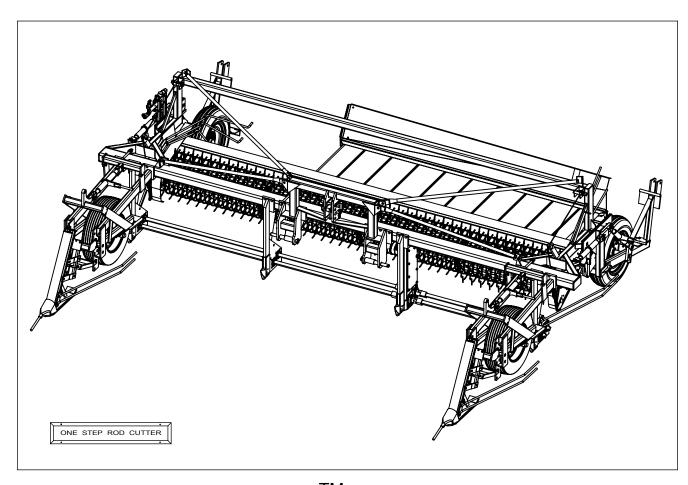


# Operator's Manual



## One Step™Rod Cutter



#### Pickett Equipment

976 East Main Street \* Phone: 208-678-0855 \* www.pickettequipment .com

Burley , Idaho 83318 \* Fax: 208-678-1404 \* pickett @ rvmi.com

Congratulations on the purchase of your new Pickett One Step Rod Cutter/Windrower. We welcome you to an ever-growing family of farmers using the Pickett system to harvest their bean crops, as well as peas and lentils. Thanks to your patronage, and the patronage of others like you, Pickett Equipment has become recognized as the most progressive bean cutting/windrowing system available in the industry.

We credit the customer for our success. After all, it is the farmer's input and suggestions over the years that has molded and refined the Pickett One Step design. We will continue to listen to you, the customer, and seek to be responsive to your needs.

We encourage you to read the Operator's Manual thoroughly to ensure satisfactory and trouble-free operation. Failure to do so, could result in equipment failure or personal injury. Again, we thank you for choosing Pickett Equipment.

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#### **NOTES**

#### PICKETT FARM EQUIPMENT WARRANTY

Pickett Equipment warrants to the original purchaser of each item of new Pickett Farm Equipment that the product be free from defects in material and workmanship under normal use and service. If such equipment is found to be defective within one season or 350 acres, whichever shall occur first, the obligation of **PICKETT EQUIPMENT** under this warranty is limited to the repairing or replacing of (exclusive of the cost of labor and transportation), any equipment or parts, in the judgment of **PICKETT EQUIPMENT** to be defective in material or workmanship.

All equipment or parts claimed to be defective in material or workmanship must be made available for inspection at the place of business of a dealer authorized to handle the equipment covered by this warranty, or, upon request by **PICKETT EQUIPMENT**, shipped to the **PICKETT EQUIPMENT** factory in Burley, Idaho. **PICKETT EQUIPMENT** shall have no obligation to bear the cost of labor or transportation in connection with replacement or repair of any such defective parts. **PICKETT EQUIPMENT** will pay internal shop rates on the modification or repair of defective parts in the setup procedure.

This warranty covers only defects in material and workmanship. It does not cover depreciation or damage caused by normal wear, accident, improper assembly, improper adjustments, improper maintenance including lack of proper lubrication, or improper use. Therefore, **PICKETT EQUIPMENT** liability under this warranty shall not be effective or actionable unless the equipment is assembled, maintained and operated in accordance with the Operating instructions accompanying the equipment. **PICKETT EQUIPMENT** shall have no liability if the equipment has been altered or reworked without the written authorization of **PICKETT EQUIPMENT**.

Damages resulting from rocky conditions are not covered by this warranty.

**PICKETT EQUIPMENT** does not warrant commercial components not manufactured by **PICKETT EQUIPMENT.** But, if new, these components may be warranted by the manufacturer thereof.

The only remedies any purchaser has in connection with the breach or performance of any warranty of Pickett Farm Equipment are those set forth in this warranty. In no event shall **PICKETT EQUIPMENT** be liable for incidental or consequential damages or injuries including, but not limited to, loss of crops, loss of profits, rental of substitute equipment or other commercial loss.

This warranty is expressly in lieu of any other express or implied warranties including any implied warranty of merchantability or fitness for particular purpose and of any other obligation on the part of **PICKETT EQUIPMENT.** 

PICKETT EQUPMENT makes no warranties, representations or promises, express or implied as to the quality or performance of Pickett Farm Equipment other than those set forth in this warranty. Neither the dealer nor any other person has any authority to make any representations, warranties or promises on behalf of PICKETT EQUIPMENT or to modify the item manufactured or sold by PICKETT EQUIPMENT or any other time unless he delivers to the purchaser a separate written warranty specifically warranting the same, in which case PICKETT EQUIPMENT shall have no obligation thereunder.

**PICKETT EQUIPMENT** parts, which are furnished under this warranty and properly installed, shall be warranted to the same extent as the original parts under this warranty if, and only if, such parts are found to be defective within the original warranty period covering the original equipment.

No warranty request will be considered, and **PICKETT EQUIPMENT** will have no liability under this warranty, unless the Pickett Equipment Delivery Checklist and Warranty Registration Forms have been properly filled out and returned to **PICKETT EQUIPMENT**, at Burley, ID. Pickett warranty forms must be filled out with every claim. Claims must be submitted by the dealer to Pickett Equipment's home office, no later than December 1<sup>st</sup> of the year for which the claim is being made.

#### WARRANTY DISCLAIMERS

The following conditions will void the warranty for the One Step Rod Cutter:

Operating the cutting rod at more than 140 RPM
Not setting the dividers at the proper height and adjustment
Removing safety shields, guards or safety instructional stickers
Changing sprocket size without written authorization from Pickett Equipment
Using tire sizes other than those standard to Pickett Equipment
Not maintaining equipment according to Owner's Manual specifications
Operating equipment in a malicious or reckless manner
Operating the One Step in excess of 6 MPH (9.7 km/h) (maximum).
Using replacement parts not of Pickett Equipment origin
Making modifications to the equipment other than those recommended by Pickett Equipment
Not completing the Delivery / Warranty registration form and sending it to Pickett Equipment within 30 days of delivery.

Pickett Equipment will strive to make product improvements every year but, we cannot be responsible for making updates or additions to equipment previously sold.

#### PRE-DELIVERY CHECKLIST

Assemble the machine and inspect it for good running condition before delivery to the customer. Use the following checklist:

Assemble machine correctly		Check that decals and safety stickers are intact and legible
Assemble Divider system correctly		Ç
(See pages 15-1 thru 15-6)		Make sure all hardware is tight
Remove shipping stands		<u> </u>
11 0		Make sure Pickup head adjustment
Lubricate machine properly (See pages 15-12 & 25-4)		tool is securely in place
,		Check that all hydraulic
Lubricate drive gears before		components are functioning
running		properly and free of leaks
Fasten guards and shields in place		Make sure that all hydraulic hoses
		are positioned and strapped
Tighten upper guy rods correctly (See page 25-7)		securely to the frame
		Successfully complete 30-minute
On larger machines (8 row 30 & 12 row 22) install 3 point guy rod		break-in period to ensure all moving parts move freely and that
extension & adjust front guy rod		the belts and drive chains are
tension		tracking correctly
		tracking correctly
 Date Checked	_	Signature

#### **DELIVERY CHECKLIST**

Safe and correct operation and

Review the Operator's Manual with the customer. Explain the following:

□ Pickett Equipment warranty □ Warranty disclaimers

□ Tractor tire pressure

	service
Correct machine transport procedure	Optional attachments that are available for special crop and
Tractor wheel adjustment, to ensure operating conditions that	operating conditions
the tractor does not run on the crop (see your tractor's manual)	Operator's Manual and Parts Listings
Daily and periodic inspections	Warranty registration including registrations of unit serial number
Correct machine servicing and maintenance	Warranty Registration and return to Pickett Equipment
Proper machine storage (See page 25-7)	
Date Checked	Signature

#### AFTER SALE CHECKLIST

It is suggested that the following items be completed and then checked sometime prior to operation.

Inspect for loose or missing bolts.	Inspect for broken or damaged parts.
Verify that all chains and belts are aligned and tightened correctly. (See Maintenance Section, pg. 25-4)	If possible, run the machine to see if it is functioning properly.
Ensure that all safety shields and all safety stickers are in place.	Review the entire Operator's Manual with the customer and stress the importance of correct and regular
Check to ensure that decals are intact and legible.	lubrications as well as safety precautions.
Check the clearance between the tires and the mud scrapers. 1/4" (6mm) clearance should be maintained.	
Date Checked	Signature

#### **CULTURAL PRACTICES FOR SUCCESSFUL DRY BEAN HARVEST**

The success of dry edible bean harvest depends on management of cultural practices which occur long before the actual harvest season. Proper implementation of these practices can improve the efficiency of harvest operations, minimize field loss, and maximize the quality of the seed harvested. Three cultural practices which can directly affect the outcome of bean harvest include pre-plant tillage and seedbed preparation; formation of ridges at the base of the bean plants; and season-long weed control.

#### Pre-plant tillage and seedbed preparation

Dry edible beans do well in a wide range of tillage systems, using a variety of tillage implements. Soil compaction often created during tillage, is a particular problem for dry edible beans. The bean plants have a relatively weak root system, often aggravated by root diseases, and a compacted soil in the top 18 inches of soil can severely limit plant development and yield potential. Tillage of excessively wet soil should be especially avoided when preparing a seedbed for dry edible beans. Large clods created by tilling or planting excessively wet soil will likely still be there at harvest. A hard soil layer at the bottom of tillage depth can be created with disk and chisel type implements when the soil is too wet. This can cause a hard soil layer which is difficult for bean roots to penetrate.

Avoid tillage systems and tillage implements that cause depressions and ridges in the soil surface prior to planting. Adjust and operate implements in a manner that will not leave ridges or furrows in the soil surface. Surface unevenness will cause problems during the growing season and at harvest. Depressions in the surface can hold water during irrigation and can drown plants or increase incidence of white mold. At harvest, the One Step bean cutter cannot follow the soil contour to cut plants that are in a depression. If the One Step is set deep enough to cut plants that are in low spots, then it will be too deep for most of the field, creating excessive soil clods and soil movement which in turn leads to high field loss and excessive soil intake into the combine.

#### Formation of soil ridge at base of plant

To maximize yield potential, to minimize field loss, and to improve bean seed quality, bean plants must be situated on at least a slight soil ridge at harvest time. This ridge can be created during the seedbed preparation and planting process or it can be made during cultivating or furrowing operations. There are four reasons:

 Facilitate harvest. This is the most important reason. Actually, it will make the difference between high field loss and tolerable field loss, and often between acceptable and unacceptable seed quality. All growers in Nebraska, Colorado, Wyoming and Idaho provide a ridge at the plant row for harvest.

A small ridge in the row at the base of the plants, only 2 - 3 inches (50mm to 76mm) higher than the area between rows, allows the One Step to cut the plants just below the soil surface without undercutting the full area between the rows. This minimizes the action of soil against the bean pods. The bean pods are very fragile at this time and must be handled as gently as possible. Large clods rolling among the plants during cutting or windrowing will initiate or cause field loss.

In contrast, fields without a ridge at the base of the plants, require the One Step to undercut the entire width of row and inevitably create clods and considerable soil movement. These clods and excess soil mix among the bean plants during cutting and require considerable rodding and or windrowing action to separate plants from soil. This activity initiates or causes pod damage and field loss.

- 2. Stimulate secondary root development. It is thought that soil brought around the base of the bean plants during a late cultivation initiates root development higher on the plant stem. Since bean plants often have a weak or diseased root system, any additional roots will be beneficial.
- 3. Aid weed control. Soil brought around the base of plants during a late cultivation cover small late emerging weeds and help control late season weeds in the row.
- 4. Assist tractor steering during cutting. Formation of a ridge around the base of the plants during a late season cultivation results in small furrow centered between the rows. This helps maintain the One Step on row during the cutting operation. This is especially helpful when cutting speeds of 6 mph (9.7 km/h) are used in the absence of daylight.

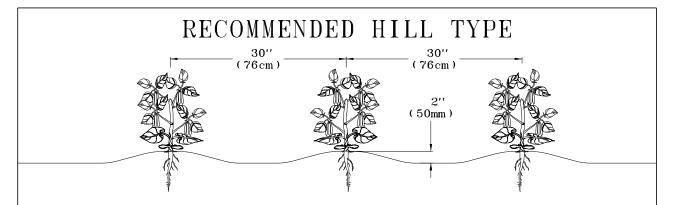
#### **Good Season-long Weed Control**

Occasional "escape" weeds in the bean field are relatively harmless. However, large numbers of weeds will unquestionably reduce yield potential during the growing season, and contribute to high field loss, equipment and labor inefficiency, and reduced seed quality at harvest time. Large broadleaf weeds tend to pull through the bean plants during cutting and windrowing causing pod drop, weakening the pods, and increasing field loss. The large weeds cause uneven feeding and slugging in the cylinder of the combine and increase seed damage. Green weeds cause staining and discoloration of the bean seeds during combining. Nightshade discolors the bean seed within the combine, lowering seed quality. Broken nightshade seeds mix with dust within the combine and cause a buildup in augers, elevators and sieves. This is especially true with conventional cereal grain combines and eventually requires the combine to stop and undergo an extensive clean out process.

Effective herbicides are available, especially when used in conjunction with at least one cultivation, will satisfactorily control weeds in the edible bean. Application must be accurate and timely. Contact your local agricultural extension agent for the most recent university research results and herbicide recommendations. An excellent source of information is the most recent version of the publication, <a href="https://example.com/HERBICIDE USE IN NEBRASKA">HERBICIDE USE IN NEBRASKA</a>, available from the University of Nebraska. This publication describes approved herbicides, application, estimated costs of application, and other pertinent information.

#### **PICKETT TIPS:**

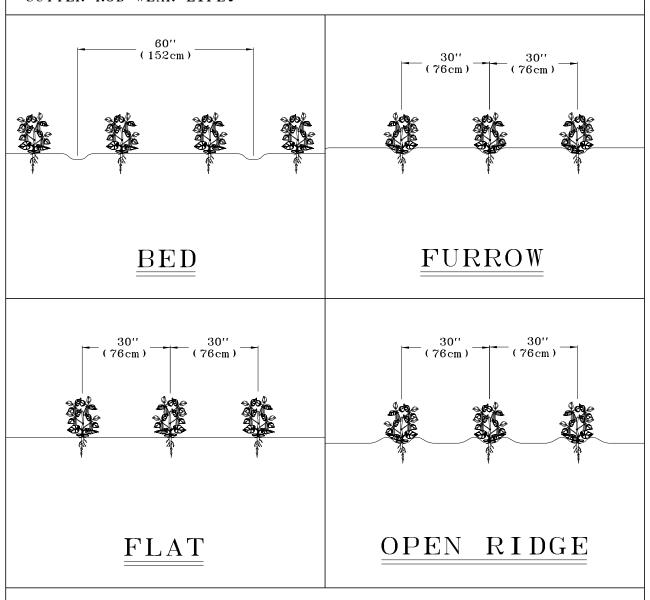
- 1. Adjust front divider system according to the Owner's Manual and keep adjusted.
- 2. Check all dividers rods regularly.
- 3. Adjust cutter rod depth using both the front and rear gauge wheels, keeping in mind that the machine has to operate level.
- 4. Rod speed should never exceed 100 to 140 RPM. 8 to 9 gpm (30 to 34 lpm) controlled by the tractors flow control. This will move less dirt, and extend rod and bearing wear life.
- 5. Pickup head speed should be 1/2 of ground speed. 30 to 35 rpm controlled by the flow control on the One Step.
- 6. Operate belted discharge system at a speed that will form a smooth even windrow. Speed is controlled with the tractor's flow control.



THIS ILLUSTRATION SHOWS THE RECOMMENDED CULTIVATION PRACTICES TO PREPARE FOR THE ONE STEP ROD CUTTER SYSTEM.

PLAN AHEAD AND HILL THE BEANS HIGH ENOUGH TO BE LEFT WITH APPROXIMATELY 2" (50mm) OF HILL AT HARVEST TIME. EROSION OF THE HILL DEPENDS ON SOIL CONDITIONS, NORMAL RAIN FALL, AND SPRINKLER IRRIGATION PRACTICES.

THE FOLLOWING ILLUSTRATIONS SHOW OTHER PLANTING AND CULTURAL PRACTICES, WHICH ARE LESS THAN IDEAL FOR OPTIMUM CUTTING AND CUTTER ROD WEAR LIFE.



NOTE: FOR ILLUSTRATION PURPOSES 30" (76cm) ROW SPACING WAS CHOSEN. ACTUAL ROW SPACING MAY VARY FROM REGION TO REGION.

#### **FOLLOW SAFETY INSTRUCTIONS**

Carefully read all safety messages in this manual and safety signs on your machine. Maintain safety signs in good condition. Replace missing or damaged safety signs.

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

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



#### UNDERSTAND SIGNAL WORDS

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

Safety signs with the signal word DANGER or WARNING are typically near specific hazards.

General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

### **ADANGER**

**AWARNING** 

**ACAUTION** 

#### 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 for personal injury.

Follow recommended precautions and safe operating practices.



#### USE SAFETY LIGHTS AND DEVICES

When transporting your machine on a road or highway at night or during the day, use necessary safety lights. Check local government regulations. A safety lighting kit is available from your tractor dealer.

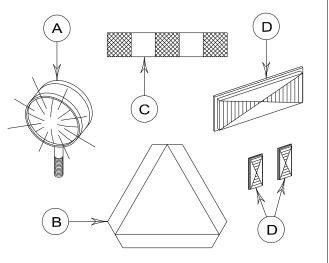
Keep safety items in good condition. Replace missing or damaged items.

A - Lights

C - Reflector Tape

B - Slow Moving Vehicle Emblem D - Reflectors





#### **OPERATE SAFELY**

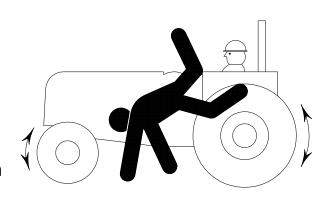
Never ride or permit others to ride on the machine.

Stay clear of ditches or creeks during operation.

Always lower machine to ground when not in use.

Always have tractor stopped on level ground when working around machine.

Always shut off tractor and shift to "Park" or set brakes when leaving tractor.



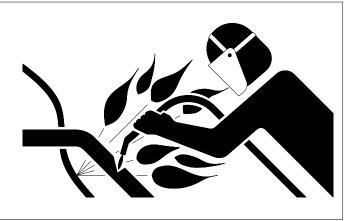
#### BE AWARE OF OTHERS IN YOUR WORK AREA

Extra caution should be observed when untrained personel (general public/children) are in the work area.



# AVOID HEATING NEAR PRESSURIZED FLUID LINES

Flammable spray can be generated by heating near pressurized fluid lines, resulting in severe burns to yourself and bystanders. Do not heat by welding, soldering, or using a torch near pressurized fluid lines or other flammable materials. Pressurized lines can be accidentally cut when heat goes beyond the immediate flame area.

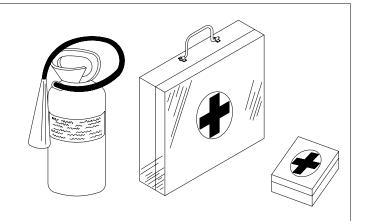


#### PREPARE FOR EMERGENCIES

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.



#### SERVICE TIRES SAFELY

Explosive separation of a tire and rim parts can cause serious injury or death.

Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job.

Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure.

When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.

Check wheels for low pressure, cuts, bubbles, damaged rims or missing lug bolts and nuts regularly.



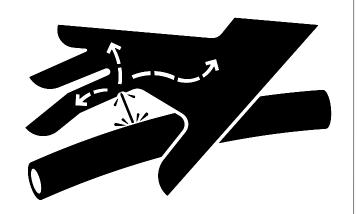
#### AVOID HIGH PRESSURE FLUIDS

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.



# REMOVE PAINT BEFORE WELDING OR HEATING

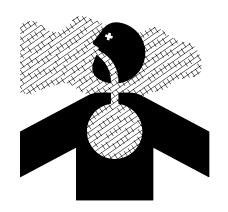
Avoid potentially toxic fumes and dust.

Hazardous fumes can be generated when paint is heated by welding, soldering, or using a torch.

Do all work outside or in a well ventilated area. Dispose of paint and solvent properly.

Remove paint before welding or heating:

- If you sand or grind paint, avoid breathing the dust. Wear an approved respirator.
- If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from the area. Allow fumes to disperse at least 15 minutes before welding or heating.



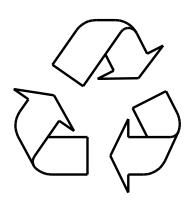
#### DISPOSE OF WASTE PROPERLY

Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste used with equipment include such items as: oil, fuel, coolant, brake fluid, filters and batteries.

Use leakproof containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

Do not pour waste onto the ground, down a drain, or into any water source.

Inquire on the proper way to recycle or dispose of waste from your local environmental or recycling center, or from your dealer.



#### WEAR PERSONAL PROTECTIVE EQUIPMENT

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

Personal Protective Equipment may include; hard hat, dust mask, safety goggles, hearing protection, face shield, gloves and steel toed boots.



# BE AWARE OF PERSONS IN THE PATH OF AN OPERATING MACHINE

All persons must stand 33 feet (10 meters) from an operating machine.

Never allow a person to stand in the path of an operating machine.

Operators need to be properly trained before operating this machine.



#### PRACTICE SAFE MAINTENANCE

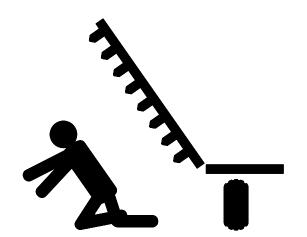
Understand service procedure before doing work. Keep area clean and dry.

Never lubricate, adjust or service machine while it is moving. Keep hands, feet, and clothing from power-driven parts. Disengage all power and operate control to relieve pressure. Lower equipment to the ground. Stop the engine. Remove the key. Allow machine to cool.

Securely support any machine elements that must be raised for service work. Such as wooden blocks under the shanks.

Keep all parts in good condition and properly installed. Fix any damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.

Disconnect battery ground cable (-) before making any adjustments on electrical systems or welding on machine.



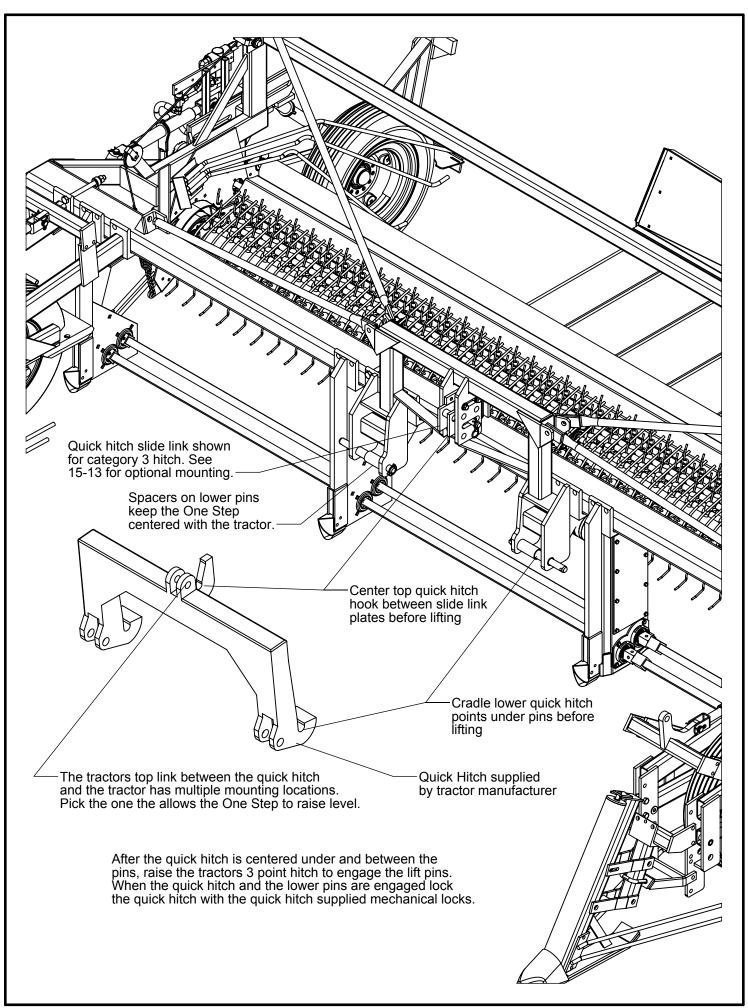
#### PREPARING THE TRACTOR

And attaching the One Step Rod Cutter. . .

- 1. Remove the draw bar and store it in a safe place.
- Check the tractor's hydraulic oil level, to be sure it is full. Be sure the hydraulic filter is new or is in good condition. The tractor should be free of any hydraulic oil leaks. The One Step's hydraulic system is compatible with all tractor manufacturers' hydraulic oil recommendations.
- 3. Be familiar with the tractor owner's manual. Understand how to adjust the rate of drop on the tractor's three-point hitch. (When lowering the One Step machine, a special check valve or control valve that is part of the tractor will limit the rate of drop).
- 4. To avoid machine side play, check the three-point hitch sway blocks, make sure that they are correctly mounted and secured in place.
- Check to ensure that the hydraulic remote is clean and will securely connect and disconnect couplers. Verify that the tractor's hydraulic controls are free of obstruction and are in proper working order.
- Check the tractors 3 point hitch weight capacity. Refer to the One Steps gross weight in the chart on page 10-3. The tractors 3 point hitch should be rated at 1 1/2 times the gross weight of the One Step.

Note: vertical force exerted on the tractor's 3-point is equal to the overall weight of the One Step.

- Measure to verify that the lower threepoint hitch arms are the same length. This will ensure that the implement will operate level in the field.
- 8. Refer to the diagram on page 10-2 for the correct way to attach the tractor to the One Step using a tractor manufacturers' quick hitch attachment. Aline the tractors quick hitch under the lift pins and raise the lift. When the quick hitch is properly seated with the One Step engage the manual locks on the quick hitch.
- 9. Attach the hydraulic hoses to the tractors hydraulic selective control valve.
- Refer to the diagram on page 15-10 for the proper installation and adjustment of the front gauge wheels and dividers.
- 11. Be sure that proper lighting is available on the tractor for nighttime operation.
- 12. Wash all tractor windows and inflate the tractors tire pressures to the manufacturer's specified load requirements.
- 13. When using a 12-volt power source for any available machine options, be sure that 12-volt hook-ups are used rather than the 24-volt hookups. Tractor operator's manuals will explain the proper voltage connections.
- 14. Pages 15-1 through 15-6 are for parts identification and basic information. This assembly is intended to be installed by the local dealer. If you don't have a local dealer we will supply additional assembly instructions.



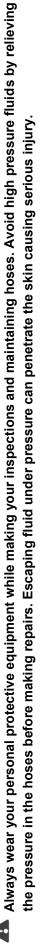
# Specification Sheet per Model Number

Height	57"/145cm	52"/132cm	52"/132cm												
Depth	174"/442cm	88"/224cm	88"/224cm												
Width	82"/209cm	152"/386cm	164"/417cm	212"/539cm	152"/386cm	152"/386cm	204"/518cm	212"/539cm	208"/529cm	272"/691cm	332"/844cm	296"/752cm	392"/996cm	180"/457cm	204"/518cm
Hydraulic Flow Rate	8-9 gpm / 30-34 lpm														
Hydraulic Working Pressure	2000 psi / 138 bar														
Weight Kilograms	914	1882	1135	2373	1816	1881	2286	2373	2509	3130	3795	3390	4455	1365	1536
Weight Pounds	2010	4140	5016	5220	3995	4140	5030	5220	5520	0989	8320	7460	9800	3004	3380
Model #	2025-2-A	4030-2-A	6022-2-A	6030-2-A	6045cm-2-A	6050cm-2-A	6065cm-2-A	6075cm-2-A	8022-2-A	8030-2-A	1030-2-A	1222-2-A	1230-2-A	UP14-148-E	UP16-172-E

# Hydraulic Hose Specifications

Hose Inside	Hose Outside	Maximum Working	Minimum Burst	Minimum Bend	Operating Temperature
Diameter	Diameter	Pressure	Pressure	Radius	Range
3/8" (9.5mm)	3/4" (18mm)	4775 psi (330 bar)	21200 psi (1464 bar)	2 1/2" (63.5mm)	-50°F to 260°F
1/2" (12.7mm)	7/8" (21.6mm)	4000 psi (275 bar)	18000 psi (1240 bar)	3 1/2" (89mm)	
3/4" (19mm)	1 1/8" (38mm)	3120 psi (215 bar)	14000 psi (964 bar)	4 3/4" (120mm)	(-46°C to 126°C)

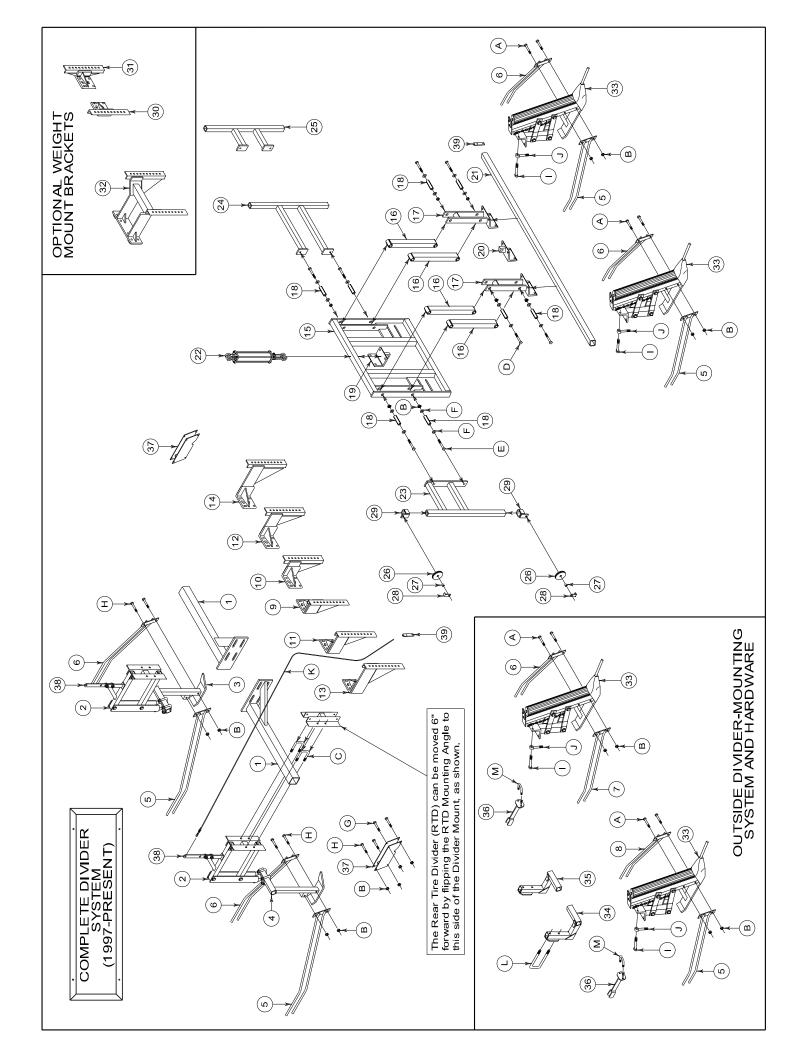
Hoses should be inspected daily. Any hose where the outer cover is swollen, torn, frayed or shows fiscal damage in any way must be replaced. Look closely for small cracks in the outer cover these will also need to be replaced. Check to make sure that hoses are tied securely and can not come into contact with moving parts that can cause damage. Check the routing of the hose to ensure there are no sharp bends that can cause damage. Make your inspections with the tractor off and the keys removed.



If a hose needs to be replaced dispose of old hose and any fluid lost from the machine properly. Follow local guidelines for proper waste the pressure in the hoses before making repairs. Escaping fluid under pressure can penetrate the skin causing serious injury.



disposal



- Present
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LET
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										& LW)	& LW)			2																											
	DESCRIPTION	1/2" x 3 1/2" NC Hex Bolt	1/2" NC Whiz Nuts	U-bolt, Type F (with 1/2" NC Whiz, Nuts)	1/2" x 4 1/2 "NC Hex Bolt	1/2" x 5" NC Hex Bolt	1/2" Flat washers	1/2" x 3" NC Hex Bolt	1/2" x 4" NC Hex Bolt	5/8" x 4 1/2" NC Hex Bolt GR 8, (with nuts & LW)	5/8" x 4 1/2" NC Eye Bolt (with Hex Nuts & LW)	1/2" Steel Cable (17' Pulley System)	U-Bolt, Type B (with 3/4" Hex Nuts & LW)	U-Bolt, Type E (with 5/8" Hex Nuts & LW)	1/2" x 2" NC Carriage Bolt	1/2" x 1 1/2" NC Hex Bolt	1/2" NC Jam Nut	34" x 2 ½" NC Hex Bolt	34" Flat washer	3/7" Lock washer	3/" NC Hex Nut	U-bolt Type N (with 3/8" NC Whiz Nuts)			_	E DESIGNATION	(Figure 1)		$\in$				<i></i>	)				<b>→</b> (			
	QTY	<b>∞</b>	24	4	4	4	24	4	4	16	16	7	7	7	4	4	4	4	4	4	4	2			WEIGHT	HOLE				<u>}</u>	~ ~	<b>)</b>	<u> </u>	(N		(	<u>)</u>	<b>→</b> (		)	
T	PART NO.			121005							118026	103043	121001	121004	Not Shown	Not Shown	Not Shown	Not Shown	Not Shown	Not Shown	Not Shown	121016		,	>																
HARDWARE LIST	ITEM NO.	Ą.	œ.	ن د	D.	Ξ <b>i</b>	<b>.</b>	Ŀ	Н.	ï	J.	Ķ.	ij	M.	ż	o.	ъ.	Ö	₩.	Š.	T.	u.																			
HA	DESCRIPTION	Divider Mount (Rear Tire)	Offset Rear Tire Divider Upper Assembly	RH Offset Rear Tire Divider Lower Assembly	LH Offset Rear Tire Divider Lower Assembly	R.H. Divider Rod - Long (use items A, B) (optional G, H, B)	L.H. Divider Rod - Long (use items A, B) (optional G, H, B)	R.H. Divider Rod - Short (use items A, B)	L.H. Divider Rod - Short (use items A, B)	R.H. 2WD - 9" Weight Mount Bracket (Hardware not included)	L.H. 2WD - 9" Weight Mount Bracket (Hardware not included)	R.H. 14" Mid-Size Weight Mount Bracket	L.H. 14" Mid-Size Weight Mount Bracket	R.H. 4WD - 19" Weight Mount Bracket	L.H. 4WD - 19" Weight Mount Bracket	Front Mounting Base (use items: $Q, R, S, T$ )	Pivot Arm (use items: 17, B, D, E, F)	Lifting Arm (use items: $B, D, F, I, J$ )	Lifting Arm Bushing (use on items: 15 & 16)	Upper Ram Mount (use items: I, J)	Lower Ram Mount 2 dividers (200104, 200308, 200311 3 dividers)	Divider Tube 8-22 (96") (200229 (6-30) 75"), (200270 (8-30 @ 120") 128")	Hydraulic Ram (2 1/2" x 12")	Front Assist Arm ( Standard replaces 200130)	Front Assist Arm (8-22) (1995 - 1996)	Front Assist Arm (6-30) (1995 - 1996)	Steel Pulley (use items: $B, F, N$ )	Pulley Bushing (use items: $B, F, N$ )	Pulley Guard (use items: $B, F, N$ )	Pulley Slide Lock (use items: $B, F, N, O, P$ )	R.H. Weight Mount Bracket (John Deere)	L.H. Weight Mount Bracket (John Deere)				LH Outside Divider Mount (standard) (200301 LH C-Shank Type)	Outside Divider Brace	Extension Plate - Long (13.75" HC to HC)	Lift Cable Extension Plate	Divider Tube Cable Plate (use item: $U$ )	
,	QTY	2	7	_	1	S	S)	1	1	1	-	*	*	*	*	_	4	7	<b>∞</b>	-	1	1	П	7	*	*	4	4	4	4	* *	*	*	4	1	_	7	7	7	7	
	PART NO.	200074	200145	200499-A	200500-A	300067	300066	300033	300034	962006	900597	901158	901159	865006	665006	200075	200085	200080	200072	200090	200090	200224	103083	200570	200094	200095	116010	200276	200267	200100	901199	901200	200040	300018	200289	200288	900206	300151	300028	200121	
PARTS LIST	ITEM NO.	1.	2.	3.	4	S	.9	7.	<b>%</b>	×6.	<b>★</b> 10.	<b>★</b> 11.	<b>★</b> 12.	<b>★</b> 13.	<b>★</b> 14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.	32.	33.	34.	35.	36.	37.	38.	39.	** Optional Part

\* For most tractor types not listed, weight mount brackets can be provided on a built-to-order basis. Contact Pickett Equipment for availability and lead time.

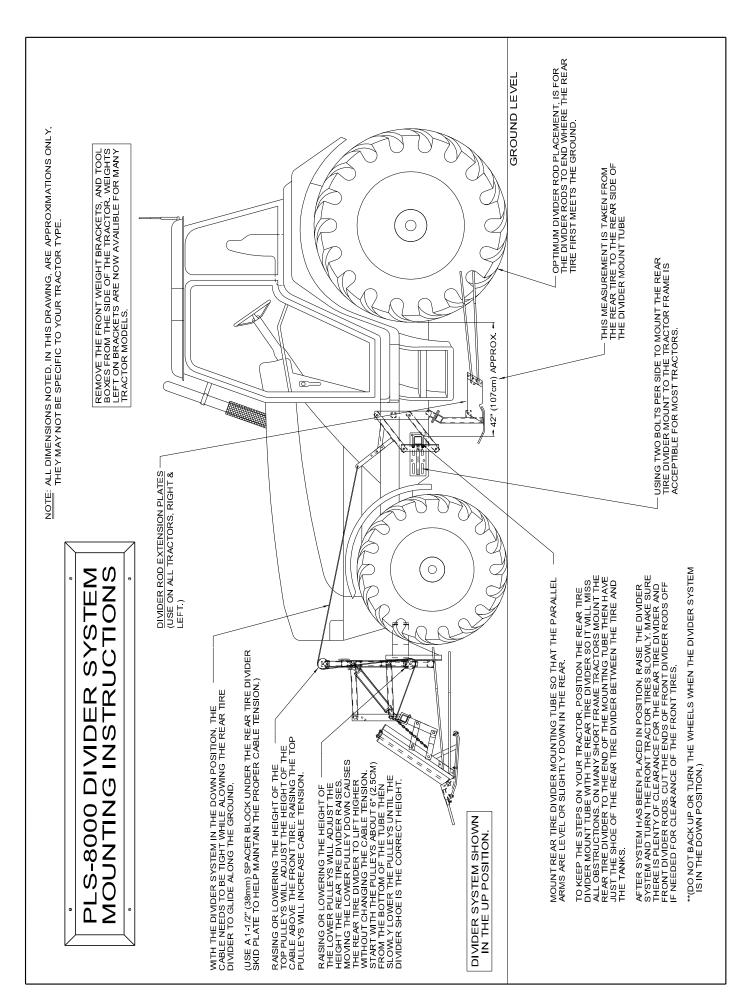
Revised November, 2015

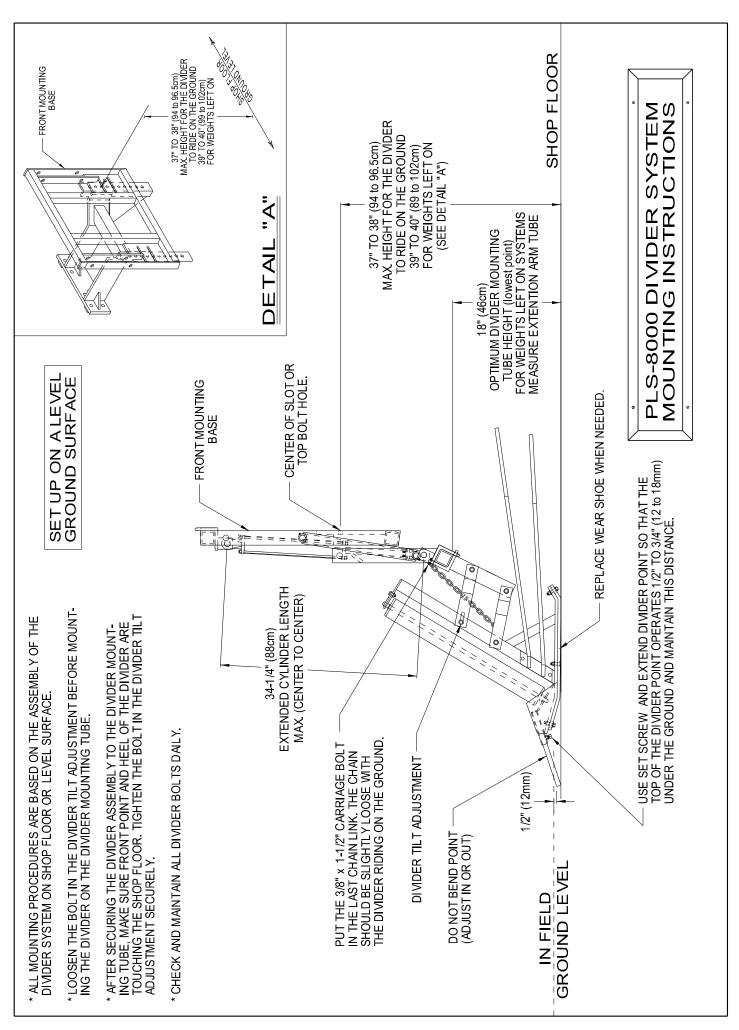
15-2

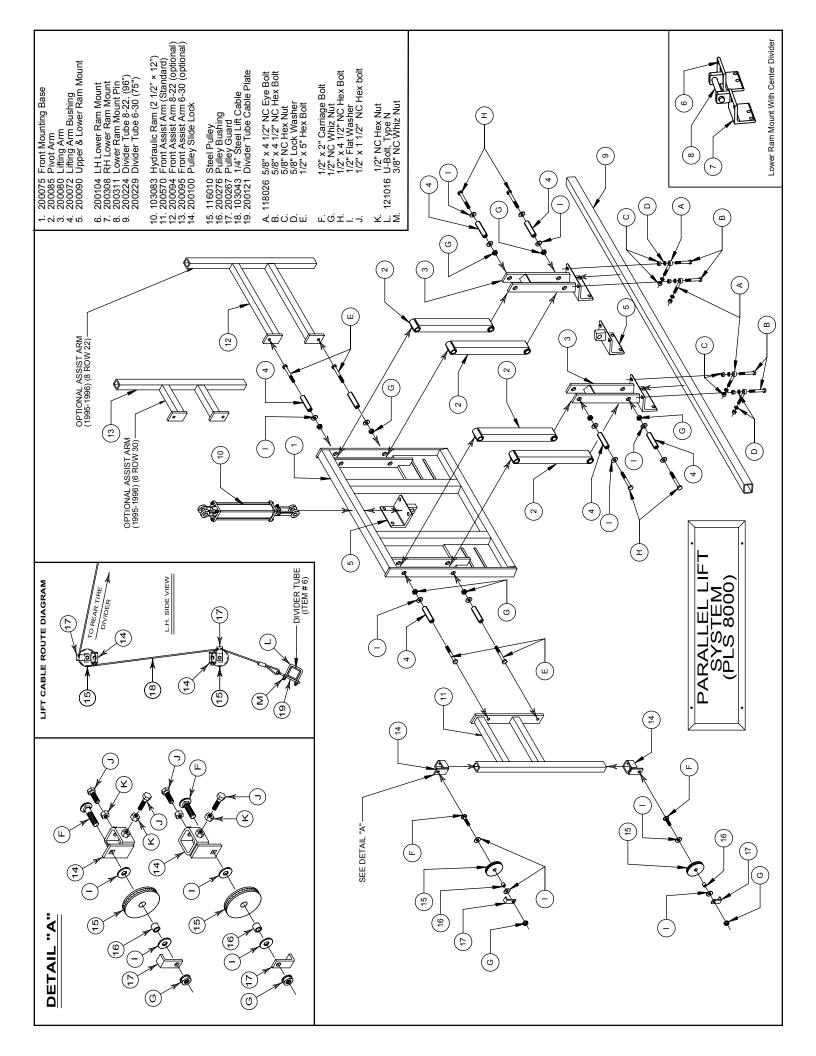
MAGNUM SERIES TRACTORS (1, 4, 8)

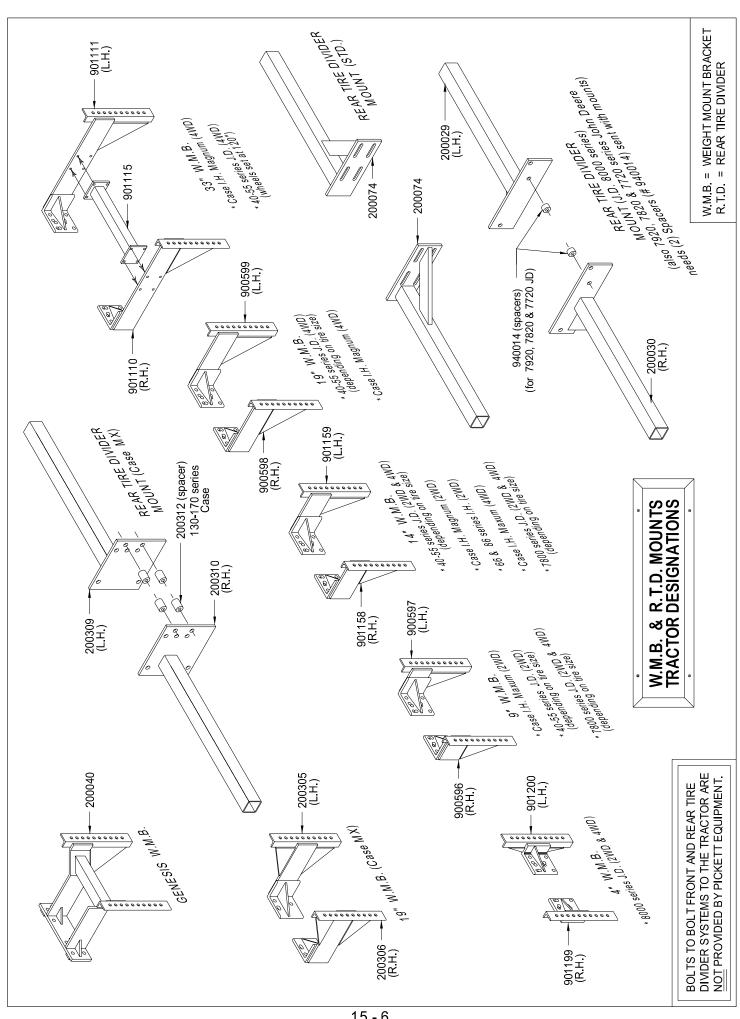
MAXUM SERIES TRACTORS (1, 6, 9)
(TURN UPSIDE DOWN, & SWAP SIDES)

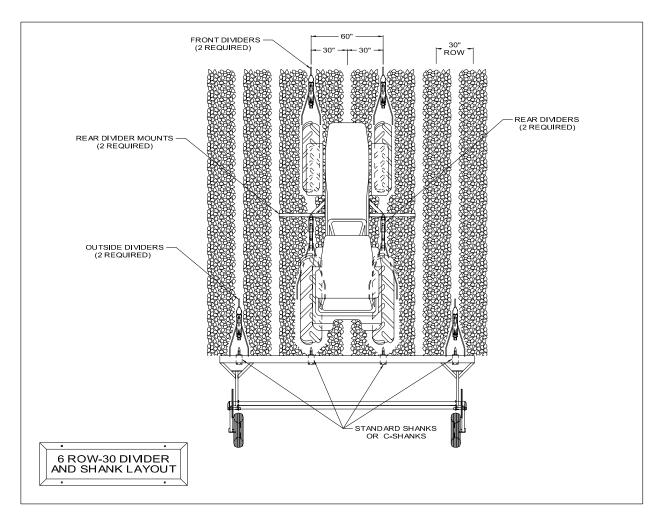
JOHN DEERE TRACTORS (2, 3, 7)
INTERNATIONAL HARVESTER
TRACTORS (3, 7)

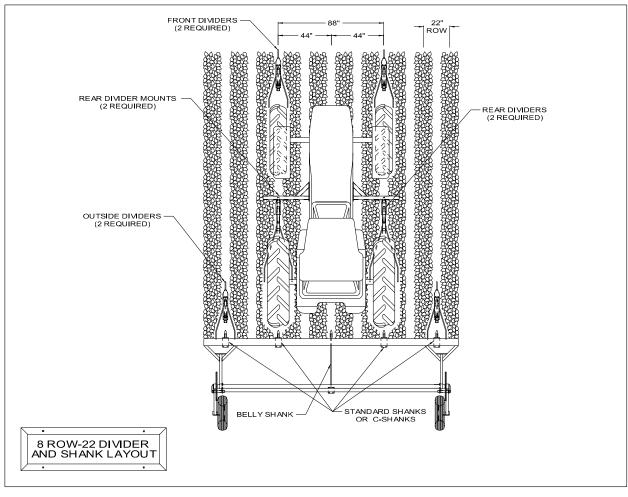


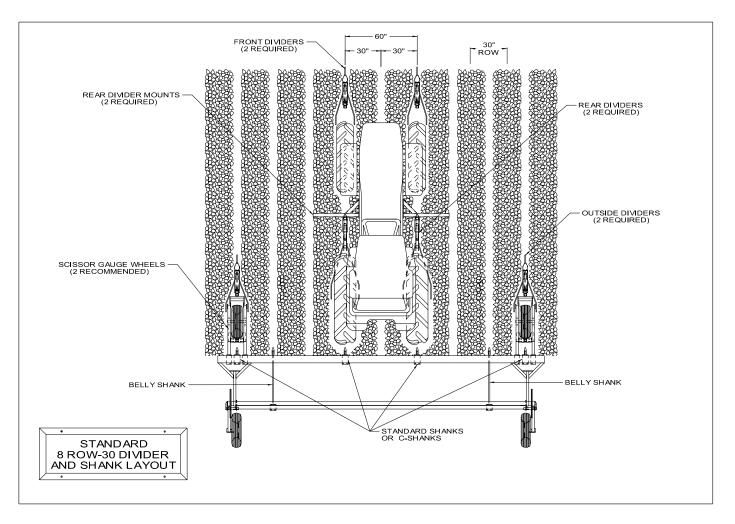


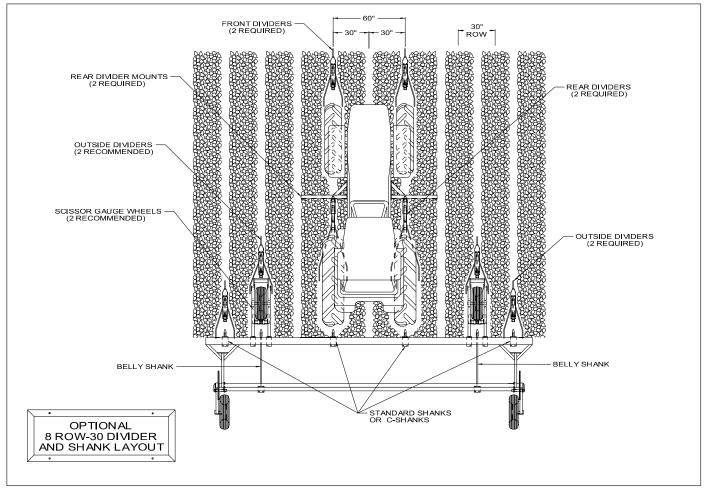


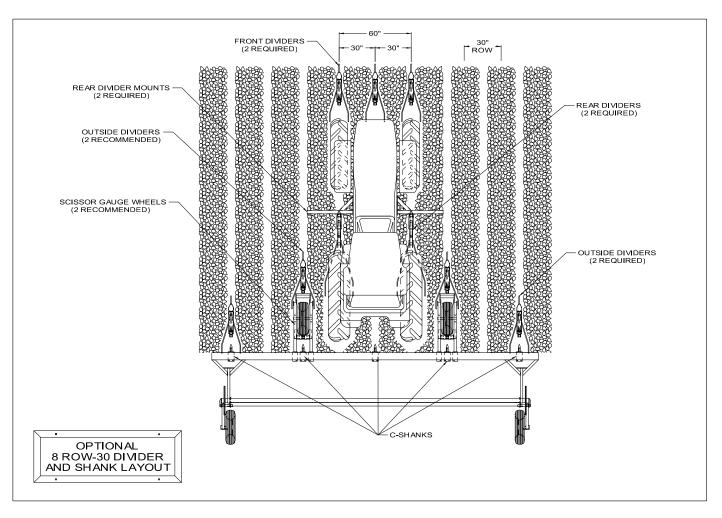


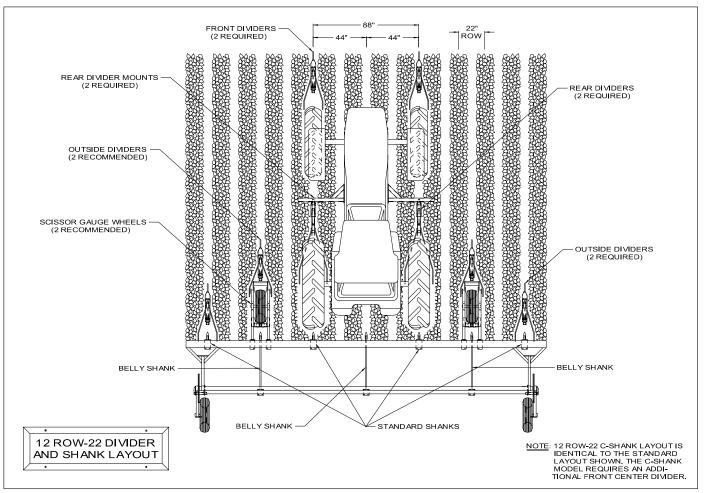


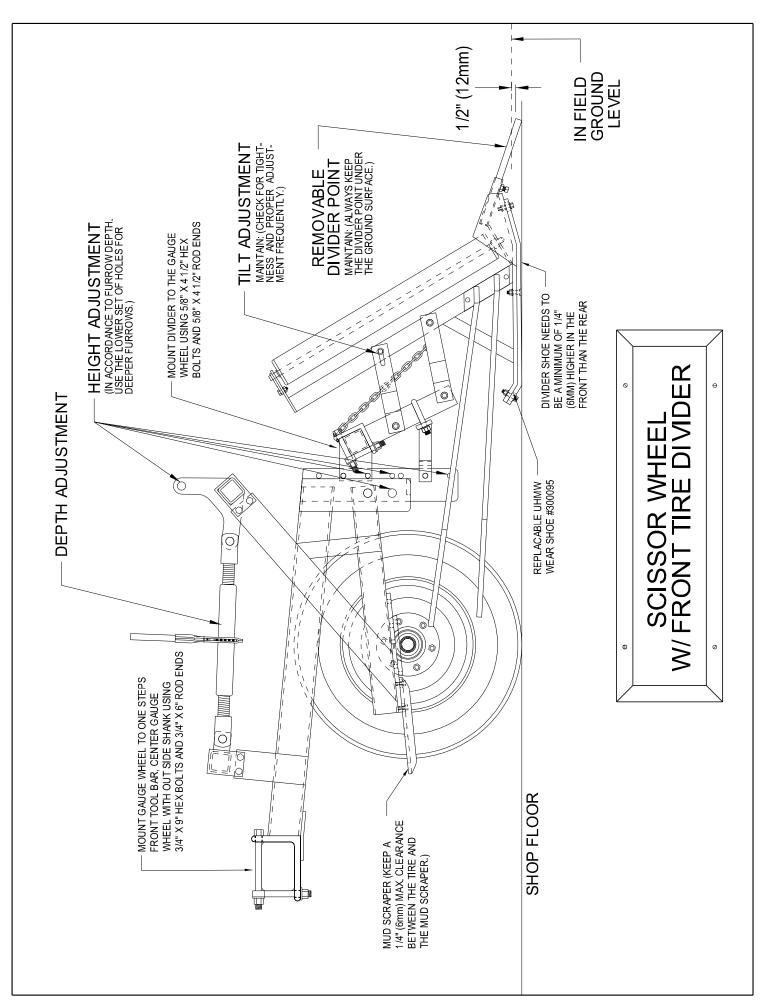


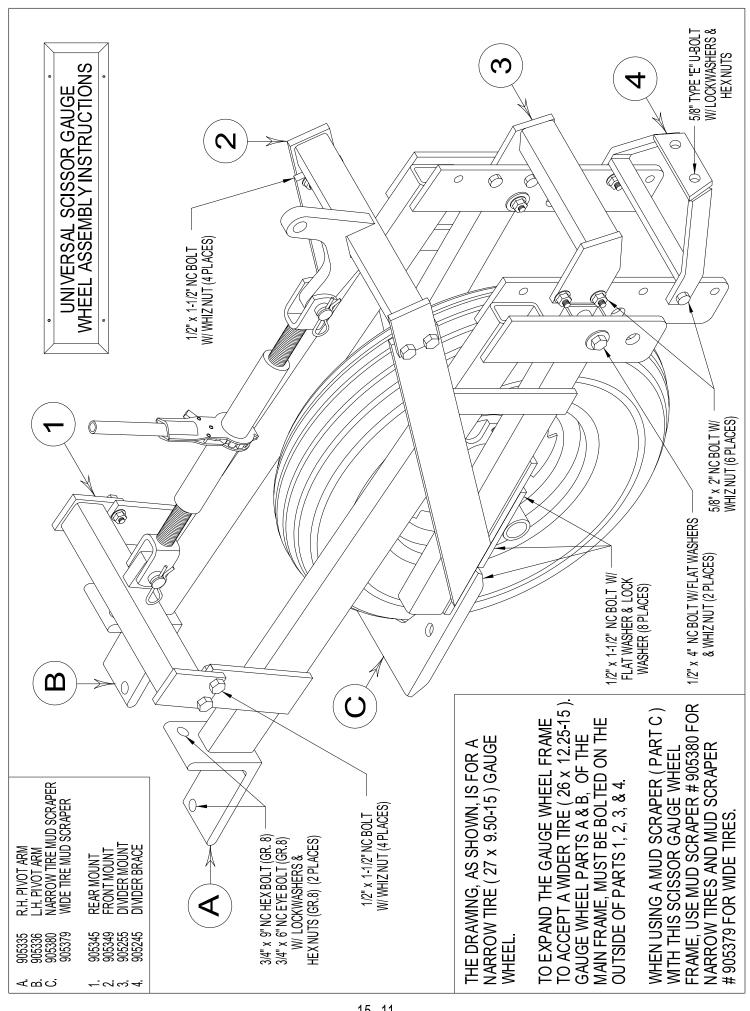


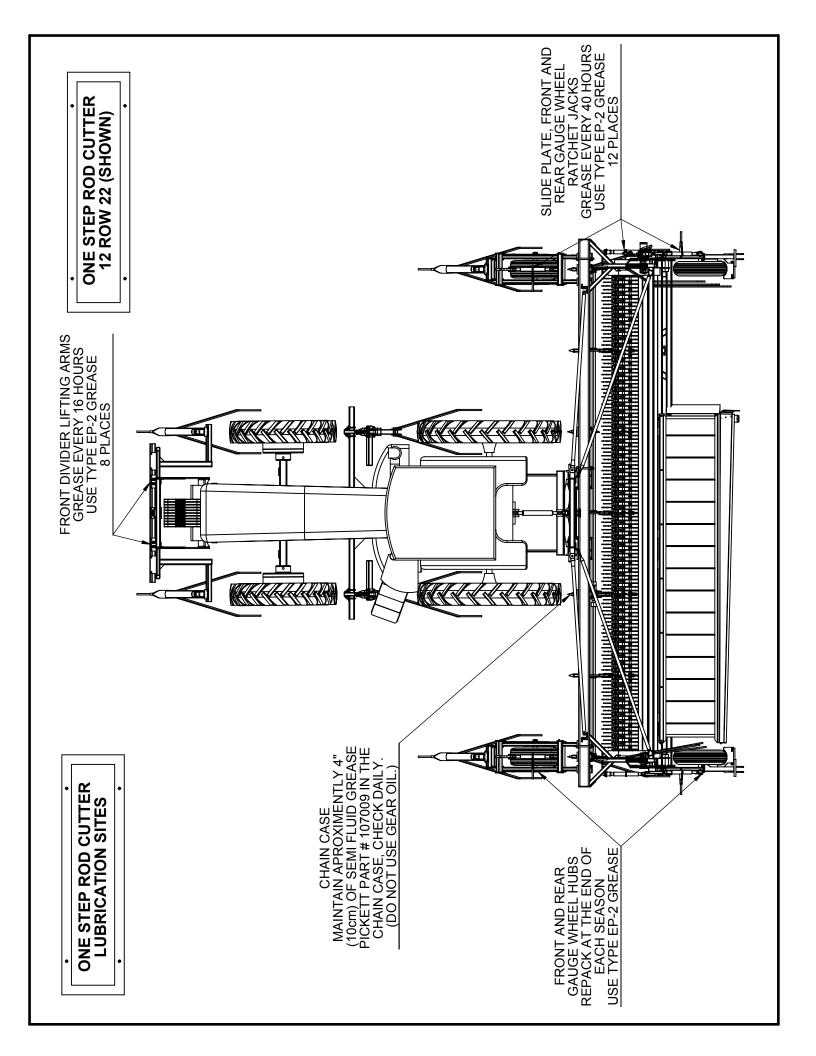


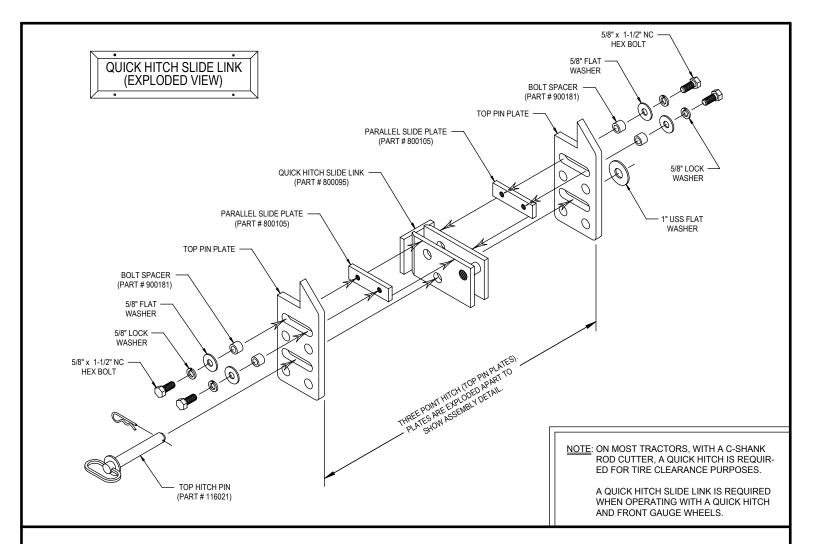


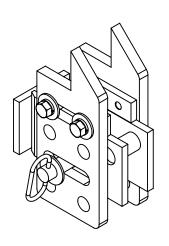




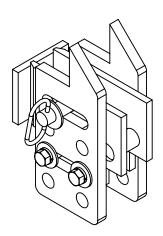




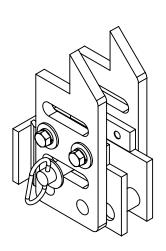






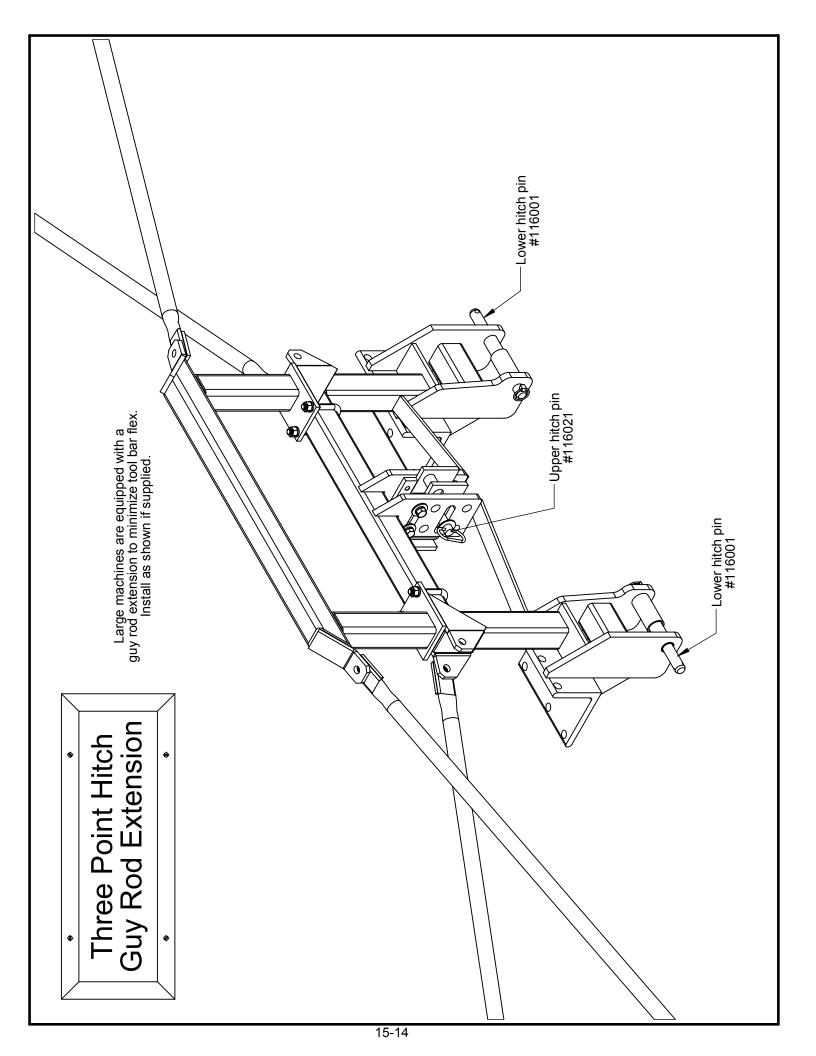


Quick Hitch Slide Link Installation For Double Tool Bar Frame (12 Row 22 Cushion Shank & 12 Row 30)



Quick Hitch Slide Link Installation For Category 2 Hitches

The Quick Hitch Slide Link Can Be Mounted In Various Ways Depending On Your Needs



#### **OPERATION OF THE ONE STEP™ SYSTEM**

#### One Step™ Field Operation

On One Steps equipped with belly shanks. operate machine approximately 1" (25cm) higher in the rear. This will prevent excessive wear to the lower front portion of the belly shanks. On all One Steps not equipped with belly shanks, operate machine level front to back, using the front and rear gauge wheels. Once the machine appears to be level, rod depth can mostly be controlled with the front gauge wheels. Always put the front divider system down in operating position before entering the bean rows. This will prevent vines from tangling around the rod support shanks, as the One Step enters the bean rows. Make sure top 3rd link and lower 3 point hitch arms have been properly adjusted allowing the machine to float. Float pins should be removed from the lower 3 point arms. Place the 3 point position control lever on your tractor in the lowest position. (Do not engage machine at this time.) With the machine on the ground, drag it until the rod is under the dirt, then engage the power to the machine. This will prevent foliage from wrapping around the cutter rod. Move ahead very slowly (1/2 mph). Now raise the 3 point control lever to carry part of the weight of the machine. You can now increase the tractors speed to operating speed.

In the bean row, the second rod or "kicker" should be halfway in the dirt. If the beans are hesitating on the rod, adjust cutter rod 1/4" to 1/2" (6mm to 12mm) deeper using the turnbuckles located on the front gauge wheels.



Mhen making adjustments to the machine stop tractor engine and remove the key!



Mever Operate Machine if chain guards are missing or if safety decals are damaged!

The #1 flow control valve, located on the right side of the machine should never exceed 3 1/2 on the gauge. Adjust the valve until the pick up head is operating half of ground speed or approximately 30 to 35 RPM. With the tractor's hydraulic flow control valve set the flow rate to 8 to 9 gallons per minute (30 to 34 liters per minute). Working pressure is 2000 psi (138 Bar)

Adjust the hydraulic flow until the material movement across the draper table is even. At this flow rate the cutter rod speed will be between 100 & 140 RPM. Also never operate the rod unless it is in the dirt. Always turn the machine off when turning or during transport. After you have checked the rod depth make sure all divider rods and all dividers are adjusted properly and bolts and nuts are all tight. (Refer to Figure 15-10.) Keep divider rods close to tires so beans & vines flow smoothly past the tires.

Now go through the following instructions to set your One Step™ unit up correctly.

#### NOTE: NEVER BACK UP WITH DIVIDER SYSTEM IN DOWN POSITION

#### Divider System Setting (See pages 15-1 thru **15-4**)

- 1. Using (2) 3/4" wrenches, loosen bolt and adjust divider tilt adjustment, the front of the divider shoe needs to be slightly higher than the rear. Tighten securely and check periodically.
- 2. Use a 1/2" wrench to extend the 3/4" rod tip of the divider until the tip of rod is 1/2" to 3/4" (12 to 18mm) under soil surface.
- 3. Form vine rods to gently separate and direct foliage around tires. Bend the end of all rods slightly inward to prevent shatter as foliage moves past the end of the rods. Inspect periodically.

#### Rear Tire Dividers (See pages 15-1 thru 15-3)

- 1. Ensure that the rear tire divider is centered on the face of the tractor's rear tire.
- 2. The parallel linkage portion of the rear tire divider needs to be positioned slightly down in the back from parallel to the ground. Tractor height will determine setting.
- 3. To lower the front of the rear tire divider, turn angle iron mounts over by removing upper and lower bolts and bushings. Reassemble using 1/2" x 3" x 3" U-bolts to the 3" x 3" support tube.

4. Form rear tire divider vine rods to gently separate and direct foliage around rear tire. Check position of the divider rods periodically during harvest to prevent crop damage or loss.

#### **Optimum Rod Depth**

- 1. Study soil and field conditions to determine optimum rod depth. *Precise rod depth* control is essential. In the center of the bean row, operate the cutter rod as shallow as possible. Rod will operate 1" to 2" (25mm to 50mm) underground, or halfway in the middle of the 2<sup>nd</sup> or kicker rod, 1/4" to 1/2" (6mm to 12mm) up or down. This will depend on field preparation and conditions present at harvest time.
- 2. For maximum dirt separation always operate with the double rods. Page 40-2 illustrates a variety of field conditions and recommended rod depths.
- 3. Always operate the rod as shallow as possible with a smooth even flow of beans over the double rod. Pages VI & VII recommends farming procedures from planting to harvest, for proper field conditions, to facilitate the best One Step™ results.
- 4. The lifting action of the second rod helps remove dirt from the root. Remember to set rod speed 100 to 140 RPM. Speed is set with the tractors hydraulic flow rate.

#### **Maintain Rod Depth**

There is only one positive method to maintain rod depth. Front and rear mount gauge wheels and operating the machine level front to back. This, in conjunction with a quick hitch slide link or having the top 3<sup>rd</sup> link in one of the slotted holes on the 3 point hitch. Uneven or hilly terrain presents a challenge for constant depth control. When moving through a draw or over uneven terrain, the gauge wheels, if properly adjusted, can hold the One Step at a precise rod depth without restriction. When adjusting the top third link position, have top 3<sup>rd</sup> link parallel to ground and set approximately 1" from front of the slot. When set properly, the One

Step will lift in a level manner when lifting at the end of the field. Located on all lower three point hitch arms, are float pins. These float pins must be removed. Position your 3 point hitch so the machine is floating in the arms with little or no resistance from tractor. Position 3 point hitch so it is just carrying a little weight. Weedy or hard soil conditions can cause the One Step™ to rock forward onto the front gauge wheels allowing the cutter rod to come out of the ground. To overcome this problem, add weight to the rear of the machine, using the rear tire mud scraper weight mount bracket. One or two tractor weights per side will eliminate this. (See page 25-8)

IMPORTANT: A good level seed-bed is very critical before planting. Cultivation after is also very important, to make each bed the same height and to eliminate weeds in the process. (See pages VI thru VIII).

#### Pickup Head to Rod Relationship

From the factory the pick up head of the machine has been positioned and engineered to gently remove the beans off the double rod and move them safely onto the moving discharge system. The pick up head, depending on field conditions, can be moved up to 1" (2.5cm) closer to the rod or 6" (15cm) away from the rod, using the ratchet jacks and slide plates located on each side of the machine.



#### A Support shanks with wooden blocks when making adjustments!

If your One Step™ has belly shanks, follow these instructions when the need to position the pickup head closer or further away from the cutter rod occurs.

1. Perform this function on a smooth surface while placing a 3/8" to 5/8" (9.5mm to 16mm) plate under all straight shank or cushion shank points. This should put belly shank points and cutter rod level just a little below center. This operation can also be accomplished in the field by leaving the machine down and in the row. Use the tractor's 3-point hitch to just lift a little weight while leaving the One Step on the ground.

- 2. Clean belly shanks off. Remove the dirt from the top and along the sides, especially in the slots of the belly shank. This will keep sand and other dirt particles from falling in between the 2 sandwich plates and facilitate a secure position when tightened.
- 3. Loosen all horizontal bolts on belly shank so they are fairly loose in the plates.
- Loosen the two 1" carriage bolts located on the slide plates on each side of the machines.
- 5. Use the ratchet jacks on the upper front portion of the One Step to either move the pickup head 1" (2.5cm) closer or 6" (15cm) further away from the cutter rod.
- 6. Important: While adjusting the slide plates and moving the pickup head in either direction, keep the belly shank bearings and rod straight in line with those of the straight shanks. Moving both sides at the same time will keep the belly shanks from binding. Rotate rods several times, inspect again for straightness and tighten all bolts securely.

Note: If your machine is equipped with cushion shanks keep in mind that the shanks will flex rearward while operating. Set belly shanks 1/2" to 3/4" (12mm to 19mm) behind cushion shanks. An easy way to accomplish this is to set the ratchet jacks 1/2" to 3/4" (12mm to 19mm) behind the position that you want to operate the machine. Tighten belly shanks, as described above and then move the cushion shanks to the desired operating position finally tightening the bolts in the slide plates.

IMPORTANT: Operate the pickup head at half of ground speed or approximately 30 to 35 RPM. The beans will actually hesitate or slightly push ahead before moving over the pickup head. The beans will predominately stand straight up, making each bean plant cushion the next, forming a smooth even flow over the hex roller and slinger tube, then into a windrow. Operate the discharge table so product moves smoothly off the end and into a uniform windrow. Maintain constant control of the beans from cutting to discharge.

Pickup head height is determined by foliage, volume, and size of plant. Range of operation should be between just touching soil to 2" (5cm) above the soil.

## Scissor Type Gauge Wheels Mounting Instructions (See page 15-10 & 15-11)

Using (2) 3/4" x 6" eye bolts with (2) 3/4" x 9 bolts with nuts and locks, mount scissor gauge wheel in front of outside shank on the main frame of the One Step. Raising or lowering the gauge wheels with turn buckle thread adjustment will aid in mounting the wheel to the main frame. Center gauge wheel and tighten.

On various larger models of One Steps, (such as the 1222, 8030, C8030 and 6038), the scissor gauge wheels can be mounted inside to the next shank in on the machine. This gauge wheel placement will provide a more constant rod depth on larger models. (See pages 15-8 & 15-9)

Each gauge wheel comes standard with a turnbuckle ratchet jack system to regulate and maintain depth control. It will be necessary to have a tape measure to know turnbuckle pin distance from center to center. Use the top of the tubing structures on the gauge wheel frame as a stop for the handle of the turnbuckle. The movement of the handle from the top of the tube on one side to the top of the tube on the opposite side (approx. 220°) will raise or lower the gauge wheel axle 1/4". For level operation, the front gauge wheels work together with the rear gauge wheels to provide stability and precise rod depth. Observe the machine operating in the field, to be sure that the machine is riding on all wheels. Operating with four gauge wheels is the only way to maintain constant cutter rod depth.

# Divider Placement on Scissor Gauge Wheel (See page 15-10 & 15-11)

Using (2) 5/8" x 4 1/2" bolts and 5/8" x 4 1/2" eye bolts with lock washers and nuts, mount divider on mounting bar located on front of scissor gauge wheel. Elevation of the mounting bar is determined by the depth of furrow. (The position shown on page 15-10 is the most common position.) Adjust divider parallel

linkage to parallel position. Arms on divider should be parallel to the ground or slightly higher in front. Mount lower support assembly (Page 15-11, Item no. 4) to lower back of divider using (1) 5/8" x 2 1/2" U-bolt with nuts and lock washers. Mount rear of lower support assembly to holes provided on gauge wheels with (2) 5/8" x 2" bolts with nuts and lock washers. Inspect for straightness and tighten securely. Adjust divider according to divider adjustment (Page 15-10). Using (2) 1/2" x 3 1/2" bolts, mount divider rods to divider as shown. (Page 15-1, Item no's. 5 – 6). Adjust rods to gently separate and move foliage around tires and into throat of the machine.

On machines without scissor gauge wheels mounted at the ends. (See pages 15-8 & 15-9.) Mount standard outside mounting bracket using Type B U-bolt. (See Item no. 34 – 35, page 15-1). Position the mounting plate of the outside mounting bracket adjacent to the outside shank mounting angle, tighten securely. Mount and adjust divider according to Page 15-4 & 15-10. Inspect for alignment. Divider should be directly in line with shank. Tighten securely.

Improper assembly could cause accidents or unnecessary down time. If you have any questions you may call 1-800-473-3559, or your authorized Pickett Equipment dealer.

#### **LUBRICATION** (See page 15-12)

Daily and hourly maintenance is required to avoid unnecessary down time. Periodically listen to, and watch the machine operate without material moving through it. This simple step can prevent most unforeseen problems.

 Greasing the machine reduces the amount of foreign material and moisture that can enter voids causing rust.

**Front Divider System** – One zerk is located on the upper and lower portion of each lifting arm assembly. Grease every 16 hours of operation, 8 places. Use type EP-2 grease.

Ratchet Jacks – Each ratchet jack is equipped with two Zerks. Grease every 40 hours of operation. Use type EP-2 grease

Chain Case – Check daily maintain approximately 4" (10cm) of grease in the chain case use semi fluid grease Pickett part # 107009. Do not use gear oil. The use of inferior greases will void warranty on the machine.

#### **GENERAL MAINTENANCE**

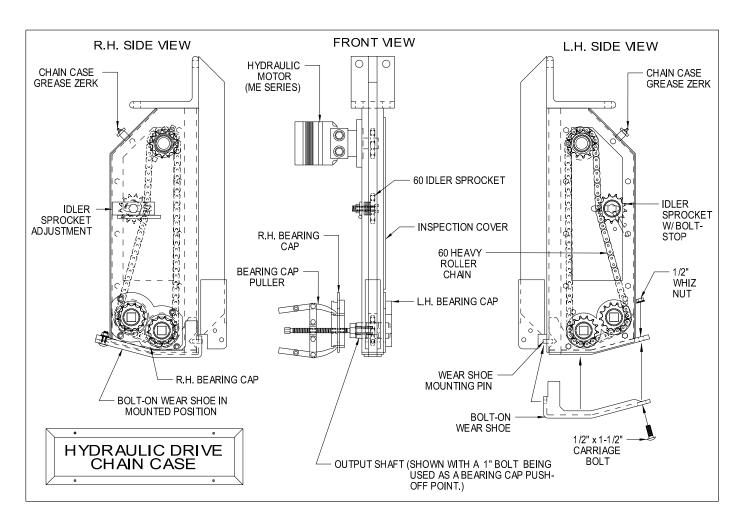
Bearings - Check all cutter rod bearings daily. Because they work under ground, after several acres these bearings may tend to freeze up or wear out. Carefully inspect them after several hours of operation. Using an infra-red thermometer check the temperature of each bearing immediately after disengaging the hydraulic power to the rod. Replace any bearing that is over 145°F (63°C).

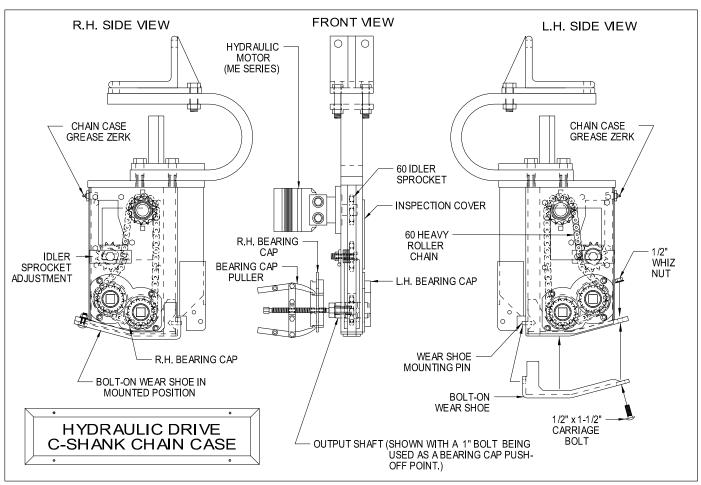
# Always turn off tractor and remove key before inspecting or making adjustments!

To change a cutter rod bearing start at the outside end closest to the bearing to be replaced and then work your way in. First remove the nuts and carriage bolts from the flangettes on the shank then remove the rods. Ensure that couplers are placed about 1/4" (6mm) from touching bearing. If couplers are placed too close to bearings, bearing failure may occur, because of friction between the two components.

Chain Tension – See page 25-5 Check chain tension inside chain case daily. Do not over tighten chain, there should be approximately 1/4 (6mm) inch play in chain. Inspection plate provided should be removed and chain case inspected inside every 16 hours.

Cutter Rod Fasteners - Check for tightness on all fasteners on cutter rod support shanks 4 hours after the initial start-up in the field. Vibration and stress, which only field conditions create, may loosen fasteners. Check fasteners throughout the entire machine front to back every 10 hours.





#### **Hydraulic System**

One hour after start-up, check all hydraulic connections for any hydraulic leaks. Inspect hydraulic hoses throughout machine to ensure that they are securely in place and not dragging or rubbing a hole in the hose.

Always maintain full hydraulic oil level in tractor. Check tractor for hydraulic leaks. Check filter and change according to the tractor manufacturer's recommendations.

#### **Draper Belts (See page 25-8)**

Inspect every 6 hours of operation. Ensure that the belt is running in the center of the conveyor housing. The tail roller's bearing bracket is equipped with a threaded adjustment on each end of the roller to facilitate the centering of the draper belt. Ensure that all deflector tins clear belts and belt connectors. Tins which rub on belts could cause excessive wear. When machine is not in use remove tension from the draper belt. Remove draper belt after harvest and store in a dry place, free from sunlight.

A If during operation draper belt becomes blocked or cutter rod gets wrapped with debris. Turn off tractor and remove the key before fixing the problem!

#### Pickup Head (See page 25-9)

Ensure that the pickup head operates parallel to the ground or in relationship to the main frame regardless of height setting. (Raise and lower evenly using the cable lift system.) Check all fasteners throughout the entire pickup head 4 hours after first start up and every 16 hours thereafter.

Inspect pickup head, cam tracks, cam bearings and the finger tubes that support rubber mounted fingers (see page 25-9). Make sure finger tubes have not been bent, causing bearings to run under excessive side pressure.

#### **Tires**

Check the pressure in all tires on the machine ensuring they are at the recommended 35 psi. Never exceed 45 psi. Inspect hubs annually and repack bearings with type EP-2 grease. Maintain all gauge wheel ratchet jacks.

Lubricate threads every 40 hours. Use EP-2 grease.

#### **Other Parts**

Check fasteners on entire divider system daily. Vibration causes the fasteners to loosen. Periodic inspection and tightening is required.

Maintain all shields and guards for safe operation. Check all safety and maintenance stickers. Replace if damaged or missing.

Mear personal protective equipment when performing any maintenance or assembly on the machine. Protective equipment may include: hard hat, dust mask, safety goggles, hearing protection, face shield, gloves and steel toed boots!

#### **Chain Case Maintenance and Repair**

(See page 25-5) Maintain at least 4" (10cm) of grease in bottom of chain case housing, use semi fluid grease, Pickett part # 107009. Remove inspection plate and inspect grease for small metal shavings. Metal shavings indicate misalignment of sprockets. Should a bearing go out and the bearing has seized on sprocket housing, use a bearing puller as shown on page 25-5, front view, to remove the bearing cap and bearings from the chain case.

Replace wear shoe on bottom of chain drive housing when needed. Before holes appear on the front bottom side. Some soils are more abrasive than others. Frequent inspection is recommended depending on soil type. Serious damage may occur to chain case if wear shoe maintenance is neglected. Replace front wear points or shoes when needed. When wear points lose the V shape on the bottom they will not penetrate hard ground conditions. Aproximently 2" (5cm) below the roll pin hole. Inspect bearing cap sleeve bolts. (A maximum torque of 45 foot pounds is recommended).



A Support shanks with wooden blocks when changing points or cutter rods!



#### Support shanks with wooden blocks when changing points or cutter rods!

#### **Rod Breakage and Replacement**

If a cutter rod chain case key needs replacing, use bearing puller and push the rod through the sprocket sleeve. To achieve easiest removal, push the shortest piece of rod through the sprocket sleeve. Do not remove rods by hammering. This will cause serious damage to bearings and cap sleeves.

#### IMPORTANT: When replacing the cutter rod key in the chain case, always coat the key heavily with anti-seize lubricant.

Replace cutter rod when square edges have been worn round. When this happens, beans do not flow over the rod, but push ahead of the rod. Replace using new couplers and rod lengths according to manufactures specifications and location.

After replacing the cutter rod fill the Allen head of the lock collars' set screws with grease. This will aid in future repairs because the grease will not allow dirt to fill the Allen head.

#### **Dividers**

Replace the UHMW wear shoe on the divider before you can see the metal under it. See 15-10

#### **Hitch Pins**

Weekly check the hitch pins for wear. If there is more than 1/16" (2mm) of wear the pins need to be replaced. See page 15-14. Top hitch pin # 116021. Bottom hitch pin # 116001.

#### **Guy Rods**

Upper guy rod anchor bolts should be adjusted on flat ground. Tighten so that the bolt is just snug with angle mount. Do not over tighten particularly the upper rear guy rod. Over tightening will cause the main tool bar to bow rearward causing misalignment to the cutter rod. Large machines are shipped with a guy rod extension mount its purpose is to minimize tool bar flex. (See page 15-14)

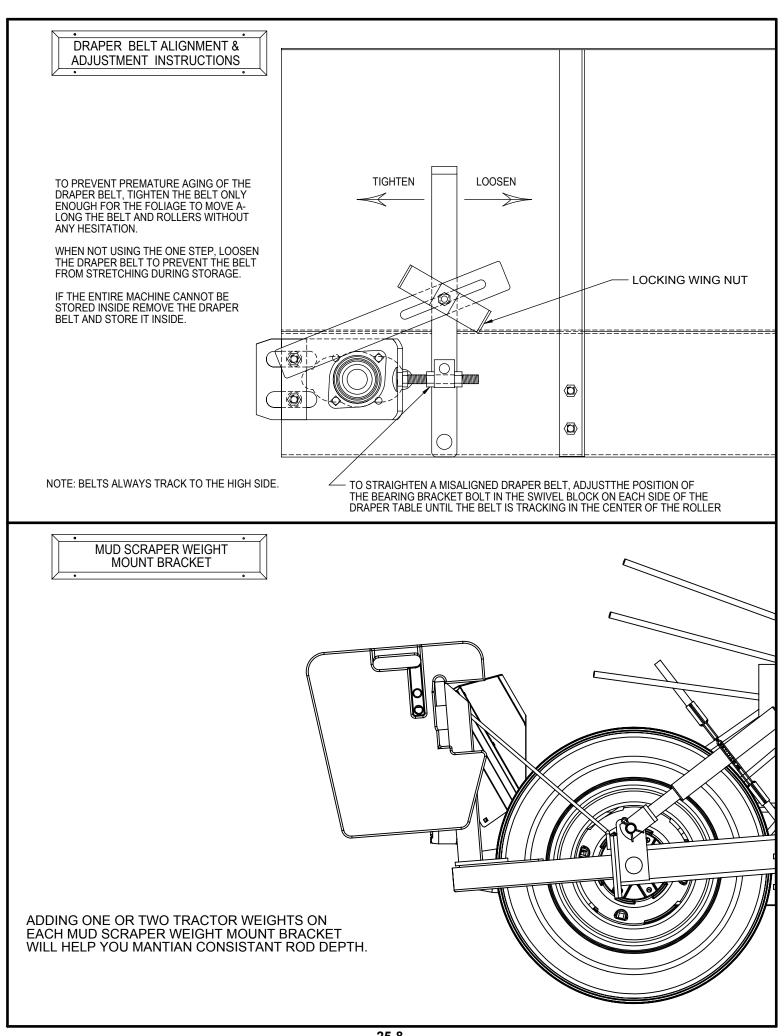
#### **Transporting the One Step**

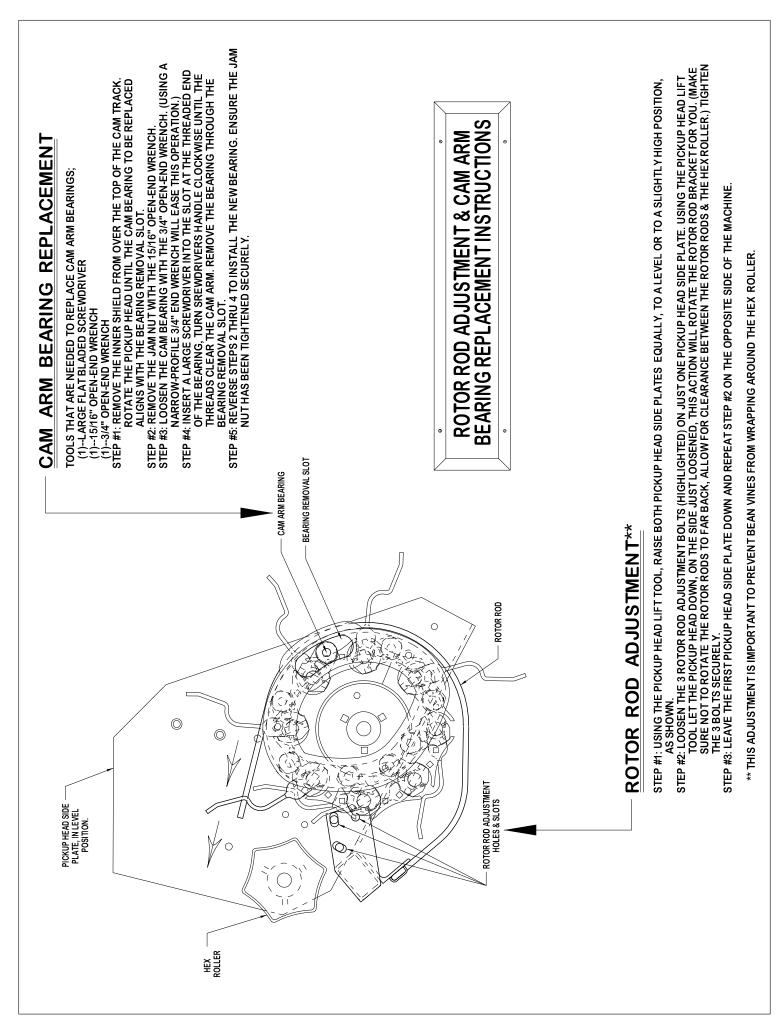
- The weight of the One Step and divider system will add weight to the tractor, which will decrease the tractors stability and maneuverability. Please use caution and allow for additional distance when braking or maneuvering around obstacles.
- Do not transport the One Step over 15MPH (32km/hr)
- Make sure all reflectors, hazard lights and lamps are in working order.
- Be sure the Slow Moving Vehicle emblem is clean and visible from the rear of the machine
- Know about other traffic on the road. Keep well over to your side of the road. Pull over, whenever you can, to allow faster traffic to pass.
- Adjust travel speed to maintain control of the One Step and tractor at all times. Never coast down hills.
- Know the overall width and length of the machine. Be careful when transporting the machinery on narrow roads and across bridges

#### Storage of One Step

After harvest store machine in an enclosed building, if possible. Storing outside in the weather causes steel frame and parts to rust. Hot and cold extremes also cause rubber fingers to deteriorate. Wash machine and spray machine with a rust inhibitor as needed on places where paint is worn off from operation. Place blocks under the shanks to keep the cutter rod bearings off of the dirt. Remove draper belt and store inside and away from sunlight.

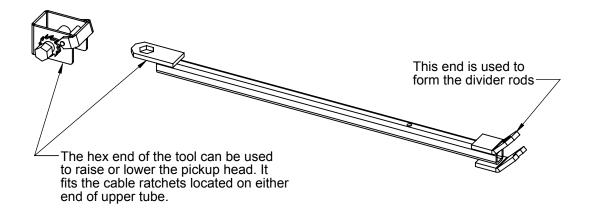
Make a list of repairs and parts needed before the next harvest. If time permits make repairs before storing the machine.

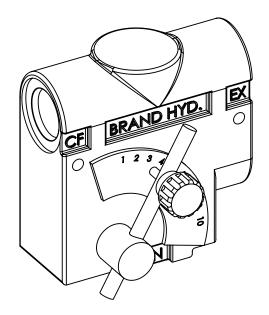




### **Special Tool**

This pickup head & divider rod tool is furnished with the One Step Part # 901475





The flow control valve located on the right end of the One Step controls the pickup head. Never set this valve above 3 1/2 on the scale. The pickup head should operate at 30 to 35 RPM.

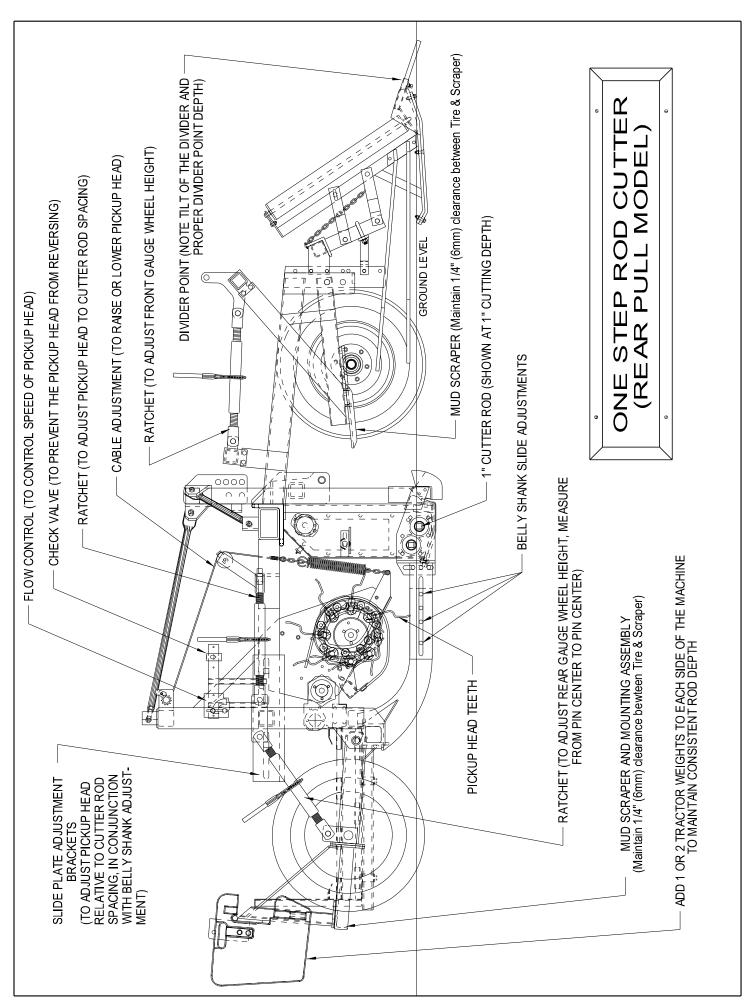
One way of setting this speed is to paint one finger red. Then from the operator's seat count the number of times you see that finger in one minute.

The beans will actually hesitate or slightly push ahead before moving over the pickup head. The beans will predominately stand straight up, making each bean plant cushion the next, forming a smooth even flow over the hex roller and slinger tube, then into a windrow.

## **TROUBLE SHOOTING**

Symptom	Problem	Solution
Excessive Rod Breakage	Stones	Change to a 1045 rod or 1 1/4" rod.
	Shank out of alignment.	Clean out dirt, and then tighten shank or shim to straighten.
	Inadequate RPM at the rod.	Operate cutter rod at 100 to 140 RPM. Hydraulic flow should not exceed 8 to 9 GPM (30 to 34 LPM) at 2000 PSI (138 Bar). The flow rate is controlled by the tractors hydraulic system
	Bearings out of alignment.	To realign bearings loosen all shank rod bearing flangettes slightly, (just enough to change angle on bearing). With new (or straight) rod in unit, run rod for 20 seconds, then completely shut down the system and tighten all bearing flangettes.
	Hard ground conditions.	Run rod as shallow as possible. Make sure that the tractors 3-point is in float, and hold a little weight on the tractors 3-point hitch.
Excessive Crop Loss	Divider rods are too abrupt, or too low to the ground plowing the beans over.	Check to assure that front and rear tire dividers and divider rods are adjusted and formed correctly to divide foliage smoothly, not abruptly.
	Cutter rod plowing beans over.	Slow cutter rod down. Operate the rod as shallow as possible while still allowing the foliage to move over the rod consistently. Change rod if corners have become rounded.
	Beans moving ahead of pickup head.	Adjust pickup head operating speed, so as not to exceed 1/2 that of ground speed (30 to 35 RPM). Run as slow as possible.
	Thick foliage or weeds bunching up between cutter rods and pickup head.	Move pickup head away from cutting rods by loosening side plate bolts. Use ratchet jacks to move it further back, adjusting each side equally. This allows more clearance through the throat of the machine, facilitating the passage of foliage. Do not move more than 1" to 2" (25mm to 50mm) back at one time. This makes a lot of difference.
	Digging deeper on one end of the machine than the other.	Check the tractors 3-point hitch arms and machines gauge wheels to assure that both sides are the same length and that they are securely connected to the machine. Make sure that the machine operates in a level manner by adjusting the gauge wheel ratchet jacks.
	20.1	

Symptom	Problem	Solution
Excessive crop loss (cont.)	Plants dropping into the furrow while cutting which are subsequently missed (not picked up) by the pickup head.	Problem can be caused by an excessively deep furrow. The recommended furrow depth is 2" to 3" (50mm to 76mm). Slow rod speed down. Lower pickup head and slow it to half of ground speed and use slide plate adjustment to move the pickup closer to rod with ratchet jacks.
Machine hydraulic power starts to decrease.	Cutter rod slows and pickup head starts to slow down or stops.	Bearing may be going out. Rod may be wrapped. Make sure that the hydraulic control lever in the cab is working properly. Verify proper hook-up of the tractors hydraulic return line. Return line must not have any restrictions. Refer to tractor operator's manual to determine proper oil return many tractors have a motor circuit return port separate from the selective control valves. Check tractor flow control valves for obstructions which can hamper flow through the hydraulic system. Check to ensure that the tractor's hydraulic oil level, flow and pressure are adequate for satisfactory operation. Do not exceed 9 gpm (34 lpm). Torque of the chain case hydraulic motor actually decreases as flow is increased.
Machine will not stay or go into the ground.	Hard or very dry ground.	Inspect points on lower end of shanks. If they are round and have lost the sharp point, replace with new. Use shear point if necessary. Add weight behind the rear tire on the One Step, 100 to 150 lbs (45 to 68 kg) per side. (See page 25-8)
Beans wrapping around hex roller and 4" roller.	Wet conditions or very viney bean variety.	Inspect rotor rods. See if they have loosened and rotated forward. (See page 25-9) If so, loosen bolts on rotor rod bracket on lower rear side of side plates and rotate the end of the rotor rods toward the hex roller. Make sure not to rotate too far or the rotor rods will wear on the finger tube and pick up head bearings. Tighten securely, also slow the pickup down to half that of ground speed to provide a consistent movement of foliage over the hex roller and 4" roller or wait for drier conditions.
Vines and trash collecting around dividers or shanks on One Step.	Very viney conditions or weeds are present.	Front point on divider needs to be replaced or added to, so front divider point will work 1/2" to 3/4" (12mm to 19mm) under the ground. Do not let anything go under dividers. Make sure divider rods are properly formed. Refer to divider setting in this Owner's Manual for proper setting for most conditions.



# ONE STEP SETTINGS

Field	Ground	Rod	*Rear Gauge	**P.U.H.	P.U.H. Speed	Draper Belt	P.U.H. to Rod	Front Gauge
Conditions	Speed	Depth	Wheel	Teeth Height	Setting	Speed	Spacing	Wheel
Light Soil	6 mph (9.7 km/h)	1" – 2" (25mm - 50mm)	24" (61cm) w/ Belly Shanks 25 1/2" (65cm)	1" (25mm)	3-3 1/2 on flow control	Regulate speed from tractor	Standard	Set according To Rod Depth
Medium Soil	6 mph (9.7 km/h)	1" – 2" (25mm - 50mm)	24" (61cm) w/ Belly Shanks 25 1/2" (65cm)	1" (25mm)	3-3 1/2 on flow control	Regulate speed from tractor	Standard or 1" (25mm) Back	Set according To Rod Depth
Heavy Soil	5 mph (8 km/h)	1" (25mm)	24" (61cm) w/ Belly Shanks 25 1/2" (65cm)	1" (25mm)	3-3 1/2 on flow control	Regulate speed from tractor	Standard or 2" (50mm) Back	Set according To Rod Depth
Hard Soil	4 mph (6.5 km/h)	1" (25mm)	24" (61cm) w/ Belly Shanks 25 1/2" (65cm)	1" (25mm)	3-3 1/2 on flow control	Regulate speed from tractor	Standard	Set according To Rod Depth
Mud	4 mph (6.5 km/h)	1" (25mm)	24" (61cm) w/ Belly Shanks 25 1/2" (65cm)	2" (50mm)	3-3 1/2 on flow control	Regulate speed from tractor	1" - 2" (25mm - 50mm) Back	Set according To Rod Depth
Rocky	4 mph (6.5 km/h)	1" (25mm)	24" (61cm) w/ Belly Shanks 25 1/2" (65cm)	2" (50mm)	3-3 1/2 on flow control	Regulate speed from tractor	Standard or 2" (50mm) Back	Set according To Rod Depth
Weeds	4 mph (6.5 km/h)	2" – 3" (50mm - 76mm)	24" (61cm) w/ Belly Shanks 25 1/2" (65cm)	2" (50mm)	3-3 1/2 on flow control	Regulate speed from tractor	2" – 4" (50mm – 101mm) Back	Set according To Rod Depth
Light Foliage	6 mph (9.7 km/h)	1" (25mm)	24" (61cm) w/ Belly Shanks 25 1/2" (65cm)	3/4" (18mm)	3-3 1/2 on flow control	Regulate speed from tractor	Standard or 1" (25mm) Forward	Set according To Rod Depth
Heavy Foliage	4 1/2 to 5 mph (7 to 8 km/h)	1" (25mm)	24" (61cm) w/ Belly Shanks 25 1/2" (65cm)	2" (50mm)	3 – 3 1/2 on flow control	Regulate speed from tractor	2" – 3" (50mm – 76mm) Back	Set according To Rod Depth

The settings that are recommended are always subject to change because of varying types of field conditions. It is best to make any adjustments in small increments in order to verify your results.

\*Measurement is from center of pin to center of pin on ratchet jack. When operating a machine with belly shanks, set ratchet jacks at 25" to 26" (63cm to 66cm) so the machine will operate 1" (25mm) higher in the rear. On machines with outside chain cases set the chain case side 1/2" to 1" (12 to 25mm) lower than the opposite side.

<sup>\*\*</sup>Note measurement is distance above the ground.



## **Pickett Equipment**