

pikrite

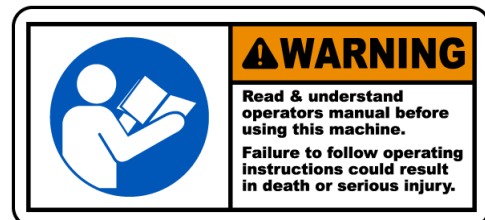
HR 400

HydraRam
SPREADERS

OPERATION AND PARTS MANUAL



PROUDLY MADE IN THE USA



Pik Rite Inc.
60 Pik Rite Lane
Lewisburg, PA 17837

DECEMBER 2020
SN 70320029

Phone 800-326-9763
Fax 570-523-8175
www.pikrite.com



Some illustrations may not represent the spreader model you have; however, the principles of operation and maintenance are the same. If you have questions specific to your spreader please contact your dealer.

SPECIFICATIONS AND DESIGN SUBJECT TO CHANGE WITHOUT NOTICE

OPERATION MANUAL 7

INTRODUCTION	7
SAFETY	8
PREPARING THE TRACTOR	14
PREPARING THE SPREADER	16
CONTROLS	17
ATTACHING THE SPREADER	18
DETACHING THE SPREADER	20
TRANSPORT	21
OPERATING THE SPEADER	24
LUBRICATION AND MAINTENANCE	27
SPECIFICATIONS	32

PARTS MANUAL 33

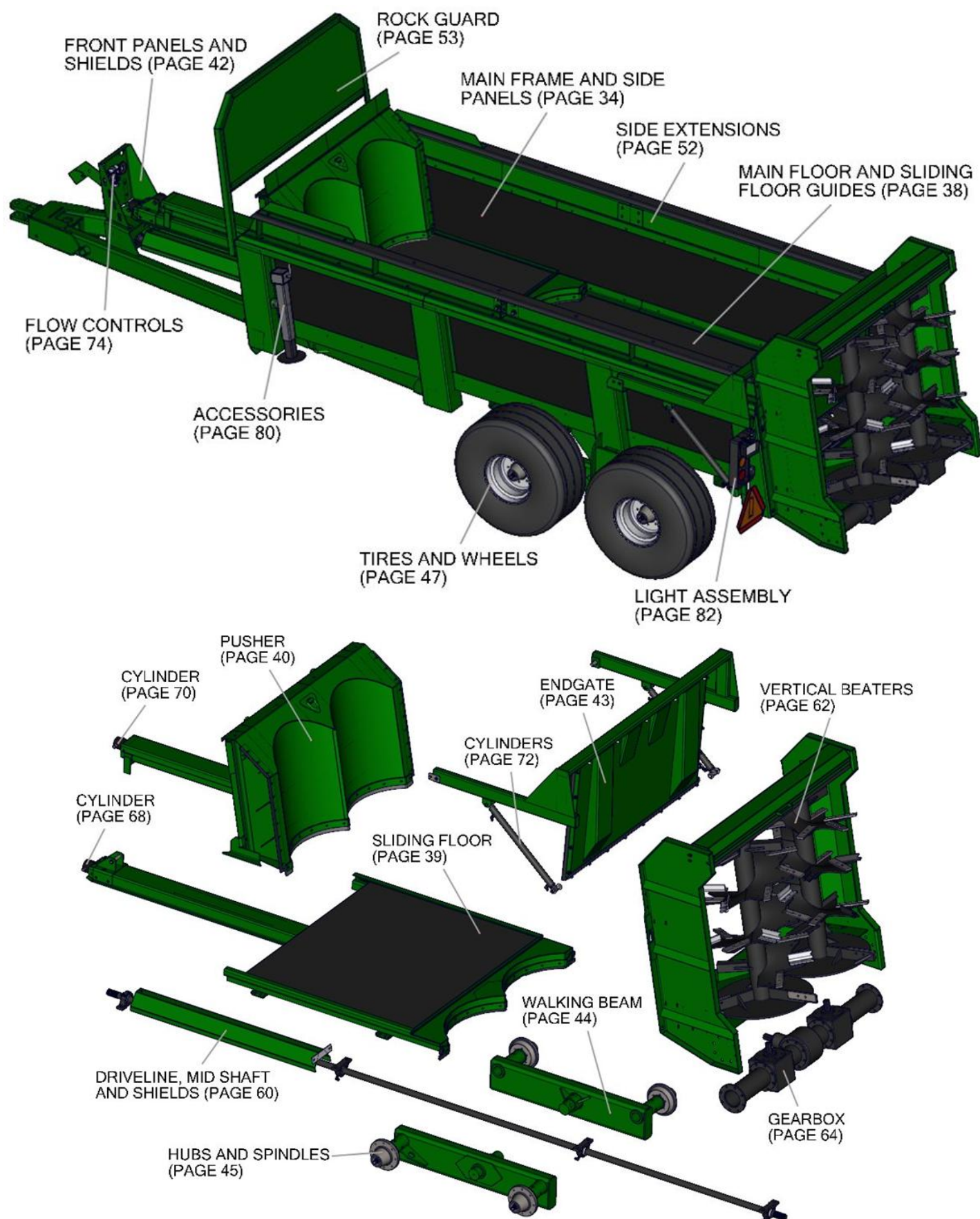
7015-1-01	MAIN FRAME AND SIDE PANELS	34
7015-1-01A	OPT. MAIN FRAME, SINGLE WHEEL	37
7015-1-02	MAIN FLOOR AND SLIDING FLOOR GUIDES	38
7015-1-03	SLIDING FLOOR	39
7019-1-04	PUSHER	40
7015-1-05	FRONT PANELS AND SHIELDS	42
7015-1-06	ENDGATE	43
7020-1-07	WALKING BEAM	44
7015-1-08	HUBS AND SPINDLES, ALL TIRE OPTIONS	45
7015-1-08A	OPT. HUBS AND SPINDLES, SINGLE WHEEL	46
7015-1-09	TIRES AND WHEELS, 16.5-16.1 IMPLEMENT TIRES	47
7015-1-09A	OPT. TIRES AND WHEELS, 11R-22.5 TRUCK TIRES	47
7015-1-09B	OPT. TIRES AND WHEELS, 500/50-22.5	48
7015-1-09C	OPT. TIRES AND WHEELS, 385/65R22.5 TRUCK TIRES	48
7015-1-09D	OPT. TIRES AND WHEELS, 425/65R22.5 TRUCK TIRES	49
7015-1-09E	OPT. TIRES AND WHEELS, 380/90R46-14.9	49
7015-1-10	OPT. WEIGHT SCALE SYSTEM, NT460	50
7019-1-10A	OPT. WEIGHT SCALE SYSTEM, DG400	51

TABLE OF CONTENTS

7020-1-11	OPT. SIDE EXTENSIONS	52
7015-1-12	OPT. ROCK GUARD	53
7015-2-01	DRIVELINE, FRONT 1-3/8" CV	54
7015-2-01A	OPT. DRIVELINE, FRONT 1-3/4" CV	56
7015-2-02	DRIVELINE, REAR WITH CLUTCH	58
7015-2-03	DRIVELINE, MID SHAFT AND SHIELDS	60
7015-2-04	VERTICAL BEATERS WITH GEARBOX	62
7015-2-05	GEARBOX, VERTICAL BEATERS	64
7019-3-01	HYDRAULICS, PUSH CYLINDERS	66
7019-3-02	HYDRAULICS, ENDGATE CYLINDERS	67
7015-3-03	CYLINDER, SLIDING FLOOR	68
7015-3-04	CYLINDER, PUSHER	70
7015-3-05	CYLINDER, ENDGATE	72
7019-3-06	OPT. CONTROL VALVE	74
7019-3-07	OPT. REMOTE FLOW CONTROL	76
7015-4-01	SAFETY CHAIN	78
7015-4-02	ACCESSORIES	80
7015-4-03	LIGHT ASSEMBLY, LED	82
7015-4-04	FRONT DECALS	84
7015-4-05	SIDE DECALS	85

WARRANTY	87
-----------------	----

TABLE OF CONTENTS



TO THE NEW OPERATOR OR OWNER

Since 1986 Pik Rite equipment has been developed by people who work as hard as you do in the fields, on the farm and on site. Our goal is to deliver products that get the job done with the most efficient results. If you want tough, dependable people and products you can count on, we've got your back.

This manual is provided to all our customers of newly manufactured manure spreaders to create an awareness of all maintenance expectations and dangers that may be encountered when owning this equipment. This manual should be kept for all future references. Please review these operating instructions carefully, then sign and date the last page of this document and return it to Pik Rite Inc. for processing. This will activate your warranty and verify that you have read and understand the following operating instructions and warnings. In the event you have questions or encounter other applications not discussed in this manual, please call before proceeding.

Congratulations and Thank You for choosing a quality manure spreader manufactured by Pik Rite Inc. We believe you'll be very satisfied with the purchase, and we appreciate your patronage.

PRINCIPLES OF OPERATION

The legacy of the 2-stage hydraulic push began with the John Deere Hydra-Push spreaders. Pik Rite continues the tradition with the Hydra-Ram series, which are designed to efficiently and uniformly spread manure. Equipped with a double hydraulic cylinder these spreaders also have a sliding floor. Each Hydra-Ram spreader is built to withstand the demands of farm life. All side and floor panels are constructed with a laminated poly covered finish for maximum strength and durability.

Less Compaction – This line of tough machines uses both a sliding floor and a moving front panel to deliver the material to the beaters. The sliding floor is pushed back first, using an engineered hydraulic cylinder. When fully extended, the front panel moves back to unload the box completely.

Less Maintenance – The Hydra-Ram is engineered to get the job done with fewer moving parts. This design efficiency extends the life of the spreader while requiring less maintenance and down-time than other manufacturer's equipment. Auger systems tend to compact the material into clumps, causing uneven distribution and increased wear on the beater system. The 2-stage hydraulic push technology greatly reduces compaction and provides optimal clean-out.

Less Time, Spread Faster – The Hydra-Ram 2-stage push system delivers the material to the beaters at an even and controlled speed. Manual and/or electric over hydraulic flow controls allow you to unload the material faster than auger or side sling machines.



RECOGNIZE SAFETY INFORMATION

This is the safety-alert symbol. When you see this symbol on your machine or in this manual be alert to the potential of physical injury.

Obey all safety messages that follow this symbol to avoid possibly injury or death.

UNDERSTAND SIGNAL WORDS

A signal word – DANGER, WARNING, or CAUTION – is used with the safety-alert symbol. DANGER identifies the most serious hazards.

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

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

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

NOTICE is used to address practices not related to physical injury.

SAFETY INSTRUCTIONS are used to indicate specific safety-related instructions or procedures.

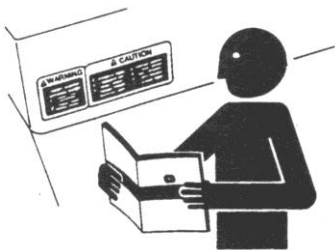
FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and on your machine safety labels.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

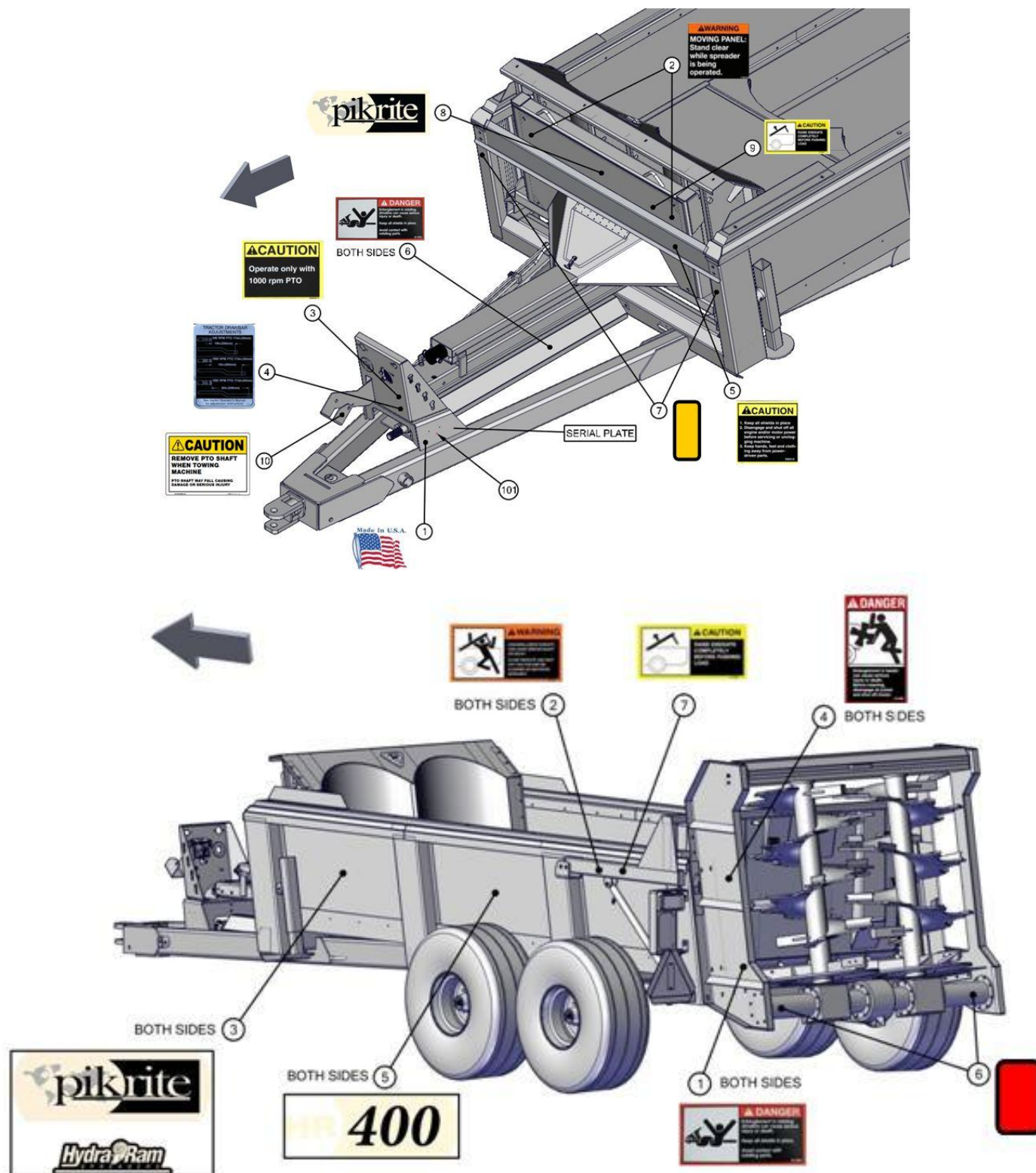
Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your Pik Rite dealer.



REPLACE SAFETY LABELS

Keep safety labels in good condition. Replace missing or damaged safety labels. Be sure new equipment components and repair parts include the current safety labels. Replacement safety labels are available from your Pik Rite dealer (See “Front Decals” and “Side Decals” in the Parts Manual for part numbers.)



SAFETY

⚠ DANGER KEEP SHIELDS IN PLACE

Do not operate spreader without safety shields in place.

Rotating parts can crush or dismember causing death or personal injury.

Disconnect PTO driveline and hydraulic lines from tractor before removing shields for adjustment or service.



⚠ WARNING PROTECT BYSTANDERS

Never operate the spreader near people.

Do not place rocks, timbers or other solid objects in the spreader. Objects can be thrown great distances causing injury to people.



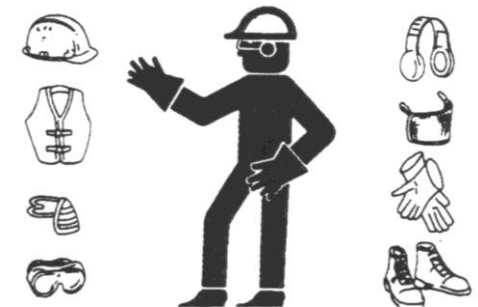
⚠ CAUTION WEAR PROTECTIVE CLOTHING

Wear close fitting clothing and safety equipment appropriate to the job.

Prolonged exposure to loud noise can cause impairment or loss of hearing.

Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.

Operating equipment safely requires the full attention of the operator. Do not wear radio or music headphones while operating machine.

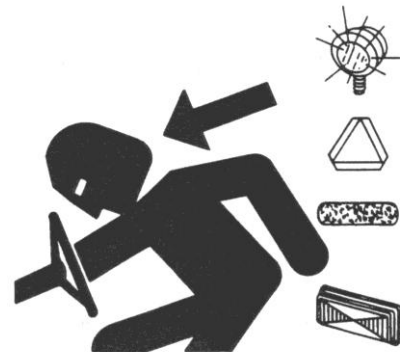


⚠ WARNING USE SAFETY LIGHTS AND DEVICES

Slow moving tractors, self-propelled equipment and towed implements or attachments can create a hazard when driven on public roads. They are difficult to see, especially at night. Avoid personal injury or death resulting from collision with a vehicle.

Flashing warning lights and turn signals are recommended whenever driving on public roads. To increase visibility, use the devices provided with your machine. For some equipment, install extra flashing warning lights.

Keep safety items in good condition. Replace missing or damaged items.





⚠️ WARNING KEEP RIDERS OFF MACHINE

Riders are subject to injury such as being struck by foreign objects and being thrown off the machine. Riders also obstruct the operator's view resulting in the machine being operated in an unsafe manner



SAFETY INSTRUCTIONS PARK SPREADER SAFELY

Park spreader on a level surface and block wheels.

Close endgate.

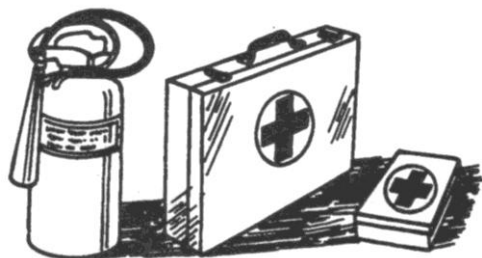
Secure jackstand with pin.

NOTICE PREPARE FOR EMERGENCIES

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



SAFETY INSTRUCTIONS USE A SAFETY CHAIN

A safety chain will help control drawn equipment should it accidentally separate from the drawbar.

Using the appropriate adapter parts, attach the chain to the tractor drawbar support or other specified anchor location. Provide only enough slack in the chain to permit turning.



See your Pik Rite dealer for a chain with a strength rating equal to or greater than the gross weight of the towed machine. Do not use safety chain for towing.

SAFETY

⚠ DANGER OPERATE SPREADER SAFELY

Rotating parts can entangle or strike people, resulting in death or personal injury.

Never enter a spreader while in operation.

Operate the spreader from the tractor seat only.

Do not exceed load capacity of the spreader. (See Transport section)

Reduce speed when turning or traveling on rough terrain. Avoid traveling over loose fill, rocks, ditches or holes.

When working on inclines or slopes, travel uphill or downhill. Keep tractor in gear when traveling downhill.



⚠ WARNING STAY CLEAR OF RAISED ENDGATE

Contact with a lowering endgate can cause death or personal injury.

Lower endgate and disconnect hydraulic lines before servicing or adjusting.



⚠ WARNING STAY CLEAR OF ROTATING DRIVELINES

Entanglement in rotating driveline can cause serious injury or death.

Keep tractor master shield and driveline shields in place at all times. Make sure rotating shields turn freely.

Wear close fitting clothing. Stop the engine and be sure PTO driveline is stopped before making adjustments, connections, or cleaning out PTO driven equipment.



⚠ DANGER STAY CLEAR OF ROTATING BEATER

Rotating beater can entangle or strike causing death or personal injury.

Do not clean out or service spreader while beater is rotating.

Disconnect PTO driveline and make sure all parts have stopped rotating before cleaning or servicing.

Do not cut or weld on vertical beater attachment. Serious injury or death could occur when operating.





WARNING AVOID HIGH-PRESSURE FLUIDS



Escaping fluid under pressure can penetrate the skin causing serious injury.

Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source.

SAFETY INSTRUCTIONS

SERVICE SPREADER SAFELY



To help prevent personal injury caused by unexpected movement, be sure to service spreader on level surface.

If spreader is connected to tractor, disengage PTO, engage parking brake and/or place transmission in "PARK," shut off engine and remove key.

If spreader is detached from tractor, block wheels and use safety stands to prevent movement.

Replace all shields after lubricating or servicing.

SAFETY INSTRUCTIONS

REDUCE SPEED WHEN TOWING LOADS



Braking to stop towed loads from transport speeds can cause the towed load to swerve and upset. Reduce speed if towed load weighs more than the tractor and is not equipped with brakes.

Follow recommended speed-weight ratio guidelines:

- Maximum speed is 20 mph (32 km/h) when towing loads equal to or less than the tractor.
- Reduce speed to 10 mph (16 km/h) when towing loads more than equal and up to double the tractor weight.
- Do not tow loads exceeding double the tractor weight.
- Use additional caution when towing loads under adverse surface conditions, when turning, and on inclines

PREPARING THE TRACTOR

NOTICE APPROVED TRACTORS, MODEL HR400

Row Crop Tractors with 100 HP PTO rating or larger are approved for operation with the HR400 Spreader.

Utility Tractors are **NOT APPROVED** because of drawbar weight limitations and the inability to ballast the tractor enough to meet requirements for towing.

A drawbar support is required on any tractor with a drawbar size of no less than 1-1/2 x 3 in.

Tractor hydraulic oil reservoir must have capacity for 3.4 U.S. gal. net draw for a spreader with an endgate or 3.1 U.S. gal. without an endgate.

Tractor standby hydraulic pressure must be between 1500 psi and 2250 psi.

One selective control valve is required to operate the spreader.

A second selective control valve is required to operate the endgate.

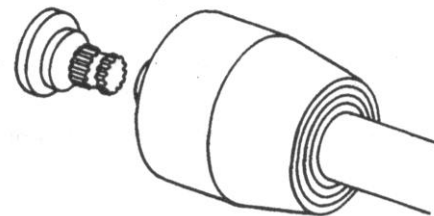
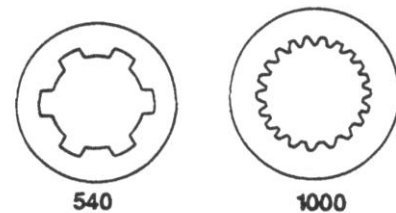
NOTICE CHOOSING CORRECT PTO SPEED

MODEL – HR400 – 1000 RPM ONLY

Drive components can be damaged.

Under no circumstances should a machine equipped for 540 rpm PTO be operated by a tractor equipped with 1000 rpm PTO.

Nor should a 1000 rpm PTO machine be operated with a tractor equipped with 540 rpm PTO.

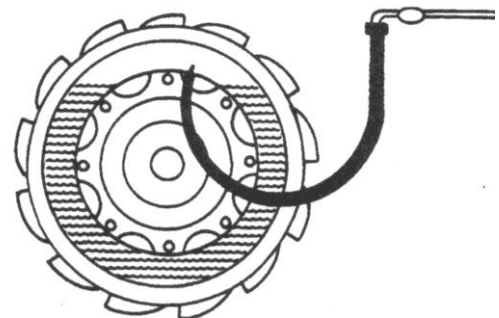


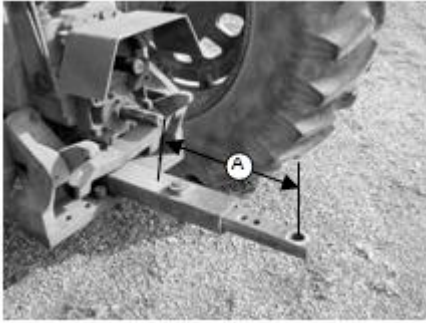
NOTICE BALLASTING THE TRACTOR

Do not tow loads that weigh more than twice the tractor weight.

(See Recommended Maximum Towing Speed in Transport section.)

To ensure proper stability, adjust ballast and wheel spacing according to tractor operator's manual.





SAFETY INSTRUCTIONS

POSITIONING DRAWBAR

Tractor PTO and machine driveline can be damaged. Be sure drawbar length is properly set. If equipped with clevis, remove it. Lock drawbar along tractor centerline with offset down.

Remove clevis if equipped.

PTO Speed

Dimension (A)

1000 rpm x 1-3/8 406 mm (16in.)

1000 rpm x 1-3/4 508 mm (20in.)

Adjust drawbar length (A) to help prevent driveline damage.

A tractor drawbar support is required on tractors with a drawbar size of 1-1/2 x 3 in. minimum

SAFETY INSTRUCTIONS

USING SELECTIVE CONTROL LEVERS TO CONTROL FLOOR SPEED

Floor and moving panel speed can be controlled by using tractor selective control lever to extend and retract cylinders.

Adjust selective control valve lever to provide the slowest operating speed. (See your tractor operator's manual). Maximum hydraulic oil flow through the spreader control valve is 6.8 gpm. Trying to force through more oil than this, may create a pressure drop.

SAFETY INSTRUCTIONS

SETTING HYDRAULIC SPEED ENDGATE OPERATION

Excessive operating speed may cause machine damage. Adjust selective control valve lever to provide correct operating speed.

Adjust selective control valve lever, it should take two to three seconds to fully extend or retract the cylinder. (See your tractor operator's manual).

SAFETY INSTRUCTIONS

CHECKING TRANSMISSION/HYDRAULIC OIL LEVEL

Cycle all hydraulic cylinders fully two or three times.

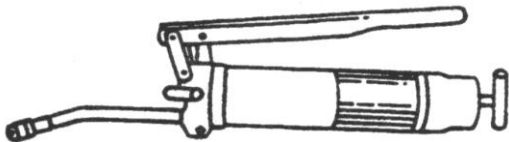
Fully retract all cylinders.

Check transmission/hydraulic oil level. (See your tractor's Operator's Manual)

PREPARING THE SPREADER

NOTICE LUBRICATING THE MACHINE

Be sure the machine has been adequately lubricated.
(See Lubrication and Maintenance page.)



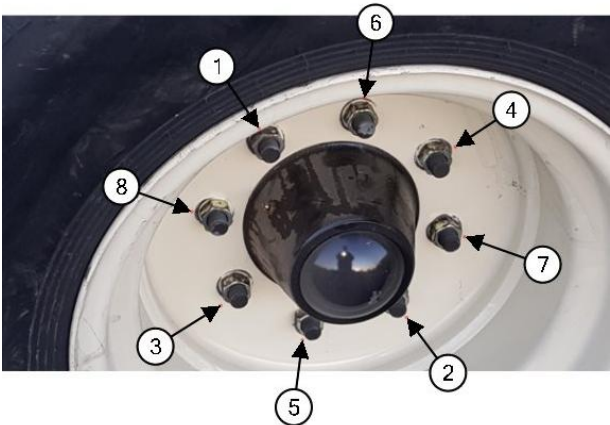
SAFETY INSTRUCTIONS TIGHTENING WHEEL HARDWARE

Operating the spreader with loose wheel hardware will damage the hub or wheel. Tighten hardware after initial transport, after one hour of operation and every fifty hours thereafter.

Tighten to 240 lb-ft of dry torque (180 lb-ft wet) in the sequence shown.

Tire Size	Wheel Size	Tire Pressure
16.5 x 16.1 Implement	14.00 x 16.1	48 psi
11 R 22.5	22.5 x 8.25	75 psi
385/65 R 22.5	22.5 x 11.75	115 psi
500/50-22.5 Implement	22.5 x 16	40 psi
425/65R22.5 Truck Tires	22.5 x 13	115 psi

(Additional options may be available, please contact your dealer for more information)



SAFETY INSTRUCTIONS CHECKING TIRES

- 1. Check tires daily for damage or noticeably low pressure.
- 2. Repair any cuts or breaks as soon as possible.
- 3. Protect tires from exposure to sunlight and petroleum products or chemicals.



SAFETY
INSTRUCTIONS**OPERATING THE BEATER**

To start beater, engage PTO lever slowly, at low engine rpm.

To stop beater, disengage PTO. (See your tractor's Operator's Manual)

For best spreading results, operate the tractor engine at "PTO RATED" speed.

SAFETY
INSTRUCTIONS**OPERATING THE ENDGATE**

Contact of sliding floor/moving panel with endgate closed will cause damage. To avoid contact with moving panel, endgate must be raised fully.

Operate the endgate with the second auxiliary control valve lever.

Endgate is not a metering device.

Doing so may cause damage to the spreader.

SAFETY
INSTRUCTIONS**OPERATING SLIDING FLOOR
MOVING PANEL USING METERING CONTROL VALVE**

To extend the sliding floor and moving panel lock control lever in operating position.

To retract the sliding floor/moving panel, move control lever in opposite direction.

See your tractor's operating manual for information on how to control flow rates of your hydraulic system.

Maximum hydraulic oil flow through the spreader control valve is 6.8 gpm. Trying to force through more oil than this, may create a pressure drop.

ATTACHING THE SPREADER

⚠ CAUTION ATTACHING THE SPREADER

Help prevent personal injury caused by unexpected movement of the machine. Engage parking brake and/or place transmission in "PARK", shut off engine, and remove key before working around hitch.

1. Attach with a 1-1/8 pin and secure.

Shorten safety chain to allow only enough slack required for turning.

2. Lock safety hook onto chain.



SAFETY INSTRUCTIONS

STORING JACKSTAND

1. After the spreader is attached to the tractor and secure, remove jackstand from lift position.
2. Store jackstand as shown and secure with pin.

⚠ CAUTION CONNECT HYDRAULIC HOSES

To avoid injury from escaping hydraulic oil under pressure, relieve the pressure in the system by shutting off the tractor and moving remote cylinder operating levers in both directions before attaching hoses to or detaching hoses from the breakaway couplers.



SAFETY INSTRUCTIONS

CONNECT ENDGATE HYDRAULIC HOSES

1. Connect pressure hose to pressure port of hydraulic remote coupler.
2. Connect return hose to return port of hydraulic remote coupler.



SAFETY INSTRUCTIONS

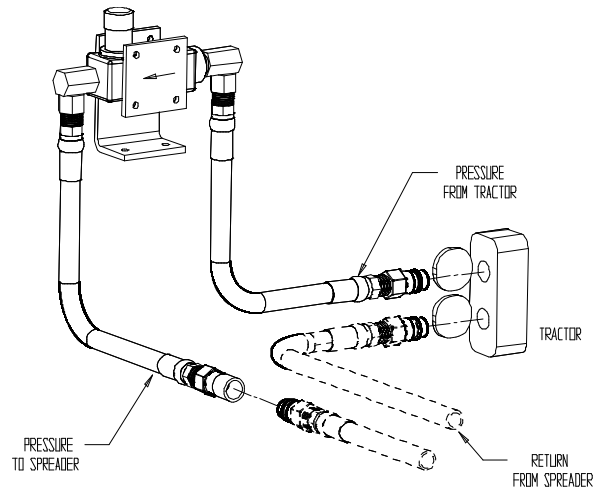
CONNECTING HYDRAULIC HOSES

TRACTOR WITH CLOSED CENTER HYDRAULIC SYSTEM

Attach control valve to tractor where it can be reached by the operator.

Attach hoses accordingly.

(Diagram shows unloading configuration, flow reverses to retract.)



SAFETY INSTRUCTIONS

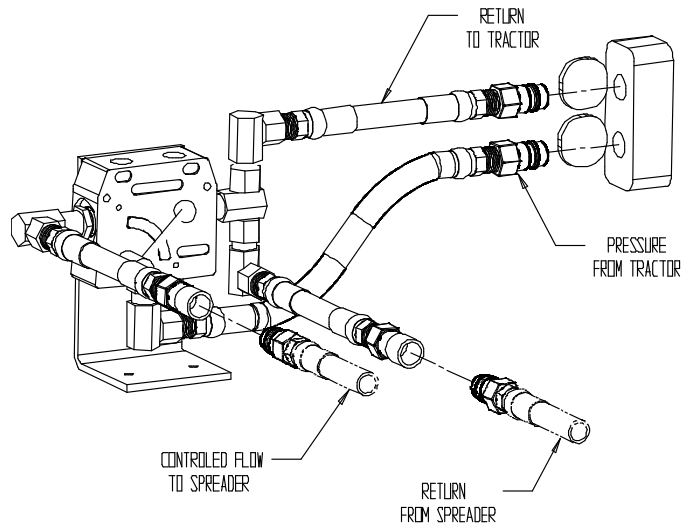
CONNECTING HYDRAULIC HOSES

TRACTOR WITH OPEN CENTER HYDRAULIC SYSTEM

Attach control valve to tractor where it can be reached by the operator.

Attach hoses accordingly.

(Diagram shows unloading configuration, flow reverses to retract.)



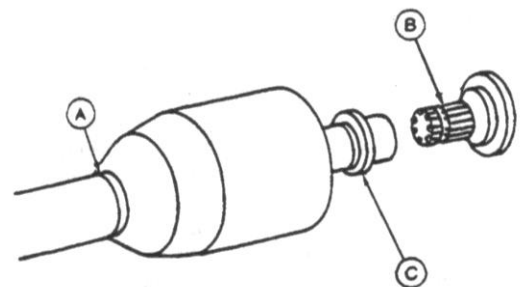
SAFETY INSTRUCTIONS

ATTACHING DRIVELINE

Avoid causing damage to shielding,

DO NOT use bell on driveline to lift driveline into position.

1. Support driveline, cradling it in your hand.
2. Rotate driveline (C) or tractor PTO (B) to align splines.
3. Pull collar (C) rearward and push forward on bell (A) to engage driveline yoke with tractor PTO (B).
4. Pull back on PTO driveline shielding to be sure driveline is locked. **DO NOT** pull on collar, this will release latch.



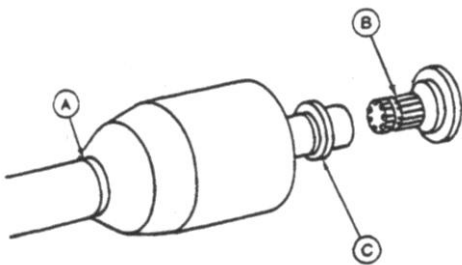
DETACHING THE SPREADER



SAFETY INSTRUCTIONS

DETACHING SPREADER

1. Secure jack stand in lift position
2. Detach safety chain
3. Remove hitch pin
4. Disconnect hoses. Store on spreader



SAFETY INSTRUCTIONS

DETACHING DRIVELINE

1. Support driveline (A) and pull rearward on collar (C) to release driveline from tractor PTO (B).
2. When possible store driveline in driveline cradle provided with machine.
3. Replace tractor PTO shields.

SAFETY
INSTRUCTIONS

TOWING LOADS

Braking to stop towed loads from transport speeds can cause the towed load to swerve and upset. Reduce speed if towed load is not equipped with brakes and weighs more than the tractor.

Follow recommended speed-weight ratio guidelines:

- Maximum speed is 20 mph (32 km/h) when towing loads equal to or less than the weight of the tractor.
- Reduce speed to 10 mph (16 km/h) when towing loads more than or up to double the tractor weight.
- **DO NOT** tow loads that exceed double the tractor weight.
- Use additional caution when towing loads under adverse road surface conditions (i.e. slippery or rough), when turning and/or on inclines.
- For proper tractor size and towing speed see the following “Recommended Maximum Towing Speed” chart.
- If necessary, add ballast as described in your tractor’s Operator’s Manual.

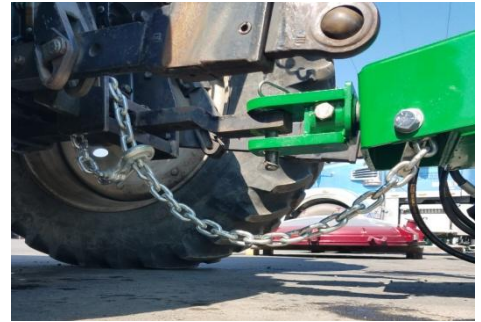


TRANSPORT

SAFETY INSTRUCTIONS

USING A SAFETY CHAIN

A safety chain will help control drawn equipment should it accidentally separate from the drawbar while transporting. Using the appropriate adapter parts, attach the chain to the tractor drawbar support or other specified anchor location. Provide only enough slack in the chain to permit turning. See your Pik Rite dealer for a chain with a strength rating equal to or greater than the gross weight of the towed machine.



NOTICE

LIGHTING

When transporting the machine on a road or highway at night or during the day, use accessory lights and devices for adequate warning to operators of other vehicles. Check local governmental regulations. Keep safety items in good condition. Replace missing or damaged items.

(Contact your Hydra-Pull Dealer for available lighting kit)



NOTICE**RECOMMENDED MAXIMUM TOWING SPEED**

Tractor Weight	*	**	***	****
(0-2997 lb)	Do Not Tow	Do Not Tow	Do Not Tow	Do Not Tow
(2998-5950 lb)	Do Not Tow	Do Not Tow	Do Not Tow	Do Not Tow
(5951-11021 lb)	Do Not Tow	Do Not Tow	Do Not Tow	Do Not Tow
(11022-12123 lb)	Do Not Tow	Do Not Tow	Do Not Tow	Do Not Tow
(12124-14769 lb)	Do Not Tow	Do Not Tow	Do Not Tow	Do Not Tow
(14770-22044 lb)	Do Not Tow	Do Not Tow	Do Not Tow	Do Not Tow
(22045-24910 lb)	(20 mph)	(10 mph)	(10 mph)	(10 mph)
(24911-29540 lb)	(20 mph)	(10 mph)	(10 mph)	(10 mph)
(29541 lb-Up)	(20 mph)	(10 mph)	(10 mph)	(10 mph)

**Base Spreader Empty Load*

***Load struck level consisting of manure with high liquid content.*

Calculated at 70 lb/cu ft

****Load piled 381 mm (15 in.) above beater consisting of semi-solid type manure*

Calculated at 55 lb/cu ft

*****Load piled at 15 in. above optional upper beater consisting of semi-solid type manure.*

Calculated at 55 lb/cu ft

**COMBINED WEIGHT OF SPREADER AND LOAD**

OPERATING THE SPREADER

SAFETY INSTRUCTIONS

PREOPERATING CHECKS

1. Be sure spreader does not contain any foreign objects
2. Check for correct hydraulic hookup. Raise endgate fully. Engage beaters, engage apron chain
3. Disengage apron chain, disengage beaters
4. Close endgate

CAUTION LOADING THE SPREADER

Do not place rocks, timbers, or other solid objects in the spreader. Objects of this nature can damage the spreader and could also be thrown great distances causing possible injury to anyone standing in the vicinity.

Load front of spreader first, distributing load evenly.

When operating without an endgate, avoid loading manure against the beater.



CAUTION PREPARE TO UNLOAD THE SPREADER

Help prevent personal injury. Be sure no one is near spreader and tractor before operating.

Start beater by engaging PTO slowly at low engine rpm. Increase to "PTO RATED" speed.

For best spreading results, operate tractor at "PTO RATED" speed.

Do not operate apron chain without running the beaters as this may damage the spreader.



NOTICE RAISE ENDGATE

Contact of apron chain with endgate will cause damage. To avoid contact with apron chain, endgate must be raised fully.

The endgate closes off the back end of the spreader to contain manure with high liquid content.

The endgate also prevents solid material from being piled tight against the beater.



SAFETY INSTRUCTIONS

UNLOADING SPREADER USING METERING VALVE

1. Set flow control on tractor hydraulics obtain desired rate of unload speed.

Rate of spread is affected by both ground speed and unload speed. Experience will help you determine both gear selection and control knob setting.

2. When spreader is empty, disengage apron chain, disengage PTO, and lower endgate.

SAFETY INSTRUCTIONS

PRODUCING GOOD SPREADING RESULTS

1. Operate tractor engine at “PTO RATED” speed.
2. Do not overload beater. A clumpy spread pattern will result from too fast of an unload rate.
3. When operating without an endgate, avoid loading material against the beater. Otherwise, large clumps of material will be thrown out during the first few turns of the beater.

NOTICE CLEANING SPREADER IN COLD WEATHER

When operating the spreader during extended periods of subfreezing temperatures, frozen material may build up on steel surfaces. This can prevent the beater from moving.

After completing spreading for the day, use the following cleaning procedure.

Cleaning is only necessary during extended periods of subfreezing temperatures.

Remove material buildup from endgate panel. Keep endgate arms clean to prevent freezing to side rails. Remove debris from sliding floor, pusher tracks, and beater pan. Periodically check inside the pusher door and remove debris as necessary.

OPERATING THE SPREADER

NOTICE CLEAN WALKING BEAM

When tire valve stems are mounted towards the inside, clean top of walking beams to prevent valve stem damage.



NOTICE WARMING HYDRAULIC OIL TEMPERATURES BELOW 0°F (-18°C)

It is necessary to warm the hydraulic oil for proper spreader operation.

Follow the procedures in your tractor's Operator's Manual for warming hydraulic oil.

The following procedures apply only to tractors with a closed center hydraulic system.



NOTICE BYPASSING SPREADER CONTROL VALVE

There will be a large hydraulic oil pressure drop across the auxiliary flow control valve when the oil is cold. Oil pressure available to hydraulic cylinders may be too low.

Try cycling the cylinders several times slowly so the cold oil in the cylinders is mixed with the warm oil in the tractor. In the event of extreme cold; you may need to bypass the control valve to do this. Be sure you begin by moving the cylinders very slowly.

Reconnect hoses to flow control valve.



⚠ CAUTION LUBRICATING AND MAINTAINING SPREADER

Help prevent personal injury caused by unexpected movement of the machine. If spreader is connected to tractor, disengage PTO, engage parking brake and/or place transmission in "PARK", shut off engine, and remove key. If spreader is detached, block wheels and use safety stands.

Replace all shields after lubricating or servicing.

NOTICE OBSERVING INTERVALS

The intervals recommended are based on normal conditions. Severe or unusual conditions may require more frequent attention.

NOTICE SELECTING GREASE

Depending upon the expected air temperature range during the service interval, use grease as shown on the adjusting temperature chart.

SAE-Multipurpose High Temperature Grease with Extreme Pressure [EP] Performance with 3 to 5% molybdenum disulfide.

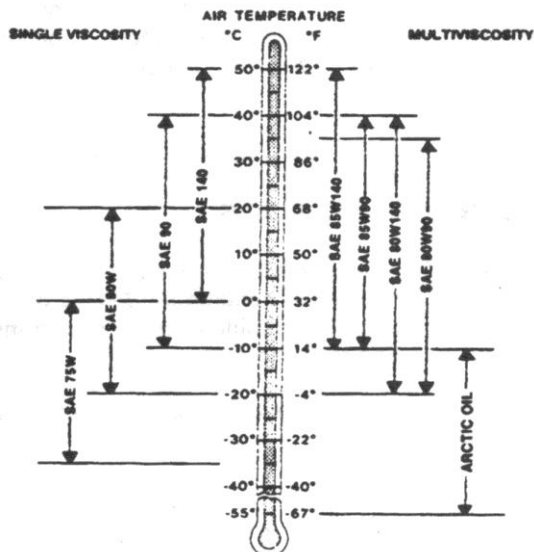
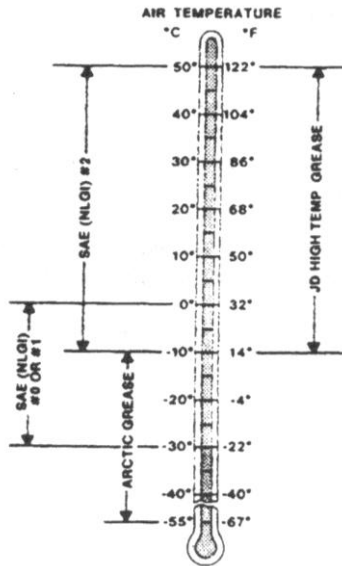
Moly-type grease is recommended, however, if not available, multipurpose grease is acceptable.

NOTICE SELECTING GEAR CASE OIL

Depending upon the expected air temperature range during the drain interval, use oil viscosity shown on the adjoining temperature chart.

- API Service Classification GL-5
- Military Specification MIL-L-2105B
- Military Specification MIL-L-2105C

At temperatures below -35° [-31°], use arctic oils such as those meeting Military Specifications MIL-G-10324A.



LUBRICATION AND MAINTENANCE

NOTICE SERVICE INTERVALS

- Change gearbox lubricant every 6,000 loads

EVERY 8 HOURS

- Lubricate driveline
- Check gear case oil level
- Check tires
- Check axle hub oil

EVERY 40 HOURS

- Lubricate top beater bearings
- Grease apron chain drive bearings & sprockets

EVERY 50 HOURS

- Tighten wheel hardware
- Lubricate walking beam pivots

EVERY 250 HOURS

- Lubricate endgate pivots

SERVICE AS REQUIRED

- Adjust apron chain tension
- Slip the clutch

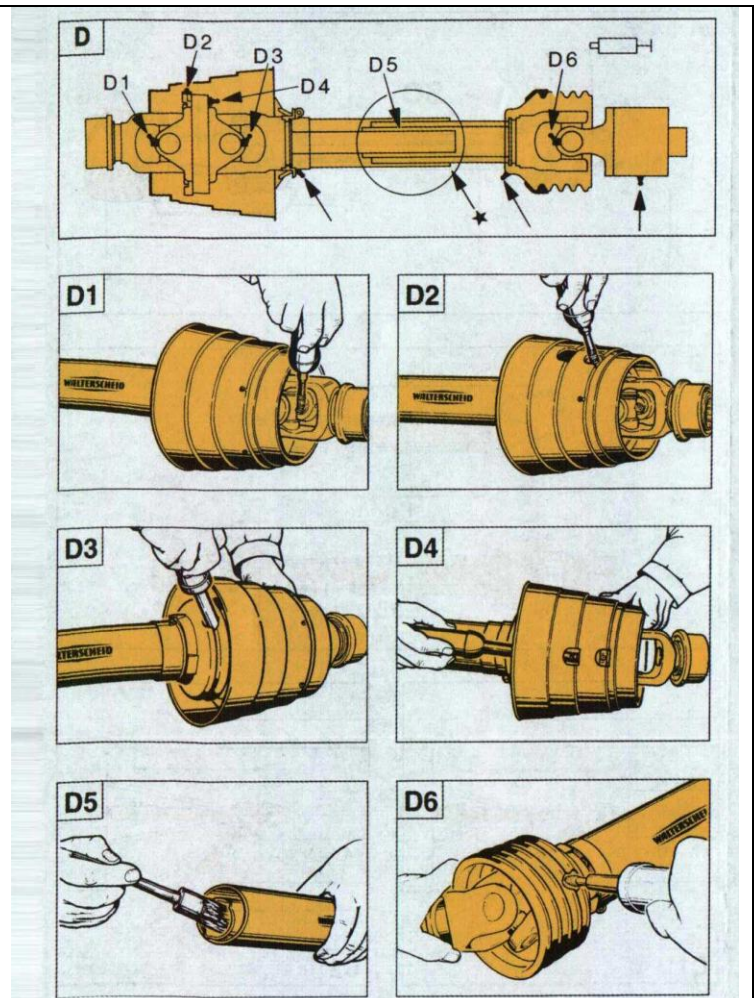
In addition to the above referenced information, you are working with a central lube CV design on the primary that contains a special lubrication provision that needs to be well defined for the user so that extended life on the CV can be achieved.

The key point is that each CV has one zerk in a bearing cap and it is this zerk that is most important since it feeds the inboard cross kit as well as the the ball and socket of the CV. The user needs to understand that the zerk in the cap should receive **15-20 pumps** of grease each day while the other zerks in the joint

CV housing and telescoping members can operate with 5-6 pumps or until the seals purge. The plastic zerks feeding the shielding should also receive 3-4 pumps daily if shields are being restrained.

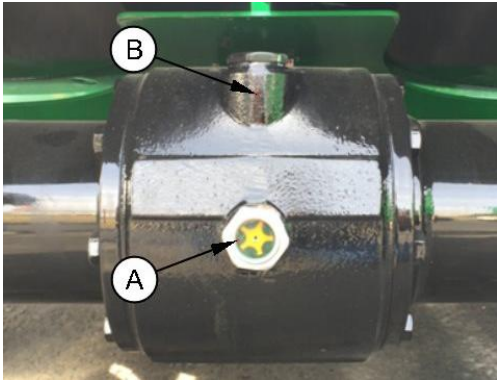
Primary Driveline (to Tractor) Lubricate fittings D1 through D6 every eight hours of operation.

Secondary Driveline (under spreader) Lubricate as above including overrunning clutch.



NOTE: Lubrication step D5 is only necessary when driveline does not have grease fitting. Separate front and rear halves of driveline and brush with grease.

LUBRICATION AND MAINTENANCE



NOTICE

CHECK GEAR CASE OIL LEVEL

With spreader on level ground, check oil level at the sight glass on the center gearcase "A"

Add recommended oil as needed. (See Selecting Gear Case Oil)
To add oil, remove fill cap at the top of the gearcase "B"

NOTICE

GREASE TOP BEATER BEARINGS

Grease the two bearings at the top of the vertical beaters every 8 hours of operation. Rear grease bank on beater side panel



SAFETY INSTRUCTIONS

CHECKING TIRES

1. Check tires daily for damage or noticeably low pressure.
2. Repair any cuts or breaks as soon as possible.
3. Protect tires from exposure to sunlight and petroleum products or chemicals.



<u>Tire Size</u>	<u>Wheel Size</u>	<u>Tire Pressure</u>
16.5 x 16.1 Implement	14.00 x 16.1	48 psi
11 R 22.5	22.5 x 8.25	75 psi
385/65 R 22.5	22.5 x 11.75	115 psi
500/50-22.5 Implement	22.5 x 16	40 psi
425/65R22.5 Truck Tires	22.5 x 13	115 psi

LUBRICATION AND MAINTENANCE

SAFETY INSTRUCTIONS

LUBRICATE WALKING

BEAM PIVOTS

1. Place a jack under the spreader main frame.
2. Raise spreader enough to relieve weight from walking beam.
3. Lubricate grease bank (A) with Moly High Temperature/Extreme Pressure Grease.



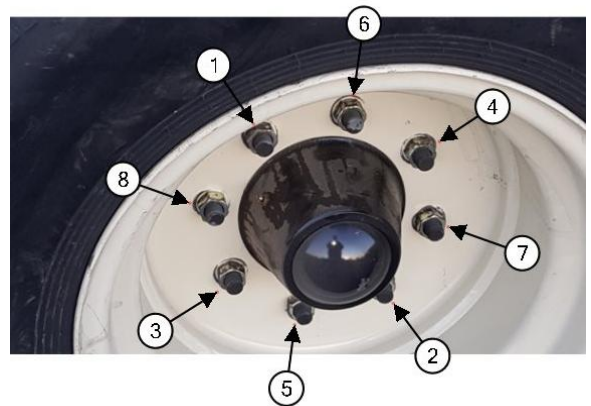
NOTICE

TIGHTENING WHEEL

HARDWARE

Operating the spreader with loose wheel hardware will damage the hub or wheel. Tighten hardware after initial transport, after one hour of operation, and every fifty hours thereafter.

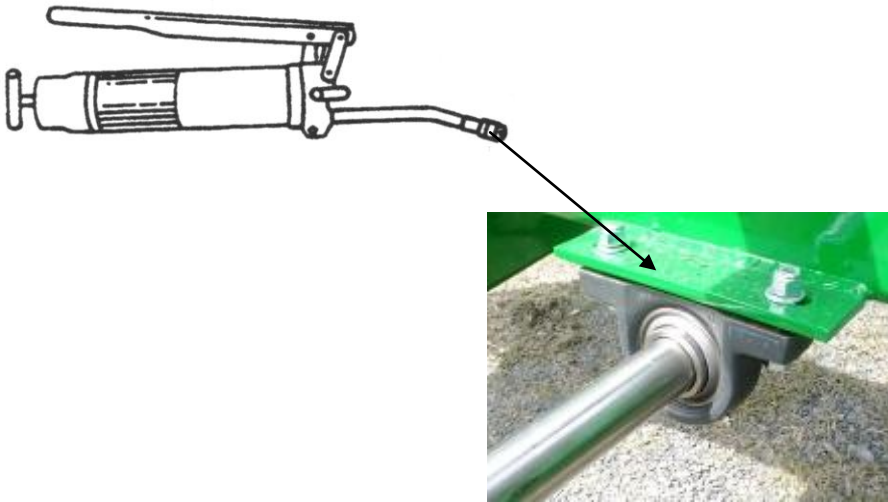
Tighten to 240 lb.-ft. in the sequence shown.



NOTICE LUBRICATE THE THREE PILLOW BLOCKS

Located under the spreader, they carry the main power shaft, using central grease location

Lubricate grease fitting with Moly High Temperature/Extreme Pressure Grease



NOTICE MAINTAINING SLIP CLUTCH, WALTERSCHEID

The clutch is preset and is not field adjustable

If you determine that your slip clutch needs maintenance or adjustment, contact your dealer



NOTICE ADJUST SLIDING FLOOR/MOVING PANEL SEALS

The rubber seals on the moving panel and sliding floor are adjustable.

Properly adjusted seals will minimize leakage and ensure a clean wiping action on the sides and floor.

Inspect adjust, or replace seals as necessary.

SPECIFICATIONS

TRACTOR SIZE

Minimum recommended 100 hp PTO

WEIGHT

Spreader, Complete with Implement tires
And all Attachments 9,675 lb

LOAD CAPACITY 23,000 lb

VOLUME CAPACITY

Struck Level 249 cu. ft.
Heaped Load 418 cu. ft.

BEATER SPEED 420 rpm

UNLOADING SPEED

Infinitely Variable 0-16 ft/min

DRIVELINE

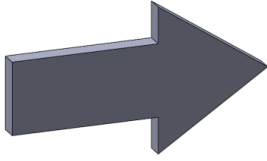
Shielded 1000 rpm

ATTACHMENTS

Control For Fender or ROPS
Open Center Valve With Control Endgate

SPECIFICATIONS AND DESIGN SUBJECT TO CHANGE WITHOUT NOTICE

DIRECTION ARROWS



ARROWS ARE USED WITH ILLUSTRATIONS TO INDICATE THE FRONT OF THE UNIT. "RIGHT-HAND" AND "LEFT-HAND" SIDES ARE DETERMINED BY FACING THE DIRECTION OF MACHINE FORWARD TRAVEL.

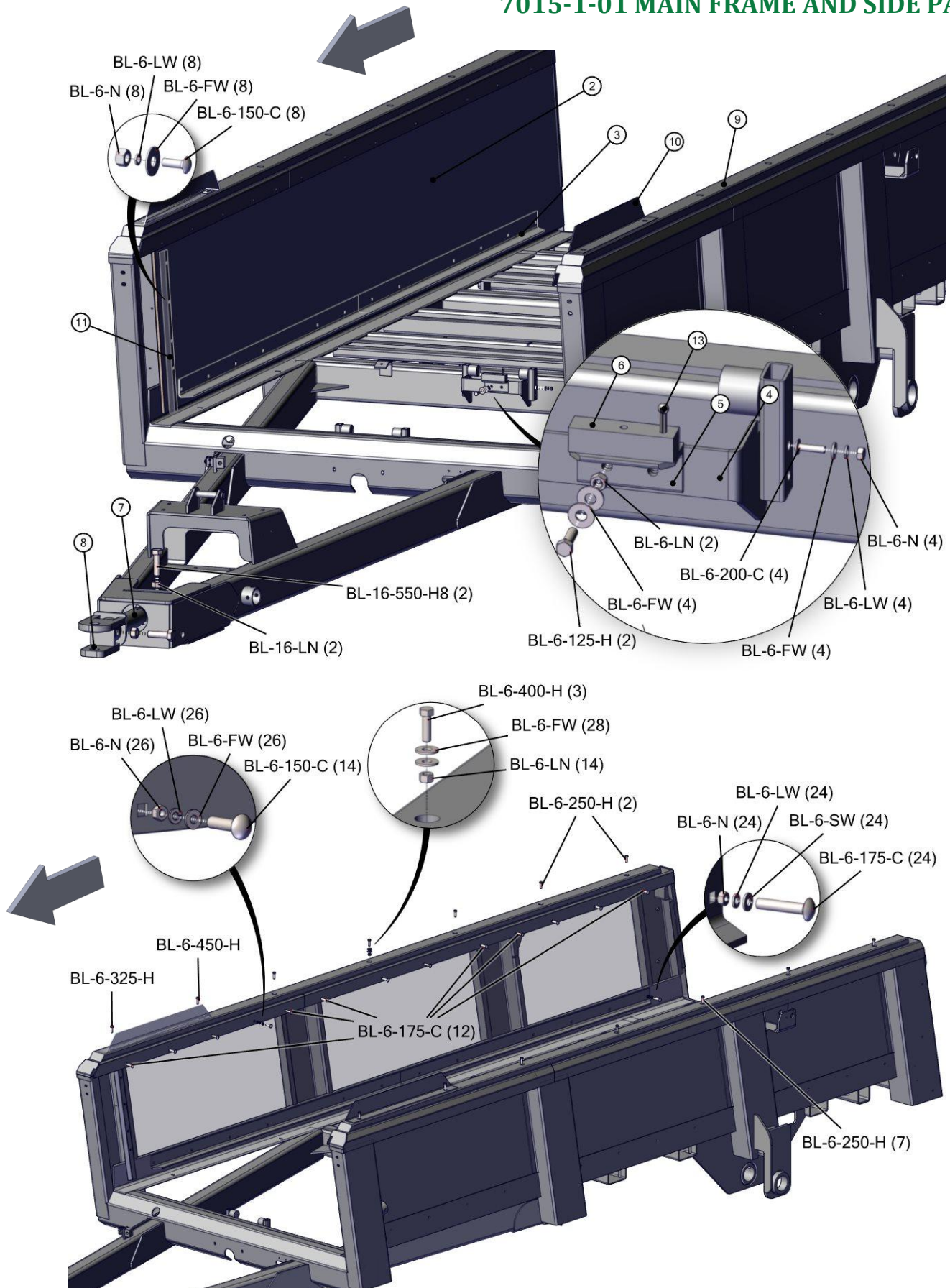
REFERENCE NUMBER IDENTIFICATION

REF NO.	DESCRIPTION
000-099	PARTS USED FOR ASSEMBLY
100-199	BOLTS AND FASTENERS
200-299	ELECTRICAL COMPONENTS
800-899	REPLACEMENT PARTS (USED TO REPAIR ASSEMBLIES)

7015-1-01 MAIN FRAME AND SIDE PANELS

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	PR70057	Main Frame, HR400	1		
2	PR70063	Panelam, Side, HR400	2		
3	PR70065	Formed Angle, Slidng Floor Guide	2		
4	PR70091	Floor Cyl Support, Bracket	1		
5	PR70092	Floor Cyl Support, Angle	1		
6	PR32639	Support, Cylinder, UHMW	1		
7	PR63101	Hitch Shaft, Hardened, Long	1		
8	PR70097	Hitch	1		
9	PR70394	Top Rail Poly Bumper, HR 400, HR 550	2		
10	PR70098	Splash Guard, Spreader	2		
11	PR70137	Edge Cover, Panelam, RH	1		
12	PR70138	Edge Cover, Panelam, LH	1		
13	PIN-C4-32	Cotter Pin .25 x 2	2		
100	BL-6-125-H	3/8-16 X 1-1/4 HHCS G5 ZC	2		
101	BL-6-150-C	3/8-16 X 1-1/2 CARRIAGE BOLT G5 ZC	22		
102	BL-6-175-C	3/8-16 X 1-3/4 CARRIAGE BOLT G5 ZC	36		
103	BL-6-200-C	3/8-16 X 2 CARRIAGE BOLT G5 ZC	4		
104	BL-6-250-H	3/8-16 X 2-1/2 HH C/S G5 ZC	9		
105	BL-6-325-H	3/8 UNC X 3 1/2 HH C/S BOLT GR5 ZINC	1		
106	BL-6-400-H	3/8-16 X 4 HEX CAP G5 ZC	3		
107	BL-6-450-H	3/8 x 4 1/2 HEX BOLT	1		
108	BL-6-FW	3/8 USS FW ZC	70		
109	BL-6-LW	3/8 SPLIT LW ZC	62		
110	BL-6-SW	3/8 SAE FW ZC	24		
111	BL-6-LN	3/8-16 FIN H LN NE A563 GA ZC	16		
112	BL-6-N	3/8-16 HEX NUT ZC	62		
113	BL-16-550-H8	1-8 X 5-1/2 BOLT HH C/S G8 ZC	2		
114	BL-16-LN	1 LN w/ NYLON INSERTS	2		

7015-1-01 MAIN FRAME AND SIDE PANELS

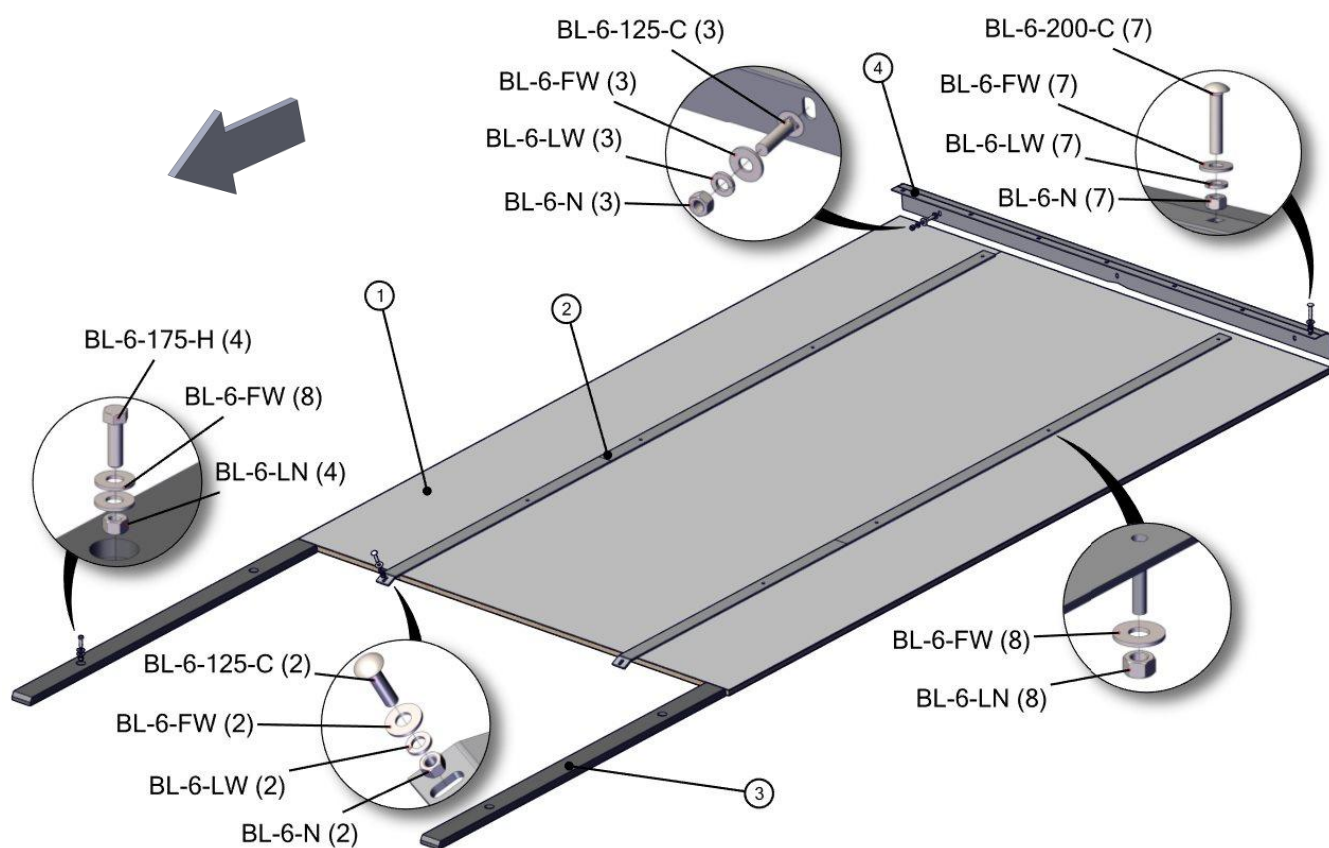


7015-1-01A OPT. MAIN FRAME, SINGLE WHEEL

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	PR70300	Main Frame, HR400, Single Wheel	1		
2	PR70063	Panelam, Side, HR400	2		
3	PR70065	Formed Angle, Slidng Floor Guide	2		
4	PR70091	Floor Cyl Support, Bracket	1		
5	PR70092	Floor Cyl Support, Angle	1		
6	PR32639	Support, Cylinder, UHMW	1		
7	PR63101	Hitch Shaft, Hardened, Long	1		
8	PR70097	Hitch	1		
9	PR70394	Top Rail Poly Bumper, HR 400, HR 550	2		
10	PR70098	Splash Guard, Spreader	2		
11	PR70137	Edge Cover, Panelam, RH	1		
12	PR70138	Edge Cover, Panelam, LH	1		
13	PIN-C4-32	Cotter Pin .25 x 2	2		
14	PR34896	Hose Clamp, 1/4 Hydraulic, 1/2' O.D. Hose	6		
100	BL-6-125-H	3/8-16 X 1-1/4 HHCS G5 ZC	2		
101	BL-6-150-C	3/8-16 X 1-1/2 CARRIAGE BOLT G5 ZC	22		
102	BL-6-175-C	3/8-16 X 1-3/4 CARRIAGE BOLT G5 ZC	36		
103	BL-6-200-C	3/8-16 X 2 CARRIAGE BOLT G5 ZC	4		
104	BL-6-250-H	3/8-16 X 2-1/2 HH C/S G5 ZC	9		
105	BL-6-325-H	3/8-16 X 3-1/2 HEX CAP G5 ZC	1		
106	BL-6-400-H	3/8-16 X 4 HEX CAP G5 ZC	3		
107	BL-6-450-H	3/8 x 4 1/2 HEX BOLT	1		
108	BL-6-FW	3/8 USS FW ZC	70		
109	BL-6-LW	3/8 SPLIT LW ZC	62		
110	BL-6-SW	3/8 SAE FW ZC	24		
111	BL-6-LN	3/8-16 FIN H LN NE A563 GA ZC	16		
112	BL-6-N	3/8-16 HEX NUT ZC	62		
113	BL-16-550-H8	1-8 X 5-1/2 BOLT HH C/S G8 ZC	2		
114	BL-16-LN	1 LN w/ NYLON INSERTS	2		

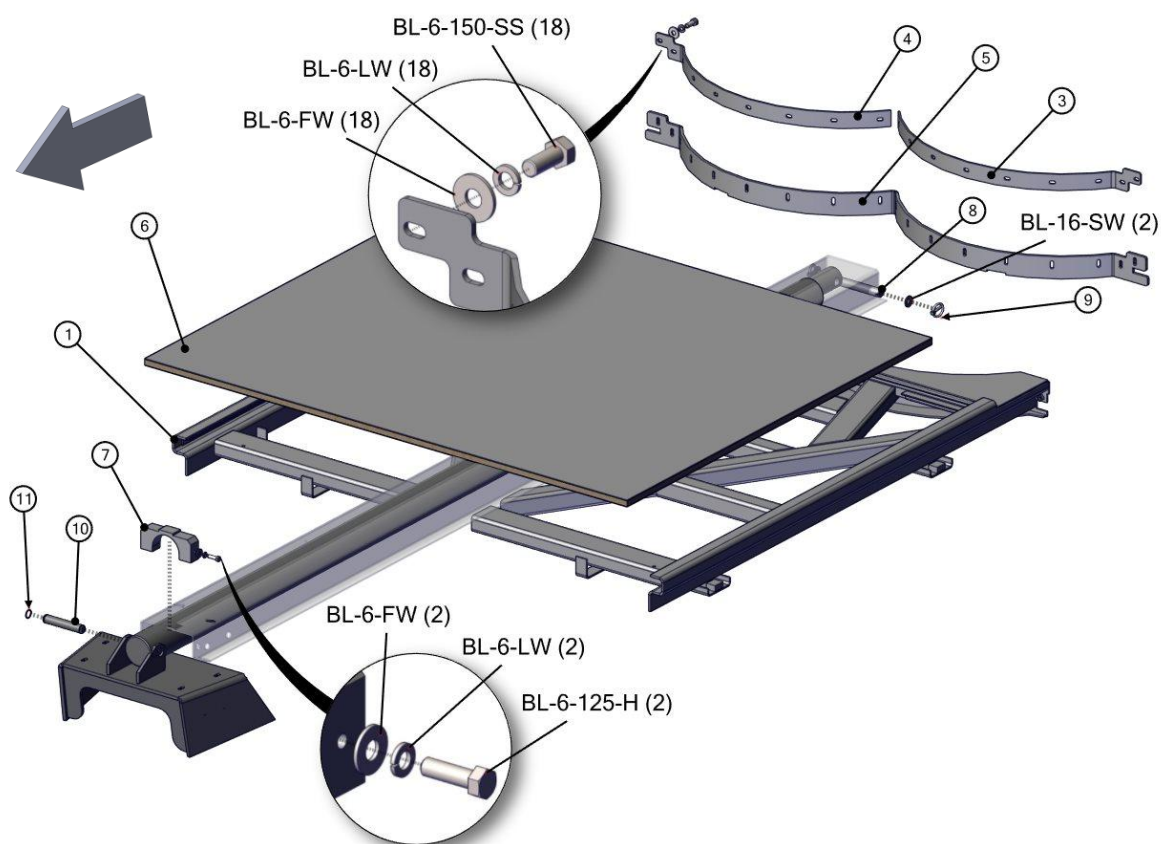
7015-1-02 MAIN FLOOR AND SLIDING FLOOR GUIDES

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	PR33279	Panel, Main Floor, Spreader, 790, 1190	1		
2	PR70061	Floor Strap	2		
3	PR33358	Slide, Wood, Front, Spreader	2		
4	PR70062	Rear Edge Plate	1		
100	BL-6-125-C	3/8-16 X 1-1/4 CARRIAGE BOLT G5 ZC	5		
101	BL-6-175-H	3/8-16 X 1-3/4 HHCS G5 ZC	4		
102	BL-6-200-C	3/8-16 X 2 CARRIAGE BOLT G5 ZC	7		
103	BL-6-FW	3/8 USS FW ZC	28		
104	BL-6-LW	3/8 SPLIT LW ZC	12		
105	BL-6-LN	3/8-16 FIN H LN NE A563 GA ZC	12		
106	BL-6-N	3/8-16 HEX NUT ZC	12		



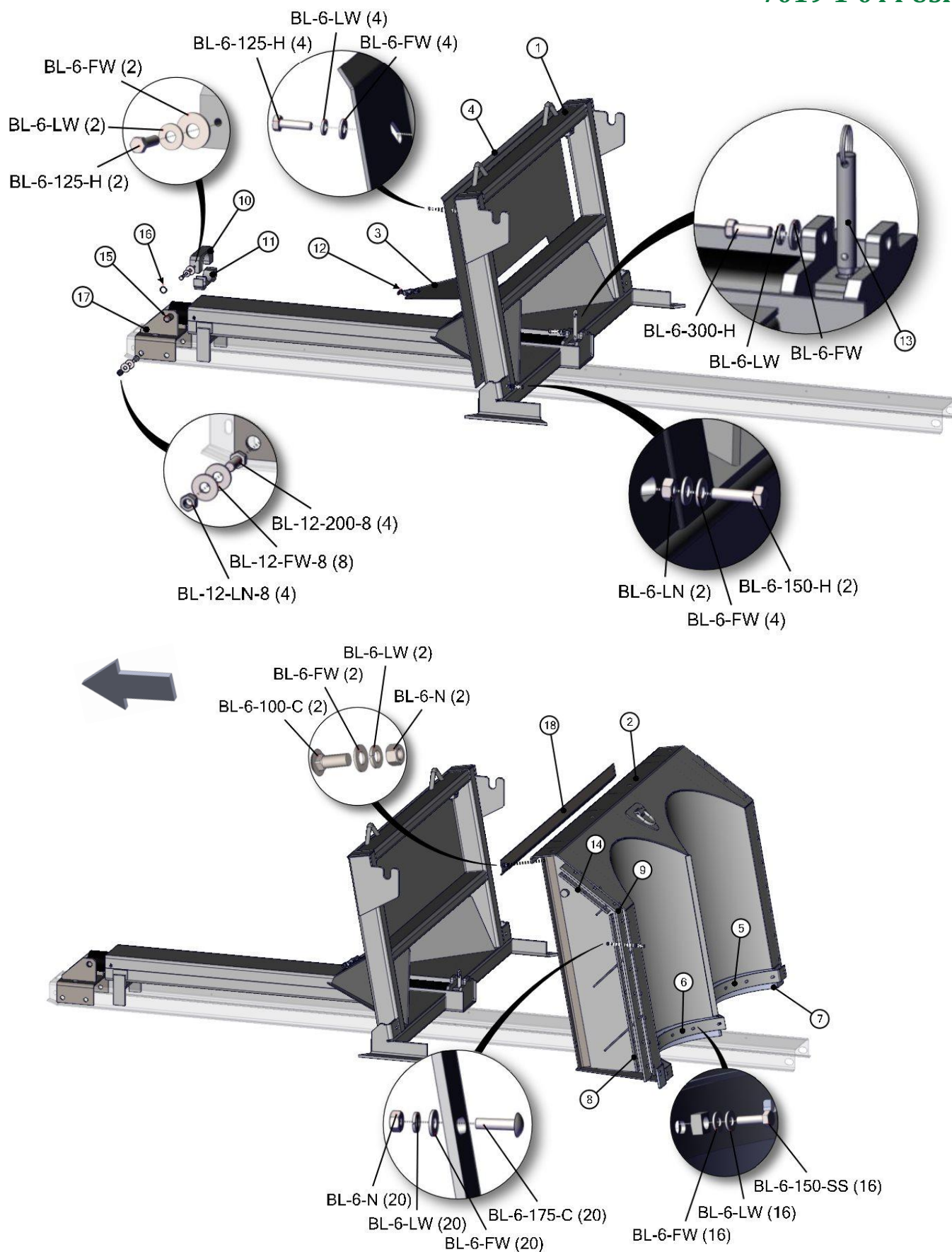
7015-1-03 SLIDING FLOOR

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	PR70058	Sliding Floor Frame	1		
3	PR70066-LH	Sliding Floor Belting Bar	1		
4	PR70066-RH	Sliding Floor Belting Bar	1		
5	PR70067	Sliding Floor Belting	1		
6	PR44533	Panel, Sliding Floor, Spreader,790,1190	1		
7	PR70123	Plastic Guide, Sliding Floor Cyl	1		
8	PR70126	1 Pin x 8.0 usable, SS, 1/4 hole	1		
9	PIN-250L	1/4 Lynch Pin	2		
10	PR30289	Cylinder Pin	1		
11	PR58806	Retaining Ring, 63/64 (.984) Shaft Size, External	2		
100	BL-6-125-H	3/8-16 X 1-1/4 HHCS G5 ZC	2		
101	BL-6-150-SS	3/8-16 X 1-1/2 HEX CAP SS	18		
102	BL-6-FW	3/8 USS FW ZC	20		
103	BL-6-LW	3/8 SPLIT LW ZC	20		
104	BL-16-SW	1 SAE FW	2		



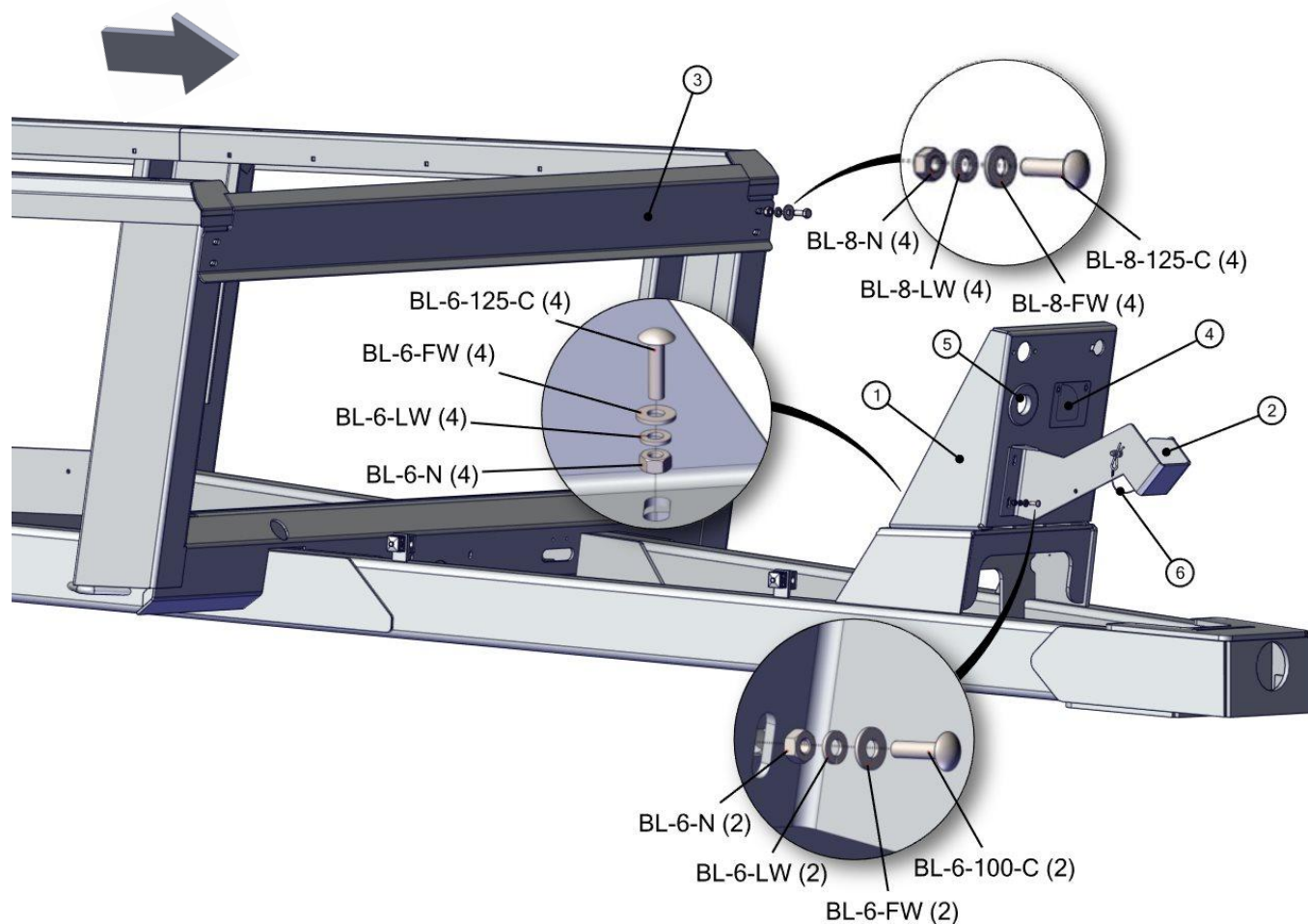
7019-1-04 PUSHER

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	PR70068	Frame	1		
2	PR70458	Pusher, HR 400, Universal Panels	1		
3	PR70070	Access Door, Cyl.	1		
4	PR70071	Front Panel, Pusher	1		
5	PR70460	Backing Bar, LH	1		
6	PR70461	Pusher Lower Backing Bar, RH	1		
7	PR70459	Pusher Lower Belting	1		
8	PR70074	Pusher Bar, Side	2		
9	PR70075	Pusher Belting, Side	2		
10	PR70124	Plastic Guide, Pusher Cyl, Top	1		
11	PR70125	Plastic Guide, Pusher Cyl, Bott	1		
12	LA-1530	Medium Rubber T Latch Assembly	1		
13	PIN-10-300	5/8' Pin SS, Quick Release, 3.00' usable	1		
14	PR70117	Pusher Bar, Top	2		
15	PR30289	Cylinder Pin	1		
16	PR58806	Retaining Ring, 63/64' (.984) Shaft Size, External	2		
17	PR23219	Support, Cylinder Mount, Sliding Floor	1		
18	PR70458-C	Panel, Pusher HR400	1		
100	BL-6-175-C	3/8-16 X 1-1/4 CARRIAGE BOLT G5 ZC	20		
101	BL-6-125-H	3/8-16 X 1-1/4 HHCS G5 ZC	6		
102	BL-6-150-H	3/8-16 X 1-1/2 HEX CAP G5 ZC	2		
103	BL-6-150-SS	3/8-16 X 1-1/2 HEX CAP SS	16		
104	BL-6-300-H	3/8-16 X 3 HH C/S BOLT G5 ZC	1		
105	BL-6-FW	3/8 USS FW ZC	49		
106	BL-6-LW	3/8 SPLIT LW ZC	45		
107	BL-6-LN	3/8-16 FIN H LN NE A563 GA ZC	2		
108	BL-6-N	3/8-16 HEX NUT ZC	22		
109	BL-12-200-8	3/4-10 X 2 HH C/S G8 ZC	4		
110	BL-12-FW-8	3/4 FW G8	8		
111	BL-12-LN-8	3/4-10 LN w/ NYLON INSERTS G8	4		
112	BL-6-100-C	3/8-16 X 1 CARRIAGE BOLT G5 ZC	2		

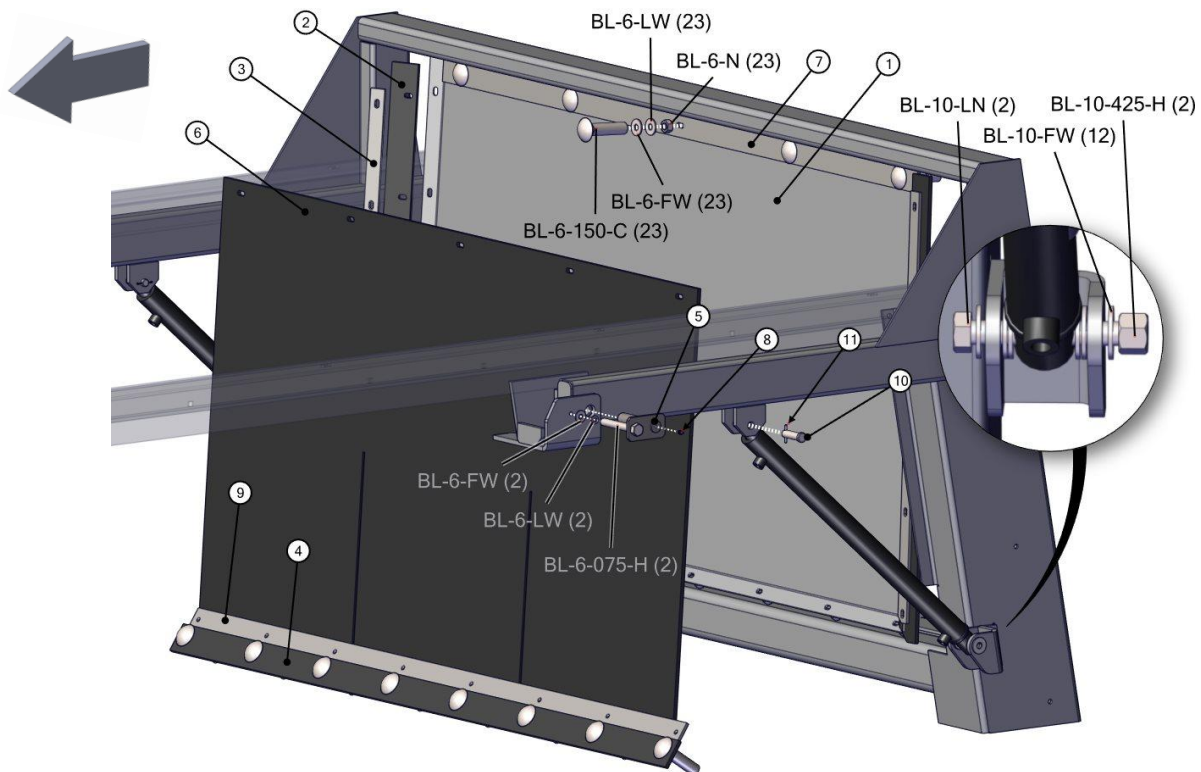


7015-1-05 FRONT PANELS AND SHIELDS

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	PR70086	Hose Mount, Spreader	1		
2	PR70087	PTO Holder	1		
3	PR70088	Front Upper Panel	1		
4	PR70131	Cover, Flow Control Cutout	1		
5	EL-0041	2 ID Grommet, 3.5 x 3/16 cutout	1		
6	PIN-500-575	Pin 1/2 x 5-3/4 w/Lanyard & hairpin Clip	1		
100	BL-6-100-C	3/8-16 X 1 CARRIAGE BOLT G5 ZC	2		
101	BL-6-125-C	3/8-16 X 1-1/4 CARRIAGE BOLT G5 ZC	4		
102	BL-6-FW	3/8 USS FW ZC	6		
103	BL-6-LW	3/8 SPLIT LW ZC	6		
104	BL-6-N	3/8-16 HEX NUT ZC	6		
105	BL-8-125-H	1/2-13 X 1-1/4 HHCS G5 ZC	4		
106	BL-8-FW	1/2 USS FW ZC	8		
107	BL-8-LW	1/2 SPLIT LW ZC	4		
108	BL-8-LN	1/2-13 LN NYLON INSERT ZC	4		

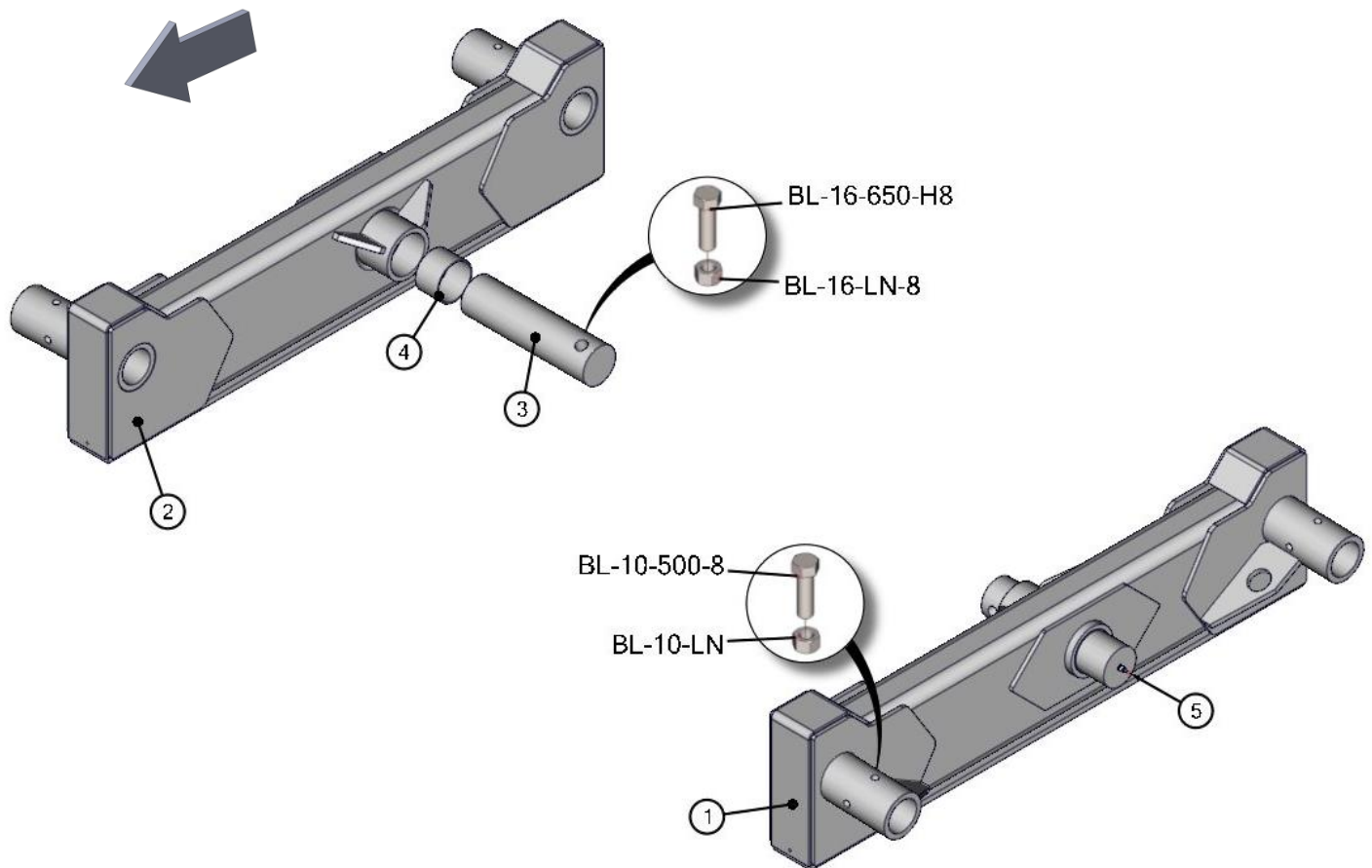


REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	PR70076	Endgate Frame	1		
2	PR70077	Endgate Belting, Side	2		
3	PR70078	Endgate Bar	2		
4	PR70119	Endgate Belting, Bott	1		
5	PR70118	End Gate Hinge Pin	2		
6	PR70113	Endgate Belting	1		
7	PR70115	Belting Bar	1		
8	GF-1428	Grease Fitting 1/4 x 28 straight	2		
9	PR39063	Backing Bar, End Gate Belting	1		
10	PIN-10-40	Clevis Pin, Zinc-Plated, 5/8 Dia., 2-1/4 Long, 2 Usable	2		
11	PIN-0014	Spring Roll Pin, 5/32 x 1-1/2 Long	2		
100	BL-6-075-H	3/8-16 X 3/4 HHCS G5 ZC	2		
101	BL-6-150-C	3/8-16 X 1-1/2 CARRIAGE BOLT G5 ZC	23		
102	BL-6-FW	3/8 USS FW ZC	25		
103	BL-6-LW	3/8 SPLIT LW ZC	25		
104	BL-6-N	3/8-16 HEX NUT ZC	23		
105	BL-10-425-H	5/8-11 X 4-1/4 HH CAP G5 ZC	2		
106	BL-10-FW	5/8 USS FW ZC	12		
107	BL-10-LN	5/8-11 HEX LN NE ZC	2		



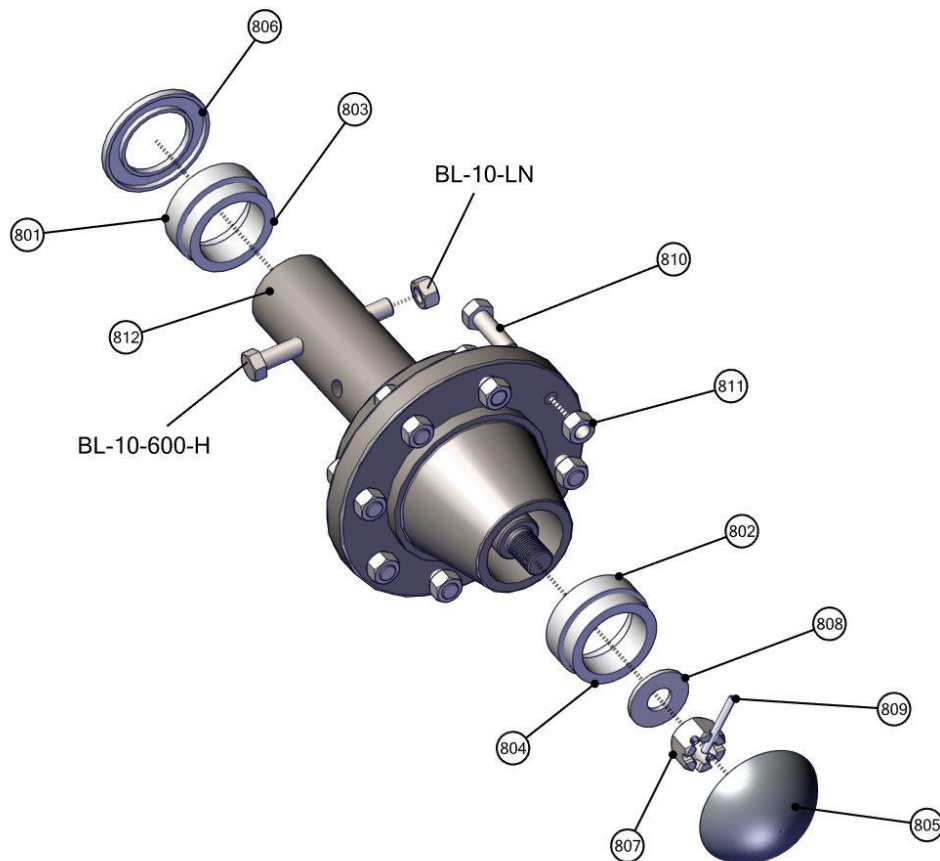
7020-1-07 WALKING BEAM

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	WHL-8131	Rocker, LH	1		
2	WHL-8132	Rocker, RH	1		
3	PR70368	Pin, Rocker	2		
4	PR34413	Bronze Bushing for Spreader, 3-1/2 Dia Shaft	4		
5	GF-1827	Grease Fitting 1/8 NPT Straight	2		
100	BL-10-LN	5/8-11 HEX LN NE ZC	4		
101	BL-10-500-8	5/8-11 X 5 HHCS ZC G8	4		
102	BL-16-LN-8	1 H LN ZC G8	2		
103	BL-16-650-H8	1-8 X 6-1/2 HH C/S G8 ZC	2		



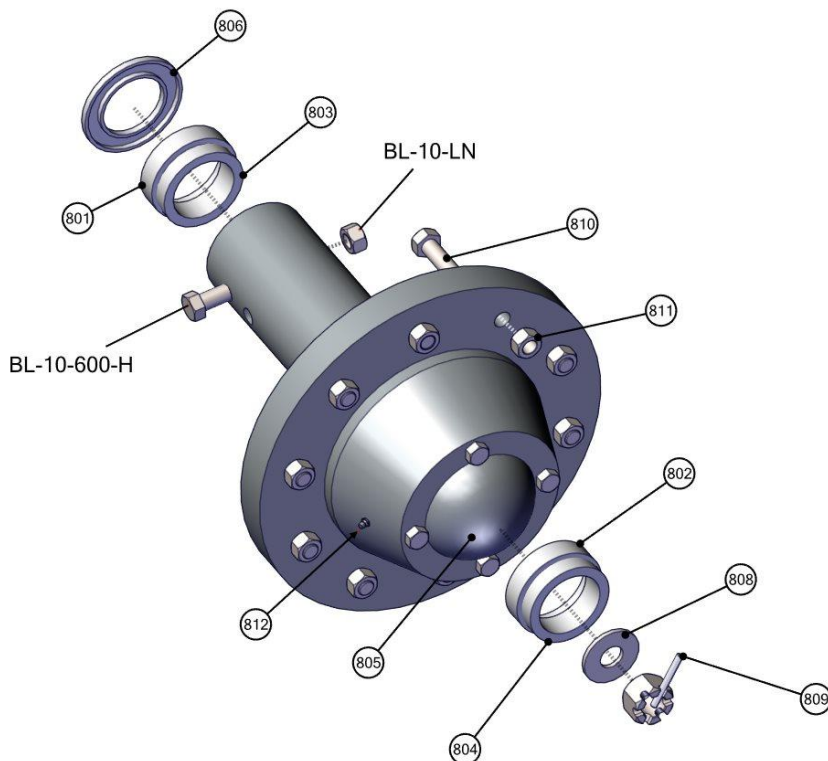
7015-1-08 HUBS AND SPINDLES, ALL TIRE OPTIONS

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	WHL-3000	Hub Assembly Complete w/ Spindle, Painted Black	4		Harvesters use WHL-3000-2
100	BL-10-600-H	5/8-11 X 6 HEX CAP G5 ZC	4		
101	BL-10-LN	5/8-11 HEX LN NE ZC	4		
800	WBR-3000K	Wheel Bearing Kit Hub & Spindle Assy.	4	WHL-3000	
801	WHL-3000A	Inner Cup	4	WHL-3000	
802	WHL-3000B	Outer Cup	4	WHL-3000	
803	WHL-3000C	Inner Cone	4	WHL-3000	
804	WHL-3000D	Outer Cone	4	WHL-3000	
805	WHL-3000H	Hub Cap	4	WHL-3000	3 1/8 od
806	WHL-3000G	Seal	4	WHL-3000	
807	WHL-3000J	Spindle Nut	4	WHL-3000	
808	WHL-3000K	Spindle Washer	4	WHL-3000	
809	PIN-C3-16-32	Cotter Pin 3/16 x 2	4		
810	WHL-3000E	Stud Bolt	32	WHL-3000	
811	WHL-3000F	Lug Nut	32	WHL-3000	
812	WHL-3001	Spindle 3 x 16	4	WHL-3000	



7015-1-08A OPT. HUBS AND SPINDLES, SINGLE WHEEL

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	WHL-1210	Hub and Spindle Assembly 10 Bolt	2		4' Spindle 18K Rated
100	BL-10-600-H	5/8-11 X 6 HEX CAP G5 ZC	2		
101	BL-10-LN	5/8-11 HEX LN NE ZC	2		
800	WBR-1210K	Wheel Bearing Kit Hub & Spindle Assy.	1	WHL-1210	inner & outer cones & cups and grease seal & gasket
801	WHL-1210A	Inner Cup	1		
802	WHL-1210B	Outer Cup	1		
803	WHL-1210C	Inner Cone	1		
804	WHL-1210D	Outer Cone	1		
805	WHL-1210E	Dust Cap	1		
806	WHL-1210F	Grease Seal	1		
807	WHL-1210G	Flange Nut, Spindle	1		
808	WHL-1210H	Washer, Spindle	1		
809	WHL-1210I	Cotter Pin, Spindle	1		
810	WHL-1210J	Wheel Stud Bolt	10		
811	WHL-1210K	Wheel Stud Nut	10	USE WHL-1210W	USE WHL-1210W
812	GF-1827	Grease Fitting 1/8 NPT Straight	1		
815	WHL-1210M	Spindle	1		



7015-1-09 TIRES AND WHEELS, 16.5-16.1 IMPLEMENT TIRES

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	WHM-1514	16.5-16.1 Tire & Wheel Asm, Tubeless	4	790	
801	WHL-1614	16 x 14 Wheel 8-8-6 (3/8 Positive Offset)	4		
802	WHT-1614	16.5 x 16.1 14 Ply Ribbed Implement Tire (Spreader, Tubeless)	4		



7015-1-09A OPT. TIRES AND WHEELS, 11R-22.5 TRUCK TIRES

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	WHM-7107	11.00-22.5 Tire & Wheel Assy.	4		
801	WHL-7107	22.5 x 8.25 Wheel - 8-8-6 - 3/8 Positive Offset	4		
802	WHT-7107	11-22.5 Recapped Implement Tire	4		



7015-1-09B OPT. TIRES AND WHEELS, 500/50-22.5

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	WHM-7111	500/50-22.5 Tire & Wheel Assy	4		
801	WHL-7111	Wheel, 22.5 x 16 6MM 12MM 8 Hole 6 Pilot, .75 Camfer, 0 Offset	4		
802	WHT-7111	Tire, 500/50-22.5, 16 Ply FLOT648 TL	4		



7015-1-09C OPT. TIRES AND WHEELS, 385/65R22.5 TRUCK TIRES

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	WHM-7106	385/65R22.5 Tire & Wheel Assy (Spreaders)	4	790	
801	WHL-7106	22.5 X 11.75 Wheel 8-8-6 3/8 positive offset	4		
802	WHT-7106	Used Truck Tire 385/65R22.5	4		



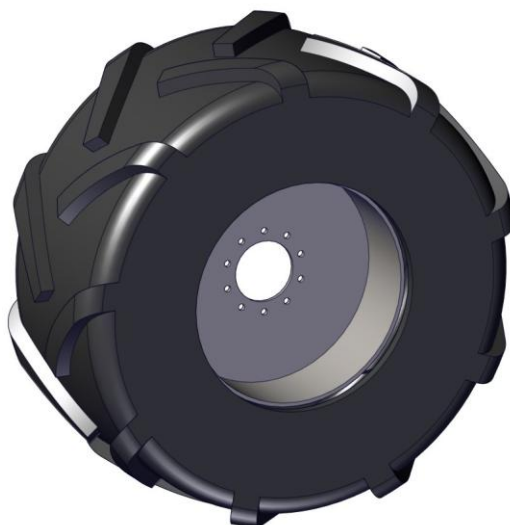
7015-1-09D OPT. TIRES AND WHEELS, 425/65R22.5 TRUCK TIRES

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	WHM-7109	425/65R22.5 Tire & Wheel Assy, 8 Lug	4		
801	WHT-7105	Used Truck Tire 425/65R22.5	1		
802	WHL-7106	22.5 X 11.75 Wheel 8-8-6 3/8 positive offset	1		



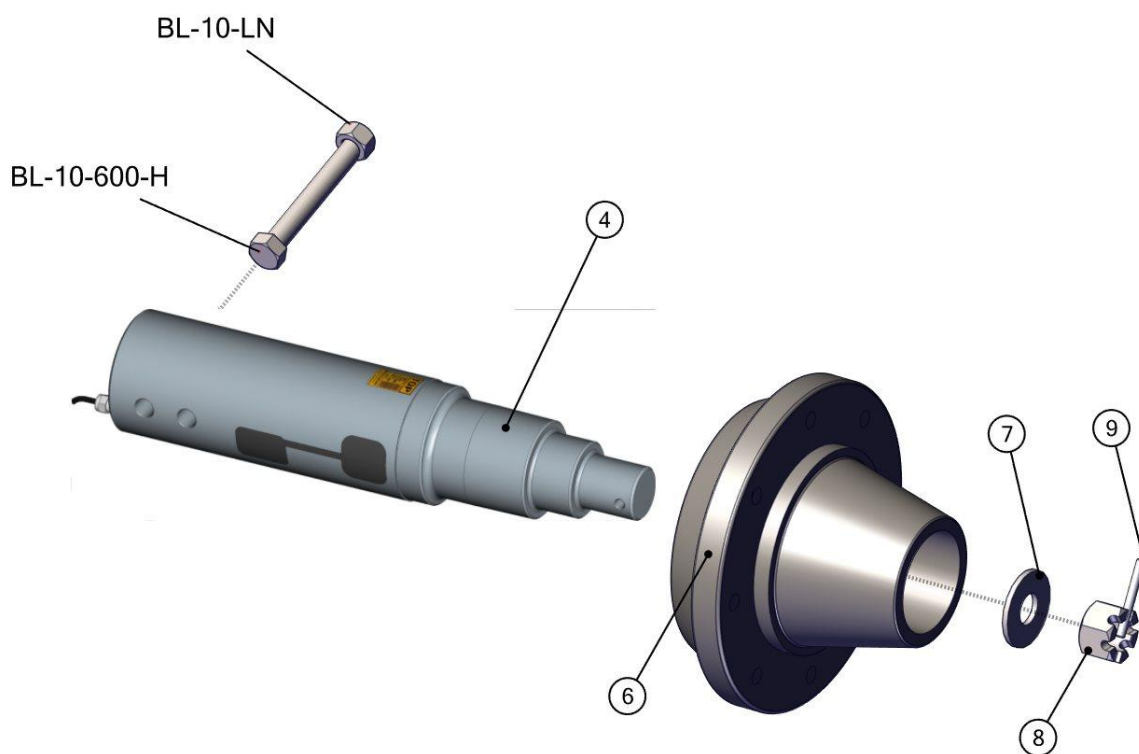
7015-1-09E OPT. TIRES AND WHEELS, 380/90R46-14.9

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	WHM-7115	Wheel & Tire Assy, 380/90R46-14.9	2		
813	WHL-7112	Wheel, 14.9 x 46, 10 Bolt	2		
814	WHT-7113	Tire, 380/90R46, 14.9-46 Model 363	2		



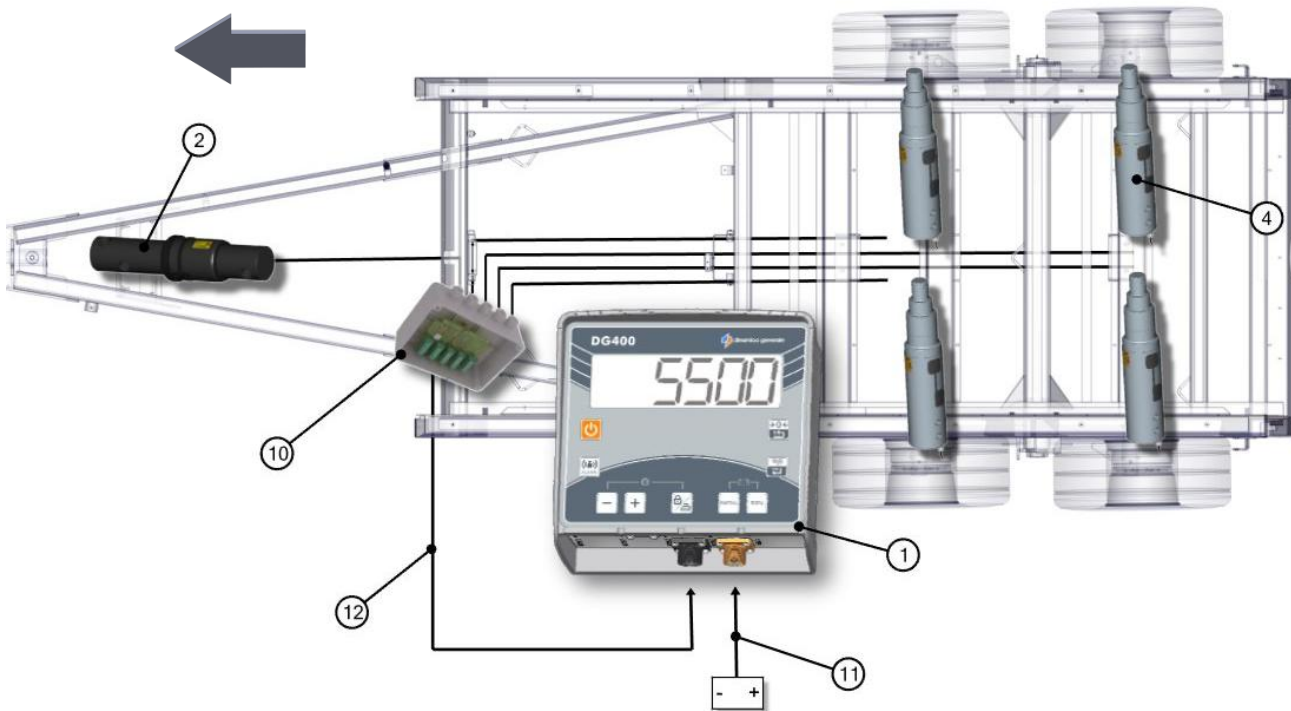
7015-1-10 OPT. WEIGHT SCALE SYSTEM, NT460

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	SWS-4604-003	Indicator, W/AutoLog, NT460	1		
2	SWS-4605-002	Cell, dia 2.875 DB-21 HT	1		
4	SWS-4609-001	Load Cell 3.0 SA -16	4		
6	WHL-3000-HC	Complete Hub For WHL-3000, Without the Spindle	4		
7	WHL-3000K	Spindle Washer	4	WHL-3000	
8	WHL-3000J	Spindle Nut	4	WHL-3000	
9	PIN-C3-16-32	Cotter Pin 3/16 x 2	4		
10	SWS-4605-003	J-Box 6 Pt	1		
11	SWS-4605-005	Power Cable 4- wire, 3m Cable	1		
12	SWS-4605-004	J Box Cable, 9m	1		
13	SWS-4604-006	Rail Mount, Monitor Mount	1		
14	SWS-403780	Indicator Mount, NT460, Bracket - SCR-#10 x 5/8 FHSTS Black ZP	1		
15	SWS-404353	Indicator Mount, NT460, Bracket - EZ3 Plastic Rail	1		
100	BL-10-600-H	5/8-11 X 6 HEX CAP G5 ZC	1		
101	BL-10-LN	5/8-11 HEX LN NE ZC	1		
800	SWS-4610	Spreader Weight System, 5 Point with NT460	1		
801	WHL-1210-LCS	Wheel Hub Seal, Load Cell Spindle Seal	1		



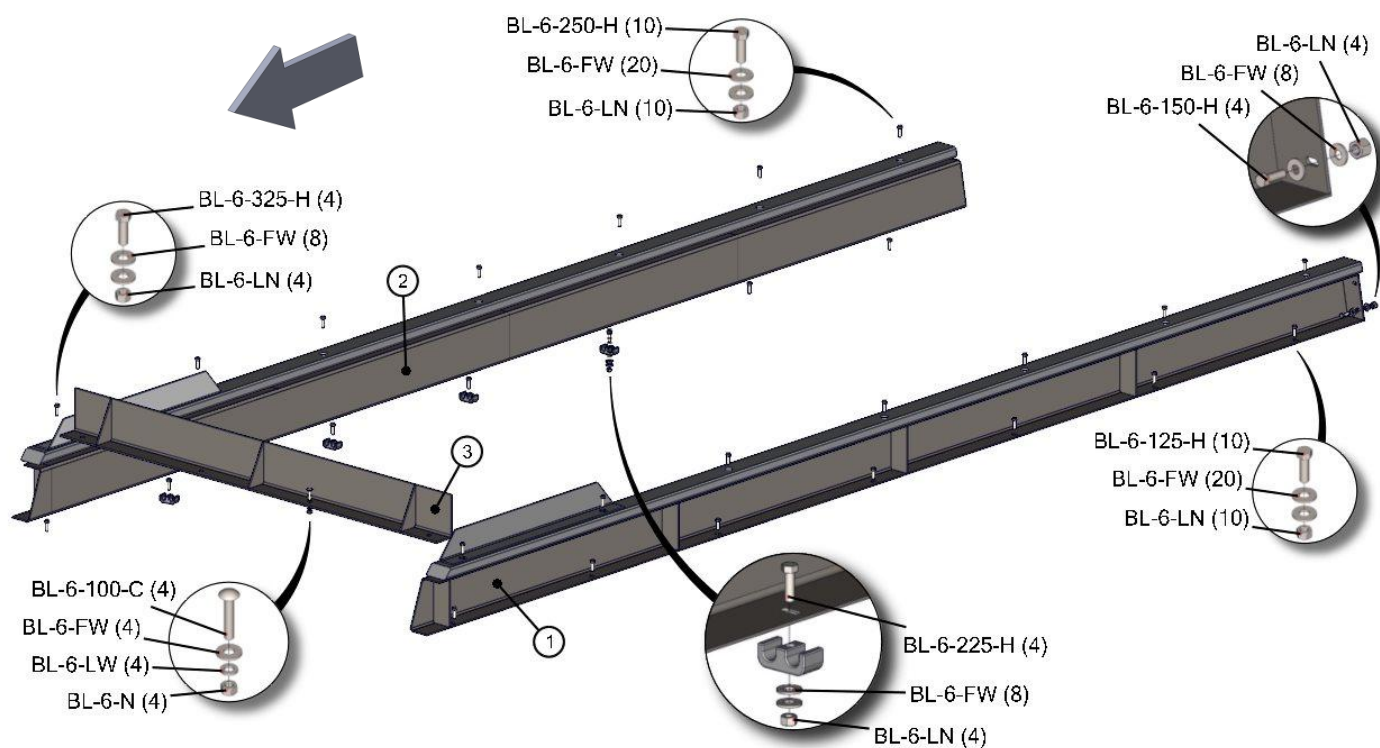
7019-1-10A OPT. WEIGHT SCALE SYSTEM, DG400

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	SWS-1001	DG400 Slim Box w/ Isobus, Weigh Scale Display Module	1		
2	SWS-1007	Load Cell, 2-7/8 Dia	1		
4	SWS-1008	Spindle Load Cell, 3 Dia.	4		
6	WHL-3000-HC	Complete Hub For WHL-3000, Without the Spindle	4		
7	WHL-3000K	Spindle Washer	4	WHL-3000	
8	WHL-3000J	Spindle Nut	4	WHL-3000	
9	PIN-C3-16-32	Cotter Pin 3/16 x 2	4		
10	SWS-1004	J-Box, 6-9 Load Cells Plug Style	1		
11	SWS-1005	Power Cable, 16 ft w/ Ring Terminals	1		
12	SWS-1006	Sensor Cable, 22 ft w/ Connectors, J-Box to Scale Head	1		
100	BL-10-600-H	5/8-11 X 6 HEX CAP G5 ZC	1		
101	BL-10-LN	5/8-11 HEX LN NE ZC	1		



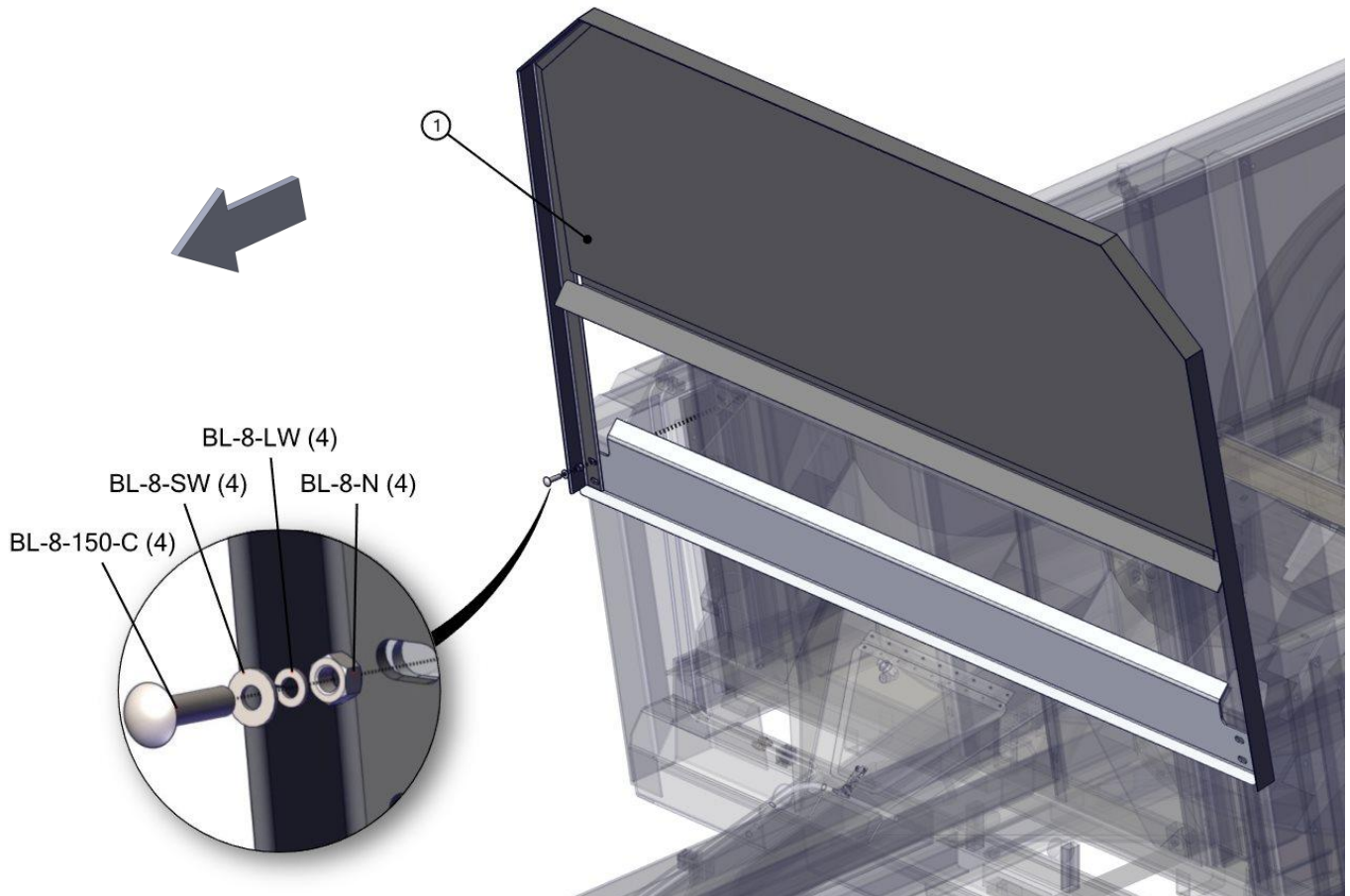
7020-1-11 OPT. SIDE EXTENSIONS

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	PR70493	Side Extension, HR400, HR550, LH	1		
2	PR70494	Side Extension, HR400, HR550, RH	1		
3	PR70136	Pusher Extension	1		
100	BL-6-100-C	3/8-16 X 1 CARRIAGE BOLT G5 ZC	4		
101	BL-6-125-H	3/8-16 X 1-1/4 HHCS G5 ZC	10		
102	BL-6-150-H	3/8-16 X 1-1/2 HEX CAP G5 ZC	4		
103	BL-6-225-H	3/8 UNC X 2 1/4 HH C/S BOLT GR5 ZINC	4		
104	BL-6-250-H	3/8-16 X 2-1/2 HH C/S G5 ZC	10		
105	BL-6-325-H	3/8 UNC X 3 1/2 HH C/S BOLT GR5 ZINC	4		
106	BL-6-FW	3/8 USS FW ZC	68		
107	BL-6-LW	3/8 SPLIT LW ZC	4		
108	BL-6-LN	3/8-16 FIN H LN NE A563 GA ZC	32		
109	BL-6-N	3/8-16 HEX NUT ZC	4		



7015-1-12 OPT. ROCK GUARD

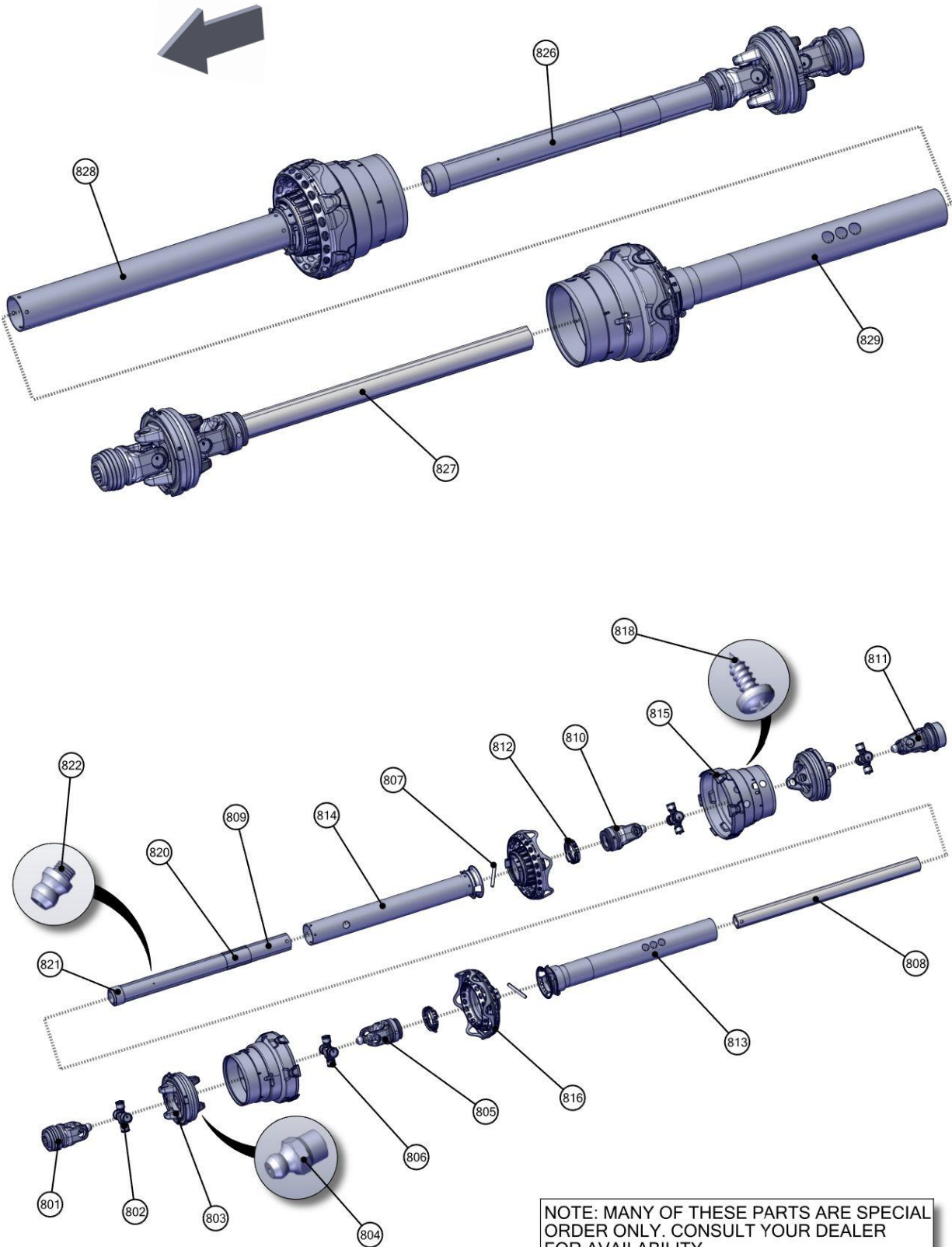
REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	PR70129	Rock Guard	1		
100	BL-8-150-C	1/2-13 X 1-1/2 CARRIAGE BOLT G5 ZC	4		
101	BL-8-SW	1/2 SAE FW ZC	4		
102	BL-8-LW	1/2 SPLIT LW ZC	4		
103	BL-8-N	1/2-13 HEX FIN NUTS ZC	4		



7015-2-01 DRIVELINE, FRONT 1-3/8" CV

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	PTS-1015	Driveline, Spreader, 1-3/8-21, 2500 Series	1		Replaces PTS-1008
801	PTS-1015A	Yoke ASG	1		
802	PTS-1015B	Cross & Bearing Kit	2		
803	PTS-3001-Y	Double Yoke End	2		
804	PTS-1008C	Zerk, Double Yoke	2		Special Order Only
805	PTS-1015C	Inboard Yoke S4	1		
806	PTS-1015D	Cross & Bearing Kit	2		
807	PTB-1014C	Spring Pin 10 X 75	2		Special Order Only
808	PTS-1015E	Inner Profile S4LGA	1		
809	PTS-1015F	Outer Profile S5GL	1		
810	PTS-1015G	Inboard Yoke S5	1		
811	PTS-1015H	Yoke ASG	1		
812	PTS-1002J	PTO Shield Bearing Ring	2		Special Order Only
813	PTS-1015J	Guard Tube Outer	1		
814	PTS-1015K	Guard Tube Inner	1		
815	PTS-1015L	CV Guard & Bearing Assy	2		
816	PTS-1015M	Flex Net & Guard Assy	2		
817	PTS-1002K	PTO Shield Safety Chain	1		Special Order Only
818	PTS-1010K	Screw	14		Special Order Only
819	PTS-1010L	Decal, Outer	1		Special Order Only
820	PTS-1010M	Decal, Inner	1		Special Order Only
821	PTS-1021H	Support Bearing	1		Special Order Only
822	PTB-1014L	Zerk	1		Special Order Only
823	PTS-1008Q	CV Lubrication Decal	1	Replaced with PTS-1021P	Special Order Only
824	PTS-8100E	AS Collar Kit	0		Special Order Only
825	PTS-1008R	ASG Collar Kit	0		Special Order Only
826	PTS-1015FH	Driveline, 1-3/8-21, Front Half Only	1		
827	PTS-1015RH	Driveline, 1-3/8-21, Rear Half Only (Star)Rear couple 1-3/4-20	1		
828	PTS-1015FS	Shield Complete,Front Half	1		
829	PTS-1015RS	Shield Complete, Rear Half	1		

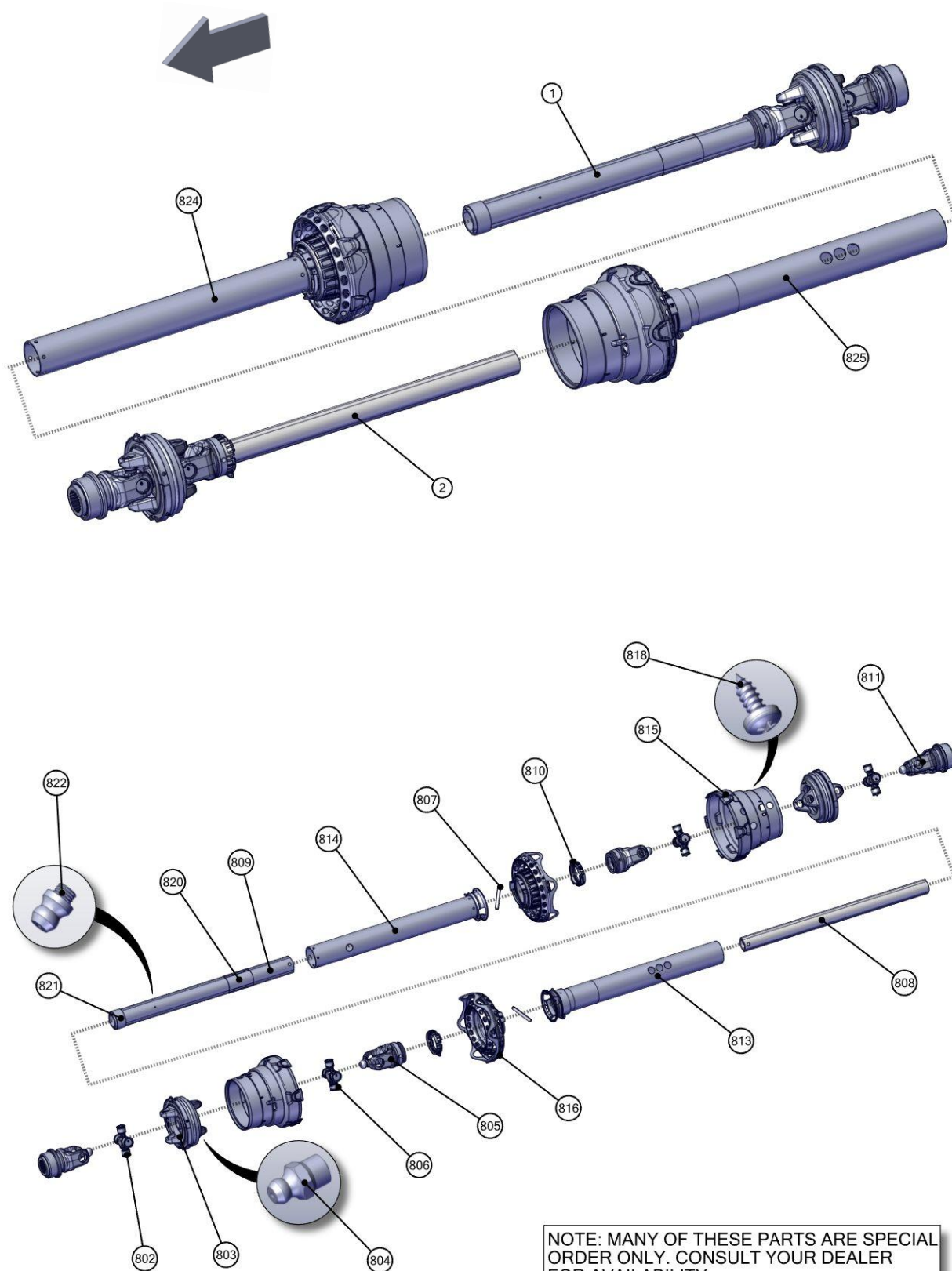
7015-2-01 DRIVELINE, FRONT 1-3/8" CV



7015-2-01A OPT. DRIVELINE, FRONT 1-3/4" CV

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	PTS-1016FH	Driveline, 1-3/4 -20, Front Half Only	1		
2	PTS-1015RH	Driveline, 1-3/8-21, Rear Half Only (Star)Rear couple 1-3/4-20	1		
802	PTS-1015B	Cross & Bearing Kit	2		
803	PTS-3001-Y	Double Yoke End	2		
804	PTS-1008C	Zerk, Double Yoke	2		Special Order Only
805	PTS-1015C	Inboard Yoke S4	1		
806	PTS-1015D	Cross & Bearing Kit	2		
807	PTB-1014C	Spring Pin 10 X 75	2		Special Order Only
808	PTS-1016A	Inner Profile	1		
809	PTS-1016B	Outer Profile	1		
810	PTS-1015G	Inboard Yoke S5	1		
811	PTS-1015H	Yoke ASG	2		
812	PTS-1002J	PTO Shield Bearing Ring	2		Special Order Only
813	PTS-1016C	Guard Tube, Outer	1		
814	PTS-1016D	Guard Tube, Inner	1		
815	PTS-1015L	CV Guard & Bearing Assy	2		
816	PTS-1015M	Flex Net & Guard Assy	2		
817	PTS-1002K	PTO Shield Safety Chain	2		Special Order Only
818	PTS-1010K	Screw	18		Special Order Only
819	PTS-1010L	Decal, Outer	1		Special Order Only
820	PTS-1010M	Decal, Inner	1		Special Order Only
821	PTS-1021H	Support Bearing	1		Special Order Only
822	PTB-1014L	Zerk	1		Special Order Only
823	PTS-1008Q	CV Lubrication Decal	1	Replaced with PTS-1021P	Special Order Only
824	PTS-1016FS	Shield Complete, Front Half	1		
825	PTS-1015RS	Shield Complete, Rear Half	1		

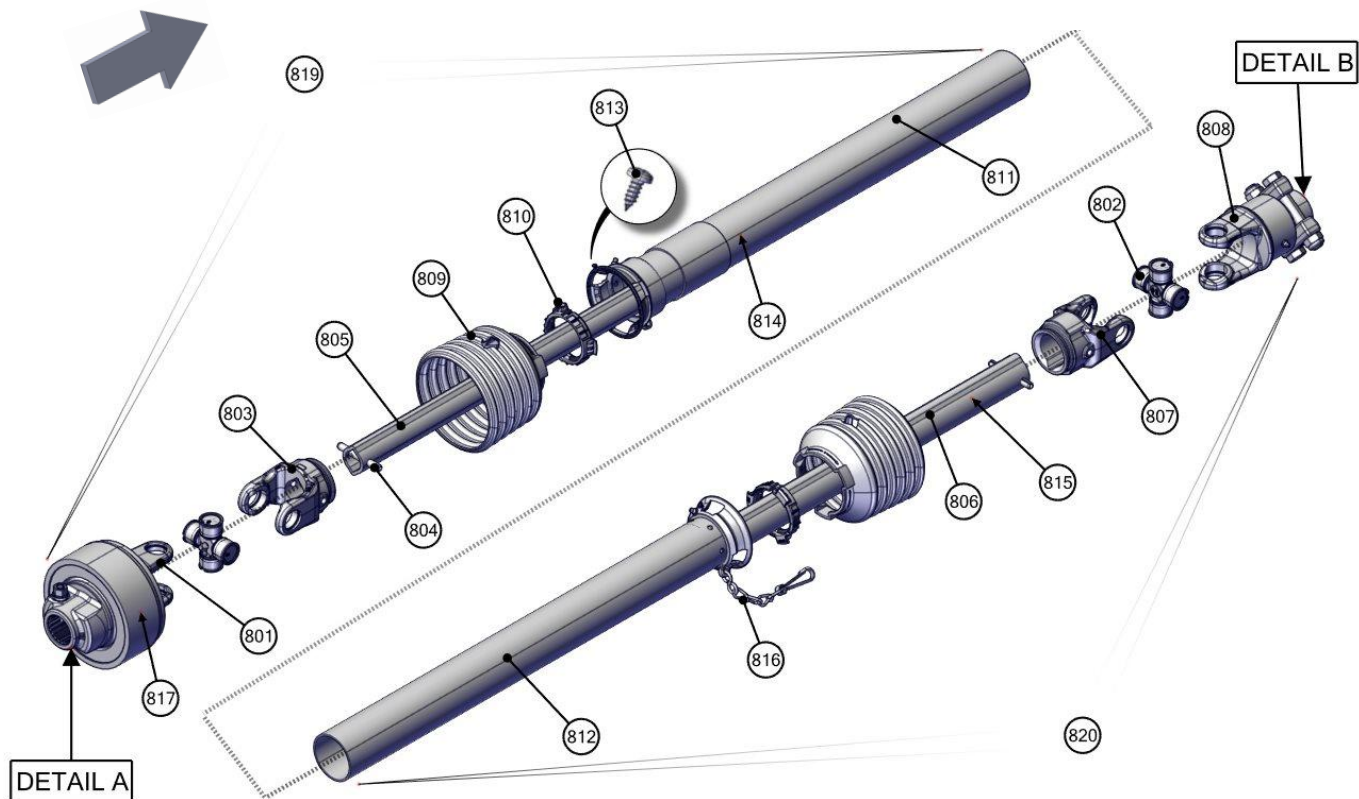
7015-2-01A OPT. DRIVELINE, FRONT 1-3/4" CV



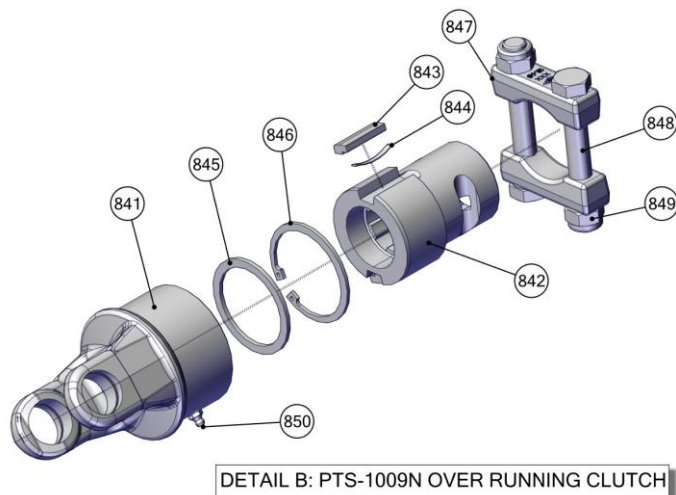
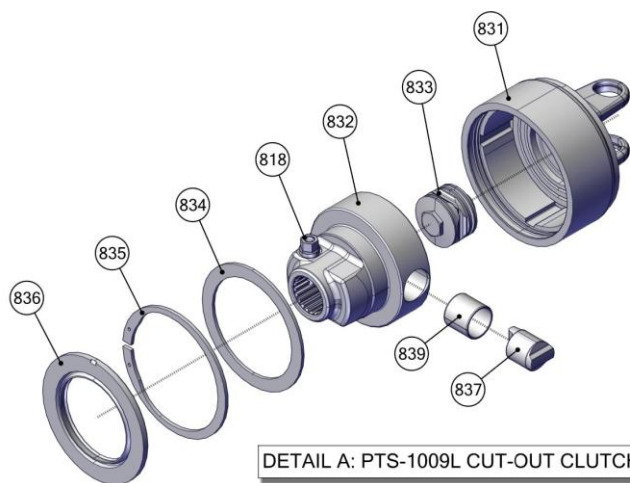
7015-2-02 DRIVELINE, REAR WITH CLUTCH

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	PTS-1009	Driveline for Verticals, Rear	1		
801	PTS-1009L	Cut-Out Clutch	1		Special Order Only
802	PTS-1010B	Cross & Bearing Kit	2		Special Order Only
803	PTS-1009B	Inboard Yoke, 1b	1		Special Order Only
804	PTS-1010C	Spring Pin	2		Special Order Only
805	PTB-1014E	Inner Profile	1		Special Order Only
806	PTS-1009M	Outer Profile	1		Special Order Only
807	PTS-1010D	Inboard Yoke	1		Special Order Only
808	PTS-1009N	Overrunning Clutch	1		Special Order Only
809	PTB-1014I	Shield Cone 6 Rib	2		Special Order Only
810	PTS-1002J	PTO Shield Bearing Ring	2		Special Order Only
811	PTS-1009P	Guard Tube Outer	1		Special Order Only
812	PTS-1009Q	Guard Tube Inner	1		Special Order Only
813	PTS-1010K	Screw	2		Special Order Only
814	PTS-1010L	Decal, Outer	1		Special Order Only
815	PTS-1010M	Decal, Inner	1		Special Order Only
816	PTS-1002K	PTO Shield Safety Chain	1		Special Order Only
817	PTS-1009J	Decal	1		Special Order Only
818	PTS-1009K	CC Lock Assembly	1		Special Order Only
819	PTS-1009-FH	Front, Half Shaft	1		Special Order Only
820	PTS-1009-RH	Rear, Half Shaft	1		Special Order Only
831	PTS-1009E-B	Housing	1		Special Order Only
832	PTS-1009E-C	Hub 1-3/4-20 Spl CC	1		Special Order Only
833	PTS-1009E-D	Spring Pack	1		Special Order Only
834	PTS-1009E-E	Washer	1		Special Order Only
835	PTS-1009E-F	Retaining Ring	1		Special Order Only
836	PTS-1009E-G	Sealing Ring	1		Special Order Only
837	PTS-1009E-A	Cam	2		Special Order Only
839	PTS-1009E-H	Bushing - In Part PTS-1009E-C	2		Special Order Only
841	PTS-1020A-A	Clutch Housing	1		Special Order Only
842	PTS-1009N-A	Hub	1		Special Order Only
843	PTS-1010F-A	Key	2		Special Order Only
844	PTS-1010F-B	Leaf Spring	2		Special Order Only
845	PTS-1009N-B	Supporting Ring	1		Special Order Only
846	PTS-1010F-G	Retaining Ring	1		Special Order Only
847	PTS-1009N-C	Clamp Bridge	2		Special Order Only
848	PTS-1009N-D	Hex Bolt - M16 x 110L	2		Special Order Only
849	PTS-1009N-E	Locknut - M16	2		Special Order Only
850	PTS-1008C	Zerk, Double Yoke	1		Special Order Only

7015-2-02 DRIVELINE, REAR WITH CLUTCH



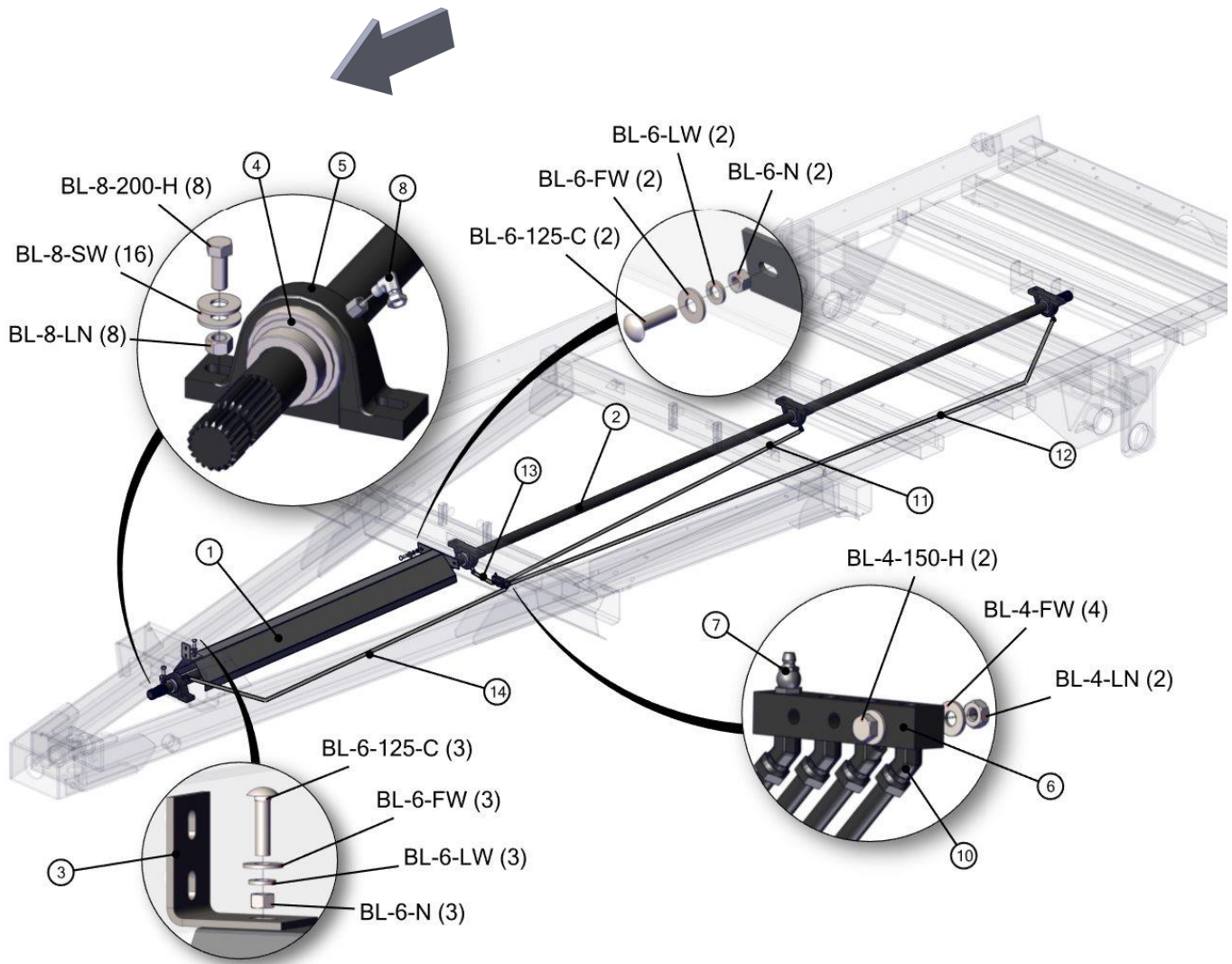
NOTE: MANY OF THESE PARTS ARE SPECIAL ORDER ONLY. CONSULT YOUR DEALER FOR AVAILABILITY.



7015-2-03 DRIVELINE, MID SHAFT AND SHIELDS

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	PR70089	Drive Shaft Shield	1		
2	PR33228	Shaft, Main, Vertical Beater Spreader	1		
3	PR70132	Mount, Driveline Shield	1		
4	BR-175-085-I	Bearing, 1 ¾ ID, TS	4		
5	BR-085-RAK	Bearing Housing 85 mm	4		
6	GF-4-4	4 Grease Manifold	1		
7	GF-1827-45	Grease Fitting 1/8 NPT 45°	4		
8	A-1501-2-2	1/8 MP x 1/8' FPX90°	4		
10	A-1503-2-2	1/8 MP x 1/8' FPX 45°	4		
11	H2-114-2MP-2MP	1/8 in grease hose 1/8MP x 1/8MP x 114 in long	1		
12	H2-165-2MP-2MP	1/8 Grease Hose, 1/8MP x 1/8MP x 165	1		
13	H2-20-2MP-2MP	1/8in Grease Hose x 1/8MP x 1/8MP x 20in Long	1		
14	H2-72-2MP-2MP	1/8 in grease hose 1/8MP x 1/8MP x 72 in long	1		
100	BL-4-150-H	1/4-20 X 1-1/2 HEX CAP G5 ZC	2		
101	BL-4-FW	1/4 USS FW ZC	4		
102	BL-4-LN	1/4-20 HEX LN NE ZC	2		
103	BL-6-125-C	3/8-16 X 1-1/4 CARRIAGE BOLT G5 ZC	5		
104	BL-6-FW	3/8 USS FW ZC	5		
105	BL-6-LW	3/8 SPLIT LW ZC	5		
106	BL-6-N	3/8-16 HEX NUT ZC	5		
107	BL-8-200-H	1/2-13 X 2 HEX CAP G5 ZC	8		
108	BL-8-FW	1/2 USS FW ZC	16		
109	BL-8-LN	1/2-13 LN NYLON INSERT ZC	8		

7015-2-03 DRIVELINE, MID SHAFT AND SHIELDS

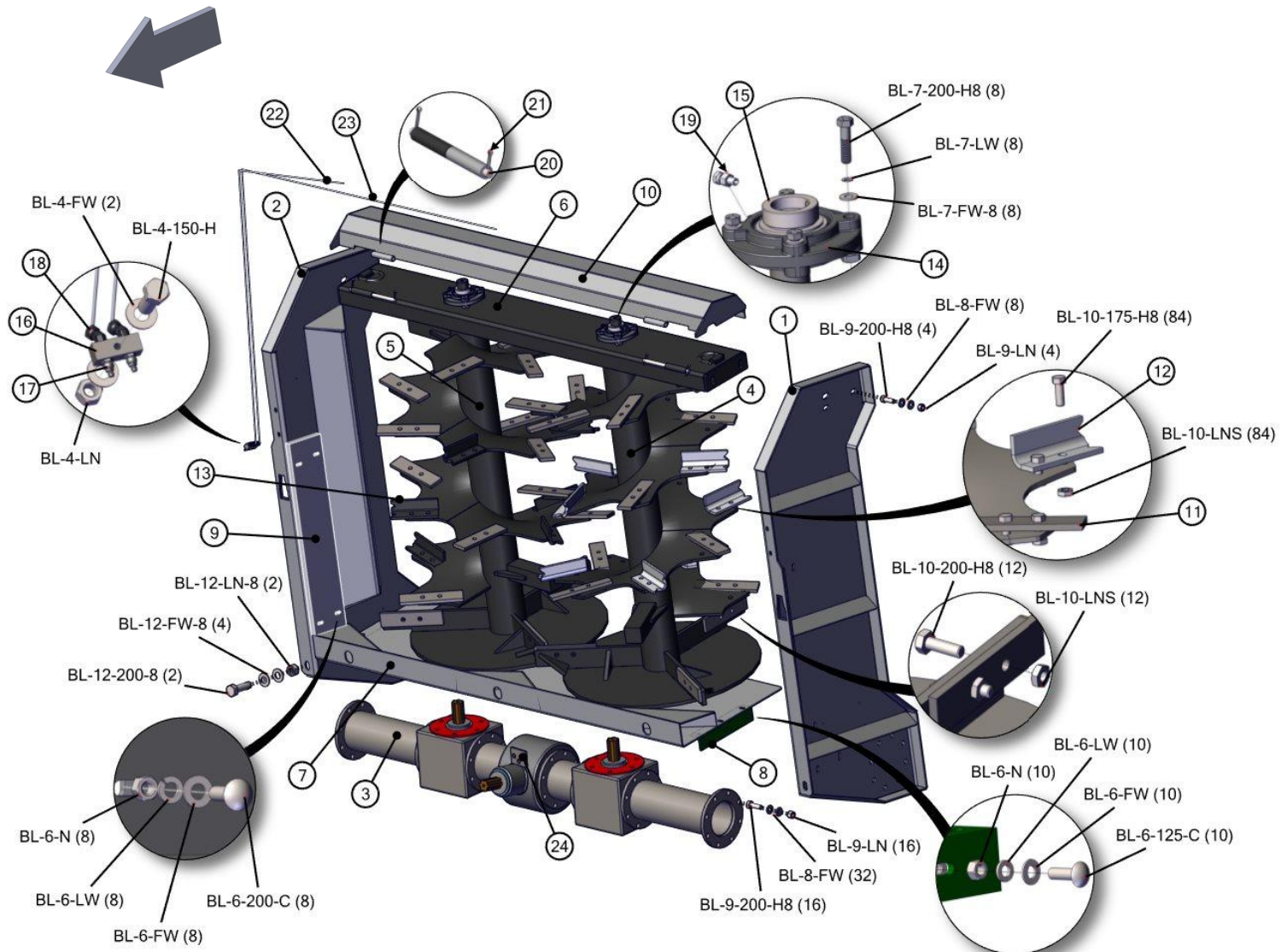


7015-2-04 VERTICAL BEATERS WITH GEARBOX

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	PR70081	Beater Panel, LH	1		
2	PR70082	Beater Panel, RH	1		
3	VTB-1899-P2	Gearbox, 1000 rpm	1		
4	VTB-0009	Vertical Beater, LH	1		
5	VTB-0010	Vertical Beater, RH	1		
6	PR70083	Beater Bearing Plate	1		
7	PR70084	Beater Pan	1		
8	PR70085	Beater Pan Mount	2		
9	PR70090	Beater Panel Plastic	2		
10	PR70096	Cover, Bearing Plate	1		
11	VTB-1899-F3	Knife, Weight Specific	34	1190VB:71113001- 1180VB: 74015011-	
12	VTB-1899-B3	Claw/Blade, Left Beater From Rear	7		
13	VTB-1899-C3	Claw/Blade, Right Beater From Rear	7		
14	BR-085-4PF	85mm Four Bolt Piloted Flange Housing	2		
15	BR-175-085-I	Bearing, 1 ¾ ID, TS	2		
16	GF-2-2	2 Grease Manifold	1		
17	GF-1827	Grease Fitting 1/8 NPT Straight	2		
18	A-1503-2-2	1/8 MP x 1/8 FPX 45°	2		
19	A-1404-2-2	1/8 MP x 1/8 FPX	2		
20	PR70133	Hinge Pin, 1/2 x 9	2		
21	PIN-C2-16	Cotter Pin, 1/8" x 1"	4		
22	H2-36-2MP-2MP	1/8 in grease hose 1/8MP x 1/8MP x 36 in long	1		
23	H2-68-2MP-2MP	1/8 Hose, 1/8MP x 1/8MP x 68	1		
24	PR50502	Shim, Bottom Panel under Gearbox	1		
25	HP-1038	Gear Lube, 80W90 @ Quart	11	Hydra Ram Spreader	
100	BL-4-150-H	1/4-20 X 1-1/2 HEX CAP G5 ZC	1		
101	BL-4-FW	1/4 USS FW ZC	2		
102	BL-4-LN	1/4-20 HEX LN NE ZC	1		
103	BL-6-125-C	3/8-16 X 1-1/4 CARRIAGE BOLT G5 ZC	10		
104	BL-6-200-C	3/8-16 X 2 CARRIAGE BOLT G5 ZC	8		
105	BL-6-FW	3/8 USS FW ZC	18		
106	BL-6-LW	3/8 SPLIT LW ZC	18		
107	BL-6-N	3/8-16 HEX NUT ZC	18		
108	BL-7-200-H8	7/16-14 X 2 HH G8	8		
109	BL-7-FW-8	7/16 FW G8	8		
110	BL-7-LW	7/16 SPLIT LW ZC	8		
111	BL-8-FW	1/2 USS FW ZC	40		
112	BL-9-200-H8	9/16-12 X 2 HH G8	20		
113	BL-9-LN	9/16-12 LN w/ NYLON INSERT	20		

7015-2-04 VERTICAL BEATERS WITH GEARBOX

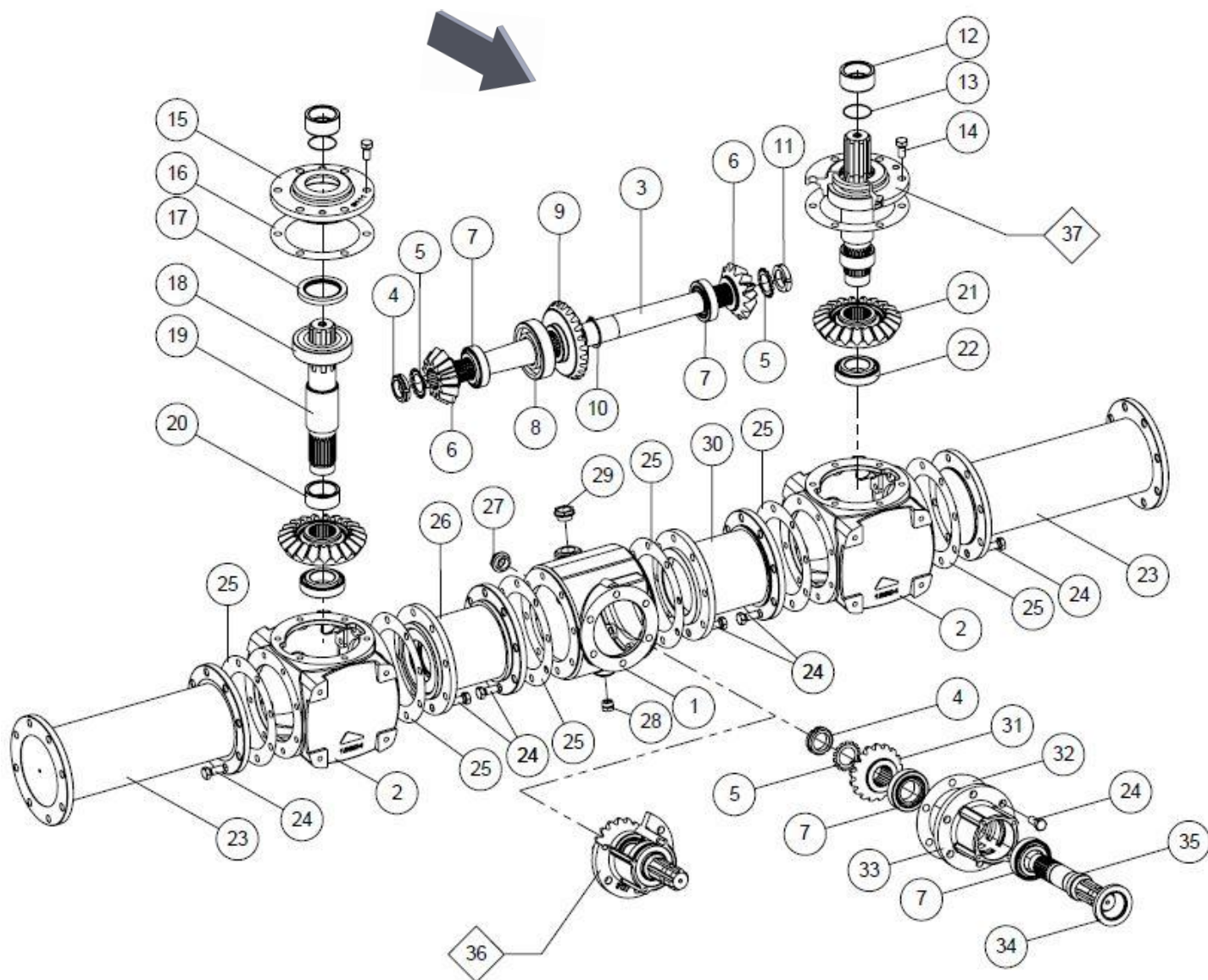
REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
114	BL-10-175-H8	5/8-11 X 1-3/4 HH G8 ZC	84		
115	BL-10-200-H8	5/8-11 X 2 HEX CAP G8 ZC	12		
116	BL-10-LNS	5/8-11 STOVER LN	96		
117	BL-12-200-8	3/4-10 X 2 HH C/S G8 ZC	2		
118	BL-12-FW-8	3/4 FW G8	4		
119	BL-12-LN-8	3/4-10 LN w/ NYLON INSERTS G8	2		



7015-2-05 GEARBOX, VERTICAL BEATERS

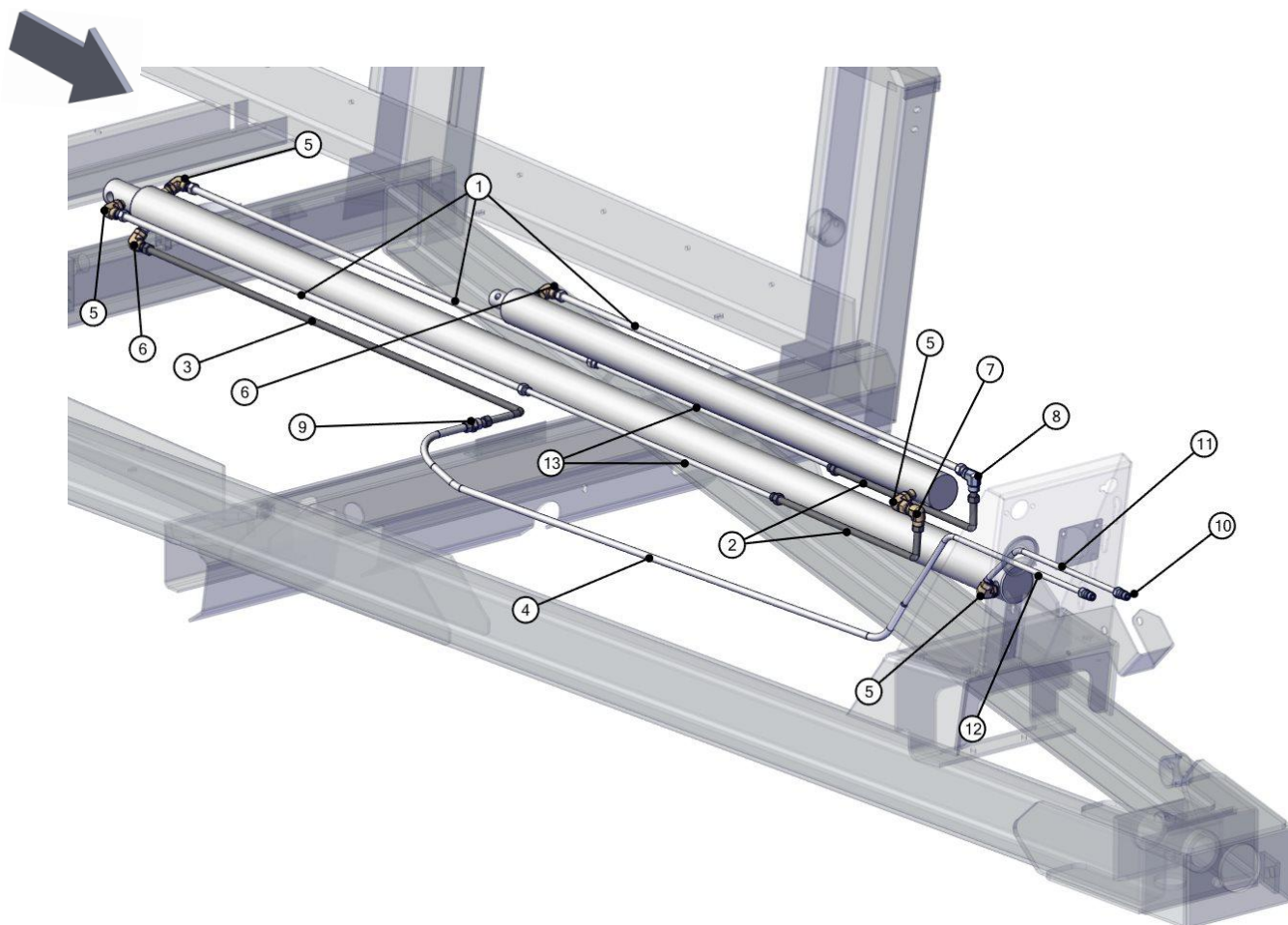
REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
0	VTB-1899-P2	Gearbox, 1000 rpm	0		
1	VTB-1899-A1	Housing	1		Special Order Only
2	VTB-1899-B1	Housing	2		Special Order Only
3	VTB-1899-C1	Shaft	1		Special Order Only
4	VTB-1899-D1	Threaded Ring, LH Thread	2		Special Order Only
5	VTB-1899-E1	Washer	3		Special Order Only
6	VTB-1899-F1	Bevel Pinion Z=13	2		Special Order Only
7	VTB-1899-G1	Bearing 32209	4		Special Order Only
8	VTB-1899-H1	Bearing 6311	1		Special Order Only
9	VTB-1899-J1	Gear Z=24	1		
10	VTB-1899-K1	Circlip E 55	1		Special Order Only
11	VTB-1899-L1	Threaded Ring, RH Thread	1		Special Order Only
12	VTB-1899-M1	Spacer	2		Special Order Only
13	VTB-1899-N1	O-ring 2212	2		Special Order Only
14	VTB-1899-P1	Screw, hex-hd M14X30	12		Reference Only, Special Order
15	VTB-1899-Q1	Calotte	2		Special Order Only
16	VTB-1899-R1	Gasket	2		Special Order Only
17	VTB-1899-S1	Oil Seal	2		Special Order Only
18	VTB-1899-T1	Bearing 6311-2RS	2		Special Order Only
19	VTB-1899-U1	Shaft	2		Special Order Only
20	VTB-1899-V1	Spacer	2		Special Order Only
21	VTB-1899-W1	Gear Z=22	2		
22	VTB-1899-X1	Bearing 32210	2		Special Order Only
23	VTB-1899-Y1	Spacer L=428	2		Special Order Only
24	VTB-1899-Z1	Screw, hex-hd M14X35	54		Reference Only, Special Order
25	VTB-1899-A2	Gasket	6		Special Order Only
26	VTB-1899-B2	Right Spacer L=178	1		Special Order Only
27	VTB-1899-C2	Oil Lev. Indicator	1		Same as GBXA-5-ST10B
28	VTB-1899-D2	Oil Plug, 1/2 Gas	1		Special Order Only
29	VTB-1899-E2	Oil Plug, 1 Gas.	1		Special Order Only
30	VTB-1899-F2	Left Spacer, L=178	1		Special Order Only
31	VTB-1899-G2	Bevel Pinion Z=17	1		
32	VTB-1899-H2	Gasket	1		Special Order Only
33	VTB-1899-J2	Hub	1		Special Order Only
34	VTB-1899-K2	Oil Seal	1		
35	VTB-1899-L2	Shaft	1		Special Order Only
36	VTB-1899-M2	Hub Complete, Gearbox	1		Special Order Only
37	VTB-1899-N2	Calotte Complete, Gearbox	2		Special Order Only

7015-2-05 GEARBOX, VERTICAL BEATERS



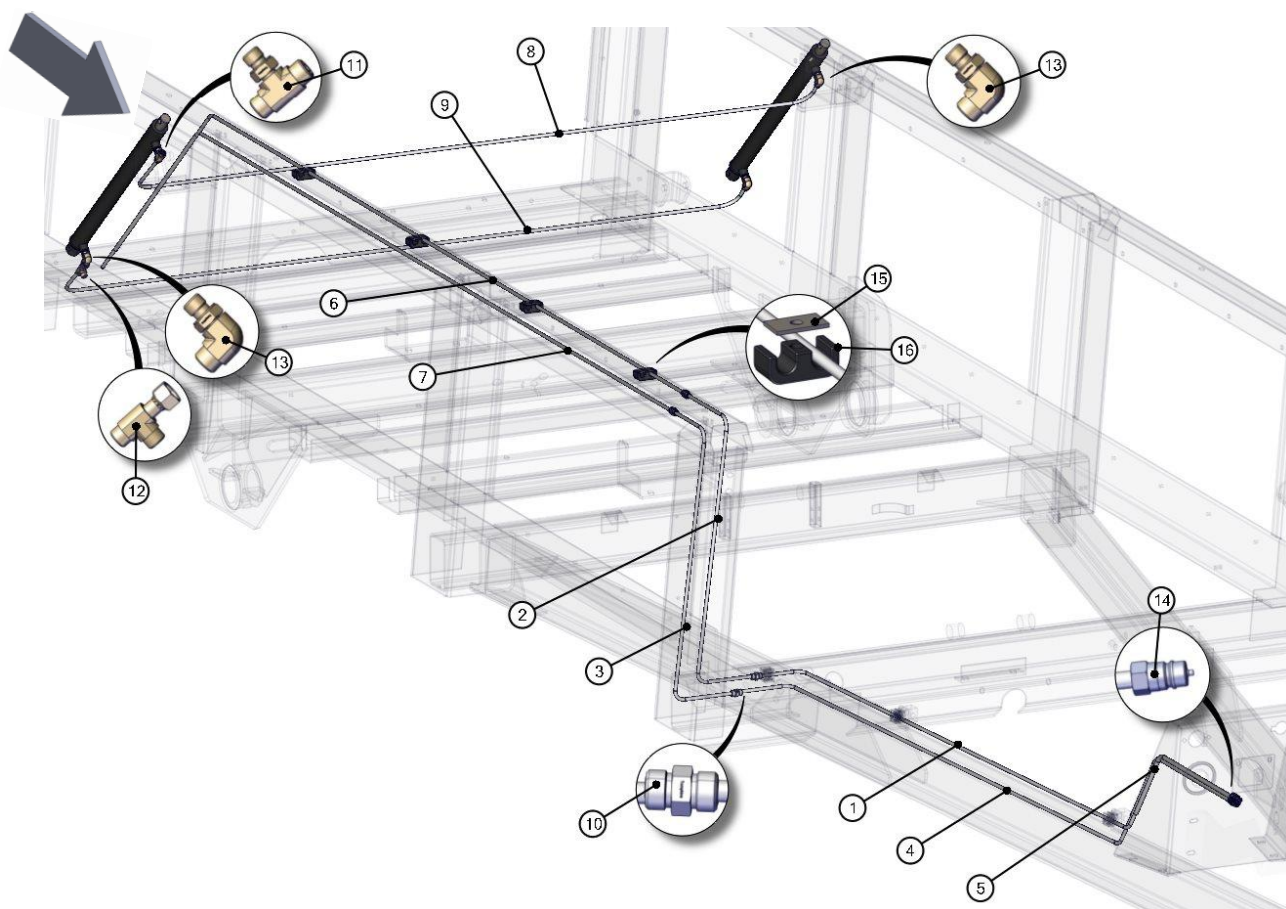
7019-3-01 HYDRAULICS, PUSH CYLINDERS

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
0	HY-TRAN	Hytran @ gal	5		
1	H-T7001F	5/8SS Tube, Floor/Pusher, ORFS	3		
2	H-T7002F	5/8SS Tube, Pusher, ORFS	2		
3	H-T7003F	5/8SS Tube, Pusher	1		
4	H-T7045F	5/8SS TUBE, Floor, ORFS	1		
5	A-FF6801-C-10-10	Custom Elbow, 10MFF x 10SAE	3		
6	A-FF6801-10-10	Elbow, 5/8 MFF x 5/8 SAE	3		
7	A-FF6500-10-10	Elbow, 10MFF x 10FFFX	1		
8	A-FF2500-10-10	ELBOW UNION, 10MFF X 10MFF	1		
9	A-FF2403-10-10	Union, 10MFF x 10MFF	1		
10	A-QDS71X15	Ag Quick Coupler, 1/2 ISO5675 x 8SAE	2		
11	H8-90-8MOR-10FFFX	1/2 Hose, 1/2 Male SAE x 5/8 Female ORFS	1		
12	H8-100-8MOR-10MFF	1/2 Hose, 1/2 Male SAE x 5/8 Male ORFS	1		
13	H8-40-10MFF-10MFF	1/2 Hose, 5/8 Male ORFS x 5/8 Male ORFS	2		



7019-3-02 HYDRAULICS, ENDGATE CYLINDERS

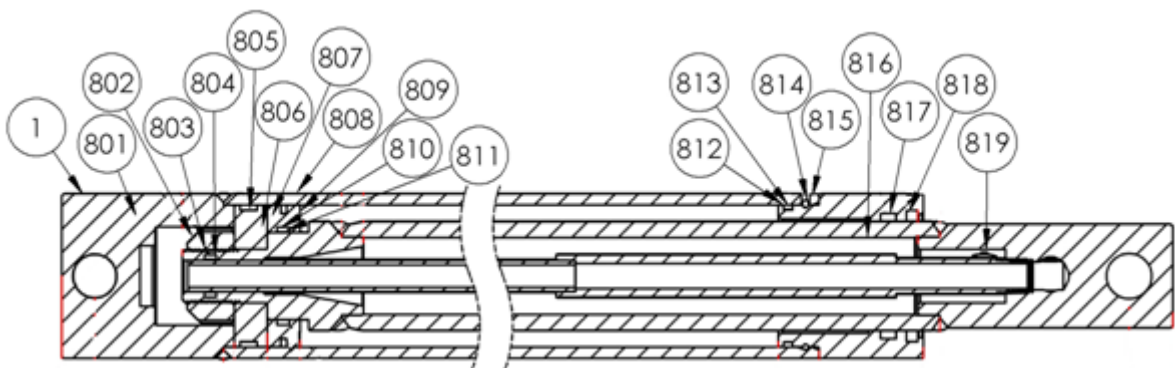
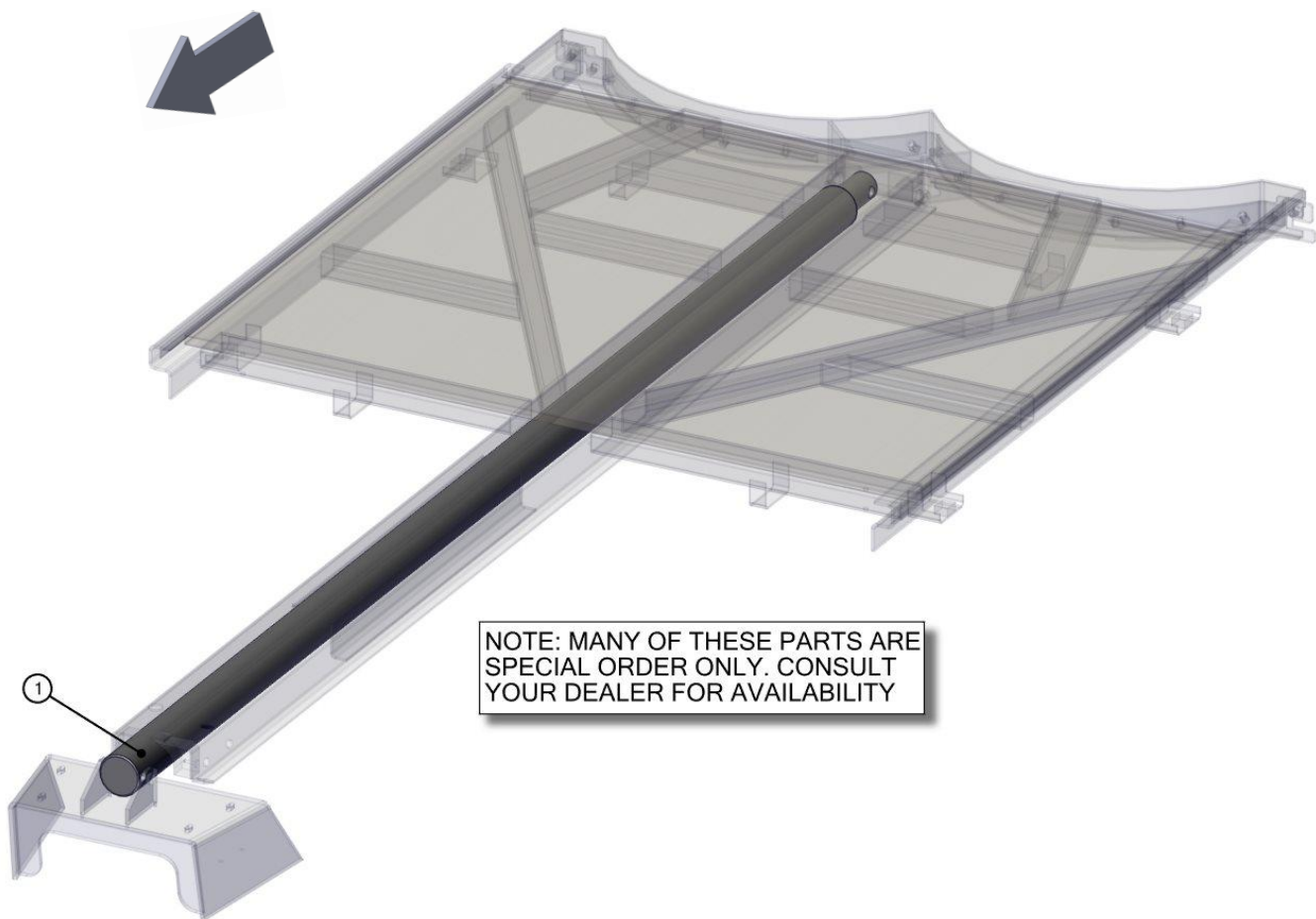
REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	H-T7042F	3/8 SS Tube, Endgate, ORFS	1		
2	H-T7043F	3/8 SS Tube, Endgate, ORFS	1		
3	H-T7044f	3/8 SS Tube, Endgate, ORFS	1		
4	H-T7048F	3/8 SS Tube, Endgate, ORFS	1		
5	H6-100-6MFF-8MOR	3/8 Hose, 3/8 Male ORFS x 1/2 SAE	2		
6	H4-150-6MFF-6FFFX	1/4 Hose, 3/8 Male ORFS x 3/8 Female ORFS	1		
7	H4-173-6MFF-6FFFX	1/4 Hose, 3/8 Male ORFS x 3/8 Female ORFS	1		
8	H4-144-6FFFX-6FFFX	1/4 Hose, 3/8 Female ORFS x 3/8 Female ORFS	1		
9	H4-97-6FFFX-6FFFX	1/4 Hose, 3/8 Female ORFS x 3/8 Female ORFS	1		
10	A-FF2403-06-06	Union, 6MFF X 6MFF	2		
11	A-FF6803-06-06-06	TEE, 6MFF X 6MFF X 6SAE	1		
12	A-FF6602-06-06-06	Run Tee, 6MFF x 6MFF x 6FFFX	1		
13	A-FF6801-06-06	ELBOW, 6MFF X 6SAE	3		
14	A-QDS71X15	Ag Quick Coupler, 1/2 ISO5675 x 8SAE	2		
15	PR34894	Support, Clamp, 1/4 Double Hose Clamp	4		
16	PR34896	Hose Clamp, 1/4 Hydraulic, 1/2 O.D. Hose	4		



7015-3-03 CYLINDER, SLIDING FLOOR

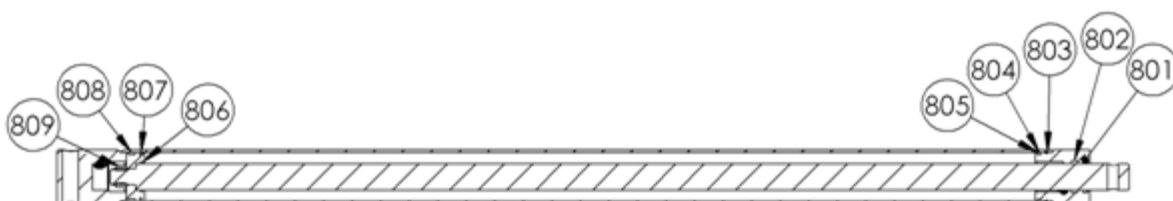
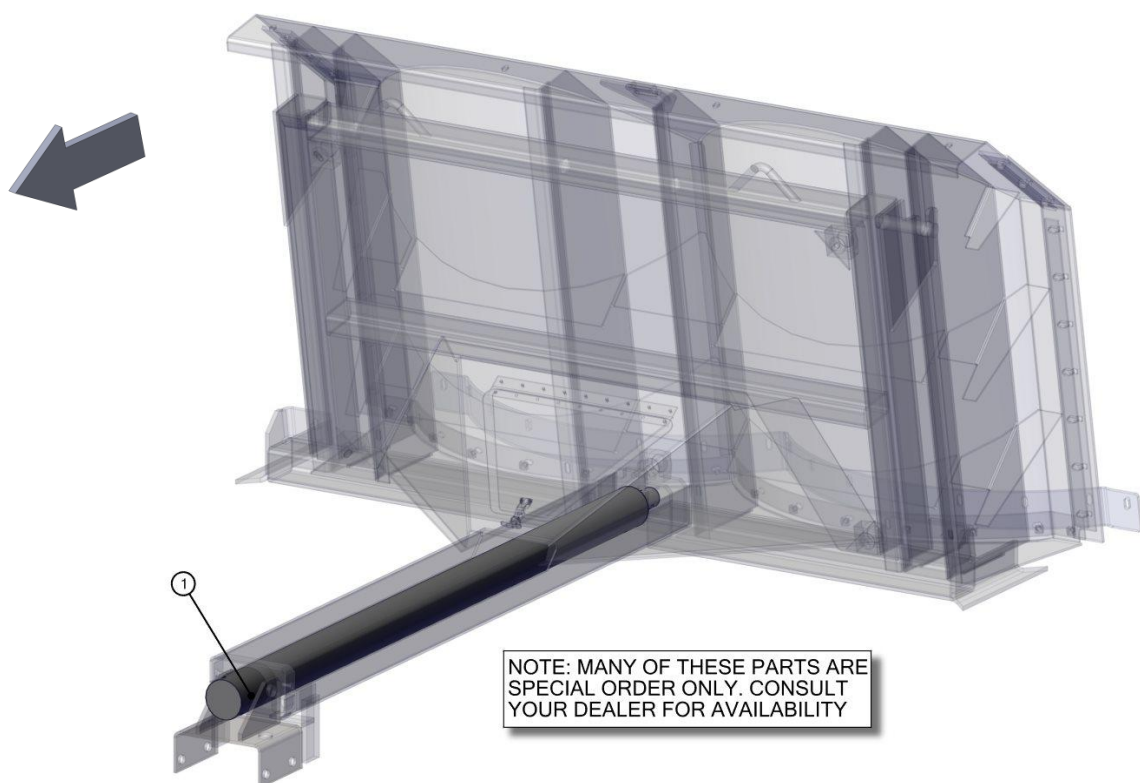
REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	PR23132	Main Cylinder - Sliding Floor w/Pin through End	1		
801	PR23131-L	Barrel Assy.	1		Reference Only, Special Order
802	PR23131-M	Locknut - Thin	1		Reference Only, Special Order
803	PR23131-N	Back Up Washer	2		Reference Only, Special Order
804	PR23131-O	O Ring	1		Part of Seal Kit, Not Sold Separately
805	PR23131-P	Wear Ring	1		Part of Seal Kit, Not Sold Separately
806	PR23131-Q	Piston	1		Reference Only, Special Order
807	PR23131-R	Piston	1		Reference Only, Special Order
808	PR23131-A	Piston Ring	1		Reference Only, Special Order
809	PR23131-B	O-Ring	1		Part of Seal Kit, Not Sold Separately
810	PR23131-C	O-Ring	1		Part of Seal Kit, Not Sold Separately
811	PR23131-D	Back-up Washer	2		Part of Seal Kit, Not Sold Separately
812	PR23131-E	O Ring	1		Part of Seal Kit, Not Sold Separately
813	PR23131-F	Backup Washer	1		Part of Seal Kit, Not Sold Separately
814	PR23131-LR	Lock Ring	1	PR23131 & PR23143	Reference Only, Special Order
815	PR23131-G	Bearing Assembly	1		Reference Only, Special Order
816	PR23131-H	Transfer Tube	1		Reference Only, Special Order
817	PR23131-I	Bearing Seal	1		Part of Seal Kit, Not Sold Separately
818	PR23131-J	Wiper	1		Part of Seal Kit, Not Sold Separately
819	PR23131-K	Piston Rod Assy. w/ Transfer Tube	1		Reference Only, Special Order Sold only with PR23131-H Transfer Tube
820	PR23131-SK	Seal Kit, Main Cylinder, Per Each	1		

7015-3-03 CYLINDER, SLIDING FLOOR



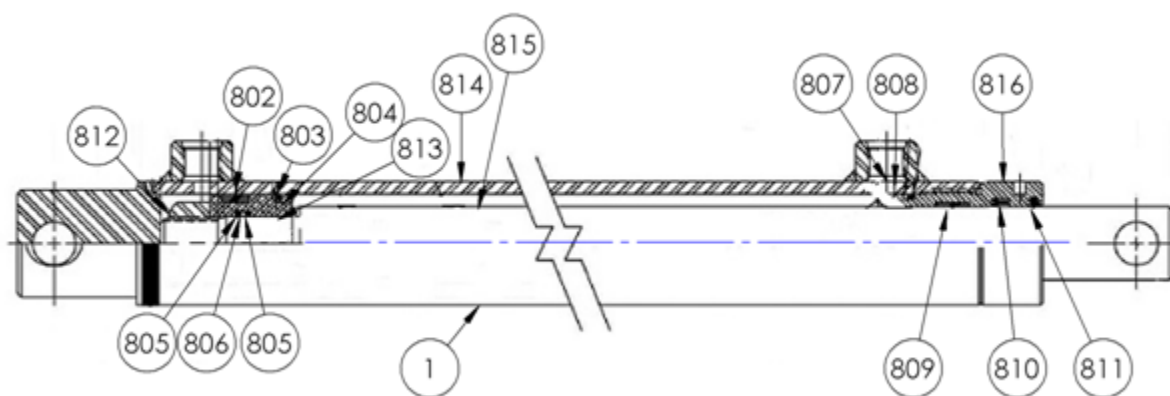
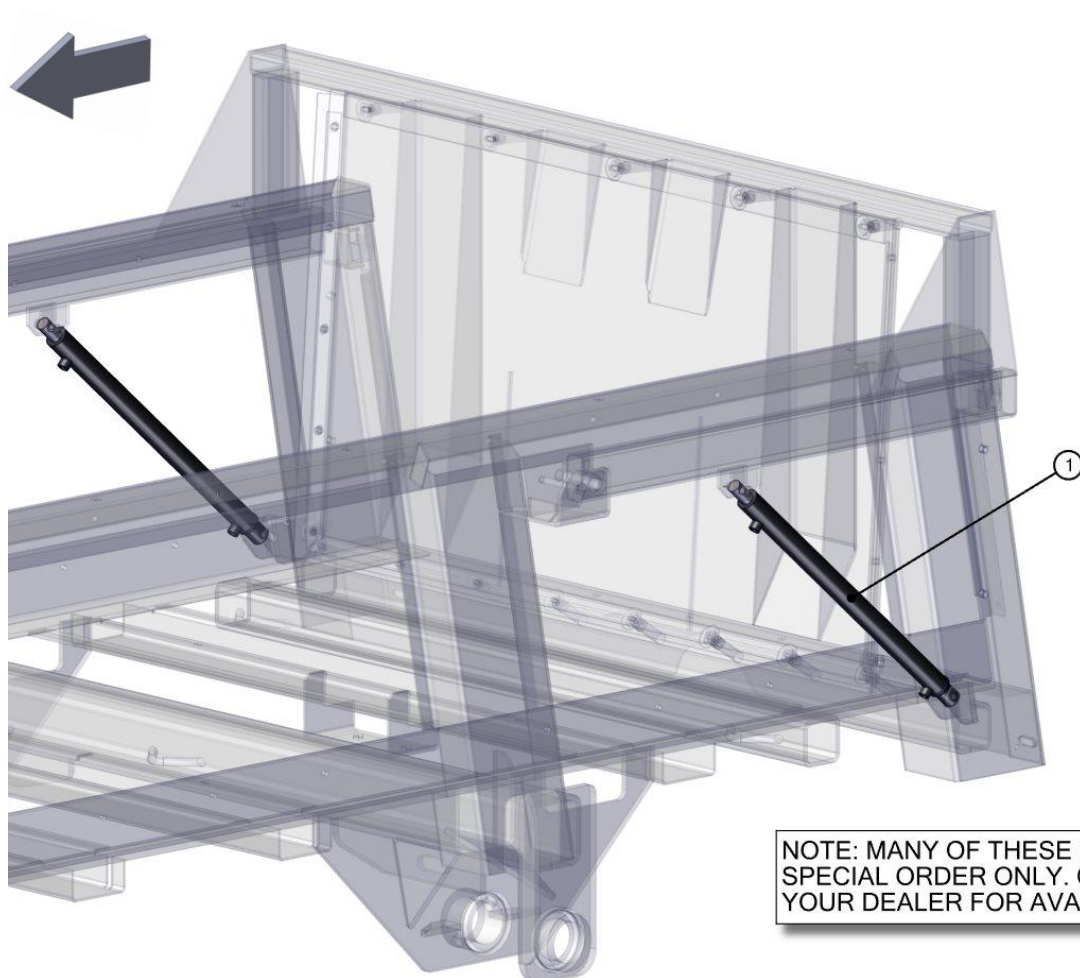
7015-3-04 CYLINDER, PUSHER

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	PR23144	Secondary Cylinder - Moving Panel w/ Pin through Rod End	1		
801	PR23143-SK	Seal Kit, Secondary Cylinder, Per Each	1		
802	PR23143-F	Rod Seal	1		Part of Seal Kit, Not Sold Separately
803	PR23143-H	Lock Ring	1		Part of Seal Kit, Not Sold Separately
804	PR23143-E	Back Up Ring	1		Part of Seal Kit, Not Sold Separately
805	PR23143-D	O-Ring	1		Part of Seal Kit, Not Sold Separately
806	PR23143-C	Rod Seal	1		Part of Seal Kit, Not Sold Separately
807	PR23143-B	O-Ring	1		Part of Seal Kit, Not Sold Separately
808	PR23143-A	P/Seal	1		Part of Seal Kit, Not Sold Separately
809	PR23143-M	7/8-14 BSF Nut	1		Reference Only, Special Order



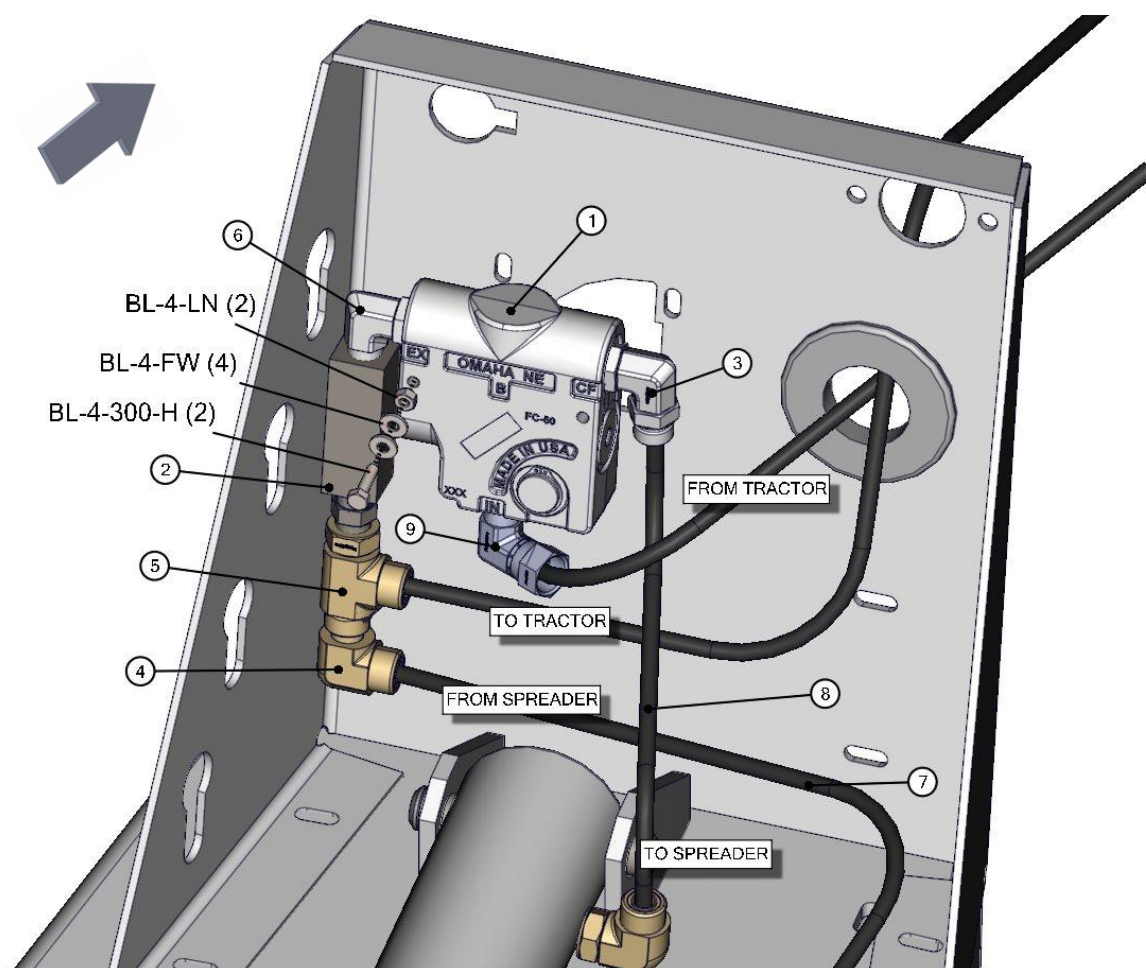
7015-3-05 CYLINDER, ENDGATE

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	PR39068	Cylinder, Endgate, 1.5 bore	2		
802	PR39068-A	Wear Ring	1		Part of Seal Kit, Not Sold Separately
803	PR39068-B	TFE Seal	1		Part of Seal Kit, Not Sold Separately
804	PR39068-C	O Ring	1		Part of Seal Kit, Not Sold Separately
805	PR39068-D	Back-Up Ring	2		Part of Seal Kit, Not Sold Separately
806	PR39068-E	O Ring	1		Part of Seal Kit, Not Sold Separately
807	PR39068-F	O Ring	1		Part of Seal Kit, Not Sold Separately
808	PR39068-G	Back-Up Ring	1		Part of Seal Kit, Not Sold Separately
809	PR39068-H	Wear Ring	1		Part of Seal Kit, Not Sold Separately
810	PR39068-I	Loaded U-Cup	1		Part of Seal Kit, Not Sold Separately
811	PR39068-J	Rod Wiper	1		Part of Seal Kit, Not Sold Separately
812	PR39068-K	Locknut	1		Reference Only, Special Order
813	PR39068-L	Piston	1		Reference Only, Special Order
814	PR39068-M	Barrel Assembly	1		Reference Only, Special Order
815	PR39068-N	Rod	1		Reference Only, Special Order
816	PR39068-OB	Internal Cylinder Head 1 1/2 (Fine)	1	Verify Stamp Location	
817	PR39068-SK	Seal Kit, Endgate Cylinder, Per Each	1		



7019-3-06 OPT. CONTROL VALVE

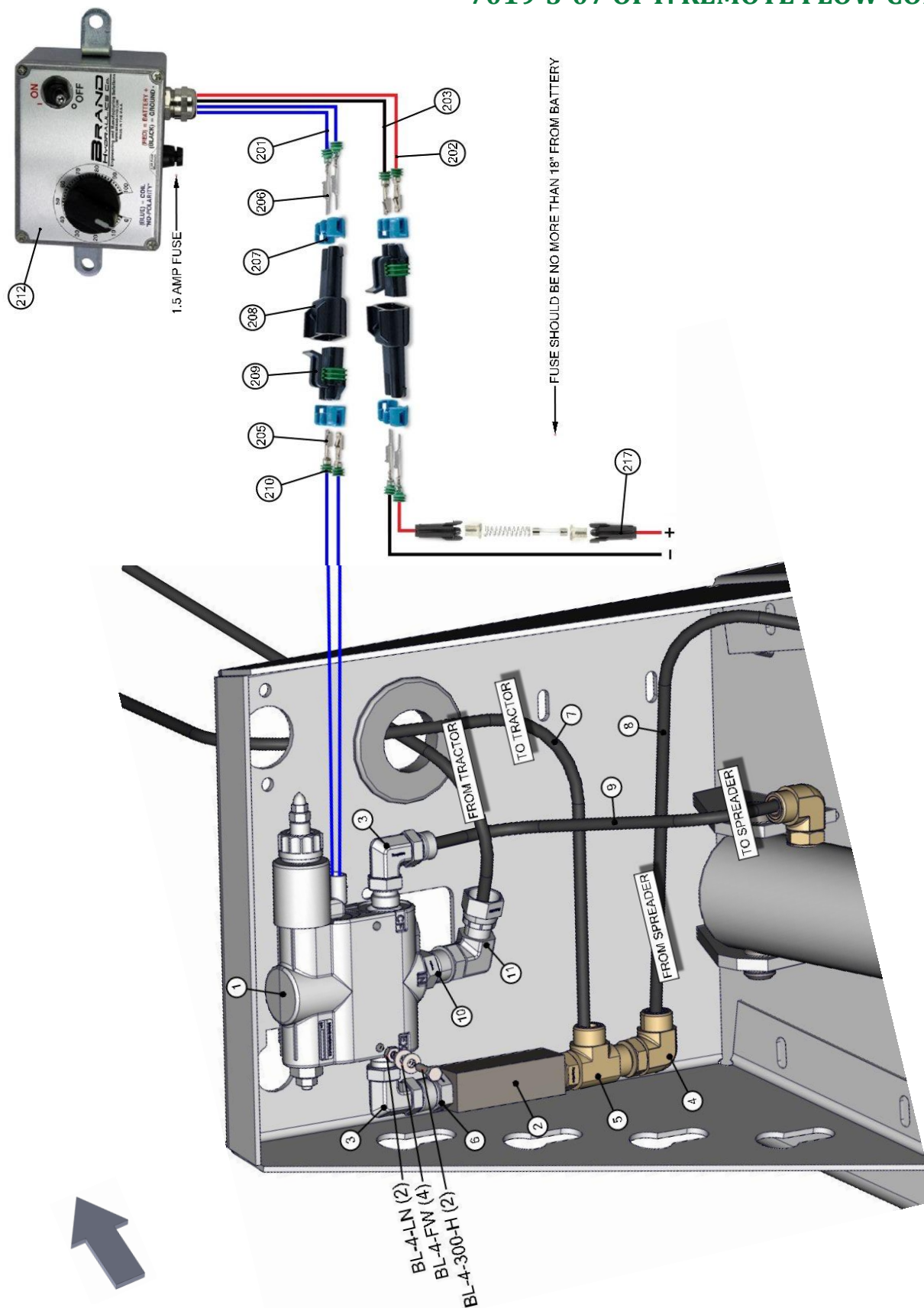
REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	HV-FC5510	Flow Control, #10 SAE, 0-16 GPM, Free Reverse Flow	1		
2	HV-CKV-C1020S	#10 Parker Check Valve, 5 psi Crack, 15 gpm	1		
3	A-FF6801-10-10	Elbow, 5/8 MFF x 5/8 SAE	1		
4	A-FF6500-10-10	Elbow, 10MFF x 10FFFX	1		
5	A-FF6804-10-10-10	Run Tee, 10SAE x 10MFF x 10MFF	1		
6	A-6807-10-10	Elbow, 10SAE x 10SAE	1		
7	H8-27-10MFF-10FFFX	1/2 Hose, 5/8 Male ORFS x 5/8 Female ORFS	1		
8	H8-16-10FFFX-10FFFX	1/2 Hose, 5/8 Female ORFS x 5/8 Female ORFS	1		
9	A-FF6809-10-10	Elbow, 10SAE x 10FFFX	1		
10	PR70131	Cover, Flow Control Cutout	-1		
102	BL-4-LN	1/4-20 HEX LN NE ZC	2		
103	BL-4-FW	1/4 USS FW ZC	4		
104	BL-4-300-H	1/4-20 X 3 HEX CAP G5 ZC	2		



7019-3-07 OPT. REMOTE FLOW CONTROL

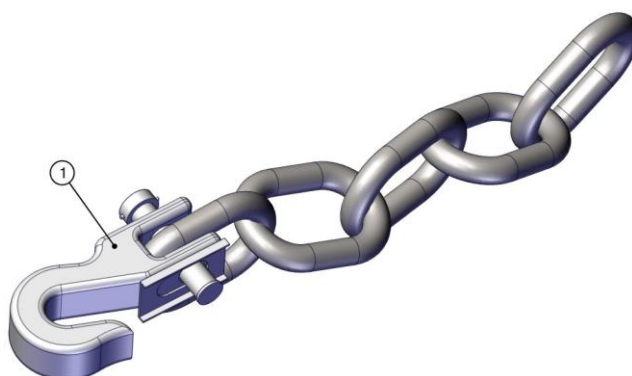
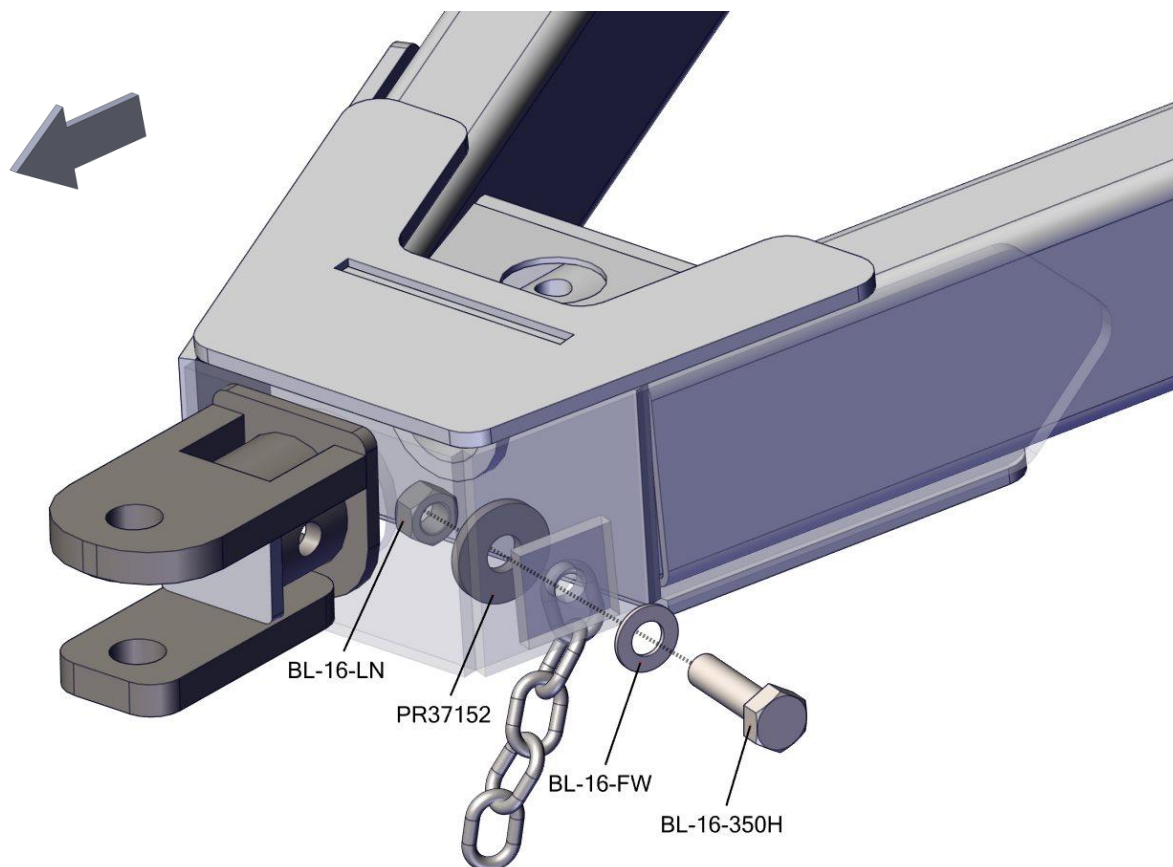
REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	HVE-C122012	Electronic Flow Control w/free flow reverse	1		
2	HV-CKV-C1020S	#10 Parker Check Valve, 5 psi Crack, 15 gpm	1		
3	A-FF6801-10-12	Elbow, 10MFF x 12SAE	2		
4	A-FF6500-10-10	Elbow, 10MFF x 10FFFX	1		
5	A-FF6804-10-10-10	Run Tee, 10SAE x 10MFF x 10MFF	1		
6	A-FF6507-10-10	Swivel Straight Adapter, 5/8" FFFX x 5/8" SAE	1		
7	H8-27-10MFF-10FFFX	1/2 Hose, 5/8 Male ORFS x 5/8 Female ORFS	1		
8	H8-94-8MOR-10FFFX	1/2 Hose, 1/2 Male SAE x 5/8 Female ORFS	1		
9	H8-16-10FFFX-10FFFX	1/2 Hose, 5/8 Female ORFS x 5/8 Female ORFS	1		
10	A-6410-12-10	#12 SAE O-Ring Port Reducer to #10 SAE	1		
11	A-FF6809-10-10	Elbow, 10SAE x 10FFFX	1		
102	BL-4-LN	1/4-20 HEX LN NE ZC	2		
103	BL-4-FW	1/4 USS FW ZC	4		
104	BL-4-300-H	1/4-20 X 3 HEX CAP G5 ZC	2		
201	ELC-14-BL	14 Gauge Wire (Blue)	40		
202	ELC-14-R	14 Gauge Wire, Red	20		
203	ELC-14-BLK	14 Gauge Wire, Black	20		
204	ELL-25-0	1/4 Wire Loom @ft	20		
205	EL-30036	Male Terminal	4		
206	EL-30037	Female Terminal	4		
207	EL-38035	Two Contact Clip for Contact Connector	4		
208	EL-38062	Male Connector Body	2		
209	EL-38063	Female Connector Body	2		
210	EL-39000	Cable Seal	8		
211	ELT-31703	Terminal Ring, 16-14 Ga.#10 Blue Insulated Nylon	2		
212	HV-1201	Brand Flow Valve Electronic Box	1		
216	EL-70150	1.5 Amp Fuse, Type GMA	1		
217	EL-46000	Inline Fuse Holder	1		

7019-3-07 OPT. REMOTE FLOW CONTROL



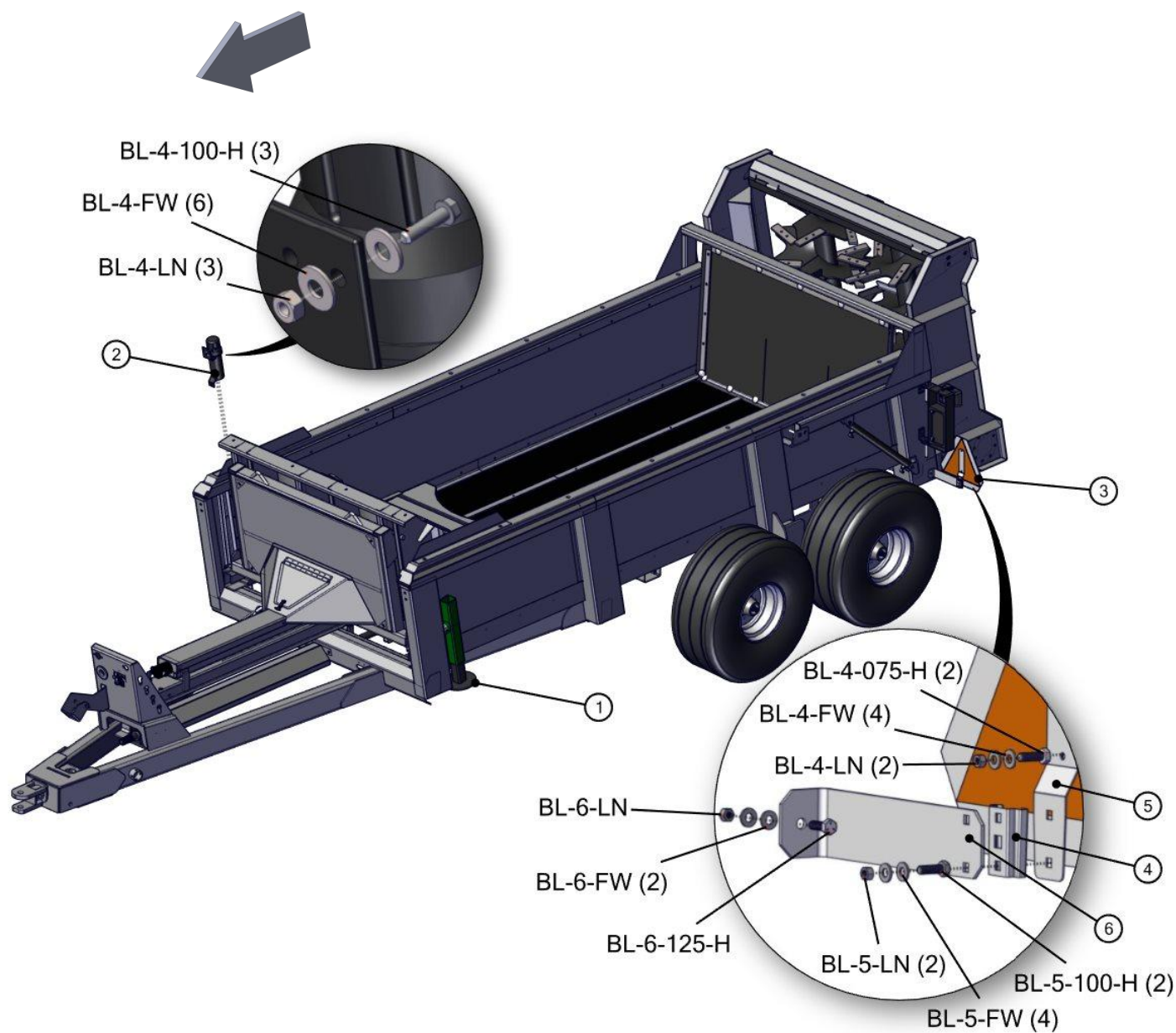
7015-4-01 SAFETY CHAIN

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	FRM-3167	Safety Chain, Agricultural, 30,400 lb. Capacity	1	19701- 30097001-	
100	PR37152	Washer, Safety Chain	1		
101	BL-16-350H	1-8 X 3-1/2 HH BOLT ZC G5	1		
102	BL-16-FW	1 FW ZC	1		
103	BL-16-LN	1 LN w/ NYLON INSERTS	1		



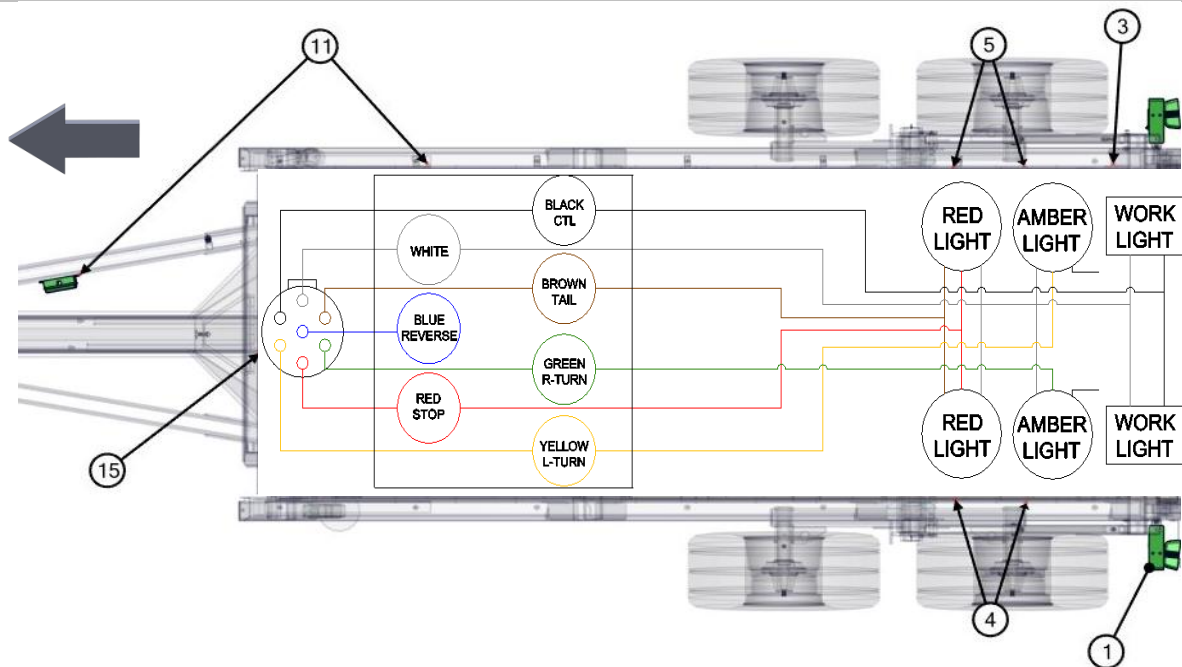
7015-4-02 ACCESSORIES

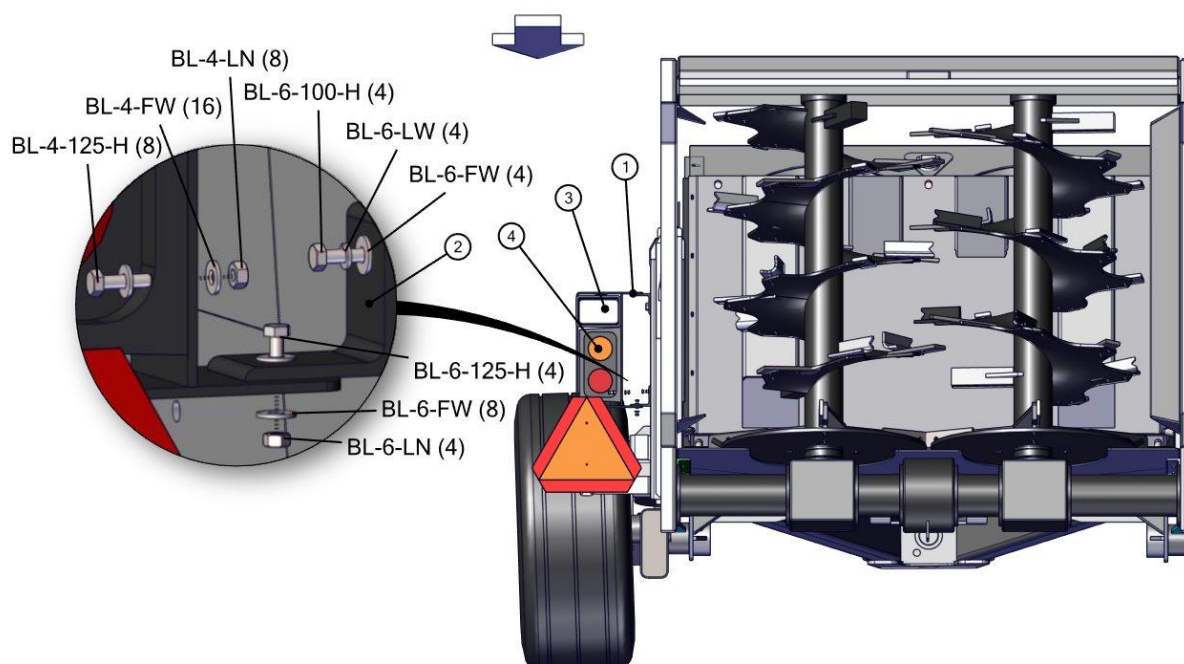
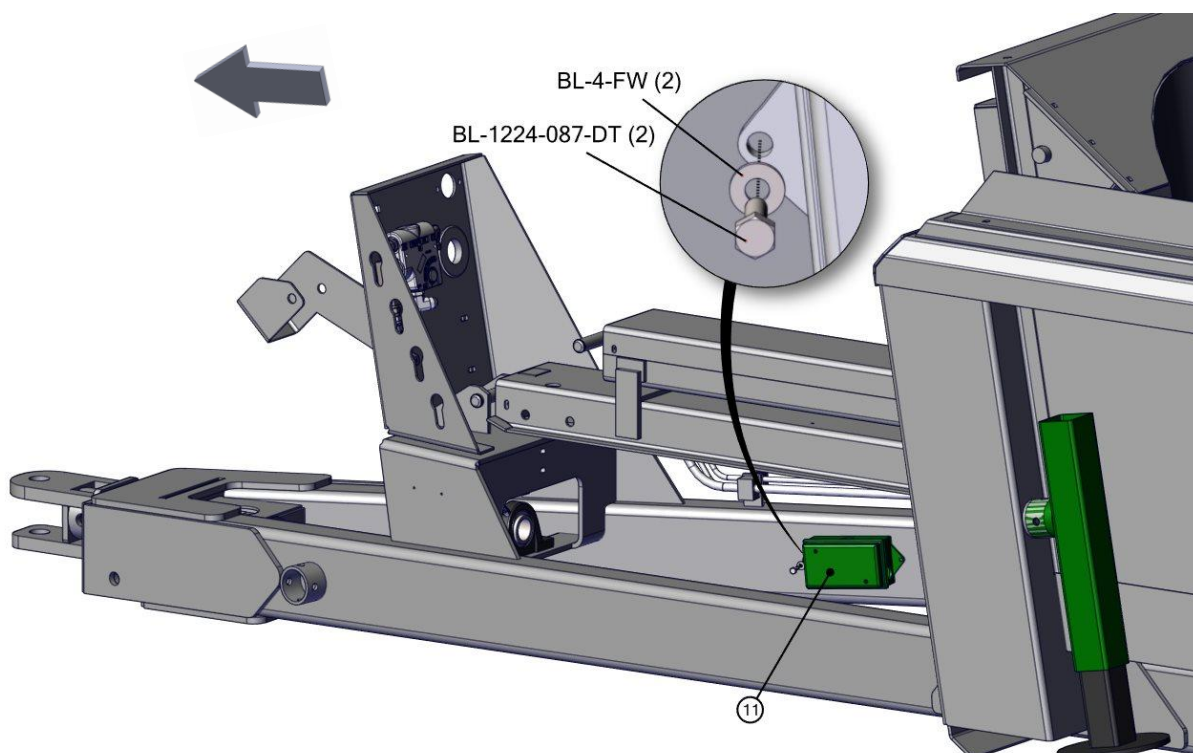
REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	WH-16216	Jack Weldment, Sidewind Jack, 9,000 lb.	0	71009002- 70209006- -70318008	
1	WH-16218	Ram Sidewind Jack, 8,000 lb.	1	70318009-	
2	MAN-67670	Manual Holder/Canister	1		
3	SMV-PL	SMV Sign, Metal	1		
4	SMV-S	Socket for Spade Mount	1		
5	SMV-SM	Spade Mount	1		
6	PR39117	Bracket, SMV Sign, Spreader	1		
7	MAN-0057	Manual, Parts & Operation, HR400 Spreader	1		
100	BL-4-075-H	1/4-20 X 3/4 HH C/S BOLT G5 ZC	2		
101	BL-4-100-H	1/4-20 X 1 HH C/S G5 ZC	3		
102	BL-4-FW	1/4 USS FW ZC	10		
103	BL-4-LN	1/4-20 HEX LN NE ZC	5		
104	BL-5-100-H	5/16 UNC X 1 HH C/S BOLT GR5 ZINC	2		
105	BL-5-FW	5/16 USS FW ZC	4		
106	BL-5-LN	5/16-18 HEX LN NE ZC	2		
107	BL-6-125-H	3/8-16 X 1-1/4 HHCS G5 ZC	1		
108	BL-6-FW	3/8 USS FW ZC	2		
109	BL-6-LN	3/8-16 FIN H LN NE A563 GA ZC	1		
801	WH-16402-A	Pin & Chain Assembly for WH-16402	0	71009002-	
802	WH-16402-B	Weld-On Hub, Implement Side, For WH-16402	0	WH-16215 WH-16216 71009002-	
803	WH-16402-C	Weld-On Hub, Jack Side, For WH-16402	0	71009002-	
804	WH-16218-A	Weld-On Hub, Implement Side, For WH-16218	1		



7015-4-03 LIGHT ASSEMBLY, LED

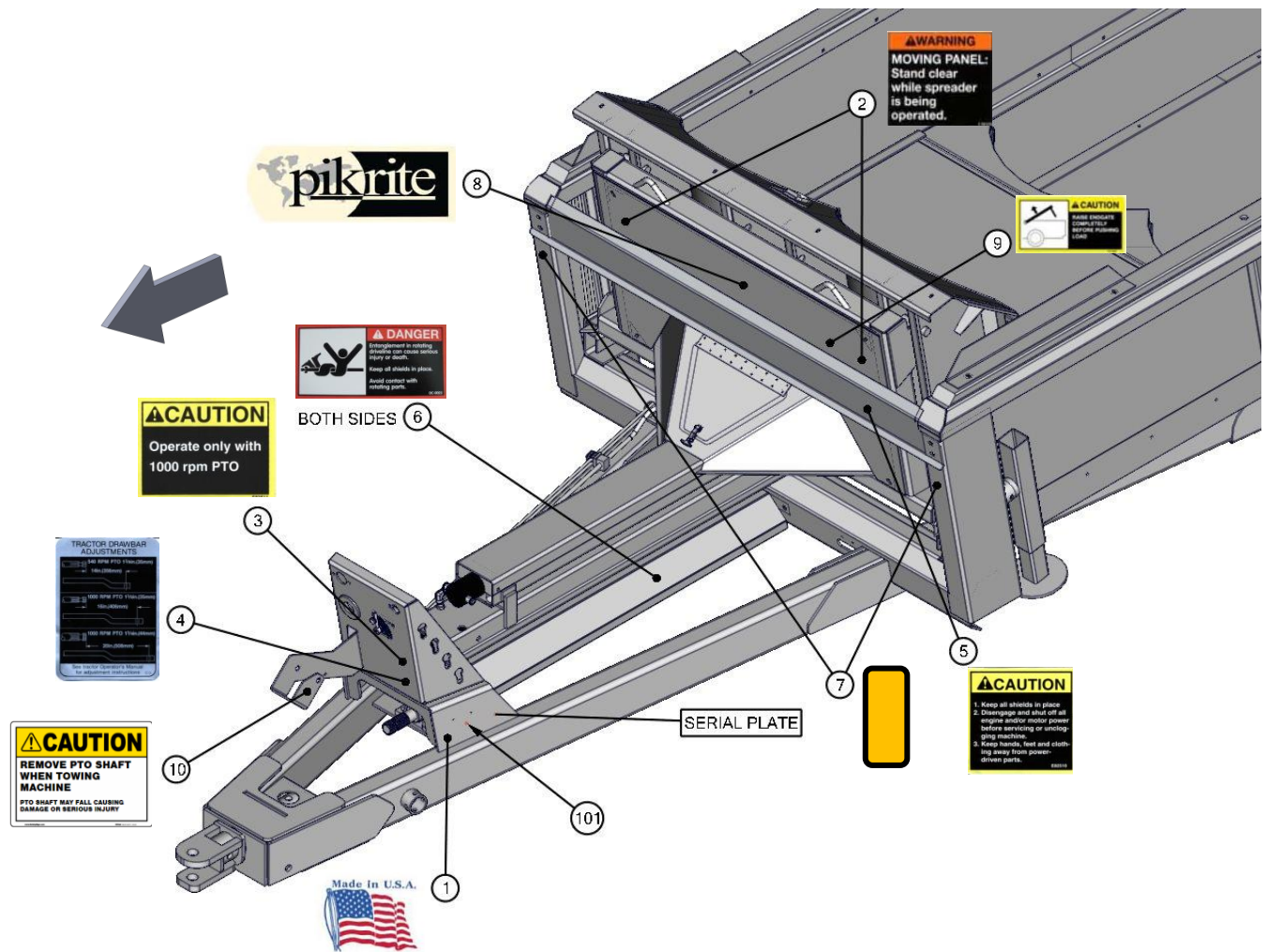
REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	PR63004	Light Bracket	2		
2	PR70130	Light Bracket Mount	4		
3	EL-1233	Light, Auxiliary Work Light, Clear, Trapezoid Beam, TL#80394	2		Replaces EL-1201
4	EL-1501	LED Ag Light, LH, w/ brake light	1		
5	EL-1502	LED Ag Light, RH, w/ brake light	1		
8	EL-40602-342	Harness, Right Side Spreader Light	1		
9	EL-40603-426	Harness, Left Side Spreader Lights	1		
10	EL-40604-13	Harness, Work Lights, Spreader	2		
11	EL-1361	Junction Box, (7) Studs, (5) Entry, High Impact PE, 2.5x3.5x8.0	1	19426	
12	EL-50781-55	7 Conductor x 55 Long, Harness	1		
13	EL-0038	Grommet, ¾ id, 1-1/16 Groove Dia, 1/4 Groove Width	2		
14	ELC-127-144	12 Gauge 7 Conductor Spiral Cord, 12 Long	1		
100	BL-4-125-H	1/4-20 X 1-1/4 HEX CAP G5 ZC	8		
101	BL-4-FW	1/4 USS FW ZC	18		
102	BL-4-LN	1/4-20 HEX LN NE ZC	8		
103	BL-6-100-H	3/8-16 X 1 HH C/S BOLT G5 ZC	4		
104	BL-6-125-H	3/8-16 X 1-1/4 HHCS G5 ZC	4		
105	BL-6-FW	3/8 USS FW ZC	12		
106	BL-6-LW	3/8 SPLIT LW ZC	4		
107	BL-6-LN	3/8-16 FIN H LN NE A563 GA ZC	4		
108	BL-1224-087-DT	12-24 X 7/8, DRILL AND TAP SCREW	2		





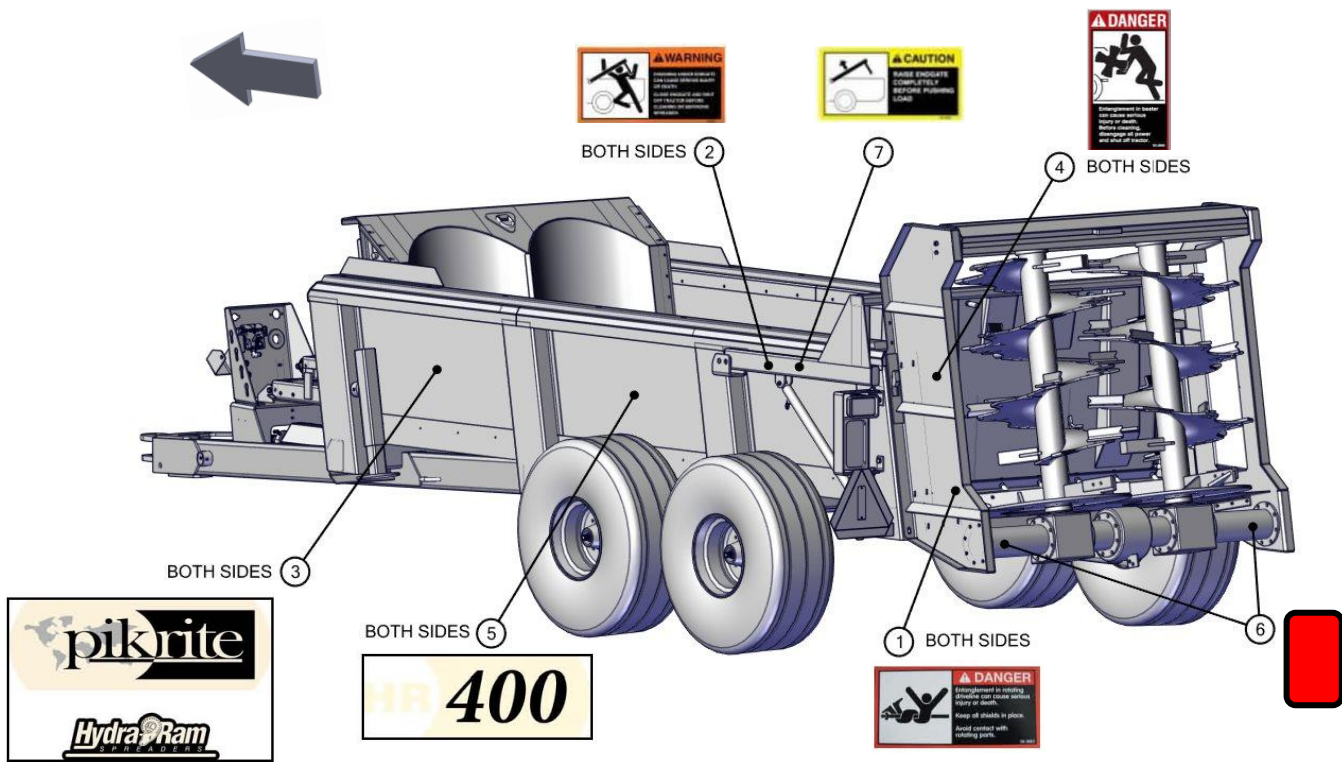
7015-4-04 FRONT DECALS

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	DC-0011	Decal, All, 'Made in USA', White Back w/ Red & Blue Letters	1		
2	DC-0020	Decal, Warning, Moving Panel	2		
3	DC-0021	Decal, Caution, 1000 rpm PTO	1		
4	DC-0022	Decal, Tractor Drawbar Adjustments	1		
5	DC-0023	Decal, Caution, Keep All Shields In Place	1		
6	DC-0025	Decal, Danger, Entanglement In Rotating Drive	1		
7	EL-1226	Decal Reflector, Rectangle, Yellow, 2x3.5, Adhesive	2		
8	DC-0097	Pik Rite Logo, Large, 8 x 22.8	1		
9	DC-0038	Decal, Caution, Raise Endgate Completely	1		
10	DC-0221	Decal, Caution, Stationary Use	1		
101	RI-3-6-P	Pop Rivets 3/16 x 3/8 Domed, .375 head, ea.	2		



7015-4-05 SIDE DECALS

REF	PART	DESCRIPTION	QTY	WILL FIT SN	REMARKS
1	DC-0025	Decal, Danger, Entanglement In Rotating Drive	2		
2	DC-0026	Decal, Warning, Crushing Under Endgate	2		
3	DC-0107	Pikrite/Hydra-Ram Spreaders 14.23 x 22.8	2		
4	DC-0030	Decal, Danger, Entanglement In Beater	2		
5	DC-0098	Model Number, HR400, 8 x 22.5	2		
6	EL-1227	Decal Reflector, Rectangle, Red, 2x3.5, Adhesive	2		
7	DC-0038	Decal, Caution, Raise Endgate Completely	1		



Pik Rite, Inc. provides a limited warranty assuring any new Hydra-Pull Spreader to be free from defects in material and workmanship for a period of two (2) years from the original date of purchase. Pik Rite will repair or replace, at its option and without charge, any defective or malfunctioning part (excluding items of normal wear or misuse) of the spreader for this allotted time.

PIK RITE MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE.

CUSTOMER'S RESPONSIBILITY

It is the customer and/or operator's responsibility to read the Operator's Manual, to operate, lubricate, maintain and store the equipment in accordance with all instructions and safety procedures. Failure of the operator to read the operators manual is a misuse of this equipment.

It is the customer and/or operators responsibility to inspect the product and to have any part(s) repaired or replaced when continued operation would cause damage or excessive wear to other parts or cause a safety hazard. It is the customer's responsibility to deliver the product to the authorized dealer, from whom the spreader was purchased, for service or replacement of defective parts, which are covered by warranty.

It is the customer's responsibility for any cost incurred by the dealer for hauling the product for the purpose of performing a warranty obligation or inspection.

WARRANTY INFORMATION

Make certain the warranty registration card has been forwarded to:

Pik Rite, Inc.
60 Pik Rite Lane
Lewisburg, PA 17837

Always give your dealer the serial number of your Pik Rite, Inc. product when ordering parts or requesting service or other information.

In the space provided record the model number, the serial number and the date of purchase to assist in providing you with prompt and efficient service.

MODEL NUMBER: HR400

DEALER: _____

SERIAL NUMBER: _____

ADDRESS: _____

PURCHASE DATE: _____

PHONE: _____

SALESMAN: _____

Keep Page for Your Records