OPERATIONS

HYDRA-RAM
MANURE SPREADER
MODEL
795

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May 20, 2014

HYDRA-RAM MANURE SPREADER

(SPECIFICATIONS AND DESIGN SUBJECT TO CHANGE WITHOUT NOTICE)

WARRANTY

Pik Rite, Inc. provides a limited warranty assuring the Hydra-Ram 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.

PANELAM™ (sides and floor) carries a manufacturers warranty against delamination and manufacturing defects for the life of the panel

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SAFETY

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

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.

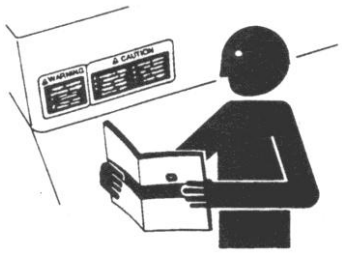
FOLLOW SAFETY INSTRUCTIONS

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.



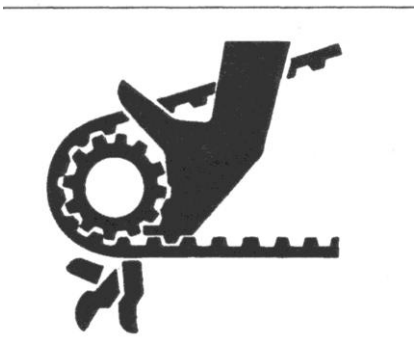
SAFETY

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.

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 Transporting 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.

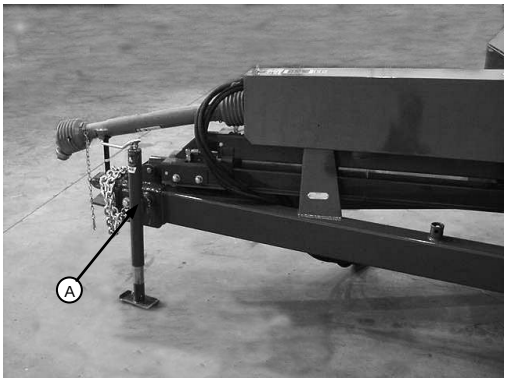
SAFETY

PARK SPREADER SAFELY

Park spreader on a level surface and block wheels.

Close endgate.

Secure jackstand with pin (A).



KEEP RIDERS OFF MACHINE

KEEP RIDERS OFF;

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

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.

SAFETY

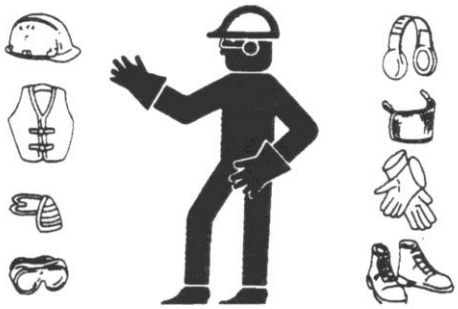
WEAR PROTECTIVE CLOTHING

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.



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.

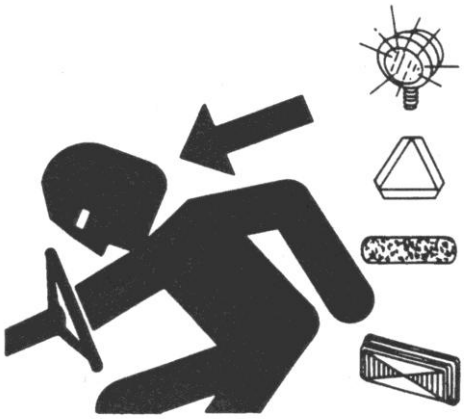
SAFETY

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.

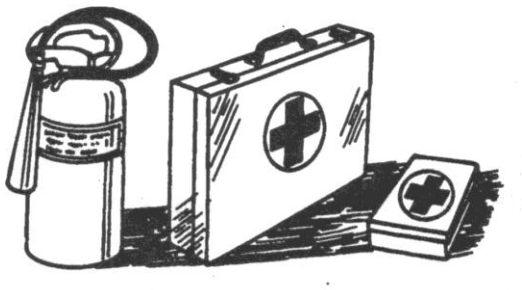


PREPARE FOR EMERGENCIES

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.

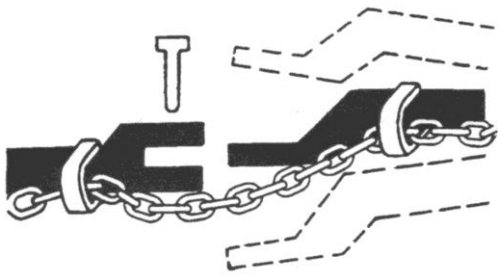


USE A SAFETY CHAIN

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

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.

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

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
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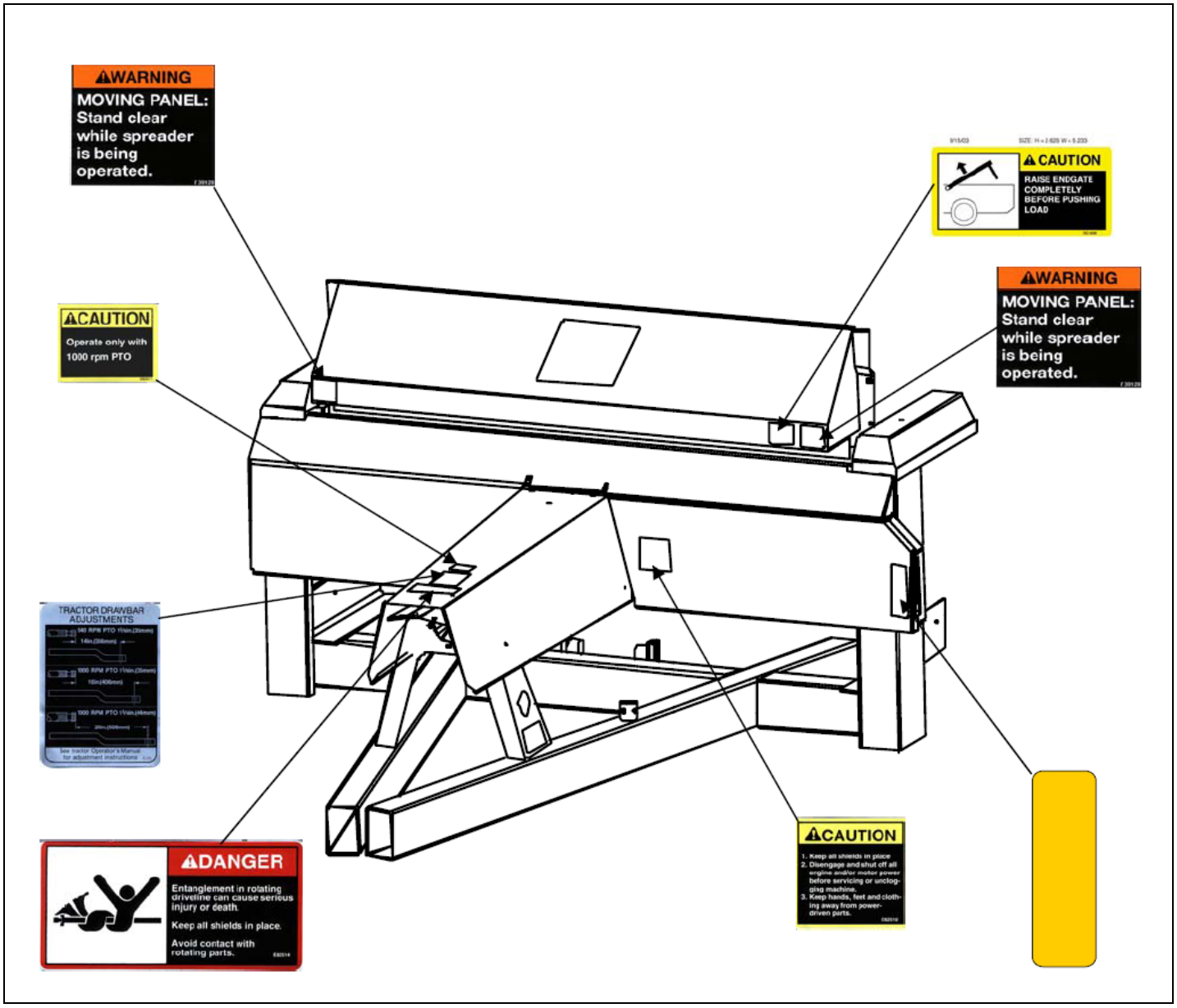

SAFETY
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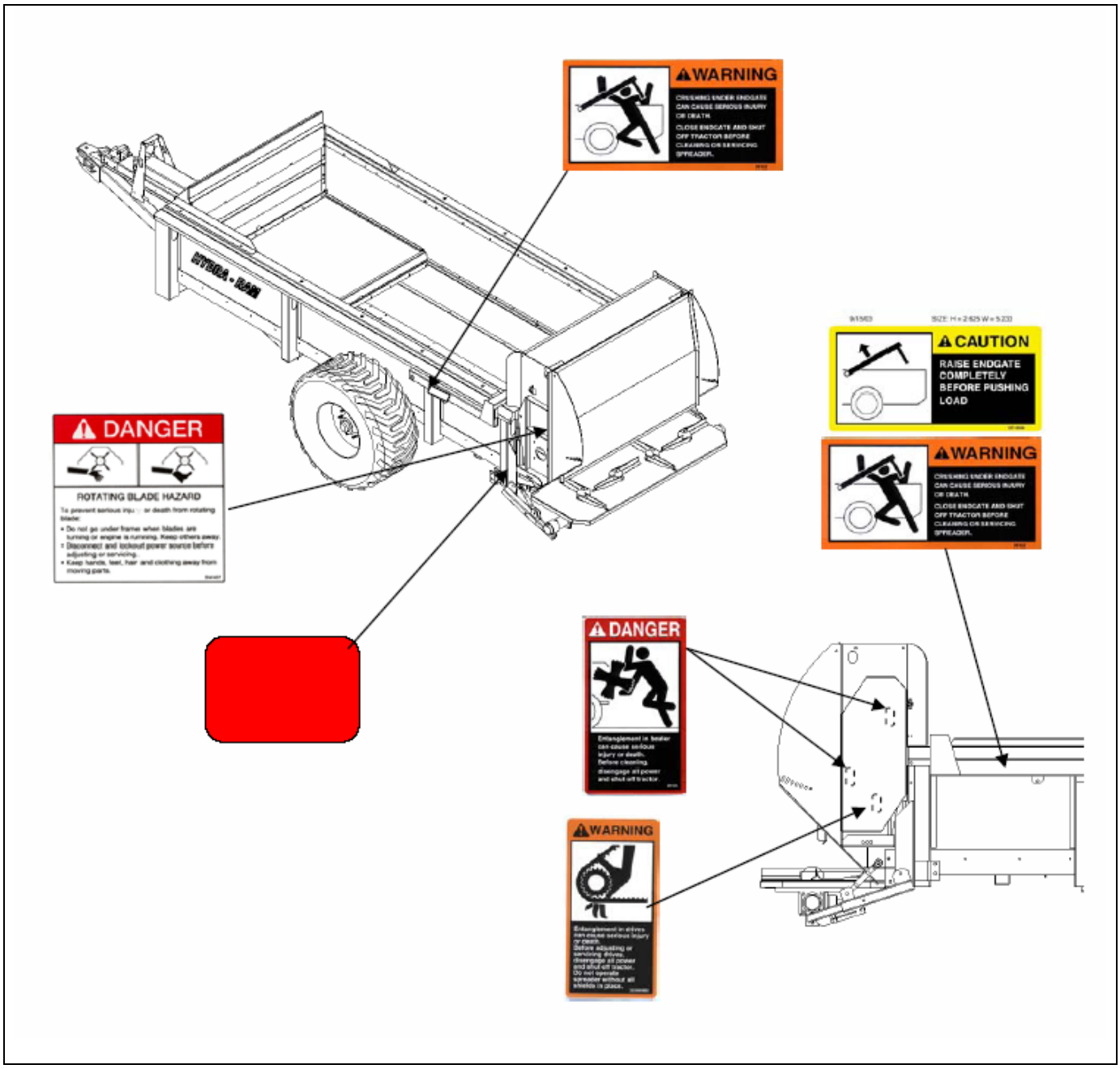


PREPARING THE TRACTOR

APPROVED TRACTORS, MODEL 795

Row Crop Tractors with 100 HP PTO rating or larger are approved for operation with the 790 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 tractors with a drawbar size of less than 1-1/2 x 3 in.

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

Tractor standby hydraulic pressure must be between 1500 psi and 3000 psi

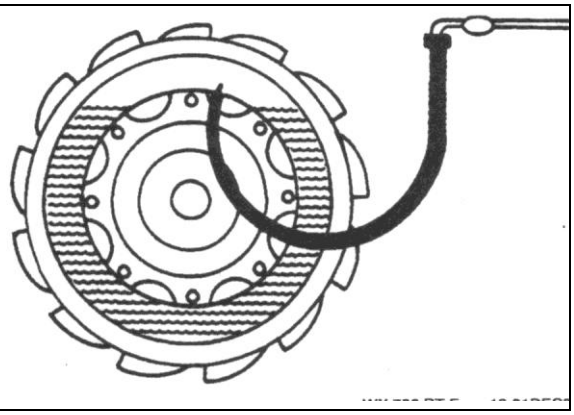
One selective control valve is required to operate the spreader.

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

BALLASTING THE TRACTOR

CAUTION: Do not tow loads that weigh more than twice the tractor weight. (See Recommended Maximum Towing Speed in Transporting section.)

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



PREPARING THE TRACTOR

POSITIONING DRAWBAR

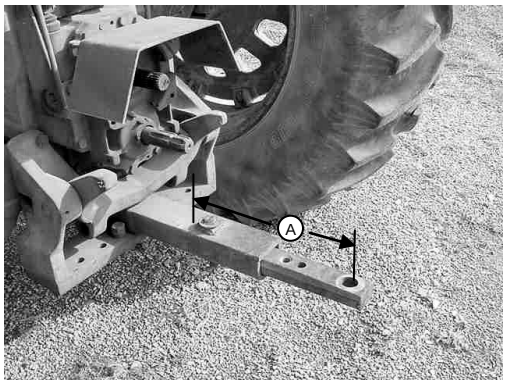
IMPORTANT: Tractor PTO and machine driveline can be damaged. Be sure drawbar length is properly set. If equipped with clevis, remove it. Lock drawbar along tractor centerline with offset down.

Remove clevis if equipped.

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

PTO Speed	Dimension (A)
1000 rpm	406 mm (16 in)

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



PREPARING THE TRACTOR

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.

SETTING HYDRAULIC SPEED ENDGATE OPERATION

IMPORTANT: 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).

CHECKING TRANSMISSION/HYDRAULIC OIL LEVEL

Cycle all hydraulic cylinders fully two or three times.

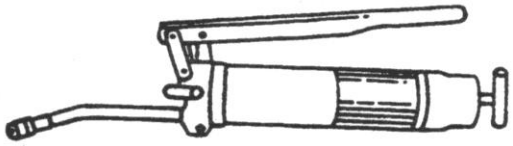
Fully retract all cylinders.

Check transmission/hydraulic oil level. (See your tractor operator's manual.)

PREPARING THE SPREADER

LUBRICATING THE MACHINE

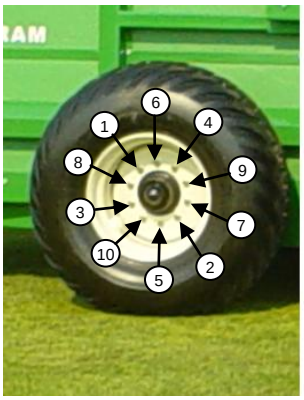
Be sure the machine has been adequately lubricated.
(See Lubrication and Maintenance page.)



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 in the sequence shown.



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.

PREPARING THE SPREADER

WHEELS AND TIRES

Drop center wheels with recapped truck tires or implement tires are available.

Tire Size	Wheel Size	Tire Pressure
550/60 – 22.5 Implement	**22.5 x 16**	**40 PSI**

Implement Tires

STOCKPILING

DETACHING THE REAR BEATER/SPINNER SYSTEM

1.Disconnecting Hydraulics
There are 4 quick couplers on the Left Rear side of the spreader. (Note: Sleeve and notch on coupler must alignwith pin to uncouple.)

DETACHING THE REAR BEATER/SPINNER SYSTEM

2. Remove the 4 5/8" bolts that run through the rear post. (2 on each rear post)

STOCKPILING

DETACHING THE REAR BEATER/SPINNER SYSTEM

3. There are holes in the top of the beater side panels to fasten lifting chain or strap.

4. Lift beater/ spinner unit straight up until top latching hooks are clear.

NOTE: PTO is only used with beater/spinner unit on.

CONTROLS

OPERATING THE BEATER

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

To stop beater, disengage PTO. (See your tractor operator's manual.)

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

OPERATING THE ENDGATE

IMPORTANT: Contact of sliding floor/moving panel with endgate will cause damage. To avoid contact with sliding floor, endgate must be raised a minimum of 6 in. To avoid contact with moving panel, endgate must be raised fully.

Operate the endgate with the second auxiliary control valve lever.

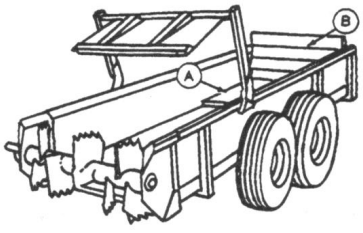
OPERATING SLIDING FLOOR/MOVING PANEL USING METERING CONTROL VALVE

To extend the sliding floor (A) and moving panel (B), 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

ATTACHING SPREADER

CAUTION: 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 in. pin and secure.

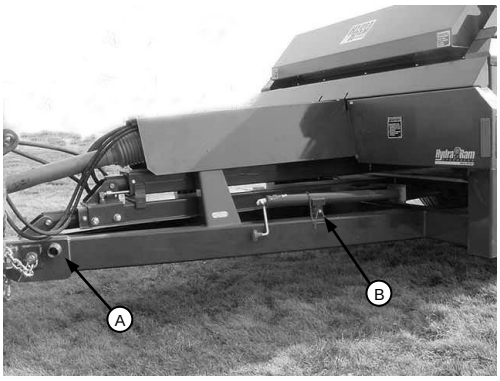
IMPORTANT: Shorten safety chain to allow only enough slack required for turning.

2. Lock safety hook onto chain.

STORING JACKSTAND

1. Remove jackstand from lift position (A).

2. Store jackstand as shown and secure with pin (B).



ATTACHING THE SPREADER

ATTACHING DRIVELINE

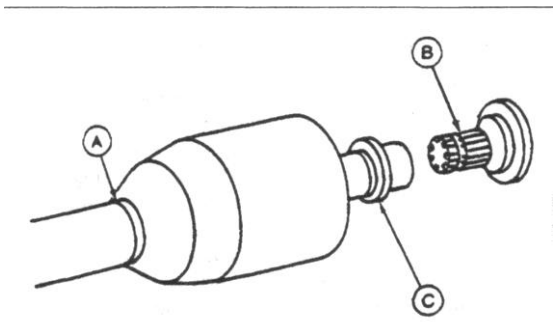
IMPORTANT: Avoid causing damage to shielding, DO NOT use bell on driveline to lift driveline into position.

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.



CONNECT HYDRAULIC HOSES

CAUTION: 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.

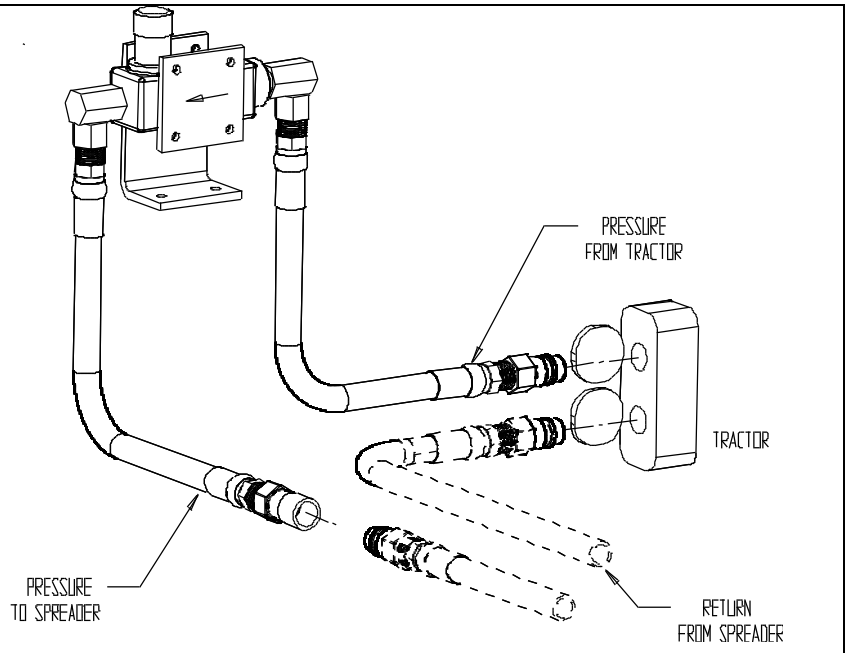
ATTACHING THE SPREADER

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.)

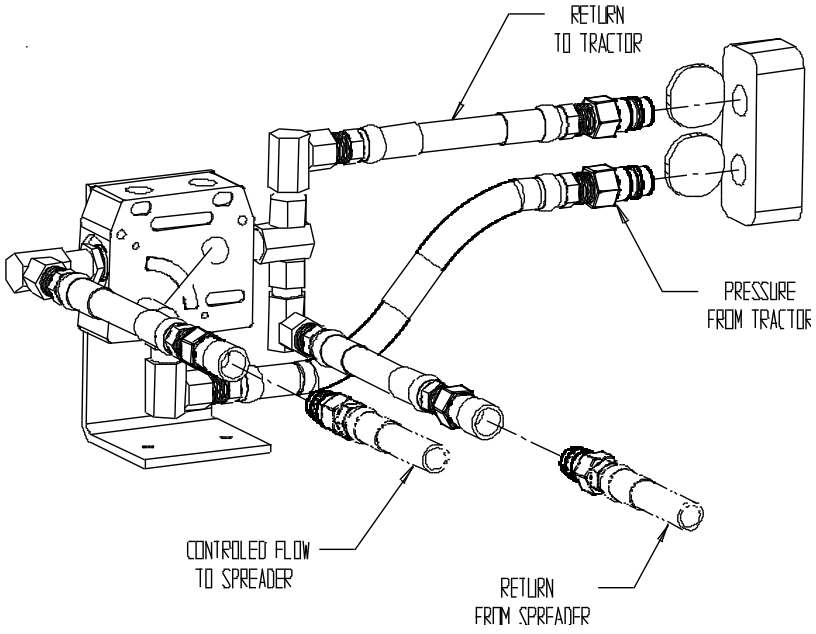


CONNECTING HYDRAULIC HOSES TRACTOR WITH OPEN CENTER HYDRAULIC SYSTEM

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

Attach hoses accordingly.

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

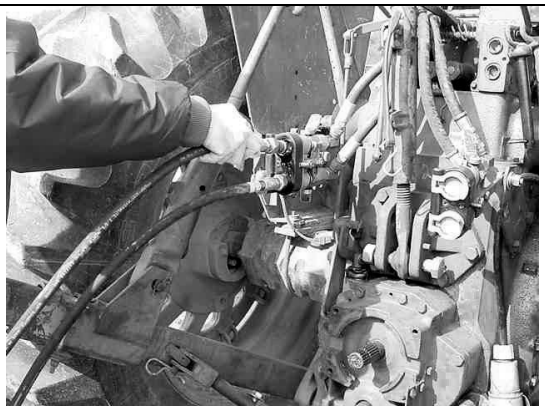


ATTACHING THE SPREADER

CONNECTING 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.



DETACHING THE SPREADER

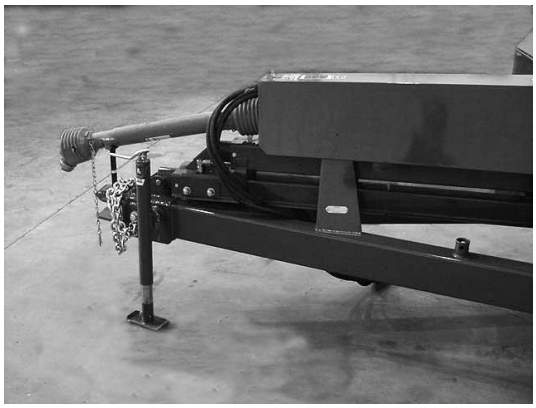
DETACHING SPREADER

1. Remove jackstand from storage position, place and secure in lift position.

2. Detach safety chain.

3. Remove hitch pin.

4. Disconnect hoses and control valve. Store on spreader.

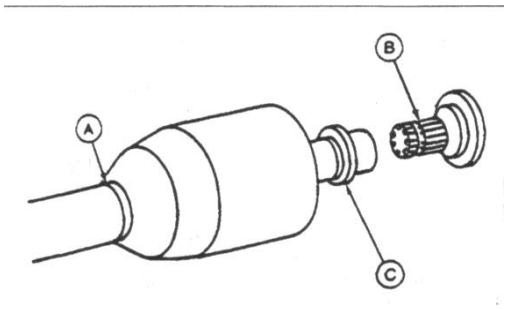


DETACHING DRIVELINE

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.



TRANSPORTING

USING A SAFETY CHAIN

CAUTION: 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.

CAUTION: 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-Ram Dealer for available lighting kit.

TRANSPORTING

CAUTION: 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.**

4. For proper tractor size and towing speed see the following “Recommended Maximum Towing Speed” chart.

5. If necessary, add ballast as described in your tractor operator’s manual.

TRANSPORTING

MAXIMUM SPREADER LOAD CAPACITIES, MODEL 795

The chart on the following page lists various loads and load densities. Recommended towing speeds according to approximate weights and densities of material are provided.

For an exact weight of loads being transported, the load would have to be weighed on scales.

The maximum load carrying capacity of the spreader is 11.5 Tons

An example of total towed weight calculation for a 795 Spreader with a load piled 15 in. above the beater consisting of semi-solid type manure would be as follows.

Capacity of spreader - 341 cu.ft.

Weight of material - 55 lb. / cu.ft.

Weight of spreader – 8000 lb

Calculation of total towed weight - 341 x 55 + 8000 = 26755 lb.

TRANSPORTING
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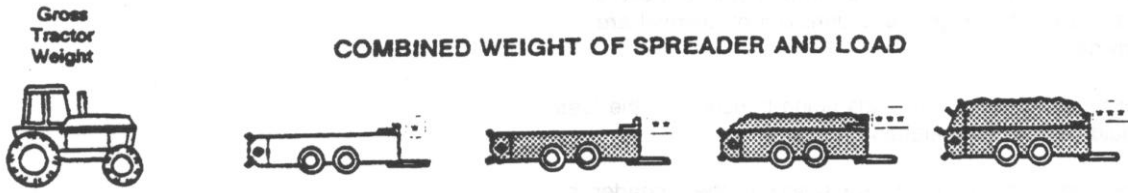


Tractor Weight				
(0-2997 lb)	Do Not Tow	Do Not Tow	Do Not Tow	Do Not Tow
(2998-5950 lb)	(10 mph)	Do Not Tow	Do Not Tow	Do Not Tow
(5951-11021 lb)	(20 mph)	Do Not Tow	Do Not Tow	Do Not Tow
(11022-12123 lb)	(20 mph)	(10 mph)	Do Not Tow	Do Not Tow
(12124-14769 lb)	(20 mph)	(10 mph)	(10 mph)	Do Not Tow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

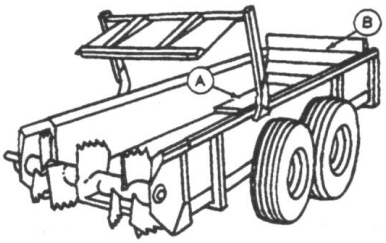
PREOPERATING CHECKS

1. Be sure spreader does not contain any foreign objects.

2. Check for correct hydraulic hookup. Raise endgate fully. Cycle sliding floor (A) and moving panel (B). Lower endgate.

3. Retract sliding floor/moving panel to front of spreader.

4. Close endgate and/or endpan.



LOADING THE SPREADER

CAUTION: 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 alongside.

Load front of spreader first, distributing load evenly.

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

PREPARE TO UNLOAD THE SPREADER

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

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

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

OPERATING THE SPREADER

2. Raise endgate.

IMPORTANT: Contact of the sliding floor or moving panel with endgate will cause damage. To avoid contact with siding floor, endgate must be raised a minimum of 6 in. To avoid contact with moving panel, endgate must be raised fully.

UNLOADING SPREADER USING METERING VALVE

1. Set flow control device to obtain desired rate of unload speed.

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

3. When spreader is empty, disengage PTO, retract sliding floor/moving panel, and lower endgate.

OPERATING THE SPREADER

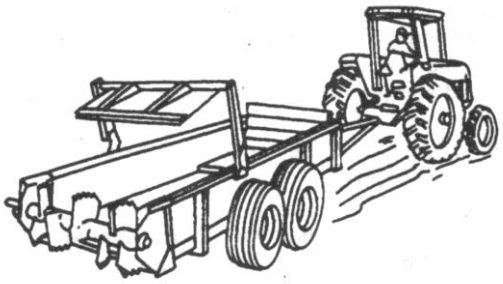
PRODUCING GOOD SPREADING RESULTS

1. Operate tractor engine at “PTO RATED” speed.

2. Do not overload beater. A clumpy spread pattern will result from too fast an unload rate.

3. Use an upper beater when spreading heaped loads. This will help prevent large clumps of material from coming over the top of main beater.

4. 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.

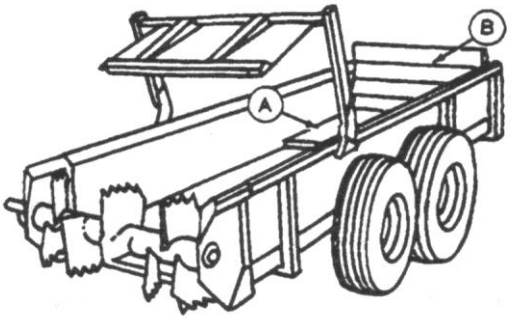


CLEANING SPREADER IN COLD WEATHER

When operating the spreader during extended periods of subfreezing temperatures, frozen material may build up on steel surfaces or wooden guides. This can prevent the sliding floor (A) and/or moving panel (B) from moving.

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

NOTE: Cleaning is only necessary during periods of subfreezing temperatures.

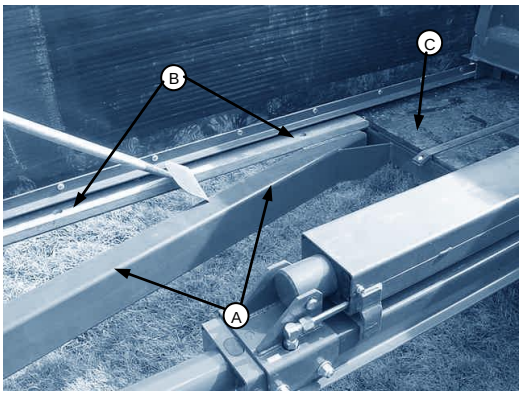


OPERATING THE SPREADER

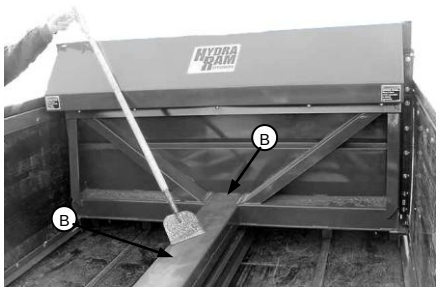
CAUTION: Help prevent personal injury caused by unexpected movement of the machine. Disengage PTO, engage parking brake and/or place transmission in "PARK", shut off engine, and remove key before cleaning spreader.

1. Extend and retract the sliding floor/moving panel to remove loose material.

2. Extend sliding floor half way back. Remove accumulated material on frame (A), the tops and sides of wood and steel guides (B), and front edge of floor (C), on each side.



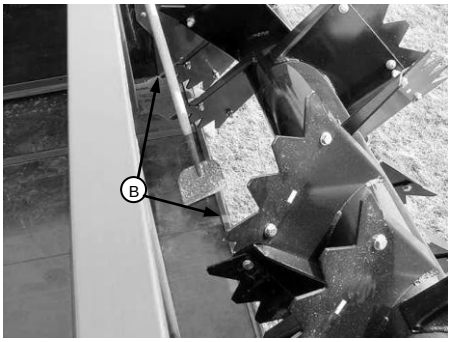
3. Remove accumulated material from rear of moving panel, top of tube (A), and V-section (B).



4. Remove material on the rear steel edge of the main floor and bottom of steel side panels (A).

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

NOTE: Any buildup which prevents the sliding floor from traveling fully rearward, will prevent the moving panel from being activated.



OPERATING THE SPREADER

6. Retract sliding floor and remove material on the underside of the moving panel. (This cleaning is only necessary in prolonged periods of cold weather).

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

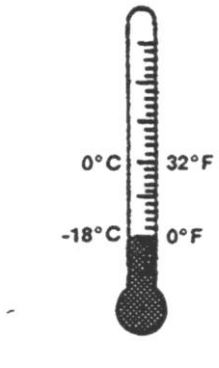
8. Leave moving panel 12 in. from front of spreader to allow cylinder movement in both directions

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 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.

Extend and retract sliding floor/moving panel to exchange cold oil from spreader cylinders with warmed tractor hydraulic oil.

Reconnect hoses to flow control valve.

LUBRICATION & OILS

1. Hydraulic Oil and Maintenance

Oil Specification

NOTE: *Viscosity and cleanliness are the most important items to consider in maintaining long life in the hydraulic system.*

- Pik Rite recommends *Hydrocarbon-based oils that will maintain a viscosity of 80-100 SUS (15-20CST) at operating temperatures.
- Start-up viscosity must not exceed 7500 SUS (1600 CST) and also must maintain *ISO cleanliness levels of 19/17/14 or better.

1. Viscosity Requirements

Definitions:

- *Viscosity* is the measure of how a fluid resists flow.
- *Operating temperature viscosity* is the temperature at which oil does its work.

When viscosity *increases* fluid becomes *thicker,* conversely as the temperature *increases* fluid becomes *thinner*. This may cause problems.

CAUTION: *A viscosity must be selected that will flow freely and yet be thick enough to lubricate the moving parts in the pump and motors.*

- Pik Rite Harvesters are shipped with ISO grade 46 with viscosity index of a minimum of 90. Additives need to include rust and oxidation inhibitors and foam depressant. This is good grade oil for average daytime temperatures at harvest time.

- Any good quality ISO grade 46 oil or SAE 10 motor oil is acceptable, providing that the viscosity is within specification at operating temperatures and start-up temperature.

- If average daytime temperatures are above 95 degrees F and the machine's hydraulic oil temperature rises to 180 degrees F, Grade #46 viscosity may be too low. If this oil is too thin (viscosity too low), oil with ISO grade of 68 or SAE 15 may need to be installed.

- Mixing thicker oil (higher viscosity), such as SAE 30 or ISO 100, is a means of increasing the operating viscosity. After this is done, an oil sample should be sent to a lab for testing to insure proper viscosity.

NOTE #1: ISO standards allow up to 10% variation from a specification. An ISO grade 46 hydraulic oil can actually be 42 or 50 and be considered a grade 46.

NOTE #2: When using motor oils, non-detergent is preferred; however, detergent oil is not harmful. The detergents will tend to hold or suspend any moisture in the oil. Many hydraulic oils include in the additives an emulsifier, which will encourage the water to separate and be drained off the bottom of the reservoir.

2. Cleanliness Requirements

- The components on the harvester must have an *ISO cleanliness level of 19/17/14. This means that there must be fewer than *150* parts per milliliter in the 5-micron or greater size and fewer than *200* parts per milliliter in the 15-micron or greater size. (A human hair is about 70 microns in diameter and talcum powder is 10 microns.)

- Filters must maintain this level of cleanliness. Any filter may be used providing that the above results are achieved. The hydraulic oil must be "clear" and not "milky". A "milky" looking oil is a good indication that excessive water is present.

- To determine cleanliness level, send oil samples to a lab for analysis (a common procedure).

*International Standards Organization

The most accepted fluid system contamination level designation in use today is the ISO "Solid Contamination Code" (ISO #4406). This format plots cleanliness levels (ISO Codes) based on particle counts at 5 and 15 micrometers per 100 ml of fluid under evaluation. An additional count at 2 microns is under review by ISO and likely to be adopted soon. Pik Rite has accepted this as a standard as of 4/15/95.

*Hydrocarbon based

Hydrocarbon- (petroleum) based hydraulic fluids and straight oils are the most common fluids for hydraulic systems. The difference between a hydrocarbon-based hydraulic fluid and straight oil is generally the additive. Some automotive or crankcase motor oils with the proper additives can be acceptable.

SETTING HYDRAULIC PRESSURE RELIEF VALVES FOR BEATER & PUSHER

In order to set Hydraulic Pressure relief valves you will need a pressure gauge and test probe which can be purchased through Pik Rite. (Part #'s HA-1004-g and HA-1005-T) Relief Valves in Aluminum Block.

1. Pressure Setting Pusher Relief Valves

Steps

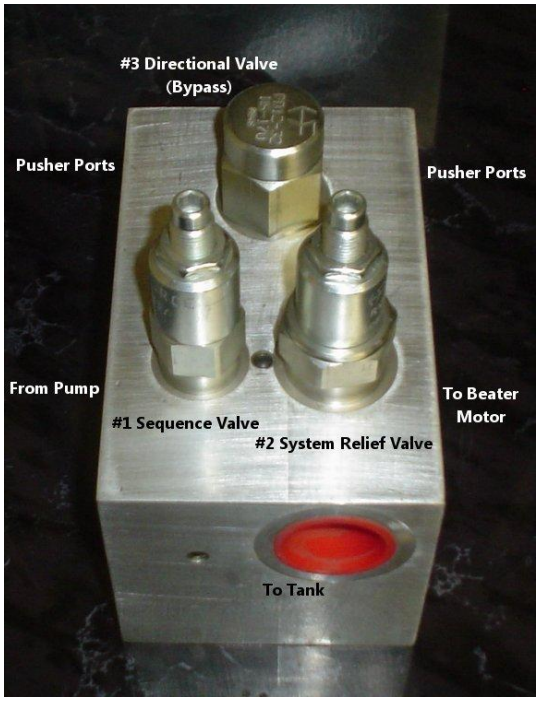
1. Disconnect quick coupler to Beater Drive Motor or stall beater out
2. Run PTO at 900-1000 rpm (Oil Should be warm 100F)
3. With Pressure gauge installed on aluminum relief block at test port, set relief, #2, to 2700 psi
4. Engage Pusher and Turn the Sequence valve, #1, counterclockwise just so the pusher stops moving. Tighten lock nuts.
5. Reset the Relief #2 to 3000 psi. Tighten Lock nuts.

This sets the pusher to stop before the beater can stall.

2. Pressure Setting Spinner Relief Valve.

Steps.

1. Disconnect spinner Quick Couplers or stall out spinner blades
2. Install Gauge on Spinner Relief
3. Run PTO at 1000 RPM (Oil Should be warm 100F)
4. Set at 2800 PSI. Tighten Lock Nuts.



ATTACHMENTS

ENDGATE 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.	

LUBRICATION & MAINTENANCE

LUBRICATING AND MAINTAINING SPREADER SAFELY

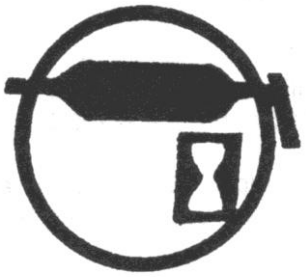
CAUTION: Help prevent personal injury caused by unexpected movement of the machine. If spreader is connected to tractor, disengage PTO, engage parking brake and/or place transmission in "PARK", shut off engine, and remove key. If spreader is detached, block wheels and use safety stands.

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.

Perform each lubrication and maintenance item illustrated in this section.

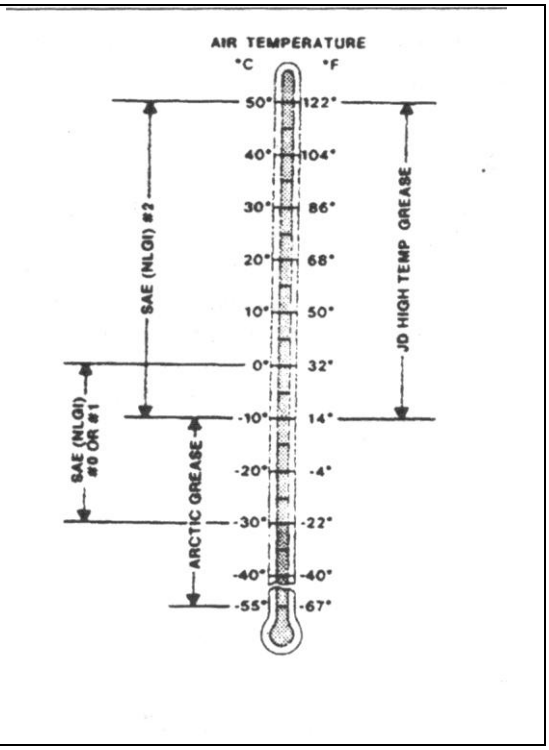


SELECTING GREASE

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.

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



LUBRICATION & MAINTENANCE

SERVICE INTERVALS	
EVERY 8 HOURS •Lubricate driveline •Lubricate drive chains •Check tires EVERY 50 HOURS •Tighten wheel hardware	EVERY 250 HOURS •Repack wheel bearings •Lubricate endgate pivots SERVICE AS REQUIRED •Adjust drive chain tension •Adjust sliding floor/moving panel seals

SPINNER OIL LEVEL

With spinner gearbox positioned level oil should be in center of sight glass nut. To add oil rotate gearbox forward far enough to be able to remove sight glass nut & add oil. (Note: Only 1 sight glass needs to be removed oil will travel through entire unit.) Install sight glass and recheck oil level, with gearbox level.

OIL TANK LEVEL

With the spreader level, oil should be filled to the bottom of the fill screen. This will assure the oil in the reservoir is at the proper level.

LUBRICATION & MAINTENANCE

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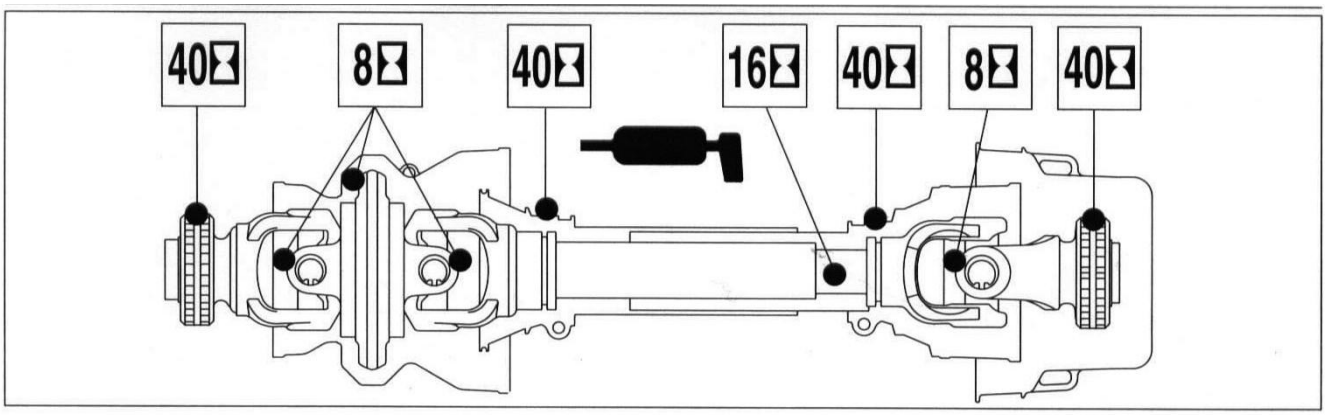

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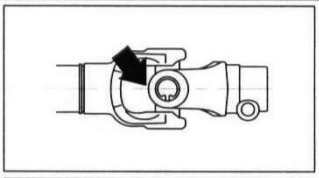
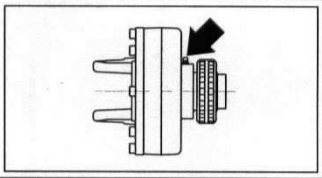


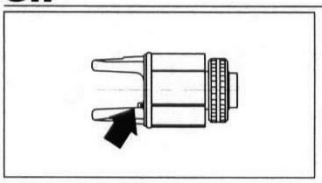
CROSS JOURNAL

16h



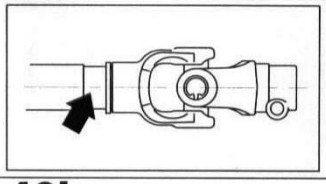
***FN** - FRICTION TORQUE LIMITER WITH OVERRUNNING CLUTCH*

8h



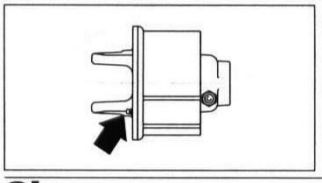
***SA** - RATCHET TORQUE LIMITER*

16h



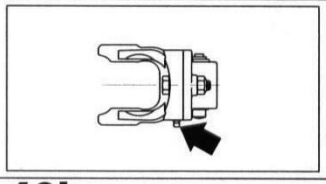
INNER TUBE

8h



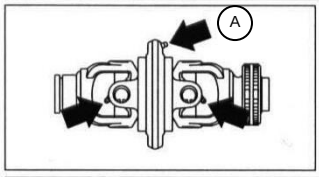
***SC** - AUTOMATIC TORQUE LIMITER*

40h



***SB** - SHEAR BOLT TORQUE LIMITER*

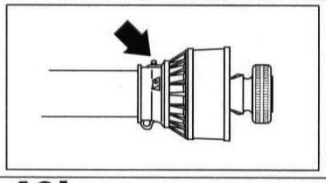
8h



A- 23 Pumps Required

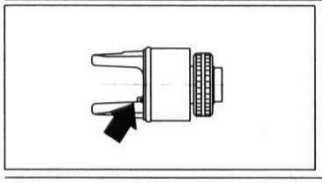
***OC** - CONSTANT VELOCITY JOINT*

40h



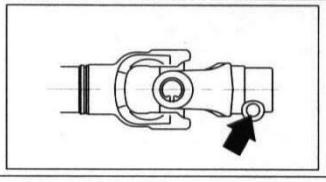
SHIELD RETAINING BEARING

16h



***RA** - OVERRUNNING*

40h



PUSH-PIN

LUBRICATION & MAINTENANCE

LUBRICANT FOR DRIVE CHAINS

Lubricate with a good chain lube or the same oil being used in the engine

Lubricate chains immediately after operation when the chain is warm

CHECKING TIRES

1. Check tires daily for damage or noticeably low pressure.

2. Repair any cuts or breaks as soon as possible.

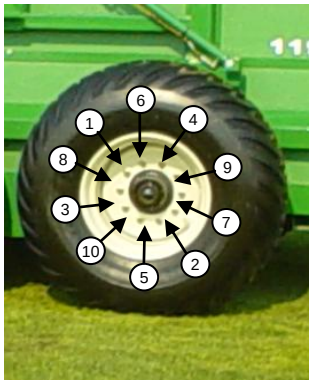
3. Protect tires from exposure to sunlight and petroleum products or chemicals.

LUBRICATION & MAINTENANCE

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.

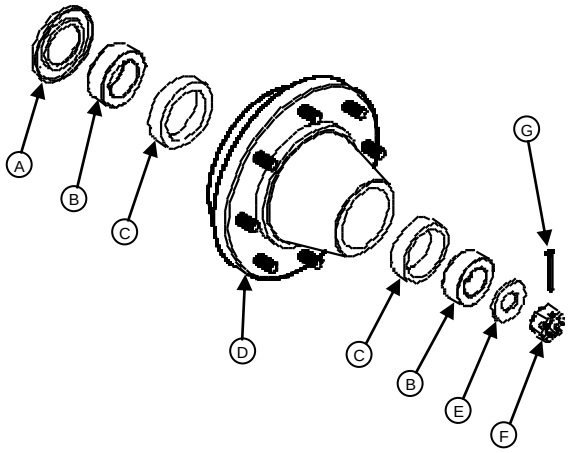
Tighten to 170 lb.-ft. in the sequence shown.



CLEAN AND REPACK WHEEL BEARINGS

Disassemble and clean parts in solvent. Pack bearings (B) with grease. Reassemble and tighten nut (F) until slight drag is felt when wheel is turned. Back nut off to insert cotter pin (G) in first hole.

A- Seal
B- Bearing Cone
C- Bearing Cup
D- Hub
E- Washer
F- Slotted Nut
G- Cotter Pin



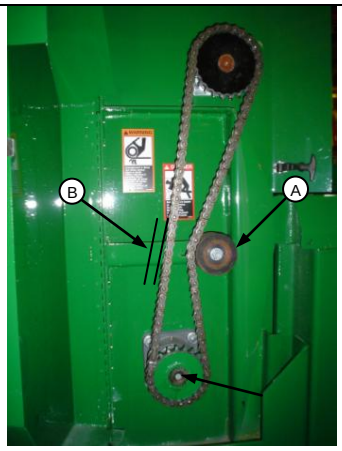
REF. ONLY

LUBRICATION & MAINTENANCE

ADJUST UPPER BEATER DRIVE CHAIN

Adjust idler (A) clockwise so that deflection at midspan (B) is 5/8 in. when 5-10 lb force is applied.

To help prevent idler from loosening, contact surface between idler and hardware must be free of oil and grease

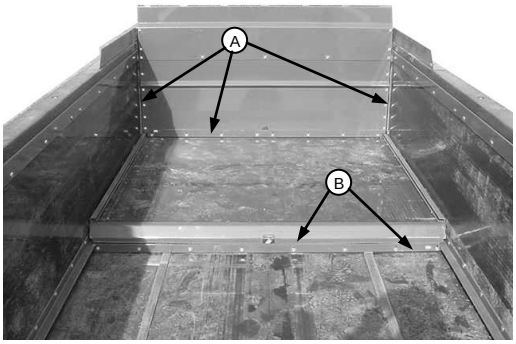


ADJUST SLIDING FLOOR/MOVING PANEL SEALS

The seals on the moving panel at (A) and sliding floor at (B) 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.



Note: Every 50 hrs. Check motor coupler set screws on Spinner & Motor mount Stop bolt.

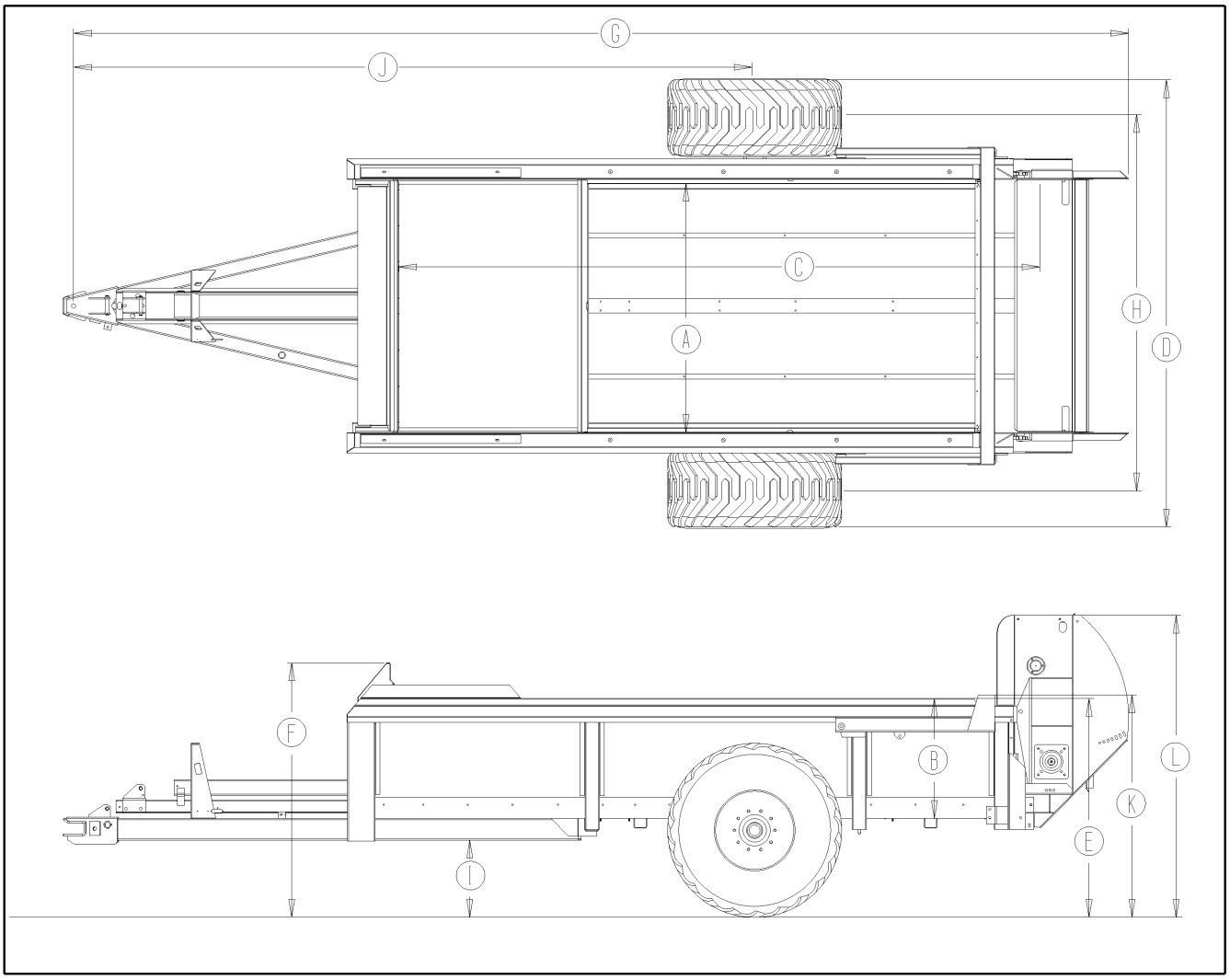
SPECIFICATIONS
MODEL 795

Tractor Size (Minimum)	100 hp PTO
Weight	
Spreader, Complete with Implement tires and all Attachments	8000 lb
Load Capacity	22600 lb
Volume Capacity	
Struck Level	249 cu. ft.
Heaped Load (Single Beater)	340 cu. ft.
Heaped Load (Upper Beater)	418 cu. ft
Beater Speed	
Upper	294 rpm
Lower	337 rpm
Unloading Speed	0-16 ft/min Infinitely Variable
Driveline	Shielded 1000 rpm
Attachments	Control For Fender or ROPS Open Center Valve With Control Endgate

(Specifications and design subject to change without notice)

SPECIFICATIONS

MODEL 795



DIMENSIONS*

A- 71.0 in.	D- 132.0 in.	G- 292.0 in.	J- 190.0 in.
B- 31.5 in.	E- 61.0 in.	H- 109.0 in.	K- 63.0 in.
C- 193.0 in.	F- 71.0 in.	I- 21.5 in.	L- 84.0 in.

(Specifications and design subject to change without notice)