8 | 342205 | BEARING CUP, 2.25" BORE | 1 |
| 9 | 372305 | SEAL, 3.0" BORE | 1 |
| 10 | 402416 | FLAT WASHER, 1", MED PLTD | 1 |
| 11 | 401816 | HEX CASTLE NUT, 1-1/4" | 1 |
| 12 | 404006 | COTTER PIN, 5/32" x 1-1/4" | 1 |
| 13 | 372307 | DUST CAP WILTON | 1 |
| 14 | 187102 | SPINDLE, 3" DIA | 1 |
| 15 | 780754-L | TIRE & WHEEL, LEFT ASSY W/LUG TREAD, 33 x 16.5 | 2 |
| | 372637 | TIRE, 33 x 15.5, 16 PLY - OFF ROAD TREAD | AN |
| | 372437 | WHEEL, 12" WIDE x Ø16.5", 8 BOLT, 8" B/C - 6" PILOT | AN |
| | 708754-R | TIRE & WHEEL, RIGHT ASSY W/LUT TREAD, 33 x 16.5 | 2 |
| 16 | 760098 | TIRE & WHEEL ASSY, FHS 12.5L x 15" | 4 |
| | 372632 | TIRE, 12.5L x 15", FM HWY SVC - 12P | AN |
| | 372432 | WHEEL, 10" x 15" HEAVY, 8 BOLT | AN |
| 17 | W157084 | TIRE & WHEEL ASSY, H40 x 14.5 x 19, 8 BOLT | 4 |
| | W158677 | TIRE, H40 x 14.5 x 19 RECAP AIRCRAFT | AN |
| | W160869 | WHEEL, H40 x 14.5 x 19, 8 BOLT | AN |

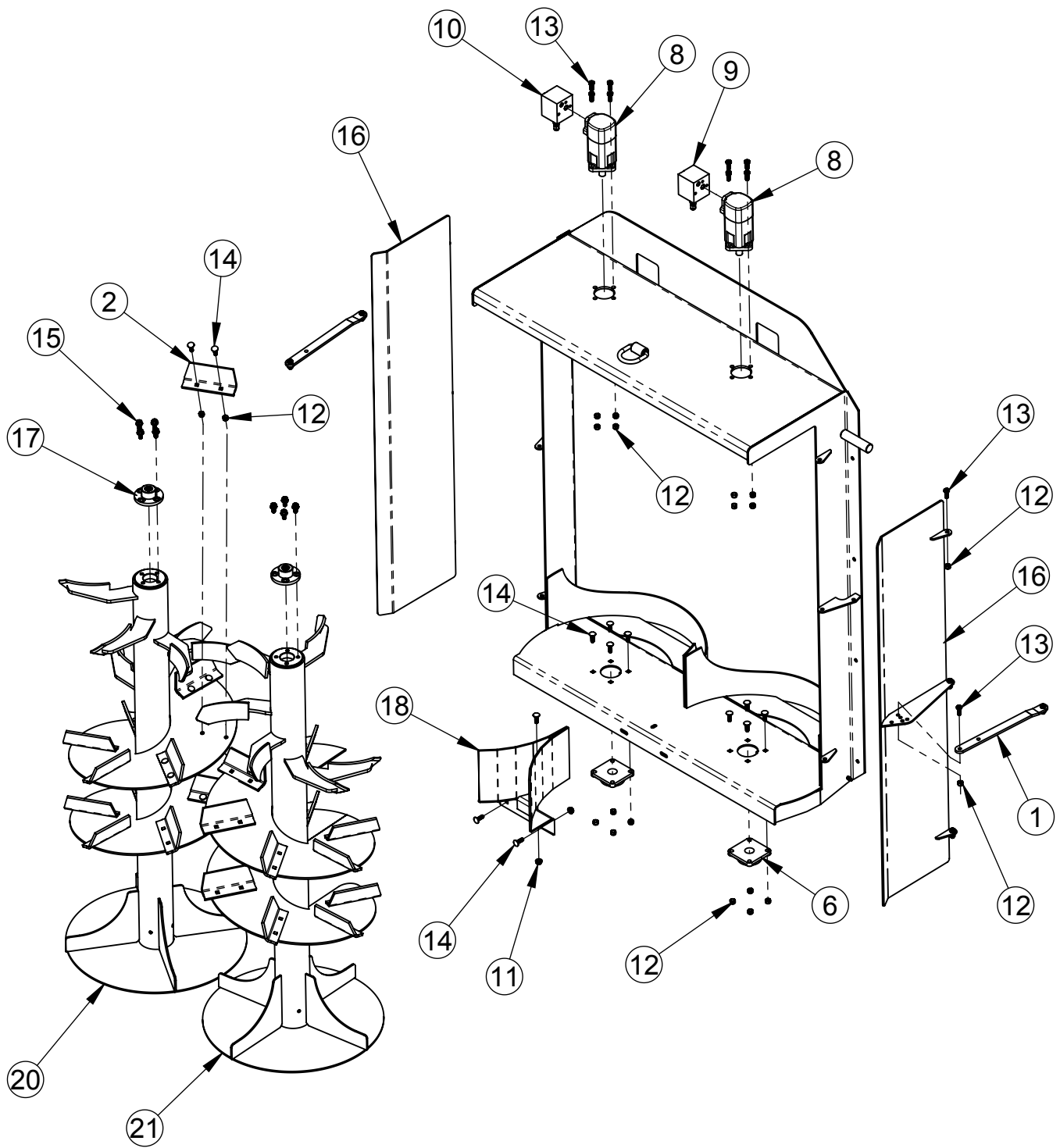
362-12 BEATER ASSEMBLY



362-12 BEATER ASSEMBLY

| ITEM # | PART NO. | DESCRIPTION | QTY. |
|--------|----------|--|------|
| 1 | 130378 | DOOR LINK | 2 |
| 2 | 130464 | ANGLE DEFLECTOR 9" x 4-1/2" | 24 |
| 3 | 310750 | GREASE ZERK PLTD 1/8" | 2 |
| 4 | 340425 | BEARING, RCJC, 4-BOLT FLANGE, 1-1/2" | 2 |
| 5 | 356002 | COMP STR. FITTING 1/8" MP x 3/16" TUBE | 4 |
| 6 | 360027 | HYD MOTOR, SPREADER BEATER 14.9 CID | 2 |
| 7 | 362344 | VALVE BLOCK, RELIEF/ANTI-CAV - C/W ROT. | 1 |
| 8 | 362345 | VALVE BLOCK, RELIEF/ANTICAV - CC/W ROT. | 1 |
| 9 | 400114 | HEX NUT, SERRATED FLANGE #5 Pltd., 1/2"-13 | 3 |
| 10 | 401108 | HEX NYLOC NUT #5 Pltd., 1/2-13 | 38 |
| 11 | 405702 | HHCS #5 PLTD. 1/2"-13 x 1 1/4" LG | 18 |
| 12 | 407102 | CAR BOLT, 1/2"-13 X 1-1/2", | 23 |
| 13 | 407911 | HHCS SERR. FLANGE. #5 PLTD. 1/2-13 x 1"LG | 8 |
| 14 | 830207 | DEFLECTOR W/A, VERTICAL BEATER | 2 |
| 15 | 830245 | DEFLECTOR W/A | 1 |
| 16 | 830253 | FRAME W/A, VERTICAL BEATER | 1 |
| 17 | 830255 | VERTICAL BEATER L/H W.A. | 1 |
| 18 | 830256 | VERTICAL BEATER R/H W.A. | 1 |
| 19 | 130612 | GREASE LINE, 3/16 x 24" LG | 1 |
| 20 | 830234 | DRIVE FLANGE W/A | 2 |
| 21 | 130612 | GREASE LINE, 3/16 x 24" LG | 1 |

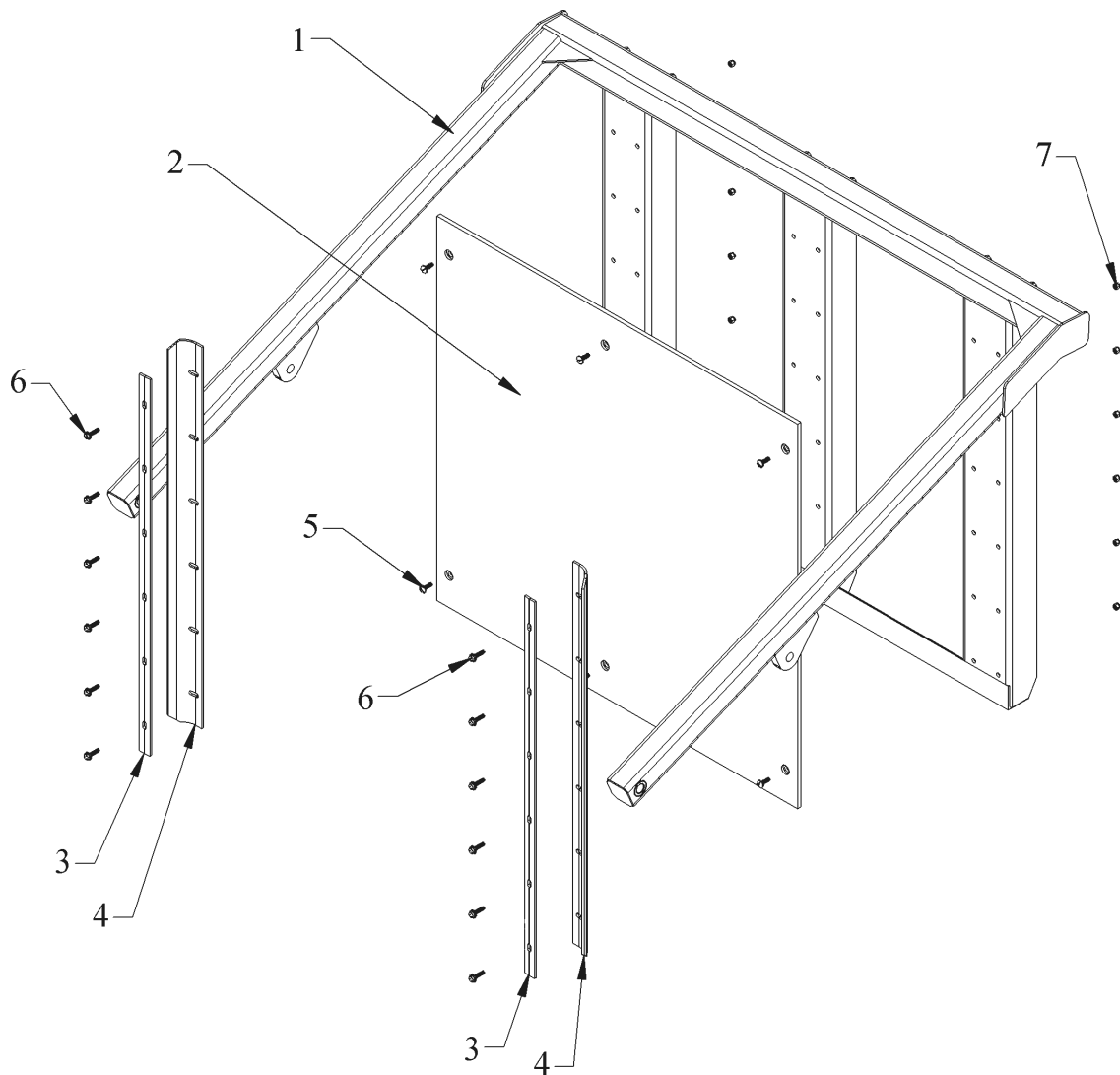
362-12 SHORT BEATER ASSEMBLY (OBSOLETE)



362-12 SHORT BEATER ASSEMBLY (OBSOLETE)

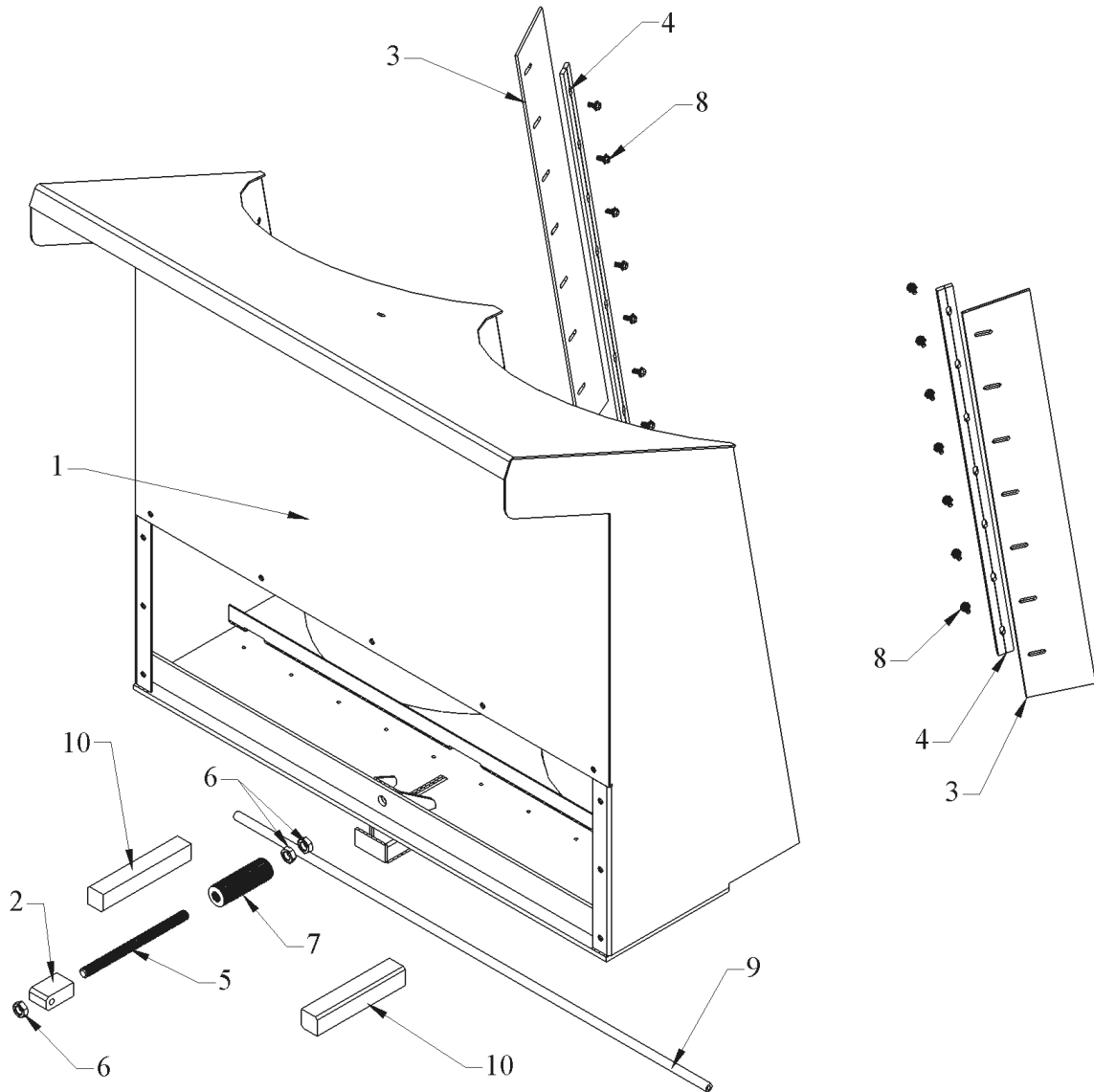
| ITEM # | PART NO. | DESCRIPTION | QTY. |
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| 1 | 130378 | DOOR LINK | 2 |
| 2 | 130464 | ANGLE DEFLECTOR 9" x 4-1/2" | 24 |
| 3 | 130612 | GREASE LINE, 3/16 x 24" LG | 1 |
| 4 | 130612 | GREASE LINE, 3/16 x 24" LG | 1 |
| 5 | 310750 | GREASE ZERK PLTD 1/8" | 2 |
| 6 | 340425 | BEARING, RCJC, 4-BOLT FLANGE, 1-1/2" | 2 |
| 7 | 356002 | COMP STR. FITTING 1/8" MP x 3/16" TUBE | 4 |
| 8 | 360027 | HYD MOTOR, SPREADER BEATER 14.9 CID | 2 |
| 9 | 362344 | VALVE BLOCK, RELIEF/ANTI-CAV - C/W ROT. | 1 |
| 10 | 362345 | VALVE BLOCK, RELIEF/ANTICAV - CC/W ROT. | 1 |
| 11 | 400114 | HEX NUT, SERRATED FLANGE #5 Pltd., 1/2"-13 | 3 |
| 12 | 401108 | HEX NYLOC NUT #5 Pltd., 1/2-13 | 38 |
| 13 | 405702 | HHCS #5 PLTD. 1/2"-13 x 1 1/4" LG | 18 |
| 14 | 407102 | CAR BOLT, 1/2"-13 X 1-1/2", | 23 |
| 15 | 407911 | HHCS SERR. FLANGE. #5 PLTD. 1/2-13 x 1"LG | 8 |
| 16 | 830207 | DEFLECTOR W/A, VERTICAL BEATER | 2 |
| 17 | 830234 | DRIVE FLANGE W/A | 2 |
| 18 | 830245 | DEFLECTOR W/A | 1 |
| 19 | 830253 | FRAME W/A, VERTICAL BEATER | 1 |
| 20 | 830255 | VERTICAL BEATER L/H W.A. | 1 |
| 21 | 830256 | VERTICAL BEATER R/H W.A. | 1 |

REAR GATE ASSEMBLY



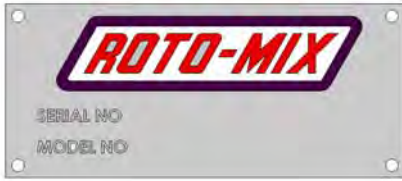
| Key | Part No. | Description | Qty. |
|-----|----------|-------------------------------------|------|
| 1 | 830251 | | 1 |
| 2 | 130473 | HDPE-UVI Gate Panel, 1/2 X 48 X 52 | 1 |
| 3 | 130439 | Clamp, Seal | 2 |
| 4 | 130440 | Flashing, Swinging Gate | 2 |
| 5 | 405050 | Truss Hd Screw, 3/8"-16 X 1 1/4" Lg | 6 |
| 6 | 407902 | .HHCS #5 Pltd. 3/8" -16 X 1-1/4" | 12 |
| 7 | 401106 | Hex Nyloc Nut #5 Pltd 3/8" -16 | 18 |

SLIDING GATE ASSEMBLY



| KEY | PART NO. | DESCRIPTION | QTY. |
|-----|----------|--------------------------------|------|
| 1 | 830252 | Sliding Gate W.A. | 1 |
| 2 | 130359 | Lug, Chain | 1 |
| 3 | 130428 | Scraper | 2 |
| 4 | 130429 | Clamp, Scraper | 2 |
| 5 | 130348 | Threaded Rod, Belt Tension | 1 |
| 6 | 400614 | Hex Nut, 7/8-9 Plated | 3 |
| 7 | 410027 | Belleville Spring Washer | 48 |
| 8 | 407900 | HHCS #5 Pltd., 3/8" -16 X 3/4" | 14 |
| 9 | 130455 | Hose | 1 |
| 10 | 130427 | UHMW Sliding Gate Guide | 2 |

SPREADER DECALS



1



2



3



4

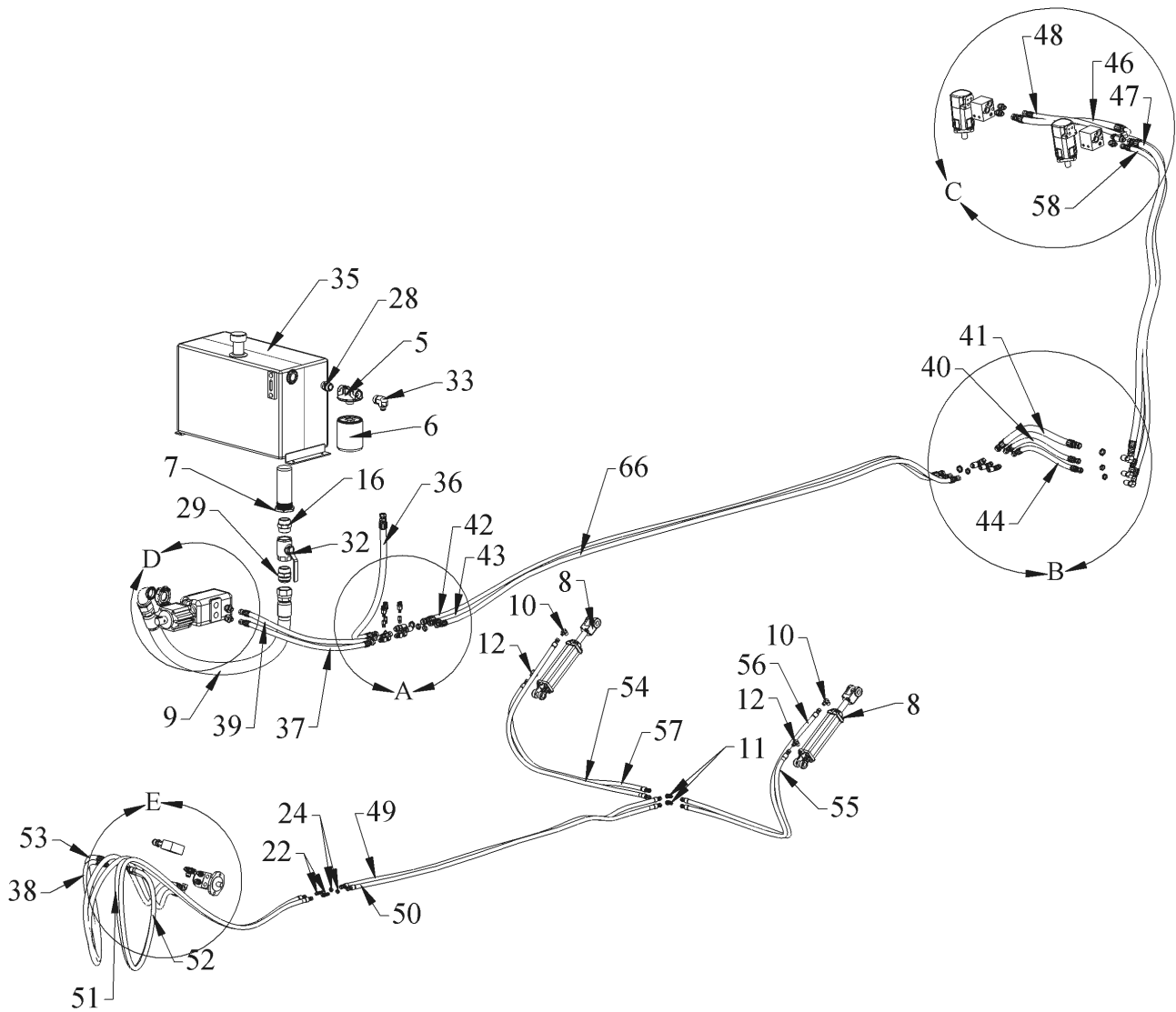
PATENT PENDING

5

SPREADER DECALS

| Key | Part No. | Description | Qty. |
|------------|-----------------|------------------------------------|-------------|
| 1 | 440842-M | Plate, S/N & Model | 1 |
| 3 | 440844 | Decal- (Made In Usa) | 2 |
| 4 | 440944 | Decal 362-16 (Roto-Spread) | 2 |
| 2 | 440841 | Decal - Patent Pend 11/16x5 | 1 |
| 2 | 440939 | Decal, Roto-Spread 7-1/2"X43-1/16" | 3 |
| NS | 440006 | Decal Tape, White 1/2" | 40.5' |
| NS | 440011 | Decal Tape, Wide White 1" | 44' |
| NS | 354380 | Manual Pak - Plastic Box | 1 |
| NS | 404500 | Drive Screw 3/32 X 1/4 | 4 |

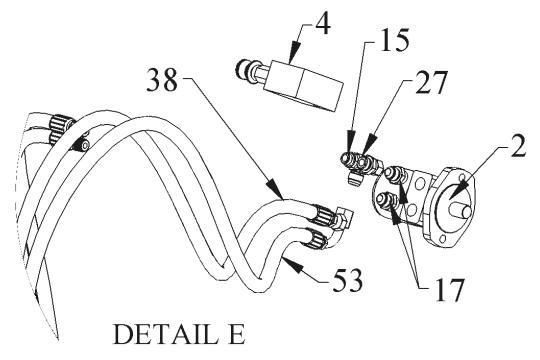
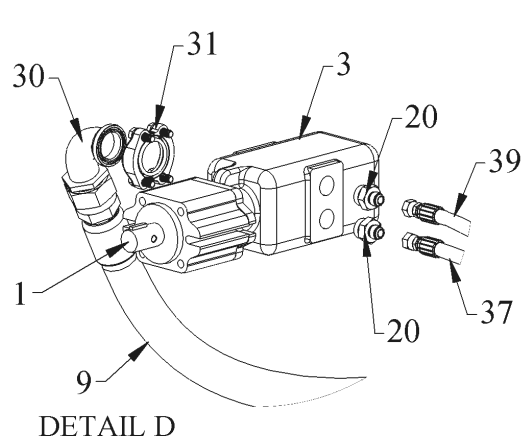
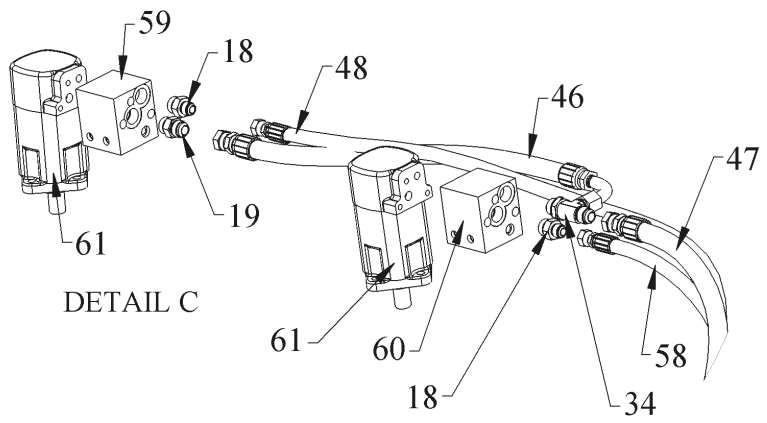
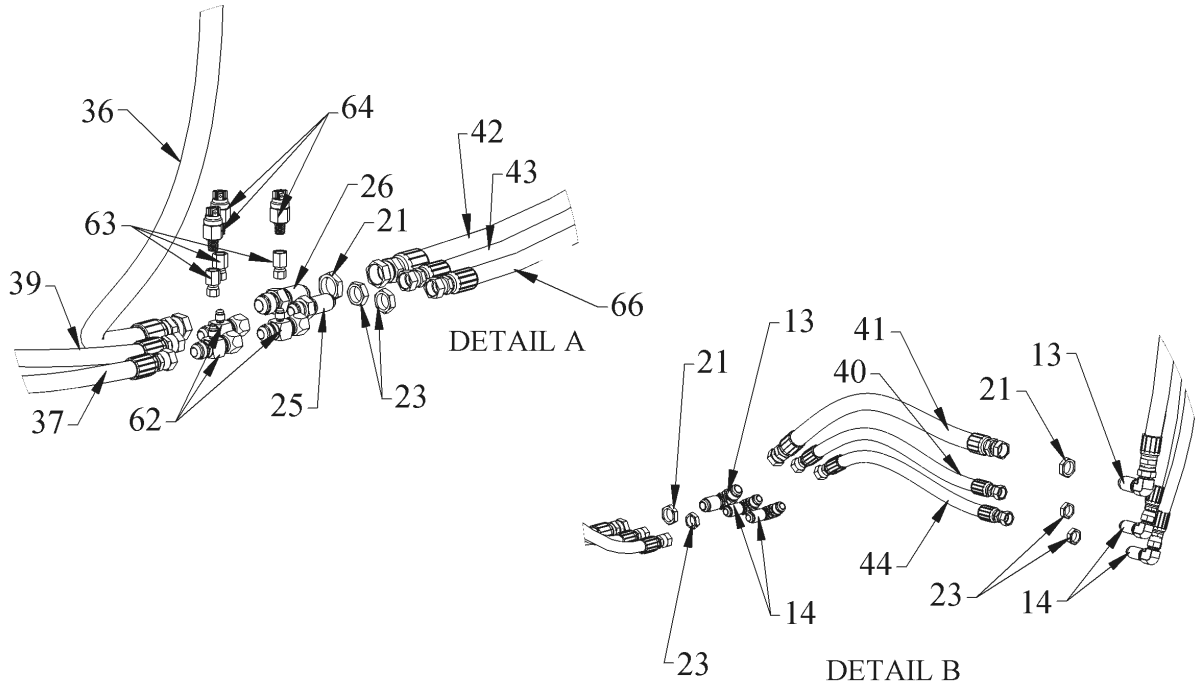
SPREADER HYDRAULIC ASSEMBLY (1 OF 2)



Also See Page 40

| KEY | PART NO. | DESCRIPTION | QTY. |
|-----|----------|---|------|
| 1 | 344070 | Overhung Adapter, 1-1/2 Keyed | 1 |
| 2 | 360029 | Motor, Char-Lynn T Series, 6.9 CID | 1 |
| 3 | 362028 | Pump, 4.97 Tandem Gear | 1 |
| 4 | 362290 | Hyd Flow Control Valve | 1 |
| 5 | 362404 | Filter Head, 1-1/4" FP | 1 |
| 6 | 362442 | Filter Element | 1 |
| 7 | 362508 | Strainer, Suction | 1 |
| 8 | 364073 | 2-1/2" x 8" x 20-1/4" HYD. CYL. | 2 |
| 9 | 366750 | Hose Assy, 2-1/2 FJX x 50" LG. | 1 |
| 10 | 368009 | 90° Elbow, 3/8 MP x 9/16 JIC .031 Orifice | 2 |
| 11 | 368022 | Tee, 9/16 JIC Union Tee | 2 |
| 12 | 368033 | 90° Elbow, 3/8 MP x 9/16 JIC | 2 |
| 13 | 368086 | 90° ADPT, 1-1/16 JIC Bulkhead | 2 |
| 14 | 368087 | 90° ADPT, 7/8 JIC Bulkhead | 4 |
| 15 | 368091 | 90° 3/4 MOR x 7/8 JIC | 1 |
| 16 | 368130 | ST ADPT, 2 MP x 2 MP HEX NPL | 1 |
| 17 | 368161 | STR ADPT, 7/8 MOR x 7/8 JIC | 2 |
| 18 | 368162 | STR ADPT, 1-1/16 MOR x 7/8 JIC | 2 |
| 19 | 368163 | STR ADPT, 1-1/16 MOR x 1-1/16 JIC | 1 |
| 20 | 368165 | STR ADPT, 1-5/16 MOR x 7/8 JIC | 2 |
| 21 | 368330 | Bulkhead Nut, 1-1/16" JIC | 3 |
| 22 | 368336 | ST ADPT, 9/16 JIC Bulkhead | 2 |
| 23 | 368327 | Bulkhead Nut, 7/8" JIC | 6 |
| 24 | 368337 | Bulkhead Nut, 9/16" JIC | 2 |
| 25 | 368328 | STR ADPT, 7/8 JIC Bulkhead | 2 |
| 26 | 368329 | STR ADPT, 1 1/6 JIC Bulkhead | 1 |
| 27 | 368338 | STR ADPT, 3/4 MOR x 7/8 FJX | 1 |
| 28 | 368422 | STR ADPT, 1-5/8 MOR x 1-1/4 MP | 1 |
| 29 | 368423 | ST ADPT, 2-1/2 JIC x 2 MP | 1 |
| 30 | 368454 | 90° Flange, 2-1/2" JIC x 2" Flange | 1 |
| 31 | 368456 | Flange, 32FH Set, Code 61 Spl | 1 |
| 32 | 368523 | Ball Valve, 2" FP | 1 |
| 33 | 368626 | 90° ADPT, 1-1/16 JIC x 1-1/4 MP | 1 |
| 34 | 368628 | Tee, 1 1/16 JIC x 1 1/16 MOR | 1 |
| 35 | 370235 | Tank, 40 GAL HYD | 1 |
| 36 | 781501 | Hose Assy, 3/4 x 44" | 1 |
| 37 | 781507 | Hose Assy 7/8 FJX, 1/2 x 37" | 1 |
| 38 | 781509 | Hose Assy, 1/2 x 96" | 1 |
| 39 | 781510 | Hose Assy, 3/4 x 36" | 1 |
| 40 | 781511 | Hose Assy 7/8 FJX, 1/2 x 20" | 1 |

SPREADER HYDRAULIC ASSEMBLY (2 OF 2)



HOSES #51 & #52 NOT SHOWN.

Also See Page 38

| | | | |
|----|----------|---|---|
| 41 | 781514 | Hose Assy, 3/4 x 23" | 1 |
| 42 | 781515 | Hose Assy, 3/4 x 170" | 1 |
| 43 | 781516 | Hose Assy 7/8 FJX, 1/2 x 170" | 1 |
| 44 | 781517 | Hose Assy, 1/2 x 17 1/2" | 1 |
| 46 | 781519 | Hose Assy, 3/4 x 28" | 1 |
| 47 | 781518 | Hose Assy, 3/4 x 88" | 1 |
| 48 | 781520 | Hose Assy 7/8 FJX, 1/2 x 106" | 1 |
| 49 | 781523 | Hose Assy, 3/8 x 106" | 1 |
| 50 | 781523-A | | 1 |
| 51 | 781525 | Hose Assy, 3/8 x 114" | 1 |
| 52 | 781525-A | | 1 |
| 53 | 781526 | Hose Assy, 1/2 x 124" | 1 |
| 54 | 781522-A | | 1 |
| 55 | 781521 | Hose Assy 9/16 FJX, 3/8 x 53" | 1 |
| 56 | 781522 | Hose Assy 9/16 FJX, 3/8 x 64" | 1 |
| 57 | 781521-A | | 1 |
| 58 | 781524 | Hose Assy 7/8 FJX, 1/2 x 88" | 1 |
| 59 | 362344 | Anti-Cav / R/ V Block - Cw Rot. | 1 |
| 60 | 362345 | Anti-Cav / R/V Block Assy (Ccw Rot.) | 1 |
| 61 | 360027 | Hyd Motor, Beater 14.9 CID | 2 |
| 62 | 368629 | Tee, 7/8 x 7/8 x 7/16 JIC SWVL | 6 |
| 63 | 368630 | ADPT, 1/4 NPT x 7/16 JIC | 3 |
| 64 | 357725 | Pressure Switch, 2750 PSI Normally Open | 3 |
| 66 | 781516-A | | 1 |
| NS | 781513 | Hose Assy 7/8 FJX, 1/2" x 38" | 1 |
| NS | 368331 | ST ADPT 9/16 MOR x 7/8 JIC | 1 |
| NS | 368334 | ST ADPT 7/8 MOR x 3/4 JIC | 1 |
| NS | 368335 | SWVL ADPT 9/16 MOR x 3/4 | 1 |
| NS | 434101 | Fluid, Hyd TO-4 SAE 10W | 1 |