SPARTAN TOOL

FOR TOUGH CUSTOMERS. SINCE 1943.

SERVICE MANUAL

UnderTaker

Spartan Tool LLC | 1618 Terminal Road | Niles, MI 49120
order by phone **800.435.3866** order online **SpartanTool.com**

Part #82000000

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Warnings

- Read the safety and operating instructions before using any Spartan Tool products. Drain and sewer cleaning can be dangerous if proper procedures are not followed and appropriate safety gear is not utilized.
- Before starting unit, be sure to wear personal protective equipment such as safety goggles or face shield and protective clothing such as gloves, coveralls or raincoat, rubber boots with metatarsal guards, and hearing protection.
- Drains and sewer can carry bacteria and other infectious micro-organisms or materials which can cause death or severe illness. Avoid exposing eyes, nose, mouth, ears, hands, and cuts and abrasions to waste water or other potentially infectious materials, wash hands, arms and other areas of the body, as needed, with hot, soapy water and, if necessary, flush mucous membranes with water. Also, disinfect potentially contaminated equipment by washing such surfaces with a hot soapy wash using a strong detergent.
- For any questions, contact the company at the address shown below.

CONTACT US

Spartan Tool LLC
1618 Terminal Road
Niles, MI 49120
800.435.3866
SpartanTool.com

CALIFORNIA PROP. 65
This product may contain an extremely small amount of lead in the coating. Lead is a material known to the State of California to cause cancer or reproductive toxicity.

Introduction

The Spartan UnderTaker Lateral Pipebursting System has been designed and manufactured with high quality materials and care in workmanship. The instructions in this manual have been prepared to ensure that, when followed, the Spartan UnderTaker will provide long and efficient service.

WARNING: It is the responsibility of the operator to read and understand the Product Manual and other information provided and use the correct operating procedure. Machines should be operated only by qualified operators. Failure to do so can result in personal injury, death, or machine damage.

Read the entire manual before the initial start-up of the machine. It is important to know the correct operating procedures of the machine and all safety precautions to prevent the possibility of property damage and/or personal injury.

NOTE: Information in this manual is current at the time of printing. Spartan Tool reserves the right to make changes and improvements to its products at any time without notice or obligation.

SERVICE INFORMATION

All requests for information, service, or parts should include machine serial number. Additional copies of this Product Manual can be downloaded free of charge from www.SpartanTool.com.

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SPARTAN UNDERTAKER

Unit Model Number

Unit Serial Number

Specifications and Features

Sub Assembly Weights:	
Positive Grip Sub - Assembly - lb (kg)	55 (25.0)
Cylinder Sub - Assembly - lb (kg)	69 (31.3)
Sheave Sub - Assembly - lb (kg)	36 (16.3)
Total System Weight - lb (kg)	160 (72.6)
Extraction Cage - lb (kg)	50 (22.7)
Optional Extraction Cage Extension - lb	28 (12.7)
Maximum Pull Force	30 tons @ 3000 psi
Min/Max PSI Requirements	1,500 - 3,000 psi (103-207 bar)
Rate Ratio	1 fpm: 1.52 gpm
Hydraulic Flow Requirements	3 - 10 gpm (11 - 38 lpm)
Wire Diameter - in	3/4" Normal (.79) Swaged
Wire Length - ft	110', Special Lengths may be ordered
Wire Rope Weight per ft. (lbs.)	1.25 lbs.
6# Bursting Head Weight (lbs.)	130 lbs.
4# Bursting Head Weight (lbs.)	44 lbs.

IMPORTANT: FOR YOUR OWN SAFETY—Before assembling and operating this unit, read this product manual carefully and completely. Learn the operation, applications and potential hazards peculiar to this unit.

Safety Instructions

General safety messages appear in this Safety Instruction section. Specific safety messages are located in the appropriate sections of the manual where a potential hazard may occur if the instructions or procedures are not followed.

Understanding Safety Alert Symbol

This is the safety alert symbol. This symbol placed on your system or in the manual is used to alert you to the potential for bodily injury or death.

Understanding Signal Words

A signal word **"DANGER"**, **"WARNING"**, or **"CAUTION"** is used with the safety alert symbol. Safety signs with signal word **"DANGER"**, **"WARNING",** or **"CAUTION"** are located near specific hazards.

DANGER - Imminent hazards which, if not avoided, will result in serious personal injury or death.

WARNING - Potential hazards or unsafe practices which, if not avoided, could result in serious personal injury or death.

CAUTION - Potential hazards or unsafe practices which, if not avoided, could result in minor personal injury or product or property damage.

DANGER
WARNING
CAUTION

Read, Understand, and Follow Instructions

Do not operate the machine unless the instructions in this manual have been carefully read and understood.

Read and understand all safety messages in this manual and safety decals on your machine.

Safety decals located on your machine contain important information that will help you operate your equipment safely. Keep safety decals in good condition. Replace missing or damaged safety decals.

Allow only responsible, properly instructed individuals to operate the machine. Carefully supervise inexperienced operators.

Call Your One-Call System First

WARNING: Always contact your local One-Call system before starting any digging project.

Before you start any digging project, don't forget to call the local One-Call system in your area and any utility company that does not subscribe to the One-Call system. For areas not represented by One-Call Systems International, contact the appropriate utility companies or national regulating authority to locate and mark the underground installations. If you don't call, you may have an accident, suffer injuries, cause interruption of services, damage the environment, or experience job delays.

The One-Call representative will notify participating utility companies of your proposed digging activities. If you are in the U.S. or Canada, and do not know the number for the local One-Call representative in your areas, you can dial the North America One-Call number 1-888-258-0808 for this information. Utilities will then mark their underground facilities by using and following international marking codes.

Safety Instructions

Underground Utility Contact

WARNING: Contact with buried utilities can cause death or serious injury. Cut electric cables can shock or electrocute. Laser light from cut fiber optic cables can cause eye damage. Before excavating, contact the local One-Call system and any utility company that does not subscribe to the One-Call system, to locate all buried utilities in and around the proposed excavation.

OSHA CFR 29 1926.651 requires that the estimated location of underground utilities be determined before beginning the excavation or underground drilling operation. When the actual excavation or bore approaches an estimated utility location, the exact location of the underground installation must be determined by a safe, acceptable and dependable method. If the utility cannot be precisely located, it must be shut off by the utility company.

Before excavating, contact the One-Call System to locate all buried utilities in and around the excavation path.

- Select an area that will not intersect buried utilities.
- If the utility cannot be precisely located, have the utility company shut it off before starting any work.

Personal Protection

Wear required personal protective equipment.

Wear close fitting clothing and confine long hair.

Avoid wearing jewelry, such as rings, wristwatches, necklaces, or bracelets.

Always wear:

- Safety glasses
- Safety shoes
- Hard hat
- Work gloves
- High visibility clothing when working near traffic
- Hearing protection

Check Laws and Regulations

Know and obey all Federal, State, and local laws and regulations that apply to your work station.

Do Not Work in Trench

Do not work in any trench with unstable sides which could cave in. Specific requirements for shoring or sloping trench walls are available from several sources including Federal and State O.S.H.A. offices. Be sure to contact suitable authorities for these requirements before working in the trench.

Keep Spectators Away From Machine

Keep all spectators and other workers away from the machine and work area while in operation.

Work In Ventilated Area

Exhaust fumes can be fatal. If operating the machine in an enclosed area, remove the exhaust fumes with an exhaust pipe extension to the outside.

Keep Machine In Good Condition

Be sure the machine is in good operating condition and that all safety devices are installed and functioning properly.

Visually inspect the machine daily before starting the machine. Refer to the daily prestarting inspection section.

Make no modifications to your equipment unless specifically recommended or requested by Spartan Tool L.L.C.

Confined Space Regulation

Do not work in a confined space, such as a sewer, until requirements are met to ensure a hazard free environment. Specific requirements for confined space entry are available from Federal and State OSHA offices.

Clear Work Area

Clear the work areas of all objects that might interfere with the proper operation of the system. Avoid placing the system or other objects where they can fall into the exit pit.

Handling the UnderTaker

To avoid back injury, use proper lifting technique. Lift with your legs - not your back! Use a lift strap whenever possible.

Check Hardware

Ensure all hydraulic couplings are tightened and secured to eliminate the chance of accidental uncoupling.

Check Hydraulic Power Supply

Be sure the hydraulic power supply is securely parked at a safe distance from the excavation pit to prevent pit cave in. Chock the wheels to prevent the machine from rolling or falling into the pit.

Maximum hydraulic pressure that can be delivered to the system is 3000 psi (206 bar). Do not exceed this pressure or damage to the system or personal injury may result.

Do not override any safety controls on the machine or any support machinery.

Shut down the unit at the first sign of malfunction or hazardous condition.

Do not disconnect the hydraulic supply without first shutting off the hydraulic power supply. Serious injury may result from the oil under high pressure or from uncontrolled hose movement.

During Service

Read and follow the service instructions in this manual before servicing the machine.

Shut off the hydraulic supply valve and disconnect the hydraulic line before servicing the machine.

Use only authorized parts for repair or replacement. These replacement parts, including bolts, are specified in this manual.

Check the hydraulic hoses periodically for damage to the hose or fittings. Never use the system with damaged or worn hydraulic lines or fitting. This will minimize chances of hydraulic line breakage while in use.

Do not use a torch or welder on the machine. Applying heat may damage critical parts of the machine. Heating parts of the machine may alter the components strength and result in premature failure or personal injury.

Safety Decals

Inspecting Safety Decals

Safety decals located on your machine contain important and useful information that will help you operate your equipment safely.

To assure that all decals remain in place and in good condition, follow the instructions given below:

- Keep decals clean. Use soap and water - not mineral spirits, abrasive cleaners, or other similar cleaners that will damage the decals.
- Replace any damaged or missing decals. When attaching decals, temperature of the mounting surface must be at least 45°F (5°C). The surface must also be clean and dry.
- When replacing a machine component with a decal attached, replace the decal also.
- Replacement decals can be purchased from Spartan Tools L.L.C.

How the UnderTaker Works

The Spartan UnderTaker is a hydraulically powered non-impact cable pulling system that can be set-up to install 4" (100mm) and 6" (150mm) pipe through an existing utility line. A 3/4" cable is pushed or pulled through the existing utility from either the entrance or exit pit and attached to a burst head which has the replacement carrier line bolted to it. As the valve is closed, the cable is clamped and pulled toward the exit pit. This in turn pulls the burst head which bursts the old utility and simultaneously installs the new line. When the new utility reaches the exit pit, the burst head is removed and the new carrier line is reattached at both ends to the remaining utility.

Transporting the UnderTaker

Lifting the UnderTaker

The UnderTaker weighs 160 lbs (72.6 kg) fully assembled. The machine is designed to easily separate into light weight sections for portability.

WARNING: Never lift machine over personnel. The machine or lifting equipment may fall, crushing anyone beneath it. Never stand under raised machine or lifting equipment.

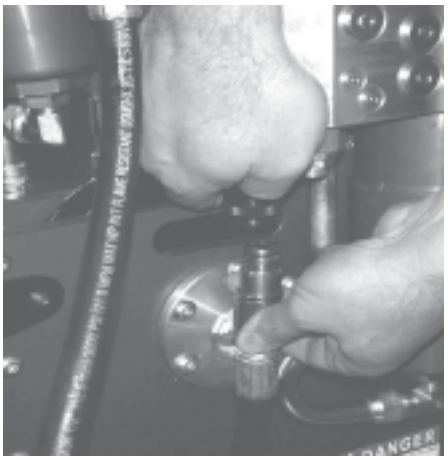
Always use lifting equipment rated for the weight of the load being lifted. Before lifting straps for cuts, scrapes, abrasions, and wear.

WARNING: When transporting the UnderTaker over stairs, make sure the stairs are capable of holding the weight of the unit along with the weight of the persons transporting the unit. If in doubt, disassemble the unit and transport each section one at a time over the stairs.

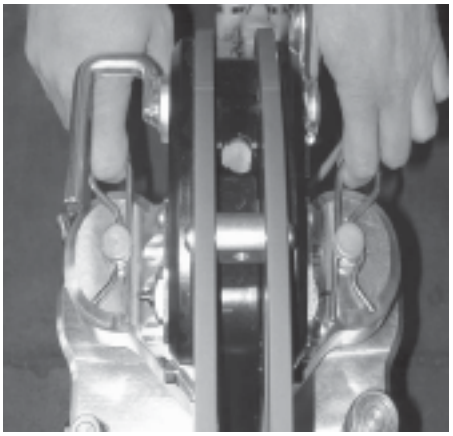
Disassembling the UnderTaker

NOTE: Before disconnecting the hoses from the power supply, turn off key to shut down engine. Turn key back on; do not start engine. Cycle pendent buttons to relieve oil pressure in hoses. Make sure all hydraulic power to the unit is disconnected and all pressure has been released from the hoses before attempting to disassemble the machine.

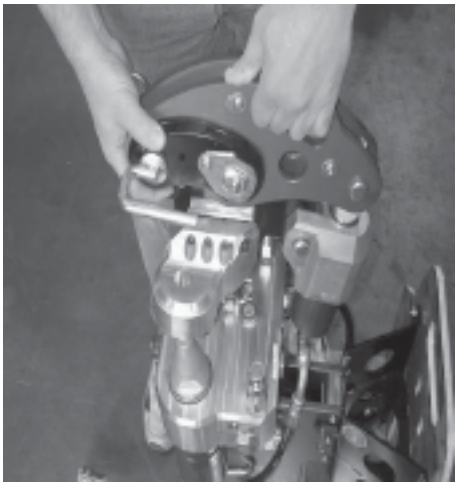
Use the procedure outlined in the following steps to disassemble the UnderTaker for easier transportation or when setting up in a basement.



1. Cycle the valve to move the clamp cylinder somewhere in the middle of the stroke. Moving the cylinder only slightly from the open clamp position is sufficient. This step removes trapped pressure in the clamp circuit. Disconnect the hydraulic hoses on either side of the unit. Be careful not to allow any type of contamination into the fitting. Hoses may be snapped together to prevent contamination.

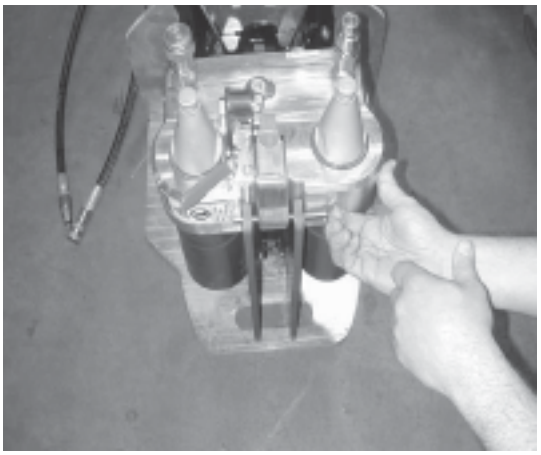


2. Remove the two retaining clips on either side of the unit at the top of each hydraulic cylinder.

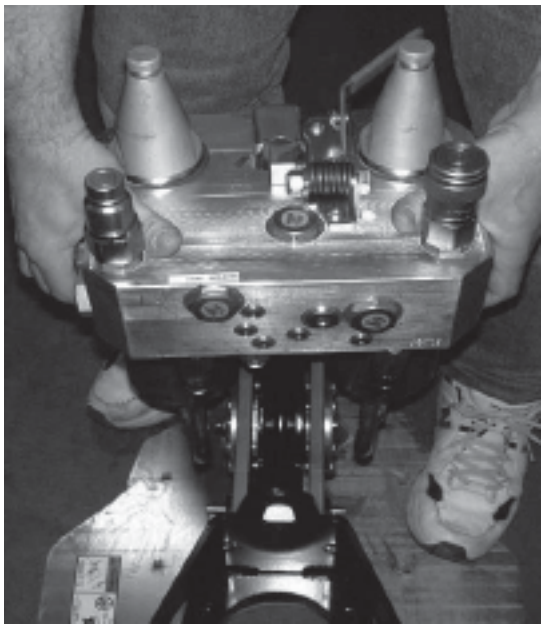


3. Lift the top assembly up and off the cylinder assemblies.

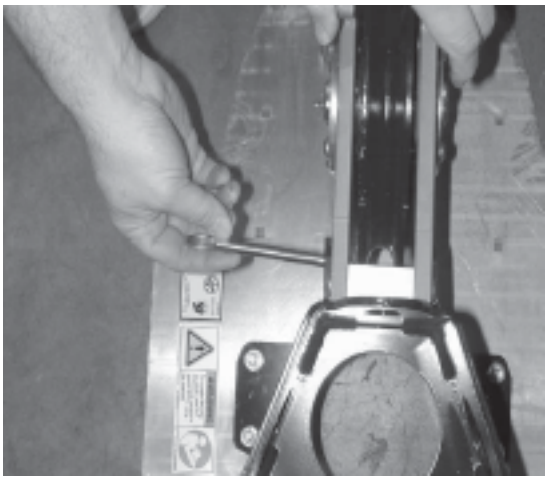
4. Remove the retaining pin located in the front of the unit as shown.



5. Move back and lift the Upper Cylinder Head Assembly from the frame.



6. Remove the rear retaining pin from the frame and backing plate. Frame may now be removed from the backing plate. The unit may now be transported. To assembly the unit, follow the previous steps in reverse order.



NOTE: Wipe clean all flat faced coupler ends before connecting hoses.

Preparing the UnderTaker

PERSONAL PROTECTIVE EQUIPMENT

Operating the machine will require you to wear protective equipment. You should always wear a hard hat, work shoes, and eye protection. Wear leather gloves when handling wire rope. If working near traffic, wear high visibility clothing.

WIRE ROPE

Specification

Swaged 3/4" x 110'. Other lengths may be specially ordered. The wire rope has a breaking strength of 70,600 pounds. It must be maintained in good condition for use with the UnderTaker, which is rated at 60,000 pounds line pull.

Damage

Damaged wire rope must be replaced immediately. Obvious damage includes permanent bends, flat spots, worn spots, broken wires, frayed spots, rust, and corrosion.

Wire Rope Failure

Wire rope will break if abused or misused. Failure is usually cumulative. A wire rope that almost fails under a heavy load can fail under a lighter load on the next pull.

DANGER: Wire rope whip lash can be fatal. Be sure the wire rope is in good condition and that it is securely attached to the load. Wire rope may move erratically during the beginning of the burst until enough wire rope is fed though the system and the loose end is on the ground.

When it breaks, wire rope will whip or lash because of the sudden release of tension on the wire rope. The wire rope can also whip or lash if it is suddenly pulled loose from its load. Be sure the wire rope is securely attached to its load.

Maintaining Wire Rope

For maximum wire rope life:

- Install wire rope properly.
- Don't use over-sized wire rope. The strands will be pinched and the wire will fail in the valley between the strands.
- Protect the wire rope from damage. Poor work procedures can lead to unnecessary damage.
- Keep wire rope from corroding. Exposure to elements combined with wear and loss of lubrication causes corrosion and pitting.

The following conditions increase corrosion: acid and alkaline solutions, gases, fumes, brine and salt air, sulphurous compounds, high humidity, and temperature.

- Keep wire rope from kinking or bending sharply. Kinks and sharp bends permanently bend wires and strands, ruining the wire rope.
- To prevent kinks, remove loops in the wire rope before tightening it.
- To keep the wire rope from bending sharply, do not route it around sharp corners and do not wrap it around the load.
- Do not overstress the wire rope. Snapping the wire rope by adding or removing/releasing the load quickly will shorten its life and lead to failure.
- Only use the wire rope for the specific job. Wire rope tends to "set" to the conditions of the job. Using it for a different task can lead to premature failure due to different bends and stresses.

WARNING: Never wear loose fitting clothing or jewelry when operating this machine. **Always** wear your Spartan riveted gloves when handling cable.

PIT PREPARATION

WARNING: Do not work in any trench with unstable sides which could cave in. Specific requirements for shoring or sloping trench walls are available from several sources including federal and stat O.S.H.A. offices. Be sure to contact suitable authorities for these requirements before working in the trench.

If entry into a confined space is necessary, follow all regulations and requirements for working in confined spaces to ensure a hazard-free environment.

Entry Pit

Uncover the end of the service being replaced. Make the pit large enough so that the new pipe can make a gentle bend into the old service. Pre-water around 45 degree bends in dry conditions to reduce static force.

Manufacturer's guideline for the entrance pit is that the length of the pit be 2-1/2 times the entrance pit depth. Shortening the entrance pit may cause increased friction as well as raise the grade of the new line for the first several feet.

Exit Pit

- Uncover the end of the service being replaced. The UnderTaker requires a pit approximately 2' x 4'. Add enough room so that the operator has enough room to set up the system.
- Slope, terrace or shore the trench to avoid cave ins.

NOTE: The centerline of the cable is 4-1/2" above the bottom plate.

- Slope the floor of the pit to the grade of the burst and square the face of the pit.
- Additional blocking may be required under the heal of the base of the UnderTaker may settle during the process.
- Some situations may require other procedures, such as dewatering or bypass pumping.

EQUIPMENT PLACEMENT AND INSTALLATION

WARNING: Never lift equipment over personnel. The load may fall or shift, crushing anyone beneath it.

Set up the unit in a safe and efficient working position. If setting up near traffic, use the necessary warning and diversion systems for motor vehicles and pedestrian traffic. Use the necessary signs, cones, fencing and flag persons needed for the work situation. Ensure the safety of workers and onlookers.

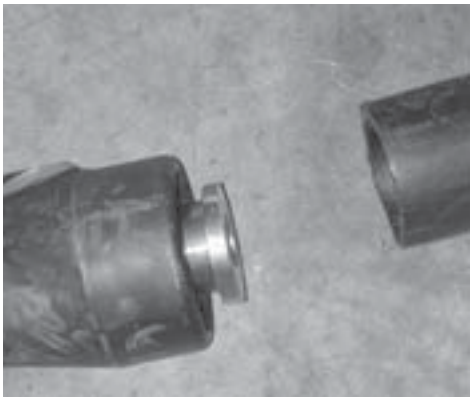
Setup

BURSTHEAD AND CABLE

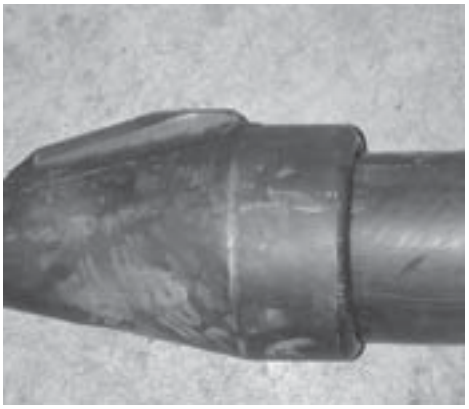
NOTE: Clean cable grip surfaces before each use.

1. Push a fiberglass rod or push/pull the wire rope through the existing utility leaving the swaged eye at the bursthead side or entrance pit.

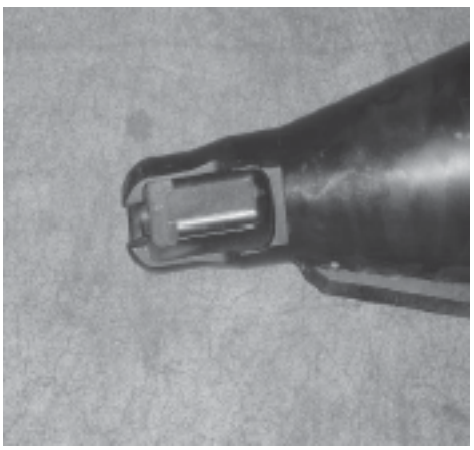
2. Slide the Quick Grip BurstHead into the length of PE to be used to replace the existing utility. Make sure the new length of pipe is long enough to cover the entire distance of the old utility.



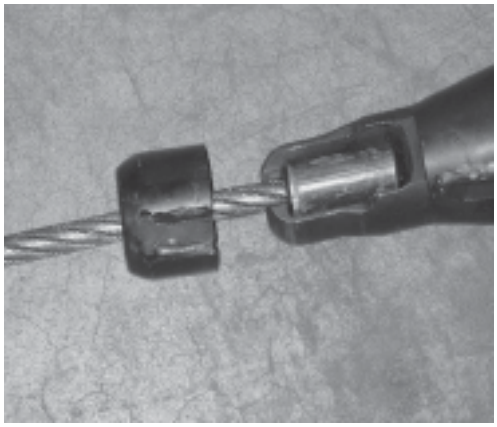
3. Tighten the front of the quick grip bursthead assembly until it grips the inside of the PE. Tighten 5 more full revolutions. A pipe wrench or spanner wrench may be required in order to achieve the required revolutions.



NOTE: To prevent jaws from rotating inside the pipe, it may be necessary to hold the head and pull the stem assembly forward to initially engage jaws.

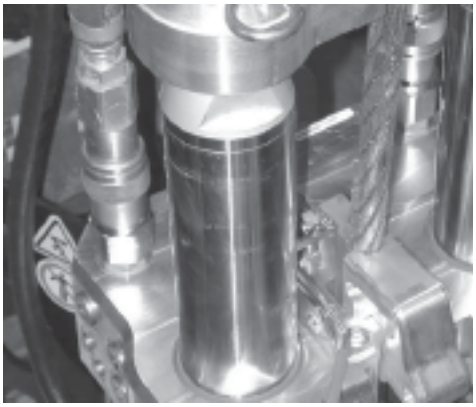


4. Thread the cable end through the cap and place in the slot in the end of the quick grip stem. Slide the cap back over the stem and cable securing the cable to the burst head. **ALWAYS**, use a c-clamp or several resolution of duct tape to secure the cap in position.

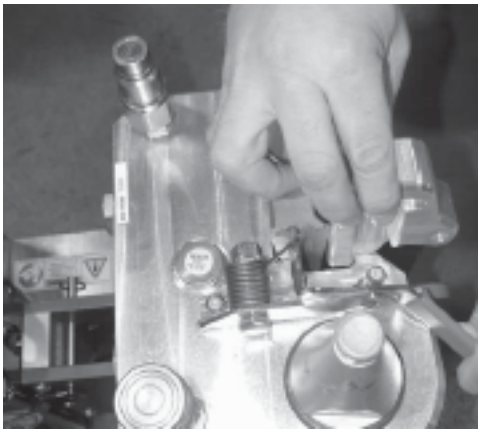


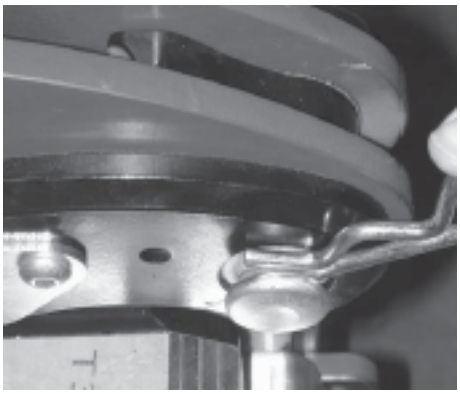
CABLE INSTALLATION

1. Cycle lift cylinder up completely to allow access to the stationary jaw.

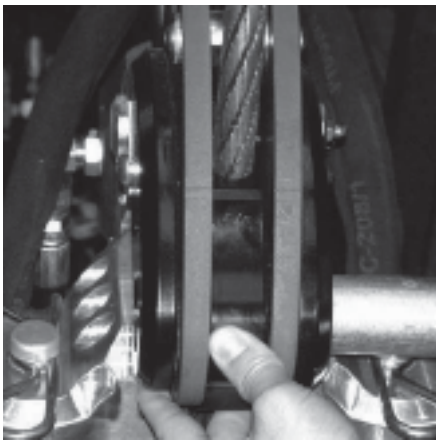


2. Push release lever down and remove the stationary jaw. Thread cable through cage assembly and around sheave assembly. Lay cable against the tapered jaw and re-install the stationary jaw.





3. Remove the top cotter pin, slide the 1-1/2" jaw pin out and remove the top shoe.



4. Place the cable against the yoke, re-install the top shoe against the cable, slide the 1-1/2" pin back in through the top shoe and re-insert the top cotter pin.
5. Pull excess slack in cable through the UnderTaker while lowering the unit into position in the pit.
6. Connect the hydraulic hoses from the hydraulic power source to the UnderTaker. Position the control station so that the machine operator has an unrestricted view of the UnderTaker operation.

INTENDED USE

The Spartan UnderTaker pipe bursting system is a compact, portable hydraulically-powered machine designed to economically install underground utilities where open cutting or trenching is not feasible or desirable.

The UnderTaker is capable of bursting 4 - 6" pipe and replacing it with up to 6" HDPE pipe.

NOTE: The maximum allowable flowrate is 20 gpm.

STARTING THE BURST

NOTE: The Spartan Quick Grip Burst Heads are intended for use with HDPE SDR 11/26 plastic pipe. Jaws are marked for proper selection. The holding power may be reduced if used with other SDR's or materials. It may be prudent to mark the wire rope about 5 ft from the cable eye end of the cable with tape or paint to visually alert the operator when the burst head is nearing the exit pit.

WARNING: Make sure all hydraulic hose connections are secure. Pressurized fluid can penetrate body tissue and result in serious injury or death. Leaks can be invisible. Relieve pressure before working on the system. When searching for a leak, use an object like cardboard - not your hand. Fluid injected under the skin must be removed immediately by a surgeon familiar with this type of injury.

1. Start the hydraulic power source. Allow the unit to warm up to operating temperature before use.
2. Cycle the control valve paying close attention to the hydraulic pressure gauge as pressure indicates soil resistance.
3. Monitor the position of the shore plate as the soil wall may yield from resulting load.
4. Continue to pull the new line towards the exit pit.

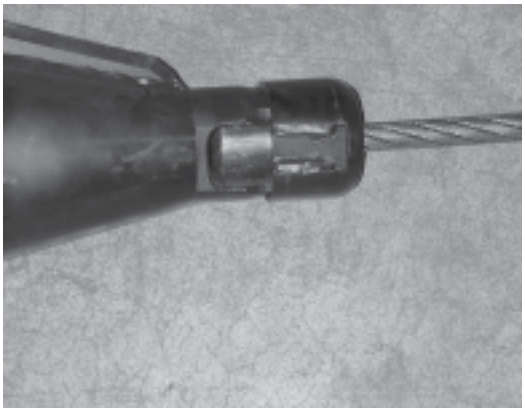
WARNING: Do not enter the exit pit while the UnderTaker is in operation or the cable is under tension. The load on the pit wall may have created an unstable pit wall condition.

BURSTING HEAD REMOVAL

1. Slide the cap back and remove the cable from the front of the burst head.

WARNING: Cable may have some stored energy which causes the cable to twist when released from the head.

2. Unscrew the front of the burst head until loose and slide the burst head out of the pipe. It may be necessary to tap the front of the burst head slightly to release its grip on the pipe.



NOTE: An alternate method of removing the burst head is to cut the PE behind the burst head, remove the burst head from the exit pit and remove the HDPE above ground.

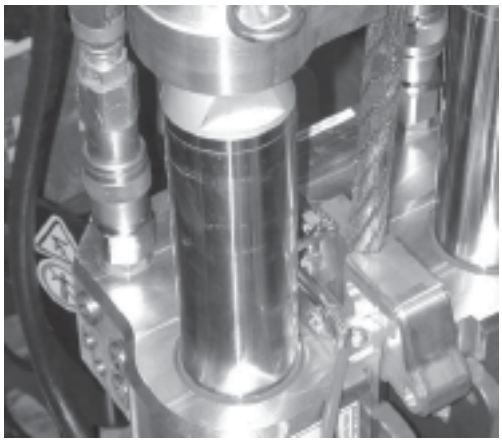
IMPORTANT: Create a small sleeve of PE to store the burst head to protect the jaws from damage.

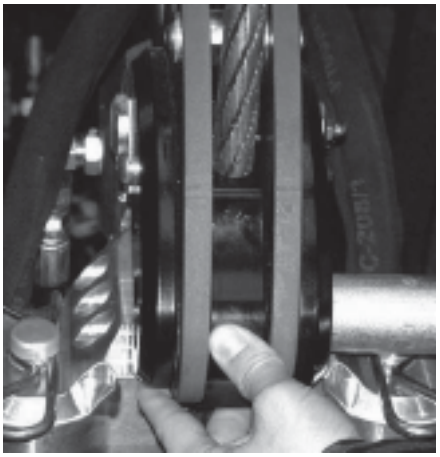
ENDING THE BURST

Removing the UnderTaker

WARNING: Do not work in a confined space, such as a sewer, until requirements are met to insure a hazard free environment. Specific requirements for confined space entry are available from federal and state OSHA offices.

NOTE: Before disconnecting the hoses from the power supply, turn off key to shut down engine. Turn key back on; do not start engine. Cycle pendant buttons to relieve oil pressure in hoses. Make sure all hydraulic power to the unit is disconnected before attempting to disassemble the machine.



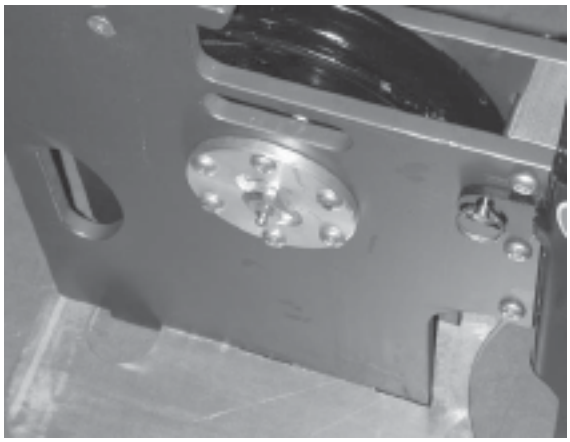


1. To cycle the lift cylinders, the power engine must be shutoff. Turn the ignition key to the on position and cycle the pendant switch.
2. Cycle the lift cylinders to release any pressure on the cable. Move the clamp cylinders in or out slightly from the full extended position.
3. Shut down the hydraulic power supply. Do not attempt to remove/disconnect the hydraulic hoses while the unit is still under pressure.
4. Press lever down and remove lower stationary jaw.
5. Remove upper cotter pin, slide 1-1/2" pin out and remove upper stationary jaw. Cable may now be removed from machine.

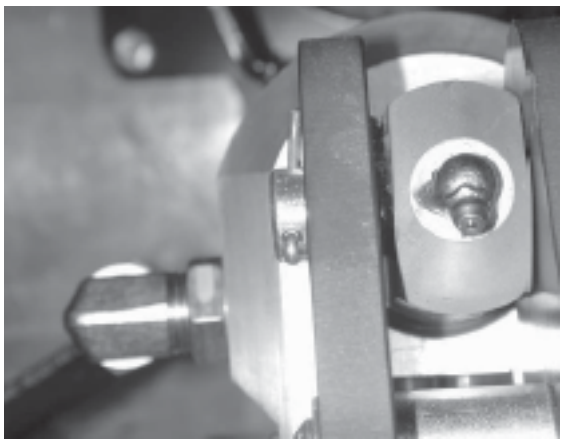
PREVENTIVE MAINTENANCE TIPS

- Be careful not to damage cylinder rods when they are extended. Nicks and dents will damage seals, resulting in oil leakage.
- When not in use, the cylinders should be fully retracted to protect the rods from dents, dirt, and moisture. If left extended, wipe them off before retracting them.
- To prevent premature wear of the shoes and moving components, keep the unit free of dirt and debris by using a wire brush before and after every use.
- Pressure wash the wire rope after every use. Debris can become lodged between wires and reduces cable life. Inspect wire rope for wear after every use.
- Clean dirt and debris from the burst head and collets. Oil the center threaded stud and tapered wedge liberally.

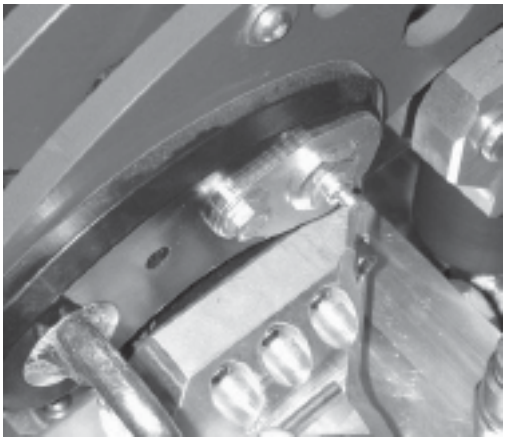
Lubrication and Maintenance



Sheave Assembly



Positive Grip Sub- Assembly



NOTE: Use moly grease or an anti seize compound where applicable.

Grease the above three locations after 10 hours of use or daily.

Inspect the wire rope for damage/wear after every use.

Parts & Accessories

Spartan Tool will supply all parts or accessories you require as quickly as possible. In order to do so, we must have information from you, including machine serial number and part numbers.

Spartan Model UnderTaker

Serial No. _____

To order parts, look through the pictures until you find the part you require or an indication of where the part should be. Using the item number from the picture, go to that number on the adjacent page and check the description to determine if it is the part you desire.

Using the part numbers, please contact your Spartan Territory Manager or Spartan Tool directly via telephone or our website www.spartantool.com.

Thank you!

CONTACT US

Spartan Tool LLC
1618 Terminal Rod
Niles, MI 49120
800.435.3866
SpartanTool.com

Maintaining Safety and Performance

All equipment repairs should use Spartan parts. The various fittings have been designed for high pressures. Substituting parts is dangerous and voids Spartan warranties. Use standard pipe sealing compound to seal all joints except swivel joints and hose nozzles (o-rings, seals, and tapered seat designs do not require sealing materials).

UnderTaker Complete System 8200000C

82000000 Puller Unit, Undertaker

82000100 Assy, Hyd Power Supply 13 HP

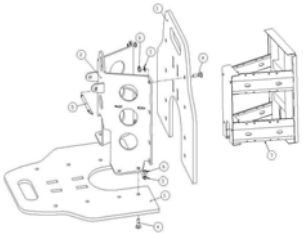
80006400 Assy, Reel w/200 Ft Duct Rod

Part Number	Description	Qty.
44239800	Carrier, Cable	1
80006500	Rod, 200 Ft Duct	1

Item	Part Number	Description	Qty.
1	**82000000**	Puller Unit, Undertaker	1
2	**82000100**	Assy., Hyd Power Supply 13 HP	1
3	**80006400**	Assy., Reel w/ 200 Ft Duct Rod	1
4	**80010500**	Fusion Machine, 4" & 6"	1
5	**82000200**	Extraction Cage	1
6	**82000300**	Rope, Wire 3/4" x 110 Ft (Not Shown)	1
7	**82000600**	Hose, Hydraulic 40 Ft (Not Shown)	2
8	**82005000**	Bursting Head 4"	1
9	**82006000**	Bursting Head 6"	1

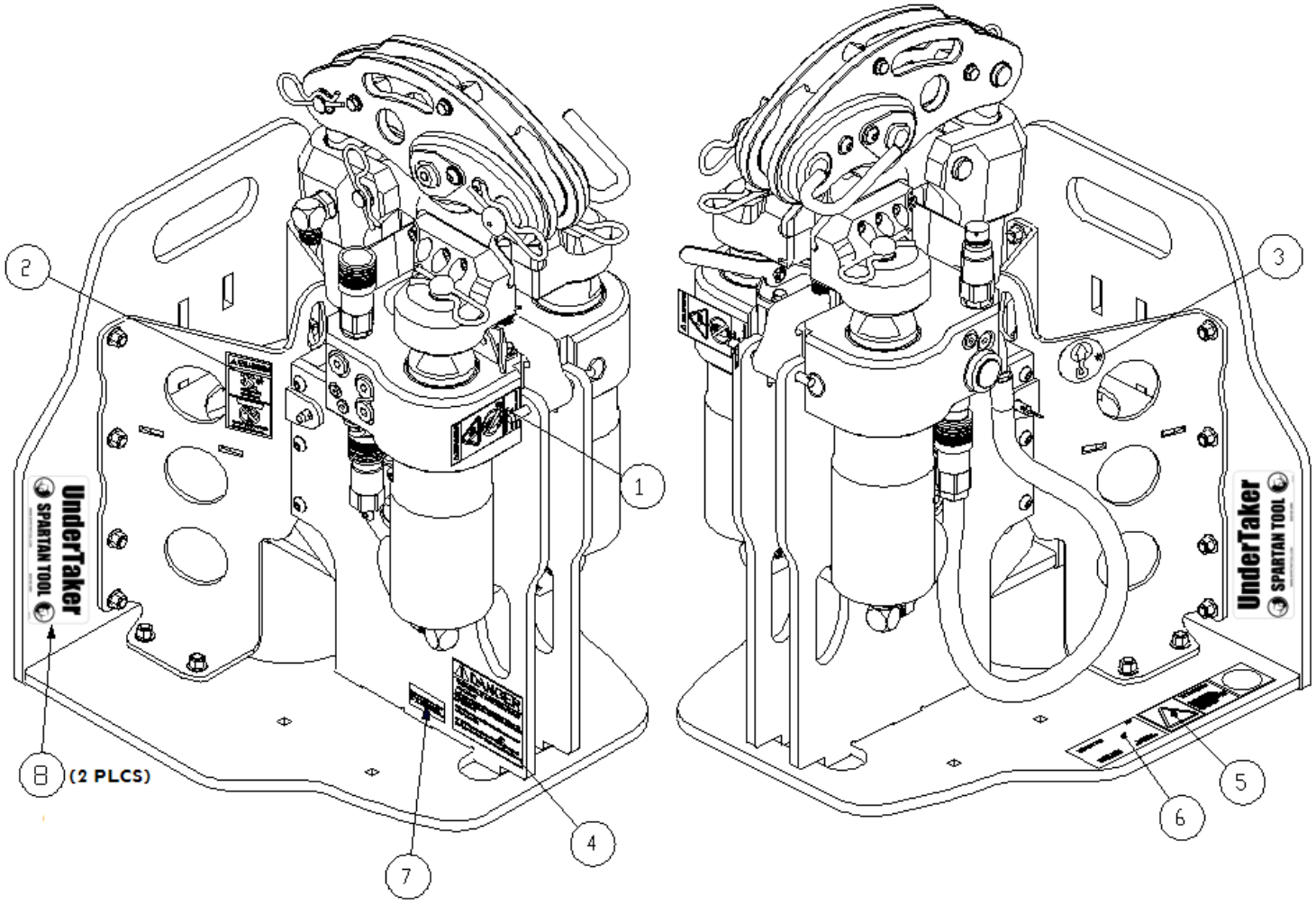
80010500 Fusion Machine 4" & 6"

Part Number	Description	Qty.
82005000	Bursting Head 4"	1
82006000	Bursting Head 6"	1

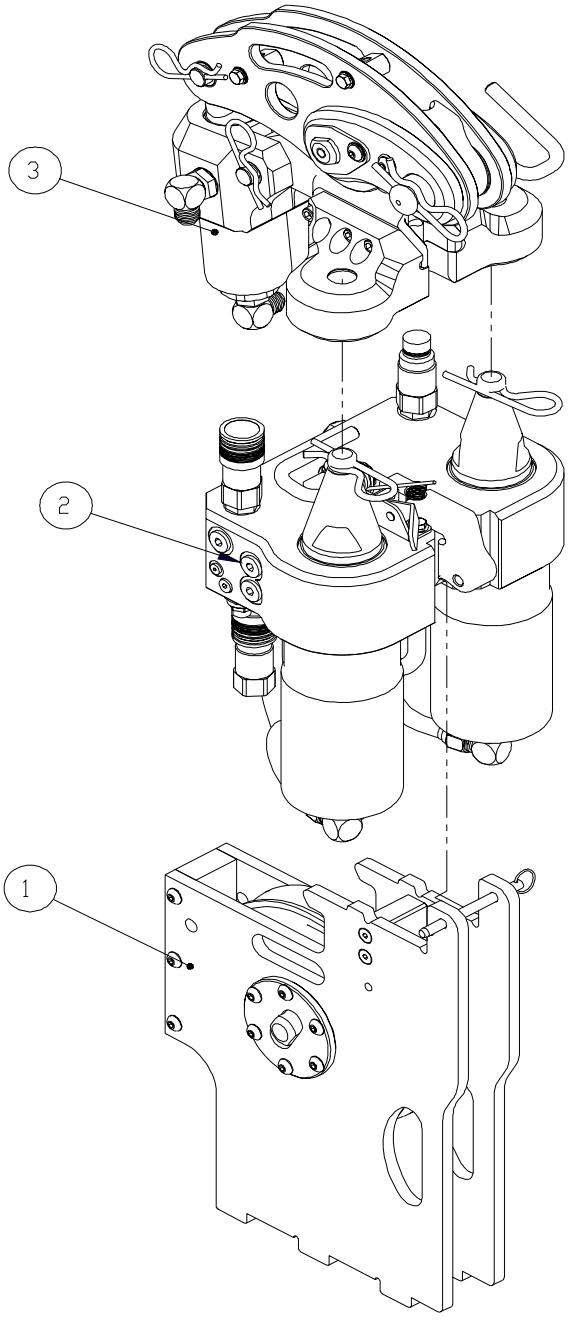


82000200 Extraction Cage

Puller Unit, UnderTaker 82000000 Decal Page

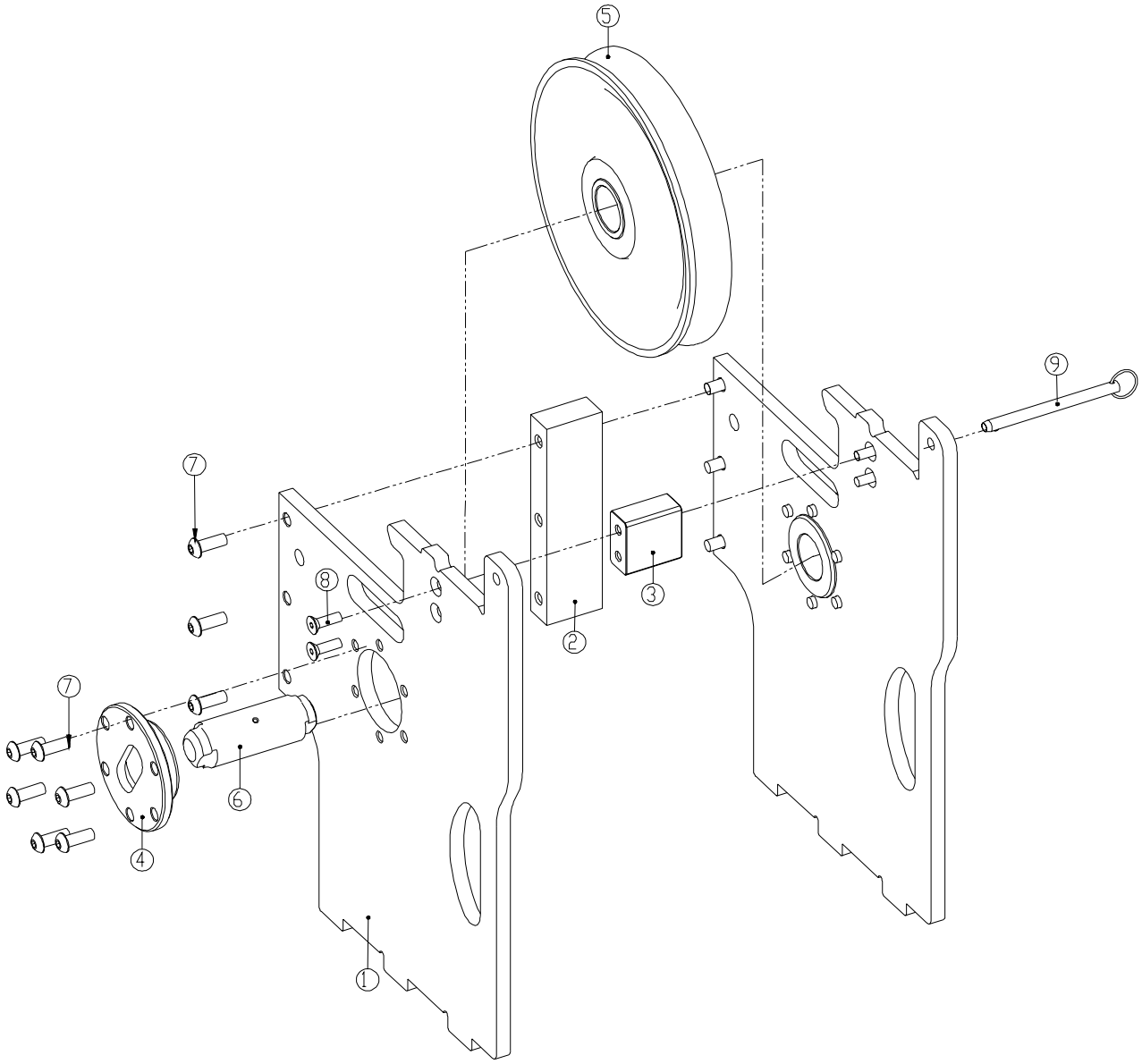


Item	Part Number	Description	Qty.
1	82001620	Decal, Pinch Point	1
2	82001630	Decal, Falling Load	1
3	82001640	Decal, Lift Point	1
4	82001660	Decal, Rope Break	1
5	82001660	Decal, Read Operator Manual	1
6	82001670	Decal, One Call	1
7	82001680	Decal, Manufactured By	1
8	82022100	Decal, Undertaker	2
9	82001650	Decal, Pinch Point	1



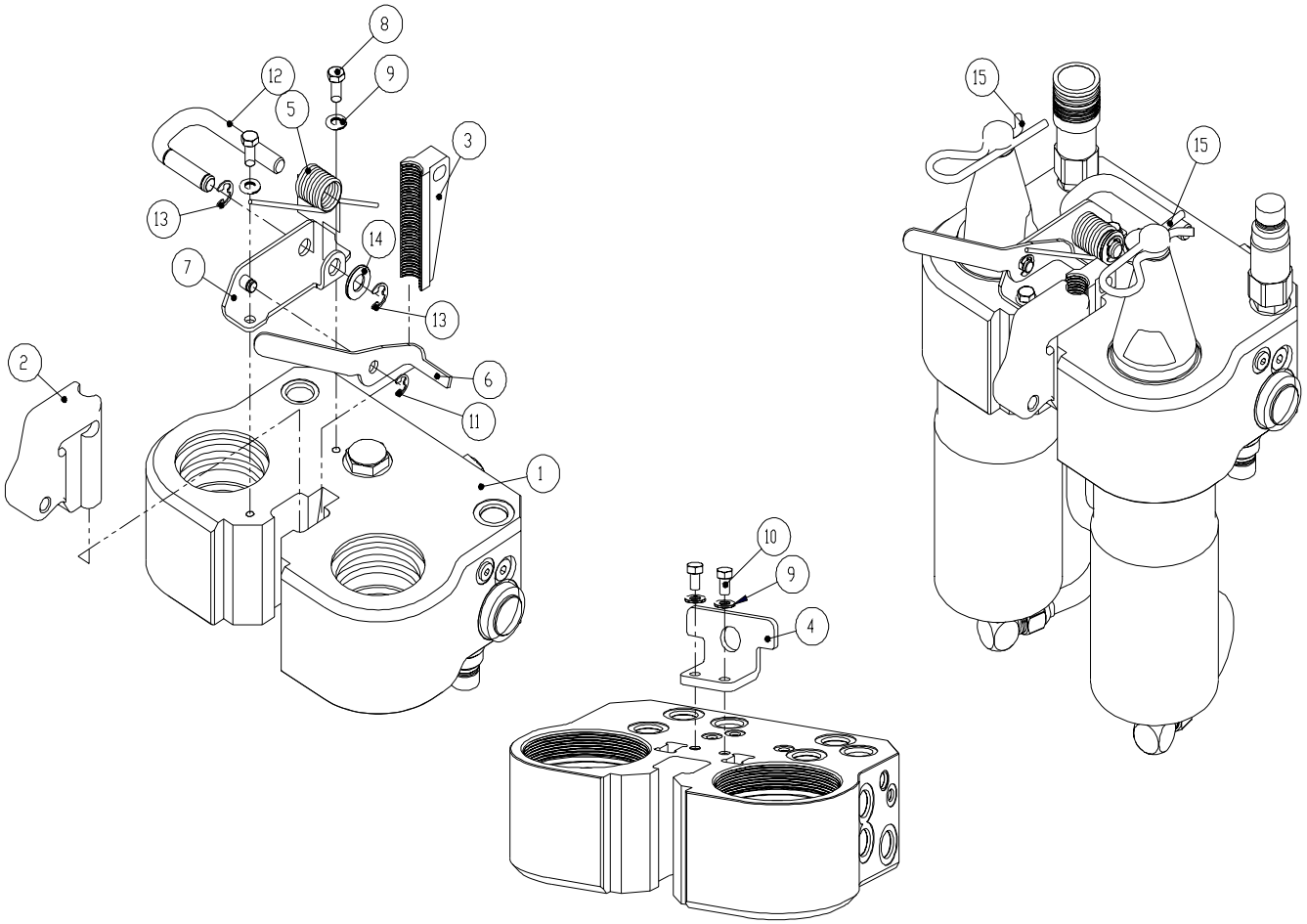
Item	Part Number	Description	Qty.
1	82004000	Sheave Sub-Assembly	1
2	82003000	Cylinder Sub-Assembly	1
3	82002000	Positive Grip Sub-Assembly	1
4	82008160	Hose, Hydraulic 36"	1
5	82008170	Hose, Hydraulic31"	1

Sheave Sub-Assembly 82004000



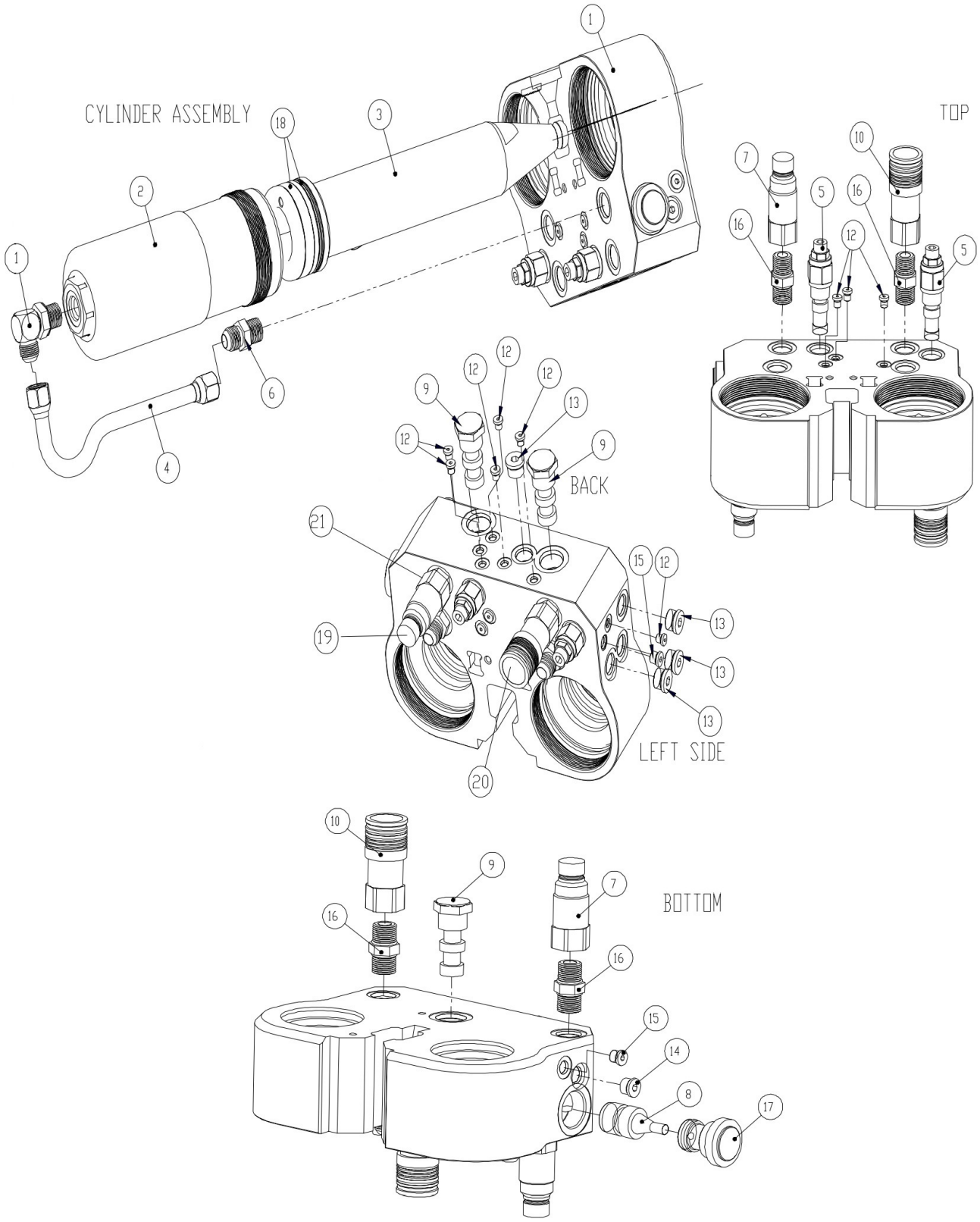
Item	Part Number	Description	Qty.
1	82004010	Side Frame, Undertaker	2
2	82004020	Frame, Backbone	1
3	82004030	Spacer Block	1
4	82004040	Hub	2
5	82004080	Assembly, Sheave	1
6	82004050	Pin, 1.50	1
7	82004060	Bolt, BT HD SC 3/8 - 16 x 1.0	18
8	82004070	Screw, FHSC 5/16 - 18 x 1.0	4
9	82004090	Pin, Ring Grip 3/8 x 4	1

Cylinder Sub-Assembly 82003000



Item	Part Number	Description	Qty.
1	82003010	Double Cylinder Assembly	1
2	82003190	Jaw, Stationary	1
3	82003200	Jaw, Tapered	1
4	82003230	Lock, Frame	1
5	82003440	Spring, Torsion (LH)	1
6	82003210	Lever, Release	1
7	82003220	Bracket, Lever	1
8	82002340	Bolt, HHC 5/16 - 18 x .75	2
9	82002310	Washer, 5/16 - Hard	4
10	82003350	Bolt, HHC 5/16 - 18 x .5	2
11	82003240	Clip, E-Ring 3/8	1
12	82003340	Handle (Cylinder Assembly)	1
13	82003250	Clip, E-Ring 1/2	2
14	82003360	Washer, 1/2 - Hard	1
15	82002240	Bridge Pin	2

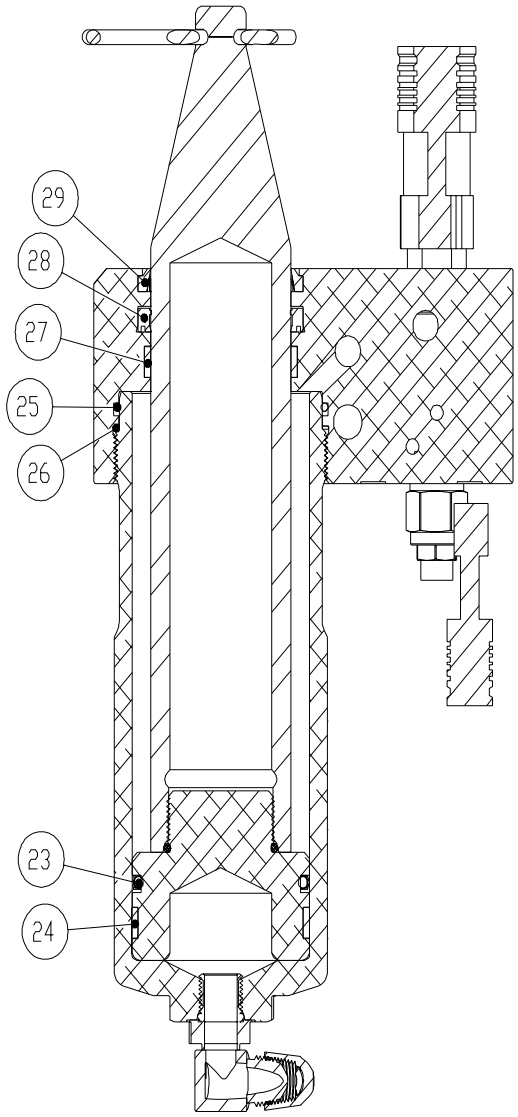
Double Cylinder Assembly 82003010



Double Cylinder Assembly 82003010

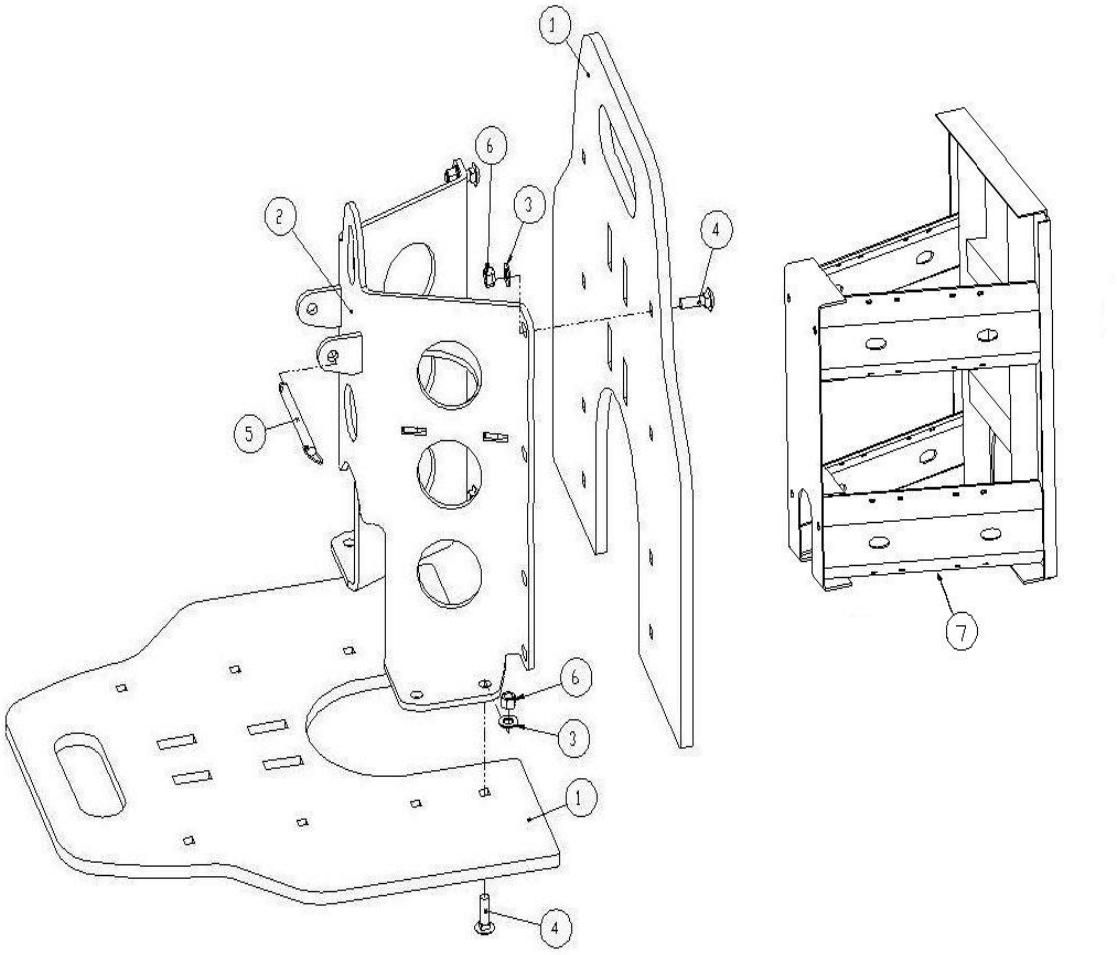
Item	Part Number	Description	Qty.
1	82003020	Head, Double Cylinder	1
2	82003030	Cylinder Body, 3.5 x 7.5	2
3	82003040	Rod, Piston Assembly	2
4	82003090	Tube Assembly, 5/8 x 8.87	2
5	82003370	Sequencing Valve	2
	82008200	Seal Kit, Sequence Valve	2
6	82003380	Adapter, 10MJ x 10 MB	2
7	82003390	Nipple, 1/2 FF	1
8	82003180	Pilot Piston	1
9	82003080	Valve, PO Check - 12	3
10	82003400	Coupler, 1/2 FF	1
11	82002290	Elbow 10MJ - 10MB 90	2
12	82003100	Plug, O-Ring Boss - 2	9
	82003110	O-Ring -2	9
13	82003160	Plug, O-Ring Boss - 8	4
	82003170	O-Ring -8	4
14	82003140	Plug, O-Ring Boss - 6	1
	82003150	O-Ring -6	1
15	82003120	Plug, O-Ring Boss - 4	2
	82003130	O-Ring -4	2
16	82003410	Adapter, 10MB x 10MB	2
17	82003070	Valve, Check	1
18	82003260	Seal Kit, Double Cylinder	2
19	82003450	Nipple 3/8 FF	1
20	82003460	Coupler 3/8 FF	1
21	82003470	Adapter, 10MB x 8 MB	2

Seal Kit, Double Cylinder 82003260



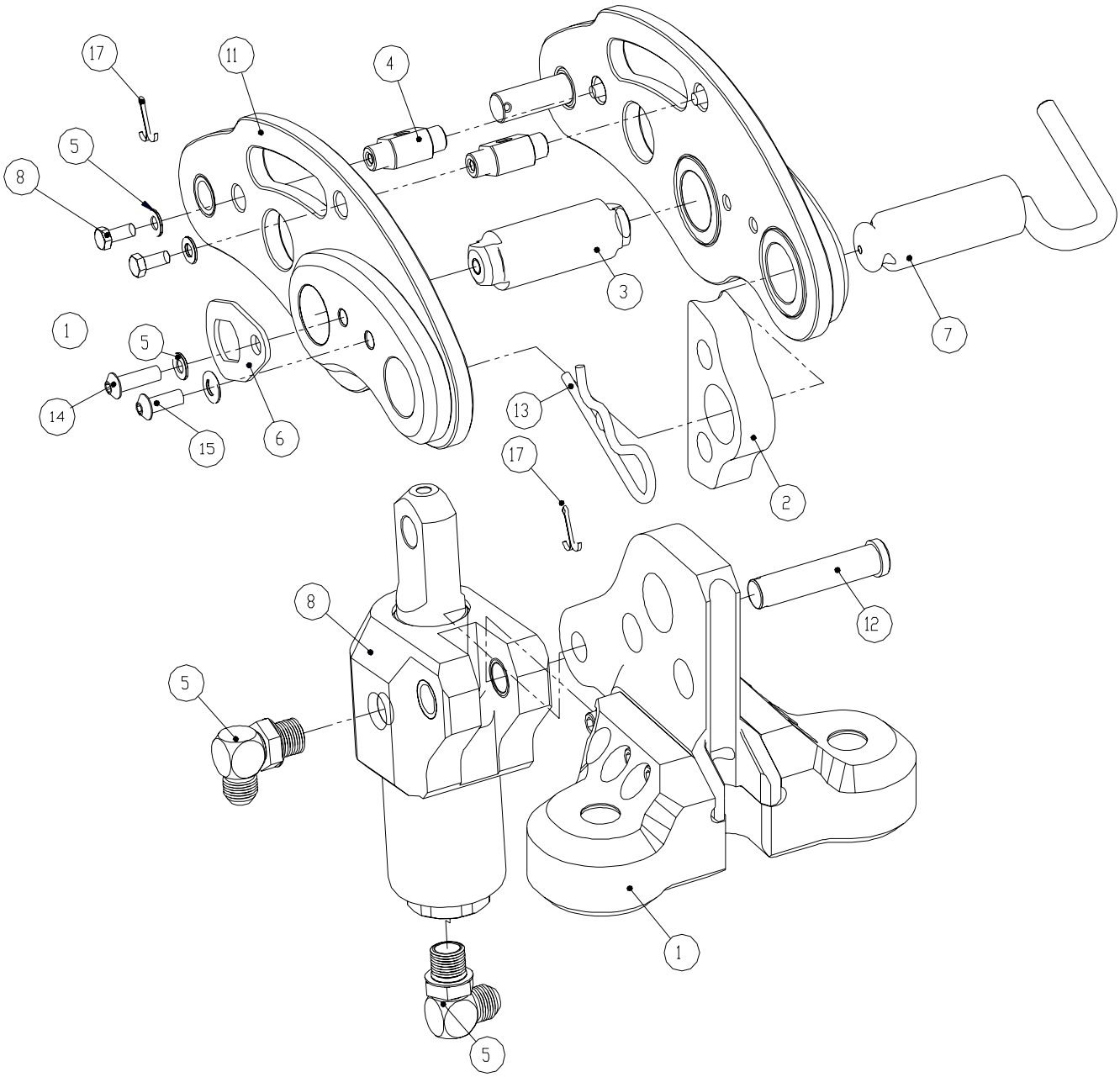
Item	Part Number	Description	Qty.
23	**82003270**	Seal, Piston 2-3/4	2
24	**82003280**	Wear Ring, 2-3/4 Piston	2
25	**82003290**	O-Ring 2 - 242	2
26	**82003300**	Back-Up Ring 242	2
27	**82003310**	Wear Ring, 2-3/4 Rod	2
28	**82003320**	Seal, 2-3/4 Rod	2
29	**82003330**	Wiper, 2-3/4 Rod	2

Extraction Cage 82000200



Item	Part Number	Description	Qty.
1	82001100	Plate, Resistance	2
2	82001200	Cage, Weldment	1
3	82002320	Washer, 3/8 - Hard	12
4	82001040	Bolt, Carriage 3/8 - 16 x 1.25	42
5	82004090	Pin, Ring Grip 3/8 x 4	1
6	82001030	Nut, 3/8 - 16	12
7	82000800	Extension, Extraction Cage	1

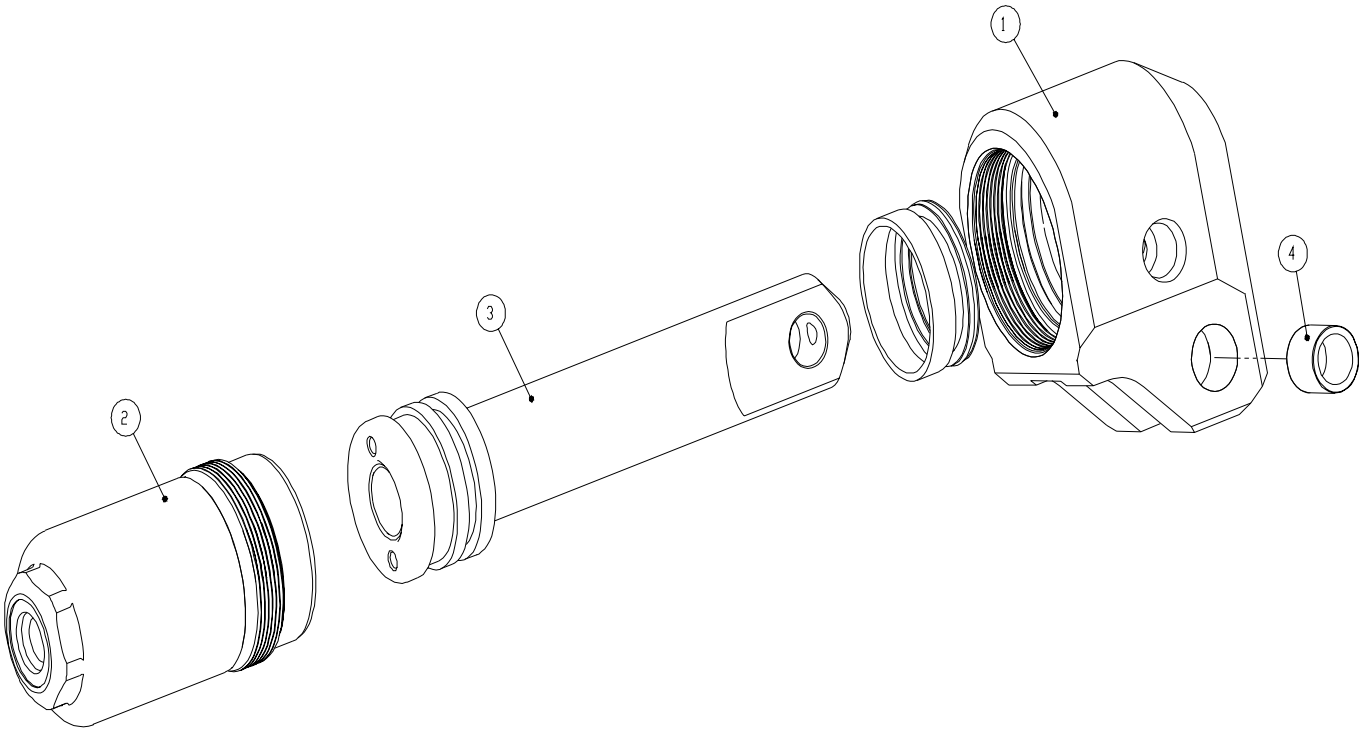
Positive Grip Sub-Assembly
82002000



Positive Grip Sub-Assembly 82002000

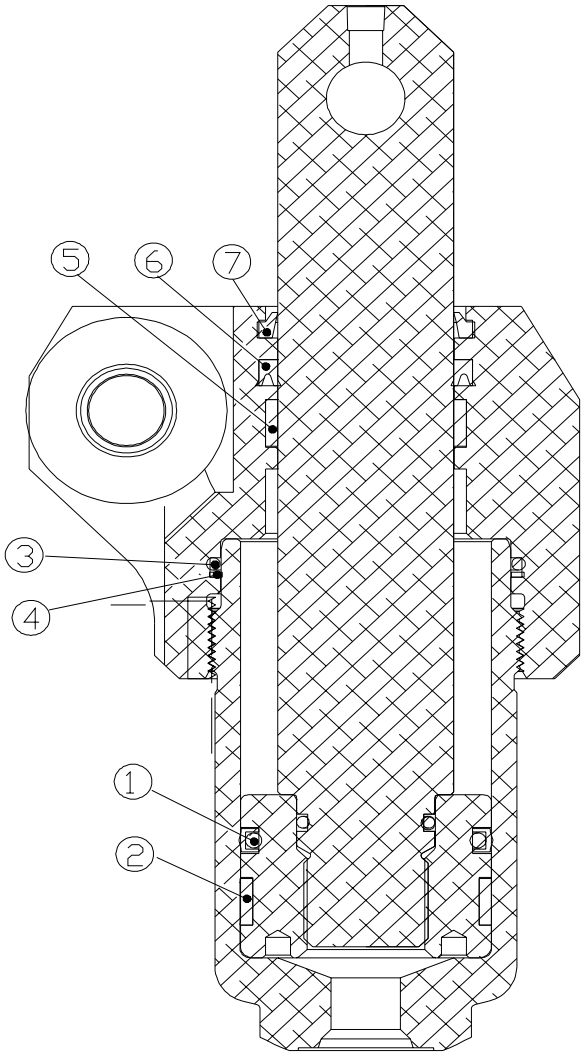
Item	Part Number	Description	Qty.
1	82002010	Yoke Assembly, Undertaker	1
2	82002040	Shoe	1
3	82004050	Pin, 1.50	1
4	82002060	Spacer, Link	2
5	82002290	Elbow 10M MJ - 10 MB 90	2
6	82002070	Lock Tab, Pin	2
7	82002080	Pin, Shoe	1
8	82002100	Clamp Cylinder	1
9	82002180	Link Arm Assembly, Right	1
10	82002300	Pin, .75 x 2.5	1
11	82002220	Link Arm Assembly, Left	1
12	82002230	Pin, .75 x 2.5	1
13	82002240	Bridge Pin	1
14	82002250	Bolt, BT HD SC 3/8 - 16 x 1.25	2
15	82004060	Bolt, BT HD SC 3/8 - 16 x 1.0	2
16	82002320	Washer, 3/8 - Hard	4
17	82002330	Pin, Cotter	2
18	82002340	Bolt, BT HD SC 5/16 - 18 x .75	4
19	82002310	Washer, 5/16 - Hard	4

Clamp Cylinder 82002100



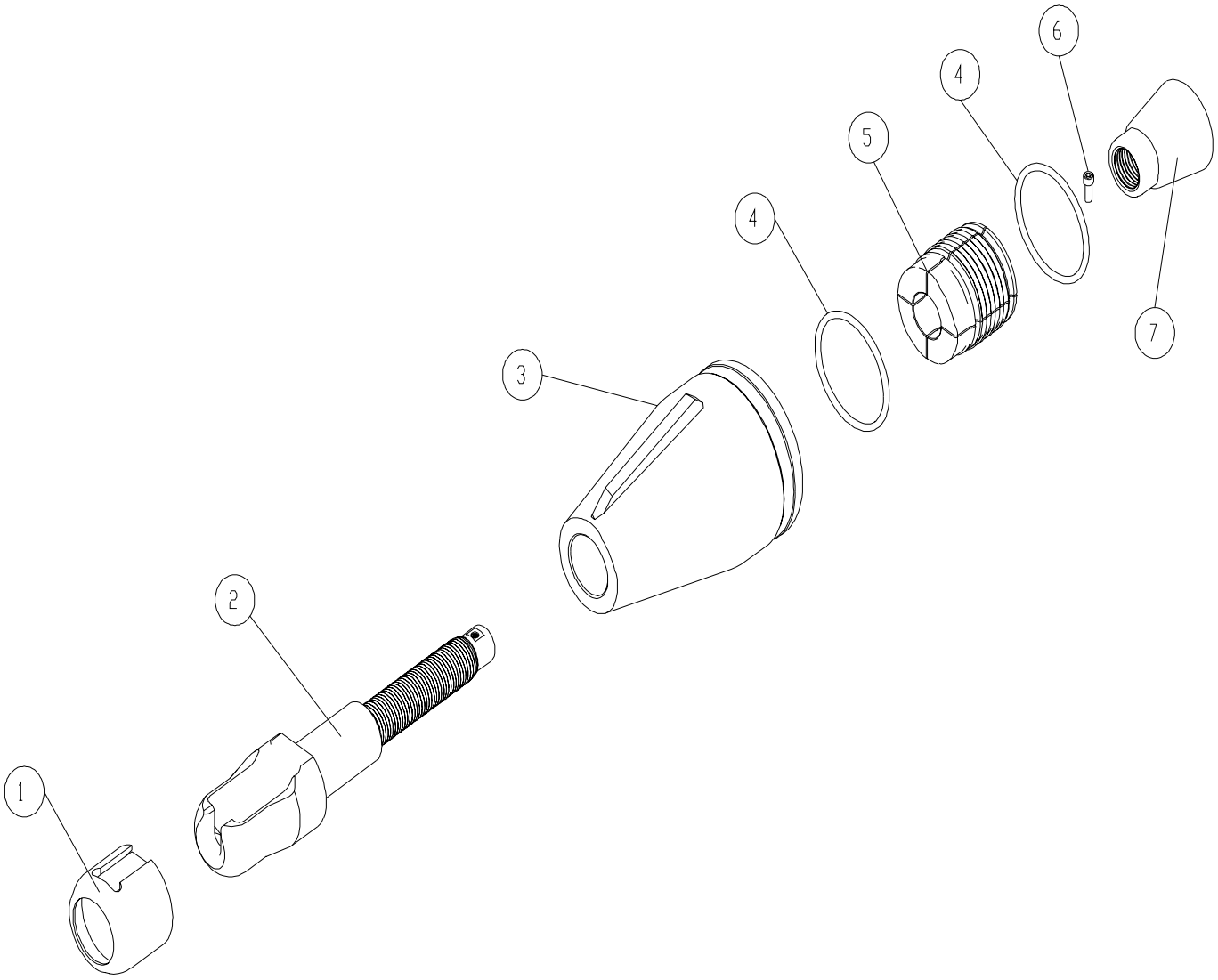
Item	Part Number	Description	Qty.
1	82002120	Head Cylinder, 2.5	1
2	82002110	Cylinder Body, 2.5	1
3	82002130	Piston Rod Assembly	1
4	82002170	Bushing	2
	82002350	Clamp Cylinder Seal Kit	1

Clamp Cylinder Seal Kit 82002350



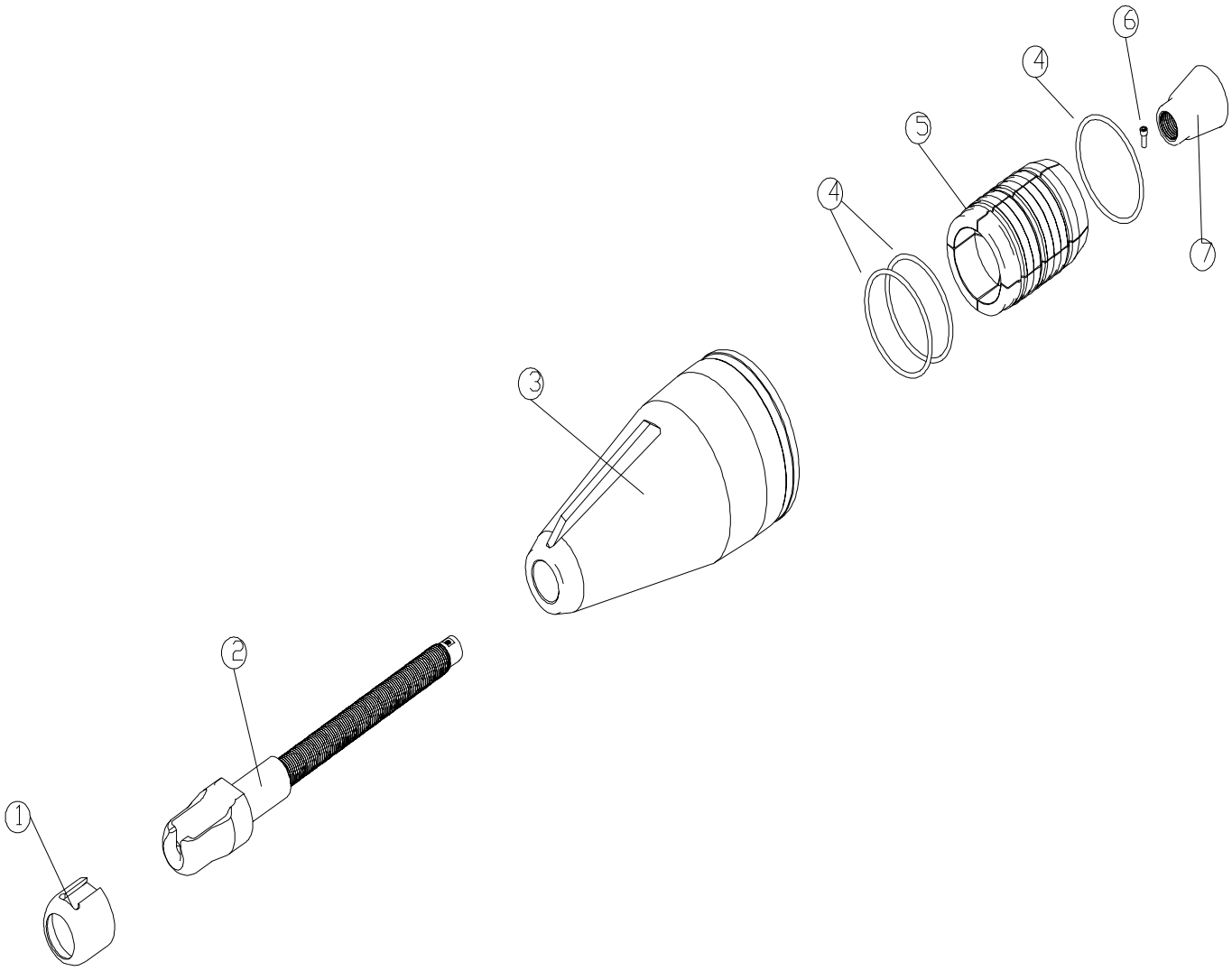
Item	Description	Qty.
1	Seal, 2-1/2" Piston	1
2	Wear Ring, 2-1/2" Piston	1
3	O-Ring 2-233	1
4	Back-Up Ring -233	1
5	Wear Ring, 1-3/4" Rod	1
6	Seal, 1-3/4" Rod	1
7	Wiper, 1-3/4" Rod	1

Bursting Head, 4" 82005000



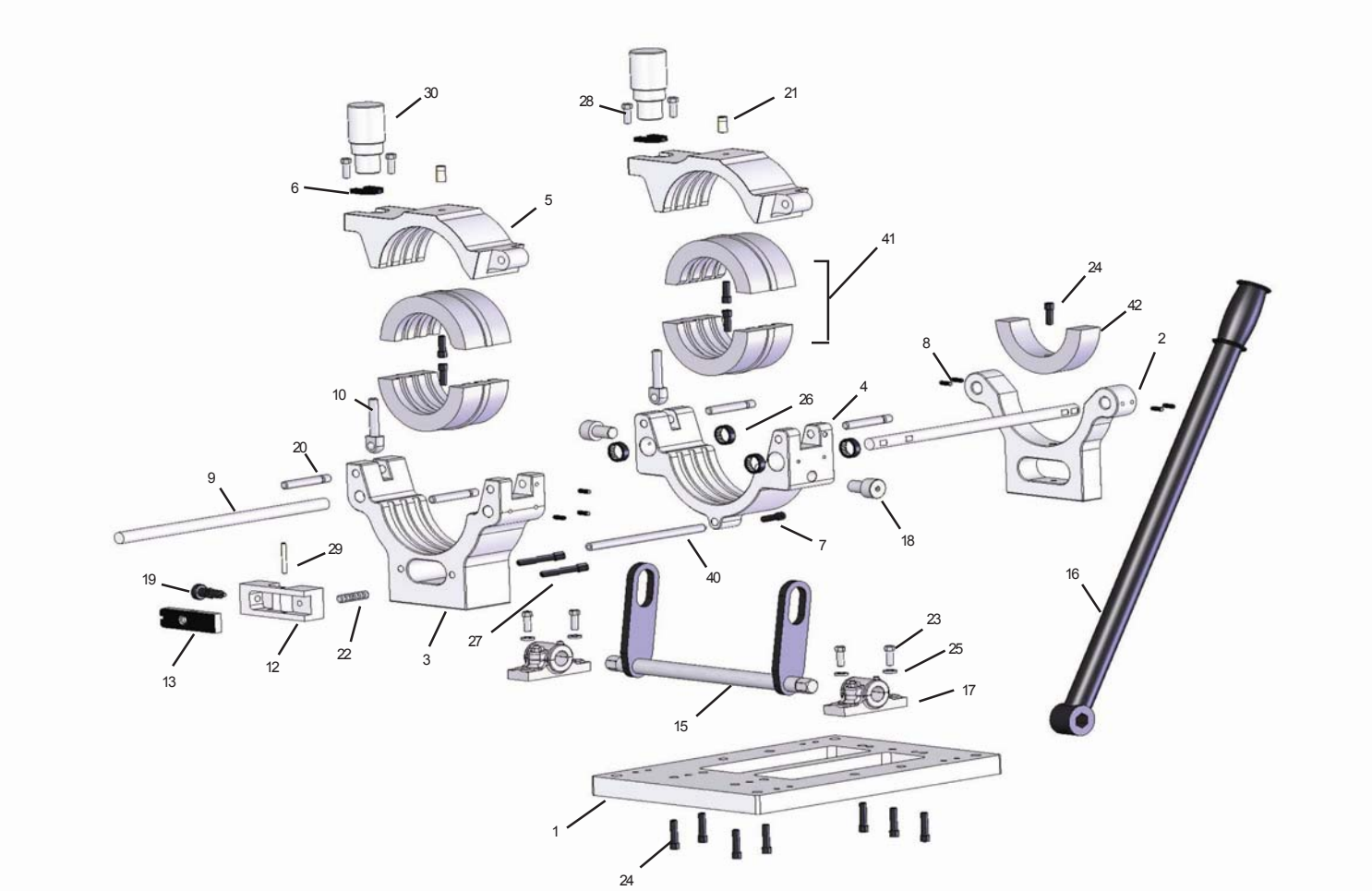
Item	Part Number	Description	Qty.
	82005000	4" Quick Grip Burst Head Assembly	1
1	**82006070**	Cap, 4" Burst Head	1
2	**82005010**	Stem, Short	1
3	**82005040**	Burst Sleeve, 4"	1
4	**82005060**	O-Ring, 4" Burst Head	2
5	**82005020**	Jaw Set 4" (4 per set)	1
6	**82006050**	Bolt, SHC 1/4 - 20 x .625	1
7	**82005030**	Expander Cone	1

Bursting Head, 6" 82006000



Item	Part Number	Description	Qty.
	82006000	6" Quick Grip Burst Head Assembly	1
1	**82005050**	Burst Head Cap - 6"	1
2	**82006040**	Stem, Long	1
3	**82006030**	Burst Sleeve, 6"	1
4	**82006060**	O-Ring, 6" Burst Head	3
5	**82006020**	Jaw Set 6" (4 per set)	1
6	**82006050**	Bolt, SHC 1/4 - 20 x .625	1
7	**82006010**	Expander Cone 4" & 6"	1

Fusion Machine, 4" & 6" 80010500



80011200 Heating Iron

80011500 Hot Box

80010550 Blade Set with Shims

80011300 Power Facing Tool

Positive Grip Sub-Assembly 82002000

Item	Part Number	Description	Qty.
1	80010501	Base Plate	1
2	80010502	Rear Support	1
3	80010503	Rigid Lower Clamp	1
4	80010504	Sliding Lower Clamp	1
5	80010505	Upper Clamp	2
6	80010506	Knob Clamp Pad	2
7	80010507	Button Head Cap Screw	1
8	80010508	Set Screw	12
9	80010509	Clamp Shaft	2
10	80010510	Swing Bolt	2
12	80010512	Lock Body	1
13	80010513	Lock Plate	1
15	80010515	Crank Shaft Assembly	1
16	80010516	Crank Handle	1
17	80010517	Split Sleeve Bearing	2
18	80010518	Cam Roller	2
19	80010519	Shoulder Plunger	1
20	80010520	Pin, Hinge	4
21	80010521	Guide Pin	2
22	80010522	Spring	1
23	80010523	Serrated Hex Bolt	4
24	80010524	Socket Head Cap Screw	12
25	80010525	Washer	4
26	80010526	Linear Roll Bearing	4
27	80010527	Lock Knob Bolt	2
28	80010528	Knob Clamp Screws	4
29	80010529	Dowel Pin	1
30	80010530	Clamp Knob	2
40	80010140	Rod, Locking Mechanism	1
41	82022900	4" Insert, Upper & Lower Clamp	2
42	82023000	4" Insert, Rear Support	1
43	80011200	Heating Iron	1
44	80011300	Power Facing Tool	1
45	80011500	Hot Box	1

Warranty Information

For our terms and conditions, including warranty, please visit https://spartantool.com/pages/terms-and-conditions. For warranty assistance, please contact us at (800) 435-3866 or customerservice@spartantool.com.

CONTACT US

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SpartanTool.com

Notes

SPARTAN

FOR TOUGH CUSTOMERS.

SINCE 1943

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