



**702-17 & 802-19
MANURE SPREADER
TRUCK UNIT**



**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 located 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.

WARRANTY

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 plant, any parts that prove, in the company's judgment, to be defective in material and workmanship within one (1) year after delivery to the original purchaser, and still owned by the original purchaser.

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 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 delivered from the ROTO—MIX plant.

It is a condition of this warranty that if within the aforesaid period of time, said equipment, product or parts are determined by the original purchaser to be defective as herein provided, then such defective part or parts must be delivered by or through a dealer and/or distributor to ROTO—MIX at its factory with transportation prepaid or warranty shall be of no force or effect and shall be waived by the purchaser. 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.

This warranty shall not apply to any item, manufactured in whole or in part by ROTO—MIX, which shall have been operated in a manner not recommended by ROTO—MIX nor which shall have been repaired, altered, neglected, tampered with, or used in anyway which in the company's opinion adversely affects its performance. 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 employee of ROTO—MIX 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.

ROTO—MIX reserves the right to make changes in design, or additions to, or improvements in its equipment without obligation to install such changes, additions, or improvements in equipment previously manufactured.

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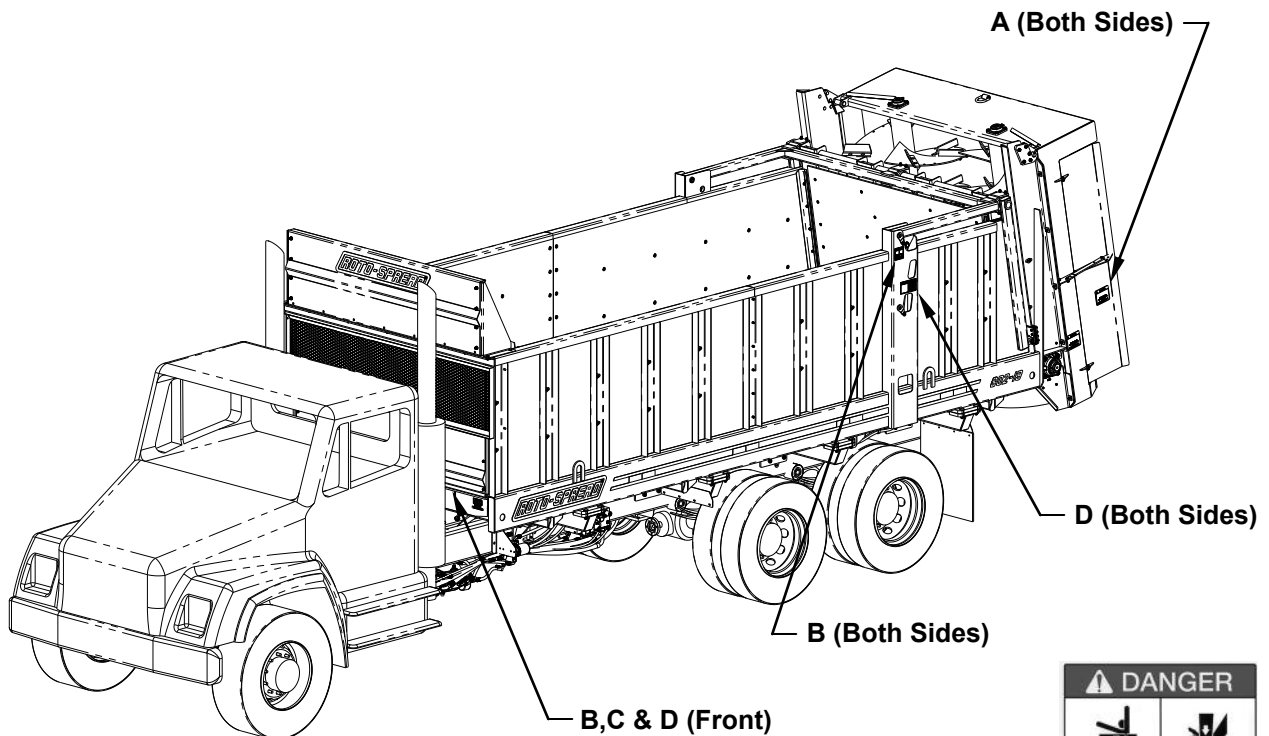
SAFETY - SPREADER

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.



NOTE: Complete decal kit part number for 702-17 is 630025, for 802-19 is 630016



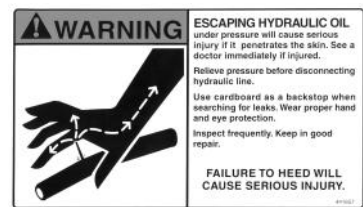
Decal B. 440833



Decal A. 440827



Decal C. 440801



Decal D. 441657

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

SPREADER SAFETY

CAUTION

Do not operate your spreader until you have read this 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.
- 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.

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

- Stay Clear Of Rotating Drive lines.
- Entanglement In Rotating Drive line Can Cause Serious Injury Or Death.
- Do Not Exceed Load Capacity Of The Spreader (See Specifications).
- 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.
- Avoid Overhead Wires Or Other Obstacles. Contact With Overhead Lines Could Cause Serious Injury or Death.
- As A Precaution, Always Recheck The Hardware On Spreader Following Every 100 Hours Of Operation. Correct All Problems. Follow The Maintenance Safety Procedures.

⚠ CAUTION

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

FOR YOUR SAFETY:

- Always Wear Eye Protection When Servicing Spreader.
- Disengage Power Take-Off And Remove Keys From Truck Before Servicing Spreader.
- Do Not Attempt To Clean, Oil Or Adjust Spreader While It Is In Motion.
- Stop The Engine And Be Sure Spreader Is Stopped Before Making Adjustments, Connections, Or Cleaning Out Equipment.
- Make Sure There Is Plenty Of Ventilation. Never Operate The Engine Of The Vehicle In A Closed Building. The Exhaust Fumes May Cause Asphyxiation.
- Before Working On The Spreader, Stop The 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 Operation. Check Periodically Thereafter.
- Maintain Proper Tire Air Pressure At All Times.
- 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.

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

- 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.

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.

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SPECIFICATIONS

Roto-Spread	702-17 Truck	802-19 Truck
Capacity (Heaped)	702 Cubic Foot	802 Cubic Foot
Struck Level	510 Cubic Foot 3,815 Gallon	570 Cubic Foot 4,264 Gallon
Spreader Weight (Empty) Without Truck	16,421 Lbs	16,780 Lbs
Load Capacity (Net)	37,500 Lbs	43,000 Lbs
Inside Dimensions	48" High, 90" Wide, 204" Long	48" High, 90" Wide, 228" Long
Outside Dimensions	102"	102"
Overall Length	288"	312"
Overall Height (Gate Lowered)	133" (Based on 40" truck frame)	133" (Based on 40" truck frame)
Overall Height (Gate Raised)	165" (Based on 40" truck frame)	165" (Based on 40" truck frame)
Unload Speed/Time	Variable	Variable
Discharge Height	48"	48"
Spread Coverage	12' to 30'	12' to 30'
Recommended HP	450 (Minimum) Truck	450 (Minimum) Truck
Beater Drive	PTO Driven Triple Hydrostat Pump Driving 2 High Torque Motors.	PTO Driven Triple Hydrostat Pump Driving 2 High Torque Motors.
Belt Drive/Rear Gate	Uses Truck PTO Hydraulics. Belt Drive Speed Regulated by an Adjustable Flow Control Valve.	Uses Truck PTO Hydraulics. Belt Drive Speed Regulated by an Adjustable Flow Control Valve.
Beaters	Two 42" Diameter High Speed Vertical Beaters with Spinners, and Double Flighting 265 RPM @ 2000 PTO RPM	Two 42" Diameter High Speed Vertical Beaters with Spinners, and Double Flighting 265 RPM @ 2000 PTO RPM
Belt Material & Chain	5/16" 350 PSI PVC Belt & WH124 H.D. Combination Chain for Belt and Retention Gate Drive System	5/16" 350 PSI PVC Belt & WH124 H.D. Combination Chain for Belt and Retention Gate Drive System
Floor, Gate & Side Walls	High Density Polyethylene on Floor, Side Walls and End Gate	High Density Polyethylene on Floor, Side Walls and End Gate

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 belt 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 truck hydraulic system. 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 truck hydraulic system. 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 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. 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.
6. Check to see that no obstructions are present in the spreader prior to start up.
7. Be sure that there are no tools lying on or in the spreader.
8. Do not use the unit until you are sure that the area is clear, especially children and animals.
9. The ball valve in the suction line must be open prior to engaging PTO (handle parallel with valve housing).
10. Because it is possible that this spreader may be 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.
11. Don't hurry the learning process or take the unit for granted. Ease into it and become familiar with your new spreader.
12. Practice operation of your spreader and its attachments. Completely familiarize yourself and other operators with its operation before using.
13. Do not allow anyone to ride on the inside or the outside of the spreader unit at any time.

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. Do not drink and drive.
 6. Comply with state and local laws governing highway safety.
 7. Plan your route to avoid heavy traffic.
 8. Be a safe courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc.
 9. Be observant of bridge loading ratings. Do not cross bridges rated lower than the gross weight at which you are operating.
 10. Watch for obstructions overhead and to the side while transporting.
 11. Make allowances for increased length and weight of the spreader when making turns, stopping the unit, etc.
-

OPERATION

LOADING

Park the spreader for loading. Put the truck in PARK or NEUTRAL and apply the parking brake.

Make sure the sliding front gate is all the way to the front of the spreader and close the hydraulic rear gate before loading.

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.

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

1. Press beater switch to "ON" (WHENEVER THE BEATER IS USED ALWAYS PLACE SWITCH IN THE ON POSITION BEFORE ENGAGING THE PTO).
2. Press "ON" button.
3. Engage PTO.
4. Press rear gate switch "UP" to raise gate completely.
5. When gate is completely raised return rear gate switch to center.
6. Press belt switch "BACK" to start floor.
7. Adjust belt speed "DIAL" for desired floor speed.
8. Select correct gear to maintain engine RPM to 1500-2100 and give the desired rate of application to the field. (A combination of gear selections and "DIAL" settings will fine tune the rate of application).
9. Start forward motion of truck when "SPREAD" light comes on.
10. When "SPREAD" light goes out the load is emptied.

11. Press belt switch "FORWARD" to return floor to the front.
12. When floor and front gate are at the front of the spreader return the belt switch to the center position.
13. Press the rear gate switch to "DOWN" to lower gate to the closed position.
14. Return the rear gate switch to center when rear gate is completely closed.
15. Press beater switch to "OFF".
16. This completes the cycle of off loading the material.

NOTE: At the end of the day, clean the belt by running it forward and back several times. This will help smooth out any larger clumps of material left on the belt top or on the inside of the belt, which if left on the belt could damage the belt and roller the next time the spreader is in operation, especially during freezing weather.

The "wings" may be adjusted to change the width of the spread pattern. Normally a "mid position" setting is a good place to start. (Note "wings" may be removed if desired for close quarter operation in pens".

If unloading semi-liquid material the rear gate may be raised in incremental amounts to control the rate of discharge.

NOTE!

BEFORE MOVING THE FRONT GATE, THE REAR GATE MUST BE RAISED COMPLETELY TO PREVENT DAMAGE TO THE FRONT GATE.


Unit is equipped with a beater stall warning horn. The intensity of the horn can be adjusted by turning a "muffler" on the face of the horn. Intermittent sounding of the horn during operation is normal. If the horn sounds continuously the belt speed dial should be reset to a lower number.

Vary belt speed with the consistency of the material being spread. A lower setting might be desired for sticky or frozen material. A higher setting for dry and light material.

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 truck PTO. The spreader is designed to give a uniform spread pattern when the truck engine is operated at 1500 - 2100 RPM for typical materials. Adjustment of the beater speed and spread pattern is regulated by the engine speed.

STORAGE AND CLEANING

 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.

SET PARKING BRAKE & REMOVE IGNITION KEY 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.
5. Hose off manure from the outside and inside of the spreader. Completely clean manure from moving mechanisms such as the beaters, belt 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 APPLY THE PARKING BRAKE, TURN OFF ENGINE AND REMOVE IGNITION KEY 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 alternator battery & spreader controller on the truck should always be disconnected before welding on the spreader.

LUBRICATION

Bearings

(See figure 1)

Grease 2 upper beater bearings and 2 wing pulley bearings every 10 hours of operation with 2 pumps of grease.

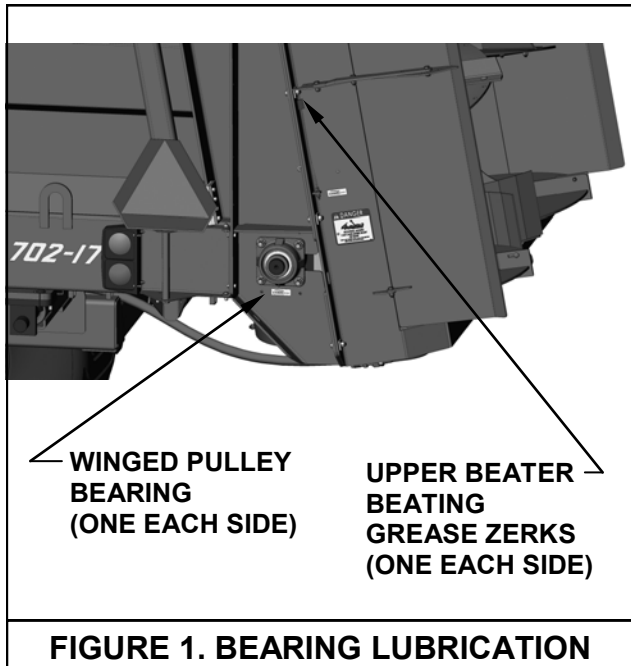


FIGURE 1. BEARING LUBRICATION

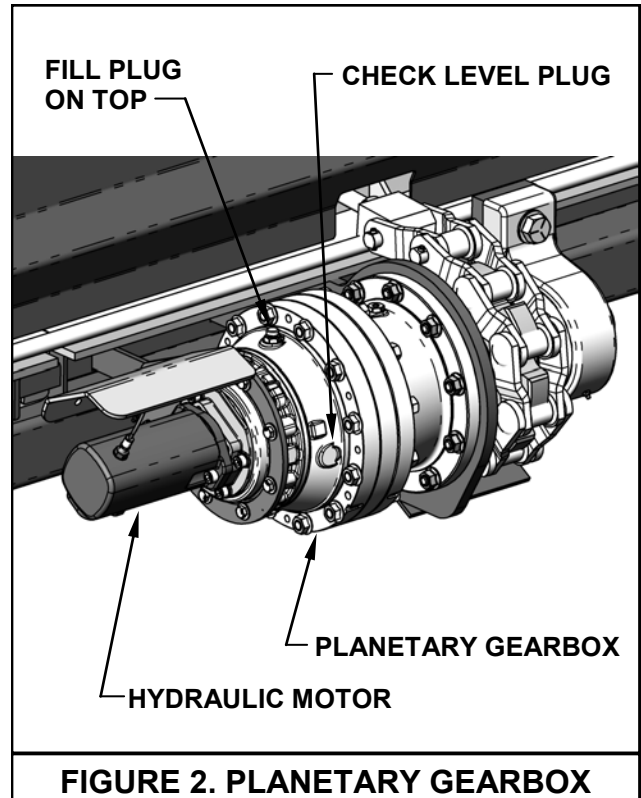


FIGURE 2. PLANETARY GEARBOX

PLANETARY GEARBOX

(See figure 2)

Oil Specification: Mobil Delvac Synthetic Gear Oil 75W-90. There is a check plug half way up on the gearbox. Maintain the oil level to this check plug. Fill plug is located on the top of the gearbox.

BELT MAINTENANCE

Clean the belt roller when needed, so that material does not build up inside roller.

Clean bottom side of belt below frame so that material does not pack into roller and damage belt and roller. This maintenance procedure is especially important during freezing weather.

REAR GATE LIFT CYLINDERS

Clean out around rear gate lift cylinders daily. Material that is left around cylinders can become solid and damage cylinders when they are activated.

HYDRAULIC SYSTEM

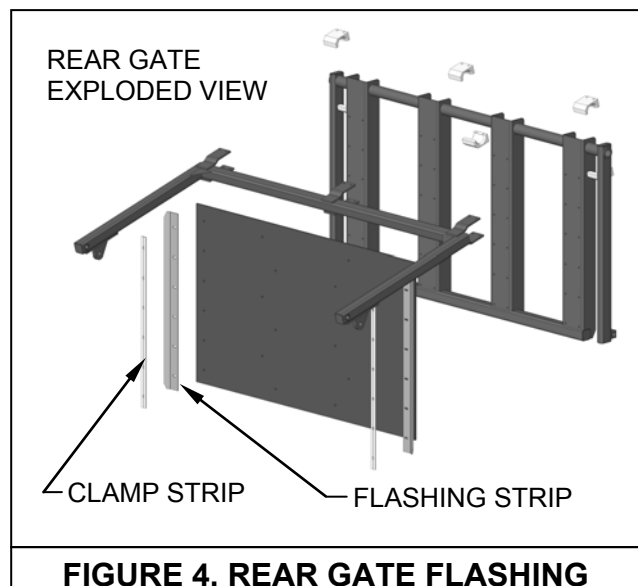
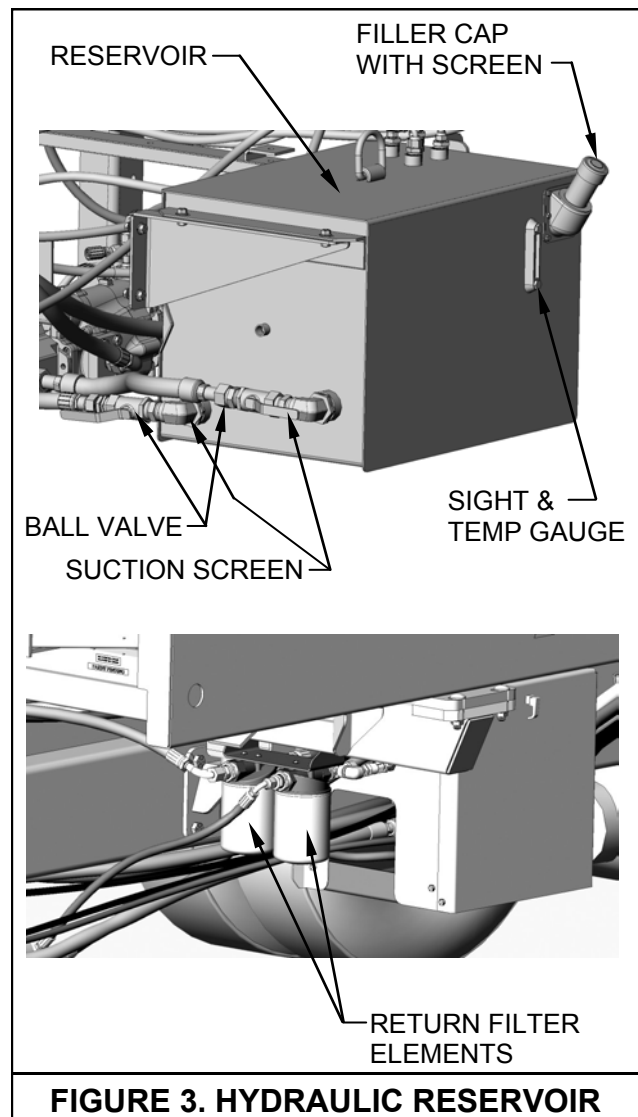
(See figure 3)

1. Oil Specification: CITGO TRANSGARD TRACTOR HYDRAULIC FLUID - Material Code 633310001 .
2. Capacity: 60 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 of the sight gauge when cold.
5. Oil is added through a filter screen inside the filler neck. Before filling, remove the screen, inspect, clean and replace if required. After replacing screen add oil to proper level.
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 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.

Rear Gate Flashing

(See figure 4)

1. Swinging gate flashing strips are clamped to both vertical ends 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 Drive Chain Slack (With Belleville Spring Washer Take-up)

(See figure 5)

1. To adjust the floor drive chain, run the sliding gate all the way to the rear of the spreader until it stops.
2. Remove the front panel of the sliding gate.
3. 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.
4. Loosen the two 1" hex nuts on the end of the threaded rod. Tighten the inner nut until the forty eight Belleville washers are almost fully compressed (approximately 5-1/4"). Tighten the outer nut against the inner to lock the adjustment.
5. Replace the front panel.

NOTE: The Belleville washers are assembled in "tail to tail" pairs and stacked per figure 5 detail.

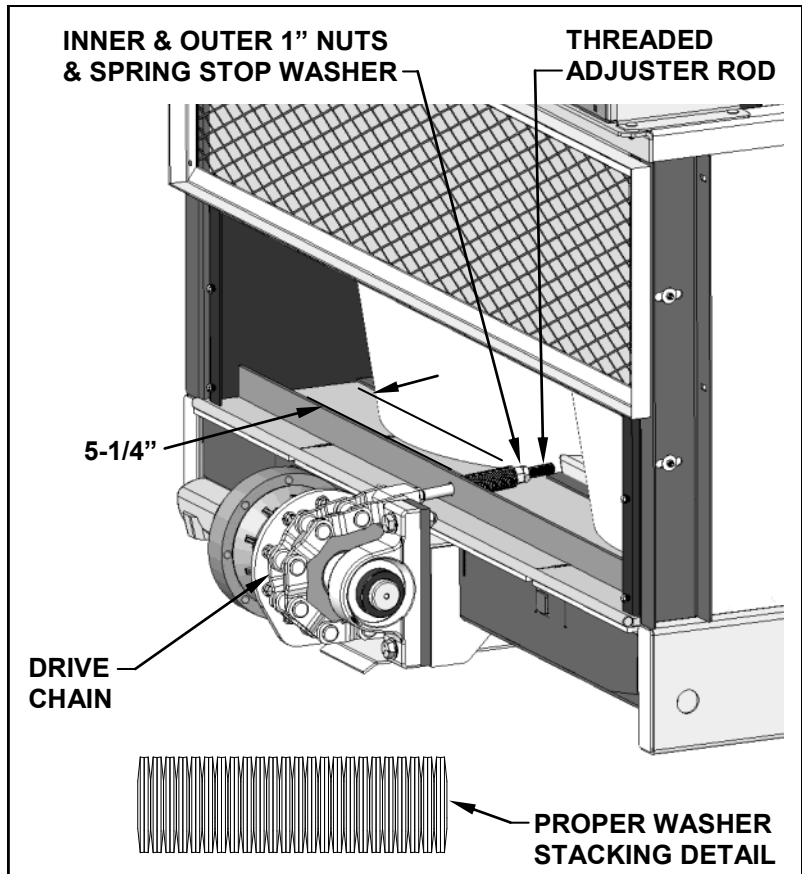


FIGURE 5. BELLVILLE SPRING WASHER STACK ADJUSTER

Sliding Gate Drive Chain Slack (With Urethane Spring Take-up)

(See figure 6)

1. To adjust the floor drive chain, run the sliding gate all the way to the rear of the spreader until it stops.
2. Remove the front panel of the sliding gate.
3. 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.
4. Loosen the two 1" hex nuts on the end of the threaded rod. Tighten the inner nut until the urethane springs are almost fully compressed (5/8" from end of canister). Tighten the outer nut against the inner to lock the adjustment.
5. Replace the front panel.

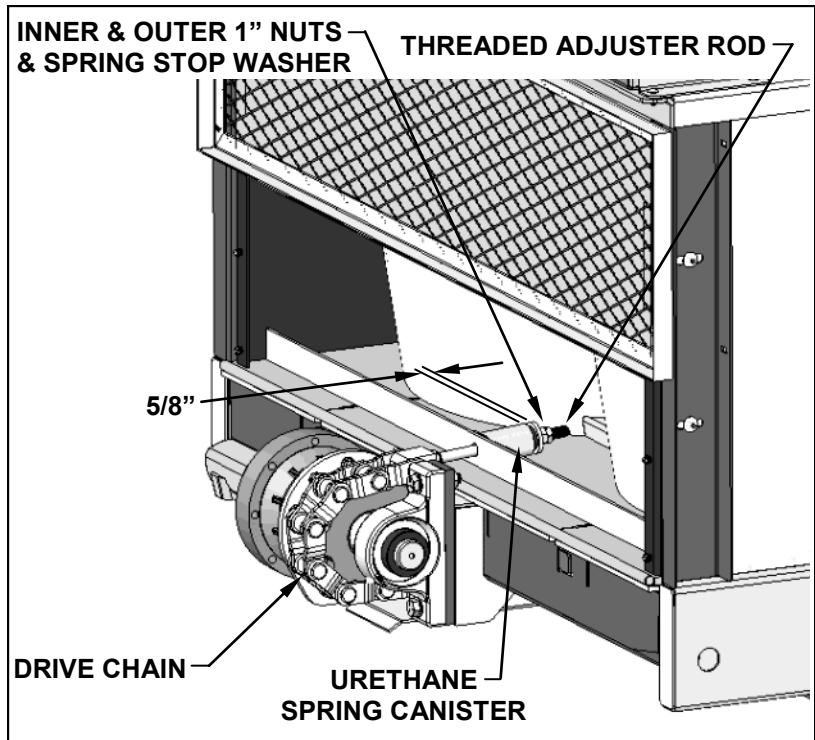


FIGURE 6. URETHANE SPRING CHAIN ADJUSTER

ADJUSTMENTS

Sliding Gate Scrapers

(See figure 7)

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.

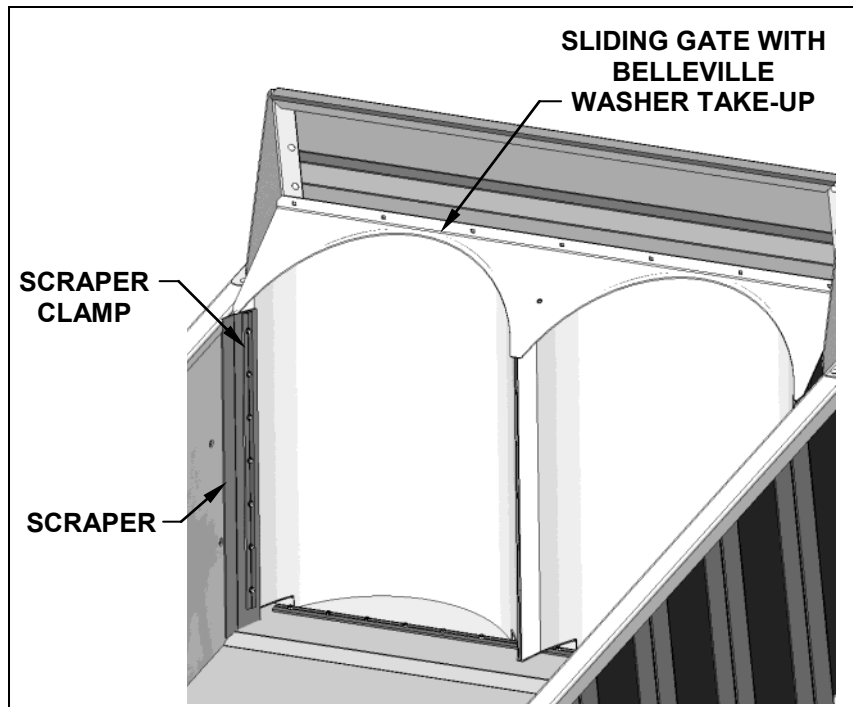


FIGURE 7. ADJUST SLIDING GATE SCRAPERS

ADJUSTMENTS

Fastening Floor Belt to Slide Gate

(See figure 8)

1. If the floor belt is ever removed from the slide gate the bolts and nuts that fastens the floor belt to the slide gate must be torque to 70 FT.LBS. If the nuts need to be replaced they must be a 7/16"-20 Grade 8 nut in order to be torque to 80 ft lbs.

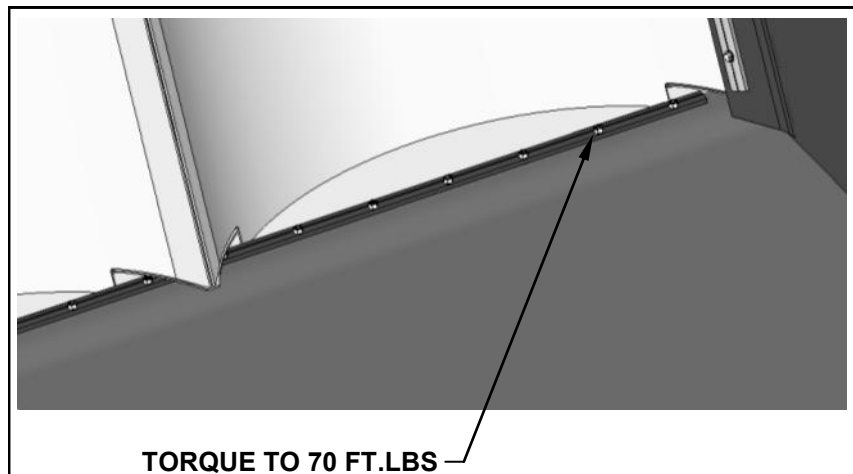


FIGURE 8. FASTENING THE BELT TO THE SLIDE GATE

Adjust Spread Pattern
(See figure 8)

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.

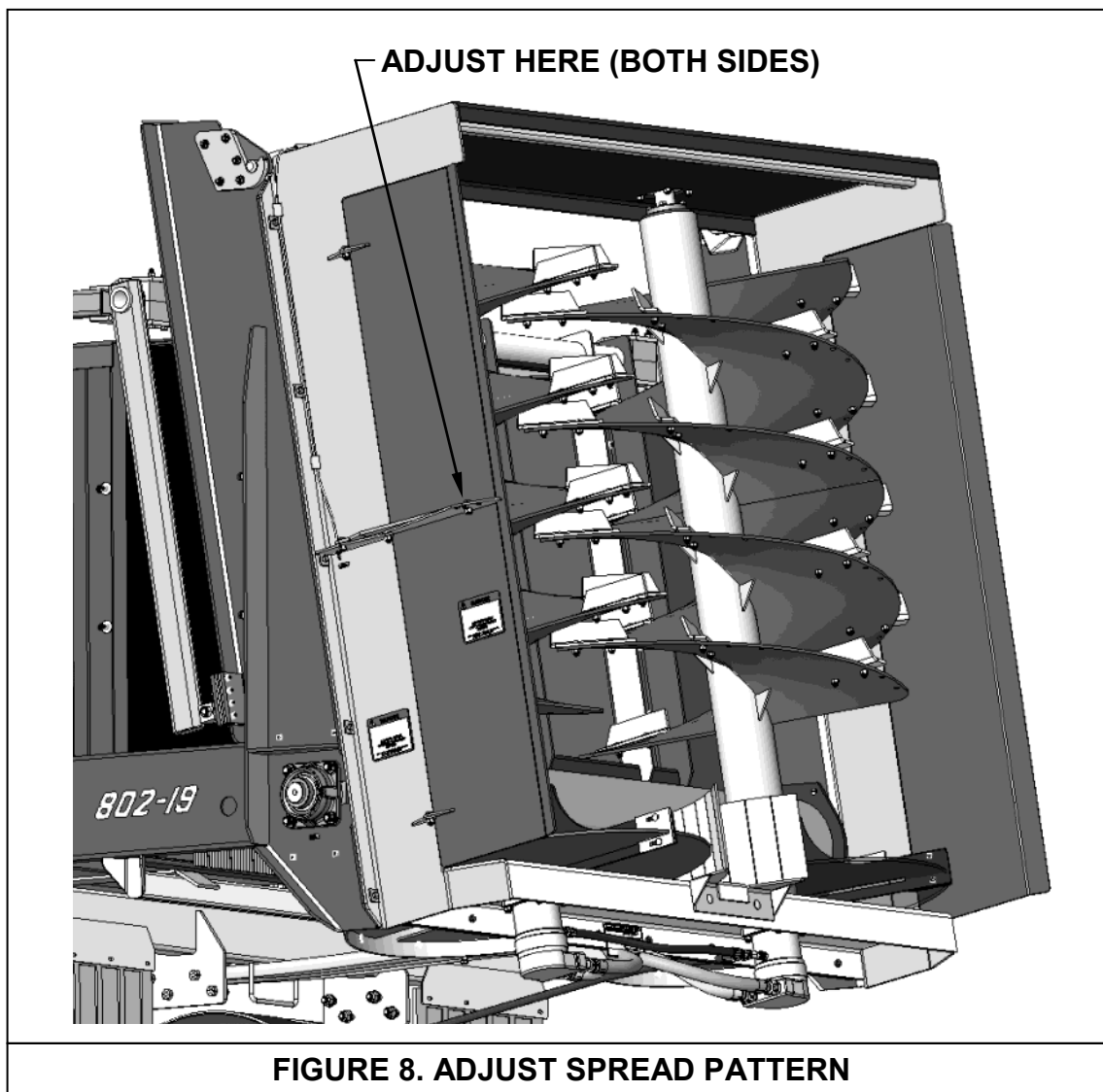


FIGURE 8. ADJUST SPREAD PATTERN

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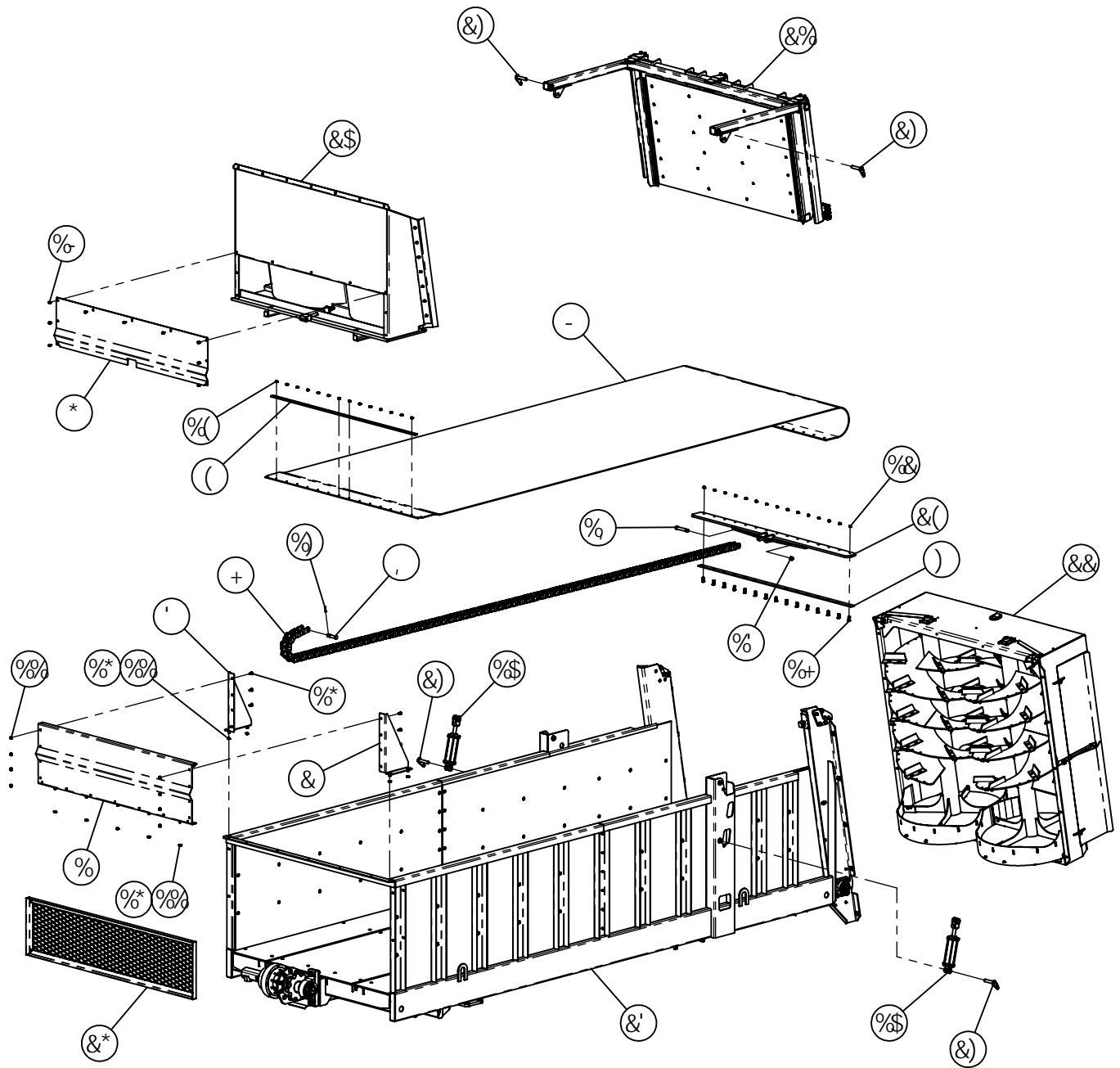
REPAIR PARTS

702-17 & 802-19

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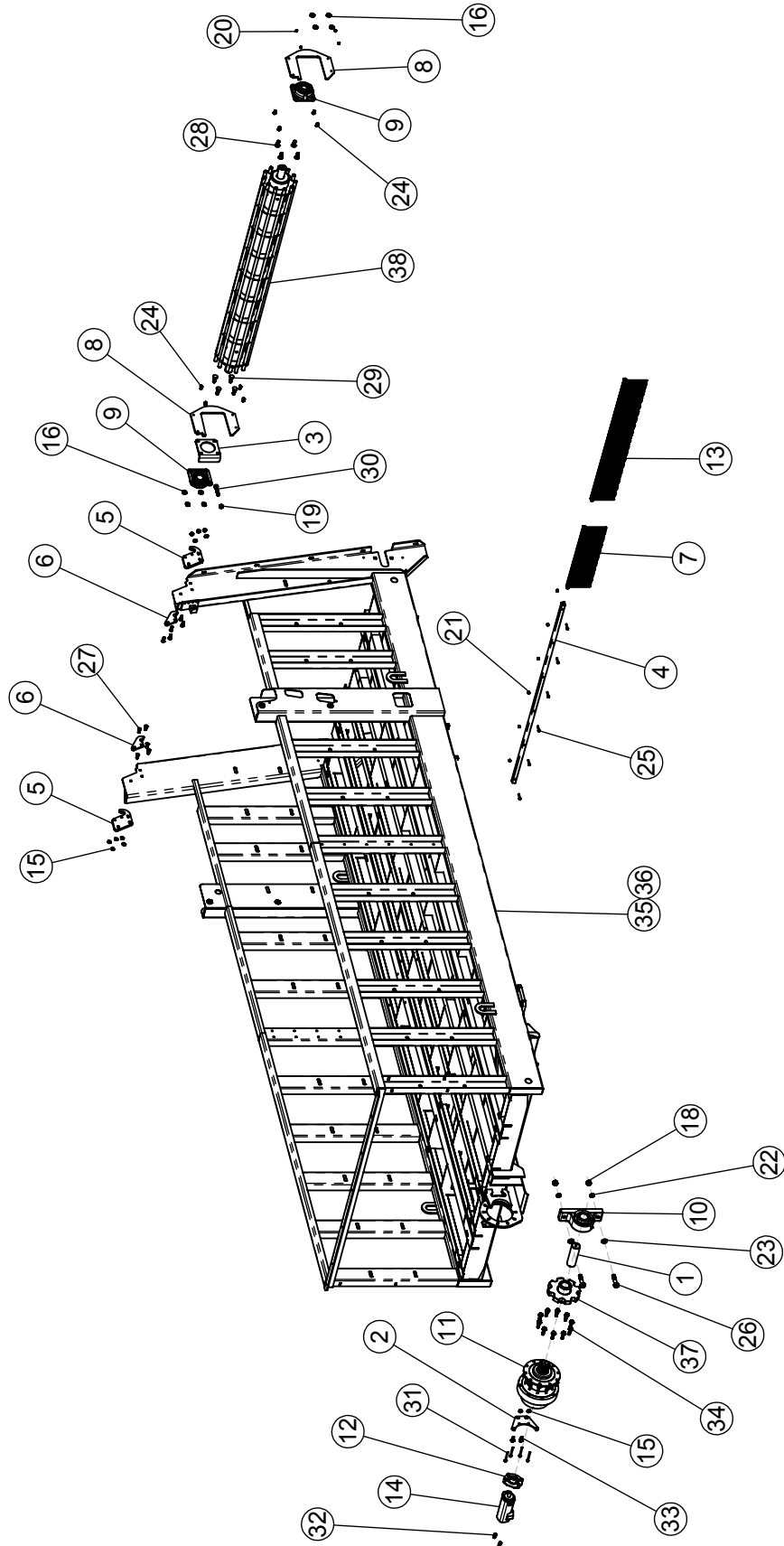
702-17 & 802-19 SPREADER ASSEMBLY



702-17 & 802-19 SPREADER ASSEMBLY

#9A	D5FH	89G7 F DHC B	E HM
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&	% \$*(*)	G@5; 9'9LH9BG€ B A C I BH6F57?9H#@<ž%*!%#("I' (, "	%
'	% \$*(+)	G@5; 9'9LH9BG€ B A C I BH6F57?9H#F#<ž%*!%#("I' &, "	%
(% \$+*'	, \$&: FC BH; 5H9'69@H7 @5A Dž(%"	&
)	% \$+*(, \$&D@5H9'69@H7 @5A Dž&"I', , "	%
*	% \$++\$, \$&: FC BH; 5H9'7CJ9Fž&\$!%#&"I', , "	%
+	' &&)*%	, \$&7 <5-BžK 9@898'A @@("'\$*' D#7 <'!&&"**': H'	%
	' &&)*%	+\$&7 <5-BžK 9@898'A @@("\$*' D#7 <'!&\$"**: H'	%
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%&	(\$%\$%\$,	<9L'BI Hž%#&'!% 'BMC 7.)'D@B	&)
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	+' \$%)&	+\$&HFI 7?'GDF9589F'6C L'GI 6'5GGM	%
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&*	, ' \$' ' *	, \$&G7F99B'G<9@8'K 5	%

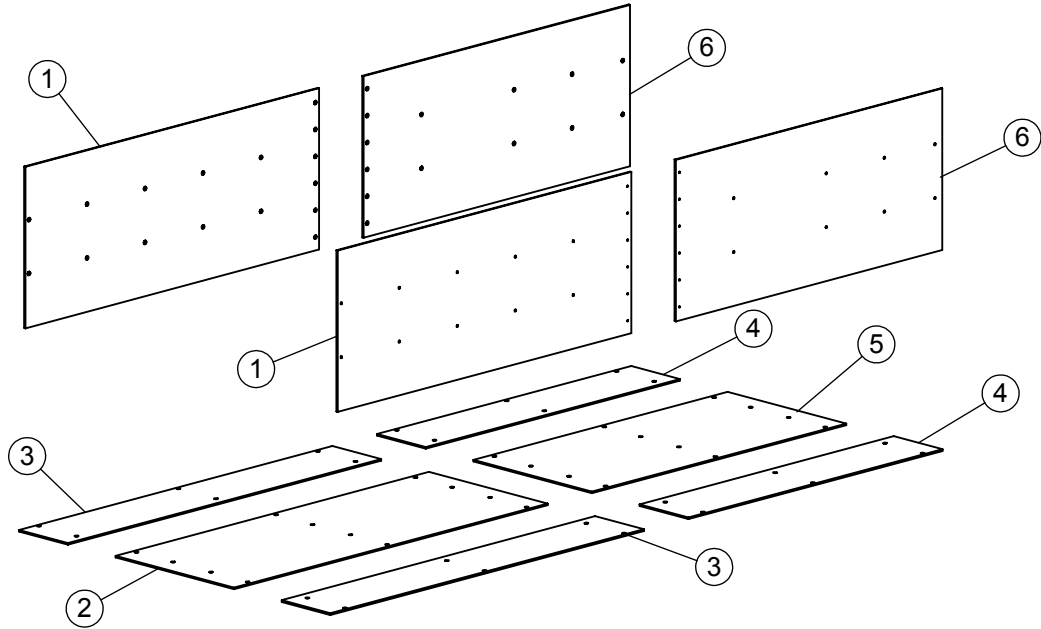
702-17 & 802-19 SPREADER BOX ASSEMBLY



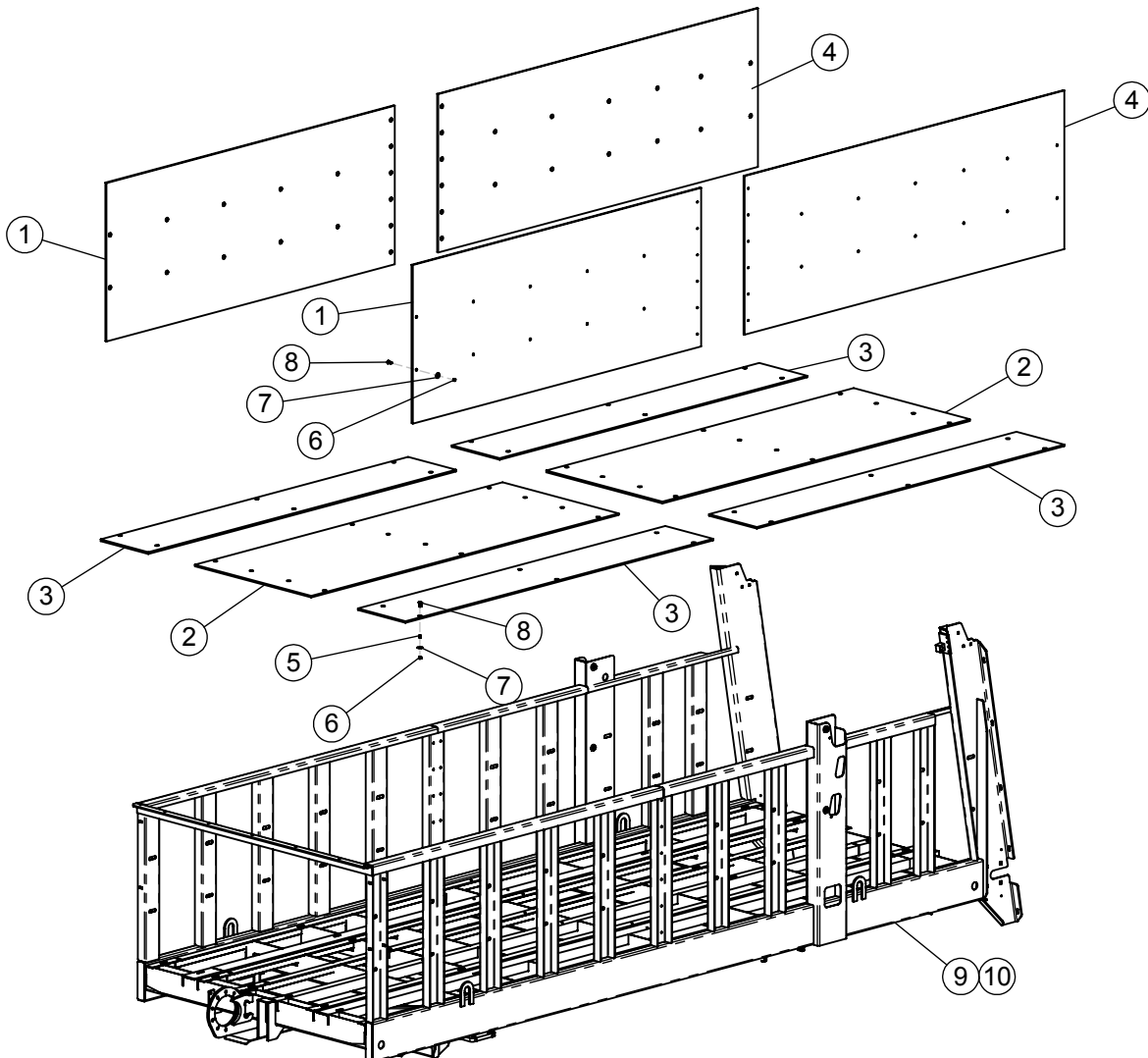
702-17 & 802-19 SPREADER BOX ASSEMBLY

ITEM #	PART #	DESCRIPTION	QTY.
1	130664	802 BEARING SHAFT, 2-15/16" x 9"	1
2	130743	802 GEARBOX BRACKET, 7" x 9-1/2"	1
3	130749	802 BELT ADJUSTER BRACKET, 7-1/2" x 10-5/16"	1
4	130785	802 BROOM CLAMP, 89"	1
5	130788	802 PIVOT PLATE, 7" x 10"	2
6	130790	802 UPPER PIVOT PLATE, 6-1/2" x 5-1/2"	2
7	130836	BROOM BRISTLES, 8" x 30"	1
8	130938	702/802 FILLER, HDPE-UVI, 1/2" x 16" x 14-1/4"	2
9	340539	BEARING, 4-BOLT FLANGE, 2-7/16"	2
10	340942	PILLOW BLOCK BEARING, 2-15/16"	1
11	344121	GEARBOX, BREVINI ED2090/MR/25 SUZ	1
12	344145	MOUNT MOTOR ADAPTER KIT, BREVINI "B"	1
13	351048	BROOM BRISTLES, 8" x 60"	1
14	360039	HYDRAULIC MOTOR, 18.7 CID, 2 SPEED, FLOOR DRIVE	1
15	400114	HEX SERRATED FLANGE NUT, 1/2"-13, #5 PLTD	12
16	400116	HEX SERRATED FLANGE NUT, 3/4"-10, #5 PLTD	8
17	400120	HEX SERRATED FLANGE NUT, 5/8"-11, #5 PLTD	10
18	400216	HEX NUT, 1"-8, #5 PLTD	2
19	400812	HEX 2-WAY LOCNUT, 3/4"-10, # 5 PLTD	1
20	400906	HEX CENTER LOCNUT, 3/8"-16, #5 PLTD	8
21	401106	HEX NYLOC NUT, 3/8"-16, #5 PLTD	6
22	402016	SPRING LOCK WASHER, 1", MED, PLTD	2
23	402516	FLAT WASHER, SAE, 1"	2
24	405050	TRUSS HD SCREW, 3/8"-16 x 1-1/4"	8
25	405657	HHCS, 3/8"-16 x 2", #5 PLTD	6
26	405834	HHCS, 1"-8 x 4-1/2", #5 PLTD	2
27	407103	CARRIAGE BOLT, 1/2"-13 x 1-3/4"	10
28	407140	CARRIAGE BOLT, 3/4"-10 x 2"	4
29	407141	CARRIAGE BOLT, 3/4"-10 x 2-1/2"	4
30	407475	HHCS, 3/4"-10 x 4", #5 PLTD. FULL THREAD	1
31	407820	HHCS METRIC, 10mm-1.5P x 100mm	4
32	407840	SHCS METRIC, 12mm-1.75P x 35mm (8.8)	2
33	407913	HHCS SERRATED, 1/2"-13 x 1-1/2", #5 PLTD	2
34	407924	HHCS SERRATED, 5/8"-11 x 2-1/2", #5 PLTD	10
35	830280	802-19 SPREADER BOX WA	1
36	830340	702-17 SPREADER BOX WA	1
37	830298	802 DRIVE SPROCKET WA	1
38	830307	802 BELT IDLER WA, 12" x 99 1/4" (2nd GEN)	1

702-17 SPREADER BOX SIDES & FLOOR



802-19 SPREADER BOX SIDES & FLOOR



702-17 SPREADER BOX SIDES & FLOOR

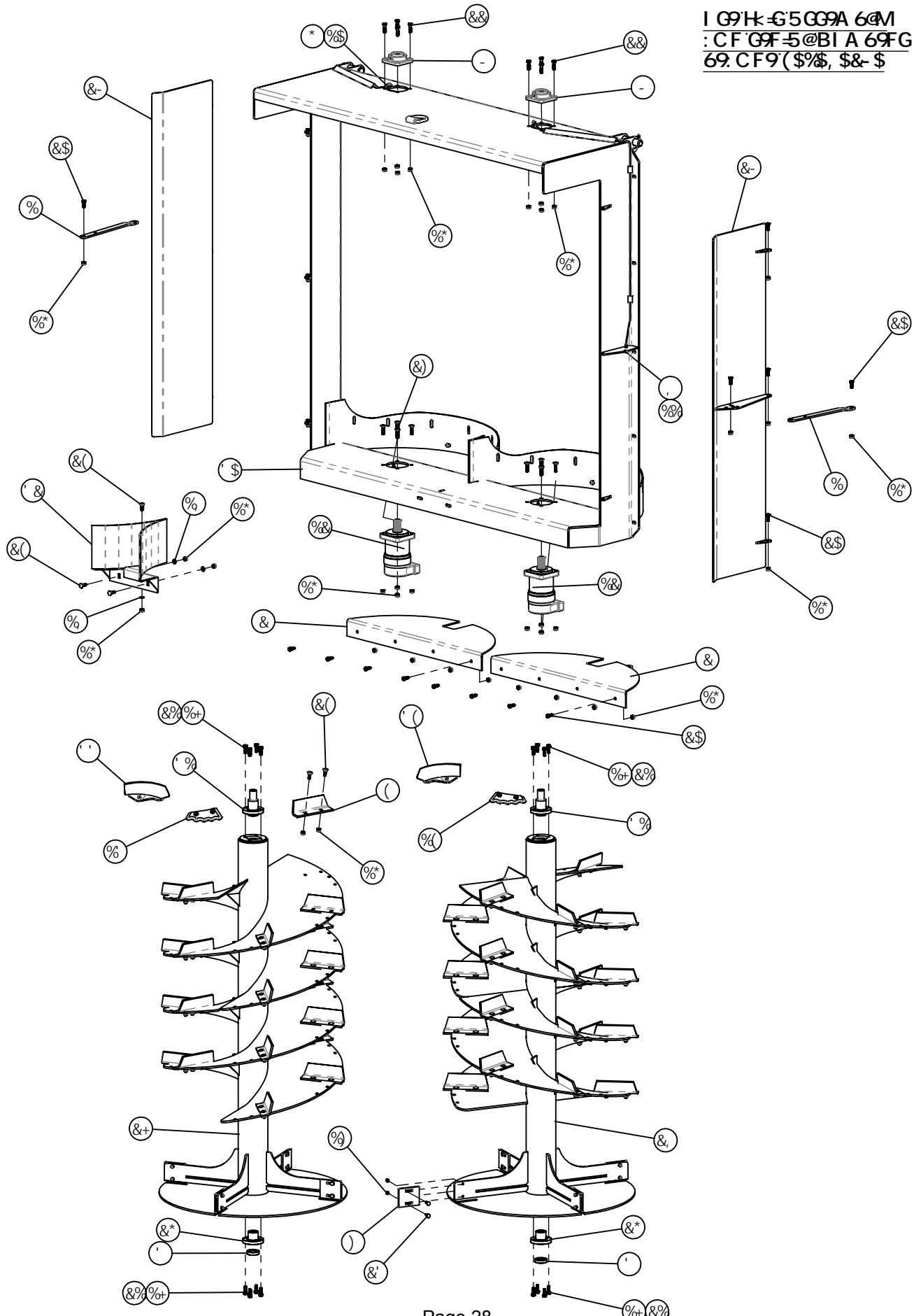
ITEM #	PART #	DESCRIPTION	QTY.
1	130320	HDPE SIDE, FRONT - SPREADER, 1/2" x 48" x 120"	2
2	130671	802 HDPE-UVI FLOOR, CENTER 1/2" x 48" x 127"	1
3	130672	802 HDPE-UVI FLOOR STRIP 1/2" x 20" x 127"	2
4	130941	802 HDPE-UVI FLOOR STRIP 1/2" x 19-3/4" x 103"	2
5	130942	702 HDPE-UVI FLOOR, CENTER 1/2" x 48" x 103"	1
6	130943	702 HDPE-UVI SIDE, REAR, 1/2" x 48" x 108 "	2

802-19 SPREADER BOX SIDES & FLOOR

ITEM #	PART #	DESCRIPTION	QTY.
1	130320	HDPE SIDE, FRONT - SPREADER, 1/2" x 48" x 120"	2
2	130671	802 HDPE-UVI FLOOR, CENTER 1/2" x 48" x 127"	2
3	130672	802 HDPE-UVI FLOOR STRIP 1/2" x 20" x 127"	4
4	130673	802 HDPE-UVI SIDE, REAR, 1/2" x 48" x 132"	2
5	130314	SPACER - 3/8" ID x 9/16" OD x 11/16" LG	1
6	401106	3/8" - 16 HEX NYLOC NUT #5 PLTD	2
7	402606	FENDER WASHER PLTD. 3/8"ID x 1 1/2"OD	2
8	405050	TRUSS HD SCREW, 3/8"-16 x 1 1/4" LG	2
9	830280	802-19 SPREADER BOX W/A	1
10	830340	703-17 SPREADER BOX W/A	1

702-17 & 802-19 SPREADER BEATER ASSEMBLY

1 G9HK-G5GG9A 6@M
 : CF'G9F-5@BI A 69FG
 69.CF9'(\$%\$, \$&- \$



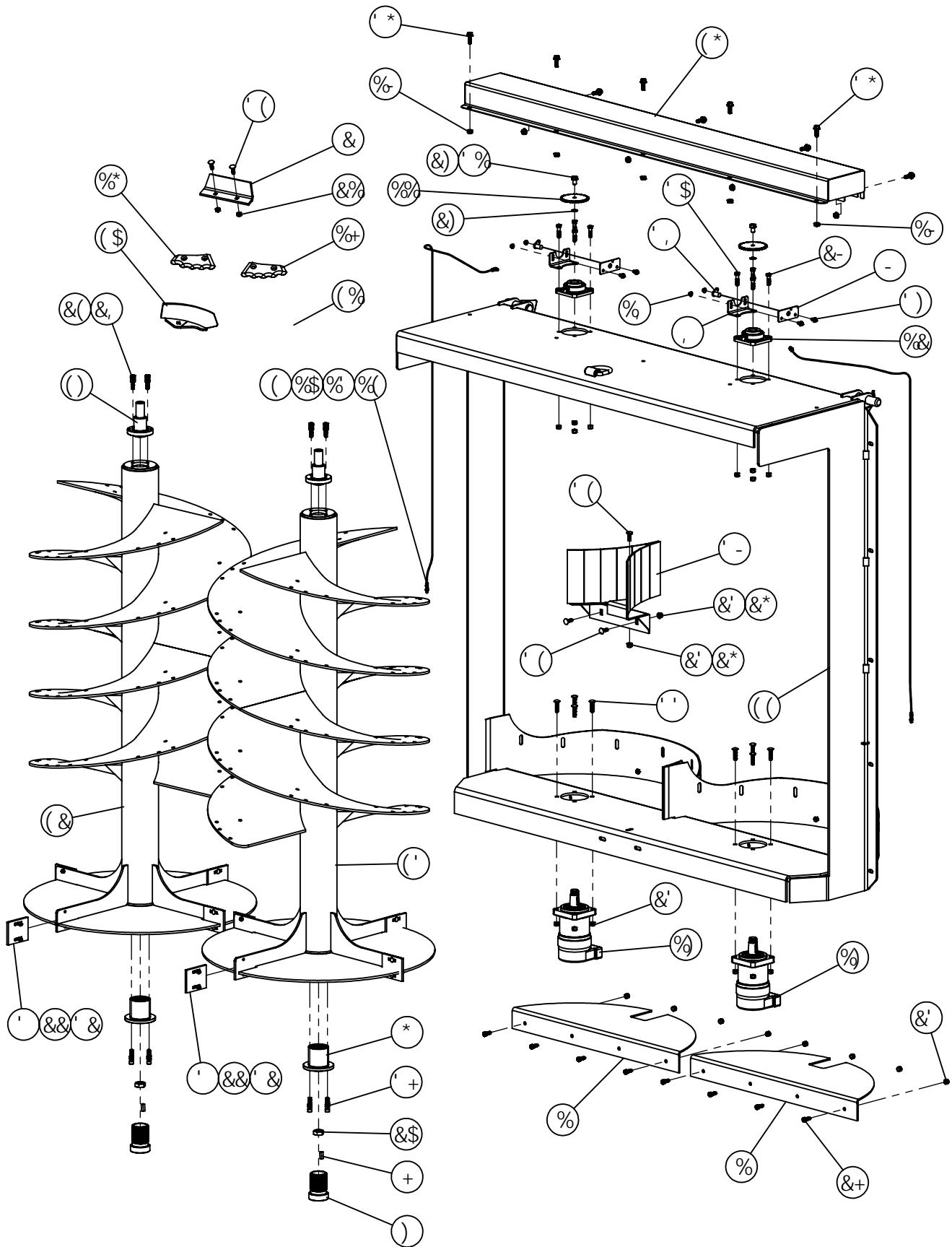
702-17 & 802-19 SPREADER BEATER ASSEMBLY

1 G9H-65G9A 64M: CF'G9F-5@BI A 69FG'69: CF9'(\$%\$, \$&- \$

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*	% \$, ' \$; F 95 G9 '@B 9Z' '#%' "1', ("7 C DD9F	%
+	% \$, ' \$; F 95 G9 '@B 9Z' '#%' "7 C DD9F	%
,	' %\$+) \$; F 95 G9 'N9F? '%#, "D@B	&
-	' (\$ (&)	695 F B; Z'(16C @H: @5 B; 9Z'%'#&"ZF7 >7	&
%\$	') * \$\$%	7 C A DF 9GG€ B : #HB; '%#, "A D I ' '#%' "H 69Z' - \$š	&
%%	') * \$\$&	7 C A DF 9GG€ B : #HB; '%#, "A D I ' '#%' "H 69Z' GFH	&
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&*	, ' \$&, (8 F J 9: @5 B; 9'K 5	&
&+	, ' \$&,)	, \$&'@: H<5 B 8 'J 9FH7 5 @695 H9F 'K 5	%
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702-17 802-19 SPREADER BEATER ASSEMBLY

1 G9H-G5G9A 6@M: CF G9F-5@BI A 69FG69, B-B; K H (\$\$, \$&- \$

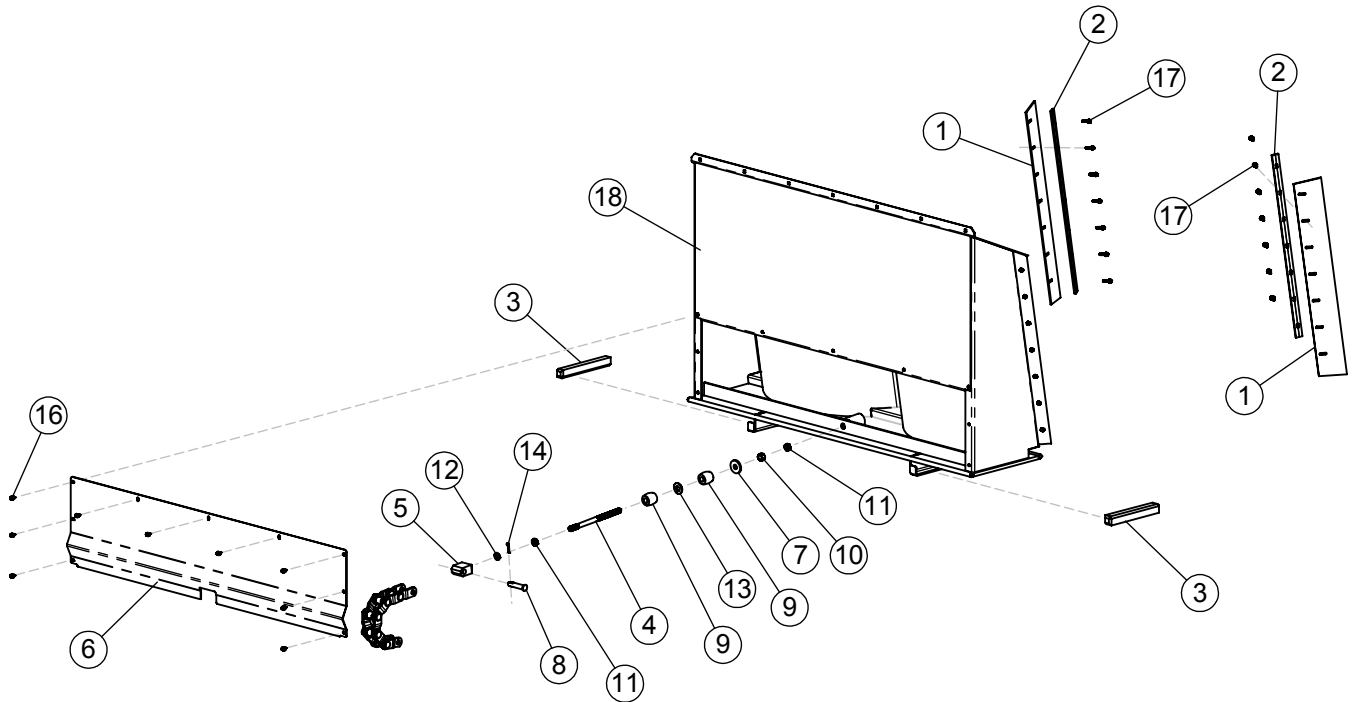


702-17 & 802-19 SPREADER BEATER ASSEMBLY

I G9H-G5G9A 6@M: C F G F 5@BI A 69FG69; B-B; K #K (\$%\$, \$&- \$

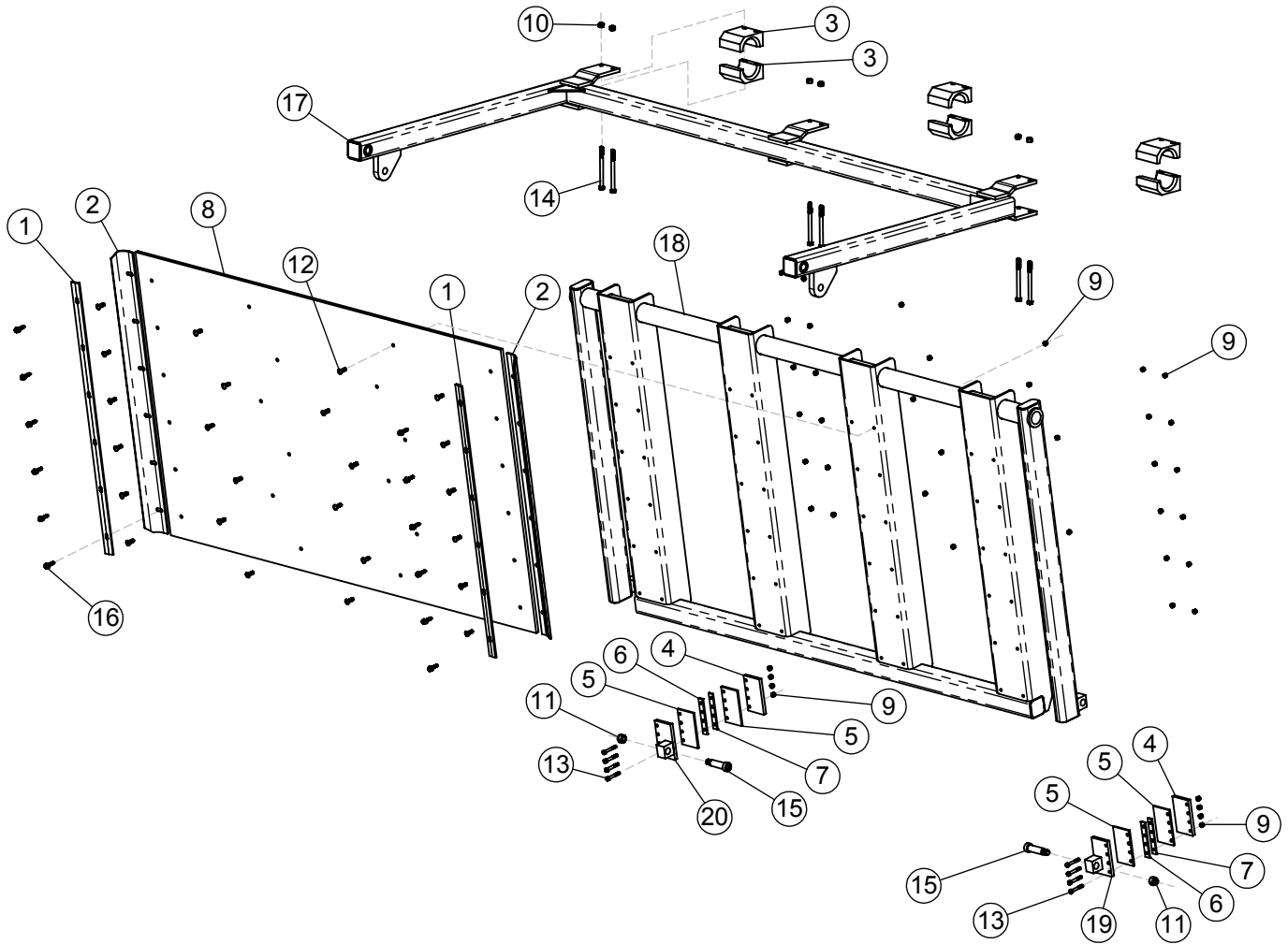
#9A	D5FH	8 9G7 F DHC B	E HM
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' ((\$ + % %	7 < 7 G % # & '1%' 'I '% # & " ' , , ' D@B	--
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' *	(\$ + - %	<< 7 G % # & '1%' 'I '% # & " ' G9FF 5 H98 ') ' D@B	-
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(&	' ' \$ ' -)	+ \$ & #, \$ & @ # < ' J 9FH 7 5 @ 695 H9F ' K #5 f k 95 J MGD @ B 9L	%
('	' ' \$ ' - *	, \$ & F # < ' J 9FH 7 5 @ 695 H9F ' K #5 f k 95 J MGD @ B 9L	%
((' ' \$ ' - +	, \$ & J 9FH 7 5 @ 695 H9F : F 5 A 9 K #5 f & B 8 ; 9B L	%
()	' ' \$ (&)	, \$ & 695 H9F ' 8 @ 9 F ' G < 5: HK #5 f GD 998 ' G9B GC F L	&
(*	' ' \$ (& +	7 C J 9F ž + \$ & #, \$ & GD 998 ' G9B GC F ' K #5	%

702-17 & 802-19 SPREADER FRONT GATE ASSEMBLY



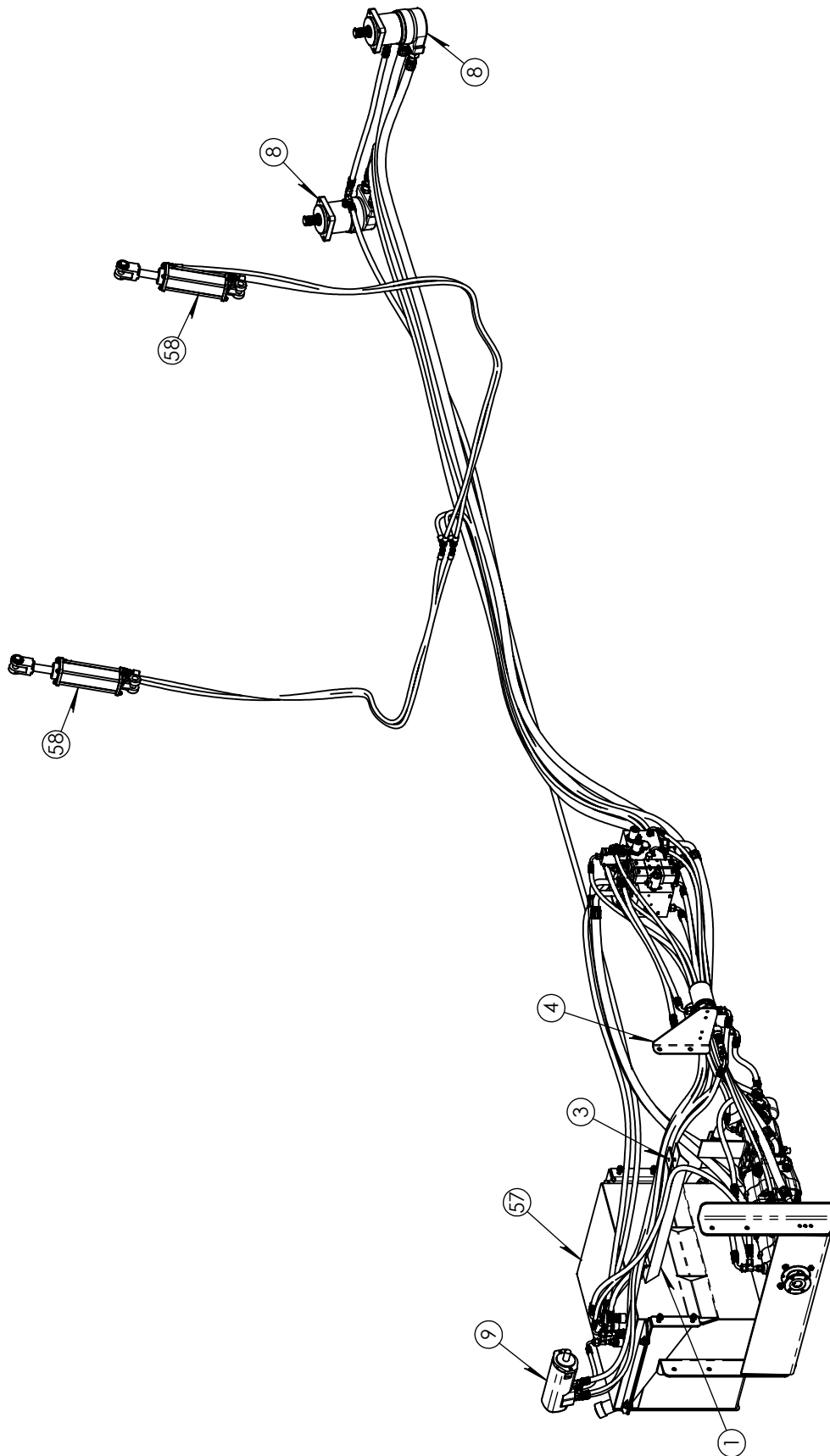
ITEM #	PART #	DESCRIPTION	QTY.
1	130428	SCRAPER, 6-1/2" x 48"	2
2	130429	CLAMP SCRAPER, 44-1/2"	2
3	130759	802 UHMW FRONT GATE GUIDE, 15-7/8	2
4	130760	802 FRONT GATE CHAIN ADAPTER, 16"	1
5	130762	802 CHAIN LUG, 3-1/2"	1
6	130770	802 FRONT GATE COVER (20 1/2 x 88)	1
7	130849	FLAT WASHER, 3" OD x 1-1/16" ID	1
8	322561P	CONNECTOR PIN, 1" WH124HD MILL CHAIN	1
9	351987	PIRANHA URETHANE STRIPPER, 3" x 2-1/4 OD	2
10	400216	HEX NUT, 1"-8, #5 PLTD	1
11	400616	HEX JAMNUT, 1"-8, #5 PLTD	2
12	402016	SPRING LOCK WASHER, 1", MED, PLTD	1
13	402416	FLAT WASHER, 1", MED, PLTD	1
14	404008	COTTER PIN, 5/16" x 1-1/2"	1
15	407730	STUD BOLT, RIBBED NECK, 7/16"-20 UNF x 1-3/4"	1
16	407900	HHCS, 3/8" -16 X 3/4", SERRATED, #5 PLTD	10
17	407902	HHCS, 3/8" -16 X 1-1/2", SERRATED, #5 PLTD	14
18	830292	802 FRONT GATE W.A.	1

702-17 & 802-19 SPREADER REAR GATE ASSEMBLY



ITEM #	PART #	DESCRIPTION	QTY.
1	130439	FLASHING SEAL CLAMP	2
2	130440	FLASHING, SWINGING GATE	2
3	130739	802 REAR GATE PIVOT BLOCK, 4-1/2"	6
4	130746	802 REAR GATE GUIDE PLATE, 3-1/2" x 6"	2
5	130747	802 GUIDE WEAR BLOCK, UHMW, 1/4" x 3" x 6"	4
6	130757	802 GUIDE SPACER, 6"	2
7	130758	802 GUIDE SPACER, 7 GA.	2
8	130780	REAR GATE COVER, HDPE, 1/2" x 48" x 80-1/2"	1
9	401106	3/8" - 16 HEX NYLOC NUT #5 PLTD	44
10	401108	HEX NYLOC NUT, #5 PLTD., 1/2"-13	6
11	401112	HEX NYLOC NUT, #5 PLTD., 3/4"-10	2
12	405050	TRUSS HD SCREW, 3/8"-16 x 1 1/4"	24
13	405659	HHCS, 3/8"-16 x 2-1/2", #5 PLTD.	8
14	405718	HHCS, 1/2"-13 x 6-1/2", # 5 PLTD.	6
15	407413	SHOULDER BOLT, 1"D x 3" LG x 3/4"-10	2
16	407902	HHCS, SERRATED, 3/8"-16 x 1-1/2", #5 Pltd.	12
17	830283	802 REAR GATE ARM W.A.	1
18	830303	802 REAR GATE W.A.	1
19	830311	802 REAR GATE GUIDE W.A. (LEFT HAND)	1
20	830313	802 REAR GATE GUIDE W.A. (RIGHT HAND)	1

702-17 & 802-19 SPREADER HYDRAULIC ASSEMBLY

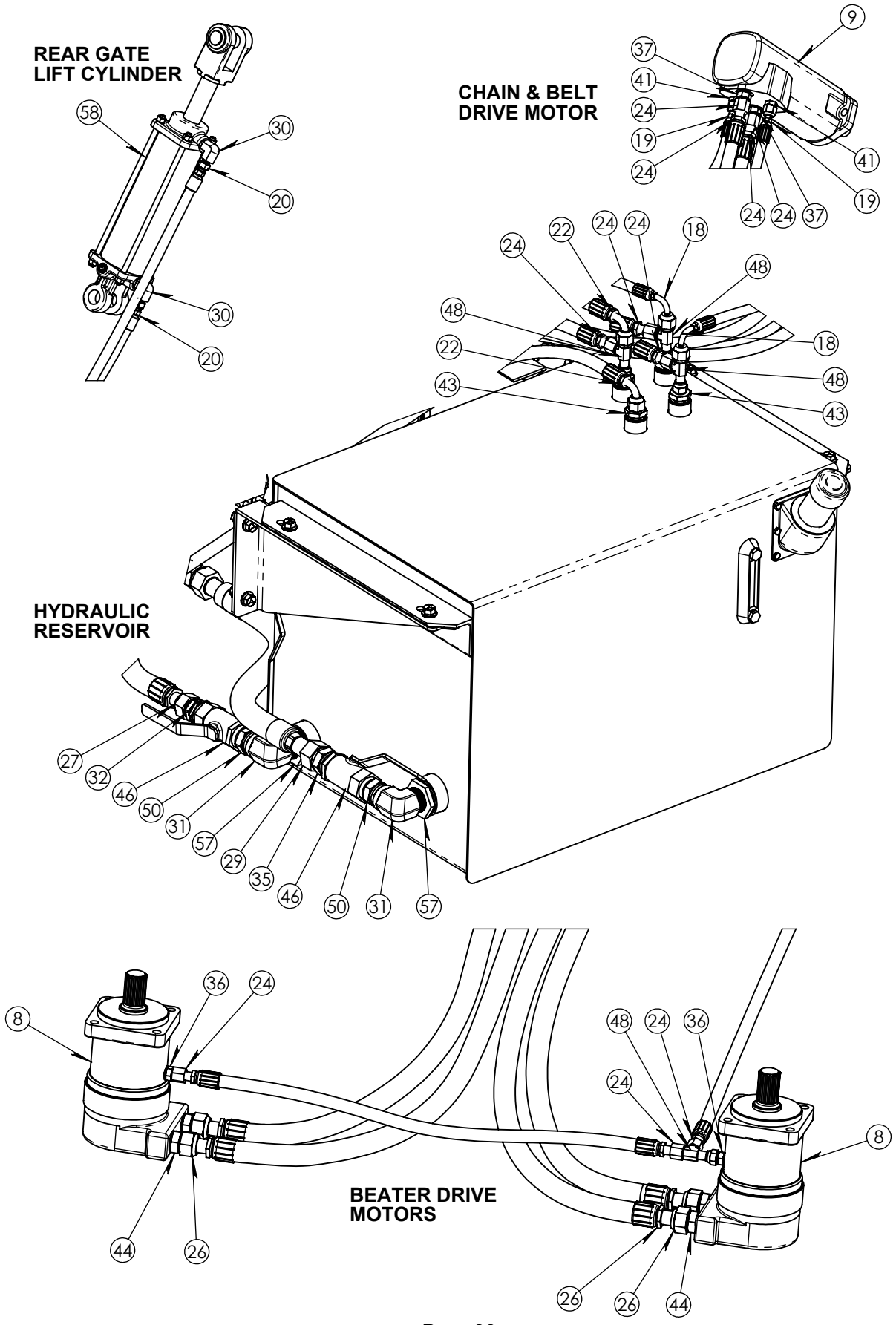


702-17 & 802-19 SPREADER HYDRAULIC ASSEMBLY

ITEM #	PART #	DESCRIPTION	QTY.
30	368016	90° ELBOW, 3/8" MP x 9/16" JIC	4
31	368036	90 ELBOW, 1-1/4" MP x 1-1/4" FP	2
32	368134	STRAIGHT ADAPTER, 1" MP x 1-7/16" ORFS	3
33	368135	STRAIGHT ADAPTER, 1/2" MP x 13/16" FFOR	1
34	368136	STRAIGHT ADAPTER, 3/4" MP x 13/16" FFOR	4
35	368137	STRAIGHT ADAPTER, 1-1/4" MP x 1-11/16" FFOR	1
36	368190	STRAIGHT ADAPTER, 13/16" ORFS x 9/16" MORB	3
37	368191	STRAIGHT ADAPTER, 13/16" ORFS x 7/8" MORB	6
38	368192	STRAIGHT ADPT, 1-5/8" MOR x 1-11/16" FFOR	1
39	368193	STRAIGHT ADPT, 1-7/16" ORFS x 1-5/16" MORB	1
40	368195	STRAIGHT ADAPTER, 11/16" FFOR x 9/16" MORB	2
41	368196	STRAIGHT ADAPTER, 11/16" FFOR x 7/16" MORB	3
42	368226	STRAIGHT ADAPTER, 1-5/16" MORB x 7/8" FORB	1
43	368415	STRAIGHT ADAPTER, 1" MP x 13/16" FFOR	4
44	368417	STRAIGHT ADPT, 1-7/16" ORFS x 1-1/16" MORB	4
45	368458	FLG. SET KIT, 1" CODE 61 # SFK-16	2
46	368527	BALL VALVE, 1-1/4" FP	2
47	368616	TEE, 3/4" MP x 3/4" FP x 3/4" STREET	1
48	368636	TEE, 13/16" ORFS SWIVEL RUN	6
49	368643	STRAIGHT ADAPTER, 3/4" MP x 1/2" MP	1
50	368648	HEX NIPPLE, 1-1/4" MP x 1-1/4" MP	2
51	368666	HEX REDUCER, 1-1/4" MP x 1" FP	1
52	400114	HEX SERRATED FLANGE NUT, 1/2"-13, #5 PLTD	4
53	402008	SPRING LOCK WASHER, 1/2", PLTD	8
54	402508	FLAT WASHER, 1/2" ID x 1" OD	8
55	405703	HHCS, 1/2"-13 x 1-1/2", #5 PLTD.	5
56	405704	HHCS, 1/2"-13 x 1-3/4", #5 PLTD	12
57	730141	802 TRUCK SPREADER RESERVOIR ASSY	1
58	364074	HYDRAULIC CYLINDER 3" x 8" x 20-1/4"	2

ITEM #	PART #	DESCRIPTION	QTY.
1	130784	802 HOSE SUPPORT, 31"	1
2	130787	FLANGE ADAPTER, 2 1/2" x 1" FP, CODE 61	2
3	130798	802 HOSE SUPPORT CLAMP, 4"	2
4	130800	802 FILTER BRACKET, 10" x 11"	1
5	185480	3/8" SQ. x 2" KEY	1
6	338406	1350 COMPANION FLANGE, 1-1/2" x 3/8" KEY	1
7	351906	O-RING, 3" OD x 1/8"	2
8	360032	HYDRAULIC MOTOR, 30.7 CID VIS	2
9	360039	HYDRAULIC MOTOR, 18.7 CID CIR 2	1
10	362037	PUMP, 1.87 CID CIR GEAR	1
11	362118	PUMP, 6.0 CID CIR LOAD SENSE - L/H ROT	1
12	362120	PUMP, 2.32 CID CIR LOAD SENSE - L/H ROT.	1
13	362121	PUMP, 6.0 CID LOAD SENSE - L/H ROT.	1
14	362240	CHECK VALVE, 1/2" FP x 1/2" FP	1
15	362358	802 MANIFOLD VALVE ASSY	1
16	362403	FILTER HEAD 3/4", ZAF-07-25-0	2
17	362440	FILTER ELEMENT, AE-10	2
18	367062	HOSE COUPLING, 6G-8FFORX90S x 3/8"	2
19	367063	HOSE COUPLING, 6G-6FFORX x 3/8"	2
20	367079	HOSE COUPLING, 6G-6FJX x 3/8"	10
21	367080	HOSE COUPLING, 6G-6FFORX90S x 3/8"	3
22	367098	HOSE COUPLING, 8G-8FFORX90S x 1/2"	11
23	367099	HOSE COUPLING, 8G-8FFORX90L x 1/2"	1
24	367100	HOSE COUPLING, 8G-8FFORX x 1/2"	10
25	367132	HOSE STEM, 16GS-16FL90 1"	2
26	367135	HOSE STEM, 16GS-16FFORX x 1"	2
27	367137	HOSE COUPLING, 16G-16FFORX x 1"	3
28	367139	HOSE COUPLING, 16G-16FFORX90S x 1"	3
29	367152	HOSE COUPLING 20G-20FFORX x 1-1/4"	2

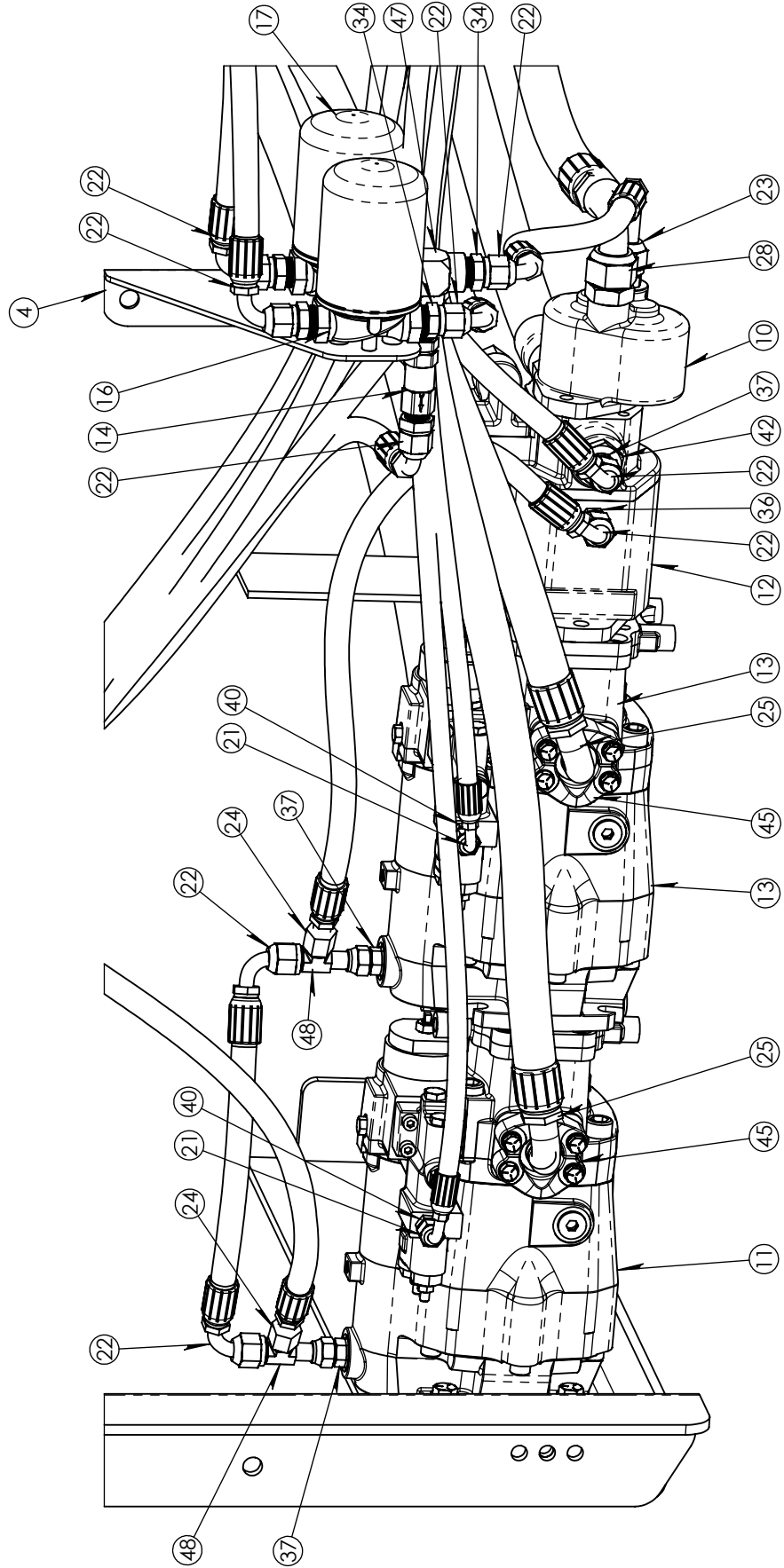
702-17 & 802-19 SPREADER HYDRAULIC ASSEMBLY



702-17 & 802-19 SPREADER HYDRAULIC ASSEMBLY

ITEM #	PART #	DESCRIPTION	QTY.
1	130784	802 HOSE SUPPORT, 31"	1
2	130787	FLANGE ADAPTER, 2 1/2" x 1" FP, CODE 61	2
3	130798	802 HOSE SUPPORT CLAMP, 4"	2
4	130800	802 FILTER BRACKET, 10" x 11"	1
5	185480	3/8" SQ. x 2" KEY	1
6	338406	1350 COMPANION FLANGE, 1-1/2" x 3/8" KEY	1
7	351906	O-RING, 3" OD x 1/8"	2
8	360032	HYDRAULIC MOTOR, 30.7 CID VIS	2
9	360039	HYDRAULIC MOTOR, 18.7 CID CIR 2	1
10	362037	PUMP, 1.87 CID CIR GEAR	1
11	362118	PUMP, 6.0 CID CIR LOAD SENSE - L/H ROT	1
12	362120	PUMP, 2.32 CID CIR LOAD SENSE - L/H ROT.	1
13	362121	PUMP, 6.0 CID LOAD SENSE - L/H ROT.	1
14	362240	CHECK VALVE, 1/2" FP x 1/2" FP	1
15	362358	802 MANIFOLD VALVE ASSY	1
16	362403	FILTER HEAD 3/4", ZAF-07-25-0	2
17	362440	FILTER ELEMENT, AE-10	2
18	367062	HOSE COUPLING, 6G-8FFORX90S x 3/8"	2
19	367063	HOSE COUPLING, 6G-6FFORX x 3/8"	2
20	367079	HOSE COUPLING, 6G-6FJX x 3/8"	10
21	367080	HOSE COUPLING, 6G-6FFORX90S x 3/8"	3
22	367098	HOSE COUPLING, 8G-8FFORX90S x 1/2"	11
23	367099	HOSE COUPLING, 8G-8FFORX90L x 1/2"	1
24	367100	HOSE COUPLING, 8G-8FFORX x 1/2"	10
25	367132	HOSE STEM, 16GS-16FL90 1"	2
26	367135	HOSE STEM, 16GS-16FFORX x 1"	2
27	367137	HOSE COUPLING, 16G-16FFORX x 1"	3
28	367139	HOSE COUPLING, 16G-16FFORX90S x 1"	3
29	367152	HOSE COUPLING 20G-20FFORX x 1-1/4"	2
30	368016	90° ELBOW, 3/8" MP x 9/16" JIC	4
31	368036	90 ELBOW, 1-1/4" MP x 1-1/4" FP	2
32	368134	STRAIGHT ADAPTER, 1" MP x 1-7/16" ORFS	3
33	368135	STRAIGHT ADAPTER, 1/2" MP x 13/16" FFOR	1
34	368136	STRAIGHT ADAPTER, 3/4" MP x 13/16" FFOR	4
35	368137	STRAIGHT ADAPTER, 1-1/4"MP x 1-11/16" FFOR	1
36	368190	STRAIGHT ADAPTER, 13/16" ORFS x 9/16" MORB	3
37	368191	STRAIGHT ADAPTER, 13/16" ORFS x 7/8" MORB	6
38	368192	STRAIGHT ADPT, 1-5/8" MOR x 1-11/16" FFOR	1
39	368193	STRAIGHT ADPT, 1-7/16" ORFS x 1-5/16" MORB	1
40	368195	STRAIGHT ADAPTER, 11/16" FFOR x 9/16" MORB	2
41	368196	STRAIGHT ADAPTER, 11/16" FFOR x 7/16" MORB	3
42	368226	STRAIGHT ADAPTER, 1-5/16" MORB x 7/8" FORB	1
43	368415	STRAIGHT ADAPTER, 1" MP x 13/16" FFOR	4
44	368417	STRAIGHT ADPT, 1-7/16" ORFS x 1-1/16" MORB	4
45	368458	FLG. SET KIT, 1" CODE 61 # SFK-16	2
46	368527	BALL VALVE, 1-1/4" FP	2
47	368616	TEE, 3/4" MP x 3/4" FP x 3/4" STREET	1
48	368636	TEE, 13/16" ORFS SWIVEL RUN	6
49	368643	STRAIGHT ADAPTER, 3/4" MP x 1/2" MP	1
50	368648	HEX NIPPLE, 1-1/4"MP x 1-1/4" MP	2
51	368666	HEX REDUCER, 1-1/4" MP x 1" FP	1
52	400114	HEX SERRATED FLANGE NUT, 1/2"-13, #5 PLTD	4
53	402008	SPRING LOCK WASHER, 1/2", PLTD	8
54	402508	FLAT WASHER, 1/2" ID x 1" OD	8
55	405703	HHCS, 1/2"-13 x 1-1/2", #5 PLTD.	5
56	405704	HHCS, 1/2"-13 x 1-3/4", #5 PLTD	12
57	730141	802 TRUCK SPREADER RESERVOIR ASSY	1
58	364074	HYDRAULIC CYLINDER 3" x 8" x 20-1/4"	2

702-17 & 802-19 SPREADER HYDRAULIC ASSEMBLY



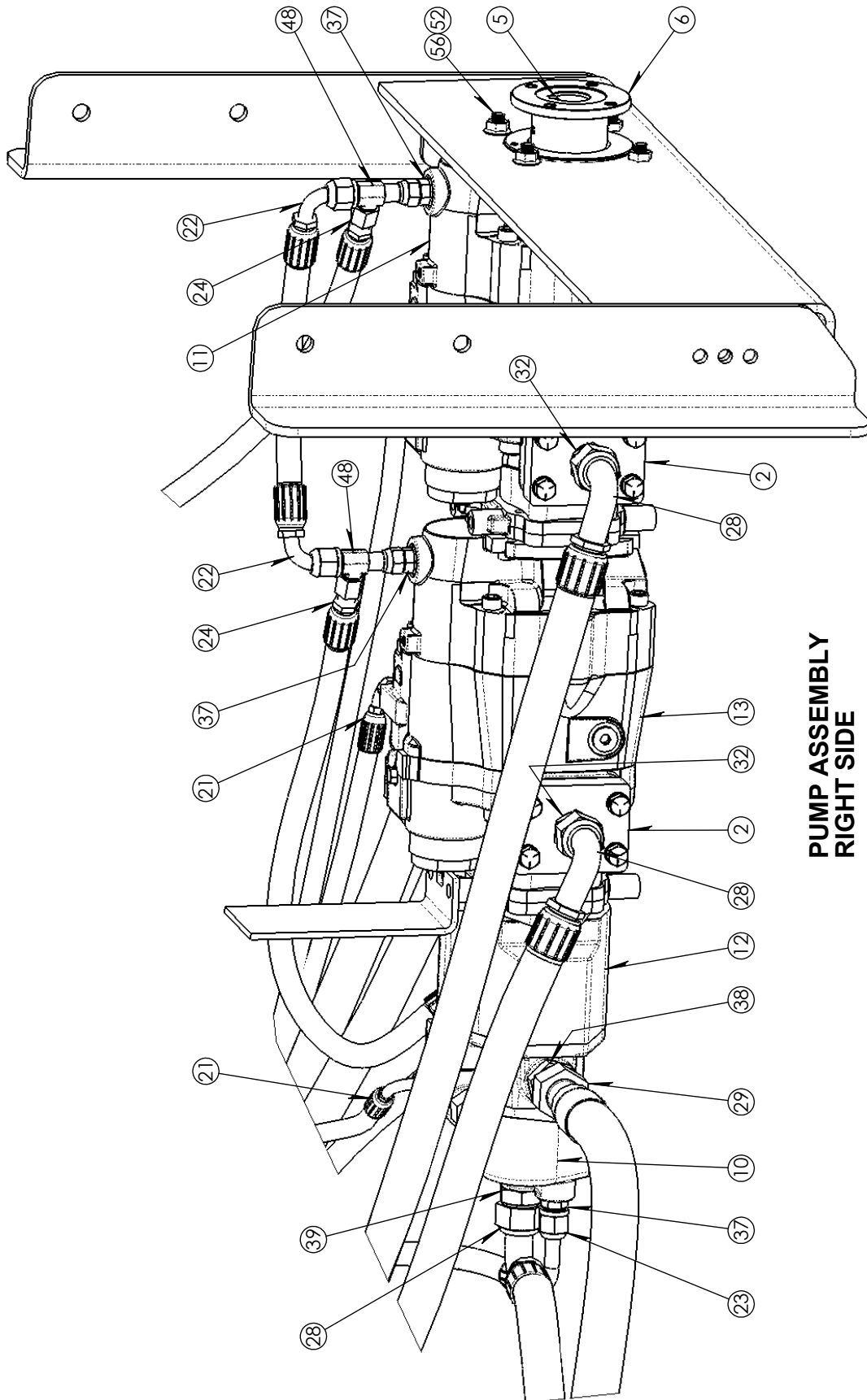
**PUMP ASSEMBLY
LEFT SIDE**

702-17 & 802-19 SPREADER HYDRAULIC ASSEMBLY

ITEM #	PART #	DESCRIPTION	QTY.
30	368016	90° ELBOW, 3/8" MP x 9/16" JIC	4
31	368036	90 ELBOW, 1-1/4" MP x 1-1/4" FP	2
32	368134	STRAIGHT ADAPTER, 1" MP x 1-7/16" ORFS	3
33	368135	STRAIGHT ADAPTER, 1/2" MP x 13/16" FFOR	1
34	368136	STRAIGHT ADAPTER, 3/4" MP x 13/16" FFOR	4
35	368137	STRAIGHT ADAPTER, 1-1/4"MP x 1-11/16" FFOR	1
36	368190	STRAIGHT ADAPTER, 13/16" ORFS x 9/16" MORB	3
37	368191	STRAIGHT ADAPTER, 13/16" ORFS x 7/8" MORB	6
38	368192	STRAIGHT ADPT, 1-5/8" MOR x 1-11/16" FFOR	1
39	368193	STRAIGHT ADPT, 1-7/16" ORFS x 1-5/16" MORB	1
40	368195	STRAIGHT ADAPTER, 11/16" FFOR x 9/16" MORB	2
41	368196	STRAIGHT ADAPTER, 11/16" FFOR x 7/16" MORB	3
42	368226	STRAIGHT ADAPTER, 1-5/16" MORB x 7/8" FORB	1
43	368415	STRAIGHT ADAPTER, 1" MP x 13/16" FFOR	4
44	368417	STRAIGHT ADPT, 1-7/16" ORFS x 1-1/16" MORB	4
45	368458	FLG. SET KIT, 1" CODE 61 # SFK-16	2
46	368527	BALL VALVE, 1-1/4" FP	2
47	368616	TEE, 3/4" MP x 3/4" FP x 3/4" STREET	1
48	368636	TEE, 13/16" ORFS SWIVEL RUN	6
49	368643	STRAIGHT ADAPTER, 3/4" MP x 1/2" MP	1
50	368648	HEX NIPPLE, 1-1/4"MP x 1-1/4" MP	2
51	368666	HEX REDUCER, 1-1/4" MP x 1" FP	1
52	400114	HEX SERRATED FLANGE NUT, 1/2"-13, #5 PLTD	4
53	402008	SPRING LOCK WASHER, 1/2", PLTD	8
54	402508	FLAT WASHER, 1/2" ID x 1" OD	8
55	405703	HHCS, 1/2"-13 x 1-1/2", #5 PLTD.	5
56	405704	HHCS, 1/2"-13 x 1-3/4", #5 PLTD	12
57	730141	802 TRUCK SPREADER RESERVOIR ASSY	1
58	364074	HYDRAULIC CYLINDER 3" x 8" x 20-1/4"	2

ITEM #	PART #	DESCRIPTION	QTY.
1	130784	802 HOSE SUPPORT, 31"	1
2	130787	FLANGE ADAPTER, 2 1/2" x 1" FP, CODE 61	2
3	130798	802 HOSE SUPPORT CLAMP, 4"	2
4	130800	802 FILTER BRACKET, 10" x 11"	1
5	185480	3/8" SQ. x 2" KEY	1
6	338406	1350 COMPANION FLANGE, 1-1/2" x 3/8" KEY	1
7	351906	O-RING, 3" OD x 1/8"	2
8	360032	HYDRAULIC MOTOR, 30.7 CID VIS	2
9	360039	HYDRAULIC MOTOR, 18.7 CID CIR 2	1
10	362037	PUMP, 1.87 CID CIR GEAR	1
11	362118	PUMP, 6.0 CID CIR LOAD SENSE - L/H ROT	1
12	362120	PUMP, 2.32 CID CIR LOAD SENSE - L/H ROT.	1
13	362121	PUMP, 6.0 CID LOAD SENSE - L/H ROT.	1
14	362240	CHECK VALVE, 1/2" FP x 1/2" FP	1
15	362358	802 MANIFOLD VALVE ASSY	1
16	362403	FILTER HEAD 3/4", ZAF-07-25-0	2
17	362440	FILTER ELEMENT, AE-10	2
18	367062	HOSE COUPLING, 6G-8FFORX90S x 3/8"	2
19	367063	HOSE COUPLING, 6G-6FFORX x 3/8"	2
20	367079	HOSE COUPLING, 6G-6FJX x 3/8"	10
21	367080	HOSE COUPLING, 6G-6FFORX90S x 3/8"	3
22	367098	HOSE COUPLING, 8G-8FFORX90S x 1/2"	11
23	367099	HOSE COUPLING, 8G-8FFORX90L x 1/2"	1
24	367100	HOSE COUPLING, 8G-8FFORX x 1/2"	10
25	367132	HOSE STEM, 16GS-16FL90 1"	2
26	367135	HOSE STEM, 16GS-16FFORX x 1"	2
27	367137	HOSE COUPLING, 16G-16FFORX x 1"	3
28	367139	HOSE COUPLING, 16G-16FFORX90S x 1"	3
29	367152	HOSE COUPLING 20G-20FFORX x 1-1/4"	2

702-17 & 802-19 SPREADER HYDRAULIC ASSEMBLY



**PUMP ASSEMBLY
RIGHT SIDE**

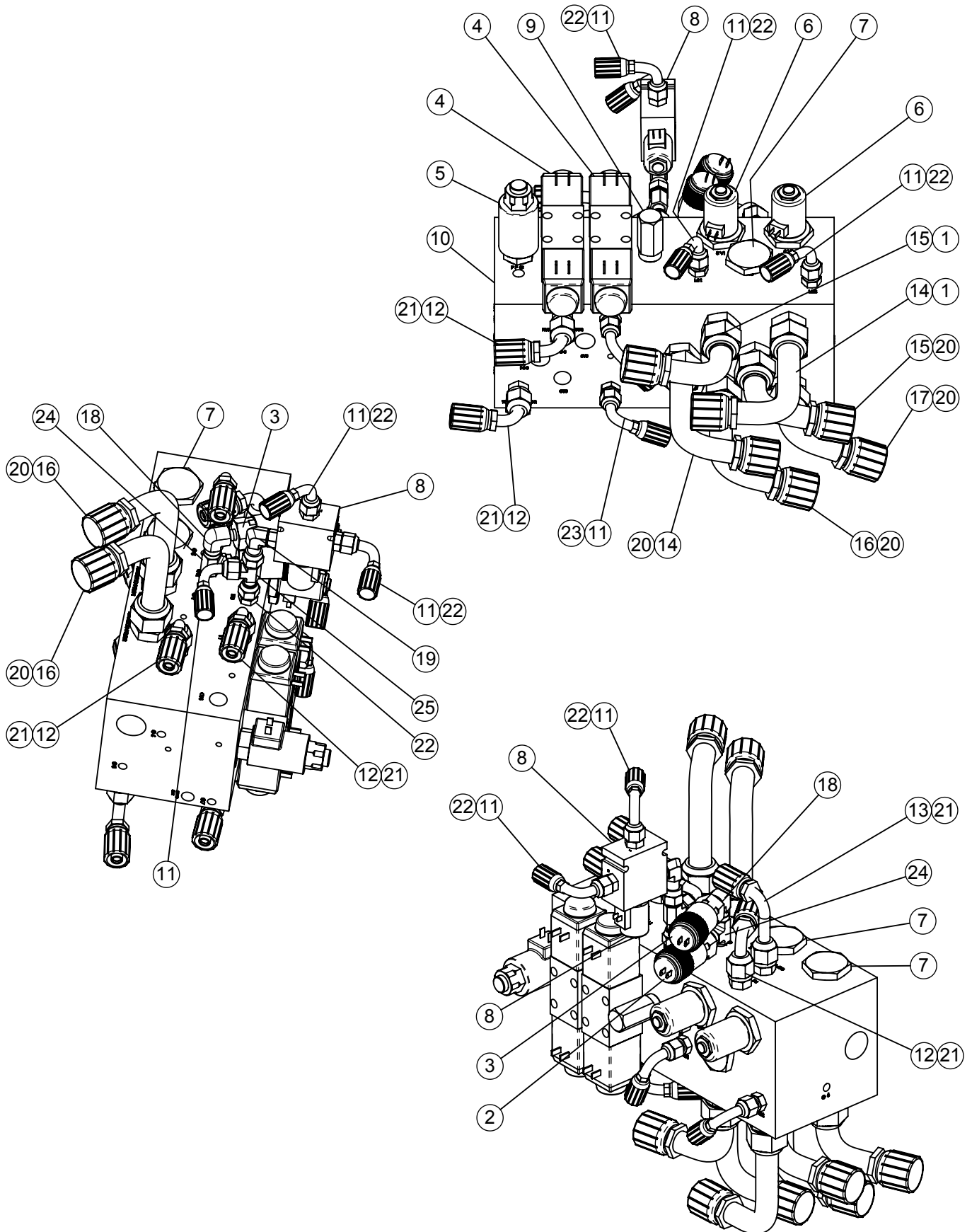
702-17 & 802-19 SPREADER HYDRAULIC ASSEMBLY

ITEM #	PART #	DESCRIPTION	QTY.
30	368016	90° ELBOW, 3/8" MP x 9/16" JIC	4
31	368036	90 ELBOW, 1-1/4" MP x 1-1/4" FP	2
32	368134	STRAIGHT ADAPTER, 1" MP x 1-7/16" ORFS	3
33	368135	STRAIGHT ADAPTER, 1/2" MP x 13/16" FFOR	1
34	368136	STRAIGHT ADAPTER, 3/4" MP x 13/16" FFOR	4
35	368137	STRAIGHT ADAPTER, 1-1/4"MP x 1-11/16" FFOR	1
36	368190	STRAIGHT ADAPTER, 13/16" ORFS x 9/16" MORB	3
37	368191	STRAIGHT ADAPTER, 13/16" ORFS x 7/8" MORB	6
38	368192	STRAIGHT ADPT, 1-5/8" MOR x 1-11/16" FFOR	1
39	368193	STRAIGHT ADPT, 1-7/16" ORFS x 1-5/16" MORB	1
40	368195	STRAIGHT ADAPTER, 11/16" FFOR x 9/16" MORB	2
41	368196	STRAIGHT ADAPTER, 11/16" FFOR x 7/16" MORB	3
42	368226	STRAIGHT ADAPTER, 1-5/16" MORB x 7/8" FORB	1
43	368415	STRAIGHT ADAPTER, 1" MP x 13/16" FFOR	4
44	368417	STRAIGHT ADPT, 1-7/16" ORFS x 1-1/16" MORB	4
45	368458	FLG. SET KIT, 1" CODE 61 # SFK-16	2
46	368527	BALL VALVE, 1-1/4" FP	2
47	368616	TEE, 3/4" MP x 3/4" FP x 3/4" STREET	1
48	368636	TEE, 13/16" ORFS SWIVEL RUN	6
49	368643	STRAIGHT ADAPTER, 3/4" MP x 1/2" MP	1
50	368648	HEX NIPPLE, 1-1/4"MP x 1-1/4" MP	2
51	368666	HEX REDUCER, 1-1/4" MP x 1" FP	1
52	400114	HEX SERRATED FLANGE NUT, 1/2"-13, #5 PLTD	4
53	402008	SPRING LOCK WASHER, 1/2", PLTD	8
54	402508	FLAT WASHER, 1/2" ID x 1" OD	8
55	405703	HHCS, 1/2"-13 x 1-1/2", #5 PLTD.	5
56	405704	HHCS, 1/2"-13 x 1-3/4", #5 PLTD	12
57	730141	802 TRUCK SPREADER RESERVOIR ASSY	1
58	364074	HYDRAULIC CYLINDER 3" x 8" x 20-1/4"	2

ITEM #	PART #	DESCRIPTION	QTY.
1	130784	802 HOSE SUPPORT, 31"	1
2	130787	FLANGE ADAPTER, 2 1/2" x 1" FP, CODE 61	2
3	130798	802 HOSE SUPPORT CLAMP, 4"	2
4	130800	802 FILTER BRACKET, 10" x 11"	1
5	185480	3/8" SQ. x 2" KEY	1
6	338406	1350 COMPANION FLANGE, 1-1/2" x 3/8" KEY	1
7	351906	O-RING, 3" OD x 1/8"	2
8	360032	HYDRAULIC MOTOR, 30.7 CID VIS	2
9	360039	HYDRAULIC MOTOR, 18.7 CID CIR 2	1
10	362037	PUMP, 1.87 CID CIR GEAR	1
11	362118	PUMP, 6.0 CID CIR LOAD SENSE - L/H ROT	1
12	362120	PUMP, 2.32 CID CIR LOAD SENSE - L/H ROT.	1
13	362121	PUMP, 6.0 CID LOAD SENSE - L/H ROT.	1
14	362240	CHECK VALVE, 1/2" FP x 1/2" FP	1
15	362358	802 MANIFOLD VALVE ASSY	1
16	362403	FILTER HEAD 3/4", ZAF-07-25-0	2
17	362440	FILTER ELEMENT, AE-10	2
18	367062	HOSE COUPLING, 6G-8FFORX90S x 3/8"	2
19	367063	HOSE COUPLING, 6G-6FFORX x 3/8"	2
20	367079	HOSE COUPLING, 6G-6FJX x 3/8"	10
21	367080	HOSE COUPLING, 6G-6FFORX90S x 3/8"	3
22	367098	HOSE COUPLING, 8G-8FFORX90S x 1/2"	11
23	367099	HOSE COUPLING, 8G-8FFORX90L x 1/2"	1
24	367100	HOSE COUPLING, 8G-8FFORX x 1/2"	10
25	367132	HOSE STEM, 16GS-16FL90 1"	2
26	367135	HOSE STEM, 16GS-16FFORX x 1"	2
27	367137	HOSE COUPLING, 16G-16FFORX x 1"	3
28	367139	HOSE COUPLING, 16G-16FFORX90S x 1"	3
29	367152	HOSE COUPLING 20G-20FFORX x 1-1/4"	2

702-17 & 802-19 HYDRAULIC MANIFOLD VALVE ASSEMBLY

I G9H GD@ A 6-B; 8-5; F5A : CF GDF9589FGK #k G9F 5@BC 16 69 CF9' (%&\$\$' %\$



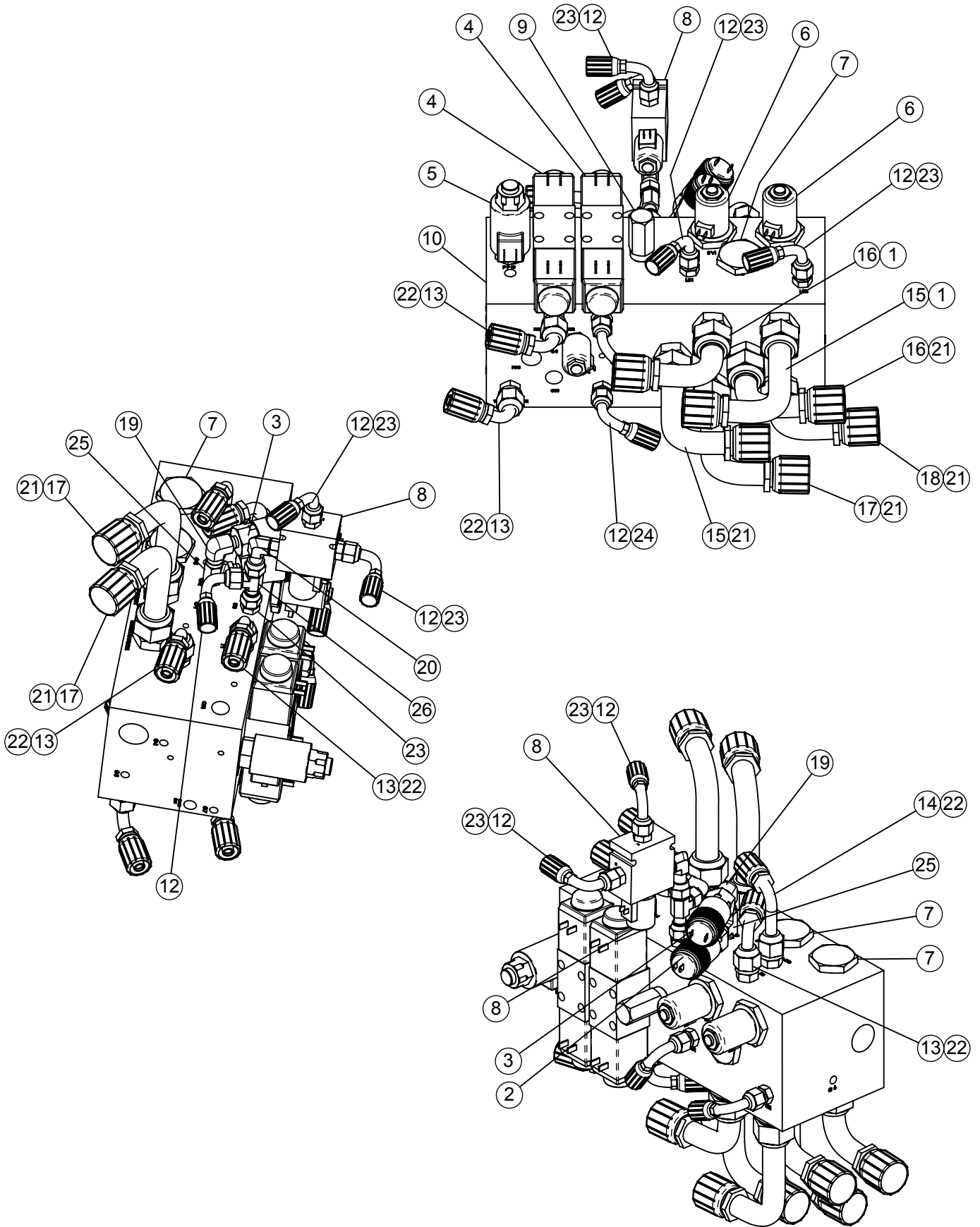
702-17 & 802-19 HYDRAULIC MANIFOLD VALVE ASSEMBLY

I 09H GD@ A 6-B; '8-5; F5A : CF GDF9589FGK #k GF-5@BC 16 69. CF9. (%&&&&' %\$

ITEM #	PART #	DESCRIPTION	QTY.
1	130892	STRAIGHT ADAPTER, 1-7/16" ORFS x 1-5/16" MORB W/RESTRICTOR	2
2	357746	PRESSURE SWITCH N/O, NASON PRESET 3900 PSI	1
3	357747	PRESSURE SWITCH N/O, NASON PRESET 1500 PSI	1
4	362298	SOLENOID VALVE, - 532/672 TRUCK MANIFOLD	2
5	362303	PROPORTIONAL FLOW CONTROL CARTRIDGE, ELECTRIC	1
6	362312	SOLENOID VALVE, (VICKERS #SV13-20-C-0-00)	2
7	362313	CHECK VALVE, (VICKERS #CV2-20-P-5)	3
8	362314	SOL. VALVE, 2 POS-3 WAY (SV1-8-3-A6T-12DWS)	1
9	362318	PSV4-10-F-S-0-56/36.5 (EATON)	1
10	362358	802 MANIFOLD VALVE BLOCK MACHINING	1
11	367080	6G-6FFORX90S x 3/8" HOSE COUPLING (MEGA-CRIMP)	7
12	367098	8G-8FFORX90S x 1/2" HOSE COUPLING (MEGA-CRIMP)	5
13	367099	8G-8FFORX90L X 1/2" HOSE COUPLING (MEGA-CRIMP)	1
14	367133	16GS-16FFORX90L x 1" HOSE STEM	2
15	367134	16GS-16FFORX90S x 1" HOSE STEM	2
16	367136	16G-16FFORX90L x 1" HOSE COUPLING (MEGA-CRIMP)	3
17	367139	16G-16FFORX90S x 1" HOSE COUPLING (MEGA-CRIMP)	1
18	368017	90° ADAPTER, 1/4" MP x 1/4" FP (STEEL)	1
19	368023	90 ELBOW, 11/16 ORFS x 9/16 MOR	1
20	368193	ST ADPT, 1-7/16 ORFS x 1-5/16 MORB	6
21	368194	STRAIGHT ADAPTER, 13/16" ORFS x 3/4" MORB	6
22	368195	ST ADPT, 11/16 FFOR x 9/16 MORB	5
23	368197	ST ADPT, 11/16 FFOR x 3/4 MORB	2
24	368651	TEE, 1/4" STREET (STEEL)	1
25	368656	TEE, 11/16" ORFS SWIVEL RUN (FF6602-6 TOMPKINS)	1

702-17 & 802-19 HYDRAULIC MANIFOLD VALVE ASSEMBLY

I 09HKGD@ A 6-B; '8-5; F5A : CF GDF9589FGK #k GF-5@BC165: HF' (%&\$\$' \$-

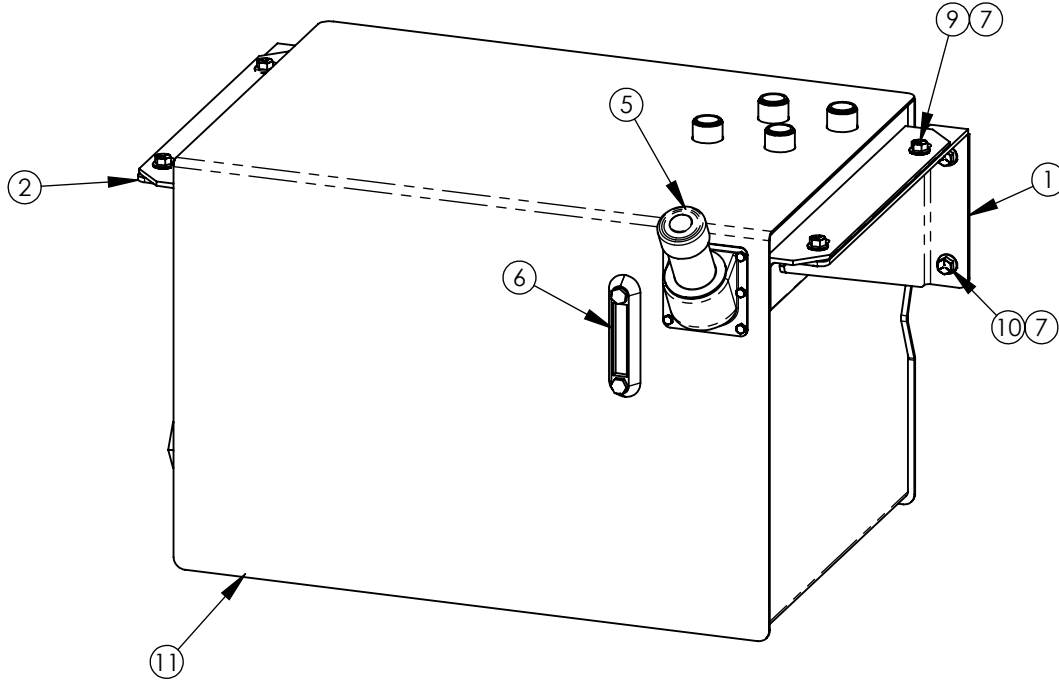


702-17 & 802-19 HYDRAULIC MANIFOLD VALVE ASSEMBLY

I G9'Hk-GD@ A 6-B; '8-5; F5A : CF GDF9589FGK #k 'G9F-5@BC1G5: HF' (%&\$\$' \$-

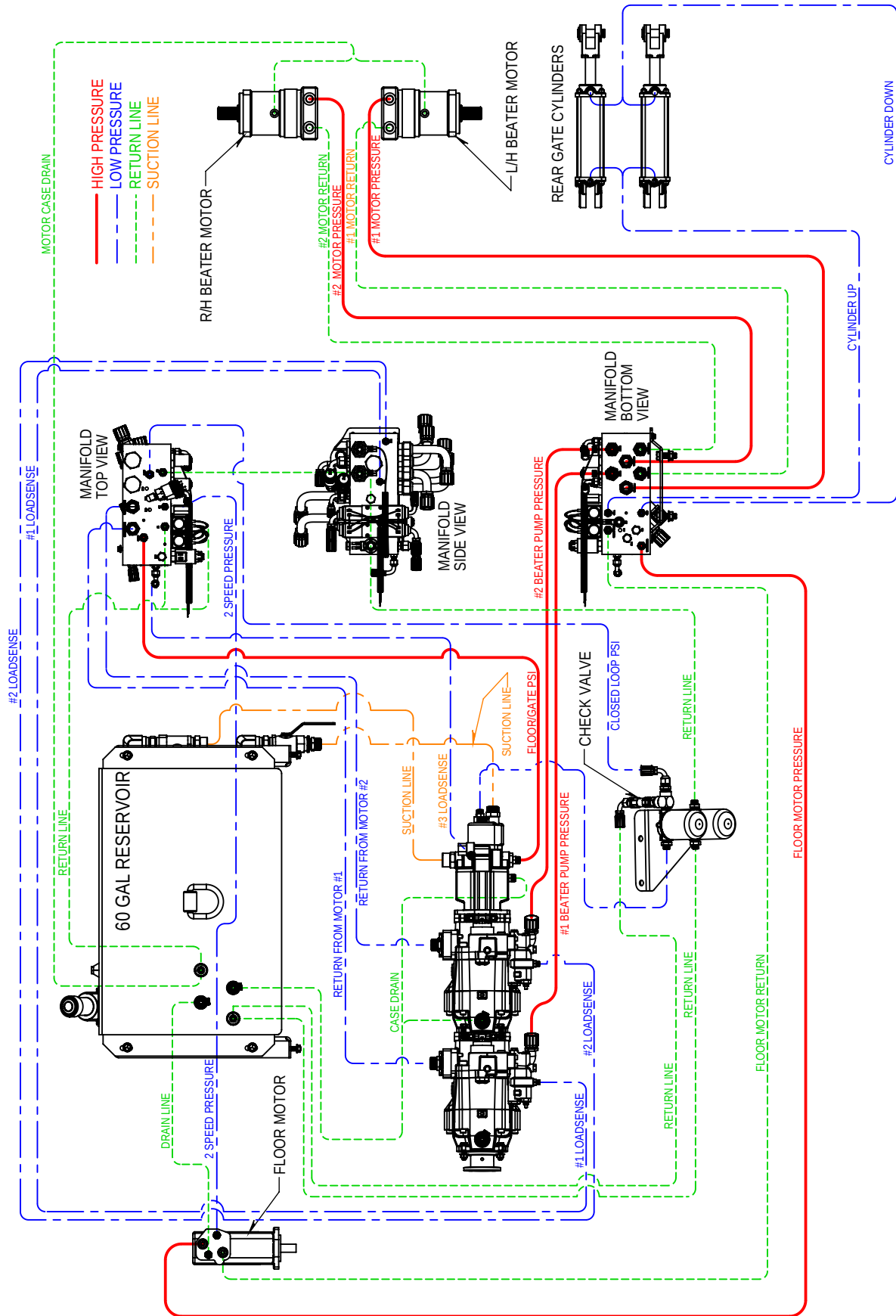
ITEM #	PART #	DESCRIPTION	QTY.
1	130892	STRAIGHT ADAPTER, 1-7/16" ORFS x 1-5/16" MORB W/RESTRICTOR	2
2	357746	PRESSURE SWITCH N/O, NASON PRESET 3900 PSI	1
3	357769	PRESSURE SWITCH N/C, NASON PRESET 3600 PSI	1
4	362298	SOLENOID VALVE, - 532/672 TRUCK MANIFOLD	2
5	362303	PROPORTIONAL FLOW CONTROL CARTRIDGE, ELECTRIC	1
6	362312	SOLENOID VALVE, (VICKERS #SV13-20-C-0-00)	2
7	362313	CHECK VALVE, (VICKERS #CV2-20-P-5)	3
8	362314	SOL. VALVE, 2 POS-3 WAY (SV1-8-3-A6T-12DWS)	1
9	362318	PSV4-10-F-S-0-56/36.5 (EATON)	1
10	362358	802 MANIFOLD VALVE BLOCK MACHINING	1
11	362371	VALVE, SOLENOID - EATON# SVI-8-3-0-12DQ	1
12	367080	6G-6FFFORX90S x 3/8" HOSE COUPLING (MEGA-CRIMP)	7
13	367098	8G-8FFFORX90S x 1/2" HOSE COUPLING (MEGA-CRIMP)	5
14	367099	8G-8FFFORX90L X 1/2" HOSE COUPLING (MEGA-CRIMP)	1
15	367133	16GS-16FFFORX90L x 1" HOSE STEM	2
16	367134	16GS-16FFFORX90S x 1" HOSE STEM	2
17	367136	16G-16FFFORX90L x 1" HOSE COUPLING (MEGA-CRIMP)	3
18	367139	16G-16FFFORX90S x 1" HOSE COUPLING (MEGA-CRIMP)	1
19	368017	90° ADAPTER, 1/4" MP x 1/4" FP (STEEL)	1
20	368023	90 ELBOW, 11/16 ORFS x 9/16 MOR	1
21	368193	ST ADPT, 1-7/16 ORFS x 1-5/16 MORB	6
22	368194	STRAIGHT ADAPTER, 13/16" ORFS x 3/4" MORB	6
23	368195	ST ADPT, 11/16 FFOR x 9/16 MORB	5
24	368197	ST ADPT, 11/16 FFOR x 3/4 MORB	2
25	368651	TEE, 1/4" STREET (STEEL)	1
26	368656	TEE, 11/16" ORFS SWIVEL RUN (FF6602-6 TOMPKINS)	1

702-17 & 802-19 SPREADER HYDRAULIC RESERVOIR ASSEMBLY



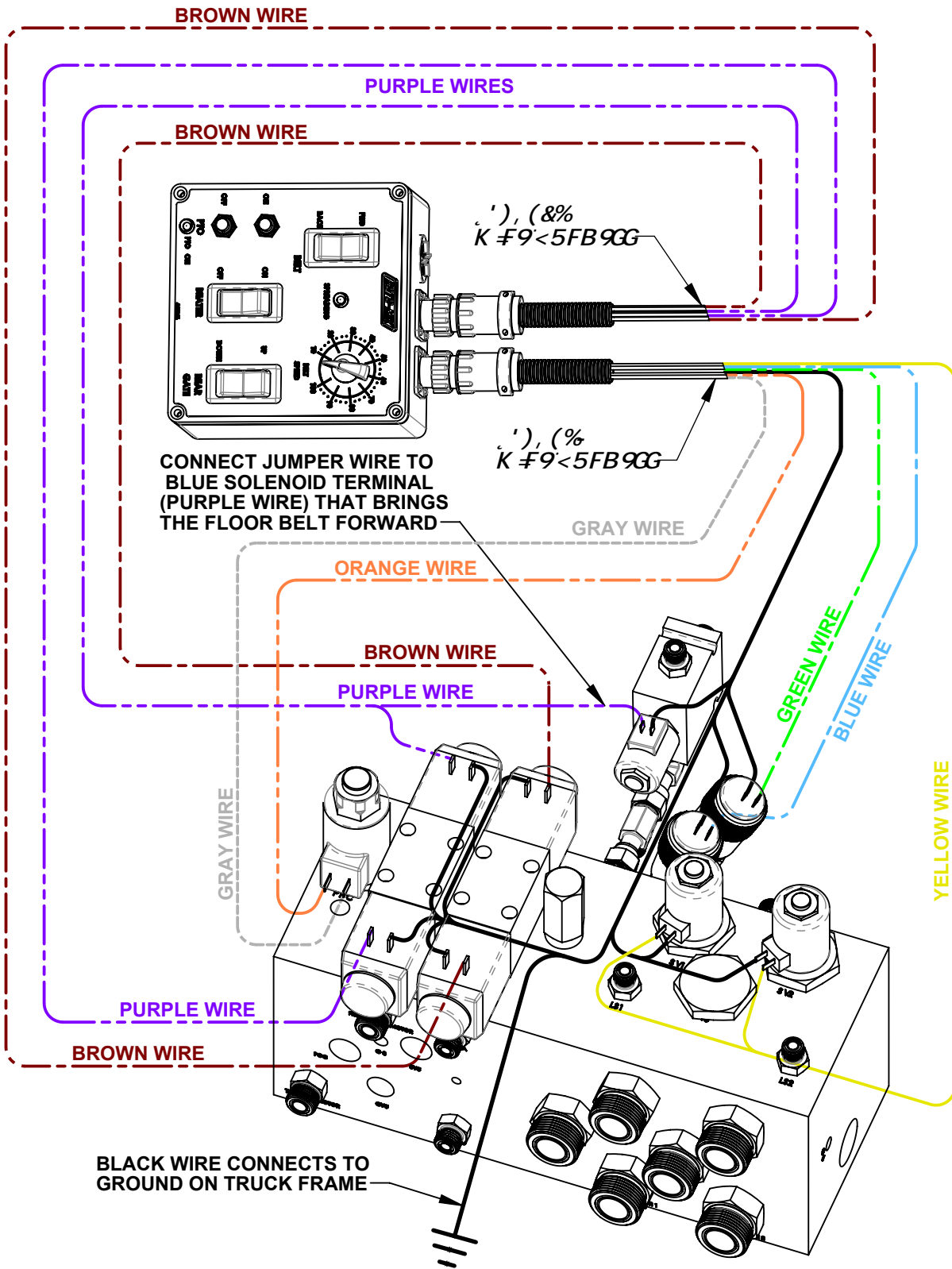
ITEM #	PART #	DESCRIPTION	QTY.
1	130889	802 TRUCK RESERVOIR BRACKET (R/H)	1
2	130890	802 TRUCK RESERVOIR BRACKET (L/H)	1
3	310829	PIPE PLUG, 3/4", INTERNAL HEX W/MAGNET	1
4	362507	SUCTION SCREEN 2" X 1-1/4"	2
5	362552	SIDE FILLER HI-NECK ASSAMBLY	1
6	362555	SIGHT GAUGE, 5"	1
7	400114	HEX SERRATED FLANGE NUT, 1/2"-13, #5 PLTD	8
8	405601	HHCS, 1/4" -20 x 5/8", USS #5 PLTD	6
9	407911	HHCS SERRATED FLANGE, 1/2-13 x 1", #5 PLTD	4
10	407913	HHCS SERRATED, 1/2"-13 x 1-1/2", #5 PLTD	4
11	830317	802 TRUCK RESERVOIR W/A, (55 GAL)	1

702-17 & 802-19 SPREADER HYDRAULIC SCHEMATIC



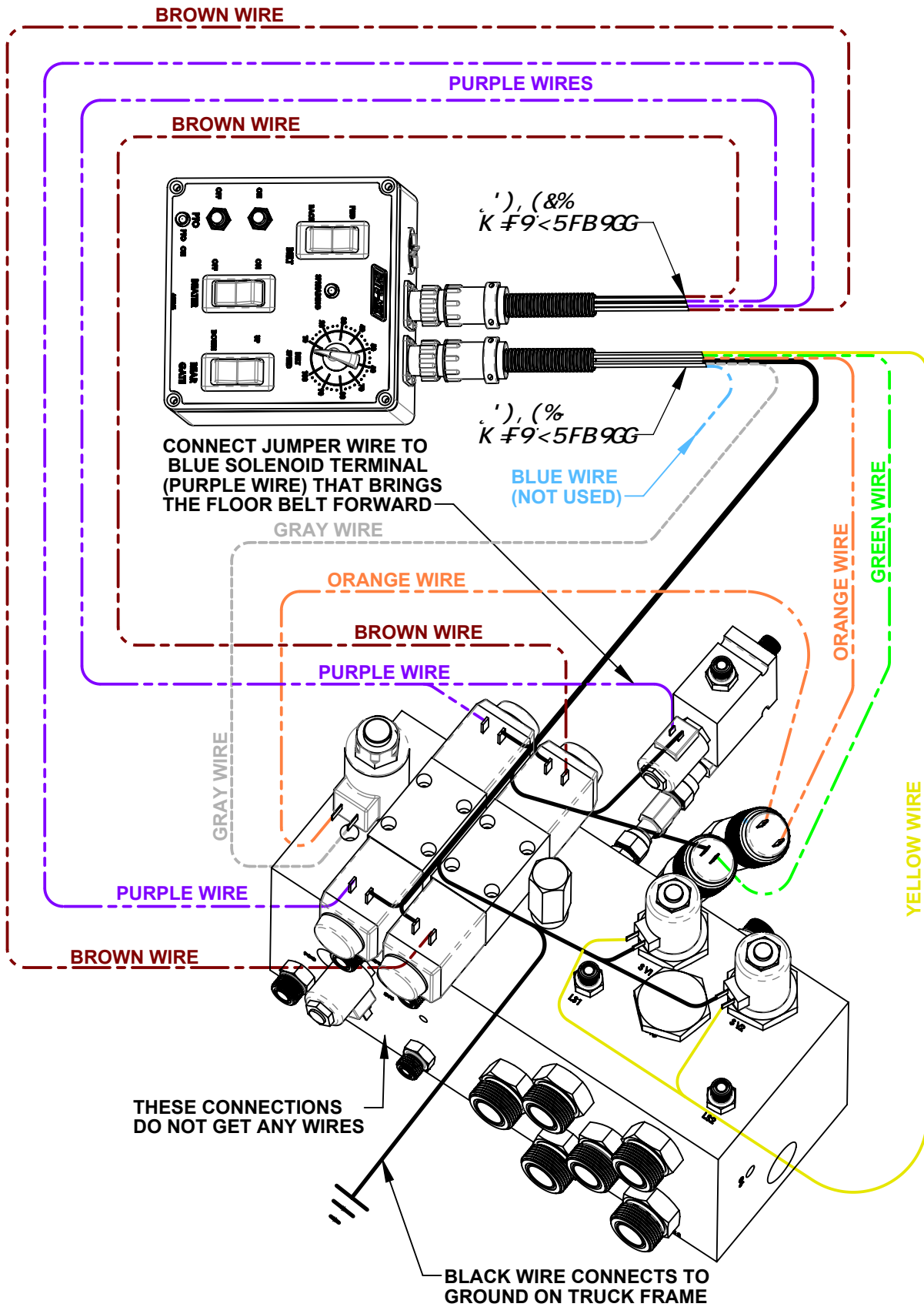
702-17 & 802-19 TRUCK SPREADER WIRING DIAGRAM

USE THIS WIRING DIAGRAM FOR SPREADERS WITH SERIAL NO'S BEFORE #410200310

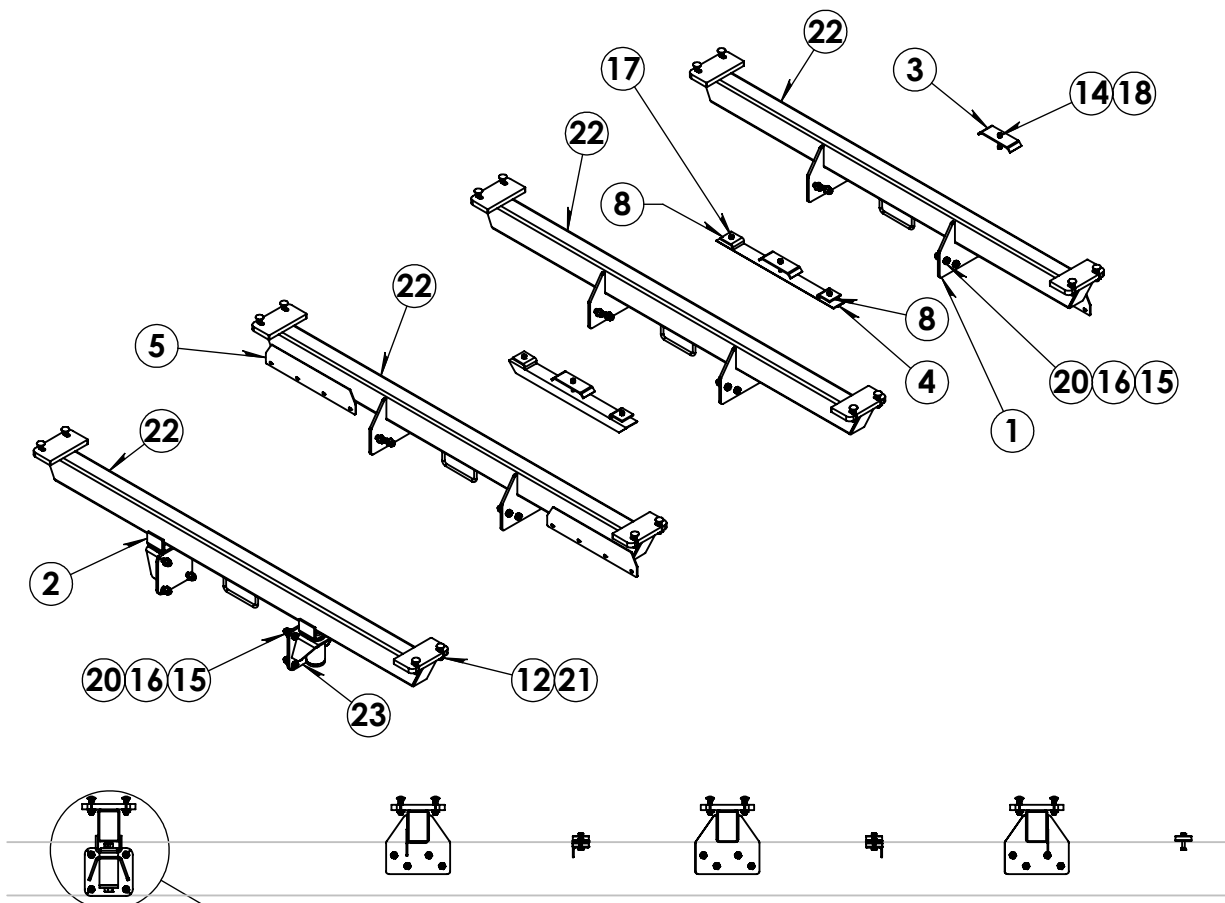


702-17 & 802-19 TRUCK SPREADER WIRING DIAGRAM

USE THIS WIRING DIAGRAM FOR SPREADERS WITH SERIAL NO'S AFTER #410200309

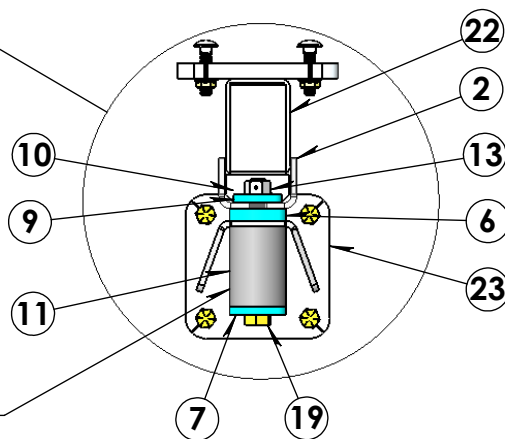


702-17 & 802-19 TRUCK SPREADER MOUNT KIT



SIDE VIEW

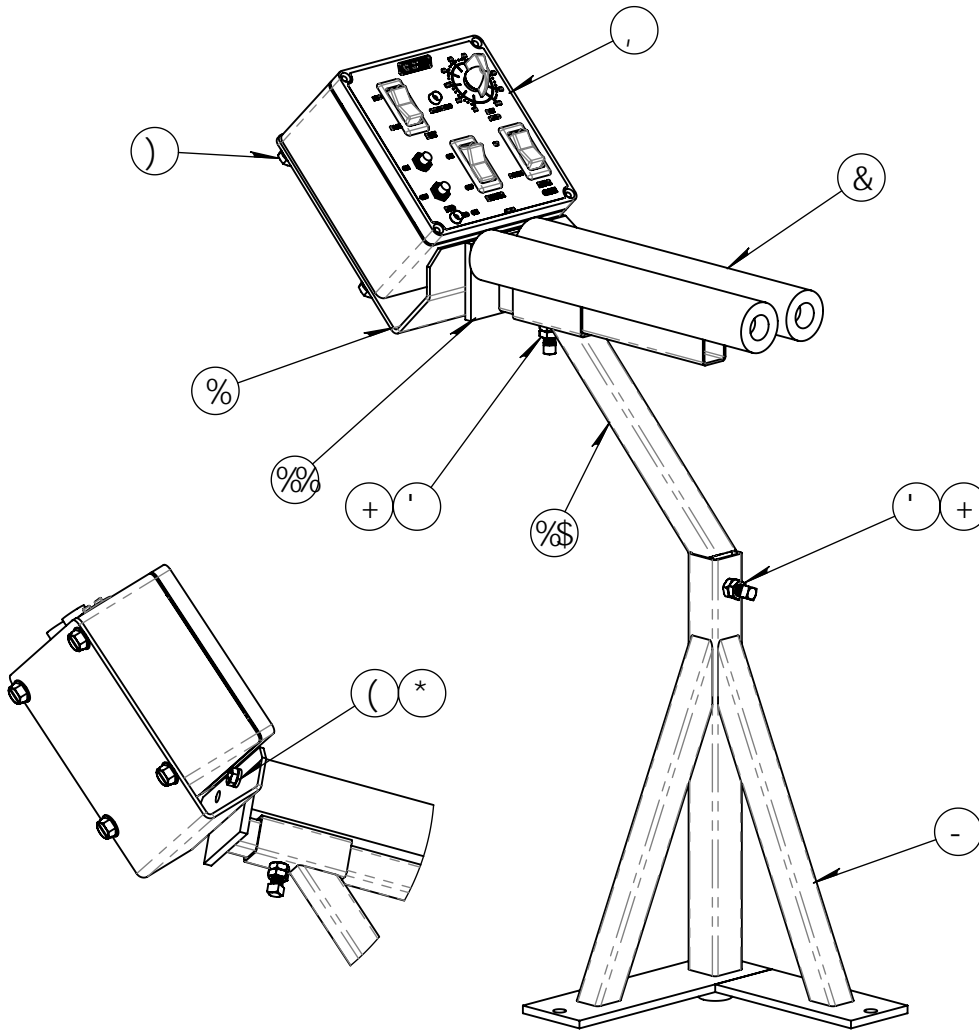
TIGHTEN 405841.5 HHCS UNTIL 351988 URETHANE SPRING IS SNUG. THEN TIGHTEN 405841.5 HHCS 1/2 TURN MORE



702-17 & 802-19 TRUCK SPREADER MOUNT KIT

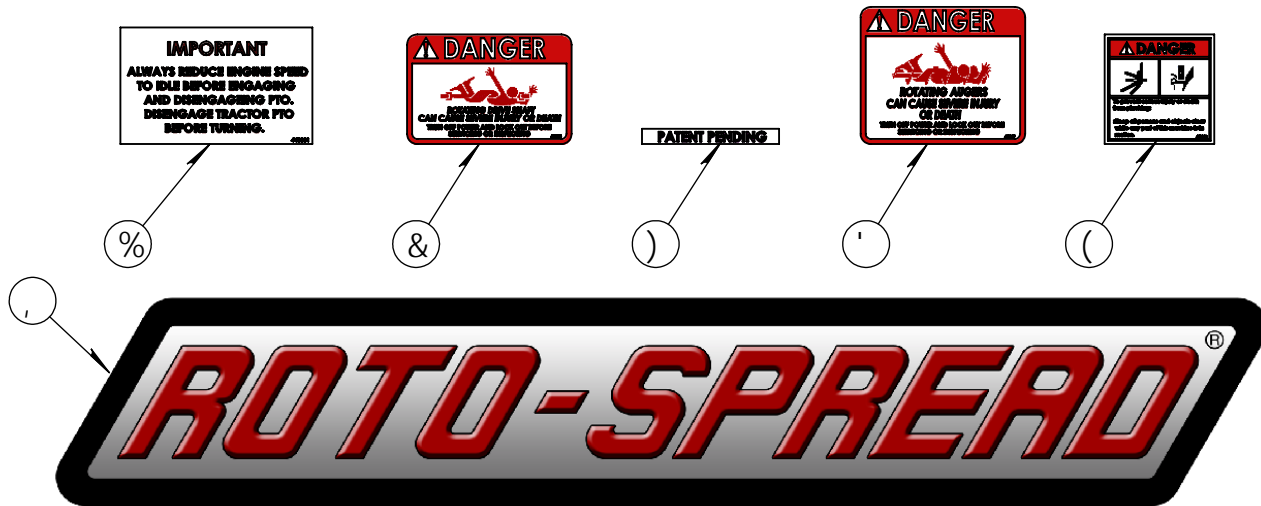
ITEM #	PART #	DESCRIPTION	QTY.
1	130618	PLATE, SPREADER TRUCK MOUNT, 12" x 11"	6
2	130779	802 MOUNTING TUBE SUPPORT, 4" x 10"	2
3	130782	802 HOSE CLAMP, 3" x 9"	3
4	130784	802 HOSE SUPPORT, 31"	2
5	130795	MUD FLAP BRACKET, 3" x 23 3/4"	4
6	130796	802 UHMW MOUNT PAD, 3/4"	2
7	130797	802 WASHER, 1/2" x 1-1/16" x 3-1/2"	2
8	130798	802 HOSE SUPPORT CLAMP, 4"	4
9	130956	802 WASHER, 1/2" x 1-1/16" x 3"	2
10	130957	PLATE, 1-3/4" x 4"LG	2
11	351988	PIRANHA URETHANE STRIPPER SPRING	2
12	400116	HEX SERRATED FLANGE NUT, 3/4"-10, #5 PLTD	16
13	400916	HEX TWO-WAY LOCKNUT, 1"-8, #5 PLTD	2
14	401108	HEX NYLOC NUT, 1/2"-13, #5 PLTD	7
15	401212	HEX NYLOCKNUT, 3/4"-16	32
16	402512	SAE FLAT WASHER, 3/4"	32
17	405704	HHCS, 1/2"-13 x 1-3/4", #5 PLTD	4
18	405708	HHCS, 1/2"-13 x 2 3/4", #5 PLTD	3
19	405841.5	HHCS, 1" x 8-1/2", #5 PLTD	2
20	406481	HHCS, 3/4"-10 x 2-1/2", #5 PLTD	32
21	407142	CARRIAGE BOLT, 3/4" x 3", #5 PLTD	16
22	830310	802 MOUNTING CROSSMEMBER W/A	4
23	830314	802 URETHANE MOUNTING BRACKET W/A	2

702-17 & 802-19 TRUCK SPREADER CONTROL BOX & ARM REST



ITEM #	PART NO.	DESCRIPTION	QTY.
1	130369	BRACKET, ELECTRICAL CONTROL BOX	1
2	185930	ARM REST PAD 12"	2
3	400606	HEX JAM NUT 3/8-16"	2
4	402005	5/16" MED PLTD SPRING LOCK WASHER	1
5	403494	TAPPING BOLT 3/8" x 1-1/4"	4
6	405627	HHCS #5 PLTD 5/16" x 3/4"	1
7	409543	SQ HD SET SCR CUP, 3/8" x 1"	2
8	780225	532/672 TRUCK SPREADER CONTROL BOX ASSY	1
9	872262	ARM REST STAND W.A.	1
10	872263	ARM REST GOOSE NECK W.A.	1
11	872264	ARM REST W.A.	1

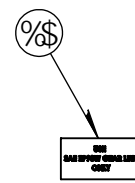
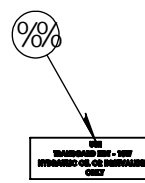
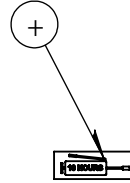
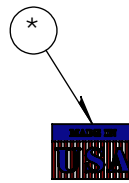
702-17 & 802-19 TRUCK SPREADER DECALS



702-17



802-19



#9A	D5FH	8 9G7 F ðHC B	'E HM'
%	((\$, \$%	8 97 5 @ F 98 I 7 9 '9B; ð 9 GD998 (!%# (" ' +"	%
&	((\$, &*	8 97 5 @ 85 B; 9F . FC H5 HB; '8 F ð 9 'G < 5 : H	%
'	((\$, &+	8 97 5 @ 85 B; 9F . FC H5 HB; '5 I ; 9 FG	%
(((\$, ' '	8 97 5 @ 85 B; 9F 'D ð 7 < 'DC ð H (' ' ("	%
)	((\$, (%	8 97 5 @ D5 H9B HD9B 8 ð; ') #, " ') "	%
*	((\$, ((8 97 5 @ A 5 8 9 ' ð ' I G5	%
+	((\$- ' %	8 97 5 @ ; F 95 G9; I B '8 97 5 @ % \$ ' < C I FG	%
,	((\$- ' -	8 97 5 @ FC HC !GDF 95 8	%
-	((\$-)'	8 97 5 @ , \$ & ! % ' f FC HC !GDF 95 8 ð	%
%\$	((\$-)	8 97 5 @ I G9 '9- \$K ; 95 F ' @ 69 'C B @ M	%
%%	((\$-)*	8 97 5 @ I G9 '% \$K ' < M B 'C @ I B ð ' HC ! (%
%&	((\$- *)	8 97 5 @ + \$ & ! % + f FC HC !GDF 95 8 ð	%
%	(((%*) +	8 97 5 @ K 5 FB ð; '9G7 5 D ð; ' < M B 'C @	%
%ð	(((%**'	8 97 5 @ K 5 FB ð; '8 C 'B C H5 H5 7 < 'DHC 'G < 5 : H	%