

Patriot Pivot Track Closer^{IM}

Owners Manual Three Bar and Four Bar Models



Three Bar Model Shown

Manufactured by Patriot Equipment 1302 K Road Minden NE 68959 (308) 832-0220

Patriot Pivot Track Closer	
Serial # Date of Purchase	

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Thank you for choosing the Patriot Pivot Track Closer!

This manual covers the operation and maintenance of the Patriot Pivot Track Closer. All information in this manual is based on the latest production information available at the time of printing. For orientation, left and right is determined by sitting in the operator seat facing forward.

Purpose:

The Patriot Pivot Track Closer is designed to provide the user with a filled level packed pivot track. The concept of this machine is to allow the user the flexibility of being able to adjust the machine on the fly. No other track closer gives the user such convenience. Also, the disc blades are adjustable independently up, down, in and out, giving the user more options in different situations. The Four Bar model allows the user to bring more soil into the pivot track area if needed.

Features:

- 1. **22" Disc blades** Set at the optimum angle to get the perfect amount of throw.
- 2. **V Shaped** This v shape allows the soil to funnel in with little effort from the driver.
- 3. **Heavy Built** Your new Patriot Pivot Track Closer is built with a 7" x 5" x 3/8" main frame with 1" x 8" end plates, the disc blade are held in place with a 1,750 lbs. spindle and hub mounted on a 2" x 2" solid steel shank. The machine weighs 2,200 lbs.; three bars, 2,700 lbs.; four bars, upon delivery and the packer wheel can be filled to add an additional 950 lbs.
- 1. **Hydraulically adjustable** Patriot Pivot Track Closers are the only closer that allows the user the flexibility to adjust the depth on the fly. Two 3"x 8"cylinders are used to control the depth of the machine on the fly. Allowing you, the user, complete control.
- 2. **Packer Wheel** Patriots packer wheel is made from ¼" steel plate and is capable of being filled with 950 lbs. of sand.

Add on Features: (can be added to your standard pivot track closer)

- 1. **Guide cone assembly** assist in keeping the pivot track closer centered over the pivot track.
- 2. **Power Harrow** (hydraulically driven) evenly spreads the soil out after the packing drum to allow for smoother field conditions for future field operations.

The Power Harrow is available in different widths:

- 48" For use with standard three bar pivot track closer.
- 60" For use with extended three bar pivot track closer and standard four bar pivot track closer.
- 88" For use with extended four bar pivot track closer.

Minden Machine Shop Inc. reserves the right to make changes at any time without notice and without incurring any obligation.

Please become familiar with all safety, operating, maintenance, and troubleshooting information. This will ensure your safety and long life for your pivot track closer.

SAFETY AND OPERATION RULES

GENERAL SAFETY STATEMENTS

Safety precautions are essential when the use of any mechanical equipment is involved. These precautions are necessary when using, storing, and servicing mechanical equipment. Using this equipment with the respect and caution demanded will considerably lessen the possibilities of personal injury. If safety precautions are overlooked or ignored, personal injury or property damage may occur.

This unit was designed for specific applications. It should not be modified or/and used for any application other than which it was designed. If there are any questions regarding its application, contact Patriot Equipment. Do not use this unit until you have been advised. For more information, call 1-800-264-6587.

Read this entire manual carefully - know your equipment. Consider the application, limitations, and the potential hazards specific to your unit. Occupational safety is of prime concern to us. This manual was written with the safety of the operator and others who come in contact with the equipment as our prime concern. The manual presents some of the day-to-day work problems encountered by the operator and other personnel. We wrote this manual to help you understand safe operating procedures for Patriot Pivot Track Closers. We want you as our partner in safety. A copy of this manual should be available to all persons who may operate this machine.

It is your responsibility as an owner, or operator, or supervisor, to know what specific requirements, precautions, and work hazards exist and to make these known to all other personnel working with the equipment or in the area, so that they too may take any necessary safety precautions that may be required. Avoid any alterations of the equipment. Such alterations may create a dangerous situation where serious injury or death may occur.

Why is SAFETY important to you?

3 BIG REASONS

1	Accidents disable and kill
2	Accidents cost money
3	Accidents can be avoided

Signal Words

Note the use of the signal words **DANGER**, **WARNING**, and **CAUTION** with safety messages. The appropriate signal word for each message has been selected using the following guidelines:

DANGER – An immediate and specific hazard, which will result in severe personal injury or death if proper precautions are not taken.

WARNING – A specific hazard or unsafe practice, which could result in severe personal injury or death if proper precautions are not taken.

CAUTION – Unsafe practices which could result in personal injury if proper precautions are not taken, or a reminder of good safety practices.

SAFETY ALERT SYMBOL



BE ALERT! YOUR SAFETY IS INVOLVED

The Symbol Shown Above Is Used To Call Your Attention To Instructions Concerning Your Personal Safety. Watch This Symbol - It Points Out Important Safety Precautions. It Means ATTENTION! Become Alert! Your Personal Safety Is Involved! Read The Message That Follows And Be Alert To The Possibility Of Personal Injury Or Death.

Anyone who will operate or work around a Patriot Pivot Track Closer shall first read this manual! This manual must be delivered with the equipment to its owner. Failure to read this manual and its safety instructions is a misuse of equipment.

SAFETY EQUIPMENT

Please, remember safety equipment provides important protection for persons around an auger that is in operation. Be sure ALL safety shields and protective devices are installed and properly maintained. If you find any shields or guards damaged or missing, contact Minden Machine Shop Inc. for the correct items.

SERIAL NUMBER

To ensure efficient and prompt service, please furnish us with the model and serial number of your Patriot Pivot Track Closer in all correspondence or other contact. The serial Number is located on the left side on the front of the track closer.

SAFETY PROCEDURES

- 1. Use only lifting equipment with the proper capacity when loading or unloading your Patriot Pivot Track Closer
- 2. Make sure you are using a tractor with enough horse power to pull your Track Closer
- 3. Do not set your track closer to far in the ground. Under no circumstances should you set the blades past the usable depth of 8".
- 4. Be careful when backing as to not run into anything.
- 5. Be aware of anything buried underground as not to damage it or the track closer.
- 6. If you fill the drum be aware the water freezes and you will damage the drum if not filled with antifreeze or drained when not in use.
- 7. Before each use check to make sure all bolts are tight the hitch pins are not worn and the hydraulic hoses are tight and not worn.
- 8. In case of any defect or awareness of potential danger please contact Minden Machine Shop, Inc at 1-800-264-6587 immediately.

OPERATOR QUALIFICATIONS



Operation of this Pivot Track Closer shall be limited to competent and experienced persons. In addition, anyone who will operate or work around a Track Closer must use good common sense. In order to be qualified, they must also know and meet all other requirements such as:

- 1. Some regulations specify that no one under the age of 18 may operate power machinery. This includes the tractor your pivot track closer is attached to. It is your responsibility to know what these regulations are in your own area or situation.
- 2. Current OSHA regulations state in part: "At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee or user in the safe operation and servicing of all equipment with which the employee or user is, or will be involved."
- 3. Unqualified persons are to stay out of the work area as shown in the work diagrams.
- 4. A person who has not read and understood all operating and safety instruction is not qualified to operate the machine.

SAFETY OVERVIEW

YOU are responsible for SAFE operation and maintenance of your Patriot Pivot Track Closer.

YOU must ensure that you and anyone who is going to operate, maintain, or work around the Track Closer must be familiar with the operating, maintenance, and safety information contained in the manual. This manual will take you step by step through your working day and alerts you to all good safety practices while operating the pivot track closer.

Remember YOU are the key to safety. GOOD PRACTICES protect not only you but also the people around you. Make these practices a working part of your safety program. Be certain EVERYONE operating this machine is familiar with the procedures recommended and follows safety precautions. Remember, most accidents can be prevented. Do not risk injury or death by ignoring any information addressed.

Pivot Track Closer owners must give operating instructions to operators before allowing them to operate this machine. They must be reviewed at least annually thereafter per OSHA regulation 1928.57.

The most important safety device on the equipment is a SAFE OPERATOR. It is the operator's responsibility to read and understand ALL instructions in the manual and to follow them. All accidents can be avoided!

Any person who has not read and understood all operation and safety instructions is not qualified to operate the track closer. An untrained operator exposes himself and bystanders to possible serious injury or death.

Do not modify the equipment in any way. Unauthorized modifications may impair the functions and/or safety and could affect the life of the equipment.

SAFETY AFFIRMATION

I have read and understand the operator's manual and all safety signs before operation, maintenance, adjusting, and using the track closer.

I will allow only trained persons to operate the Patriot Pivot Track Closer. *An untrained operator is not qualified to operate this equipment.

I have access to a fire extinguisher.

I have all guards in place and will not operate the Patriot Pivot Track Closer without them.

I will not allow riders on the Patriot Pivot Track Closer.

I understand the danger of moving parts (Disc Blade are sharp, and pinch points are present) and will stop the engine before servicing.

I recognize the danger of the track closer coming in contact with power lines, buried or above ground.

I will not try to unplug this machine by allowing any part of my body to be under any part of this machine.

I am aware of the need to secure the Patriot Pivot Track Closer to the tractor properly before each use.

I understand the danger of working with hydraulics and will make sure all hydraulic components are in good working order before each use.

I understand that any accidents that occur with the Patriot Pivot Track Closer are my responsibilities.

I understand that Minden Machine Shop will not be held responsible for any accidents that involve the Patriot Pivot Track Closer.

SIGN OFF SHEET (this must be signed annually as part of your safety program)

As a requirement of OSHA, it is necessary for the employer to train the employee in the safe operation and safety procedures with this Pivot Track Closer. We include this sign off sheet for you convenience and personal record keeping.

DATE	EMPLOYER SIGNATURE	EMPLOYEE SIGNATURE



MACHINE INSPECTION

After delivery of your new Pivot Track Closer and/or completion of assembly, before each use, inspection of the machine is mandatory. This inspection should include, but not be limited to:

- 1. Check to see that all guards are in place, secured, and functional.
- 2. Check all safety signs and replace any that are worn, missing, or illegible.
- 3. Are all fasteners tight?
- 4. All Hydraulic components are tight and in working order.

SAFETY DECALS

- 3. Keep safety decals clear and legible at all times.
- 4. Replace decals and signs that are missing or have become unreadable.
- 5. Safety signs are available from your Dealer or the Manufacture.

TRANSPORTING THE PIVOT TRACK CLOSER



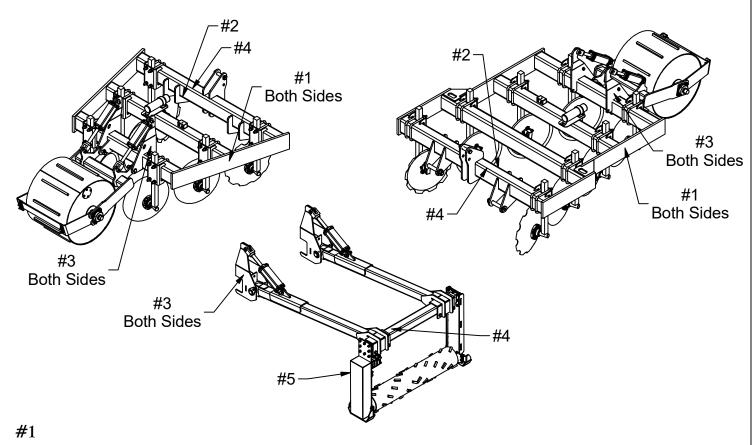
DANGER: Do not transport the Patriot Pivot Track Closer at speeds in excess of 30 MPH and comply with your state and local regulations governing marking, towing, and maximum width. Observe safe driving and operation practices.

ALWAYS make sure the Track Closer is properly secured to a trailer before moving or properly attached to the tractor.



DANGER: Be alert to overhead obstructions and electrical wires. Failure to do so may result in electrocution. Maintain at least ten (10) feet of clearance. Make certain everyone is clear of the work area before moving.

Pivot Track Closer Decal Locations





TS2000

#2



TS2003



BC2515

#3



TS2012

#5



CSP152

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DESIGNATED WORK AREA

WORK AREA DIAGRAM

Before using the Track Closer, a designated work area should be established. The work area should be a perimeter in which no persons should be allowed that are not directly involved in the operation of the Track Closer. Also, all persons in the work area must have read and understand this manual.

RULES FOR SAFE WORK AREA

Under no circumstances should persons not involved in the operation be allowed to trespass into the work area. It shall be the duty of all operators to see that children and/or other persons stay out of the work area! Trespass into the work area by anyone not involved in the actual operation, or trespass into hazard area by anyone, shall result in immediate shut down by the operator.

It shall be the responsibility of all operators to see that the work area has secure footing, is clean and free of all debris, and tools, which might cause tripping and/or falling. It shall also be their responsibility to keep the work area clean and orderly during the operation.

OPERATING PROCEDURES

OPERATING GUIDELINES

The Patriot Pivot Track Closer is designed to safely and efficiently provide you the user with a filled level packed pivot track. Following all safety and operating guidelines should ensure many years of safe and affordable use.

PRE-OPERATION CHECKLIST

When operating this unit for the first time and each time you use it, the following information should be reviewed.

- 1. Make sure the unit is secured to your tractor properly.
- 2. Make sure the hydraulic lines are not worn and are properly attached.
- 3. Make sure the shields are properly installed.
- 4. Make sure you understand the operation of this machine

OPERATION

- 1. Start tractor engine, raise the pivot track closer and move the tractor so the pivot track is directly underneath the tractor.
- 2. Lower the machine to the desired depth and start driving, making sure that you are following the arc of the pivot track.
- 3. Adjust the machine by raising and lowering the packing wheel until you are creating a filled level track.

OPERATION HINTS

- 1. Some newer tractors have a "float" option for the three point, if so, put the three point in "float" during operation. This will allow easier adjustment of the pivot track closer with the drum.
- 2. Adjust the draft control for fine tuning of the operation of the pivot track closer.
- 3. Some operators like to remove the sway blocks from the tractor. This will allow for more movement in the three point arms side to side which can affect how the pivot track closer will follow the pivot track. This will give the operator more of an operational width for driving over the pivot track.

4. Adjust the top arm of the three-point so the pivot track closer will run level when lowered by the three-point.

Operation for Add on Features:

Guide cone

The guide cone assembly can be manually raised and lowered. Once you find the correct running height, adjust the guide cone assembly so that it contacts both sides of the pivot track and has some down pressure on it. The guide cone assembly uses a torsion axle which will allow it to deflect and return as it travels through the field.

Power Harrow

The power harrow is hydraulically driven and hydraulically raised and lowered. The hydraulic motor hoses are attached to the priority outlet of the tractor. The hydraulic hoses are inserted into the hydraulic outlets of the tractor, so that when the system is shut down, the operator can place the system into the "float" position (on the hydraulic control lever) to allow the hydraulic motor to slow down gradually. Also, the drum of the power harrow turns in the reverse direction of travel, so the hydraulic hoses need to be inserted accordingly. Adjust the speed of the power harrow drum with the flow control of the tractor. The hydraulics for the lift system is inserted into another set of hydraulic outlets.



WARNING! Failure to properly lock out the pivot track closer could result in severe injury or death. Never work on the machine while power is being supplied to it.

LOCKOUT

If for any reason you must work on the Pivot Track Closer, turn off the tractor, place it in park, apply the safety brake and make sure the implement is properly blocked up or do not attempt to get under the machine. Make sure all hydraulic systems are off and depressurized.

LUBRICATION & MAINTENANCE

For economical and efficient operation of your Pivot Track Closer, maintain regular and correct lubrication. Neglect leads to reduced efficiency, excessive wear, and needless down time.



WARNING Keep all safety shields and devices in place. Never clean, adjust or lubricate a machine that is in operation

Disc Hubs – These hubs are greased from the factory and should periodically be checked and repacked as needed.

Packer Wheel Bearings - Greased with one pump every 12 hrs of use.

Hydraulics - Inspect before each use. Make any necessary repairs (leaks, damaged hoses, or worn tips) before use.

Cosmetic – any exposed metal where paint or powder has been chipped, gouged, scratched, or worn should be lightly sanded, then primed and painted with good enamel paint. If color is hard to match, contact Minden Machine Shop Inc.

Bearings - Inspected annually for wear and tear. Replace as needed.

Scraper - Inspect before each use and adjusted as needed.

Maintenance Safety

Correct maintenance is your responsibility. Neglecting maintenance or poor maintenance practices can result in injury or death. Always use the correct tools when performing maintenance to the machine. When performing maintenance, to avoid crushing, make sure all personnel are clear of the machine, the machine is lowered to the ground, the tow vehicle is in park with the engine off and the key removed.

Store the machine on a clean, dry and level surface. An uneven surface could cause the machine to shift or fall, resulting in injury or death as well as implement damage. Any machine components that must be raised are to be securely supported. The machine is to be stored away from human activity.

To avoid entanglements, never lubricate or service the machine while it is in motion. Keep away from power driven parts while in motion and disengage power sources prior to maintaining the machine. Injury or death can result from coming in contact with power driven parts when in motion.

To avoid crushing, never stand between the tow vehicle and the machine when connecting or disconnecting the machine. Injury or death can result from being trapped between the tow vehicle and the machine.

To avoid fluid penetration, relieve hydraulic system pressure before connecting or disconnecting the tow vehicle. Escaping pressurized hydraulic fluid can penetrate the skin resulting in injury or death. **NEVER USE BODY PARTS** to check for suspected hydraulic leaks, use cardboard or wood to check for leaks. Always wear protective gloves and safety eyewear (glasses or goggles) when working with the hydraulic system. If an accident occurs, see a doctor immediately for correct treatment.

Other safe maintenance practices:

- Never operate a combustion engine in an enclosed area. Exhaust fumes can cause asphyxiation. Always be sure there is adequate ventilation.
- Be careful when working around unshielded sharp edges to avoid injury by coming in contact with sharp edges.
- Keep all parts in good condition and correctly installed, replace damaged or broken parts immediately.
- Remove tools and unused parts before using the machine.
- Be prepared for fires by having a readily accessible fire extinguisher at all times.
- Keep a readily stocked first aid kit available at all times as well as having emergency numbers posted.
- Wear protective clothing and equipment.

TROUBLE SHOOTING

Packer Wheel Not Raising			
Hydraulic Cylinders	Check hoses for leaks - repair		
Malfunctioning	Hoses connected - check connections		
	Inspect tips - if worn, replace		
	Move control lever opposite direction		
Cylinder pins	Make sure pins are attached and retained		
Pivot Point	Make sure nothing is obstructing the		
	movement of the packer wheel frame		
Power Harrow Drum Not T			
Hydraulic Motor	Check hydraulic hoses, are they connected to tractor		
	Check for leaks, repair		
	Check tractor for correct hydraulic setting in programming		
	Air pocket in the system		
Chain/Sprockets	Chain attached/broken, repair or replace		
	Sprockets stripped/key missing, replace sprockets/keys		
Opposite Direction Move Control lever opposite direction (recommended to shut d			
	hydraulic motor by going into "float")		
	Reverse Hoses		
Power Harrow Not Lifting			
Hydraulic Cylinders	Check hoses for leaks - repair		
Malfunctioning	Hoses connected - check connections		
	Inspect tips - if worn, replace		
	Move control lever opposite direction		
Excessive Noise			
Unusual and constant noise	Inspect for damaged or loose disc blade, inspect bearings, tighten or replace as needed.		

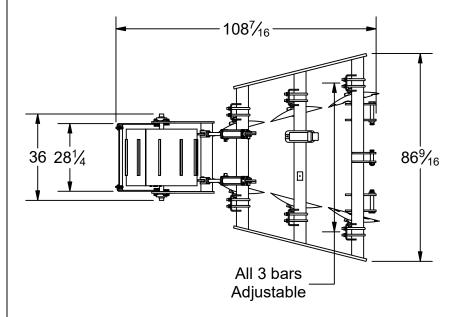


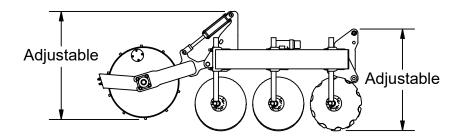
The star shaped hub uses a lug stud with a 0.625" spline. The star shaped hub was used on older models of the Patriot Pivot Track Closer. In the event a replacement lug stud is needed, be sure to specify it is for the star shaped hub.

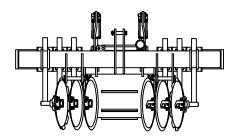


The round hub is the current hub used on the Patriot Pivot Track Closer. The spline is 0.540" on the lug stud. If a replacement lug stud is needed, be sure to specify that the round hub is the one used on the machine.

Three Bar Pivot Track Closer Dimensions

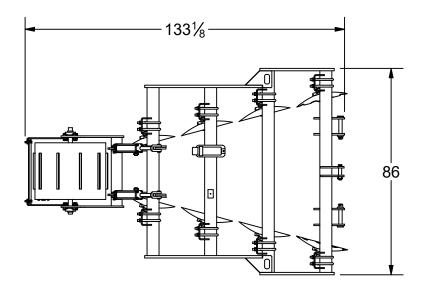


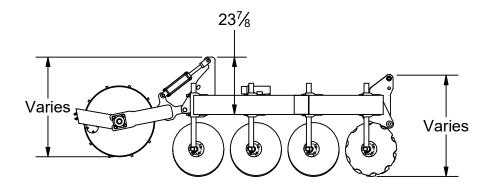


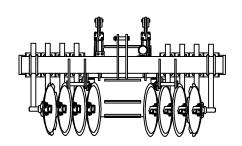


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4 Bar Pivot Track Closer Dimensions

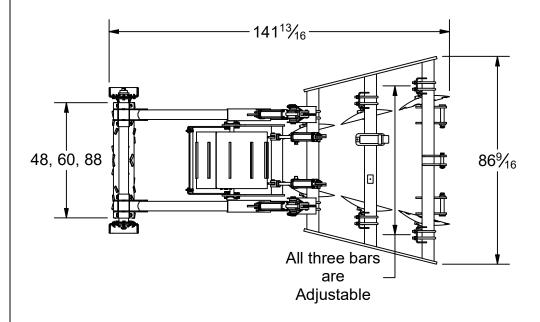


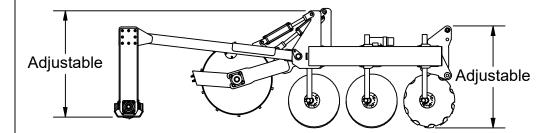


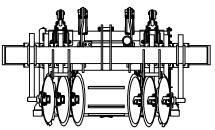


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Three Bar Pivot Track Closer with Power Harrow Dimensions

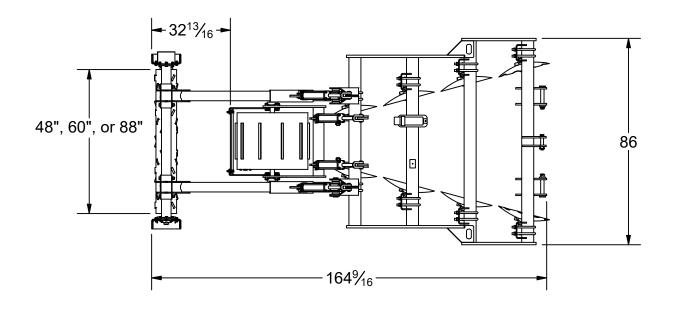


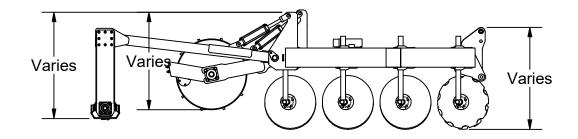




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4 Bar Pivot Track Closer with Power Harrow Dimensions



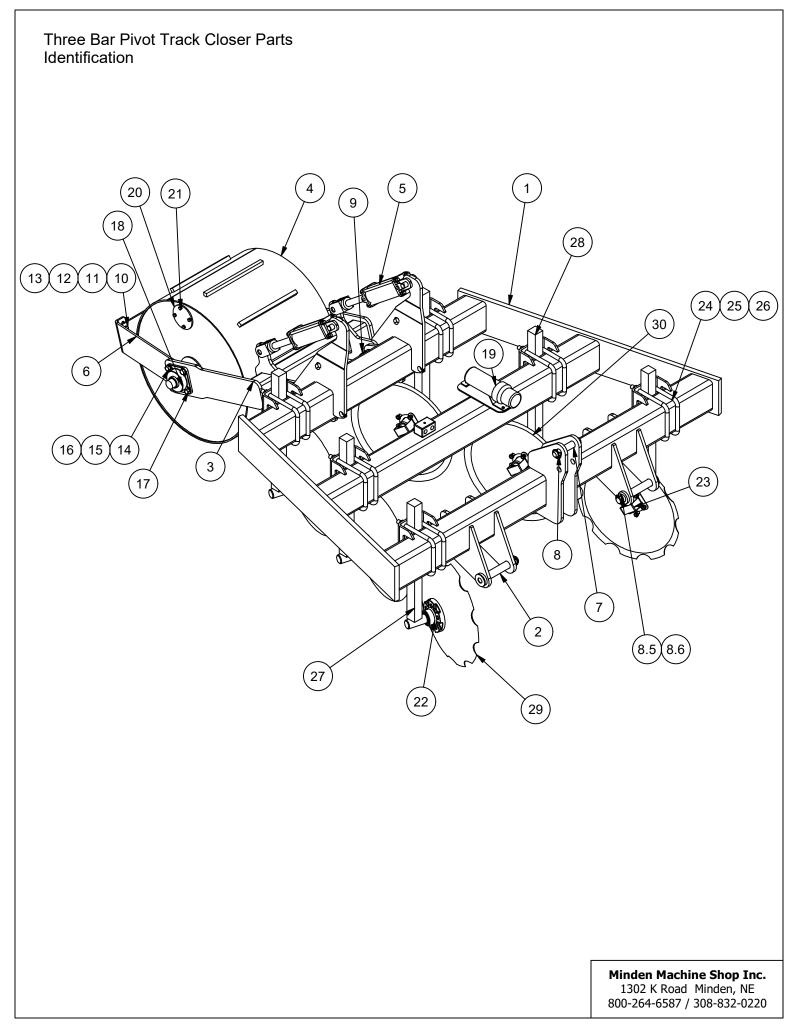


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Parts Diagrams

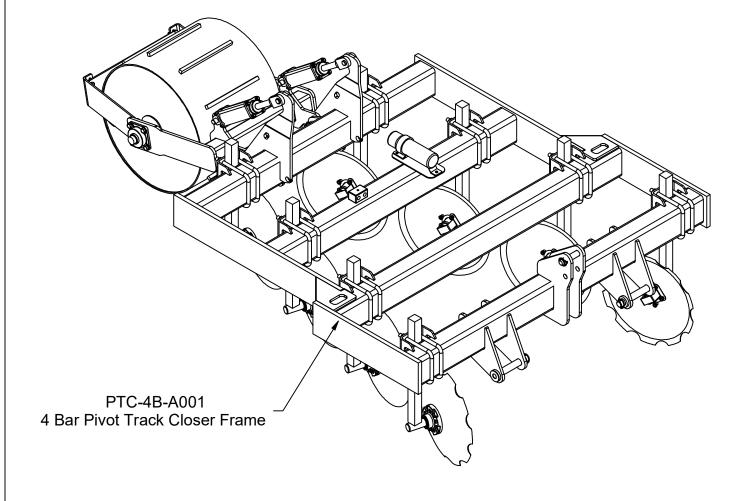
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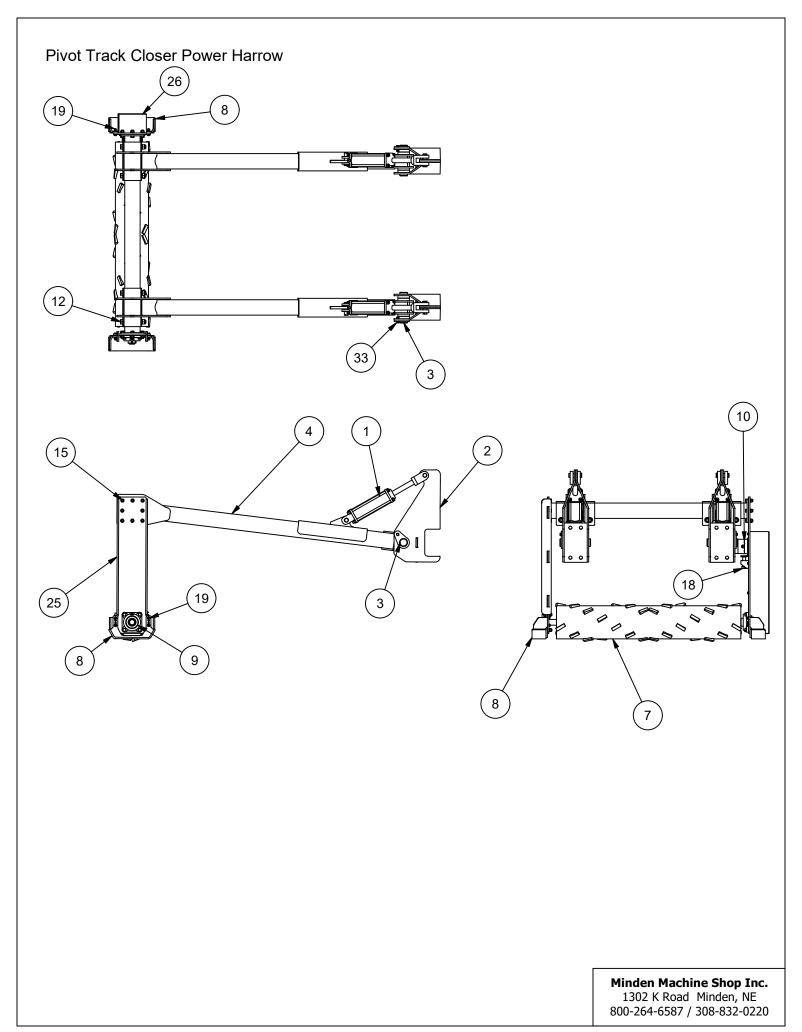
4 Bar Pivot Track Closer Parts

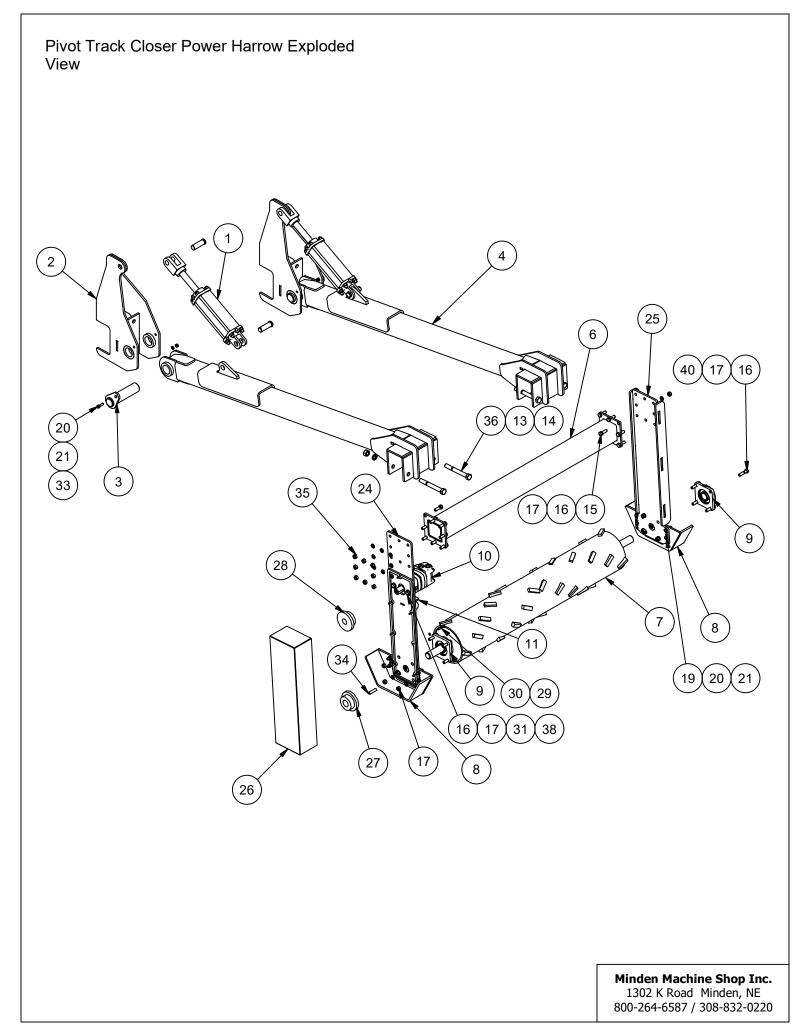
The parts on a 4 bar pivot track closer are the same as a 3 bar pivot track closer. Please refer to 3 bar pivot track closer parts list for parts. Only different part is the frame of the 4 bar pivot track closer.



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	Three Bar Pivot Track Closer Parts List				
ITEM	QTY	PART NUMBER	DESCRIPTION		
1	1	PTC-3B-A001	3 Bar Pivot Track Closer Body		
2	2	PC1000	1-7/16" x 10-1/2" Lower Three Point Pin		
3	1	PTC-CP-A005	Rear Drum Hyd Arm Assembly		
4	1	PTC-CP-A003	Drum Packing Wheel		
5	2	HCY1004	2-1/2" x 8" Tie Rod Cylinder		
6	1	PTC-CP-A006	Scraper Blade Asmbly		
6.1	1	PTC-CP-P021	Rear Panel Scraper Blade		
6.2	1	PTC-CP-P019	Right Side Panel Scraper Blade		
6.3	1	PTC-CP-P020	Left Side Panel Scraper Blade		
7	1	PC1001	1 1/4" x 4 5/8" Upper Three Point Pin		
8	1	PC1003	3/8" x 2" Lynch Pin		
8.5	2	B3/8x2	Hex Bolt		
8.6	2	N3/8NYL	Nylock Nut		
9	2	PC1002	1 1/4" x 4" Pivot Pin For Packer Drum		
10	5	W1/2F	Plain Washer		
11	4	N1/2N	Hex Nut "1/2" UNC		
12	4	W1/2L	Lock Washer		
13	4	B1/2X2	Hex Bolt		
14	8	N5/8N	Hex Nut		
15	4	B5/8X2.5	Hex Bolt		
16	8	W5/8L	Lock Washer		
17	4	B5/8X2	Hex Bolt		
18	2	BR1095	Flange brg Sealmaster Série SF Ø1 3/4"		
19	1	TR1590	Manual Holder		
20	1	PTC-CP-P063	Sand Cover		
21	4	B3/8X1	Hex Bolt		
22	6	SPD545	Complete Disc Hub Assembly		
23	6	PTC-CP-P023	Dust Cap Retainer		
24	12	UB1000	U-Bolt 3/4x7x9		
25	24	W3/4L	Lock Washer		
26	24	N3/4N	Nut		
27	Varies	PTC-CP-A001R	Right Hand Shank Weldment		
28	Varies	PTC-CP-A002L	Left Hand Shank Weldment		
29	Varies	PTC2001	Notched Disc		
30	Varies	PTC2300	Smooth Disc		



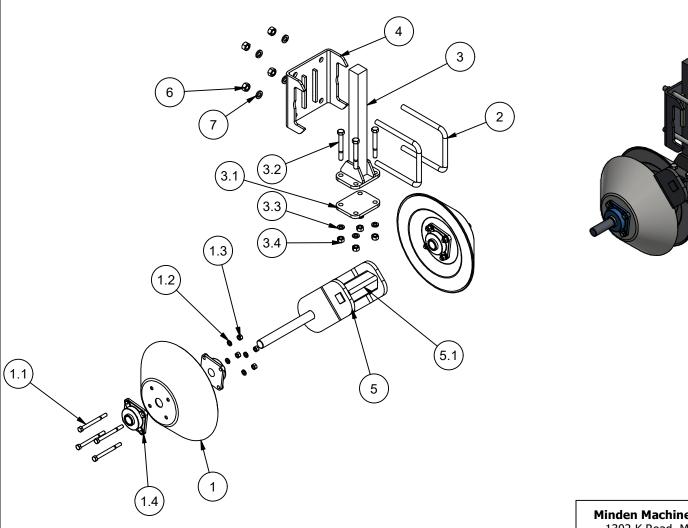


Power Harrow Parts List				
ITEM	QTY	PART NUMBER	DESCRIPTION	
1	2	HCY1004	2-1/2 x 8 Hydraulic Cylinder	
2	2 2 PTC-C-A017		Conditioner Mounting Bracket	
3	3 2 PTC-C-A018		Pin Weldment	
4	2	PTC-C-A020	Conditioner Arm	
6	1	PTC-C-A015	Conditioner Torsion Cross Bar For 48 In	
6.2	1	PTC-C-A001	Conditioner Torsion Cross Bar For 60 In	
6.4	1	PTC-C-A016	Conditioner Torsion Cross Bar For 88 in	
7	1	PTC-C-A013	48 In Conditioner Drum	
7.2	1	PTC-C-A002	60 In Conditioner Drum	
7.4	1	PTC-C-A012	88 In Conditioner Drum	
8	2	PTC-C-A004	Skid Assembly	
9	2	BR1065	Four Bolt Flange Bearing 1-1/2	
10	1	PTC4000-3	Hyd. Motor with 1-1/4" Shaft	
11	1	PTC-C-P062	Hyd. Motor Adjusting Mount	
13	4	W3/4L	Lock Washer	
14	4	N3/4N	Hex Nut "3/4" UNC	
15	16	B1/2x1.5	Hex Bolt	
16	24	W1/2L	Lock Washer	
17	10	N1/2N	Hex Nut "1/2" UNC	
19	8	B3/8x1.5	Hex Bolt	
20	10	W3/8L	Lock Washer	
21	10	N3/8N	Hex Nut "3/8" UNC	
24	1	PTC-C-A026	Sideplate, Drive Short	
25	1	PTC-C-A025	Sideplate, Idler Short	
26	1	PTC-C-A027	Chain Cover Weldment Short	
27	1	8012x1-1/2	#80 12 Tooth Sprocket 1-1/2" Shaft	
28	1	8012x1-1/4	#80 12 Tooth Sprocket 1-1/4" Shaft	
29	7	W1/4L	Lock Washer	
30	7	B1/4x1.5	Hex Bolt	
31	2	W1/2F	Plain Washer	
33	2	B3/8x1.25	Hex Bolt	
34	1	PTC-C-P070	Key For Lower Sprocket	
35	1	#80 Conn Link	Connector Link for #80 Chain	
36	1	#80	#80 Chain - 60" Length	
35	16	Lock Nut 1/2" UNC	Lock Nut	
36	4	B3/4X6.5	Hex Bolt	
37	1	B3/4X4.0	Hex Bolt	
38	2	B1/2X2.5	Hex Bolt	
39	2	W1/2F	Plain Washer	
40	8	B1/2X2.0	Hex Bolt	

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Pivot Track Closer Guide Cone Assembly

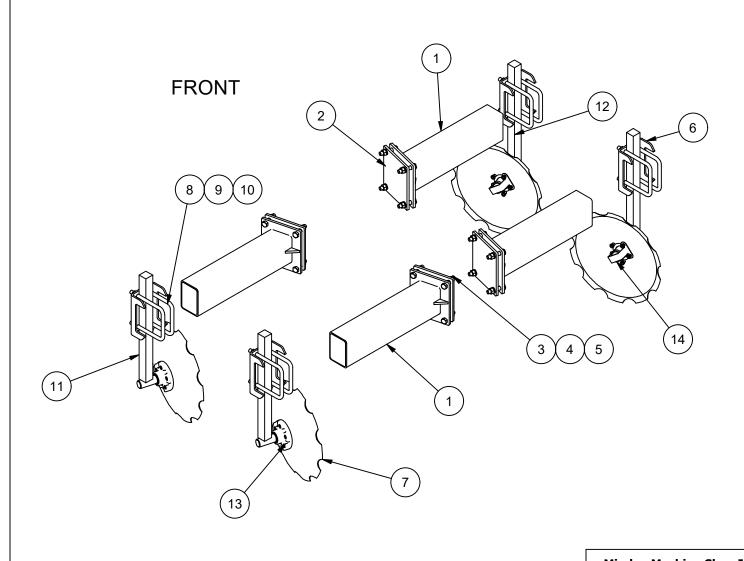
Parts List				
ITEM	QTY	PART NUMBER	DESCRIPTION	
1	2	PTC-GC-A004	Bell Wheel	
1.1	8	B1/2x5.5	Bolt	
1.2	1	W1/2L	Lock Washer	
1.3	1	N1/2N	Nut	
1.4	4	BR1045	Bearing	
2	2	UB1000	3/4" x 7 1/16" x 9"	
3	1	PTC-GC-A001	Guide Cone Torsion Shank	
3.1	1	PTC-GC-P005	Clamp Plate	
3.2	4	B5/8x5	Bolt	
3.3	4	W5/8L	Lock Washer	
3.4	4	N5/8N	Nut	
4	1	PTC-GC-A002	Wide Clamp Plate for Bell Wheel Shank	
5	1	PTC-GC-A003	Bell Wheel Solid Shaft Weldment	
5.1	1	SP4008	Torsion Spring for Guide Cone	
6	4	N3/4N	Hex Nut	
7	4	W3/4L	Lock Washer	





3 Bar Pivot Track Closer Extension Kit

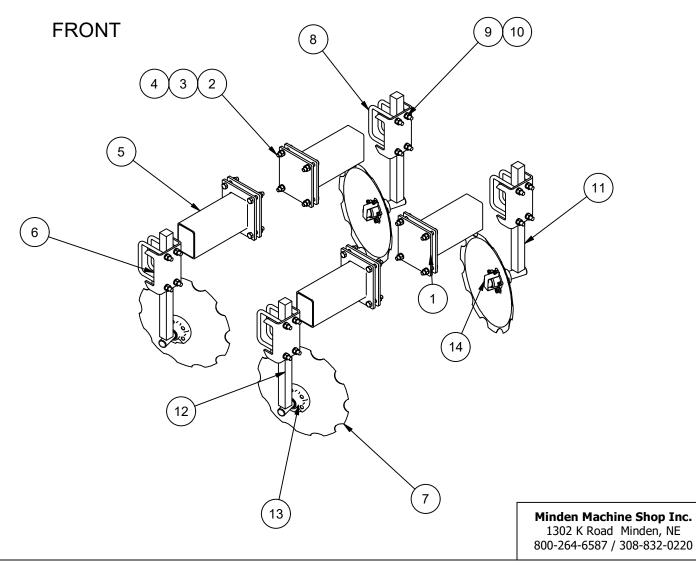
3 BAR PIVOT TRACK CLOSER EXTENSION KIT			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	4	PTC-BE-A001	Bar Extension Weldment
2	4	PTC-BE-P001	Clamp Plate
3	16	B3/4x3.5	Hex Bolt
4	16	W3/4L	Lock Washer
5	16	N3/4N	Hex Nut "3/4" UNC
6	4	PTC-CP-P006	Square Bar Clamp
7	2	PTC2001	Notched Disc
8	8	UB1000	Square U-Bolt 3/4x7x7x9
9	8	W3/4L	Lock Washer
10	8	N3/4N	Nut
11	2	PTC-CP-A002L	Left Hand Shank Weldment
12	2	PTC-CP-A001R	Right Hand Shank Weldment
13	4	SPD545	Complete Disc Hub Assembly
14	4	PTC-CP-P023	Hub Disc Cover Cap
15	1	3 Bar Extension	Extension Kit



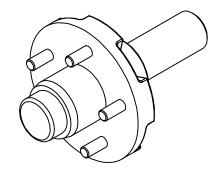
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4 Bar Pivot Track Closer Extension Kit

4 BAR PIVOT TRACK CLOSER EXTENSION KIT				
ITEM	QTY	PART NUMBER	DESCRIPTION	
1	4	PTC-BE-P001	Clamp Plate	
2	16	B3/4x3.5	Hex Bolt	
3	16	W3/4L	Lock Washer	
4	16	N3/4N	Hex Nut "3/4" UNC	
5	4	PTC-BE-A006	Bar Extension Weldment Four	
			Bar	
6	4	PTC-CP-P006	Square Bar Clamp	
7	2	PTC2001	Notched Disc	
8	8	UB1000	3/4 x 7 x 7 x 9 Square U-Bolt	
9	8	W3/4L	Lock Washer	
10	8	N3/4N	Nut	
11	2	PTC-CP-A002R	Left Hand Shank Weldment	
12	2	PTC-CP-A001L	Right Hand Shank Weldment	
13	1	SPD545	Complete Disc Hub Assembly	
14	1	PTC-CP-P023	Hub Dust Cover Cap	
15	1	4 Bar Extension	4 Bar Extension Kit	



Pivot Track Closer Hub Parts



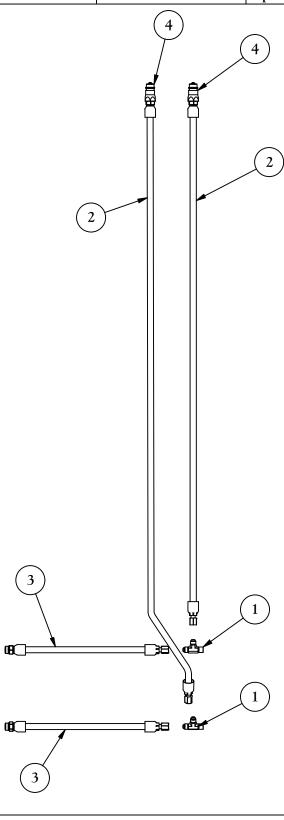
Hub and Spindle Parts			
Part Number	Description		
SPD545	Complete Hub and 9" Spindle		
SPD545-2	Dust Cap		
SPD545-3	XJS QU-1.75 - 1/2" Press in Stud x 0.540		
SPD545-5	BA13 Inside set bearing and race		
SPD545-6	BA4 Outside set bearing and race		
SPD545-7	L44610 - Outer Race		
SPD545-8	L44649 - Outer Bearing		
SPD545-9	L68111 - Inner Race		
SPD545-10	L68149 - Inner Bearing		
SPD545-11	NAT473336/442251 - Seal		
SPD545-12	9" Spindle Only		
SPD545-13	545 Hub Only		

Patriot Equipment 1302 K Road Minden, NE 308-832-0220 This drawing, and the information hereon, are the property of Minden Machine Shop Inc., and may be used only as authorized by us. Unpublished - All rights reserved under the copyright laws.

Hydraulics

Pivot Track Closer Packer Drum Hydraulics

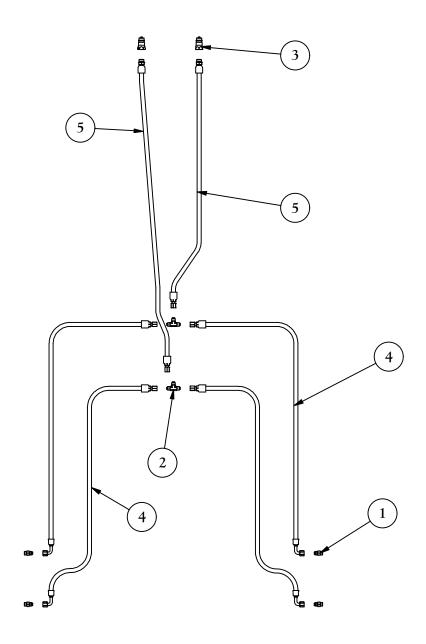
Parts List					
ITEM	QTY	3 Bar Hydraulic System	4 Bar Hydraulic System	DESCRIPTION	
		Kit Number: PTC 5000	Kit Number: PTC 5001		
1	2	6804-06-06-06	6804-06-06-06	Fitting	
2	2	R1706A-P08606-10700	R1706A-P08606-15200	Hose Assembly	
3	2	R1706A-P06606-01400	R1706A-P06606-01400	Hose Assembly	
4	2	2286034	2286034	Tip	



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Pivot Track Closer Power Harrow Lift Hydraulic System

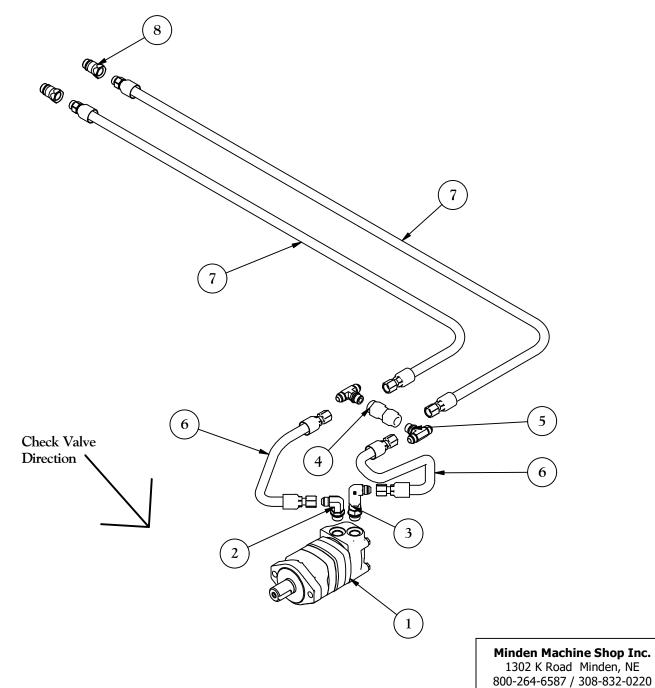
Parts List							
ITEM	QTY	3 Bar Hydraulic System	4 Bar Hydraulic System	DESCRIPTION			
		Kit Number: PTC 5006	Kit Number: PTC 5007				
1	4	6400-06-06	6400-06-06	Hyd. Cylinder Fitting			
2	2	2603-06-06-06	2603-06-06-06	Hyd. Tee Fitting			
3	2	2286034	2286034	Hyd. Tip			
4	4	R1706A-606666-07200	R1706A-666606-07000	Cylinder Hose Assemblies			
5	2	R1706A-606P08-07300	R1706A-606P08-10000	To Tractor Hose Assemblies			



Minden Machine Shop Inc. 1302 K Road Minden, NE 800-264-6587 / 308-832-0220

Pivot Track Closer Power Harrow Hydraulic Motor Kit

Parts List							
ITEM	QTY	3 Bar Hydraulic System	4 Bar Hydraulic System	DESCRIPTION			
		Kit #: PTC 5005-1	Kit #: PTC 5005-2				
1	1	PTC4000-3	PTC4000-3	Hydraulic Motor Not Included In Kit			
2	1	6801-08-10	6801-08-10	Hydraulic Fitting			
3	1	6801-LL-08-10	6801-LL-08-10	Hydraulic Fitting			
4	1	6501115	6501115	Check Valve			
5	2	6803-08-08-08	6803-08-08-08	Hydraulic Fitting			
6	2	R1708A-608608-01800	R1708A-608608-01800	Hydraulic Hose Assembly			
7	2	R1708A-608P08-19200	R1708A-608P08-21400	Hydraulic Hose Assembly			
8	2	2286034	2286034	Hydraulic Tips			



Minden Machine Shop Inc LIMITED WARRANTY

Minden Machine Shop Inc warrants all products manufactured by it to be free of defect in material and workmanship for a period of one (1) year from the date of purchase.

This Minden Machine Shop Inc. warranty does not cover:

- 1. Parts and accessories supplied by Minden Machine Shop Inc. but manufactured by others. Minden Machine Shop Inc. will facilitate the other manufacturer warranty for the benefit of the purchaser but will not be bound thereby (example: augers, motors, trailers, tanks, etc.).
- 2. Products that have been altered by anyone other than a Minden Machine Shop Inc. employee or are used by the purchaser, for purposes other than what was intended at time of manufacture or used in excess of the "built specifications".
- 3. Products that are custom manufactured by Minden Machine Shop Inc. utilizing the purchaser's design which deviates from Minden Machine Shop Inc. normal production line manufactured or customized features of the products.
- 4. Malfunctions or damages to the product from misuse, negligence, customer alteration, accidents or product abuse due to incoming material or poor material flow ability or lack of required performance or required maintenance (e.g., poor material flow ability caused by incoming wet fertilizer or hot soybean meal, etc).
- 5. Loss of time, inconvenience, loss of material, down time or any other consequential damage.
- 6. Product use for a function that is different than designed intent (e.g., storing soybean meal in grain bin, unacceptable material in the bin such as hot bean meal when product originally designed for other application, etc).
- 7. Minden Machine Shop Inc is not responsible for any equipment that this product is attached to or mounted on.

To activate this warranty, the purchaser must make contact in writing with Minden Machine Shop Inc. with in one (1) year of date of purchase. After contact, Minden Machine Shop Inc. has the right to determine the cause and qualify the legitimacy of the claim. Minden Machine Shop Inc., upon acceptance of a warranty claim, shall have a reasonable time to plan any repair or replacement and may affect repair or replacement out of its factory or through contract with a local repair service. If a purchaser after warranty notice is made, chooses to make the repair itself, Minden Machine Shop Inc. must approve any expenses before they are incurred to be responsible for customer reimbursement. Minden Machine Shop Inc. shall be liable on a warranty claim for repair or replacement of any defective products and this is the purchaser's sole and exclusive remedy. Minden Machine Shop Inc. will not be liable for any other or further remedy including claims for personal injury, property damage or consequential damage. The law of the Sate of Nebraska shall govern and any such claim and any issues with regard to the same shall be resolved in the Nebraska District Court for the county of Kearney.

RETURN OF MERCHANDISE

Merchandise may not be returned without written approval from the factory. All returns must have a return authorization number. Obtain this number before the return and show it on all return items. A 15% restocking charge is made on merchandise returned. Returned merchandise must be shipped pre-paid.

RECEIVING MERCHANDISE AND FILING CLAIMS

When receiving merchandise it is important to check both the number of parts and their description with packing slip. The consignee must make all claims for freight damage or shortage within 10 days from the date of delivery.

When the material leaves the factory it becomes the property of the consignee. It is the responsibility of the consignee to file a claim on any possible damage or loss. Please list your preferred routing on purchase orders.

MODIFICATIONS

It is the policy of Minden Machine Shop Inc. to improve its products whenever possible and practical to do so. We reserve the right to make changes, improvements and modifications at any time without incurring the obligation to make such changes, improvements and modifications on any equipment sold previously.

WARRANTY REGISTRATION

To register equipment, or file a claim, copy and paste the words on this page into an email or word document, fill out the appropriate information completely, and email it to larry@mindenmachine.com with the subject as EQUIPMENT WARRANTY, or fill it out and fax it to 308-832-1340.

Dealer Information:	Not Applicable, check here: []
Dealer Name:	
Address:	
City:	
State:	
Zip Code:	
Phone #:	
Email:	
End User Information:	
Purchaser:	
Address:	
City:	
State:	
Zip Code:	
Phone #:	
Email:	
Equipment:	
Serial #:	
Date Of Purchase: / /	

OPERATIONAL NOTES: