



Operator & Parts Manual

Utility Pole Puller

Safety
Operation
Maintenance
Repair
Parts



Model PP-1000



Model PP-2000

| | |
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Introduction

The Shaver Manufacturing Company would like to congratulate you on your purchase of the Shaver Utility Pole Puller™. You have selected the best Utility Pole Puller in its class. The clean design and uncomplicated working principle have made Shaver the largest selling tree, fencing, and pole removal equipment manufacturer in the country.

The heavy-duty Utility Pole Puller will be one of the most popular tools in your pole maintenance inventory with its ability to remove poles with ease! With durability you only find in American-made products, the Utility Pole Puller will quickly pay for itself.

Shaver Utility Pole Puller is hydraulically powered. It is a durable piece of equipment that, with regular maintenance, will provide many years of service.

This manual provides information regarding operation and maintenance of the unit. It is important to read and become familiar with this manual before operating the Shaver Utility Pole Puller™.

Retail Customer's Responsibility Under Shaver Mfg. Warranty

1. It is the Retail Customer and/or Operator's responsibility to read the Operation and Parts Manual, to operate, lubricate, maintain, and store the product in accordance with all instructions and safety procedures. Failure of the operator to read the Operation and Parts Manual is a misuse of this equipment.
2. It is the Retail Customer and/or Operator's responsibility to inspect the product and to have any part(s) repaired or replaced when continued operation would cause damage or excessive wear to other parts or cause a safety hazard.
3. It is the Retail Customer's responsibility to deliver the product to the authorized Shaver Dealer, from whom he purchased it, for service or replacement of defective parts which are covered by warranty. Repairs to be submitted for warranty consideration must be made within forty-five (45) days of failure.
4. It is the Retail Customer's responsibility for any cost incurred by the Dealer for traveling to or hauling of the product for the purpose of performing a warranty obligation or inspection.

Product Information

The Utility Pole Puller™ is shipped in one piece, ready to mount on a skid steer loader with a standard universal mounting bracket or on a service/utility truck.

Record the Shaver product information here. The model number and serial number are found on the plate attached to the Utility Pole Puller.

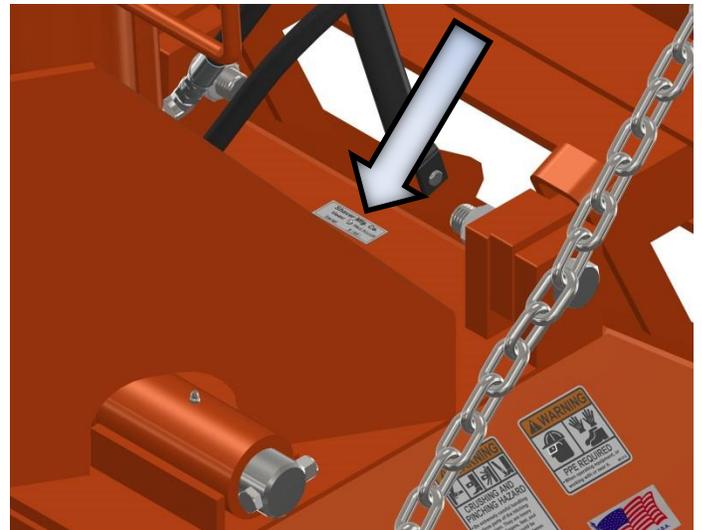
For Your Records:

Model Number: _____

Serial Number: _____

Date Purchased: _____

Dealer Name: _____



Utility Pole Puller serial number location, centered on base plate behind cylinder (see arrow).

Operator Orientation

For the operation of this Utility Pole Puller, references to direction (right, left, forward, and rearward) are determined from the operator's position in the skid loader seat.

Product Warranty

Please fill out and return the Warranty page located in this manual to ensure warranty will be in effect.

Safety

General

Safety of the operator and bystanders is one of the main concerns in designing and developing a new piece of equipment. Designers and manufacturers build in as many safety features as possible. However, every year many accidents occur, which could have been avoided by a few seconds of thought and a more careful approach to handling the equipment.

Most work-related accidents are caused by failure to observe basic safety rules or precautions, neglect, or carelessness. An accident can often be avoided by recognizing potentially hazardous situations before an accident occurs. As you operate, or maintain the unit, you must be alert to potential hazards. You should also have the necessary training, skills, and tools to perform any assembly or maintenance procedures.

Only properly trained people should operate this machine. Improper operation and maintenance of this unit could result in a dangerous situation that could cause injury or death.

If you have any questions not answered in this manual or require additional copies or the manual is damaged, please contact your dealer or

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WARNING



Do not use the unit until you read and understand the information contained in this manual.



Safety precautions and warnings are provided in this manual and on the unit. If these warning instructions are not followed, bodily injury or death could occur to you or to other persons.

Shaver Manufacturing Company cannot anticipate every possible circumstance that might involve a potential hazard. The warnings in this manual and on the unit are, therefore, not all-inclusive. If a method of installation or operation not specifically recommended by us is used, you must satisfy yourself that it is safe for you and for others. You should also ensure that the unit will not be damaged or be made unsafe by the methods that you choose.

The information, specifications, and illustrations in this manual are based on the information that was available at the time this material was written and can change at any time without notice.

Safety Alert Symbols



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

This manual contains DANGERS, SAFETY INSTRUCTIONS, CAUTIONS, IMPORTANT NOTICES, and NOTES which must be followed to prevent the possibility of improper service, damage to the equipment, personal injury, or death. The following key words call the readers' attention to potential hazards.

Hazards are identified by the "Safety Alert Symbol" and followed by a signal word such as "DANGER", "WARNING", or "CAUTION".

DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations.

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTICE

Indicates that equipment or property damage can result if instructions are not followed.

SAFETY INSTRUCTIONS

Safety instructions (or equivalent) signs indicate specific safety-related instructions or procedures.

Note: *Contains additional information important to a procedure.*

Safety Instructions

BEFORE OPERATING THE UTILITY POLE
PULLER™: PAY ATTENTION!
STAY ALERT!
YOUR SAFETY IS INVOLVED!

Safety is a primary concern in the design and manufacturing of our products. Unfortunately our efforts to provide safe equipment can be wiped out by an operator's single careless act.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, judgment, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment.

It has been said "The best safety device is an informed, careful operator." We ask you to be that kind of operator.

Training

WARNING



Read and Understand Manual

Safety instructions are important! To prevent personal injury or even death, be sure you read and understand all of the instructions in this manual and other related OEM equipment manuals! Also follow all safety sign (decal) information.

This unit was designed for a specific application; removing poles from the ground. **DO NOT** modify or use this Utility Pole Puller for any application other than which it was designed.

Utility Pole Pullers that are operated improperly or by untrained personnel can be dangerous; exposing themselves and/or bystanders to possible serious injury or death.

Replacement manuals are available from your dealer, online at www.shavermfg.com, or if you live in the United States or Canada, you can call (712) 859-3293.

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



Know the machines' controls and how to **s t o p** the engine and/or attachment quickly in an emergency.



Operators must be instructed in and be capable of safely operating this equipment, its attachments, and all controls. **Do not** allow anyone to operate this equipment without proper instructions.

WARNING



Use paper or cardboard, not hands or other body parts, to check for leaks. Wear safety goggles. Hydraulic fluid under pressure can easily penetrate skin and will cause serious injury or death. Make sure that all operating and service personnel know that if hydraulic fluid penetrates the skin, it must be surgically removed as soon as possible by a doctor familiar with this form of injury or gangrene, serious injury, or death will result. **CONTACT A PHYSICIAN IMMEDIATELY IF FLUID ENTERS THE SKIN OR EYES. DO NOT DELAY.**



Never allow children or untrained persons to operate or be around equipment.

Preparation

WARNING

To prevent possible injury or death:



Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough soled work shoes and protective equipment for eyes, hands, hearing, and head.



Make sure the Utility Pole Puller is properly attached to the skid steer, adjusted properly, and in good operating condition.



The skid steer unit must be equipped with a ROPS or ROPS cab and a seat belt. Keep the seat belt securely fastened whenever seated to prevent falling off the machine and being run over or crushed. If equipped with a foldable ROPS system, keep it in the "locked up" position at all times.



Consult the local utilities before pulling. Know the location of and avoid contracting all underground cables, pipelines, overhead wires, and other hazards in the digging area.



Do not allow anyone to stand near the Utility Pole Puller during operation.

Specifications

Basic Specifications

| UTILITY POLE PULLER | |
|-------------------------|--|
| Description | Specification |
| Weight | Approximately 1200 lbs. for PP-1000 Approximately 1000 lbs. for PP-2000 |
| Mount | Universal Skid Steer Mount for PP-1000 None for PP-2000 |
| Cylinder | 6" Bore x 40" Stroke x 4-1/2" Rod |
| Frame | Steel-Frame Construction |
| Coupler | 1/2" Quick Coupler Set |
| Pole Sizes | Up to 36" Diameter |
| Max. Operating Pressure | 3000 P.S.I. |
| Lifting Force | 84,823 lbs. |

| LIFT CHAIN | |
|-------------------------------|----------------|
| Description | Specification |
| Size | 5/8" Grade 100 |
| Length | 10 ft. |
| WLL (Working Load Limit) | 22,600 lbs. |
| WLL @80% as Choker | 18,080 lbs. |
| Approximate Breaking Strength | 90,800 lbs. |

| WIRE ROPE CABLE | |
|--------------------------|-----------------------|
| Description | Specification |
| Size | 1-1/4" Dia. |
| Class | 6 x 37, EIP, IWRC |
| Length | 10 ft. |
| Rated Capacity as Choker | 11 tons (22,000 lbs.) |
| Minimum Breaking Force | 79.9 tons |

Skid Steer Requirements

The skid steer must have a rated lift capacity (payload) of at least 1200 lbs. to safely operate the unit.

WARNING



Do not exceed the rated operating capacity of, as the machine may become unstable, which may result in loss of control.

Safety Signs and Informational Labels

General Information

The types of safety signs (hazard labels) and instructional labels are shown in the following illustrations. Good safety practices require that you familiarize yourself with the various safety signs, the type of warning, and the area or particular operation related to that area that requires your SAFETY AWARENESS.



Think SAFETY!

Work SAFELY!

Pay close attention to the safety and instructional signs attached to the unit. Duplicate safety signs, which are attached to the Utility Pole Puller, can also be found in this section. If the unit is missing a sign or one is unreadable, replace the sign before using the Utility Pole Puller.

SAFETY INSTRUCTIONS



Safety and Instructional Signs

1. Keep safety or instructional signs clean and legible at all times.

2. Replace any missing or hard-to-read safety or instructional signs.

3. Use care when washing or cleaning the Utility Pole Puller so as not to remove or damage the safety signs.

4. Locations for the signs and replacement part numbers are shown in this section.

5. Replacement parts must have replacement signs attached during installation and/or before the Utility Pole Puller is used.

6. Safety signs are available from your authorized dealer or from Shaver at no charge.

7. Do not paint over, remove, or deface any safety signs or warning decals on your equipment.

How to Install Replacement Safety Signs

1. Clean and dry the installation area.

Note: Do not install the signs if the temperature is below 50°F (10°C).

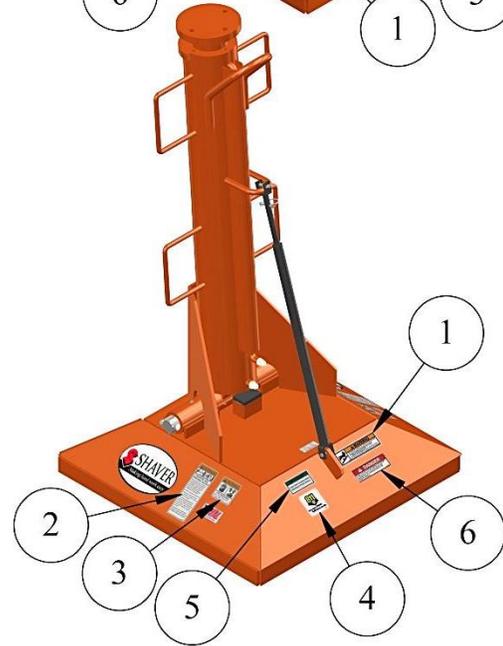
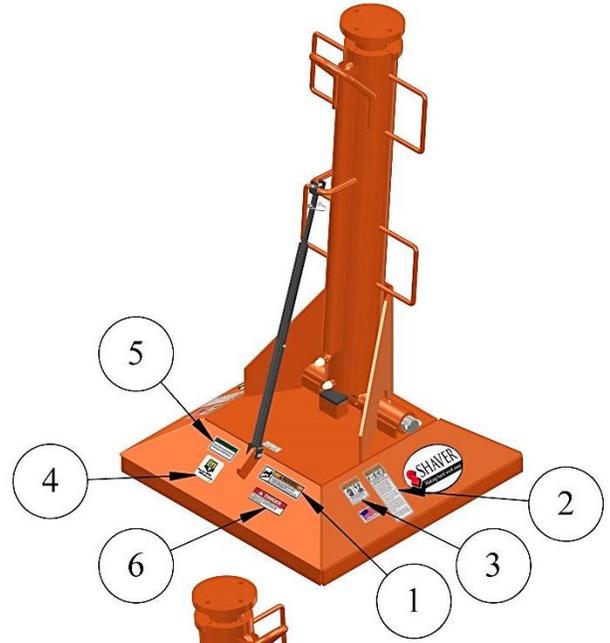
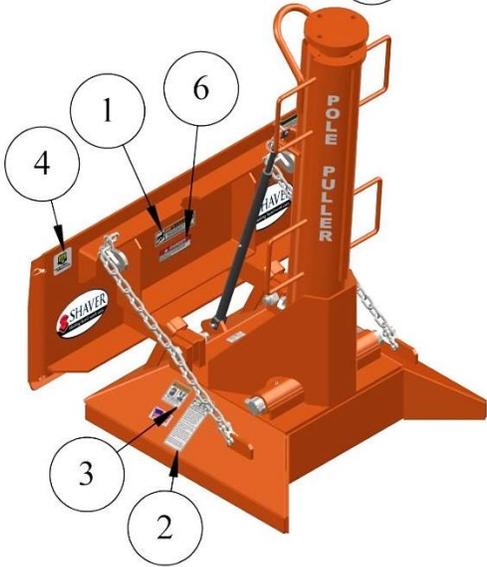
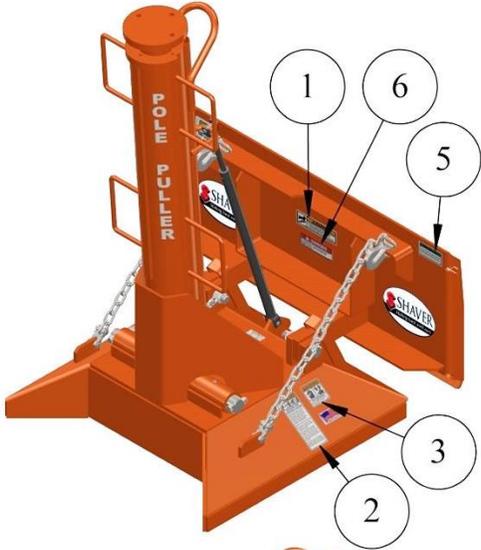
2. Determine the exact position before you remove the backing paper.

3. Remove the backing paper.

4. Align the sign over the specified area and carefully press the sign to the part/frame.

Note: Small air pockets can be pierced with a pin and smoothed out using the piece of backing paper.

Safety Sign Locations



| PP-1000 Safety Signs and Informational Labels | | |
|---|-------------|---|
| Item | Part Number | Description |
| 1 | MS-171 | Decal, Warning High Pressure Hydraulics |
| 2 | MS-515 | Decal, Warning Crush Hazard |
| 3 | MS-516 | Decal, Warning PPE Required |
| 4 | MS-811 | Decal, Call To Dig |
| 5 | MS-2550-H | Decal, Important Clean Couplers |
| 6 | PHDC4 | Decal, Danger Read Manual |

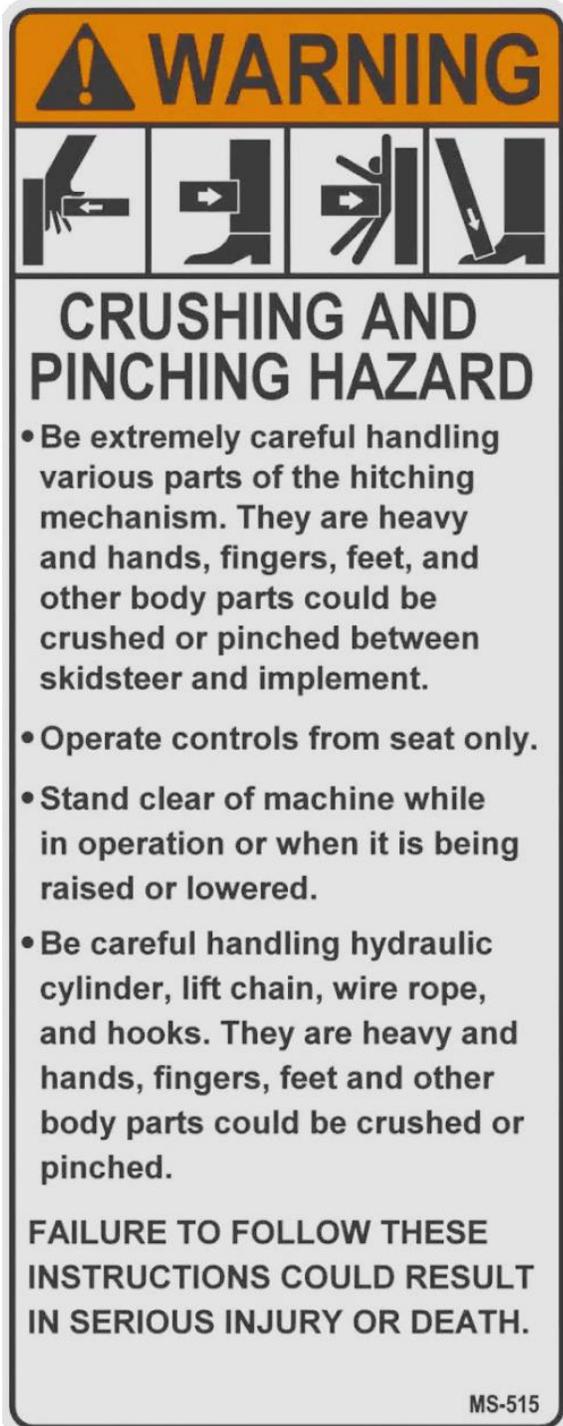
| PP-2000 Safety Signs and Informational Labels | | |
|---|-------------|---|
| Item | Part Number | Description |
| 1 | MS-171 | Decal, Warning High Pressure Hydraulics |
| 2 | MS-515 | Decal, Warning Crush Hazard |
| 3 | MS-516 | Decal, Warning PPE Required |
| 4 | MS-811 | Decal, Call To Dig |
| 5 | MS-2550-H | Decal, Important Clean Couplers |
| 6 | PHDC4 | Decal, Danger Read Manual |

Safety Signs

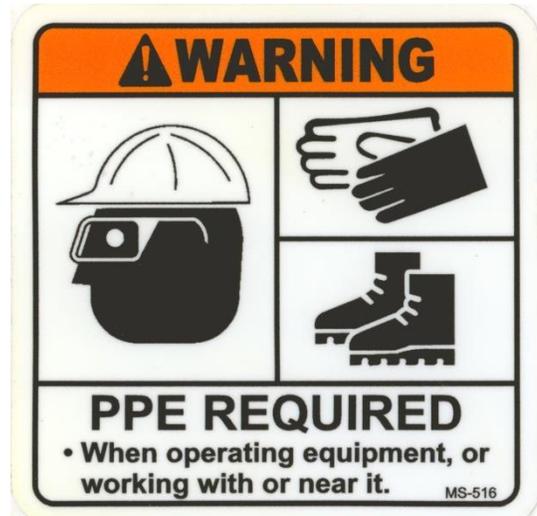
1. MS-171 – Warning High Pressure Hydraulics Decal



2. MS-515 – Warning Crush Hazard Decal



3. MS-515 – Warning PPE Required Decal



4. MS-811 – Call to Dig Decal



5. MS-2550-H – Important Clean Couplers Decal



6. PHDC4 – Danger Read Manual Decal



Attachment

Lifting of Pole Puller

When lifting the Pole Puller use the lift loop on the cylinder as shown below. Make sure the Lynch Pin is installed on the Cylinder Strut so that the cylinder is ridged in relation to the base plate.



Mounting Preparations

The following are some safety precautions, which must be considered when mounting the Utility Pole Puller on the skid steer loader. These instructions are not intended to be a complete list of all safety instructions that may be applicable. Other considerations may also be necessary, depending upon factors such as, mounting method, or type of loader, etc.

1. The skid steer loader or hoist must have sufficient lifting capacity.
2. The skid steer loader or service truck hydraulic system must supply sufficient hydraulic pressure.
3. All hydraulic hoses must be routed properly to prevent pinching, rubbing, or scraping which could lead to hydraulic hose failure.
4. The Utility Pole Puller must be attached securely so that it will prevent accidental detachment.

5. Check all written instructions provided by the skid steer loader/tractor manufacturer, which may contain instructions pertaining to the operation of the Utility Pole Puller.
6. All hydraulic hoses must be rated for a minimum 3000 P.S.I. (207 bar).

Attaching to a Skid Steer



1. Position the skid steer behind the Utility Pole Puller.
2. Lift the Utility Pole Puller off the ground and lock into place the skid steer locking arms.
3. Connect the hydraulic lines from the Utility Pole Puller to the skid steer.
4. Raise and lower the cylinder a few times to fill it with hydraulic fluid and remove any air in the system.
5. Check the hydraulic fluid level of the skid steer. The Utility Pole Puller cylinder and hoses need 2-1/2 gallons of hydraulic fluid.

Operation

This Utility Pole Puller was designed for a one man operation from the skid loader seat. It is the responsibility of the operator to see that no one is within twenty-five feet (25') of the Utility Pole Puller when it is in operation.

It is essential that everyone involved in the assembly, operation, transport, maintenance, and storage of this equipment be aware, concerned, prudent, and properly trained in safety.

Before Operating

Read and follow all instructions contained in:

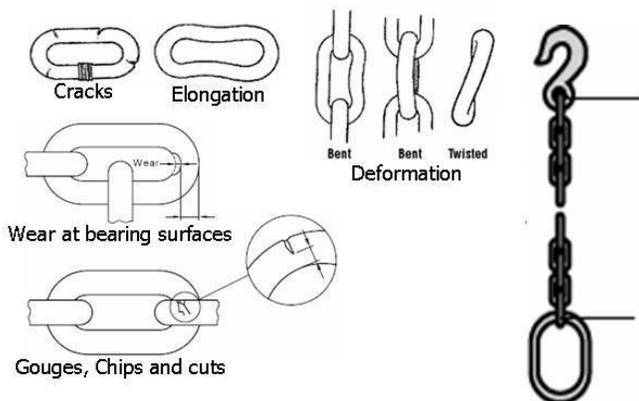
1. The Utility Pole Puller Operation and Parts Manual.
2. The skid steer Operator's Manual.
3. The decals placed on the Utility Pole Puller and the skid steer.
4. **IMPORTANT: Inspect the lift chain sling or wire rope sling (whichever is used to pull poles). Use the following criteria.**

Chain Sling Inspection

NOTE: Clean chain sling and hang vertically for inspection.

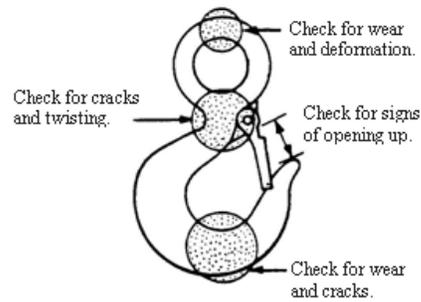
Replace the chain sling if:

- 1) Identification Tag with the following information is missing or illegible: The tag has the size, reach, and working load limit (WLL). Serial number, manufacturers name or symbol. Sling type (number of legs)
- 2) Cracks or breaks to any part of the chain sling.
- 3) Excessive wear, nicks, or gouges in links
- 4) Stretched chain links or components.
- 5) Bent, twisted, or deformed chain links or components.
- 6) Evidence of heat damage.
- 7) Excessive pitting or corrosion.
- 8) Lack of ability of chain or components to hinge freely.
- 9) Damaged hooks per ASME B30.10.



Chain sling replacement criteria.

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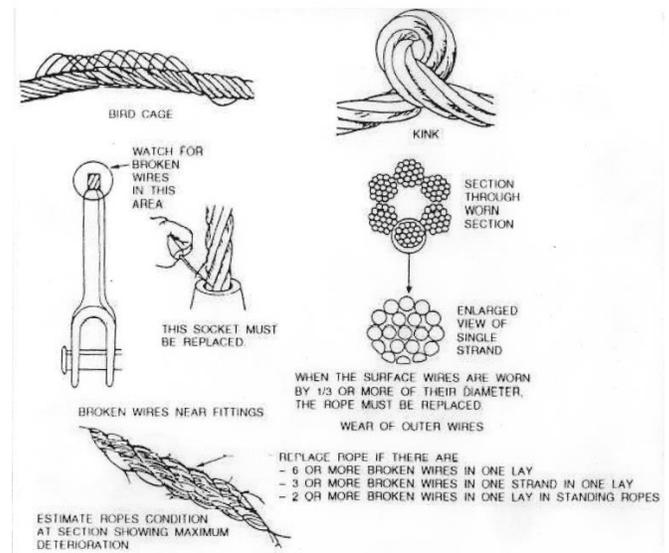
Chain or wire rope sling replacement criteria for hooks.

Wire Rope Sling Inspection

NOTE: Clean chain sling and hang vertically for inspection.

Replace the wire rope sling if any of the following conditions are found.

- 1) Missing or illegible tag.
- 2) Ten randomly distributed broken wires in one rope lay, or five broken wires in one strand in on rope lay.
- 3) Wear or scraping of one-third the original diameter of the outside individual wires.
- 4) Kinking, crushing, bird caging or any other damage resulting in distortion of the rope structure.
- 5) Evidence of heat damage.
- 6) End attachments that are cracked, deformed, or worn.
- 7) For hooks, removal criteria as stated in ASME B30.10.
- 8) Corrosion of the rope or end attachment.
- 9) Other conditions, including visual damage, that cause a doubt as to the continued use of the sling.



Wire rope sling replacement criteria.

Safety

SAFETY INSTRUCTIONS

WARNING



Operating unfamiliar equipment can lead to careless injuries. Read and understand this manual, and the manuals for the skid steer loader or tractor, to be familiar with the equipment. It is the Utility Pole Puller owner's responsibility to make sure the operator, prior to operating has read and understood the operator's manuals and is instructed in safe and proper use of the unit.



It is recommended the skid steer be equipped with a Rollover Protection System (ROPS) and a seat belt that is used whenever the operator is seated.



Do not operate the Utility Pole Puller with another person near, or in contact with, any part of the Utility Pole Puller. Serious personal injury or death may result if any attempt is made to assist Utility Pole Puller operation by hand.



Do not allow bystanders in the area when operating, attaching, removing, or servicing the equipment. Never allow children or untrained persons to operate the equipment.



Do not operate the equipment while under the influence of alcohol or drugs. Consult your doctor about operating this machine while taking prescription medications.



Keep all stepping surfaces, pedals, and controls free from dirt, grease, and oil. Keep equipment clean to help avoid injury from a fall when getting on or off the equipment.



Use handholds and step plates when getting on/off the machine. Failure to do so could cause a fall.



Avoid contact with the electrical wires.



Never place any part of the body under the equipment or between moveable parts even when the engine has been turned off. Hydraulic system leak down/failures, mechanical failures, or movement of the control levers can cause the equipment to drop or rotate unexpectedly and cause severe injury or death.



If you have any questions regarding the proper assembly or operation of this Utility Pole Puller, contact your dealer or the manufacturer.



Consult the local utilities before working. Know the location of all underground cables, pipelines, overhead wires, and other hazards in the working area and avoid contact.



A fire extinguisher should be carried in case of fire.



Operate only in daylight or good artificial light.



Do not raise the Utility Pole Puller™ more than 24" above ground level.



Keep hands, feet, hair, and clothing away from the equipment while the engine is running. Stay clear of all moving parts.



Do not allow riders on the Utility Pole Puller, skid steer loader, or tractor at any time. There is no safe place for riders.



Always sit in the seat when operating the controls or starting the engine. Securely fasten the seat belt, place the transmission in neutral, engage the brake, and ensure all other controls are disengaged before starting the power unit engine.



Shift the skid steer loader into park or neutral and set the brakes before engaging the hydraulics.



Do not operate on steep slopes. Do not stop, start, change directions suddenly, or use excessive speed on steep slopes.



A heavy load can cause instability of the skid steer. Use extreme care during travel. Slow down on turns and watch out for bumps.



When pulling on uneven or hilly terrain, position the skid steer with the Utility Pole Puller uphill.



Look in ALL directions to make sure the area is clear and safe before operating the equipment.

While Operating

1. Do not attempt to remove poles with a diameter in excess of **36 inches in diameter**.
2. Do not continue to hold the hydraulic valve control in either the open or close position once the unit's hydraulic cylinder is fully raised or lowered.

NOTICE

Misuse of this Utility Pole Puller in any way will void the manufacturer's warranty.

Operating Instructions



- 1) Secure the upper part of the pole with a digger derrick truck pole claw. Position the load securement chain above the balance point of the pole being pulled (see above).

! DANGER



ALWAYS SECURE THE UPPER PORTION OF THE POLE!

Never attempt to pull a pole without first properly securing and supporting the pole. Failure to do this will result in the pole falling over causing serious injury or death.



- 2) Position the Utility Pole Puller as close to the pole to be removed as possible. This will enable more lifting power and will remove the pole quicker.

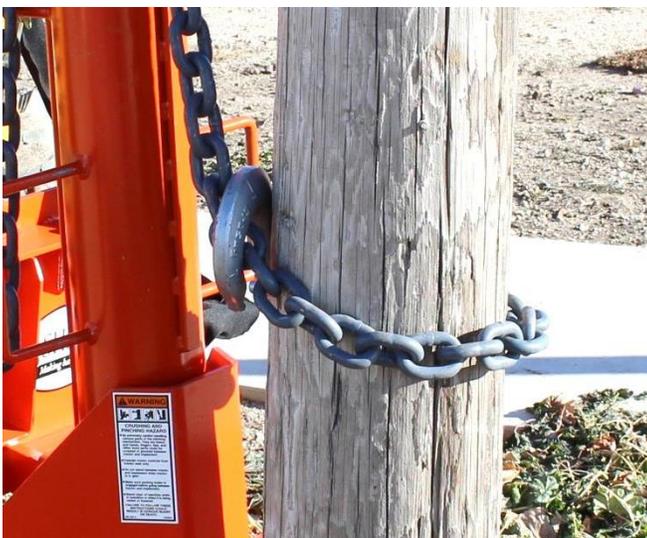


- 3) Remove Lynch Pin (arrow above) from Cylinder Strut before engaging the cylinder to pull the pole out of the ground.

⚠ WARNING



Make sure that the Lynch Pin is removed from the Cylinder Strut before engaging the cylinder to pull a pole.



- 4) Wrap the chain/wire rope around the pole and secure the grab hook back on the chain/wire rope as shown above.

NOTE: Make sure that the opening of the grab hook is facing down.



- 5) Extend the Utility Pole Puller cylinder to lift the pole out of the ground. The chain/wire rope will choke around the pole as the cylinder extends and pull the pole out of the ground.



- 6) Lower the cylinder back down. The chain/wire rope should loosen and drop back down.

Note: If the pole has not been raised enough out of the ground for the boom to move it away, then the cylinder on the Utility Pole Puller can be extended again to lift the pole sufficiently for the boom to lift it safely.

- 7) Remove the chain/wire rope sling from around the pole and stow it. Raise and move the Utility Pole Puller away from the pole with the Skid Loader or hookup and lift away with service/utility truck.

WARNING



Make sure that the all personnel, including the operator of the Skid Loader with the Utility Pole Puller, have moved to a safe distance before moving the pole with the boom.

Normal Shutdown Procedure

When stopping the machine use the following normal shutdown procedure:

1. Lower the Utility Pole Puller to the ground.
2. Reinstall the Lynch Pin into place in the Cylinder Strut.
3. Shut off the skid loaders engine.
4. Set the parking brake.
5. Remove the key.

Maintenance

Safety

⚠️ WARNING



Service and maintenance work not covered in this manual should be done by a qualified dealership. Special skills, tools, and safety procedures may be required. Failure to follow these instructions can result in serious injury or death.



STOP Before performing service or maintenance, lower the equipment to the ground. Turn the machines engine off and remove the key. Disconnect the two hydraulic hoses from the skid loader or tractor.



Keep all persons away from the operator control area while performing adjustments, service, or maintenance.



Never perform service or maintenance with the engine running.



Do not modify or alter or permit anyone else to modify or alter, the equipment or any of its components in any way. This will void the warranty.



Do not allow bystanders in the area when servicing the equipment.



After servicing, make sure the shields and guards are properly reinstalled and in good condition. Replace if damaged.



Keep hands and body away from pressurized lines. Use paper or cardboard, not hands or other body parts, to check for leaks. Wear safety goggles. Hydraulic fluid under pressure can easily penetrate skin and will cause serious injury or death.

Make sure that all operating and service personnel know that if hydraulic fluid penetrates the skin, it must be surgically removed as soon as possible by a doctor familiar with this form of injury or gangrene, serious injury, or death will result. **CONTACT A PHYSICIAN IMMEDIATELY IF FLUID ENTERS THE SKIN OR EYES. DO NOT DELAY.**

SAFETY INSTRUCTIONS



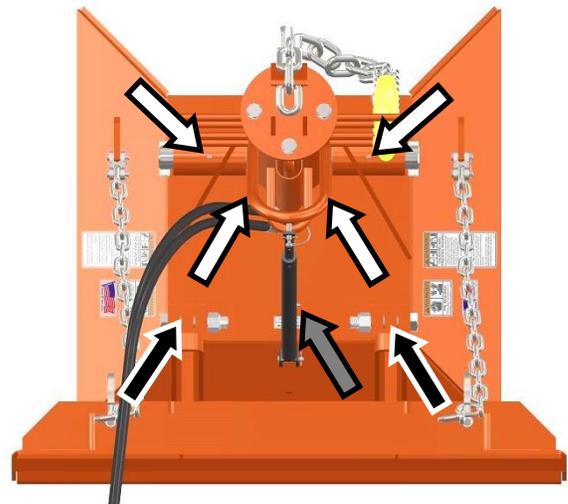
Tighten all bolts, nuts, and screws to torque chart specifications in this manual. Make sure all retainer pins are installed securely before putting the unit into service.

During Service and Maintenance

Before working on or near the Utility Pole Puller, use the normal shut down procedure as listed in this manual unless instructed otherwise.

1. Periodically check and then tighten or replace any loose or cracked bolts, hoses, or connections.
2. Use only parts authorized by Shaver for repair or replacement.
3. Relieve all pressure in the hydraulic system before disconnecting the lines or performing other work on the system. Make sure all connections are tight and the lines are in good condition before applying pressure to the system.
4. Before disconnecting or loosening any part of the Utility Pole Puller system, lower the cylinder and unit to the ground to prevent falling.

Lubrication



- 1) **Daily** - Grease lubrication point on Strut (gray arrow).
- 2) **Weekly** - Grease lubrication points (4X) on Base Plate & Hydraulic Cylinder (white arrows).
- 3) **Periodically** - Lubricate hinge bolts (2X) on Base Plate (black arrows), PP-1000 only.

Cleaning and Storage

Cleaning

After Each Use

1. Remove large debris, such as clumps of dirt, brush, tree bark, etc., from the Utility Pole Puller.
2. Inspect the Utility Pole Puller and replace worn or damaged parts.
3. Inspect Lift Chain/Wire Rope Sling for safety issues (wear and or damage) and serviceability. Order a replacement now if any issues are identified.
4. Replace any safety decals that are missing or not readable.

Periodically or Before Extended Storage

1. Clean the unit with a low pressure water spray.
 - a. Be careful when spraying near scratched or torn safety decals or near the edges of the decals, as the water spray can peel the decal off the surface.
 - b. Be careful when spraying near chipped or scratched paint as the water spray can lift the paint.
 - c. If a pressure washer is used, follow the advice of the pressure washer manufacturer.
2. Inspect the Utility Pole Puller and replace worn or damaged parts.
3. Inspect Lift Chain/Wire Rope Sling for safety issues (wear and or damage) and serviceability. Order a replacement now if any issues are identified.
4. Repaint areas of missing paint and scratches.
5. Replace any safety decals that are missing or not readable (supplied free by dealer). See Safety Signs section for the installation location.

Storage

Safety Instructions



Do not climb or lean on equipment stored on a stand.



Keep children and bystanders away from the storage area.

Before Storage

1. Clean all mud, dirt, grease and other foreign material from the exterior of the Utility Pole Puller and repaint places where bare metal is exposed to inhibit rust.
2. If possible, store the Utility Pole Puller in a dry, protected place. If storing the Utility Pole Puller outside, cover with waterproof canvas, plastic, or other suitable protective material.
3. Make sure that Lift Chain/Wire Rope Sling is not on the ground and/or outside in the elements.
4. Release the pressure in the hydraulic cylinders and hoses by actuating the controls.
5. Check the Utility Pole Puller for any worn or broken parts or damaged decals.
6. When ordering parts/decals, always provide the serial number and model.

Placing in Storage

1. Place the Utility Pole Puller on a flat, dry surface.
2. Disconnect the hydraulic hoses from the skid steer.
3. Disconnect the Utility Pole Puller from the skid steer.
4. Secure Lift Chain/Wire Rope Sling so it is not lying on the ground.

Removing from Storage

1. Remove all protective covering.
2. Tighten all loose bolts, nuts, and/or hydraulic fittings.
3. Check hydraulic hoses for deterioration and replace if necessary.
4. Inspect Lift Chain/Wire Rope Sling for safety issues (wear and or damage) and serviceability. Order a replacement now if any issues are identified.

Bolt Torque Chart

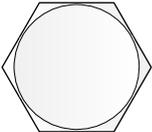
Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application.

Fasteners must always be replaced with the same grade as specified in the manual parts list.

Always use the proper tool for tightening hardware: SAE for SAE hardware and Metric for metric hardware.

Make sure the fastener threads are clean and start the thread engagement properly.

All torque values are given to specifications used on hardware defined by SAE J1701 MAR 99 & J1701M JUL 96.

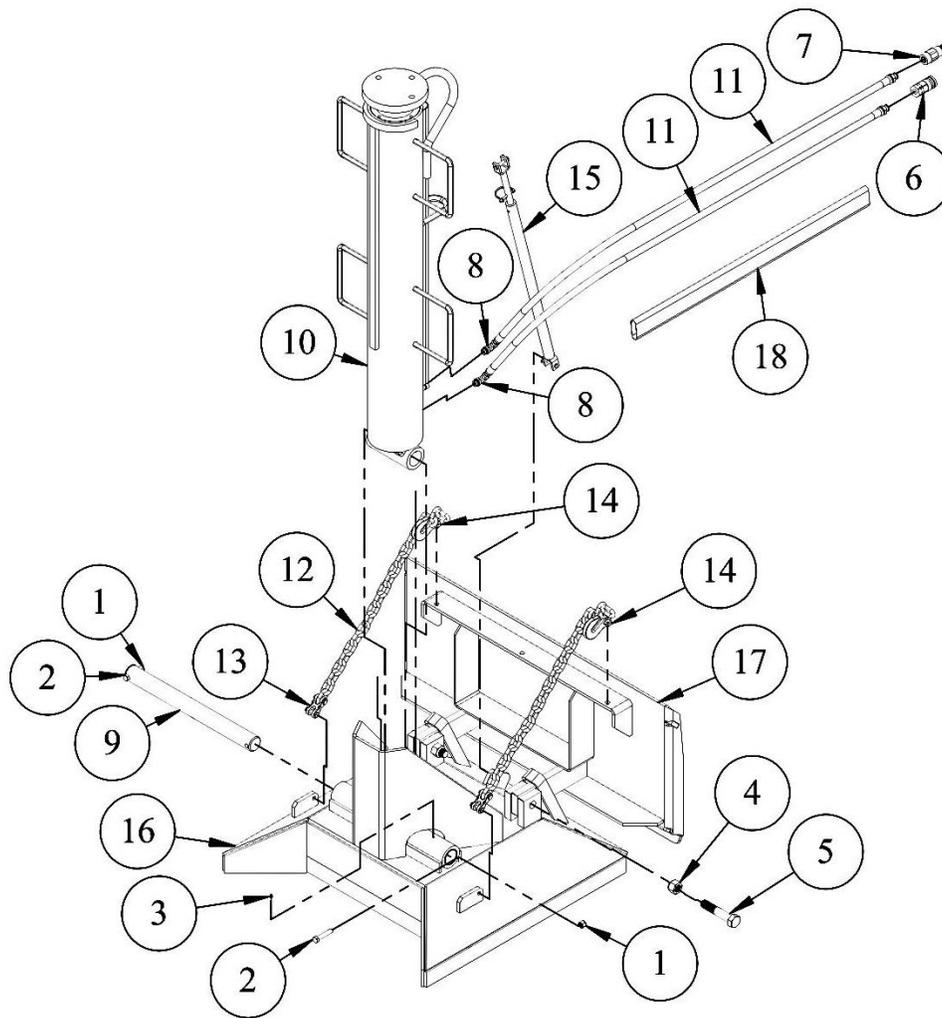
| | | |
|---|---|---|
|  |  |  |
| No Marking | 3 Radial Lines | 6 Radial Lines |
| Grade 2 Low or Medium Carbon Steel | Grade 5 Medium Carbon Steel Quenched and Tempered | Grade 8 Medium Carbon Alloy Steel, Quenched and Tempered |

| Diameter (Inches) | Wrench Size | MARKING ON HEAD | | | | | |
|-------------------|-------------|-----------------|-----|--------|-----|--------|------|
| | | SAE 2 | | SAE 5 | | SAE 8 | |
| | | Lbs/ft | N·m | Lbs/ft | N·m | Lbs/ft | N·m |
| 1/4" | 7/16" | 6 | 8 | 10 | 13 | 14 | 18 |
| 5/16" | 1/2" | 12 | 17 | 19 | 26 | 27 | 37 |
| 3/8" | 9/16" | 23 | 31 | 35 | 47 | 49 | 67 |
| 7/16" | 5/8" | 36 | 48 | 55 | 75 | 78 | 106 |
| 1/2" | 3/4" | 55 | 75 | 85 | 115 | 120 | 163 |
| 9/16" | 13/16" | 78 | 106 | 121 | 164 | 171 | 232 |
| 5/8" | 15/16" | 110 | 149 | 170 | 230 | 240 | 325 |
| 3/4" | 1-1/8" | 192 | 261 | 297 | 403 | 420 | 569 |
| 7/8" | 1-5/16" | 306 | 416 | 474 | 642 | 669 | 907 |
| 1" | 1-1/2" | 467 | 634 | 722 | 979 | 1020 | 1383 |

Troubleshooting

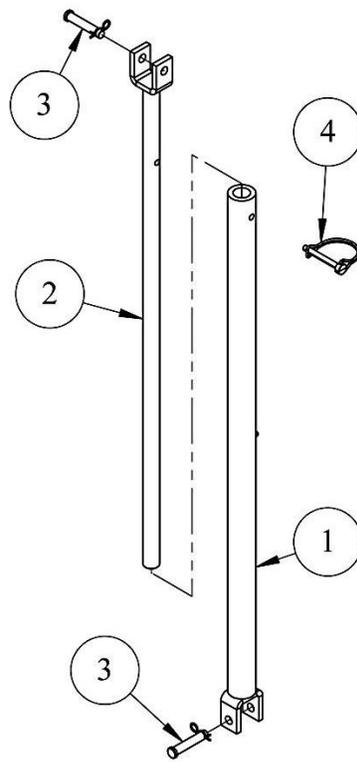
| Troubleshooting Chart | | |
|---|--|--|
| Problem | Possible Cause | Remedy |
| Utility Pole Puller will not operate. | Hydraulic hoses not connected properly. Obstruction in hydraulic lines. Skid-steer auxiliary valve not engaged. Oil from the loader is feeding into the Utility Pole Puller backwards. There is insufficient hydraulic oil in the reservoir. | Connect properly. Remove obstruction and replace if necessary. Engage auxiliary valve. Reverse the connections. Check your hydraulic fluid levels and add if needed. |
| Cylinder moves sluggishly. | Insufficient hydraulic flow. Damaged quick coupler. Oil filter on machine is dirty. | Refer to machine's Owner's manual. Replace if necessary. Refer to machine's Owner's manual. |
| Leaking oil. | Loose or damaged hydraulic line. O-rings on fittings damaged. Fittings loose or damaged. Cylinder seals damaged. | Tighten or replace. Replace if necessary. Tighten or replace. Replace cylinder seals. |
| Insufficient power. | Insufficient hydraulic flow. Relief valve setting adjusted too low. Oil filter on machine is dirty. | Refer to machine's Owner's manual. Refer to machine's Owner's manual. Refer to machine's Owner's manual. |
| Cylinder operates in the wrong direction. | Hoses incorrectly connected. | Reverse hoses at the machine. |

Parts, Utility Pole Puller



| Item | Qty. PP-1000 Skid Loader | Qty. PP-2000 Stationary | Part No. | Description |
|------|--------------------------------|-------------------------------|------------|--|
| 1 | 2 | 2 | 300124 | Nylon Locknut, 1/2-13 |
| 2 | 2 | 2 | 300130 | Cap Screw 1/2-13 x 2-1/2 HH Gr5 Zn |
| 3 | 2 | 2 | 300144 | Fitting, Grease 1/4-28 Straight |
| 4 | 2 | - | 300159 | Nut, Lock 1-8 Nylock |
| 5 | 2 | - | 300298 | Cap Screw 1-8 x 5 HH Gr5 Zn |
| 6 | 1 | 1 | 700104 | Coupler, Quick 1/2 Female |
| 7 | 1 | 1 | 700105 | Coupler, Quick 1/2 Male |
| 8 | 2 | - | 700113 | Adaptor, 90° SAE#8MJIC-#8MORB |
| | - | 2 | SA-6400-08 | Adaptor, Straight SAE#8MJIC-#8MORB |
| 9 | 1 | 1 | PP-1001 | Shaft, Cylinder Pivot, Utility Pole Puller |
| 10 | 1 | 1 | PP-1002 | Cylinder, Hydraulic 6 x 40 Custom |
| 11 | 2 | 2 | PP-1003 | Hose Assembly, Hydraulic 1/2 x 72 SAE |
| 12 | 2 | - | PP-1005 | Chain, Limit 3/8" Gr70 22-links |
| 13 | 2 | - | PP-1006 | Clevis, Double Link 3/8" Gr70 Zn |
| 14 | 2 | - | PP-1007 | Hook, Grab Clevis, 3/8" Gr70 |
| 15 | 1 | 1 | PP-1020 | Strut Assembly, Cylinder |
| 16 | 1 | - | PP-BP-W | Base-Plate Weldment, Utility Pole Puller PP-1000 |
| | - | 1 | PP-BP-2-W | Base-Plate Weldment, Utility Pole Puller PP-2000 |
| 17 | 1 | - | PP-MP-W | Plate Weldment, Mtg., Utility Pole Puller |
| 18 | 1 | 1 | SE-1019 | Sock, 2" Dia. Hose Cover |

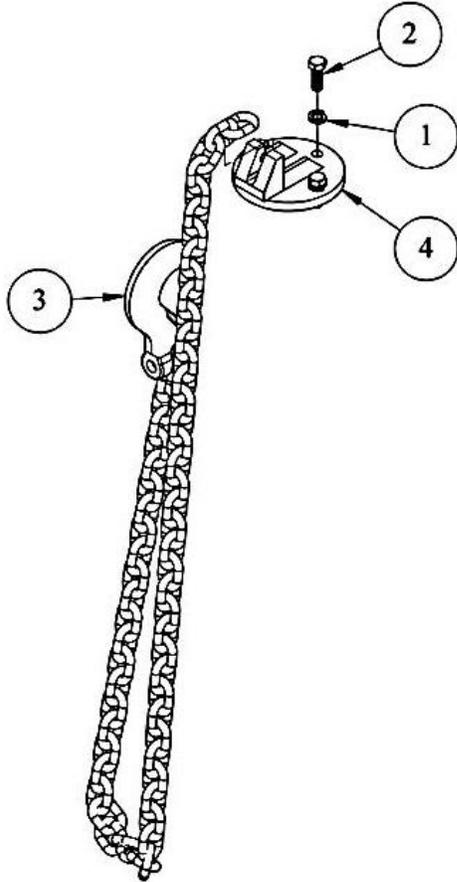
Cylinder Strut Assembly – PP-1020



| Item | Qty. | Part No. | Description |
|------|------|----------|---|
| 1 | 1 | PP-1021 | Tube Weldment, Lower Strut |
| 2 | 1 | PP-1022 | Rod Weldment, Upper Strut |
| 3 | 2 | 300369 | Pin, Clevis 3/8" x 1-3/4" Zn |
| 4 | 1 | 300370 | Pin, Lynch 1/4" x 1-3/4" Zn |
| 5 | 1 | 300346 | Fitting, Grease Straight 5/16" Drive (in PP-1021) |

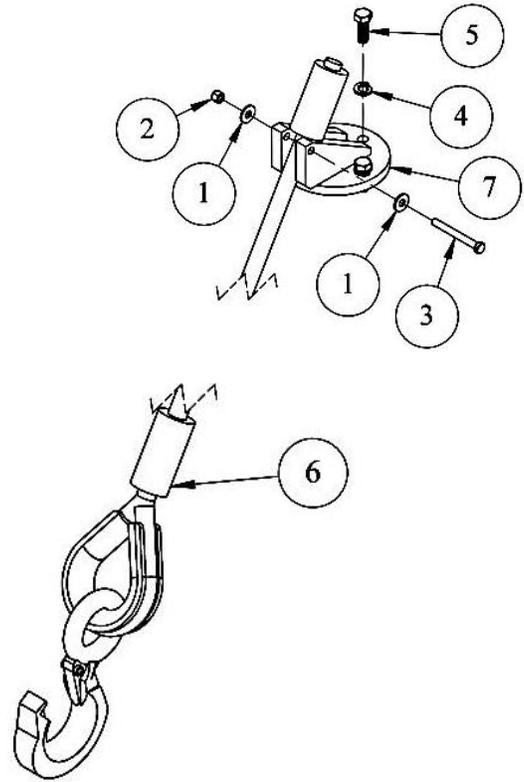
Parts, Utility Pole Puller

Chain Sling Option – PP-1000-CSO



| Item | Qty. | Part No. | Description |
|------|------|----------|--|
| 1 | 3 | 300166 | Lock Washer 3/4 |
| 2 | 3 | 300173 | Cap Screw 3/4x2 HH Gr8 Zn |
| 3 | 1 | PP-1004 | Sling Assembly, Chain 5/8" x 10' Gr100 |
| 4 | 1 | PP-CM-CS | Mount Weldment, Cylinder, Chain Sling |

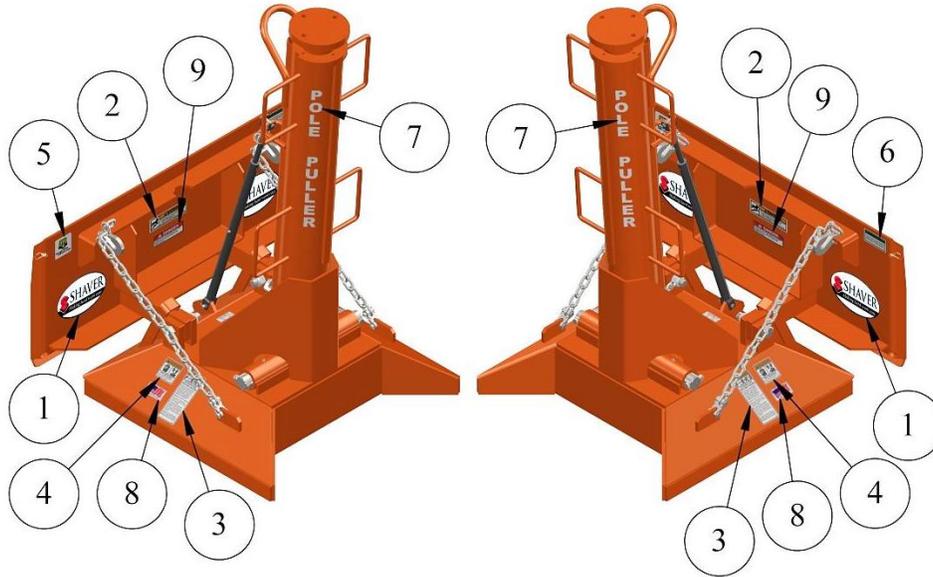
Wire Rope Sling Option – PP-1000-WRSO



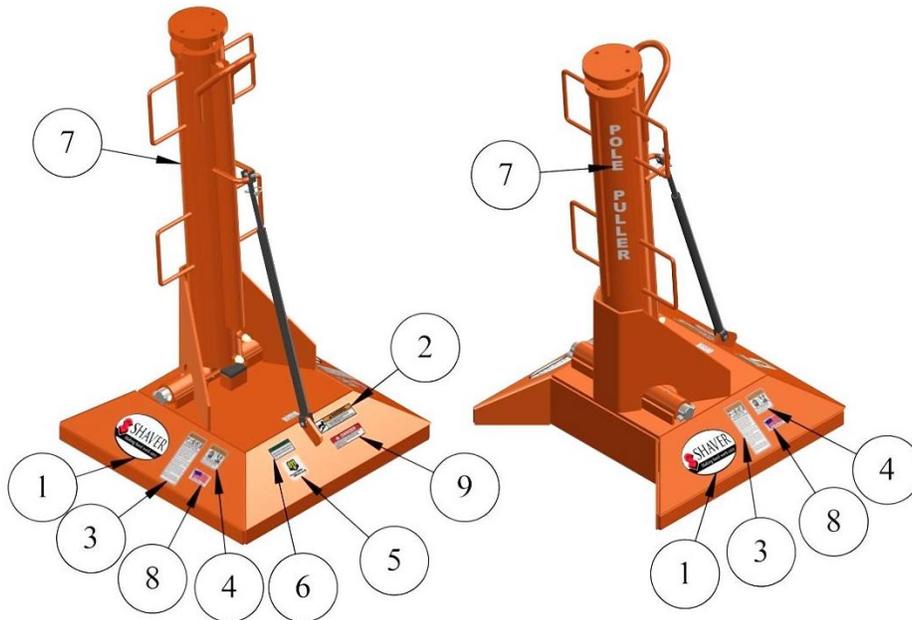
| Item | Qty. | Part No. | Description |
|------|------|-----------|---|
| 1 | 1 | 300122 | Flat Washer, 1/2 |
| 2 | 1 | 300124 | Nylon Locknut, 1/2-13 |
| 3 | 1 | 300136 | Cap Screw 1/2-13 x 4-1/2 HH Gr5 Zn |
| 4 | 3 | 300166 | Lock Washer 3/4 |
| 5 | 3 | 300173 | Cap Screw 3/4x2 HH Gr8 Zn |
| 6 | 1 | PP-1010 | Sling Assembly, Wire Rope 1-1/4"x9' |
| 7 | 1 | PP-CM-WRS | Mount Weldment, Cylinder, Wire Rope Sling |

Parts, Utility Pole Puller

PP-1000 Decals



PP-2000-Decals



| Item | Qty. | Part No. | Description |
|------|------|-----------|---|
| 1 | 2 | MS-161A | Decal, Shaver Logo Large |
| 2 | 1 | MS-171 | Decal, Warning High Pressure Hydraulics |
| 3 | 2 | MS-515 | Decal, Warning Crush Hazard |
| 4 | 2 | MS-516 | Decal, Warning PPE Required |
| 5 | 1 | MS-811 | Decal, Call To Dig |
| 6 | 1 | MS-2550-H | Decal, Important Clean Couplers |
| 7 | 2 | MS-PP | Decal, Utility Pole Puller |
| 8 | 2 | MS-USA | Decal, Made in the USA w/Flag |
| 9 | 1 | PHDC4 | Decal, Danger Read Manual |

Warranty



Shaver Manufacturing Co., LLC.
103 South Washington Avenue
P.O. Box 358 Graettinger, IA 51342
Phone: (712) 859-3293
Fax: (712) 859-3294
sales@shavermfg.com

Limited Warranty

Shaver Manufacturing Company, LLC warrants each new Shaver product to be free from defects in material and workmanship. This warranty is applicable only for the normal service life expectancy of the product or components, not to exceed 12 consecutive months from the date of delivery of the new Shaver product to the original purchaser.

Genuine Shaver replacement parts and components will be warranted for 90 days from the date of purchase, or the remainder of the original equipment warranty period, whichever is longer.

Rubber Bumpers, Carbide Teeth, Auger Teeth and Auger Points are usable parts and not covered by warranty. Part No. SD-101-GB and SD-0301-GB Gearbox are warranted for 3 years from the date of purchase. Part No. SD-0607-GB and SD-0907-GB Gearbox are warranted for 5 years from the date of purchase. Driving Ram Springs are warranted for 60 days from the date of purchase for residential customers and 30 days from the date of purchase with a limit of 2 claims per serial numbered unit for commercial users. Tires are warranted for 90 days from the date of purchase. Replacement parts come with a 90 day warranty from date of purchase.

Under no circumstances will it cover any merchandise or components thereof, which, in the opinion of the company, have been subjected to misuse, unauthorized modification, alteration, an accident, or if a repair has been made with parts other than those obtainable through Shaver.

Our obligation under this warranty shall be limited to repairing or replacing any part that, in our judgment, shall show evidence of such defect, provided further that such part shall be returned within thirty (30) days from the date of failure to Shaver, routed through the dealer and distributor from whom the purchase was made, transportation charges prepaid. All returned items must have an RGA number. Contact Shaver at 712-859-3293 to get authorization to return, file your warranty claim and, if needed, an RGA will be provided.

This warranty shall not be interpreted to render Shaver liable for injury or damages of any kind or nature to person or property. This warranty does not extend to the loss of crops, loss because of delay in harvesting, or any expense or loss incurred for labor, substitute machinery, rental, or for any other reason.

Except as set forth above, **Shaver shall have no obligation or liability of any kind on account of any of its equipment and shall not be liable for special or consequential damages. Shaver makes no other warranty, expressed or implied, and specifically, Shaver disclaims any implied warranty of merchantability or fitness for a particular purpose. Some states or provinces do not permit limitations or exclusions of implied warranties or incidental or consequential damages, so the limitations or exclusion in this warranty may not apply.**

This warranty is subject to any existing conditions of supply which may directly affect our ability to obtain materials or manufacture replacement parts.

Shaver reserves the right to make improvements in design or changes in specifications at any time, without incurring any obligation to owners of units previously sold.

No one is authorized to alter, modify, or enlarge this warranty, nor the exclusion, limitations, and reservations.

Effective January 1, 2015

Warranty Registration

Delivery Date _____ End User _____

Address _____

City, State (Province) _____ Zip/Postal Code _____

Country _____ Telephone (____) _____

Dealer/Distributor Name _____

Dealer/Distributor Customer Number _____ Telephone (____) _____

Address _____

City, State (Province) _____ Zip/Postal Code _____

Country _____

To be completed by DEALER / DISTRIBUTOR or END USER:

_____ Product serial number

_____ Product model number

Please make a copy of this WARRANTY REGISTRATION form for your records and return the original.

This form must be completed and returned to Shaver within 30 days from receipt of delivery or warranty may become void.

Make a copy or cut here to remove

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Notes

Shaver Manufacturing Company

P.O.Box 358, Graettinger, IA 51342

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