

Operation and Parts Manual



February 28, 2017

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(SPECIFICATIONS AND DESIGN SUBJECT TO CHANGE WITHOUT NOTICE)

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)



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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 personal injury.

Follow recommended precautions and safe operating practices

A DANGER

A WARNING

ACAUTION



UNDERSTAND SIGNAL WORDS

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

DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your Pik Rite dealer.

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.







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.

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.

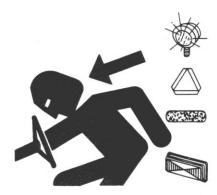
WEAR PROTECTIVE CLOTHING

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.

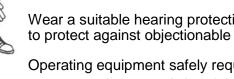


USE SAFETY LIGHTS AND DEVICES

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.







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



PARK SPREADER SAFELY

Park spreader on a level surface and block wheels.

Close endgate.

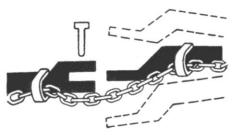
Secure jackstand with pin.

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.



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

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.

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.

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.

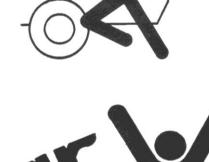
STAY CLEAR OF ROTATING BEATER

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

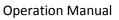
Do not clean out or service spreader while beater is rotating.

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

<u>WARNING:</u> DO NOT CUT OR WELD ON VERTICAL BEATER ATTACHMENT, SERIOUS INJURY OR DEATH COULD OCCUR WHEN OPERATING







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.

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.

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:

- \bullet 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

PREPARING THE TRACTOR

APPROVED TRACTORS, MODEL HP 500

Row Crop Tractors with 160 HP PTO rating or larger are approved for operation with the HP 500 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 3.7 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 1500 psi minimum.

One selective control valve is required to operate the spreader.

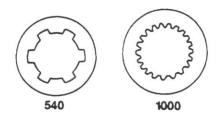
A second selective control valve is required to operate the endgate.

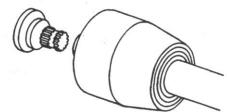
CHOOSING CORRECT PTO SPEED

MODEL HP 500 – 1000 rpm only

IMPORTANT: 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.





PREPARING THE TRACTOR

BALLASTING THE TRACTOR

<u>CAUTION</u>: 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.

POSITIONING DRAWBAR

<u>IMPORTANT:</u> 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.

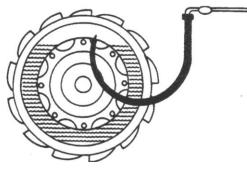
Clevis is needed

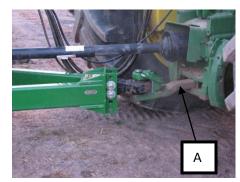
Adjust drawbar length (A) to help prevent driveline damage.

 PTO Speed
 Dimension (A)

 1000 rpm x 1-3/8
 533 mm (21in.)

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





PREPARING THE TRACTOR

USING SELECTIVE CONTROL LEVERS TO CONTROL CHAIN SPEED

Apron Chain speed can be controlled by using the tractor's selective speed control lever to adjust spread rate up or down.

Adjust selective control valve lever to provide the slowest operating speed. (See your tractor Operator's Manual)

Maximum hydraulic oil flow through the spreader apron chain motor is 15 gpm. Trying to force through more oil than this may create a pressure drop and could damage the hydraulic motor.

SETTING HYDRAULIC SPEED ENDGATE OPERATION

<u>IMPORTANT:</u> Excessive operating speed may cause machine damage. Adjust selective control valve lever to provide correct operating speed.

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)

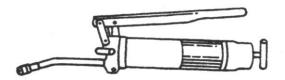
PREPARING THE SPREADER

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LUBRICATING THE MACHINE

Be sure the machine has been adequately lubricated.

(See Lubrication and Maintenance page.)



BRAKE ADJUSTMENT (HYDRAULIC)

Contact your Hydra-Pull Dealer for available brake kit



PREPARING THE SPREADER

TIGHTENING WHEEL HARDWARE

IMPORTANT: 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 170 lb-ft of torque in the sequence shown.

Tire Size Wheel Size Tire Pressure

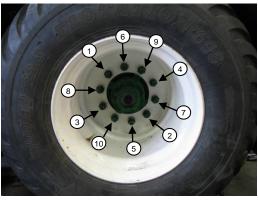
550/60R22.5 22.5 x 16 40 PSI

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

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.





CONTROLS

CONTROLS

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.

<u>WARNING:</u> Do not operate the apron chain without running the beaters as this may damage the spreader.

OPERATING THE ENDGATE

<u>IMPORTANT:</u> Contact of apron chain running with endgate closed will cause damage. To avoid contact with apron chain when running, endgate must be raised fully when running apron chain.

Operate the endgate with the second auxiliary control valve lever.

<u>WARNING:</u> Endgate is not a metering device. Doing so may cause damage to the spreader.



OPERATING APRON CHAIN

To run apron chain lock hydraulic control lever in operating position on tractor.

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 apron chain motor is 15 gpm. Trying to force through more oil than this may cause serious damage to motor (relief factory set at 1250 psi)



ATTACHING THE SPREADER

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ATTACHING SPREADER

<u>CAUTION:</u> 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 1-1/2 or 2 in. pin and secure. (Top clevis required)

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

2. Lock safety hook onto chain.



ATTACHING DRIVELINE

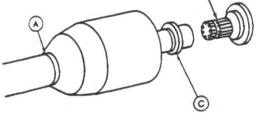
IMPORTANT: Avoid causing damage to shielding,

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.

CONNECTING AIR HOSES (AIR ASSIST BRAKES)

- 1. Connect red line to supply port.
- 2. Connect blue line to service/control port.





CONNECTING HOSES (HYDRAULIC BRAKES)

- 1. Connect pressure hoses to pressure ports of hydraulic remote coupler.
- 2. Connect return hoses to return ports of hydraulic remote coupler.

(Relief factory set 1000psi)



DETACHING THE SPREADER

DETACHING THE SPREADER

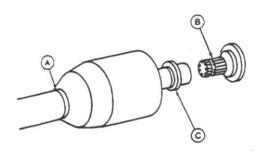
DETACHING SPREADER

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



DETACHING DRIVELINE

- 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.



TRANSPORT

TRANSPORT

USING A SAFETY CHAIN

<u>CAUTION:</u> 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.



1. Attach safety tow chain

LIGHTING

<u>CAUTION:</u> 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



TRANSPORT

TOWING LOADS

<u>CAUTION:</u> 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

RECOMMENDED MAXIMUM TOWING SPEED

Gross Tractor Weight	COMBIN	ED WEIGHT OF SP	PREADER AND LOA	D
	LOOL			
<u>Tractor Weight</u> (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

OPERATING THE SPREADER

OPERATING THE SPREADER

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

LOADING THE SPREADER

<u>CAUTION:</u> 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.

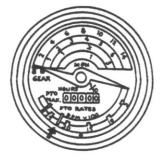
PREPARE TO UNLOAD THE SPREADER

<u>CAUTION:</u> 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.

<u>NOTE:</u> For best spreading results, operate tractor at "PTO RATED" speed.

<u>WARNING:</u> Do not operate apron chain without running the beaters as this may damage the spreader



OPERATING THE SPREADER

RAISE ENDGATE

IMPORTANT: 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.



UNLOADING SPREADER USING METERING VALVE

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

<u>Note:</u> 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.

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.

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.

<u>NOTE:</u> Cleaning is only necessary during extended *periods of subfreezing temperatures*.

Remove material along edges of apron chain

Remove material buildup from endgate panel. Keep endgate arms clean to prevent freezing to side rails.



OPERATING THE SPREADER

CLEAN WALKING BEAM

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

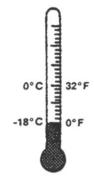


WARMING HYDRAULIC OIL TEMPERATURES BELOW 0°F (-18°C)

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.



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.

LUBRICATION & MAINTENANCE

LUBRICATING AND MAINTAINING SPREADER SAFELY

<u>CAUTION:</u> 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.

OBSERVING INTERVALS

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

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.

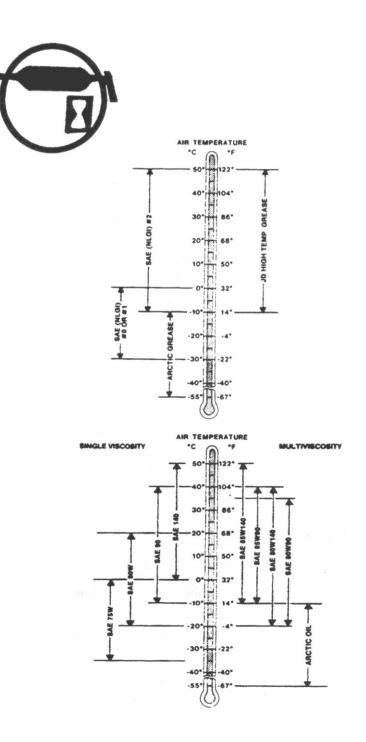
<u>NOTE:</u> Moly-type grease is recommended, however, if not available, a multipurpose grease is acceptable.

SELECTING GEAR CASE OIL

Depending upon the expected air temperature range during the drain internal, 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.



SERVICE INTERVALS

Lubricate driveline every 8 hrs

- Lubricate top beater bearings every 40 hrs
- Check gear case oil level every 8 hrs
- Check tires every 8 hrs
- Check axle hub oil every 8 hrs
- Grease apron chain drive bearings
 & sprockets every 40 hrs

EVERY 50 HOURS

- Adjust apron chain
- •Tighten wheel hardware

•Lubricate walking beam pivots

EVERY 250 HOURS

• Lubricate endgate pivots

SERVICE AS REQUIRED

- Adjust apron chain tension
- Slip the clutch

GEARBOX

• Change lubricant every 6,000 loads

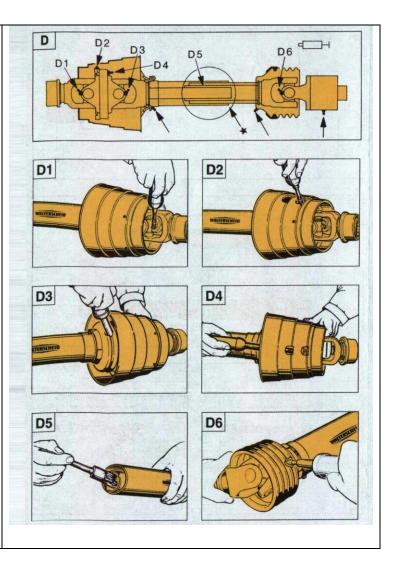
In addition to the above referenced information, you are working with a central lube CV design on the primary that contains a special lubrication provision that needs to be well defined for the user so that extended life on the CV can be achieved.

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.



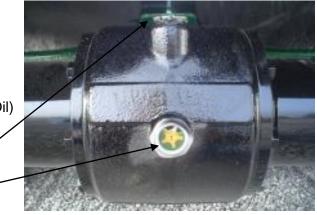
<u>NOTE:</u> Lubrication step D5 is only necessary when driveline does not have grease fitting. Separate front and rear halves of driveline and brush with grease.

R

CHECK GEAR CASE OIL LEVEL

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

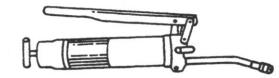
Add recommended oil as needed. (See Selecting Gear Case Oil) To add oil, remove fill cap at the top of the gearcase "B"



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







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.

Tire Size	Wheel Size	Tire Pressure
550/60R22.5	22.5 x 16	40 PSI



LUBRICATE WALKING BEAM PIVOTS

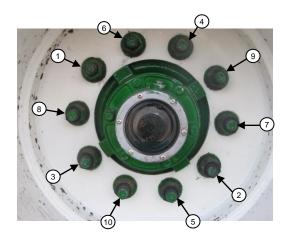
- 1. Place a jack under the spreader main frame.
- 2. Raise spreader enough to relieve weight from walking beam.
- Lubricate grease bank (A) with Moly High Temperature/Extreme Pressure Grease.



TIGHTENING WHEEL HARDWARE

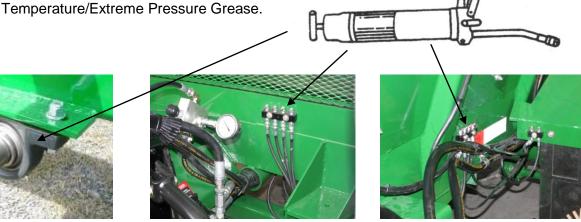
Operating the spreader with loose wheel hardware will damage the hub or wheel. Tighten hardware after initial transport, after one hour of operation, and every fifty hours thereafter.

Tighten to 170 lb.-ft. in the sequence shown.



LUBRICATE THE SIX PILLOW BLOCKS UNDER THE SPREADER THAT CARRY THE MAIN POWER SHAFT, USING CENTRAL GREASE LOCATION

 Lubricate grease fitting with Moly High Temperature/Extreme Pressure Grease.



LUBRICATE WALKING BEAMS USING GREASE BANKS ATTATCHED TO THE REAR OF THE FENDERS, TWO ON EACH SIDE



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.



LUBRICATE HITCH EVERY 40 HRS



SPECIFICATIONS

SPECIFICATIONS

Tractor Size (Minimum recommended)	160 hp PTO
Weight Spreader, Complete with Implement tires and all Attachments	17040 lb
Load Capacity	48400 lb
Volume Capacity Struck Level Heaped Load	400 cu. ft. / 321 bu. 622 cu. ft. / 500 bu.
Beater Speed	420 rpm
Unloading Speed	0-16 ft/min Infinitely Variable
Driveline	Shielded 1000 rpm
Attachments	Endgate

(Specifications and design subject to change without notice)



PARTS MANUAL

Pik Rite, Inc. 60 Pik Rite Lane Lewisburg, PA 17837 Phone: 800-326-9763 Fax: 570-523-8175 www.pikrite.com



DIRECTION ARROW

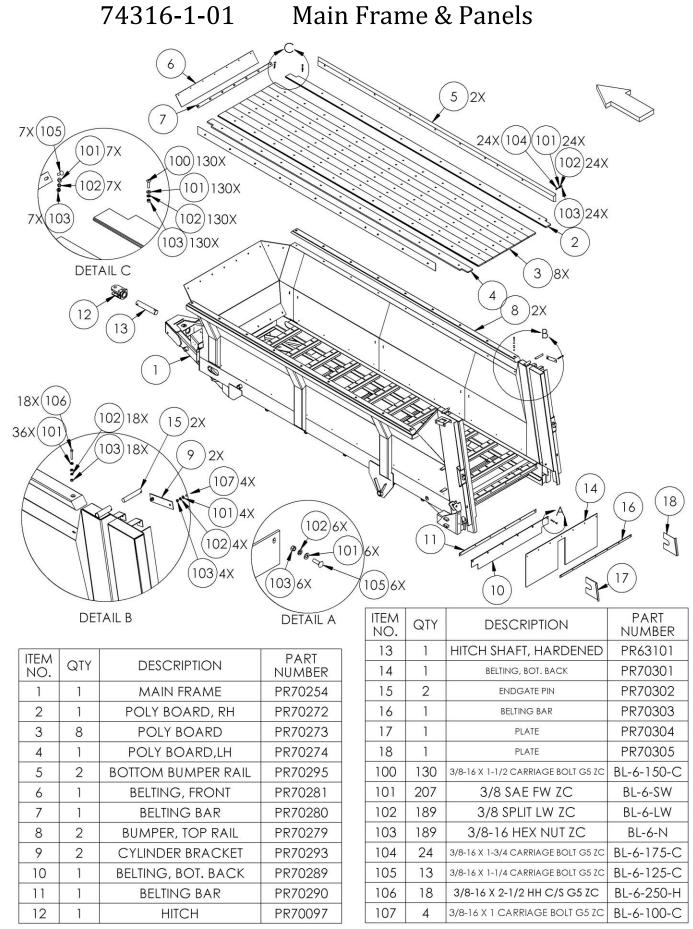
ARROWS ARE USED WITH ILLUSTRATIONS TO INDICATE THE FRONT OF THE UNIT. "RIGHT-HAND" AND "LEFT-HAND" SIDES ARE DETERMINED BY FACING THE DIRECTION OF MACHINE FORWARD TRAVEL.

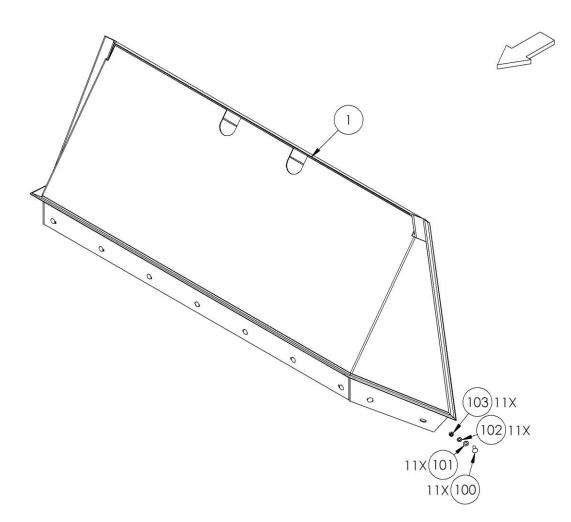
BOX ENCLOSED ILLUSTRATIONS

A REFERENCE NUMBER, SHOWN IN THE PARTS LIST, IS ASSIGNED TO A BOX ENCOMPASSING ALL PARTS SOLD AS A SERVICE ASSEMBLY.

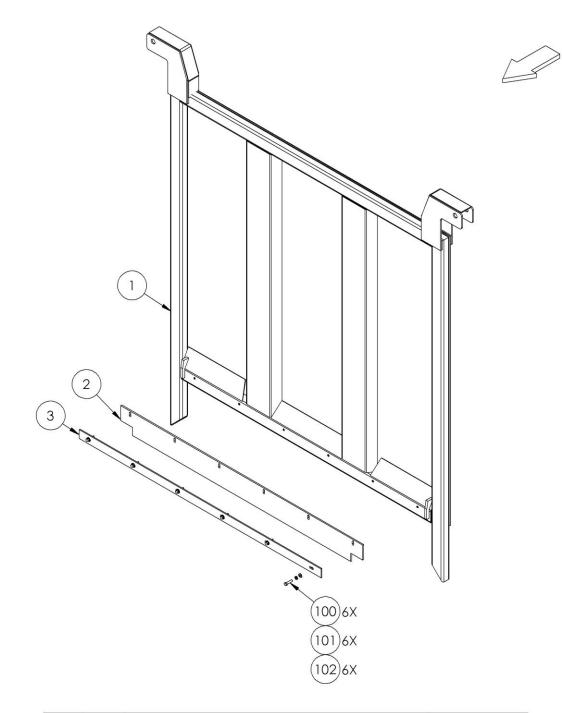
REFERENCE NUMBER IDENTIFICATION

- 000-099 PARTS USED FOR ASSEMBLY
- 100-199 BOLTS & FASTENERS
- 800-899 REPLACEMENT PARTS OR SERVICE ASSEMBLIES USED TO REPLACE OR REBUILD COMPONENTS OF THE MACHINE

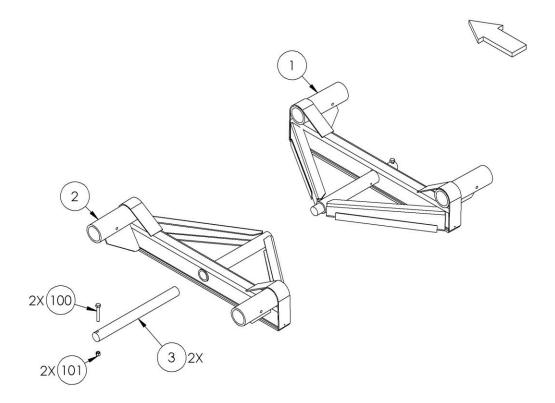




ITEM NO.	QTY	DESCRIPTION	PART NUMBER
1	1	ROCK GUARD	PR70270
100	11	3/8-16 X 1 CARRIAGE BOLT G5 ZC	BL-6-100-C
101	11	3/8 SAE FW ZC	BL-6-SW
102	11	3/8 SPLIT LW ZC	BL-6-LW
103	11	3/8-16 HEX NUT ZC	BL-6-N

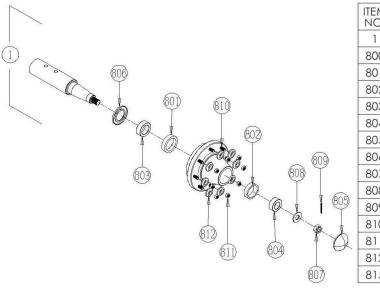


ITEM NO.	QTY	DESCRIPTION	PART NUMBER
1	1	GUILLOTINE GATE	PR70256
2	1	GATE BELTING	PR70282
3	1	BELTING BAR	PR70284
100	6	3/8-16 X 1-1/2 HEX CAP G5 ZC	BL-6-150-H
101	6	3/8 SPLIT LW ZC	BL-6-LW
102	6	3/8 SAE FW ZC	BL-6-SW



ITEM NO.	QTY	DESCRIPTION	PART NUMBER
1	1	ROCKER, RH	WHL-8117
2	1	ROCKER, LH	WHL-8118
3	2	PIN	PIN-8101
100	2	5/8-11 X 4-1/2 HHCS G8 ZC	BL-10-450-8
101	2	5/8-11 HEX LN NE ZC	BL-10-LN

Hubs & Spindles



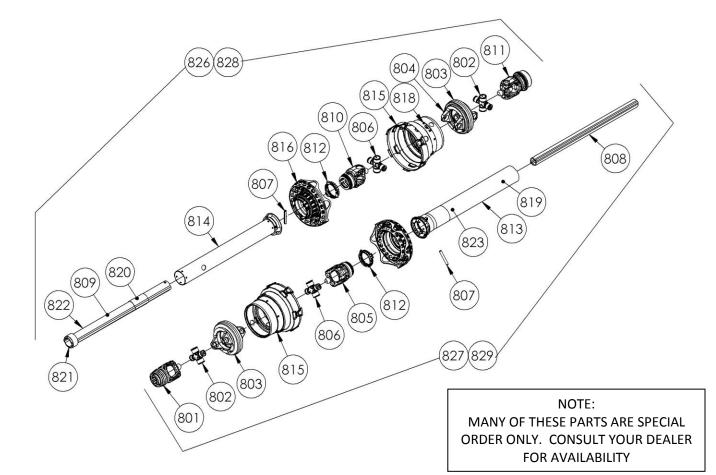
ITEM	OTV		PART
NO.	QTY	DESCRIPTION	NUMBER
1	4	HUB & SPINDLE ASSY, 10 BOLT	WHL-1210
800	1	WHEEL BEARING KIT	WBR-1210K
801	1	INNER CUP	WHL-1210A
802	1	OUTER CUP	WHL-1210B
803	1	INNER CONE	WHL-1210C
804	1	OUTER CONE	WHL-1210D
805	1	DUST CAP	WHL-1210E
806	1	GREASE SEAL	WHL-1210F
807	1	FLANGE NUT, SPINDLE	WHL-1210G
808	1	WASHER, SPINDLE	WHL-1210H
809	1	COTTER PIN, SPINDLE	WHL-12101
810	8	WHEEL STUD BOLT	WHL-1210J
811	8	WHEEL STUD NUT	WHL-1210K
812	8	WHEEL STUD WASHER	WHL-1210L
815	1	SPINDLE	WHL-1210M

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

74316-1-09 Tires & Wheels, 550/60R22.5

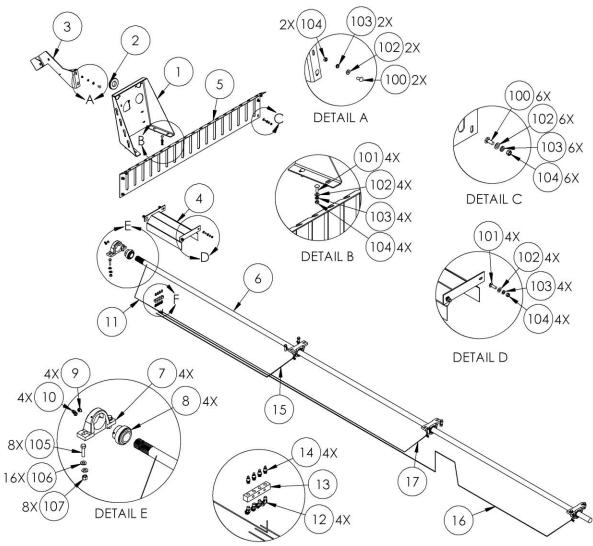


ITEM NO.	QTY	DESCRIPTION	PART NUMBER
1	4	550/60-22.5 TIRE & WHEEL ASSY	WHM-7101
813	1	WHEEL, 22.5 X 16	WHL-7104
814	1	TIRE, 550/60-22.5	WHT-7101



ITEM NO.	QTY	DESCRIPTION	PART NUMBER	ITEM NO.	QTY	DESCRIPTION	PART NUMBER
1	1	DRIVELINE, 1-3/8-21, 2500 SERIES	PTS-1015	815	2	CV GUARD & BEARING ASSY	PTS-1015L
801	1	YOKE ASG	PTS-1015A	816	2	FLEX NET & GUARD ASSY	PTS-1015M
802	2	CROSS & BEARING KIT	PTS-1015B	817	1	PTO SHIELD SAFETY CHAIN	PTS-1002K
803	2	DOUBLE YOKE END	PTS-3001-Y	818	14	SCREW	PTS-1010K
804	2	ZERK, DOUBLE YOKE	PTS-1008C	819	1	DECAL, OUTER	PTS-1010L
805	1	INBOARD YOKE \$4	PTS-1015C	820	1	DECAL, INNER	PTS-1010M
806	2	CROSS & BEARING KIT	PTS-1015D	821	1	SUPPORT BEARING	PTS-1021H
807	2	SPRING PIN 10 X 75	PTS-1014C	822	1	ZERK	PTB-1014L
808	1	INNER PROFILE S4LGA	PTS-1015E	823	1	LUBRICATION DECAL	PTS-1021P
809	1	OUTER PROFILE S5GL	PTS-1015F	824	0	AS COLLAR KIT	PTS-8100E
810	1	INBOARD YOKE \$5	PTS-1015G	825	0	ASG COLLAR KIT	PTS-1008R
811	1	YOKE ASG	PTS-1015H	826	1	DRIVELINE, FRONT HALF	PTS-1015FH
812	2	PTO SHIELD BEARING RING	PTS-1002J	827	1	DRIVELINE, REAR HALF	PTS-1015RH
813	1	GUARD TUBE OUTER	PTS-1015J	828	1	SHIELD COMPLETE, FRONT HALF	PTS-1015FS
814	1	GUARD TUBE INNER	PTS-1015K	829	1	SHIELD COMPLETE, REAR HALF	PTS-1015RS

Main Drive Shaft



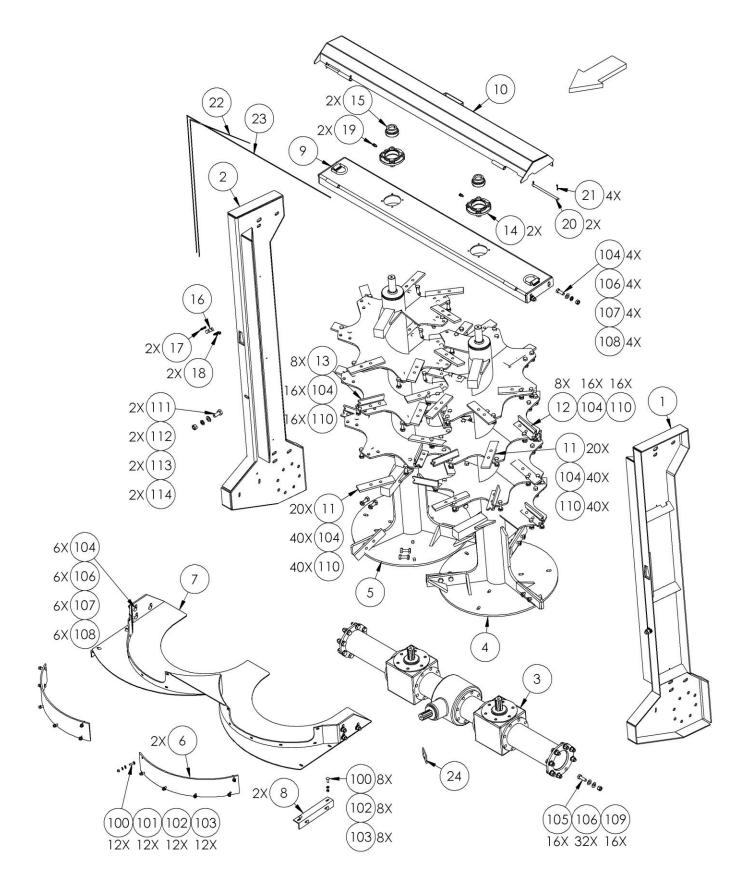
DETAIL F

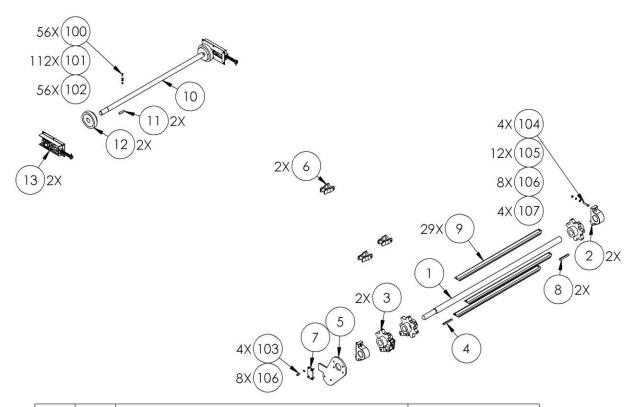
ITEM NO.	QTY	DESCRIPTION	PART NUMBER
1	1	HOSE MOUNT	PR70269
2	1	3.5" GROMMET	EL-0041
3	1	PTO HOLDER ASM	PR70087
4	1	DRIVE SHAFT SHIELD	PR70294
5	1	HAND GUARD	PR70255
6	1	DRIVE SHAFT	PR70296
7	4	BEARING HOUSING	BR-085-RAK
8	4	1.75" BEARING	BR-175-085-I
9	4	1/4"-28 X 1/8" FNPT ADAPTER	GFA-51942
10	4	1/8MP X 1/8 FPX 90°	A-1501-2-2
11	1	1/8 HOSE, 1/8MP X 1/8MP X 40L	H2-40-2MP-2MP
12	4	1/8 MP X 1/8 FPX 45°	A-1503-2-2

ITEM NO.	QTY	DESCRIPTION	PART NUMBER					
13	1	4" GREASE MANIFOLD	GF-4-4					
14	4	GREASE FITTING 1/8NPT	GF-1827					
15	1	1/8 HOSE, 1/8MP X 1/8MP X 80L	H2-80-2MP-2MP					
16	1	1/8 HOSE, 1/8MP X 1/8MP X 232L	H2-232-2MP-2MP					
17	1	1/8 HOSE, 1/8MP X 1/8MP X 145L	H2-145-2MP-2MP					
100	8	3/8-16 X 1 CARRIAGE BOLT G5 ZC	BL-6-100-C					
101	8	3/8-16 X 1-1/4 CARRIAGE BOLT G5 ZC	BL-6-125-C					
102	16	3/8 SAE FW ZC	BL-6-SW					
103	16	3/8 SPLIT LW ZC	BL-6-LW					
104	16	3/8-16 HEX NUT ZC	BL-6-N					
105	8	1/2-13 X 2 HEX CAP G5 ZC	BL-8-200-H					
106	16	1/2 SAE FW ZC	BL-8-SW					
107	8	1/2-13 LN NYLON INSERT ZC	BL-8-LN					

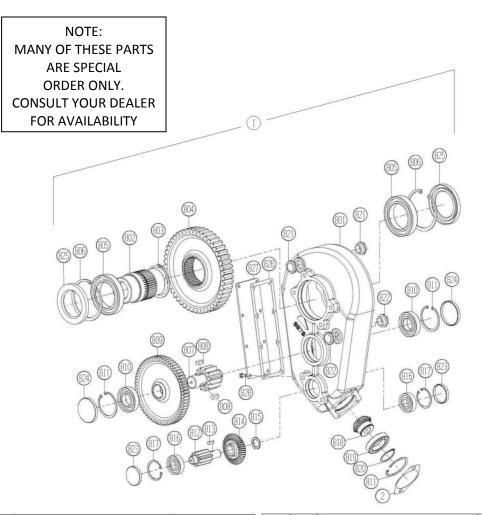
ITEM NO.	QTY	DESCRIPTION	PART NUMBER
1	1	BEATER PANEL, LH	PR70257
2	1	BEATER PANEL, RH	PR70258
3	1	GEARBOX, 1000 rpm	VTB-1899-P2
4	1	BEATER, LH	VTB-0024
5	1	BEATER, RH	VTB-0025
6	2	BEATER PAN BELTING	PR70277
7	1	BEATER PAN	PR70259
8	2	MOUNT, BEATER PAN	PR70278
9	1	BEARING MOUNT, BEATER	PR70083
10	1	COVER, BEATER BEARING	PR70096
11	40	BALANCED BEATER KNIFE	VTB-1899-F3
12	8	BEATER BLADE, RH	VTB-1899-B3
13	8	BEATER BLADE, LH	VTB-1899-C3
14	2	FLANGE BEARING HOUSING	BR-085-4PF
15	2	1.75" BEARING	BR-175-085-I
16	1	2" GREASE MANIFOLD	GF-2-2
17	2	GREASE FITTING 1/8NPT	GF-1827
18	2	1/8 MP X 1/8 FPX 45°	A-1503-2-2
19	2	1/8 MP X 1/8 FPX	A-1404-2-2
20	2	HINGE PIN	PR70133
21	4	COTTER PIN, 3/16 X 1-1/2"	PIN-C3-24
22	1	1/8 HOSE 1/8MP X 1/8MP X 68 L	H2-68-2MP-2MP
23	1	1/8 HOSE 1/8MP X 1/8MP X 100 L	H2-100-2MP-2MP
24	1	SHIM, BOTTOM PANEL, GEARBOX	PR50502
25	11	GEAR LUBE, @QT	HP-1038
100	20	3/8-16 X 1-1/4 CARRIAGE BOLT G5 ZC	BL-6-125-C
101	18	3/8 SAE FW ZC	BL-6-SW
102	20	3/8 SPLIT LW ZC	BL-6-LW
103	20	3/8-16 HEX NUT ZC	BL-6-N
104	110	5/8-11 X 1-3/4 HHCS G5 ZC	BL-10-175-H
105	28	5/8-11 X 2 HEX CAP G8 ZC	BL-10-200-H8
106	42	5/8 SAE FW ZC	BL-10-SW
107	10	5/8 SPLIT LW ZC	BL-10-LW
108	10	5/8-11 HEX FIN NUTS ZC	BL-10-N
109	16	5/8-11 HEX LN NE ZC	BL-10-LN
110	112	5/8-11 STOVER LN	BL-10-LNS
111	2	3/4-10 X 1-3/4 HH G8	BL-12-175-H-8
112	2	3/4 SAE FW	BL-12-SW
113	2	3/4 LW	BL-12-LW
114	2	3/4-10 NUT	BL-12-N

74316-2-03 Vertical Beaters





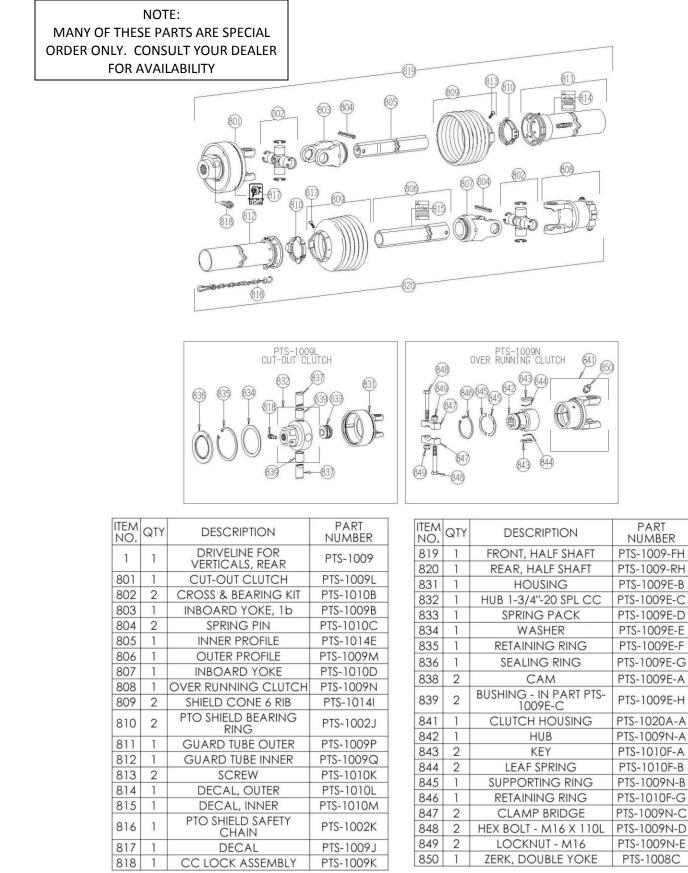
ITEM NO.	QTY	DESCRIPTION	PART NUMBER
1	1	REAR DRIVE SHAFT	PR70276
2	2	BEARING ASSEMBLY, 2.5"	BR-250-HD
3	2	DRIVE SPROCKET, PINTLE CHAIN	PR60424
4	1	1/2" KEY X 5.375"	KEY-8-8-86-HCS
5	1	TORQUE PLATE	PR60066
6	2	PULL CHAIN	PR60423
7	1	MOUNT, TORQUE PLATE	PR60068
8	2	5/8" KEY X 5.5"	KEY-10-10-550-HCS
9	29	CHAIN FLIGHTING, CENTER TAB	PR60425
10	1	CHAIN SHAFT, FRONT	PR70288
11	2	5/8" KEY X 3"	KEY-10-10-300-HCS
12	2	SPREADER CHAIN ROLLER	RLR-0030
13	2	TAKEUP BEARING	BR-194-TU
100	56	3/8-16 X 1 HHCS BOLT G5 ZC	BL-6-100-H
101	112	3/8 SAE FW ZC	BL-6-SW
102	56	3/8-16 FIN H LN NE A563 GA ZC	BL-6-LN
103	4	1/2-13 X 1-1/4 HHCS G5 ZC	BL-8-125-H
104	4	1/2-13 X 3 HH C/S G5 ZC	BL-8-300-H
105	12	1/2 SAE FW ZC	BL-8-SW
106	8	1/2 SPLIT LW ZC	BL-8-LW
107	4	1/2-13 HEX FIN NUTS ZC	BL-8-N
108	8	1/2-13 LN NYLON INSERT ZC	BL-8-LN

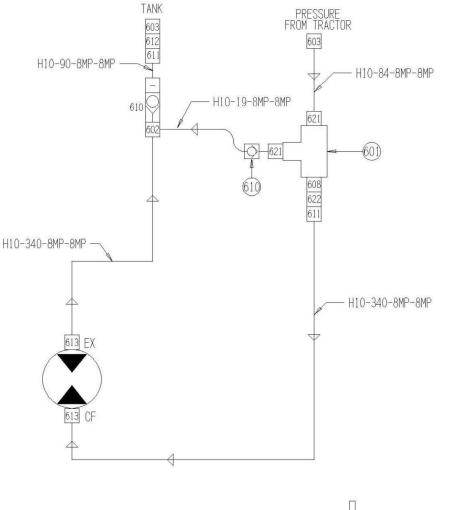


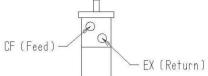
ITEM NO.	QTY	DESCRIPTION	PART NUMBER	ITEM NO.	QTY	DESCRIPTION	PART NUMBER
1	2	GEARBOX	GBX-1893	812	1	PINION Z=10	GBX-1893-L
2	0	FLANGE GASKET	PR60026	813	1	KEY 8 X 7 X 25	GBX-1893-M
3	2	ORBIT MOTOR	HM-1893	814	1	GEAR Z=43	GBX-1893-N
4	3	GEAR LUBE, 80W90	HP-1038	815	1	SPACER	GBX-1893-O
100	12	14mm X 40mm, BOLT	BL-M-14-40-H	816	2	BEARING 6305	GBX-1893-P
101	12	5/8 SPLIT LW ZC	BL-10-LW	817	2	CIRCLIP 62	GBX-1893-Q
801	1	HOUSING	GBX-1893-D	818	1	PINION Z=28	GBX-1893-R
802	1	GEARBOX HUB	GBX-1893-B	819	1	BEARING	GBX-1893-S
803	1	INTERNAL RETAINING CLIP	GBX-1893-C	820	1	CIRCLIP E 50	GBX-1893-T
804	1	GEAR Z=54	GBX-1893-E	821	2	OIL PLUG 1'' GAS	GBX-1893-U
805	2	BALL BEARING, OPEN	GBX-1893-A	822	2	OIL LEVEL INDIC. 1" GAS.	GBX-1893-V
806	2	INTERNAL CLIP	GBX-1893-F	823	2	PLUG	GBX-1893-W
807	1	PINION Z=12	GBX-1893-G	824	2	PLUG	GBX-1893-X
808	2	KEY 12 X 8 X 30	GBX-1893-H	825	2	Shaft seal, gearbox	GBX-1893-Y
809	1	GEAR Z=63	GBX-1893-I	826	1	GASKET	GBX-1893-Z
810	2	BEARING 6208	GBX-1893-J	827	1	COVER	GBX-1893-A1
811	3	CIRCLIP I 80	GBX-1893-K	828	8	SCREW, HEX-HD M 8 X 16	GBX-1893-B1

74316-2-06

Driveline, Rear, w/ Clutch

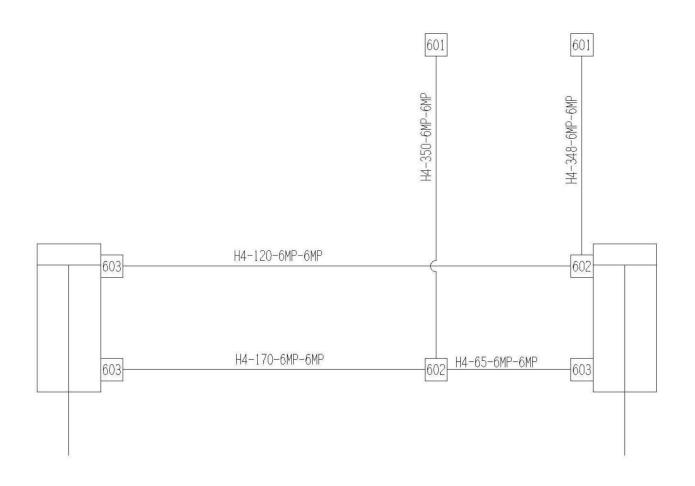




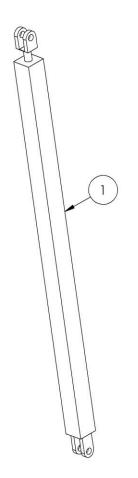


MOTORS NEED TO SPIN CW LOOKING AT SHAFT END

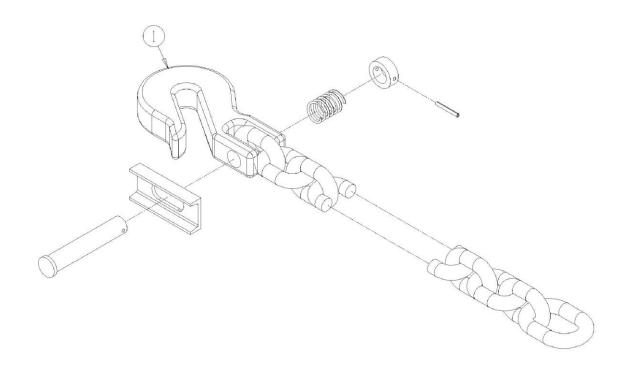
ITEM NO.	QTY	DESCRIPTION	PART NUMBER	ITEM NO.	QTY	DESCRIPTION	PART NUMBER
601	1	RELIEF VALVE	HV-RV-3H	612	1	HEX NIPPLE, 1/2 X 1/2	A-5404-8-8
602	2	SWIVEL T 1/2" NPTF	A-1603-8-8-8	613	2	10 SAE X 1/2 FPX 45	A-6902-10-8
603	2	TRACTOR QUICK CPLR	A-QD2010-8-8	614	1	5/8" HOSE 1/2 X 1/2	H10-84-8MP-8MP
604	1	TEST POINT PLUG	HA-1004-4	615	1	5/8 HOSE X 1/2MP X 1/2MP	H10-90-8MP-8MP
605	1	8 SAE X 1/2 FPX90	A-6901-8-8	616	2	5/8" HOSE 1/2 MP X 1/2 MP	H10-340-8MP-8MP
606	1	8 SAE X 1/2 FPX	A-6900-8-8	620	1	5/8" HOSE 1/2 MP X 1/2 MP	H10-19-8MP-8MP
607	1	1/2 MP X 1/2 FPX90	A-1501-8-8	621	2	10 SAE X 1/2 FPX90	A-6901-10-8
608	3	10 SAE X 1/2 MPT	A-6401-10-8	622	1	VALVE, BALL	VLV-050-BHP
610	1	1/2 PARKER CHECK VALVE	HV-CKV-800S	623	1	HYD. PRESSURE GAUGE	HA-1004-G
611	2	1/2 MP TO 1/2 FPX	A-1404-8-8	624	1	TEST POINT PROBE	HA-1005-T



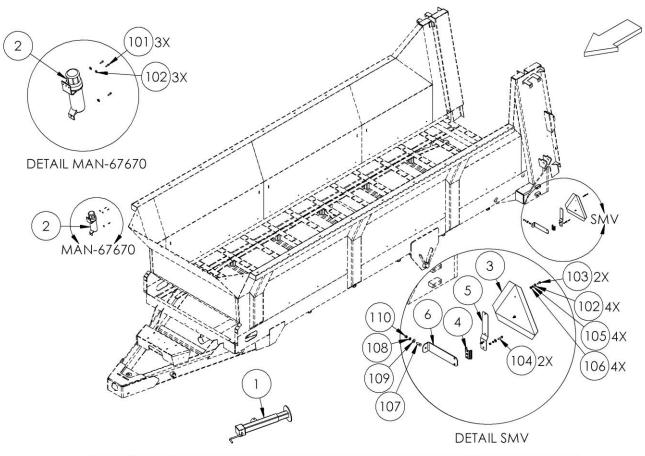
ITEM NO.	QTY	DESCRIPTION	PART NUMBER
601	2	TRACTOR QUICK CPLR	A-QD2010-8-8
602	2	TEE, 3/8MJ X 3/8FJX, X 3/8MJ	A-6602-6
603	3	45° ELBOW, 3/8MJ X 6SAE	A-6802-06
604	1	1/4 HOSE, 3/8MP X 3/8MP	H4-350-6MP-6MP
605	1	1/4 HOSE, 3/8MP X 3/8MP	H4-348-6MP-6MP
606	1	1/4 HOSE, 3/8MP X 3/8MP	H4-65-6MP-6MP
607	1	1/4 HOSE, 3/8MP X 3/8MP	H4-120-6MP-6MP
608	1	1/4 HOSE, 3/8MP X 3/8MP	H4-170-6MP-6MP



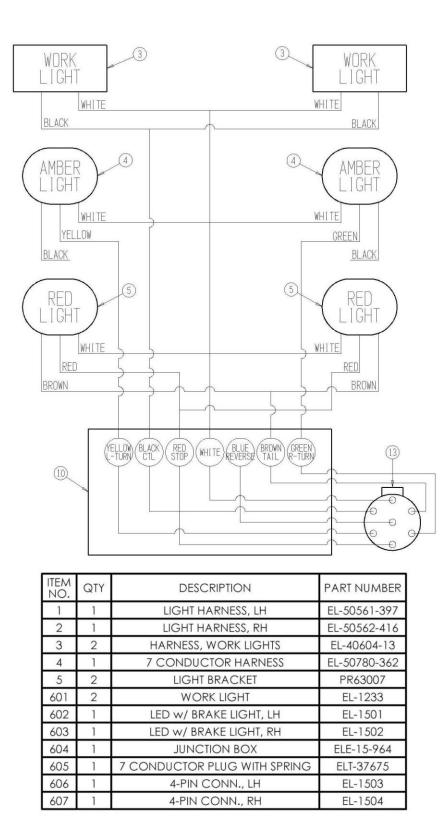
ITEM NO.	QTY	DESCRIPTION	PART NUMBER
1	2	HYDRAULIC CYLINDER	HC-250-6006



ITEM NO.	QTY	DESCRIPTION	PART NUMBER
1	1	SAFETY CHAIN, 30,400 Ib CAPACITY	FRM-3167
101	1	1" X 3-1/2" G5 HH BOLT ZC	BL-16-350H
102	1	1" LN w/ NYLON INSERT	BL-16-LN
103	1	WASHER, SAFETY CHAIN	PR37152
104	1	1"FW ZC	BL-16-FW



			1
ITEM NO.	QTY	DESCRIPTION	PART NUMBER
1	1	JACK WELDMENT, SIDEWIND JACK, 9000 Ib	WH-16216
2	1	MANUAL HOLDER	MAN-67670
3	1	SMV SIGN	SMV-PL
4	1	Socket, spade mount	SMV-S
5	1	SPADE MOUNT	SMV-SM
6	1	bracket, SMV Sign	PR39117
101	3	12-24 X 7/8 DRILL & TAP SCREW	BL-1224-087-DT
102	7	1/4 USS FW ZC	BL-4-FW
103	2	1/4-20 X 3/4 HH C/S BOLT G5 ZC	BL-4-075-H
104	2	1/4-20 X 1-1/4 HEX CAP G5 ZC	BL-4-125-H
105	4	1/4 SPLIT LW ZC	BL-4-LW
106	4	1/4-20 HEX FIN NUT ZC	BL-4-N
107	1	3/8-16 X 1 HHCS BOLT G5 ZC	BL-6-100-H
108	1	3/8 SPLIT LW ZC	BL-6-LW
109	1	3/8 USS FW ZC	BL-6-FW
110	1	3/8-16 HEX NUT ZC	BL-6-N
801	1	PIN & CHAIN ASSY	WH-16402-A
802	1	WELD-ON HUB, IMPLEMENT SIDE	WH-16402-B
803	1	WELD-ON HUB, JACK SIDE	WH-16402-C



NOTES

<u>NOTES</u>

WARRANTY

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: HP500

SERIAL NUMBER:_____

PURCHASE DATE:

DEALER:_____ADDRESS:______ PHONE:______SALESMAN:

Pik Rite, Inc. 60 Pik Rite Lane Lewisburg, PA 17837 Phone: 800-326-9763 Fax: 570-523-8175 www.pikrite.com

HP 500

Manure Spreader