THE PIPEMASTER

Unit consists of a cutting head with internal gears which operate the drive wheels and blade shaft. Cutting blades (except for No. 4616) must be cooled with water during cutting and are fully enclosed for safety. The cutter is held onto the pipe by a wide roller chain which is tensioned with a threaded take-up mechanism. A chart is included which tells the operator how much chain is required for various sizes of pipe. Pipe Master comes standard with cutting head, roller chain, wedges and water supply tank in a wood case. Blades are chosen based on pipe material and are not included with the basic machine. Maximum wall thickness for cutting is 1". The unit has a hydraulic motor which requires an external hydraulic power source.

PIPE MASTER FEATURES

- Maximum hydraulic requirements 6 gpm/1500 psi
- Gearbox: Worm Drive with 80–90W gear oil required
- Cutting speed:
  3" (150mm) of surface travel per minute
  1" (25mm) of diameter per minute
- Cutting Clearance: Radial 8" (200mm); Axial 16" (400mm)
- Blade Speed: 1200 RPM
- Construction: Aluminum gearbox, side plated steel; bronze gears, steel roller chain, drive wheels are aluminum with urethane covering

SPECIFICATIONS

- 5624 Pipe Master 6" to 24" (150–600mm) - Shipping weight 104 lbs. (47kg)
- Maximum hydraulic requirements 6 gpm/1500 psi
- Gearbox: Worm Drive with 80–90W gear oil required
- Cutting speed: 3" (150mm) of surface travel per minute 1" (25mm) of diameter per minute
- Cutting Clearance: Radial 8" (200mm); Axial 16" (400mm)
- Blade Speed: 1200 RPM
- Construction: Aluminum gearbox, side plated steel; bronze gears, steel roller chain, drive wheels are aluminum with urethane covering
- Cutting 30" pipe and larger may require special instructions to complete the cut.

WHEELER-REX PROFESSIONAL TOOLS

PIPEMASTER

Blade cover removed to show blade.

FOR CUTTING CAST IRON, DUCTILE IRON AND STEEL

Self-propelled pipe cutter for in-line cutting of 6"–48" CI, DI & steel. Fast, easy set up by one person. Powered by hydraulic motor for smooth reliable operation.

WHEELER REX

Wheeler Manufacturing, Division of Rex International U.S.A., Inc.
P.O. Box 688, 3744 Jefferson Road, Ashtabula, Ohio 44005
Phone: 440-998-2788 **Fax:** 440-992-2925 **Toll-Free:** 1-800-321-7950 **www.wheelerrex.com**

PIPEMASTER

PipeMaster Features

Construction: Aluminum Gearbox and Side plates with Steel & Bronze Gears, Steel Roller Chain, Drive Wheels – Aluminum with Urethane Covering

Gearbox: Worm Drive with 80-90W gear oil

Hydraulic Requirements:
4 gpm (15pm) at 2000 psi (140 kg/cm2)

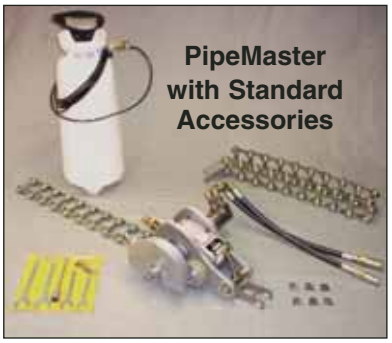
Cutting Speed:
3" (150mm) of surface travel per minute
1" (25mm) of diameter per minute

Cutting Clearance:
Radial 8" (200mm)
Axial 16" (400mm)

Blade Speed: 1200 rpm

Cutting Head Weight: 35 lbs. (16 kg)

#6500 Optional Hydraulic Power Pak



PipeMaster with Standard Accessories

Standard Accessories:
- Cutter Head
- Roller chain
- 6 Wedges
- 4 Gallon Portable Water Tank
- Tool Kit
- Storage case
- 1/2" FF Hydraulic Connectors

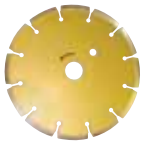
Number of Chain Links Required:

Pipe Diameter	18" (450mm)	25" (700mm)	40" (1000mm)
Number of Links	21 pieces	34 pieces	51 pieces

Blade cover removed for photographic purposes

Model 4624
for 6" to 24" Pipes

Model 4648
for 6" to 48" Pipes



Blade No. 4606
6" Diamond Blade for CI/DI Pipe

Blade No. 4616
6" Economy Diamond Blade for DI Pipe

Blade No. 4706
6" Carbide-tipped Blade for Steel Pipe

General Information:

Unit consists of a cutting head with internal gears which operate the drive wheels and blade shaft. Cutting blades (except for No. 4616) must be cooled with water during cutting and are fully enclosed for safety. The cutter is held onto the pipe by a wide roller chain which is tensioned with a threaded take-up mechanism. A chart is included which tells the operator how much chain is required for various sizes of pipe. The unit has a hydraulic motor which requires an external hydraulic power source.

PipeMaster weight with chain is approximately 40 lbs. (18 kg).

Wheeler Manufacturing, Division of Rex International U.S.A., Inc.
P.O. Box 688, 3744 Jefferson Road, Ashtabula, Ohio 44005
Phone: 440-998-2788 **Fax:** 440-992-2925 **Toll-Free:** 1-800-321-7950 **www.wheelerrex.com**

15K/8/03

PipeMaster

Operation & Service Manual

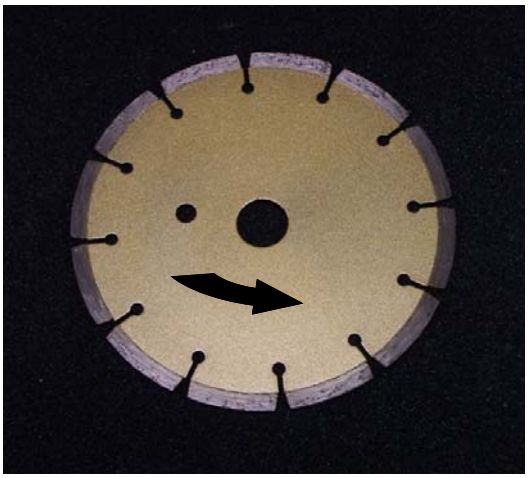
Wheeler-Rex
Ashtabula, Ohio
Tel: 800-321-7950
Fax: 440-992-2925
wheeler@wheelerrex.com
www.wheelerrex.com

Choosing the Blade

There are three different types of blades

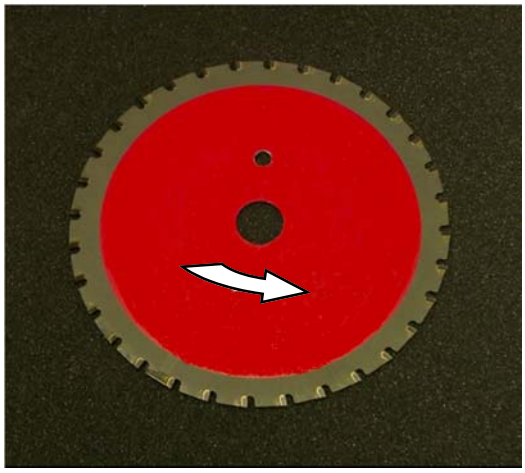
4616
6” Economy Diamond Blade

Can be used with or without coolant to make cuts on ductile iron and cast iron pipes. Economy blades come with arbor adapters and multiple drive lug holes to fit other competitors pipe cutters.



4606
6” Diamond Blade

Recommended to be used with coolant to make cuts on ductile iron and cast iron pipes.

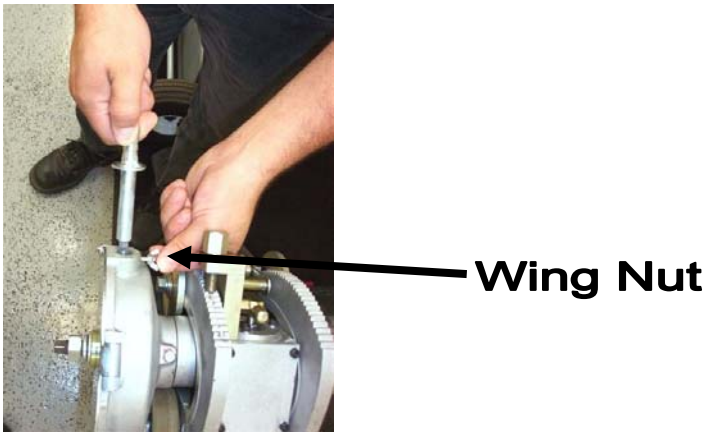


4706
6” Carbide Tipped Blade

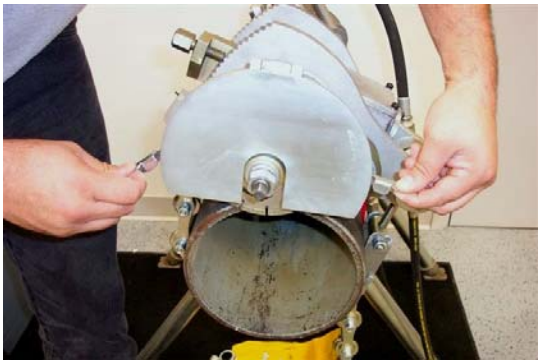
Recommended to be used with coolant for cutting steel pipes.

Changing the Blade

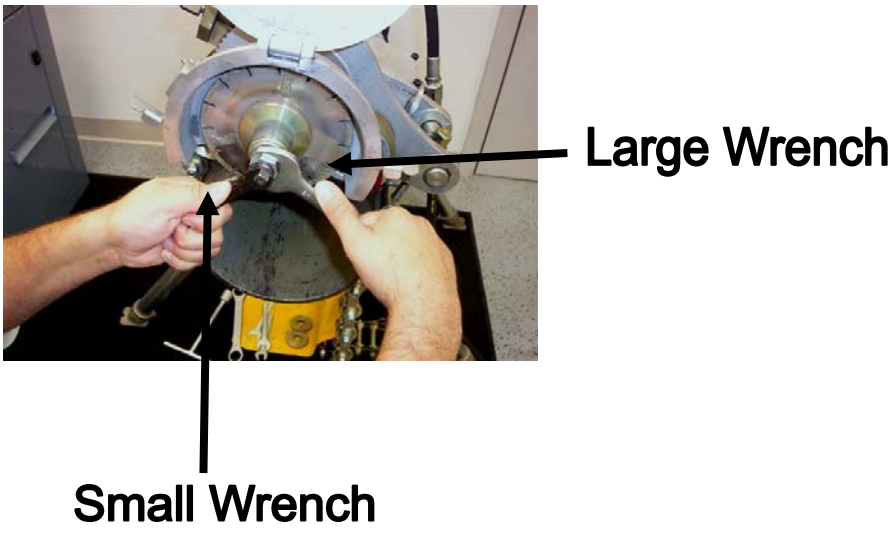
1. Loosen the wing nut and remove coolant nozzle.



2. Retract clips to open blade cover.

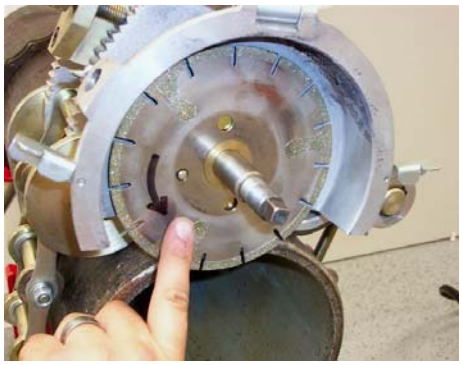


3. Using the two wrenches supplied, loosen the blade nut. Hold the blade arbor with small wrench and turn nut clockwise to remove blade.



4. Remove nut, lock washer, washer, spacer and large washer to remove blade.

5. Note drive lug inserted in the blade as well as blade rotation direction. Some blades can be run in either direction, others cannot.

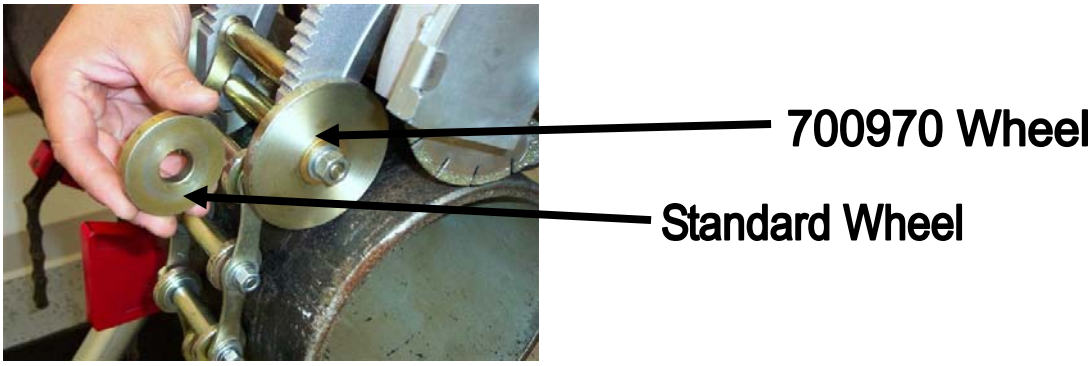


6. Installing blade repeat Steps 5 thru 2 in reverse order.

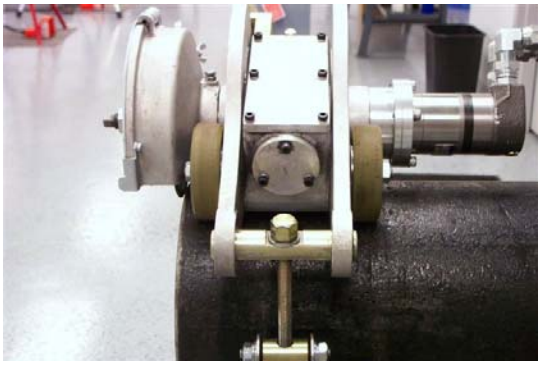
7. When replacing coolant nozzle into frame, make sure the outlet hole is facing the blade And should be close to edge of blade.

PipeMaster Set Up

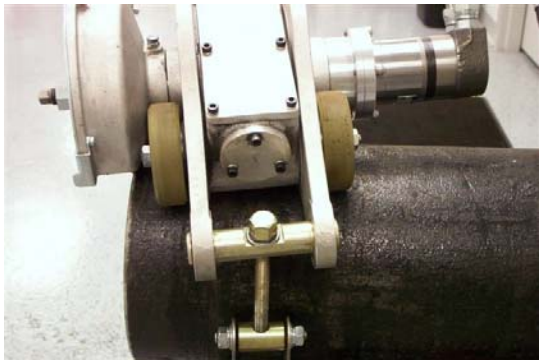
1. Select the correct idle wheels for the pipe size. For 8” and larger pipes, use the standard wheel (approx 2-1/8” diameter). For pipes under 8”, use the larger wheels (approx 3-1/2”, PN 700970)



2. Clean pipe surface all around the pipe. Be sure that the blade has been raised to its highest position so that the blade will not be resting on the pipe. Place PipeMaster on the pipe to be cut. The PipeMaster should be set between the 12:00 and 1:00 position. Make sure all wheels are aligned and square to the pipe. This is done by checking to ensure that all four wheels are in solid contact with the pipe.



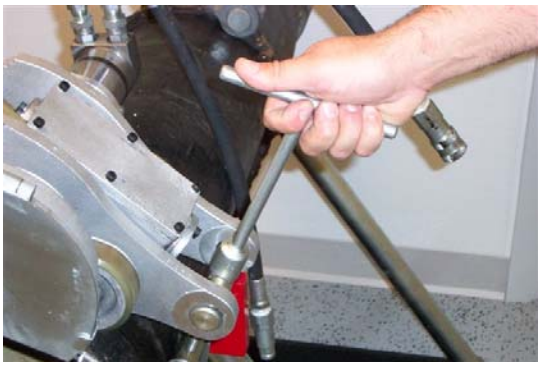
Correct Set Up



Incorrect Set Up

3. With open side of chain hook towards the pipe, attach the hook to the closest chain link. Some adjustment may need to take place with chain tension screw in order to catch the nearest link. Excess chain can simply hang. If there is too much excess chain, links can be taken off and stored.

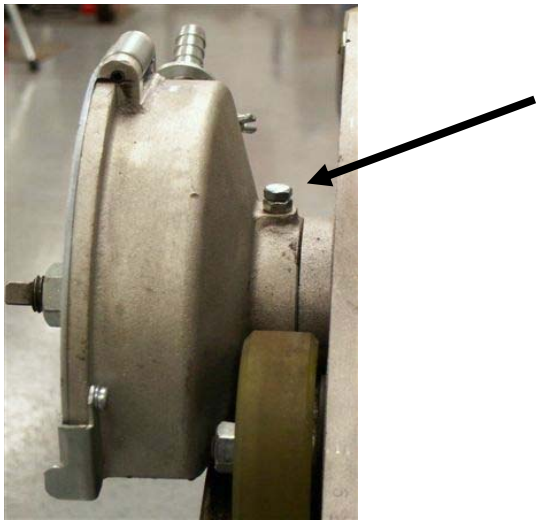
4. Tighten chain tension screw with T-Handle wrench. The rubber coated drive wheels should be snug to the pipe. Screw tension is critical. Too much tension will cause the wheels to “smash” against the pipe and my impact the performance of the PipeMaster. Having the tension too loose will keep the PipeMaster from “climbing” back up the pipe to finish the cut. Prior to cutting make sure the pipe is clean.



Too much tension on the chain

Correct tension on the chain

5. Check the blade guard screw and jam nut for proper tightness. Guard should not turn when the PipeMaster is attached to the pipe.



Connecting the PipeMaster to the Power Pack

1. There are two hydraulic lines with quick disconnects (one male and one female) located on both the PipeMaster. The Power Pack is equipped with a manifold where the hydraulic quick disconnects (one male and one female) are located.

2. Connect hydraulic lines between PipeMaster and Power Pack

Male & Female Quick Disconnect

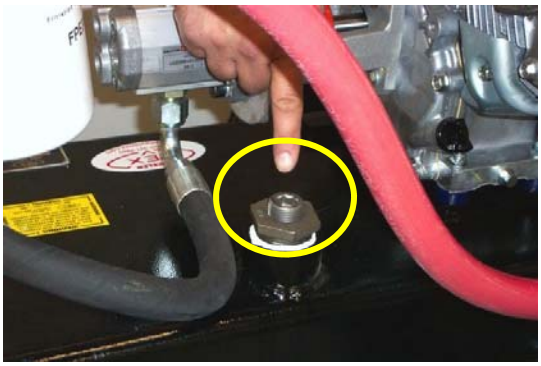
Lines attached to PipeMaster

Lines being attached to the Power Pack

Lines attached to the Power Pack

Operating the Power Pack

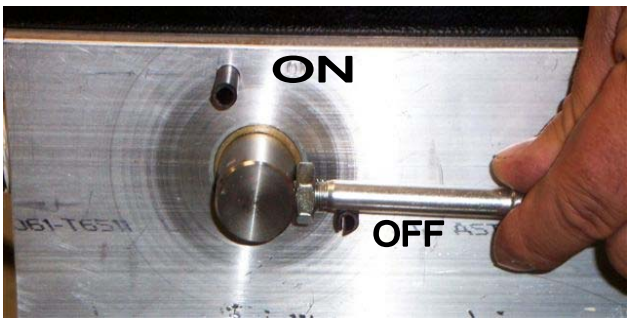
1. Remove pipe plug (using a hex wrench) from the hydraulic tank and replace with breather cap supplied with Power Pack. The Power Pack is shipped with this plug to keep the hydraulic oil from spilling. The Power Pack will not meet its peek performance if the shipping plug has not been removed.



Pipe Plug

Breather Cap

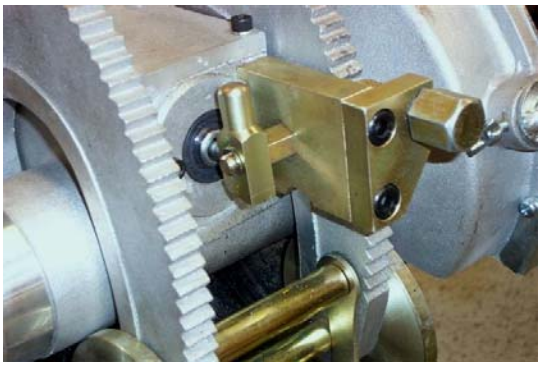
2. Make sure to check the motor oil level and gas prior to starting.
3. Turn engine switch to the “ON” position.
4. Turn the gas switch to the “ON” position.
5. Turn the choke to the “ON” position.
6. Make sure the manifold is in the “OFF” position. Lever should be horizontal. Power Pack will not start with the valve in the “ON” position.



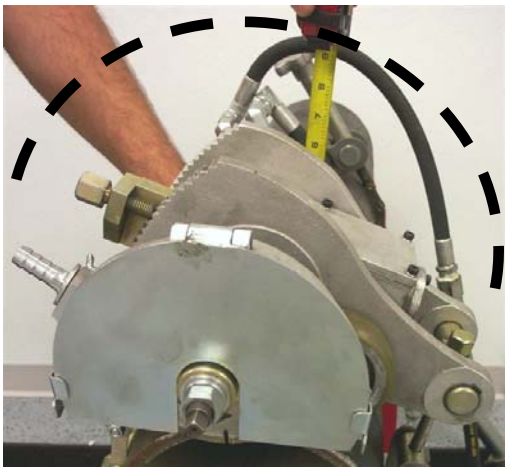
7. Start the engine, let it warm up for One (1) to Two (2) minutes, then set the throttle to the “Fast” position.

Preparing for the Cut

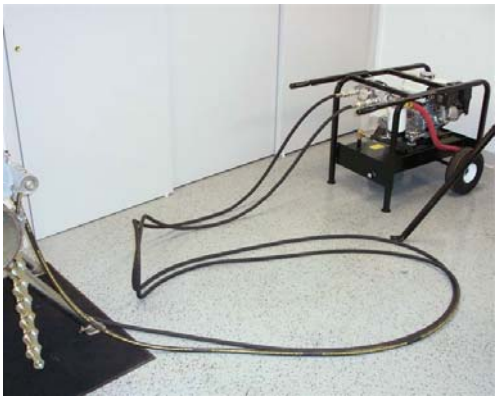
1. Check the PipeMaster “Feed Control Switch”. It should be in the “OFF” (horizontal) position.



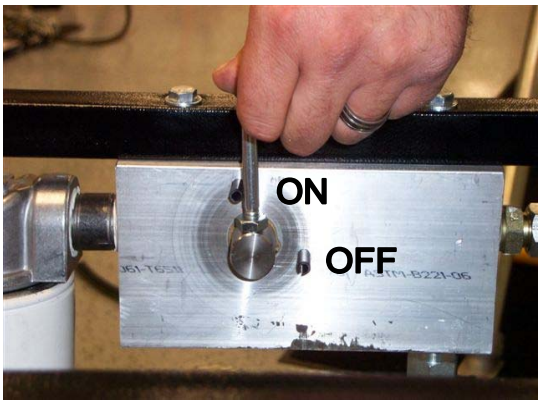
2. Make sure there is a minimum of 8” clearance around all of the pipe you are cutting.



3. Check all hydraulic hose and connections. Make sure that they are free and that there Is enough slack to travel around the pipe.

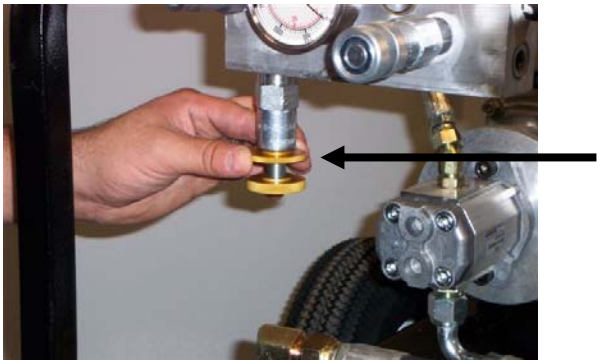


4. Turn the hydraulic manifold to the “ON” (vertical position). PipeMaster blade will now start spinning.

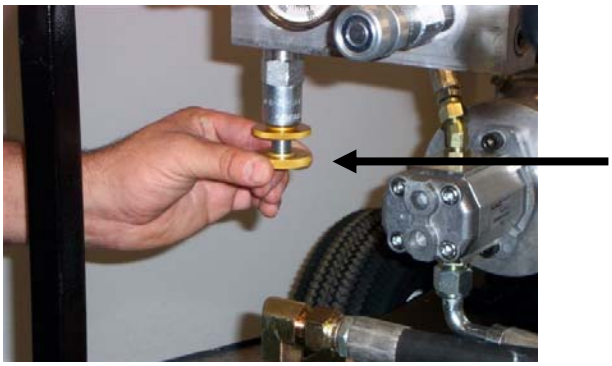


5. Pressure can now be adjusted with the Relief Valve Screw.

6. Loosen Jam Nut.



7. Turn Relief Screw (tight - clockwise) to increase pressure; (loosen - counterclockwise) to lower pressure.



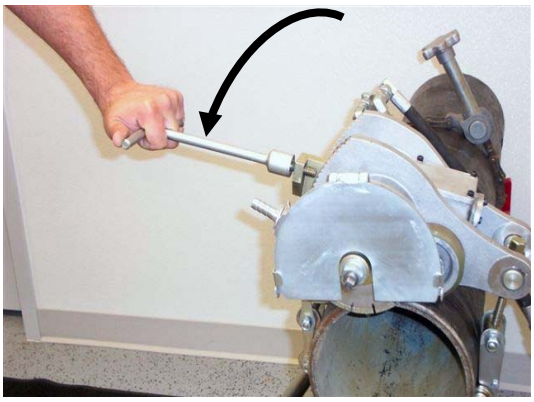
8. Tighten jam nut at desired pressure.

Making the Cut

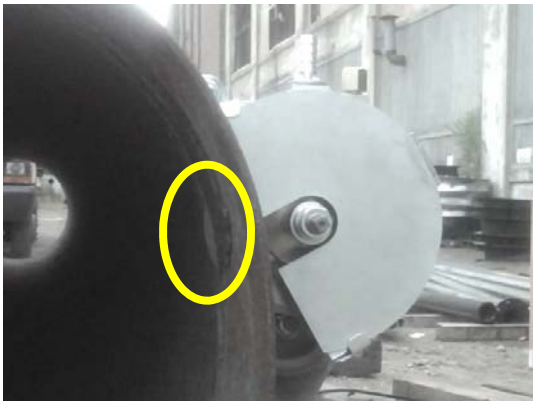
1. Turn water coolant on (if required by blade type). See Coolant System for operating instructions.

2. Loosen depth control screw with T-Handle wrench.

3. Using the T-Handle wrench, slowly plunge the blade into the pipe, allowing the blade to cut. The blade can be “stalled” if too much pressure is applied while making the plunge cut.



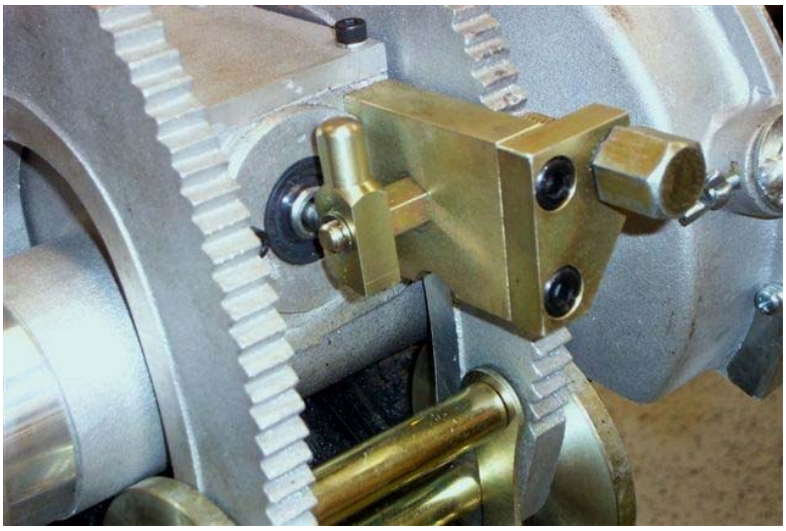
Making the "Plunge" cut



Blade set and cutting pipe

4. Tighten the depth control screw. Make sure that the screw is located on the flat surface, and not on the point. Screw can loosen if not set in proper location. Remove T-Handle Wrench.

5. Flip feed lever to the “ON” (vertical) position. The PipeMaster will now start to travel around the pipe. Check the direction of travel. When facing the blade side of the Pipe Master, the direction of travel will be clockwise. If the PipeMaster is moving in the counterclockwise direction, stop the cut immediately. Retract the blade from the pipe and shut down the Power Pack. See Trouble Shooting Instructions

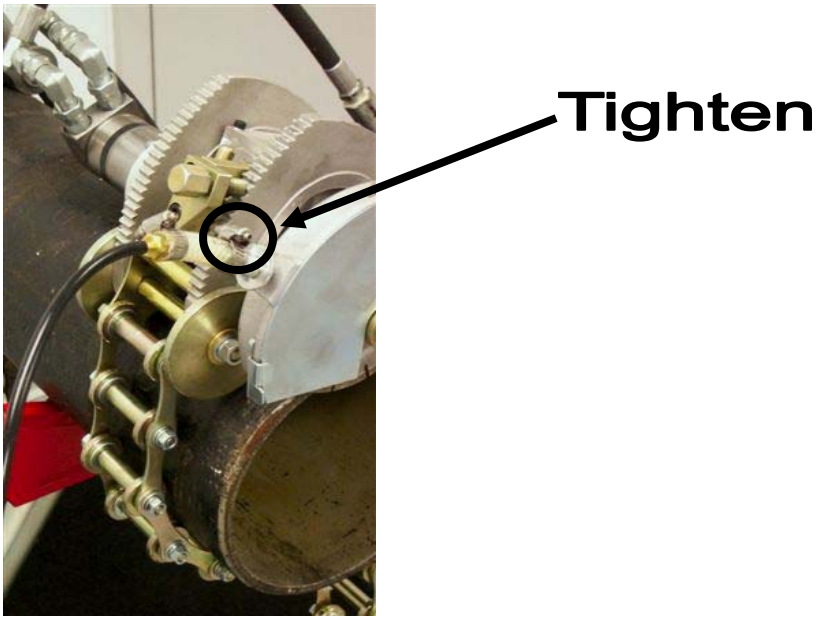


6. The tool should travel on its own for the duration of the cut. However, the operator should watch the progress closely in insure proper operation. Wedges should be installed at a few points around the pipe to avoid pinching the blade; especially once the cutter reaches the bottom portion of the pipe. Be sure that water is always supplied to the blade unless you are using the Wheeler-Rex Blade Part Number 4616.

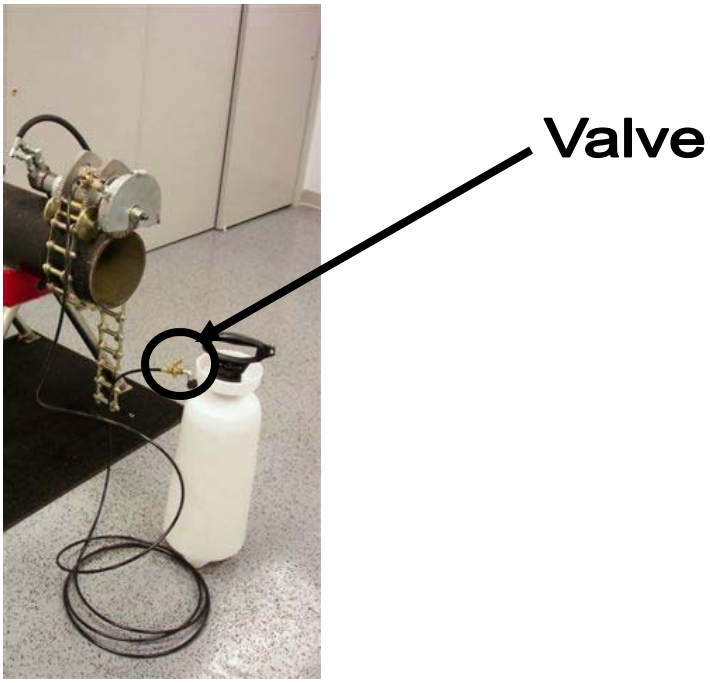
Coolant System

1. Fill tank with water.

2. Attach hose coupling to coolant nozzle (hose barb end) on the PipeMaster. Tighten the hose clamp to hold rubber hose on metal hose barb.



3. Turn valve to the “OFF” position. Pump tank up to pressure.



4. Turn valve to the “ON” position to allow water to spray across blade. Valve can also be used to control the water flow.

Alternative Hydraulic Power Supplies*

If you are not using the Wheeler-Rex Model 6500 Power Pack, the 701185 By Pass Valve *(see following page)* can be used to achieve correct hydraulic outputs to operate the PipeMaster correctly.

Maximum input from alternative hydraulic power source:

0 - 30gpm
0 - 3000psi

Maximum output from By pass valve:

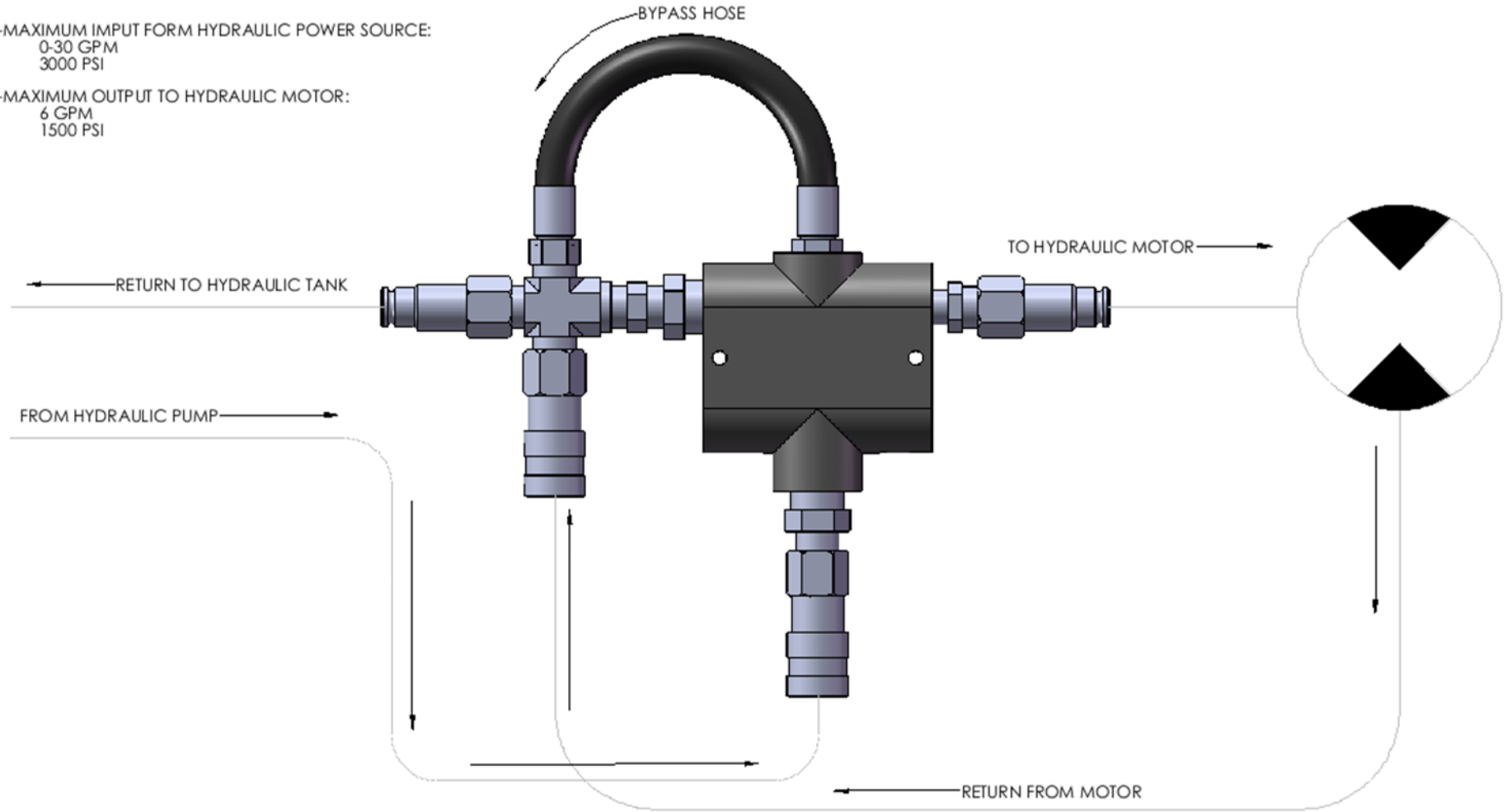
0 - 6gpm
0 - 1500psi

Additional hydraulic lines may be required. *(See accessory page for details)*

* Utility trucks, Backhoes, Skidsteers, Tractors etc.

-MAXIMUM IMPUT FORM HYDRAULIC POWER SOURCE:
0-30 GPM
3000 PSI

-MAXIMUM OUTPUT TO HYDRAULIC MOTOR:
6 GPM
1500 PSI



WHEELER REX

3744 Jefferson Rd., Ashtabula, OH 44005

DESCRIPTION:
BYPASS VALVE FOR PIPEMASTER

PART NO. 701185

Troubleshooting

PipeMaster

Problem	Solution
The PipeMaster is moving counterclockwise around the pipe.	• Hydraulic lines need to be switched on hydraulic motor.
Blade not turning	• Check to see if manifold has been turned to the “ON” position. • Check hydraulic fluid. • Check to see if hydraulic pump is turning.
Machine won’t travel	• Feed lever not engaged • Drive wheels slipping
Blade binds in cut	• Dull Blade • Blade Bent • Pipe is pinching blade, use wedges
Cutting crooked	• Not aligned properly • Dull Blade • Improper Chain Tension

Maintenance

PipeMaster

- Make sure tension screw is in good working order.

- Machine and Chain should be cleaned thoroughly and wheels should be free moving after use.

- Prior to storing:

  Inspect hydraulic hoses for wear before and after use (replace worn or abraded hose immediately)
  Inspect gear box for leaks before and after use.
  Check coolant pump hose for leaks and replace if bad

Troubleshooting

Power Pack

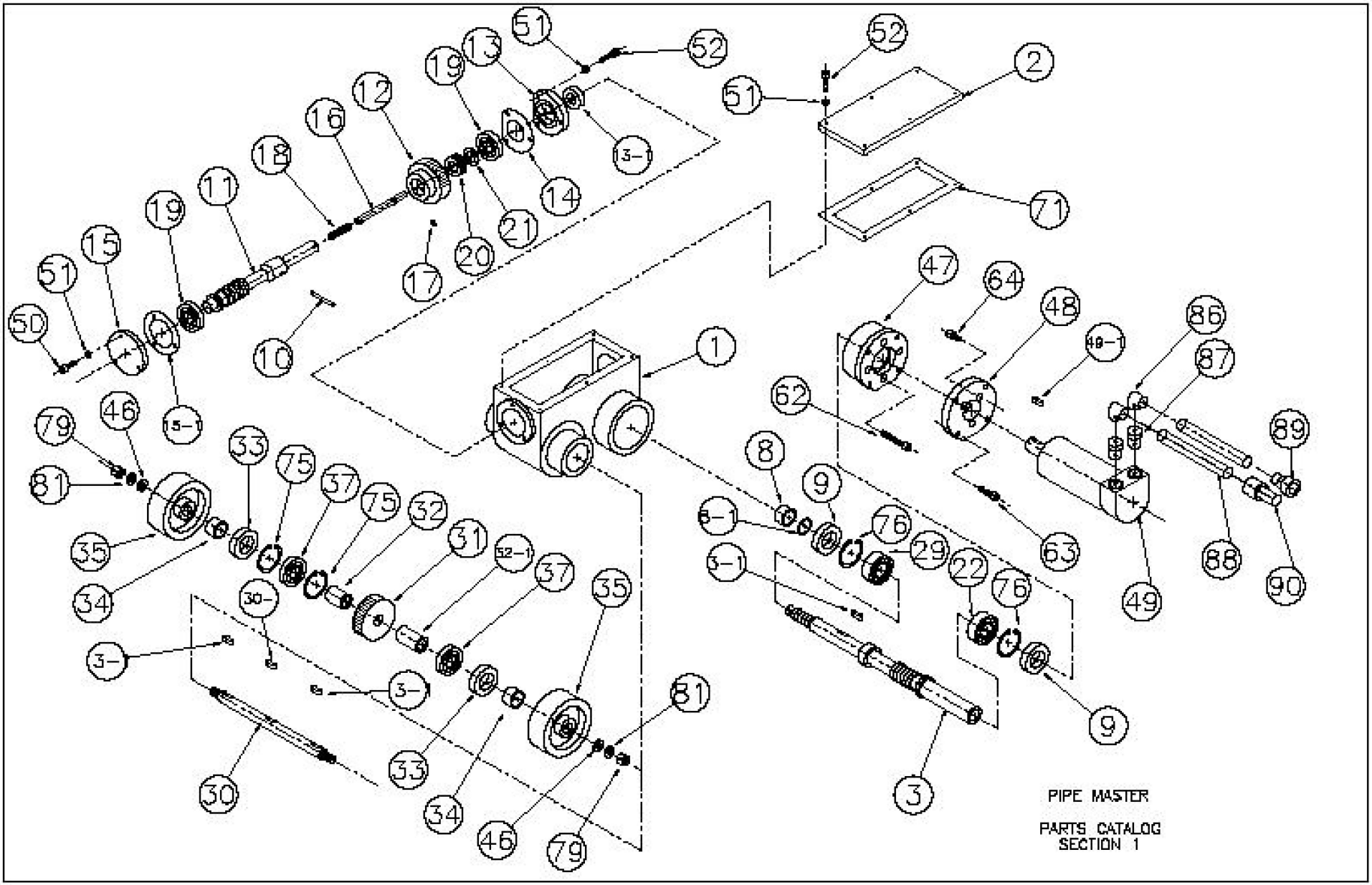
Problem	Solution
PipeMaster moving counterclockwise around pipe	• Hydraulic lines need to be switched on hydraulic motor.
Blade not turning	• Check to see if manifold as been turned to the “ON” position. • Check hydraulic fluid. • Check to see if hydraulic pump is turning.

Maintenance

Power Pack

- Check engine crankcase for proper oil level before each use. Use and change oil as recommended by the manufacturer.
- Check air filter as recommended by manufacturer.
- Change hydraulic oil filter after the first 25 hours of use. Then change every 50 hours or annually after that.
- Replace the hydraulic oil after every 100 hours of use.
- Use 3 gallons of 10W Hydraulic Oil. (Part #3804 One Gallon of Hydroyl)
- Check hydraulic hoses for wear before and after use and replace worn and abraded hose immediately.

WHEELER REX PIPE TOOLS
Tel: 800-321-7950
wheeler@wheelerrex.com
www.wheelerrex.com

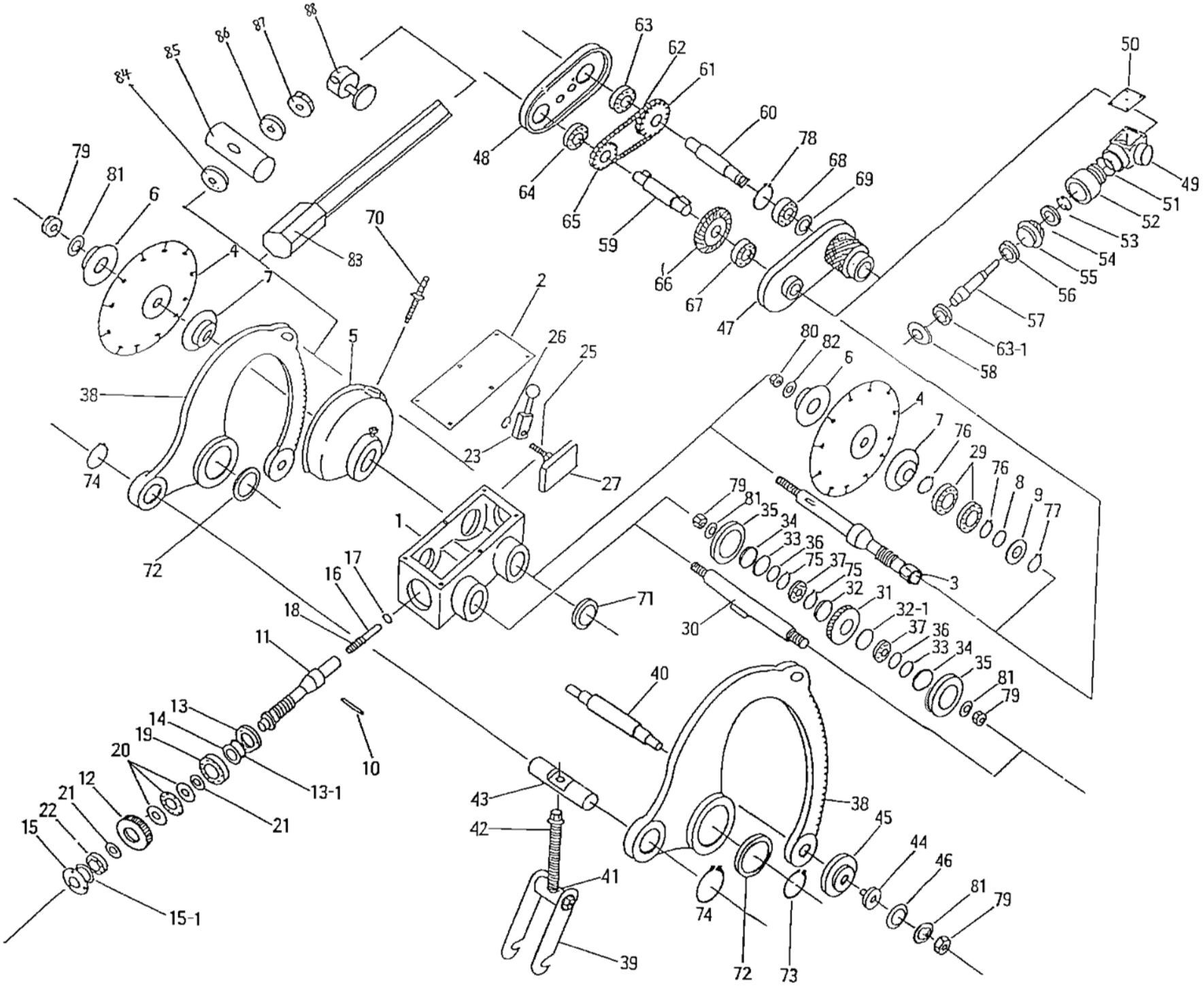


SECTION 1

Ref.No	Part Name	Qty	PN
1	Gear box	1	46021
2	Gear box cover	1	46022
3	Blade shaft	1	46024
3-1	Key 5x5x15	3	46025
8	Shaft sleeve	1	46026
8-1	O-ring P-20	1	46027
9	Shaft seal SD26428	1	46028
9-1	Saft Seal SD254510	1	277191
10	Feed drive pin 4x34	1	46029
11	Worm shaft	1	46030
12	Worm gear	1	46005
13	Shaft end plate	1	46031
13-1	Shaft seal SD15307	1	46006
14	Gasket	1	46032
15	Shaft end plate	1	46033
15-1	Gasket	1	46007
16	Feed on/off shaft	1	46034
17	O-ring P-5	1	46035
18	Spring	1	46036
19	Bearing 6202	2	46008
20	Thrust bearing 51102	1	46009
21	Bearing collar	1	46037
22	Bearing 6905	1	46010
29	Bearing 6004	1	46011
30	Feed shaft	1	46038
30-1	Key 5x5x20	1	46039
31	Secondary worm gear	1	46012
32	Shaft spacer	1	46040

SECTION 1

Ref.No	Part Name	Qty	PN
32-1	Shaft spacer	1	46041
33	Shaft seal SD20358	2	46013
34	Shaft spacer	2	46042
35	Drive wheel	2	46001
36	O-ring P-15	2	46014
37	Bearing 6202	2	46015
46	Washer M10	2	46043
47	Housing	1	46044
48	Flange	1	46045
49	HD Motor	1	276697
49-1	Key 5x5x16	1	Comes with HD Motor
50	Bolt M5x15	9	46046
51	Spring washer M5	12	46047
52	Bolt M5x20	3	46048
62	Bolt M6x35	4	46049
63	Bolt M6x20	4	46050
64	Bolt M6x10	3	276889
71	Gasket	1	46051
75	Snap ring H-35	2	46052
76	Snap ring H-42	2	46053
79	Nut M10	2	46054
81	Spring washer M10	2	46055
86	M-O-Ring / F-P Swivel	2	276726
87	90 deg swivel	2	276725
88	18" Hydraulic Hose	2	700825
89	FF Female Quick Disconnect	1	276289
90	FF Male Quick Disconnect	1	276288


1
2
3
4
5
6
7
8
9
10
11
12
13
13-1
14
15
15-1
16
17
18
19
20
21
22
23
25
26
27
29
30
31
32
32-1
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
63-1
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88

SECTION 2

Ref.No	Part Name	Qty	PN
1	Gear box	1	46021
4	Blade for DI & CI	1	4606
4	Blade Economy Diamond for CI	1	4616
4	Blade Carbide tipped for Steel	1	4706
5	Blade shroud	1	46056
5-1	Shroud cover	1	46057
6	Outside collar	1	46002
6-1	Outside spacer	1	46058
7	Drive collar	1	46003
23	Feed engagement	1	46059
24	Depth lock bolt	1	46060
25	Feed engagement pivot	1	46061
26	Lock clip E-6	1	46062
27	Bracket	1	46063
28	Depth lock bracket	1	46064
38	Side plate	2	46065
39	Chain hook	2	46066
40	axle	1	46067
41	Pivot shaft chain	1	46068
42	Chain tension screw	1	46019
43	Pivot shaft chain	1	46069
44	Wheel bushing	2	46070
45	Wheel	2	46071
46	Washer M10	4	46072

SECTION 2

Ref.No	Part Name	Qty	PN
53	Plate pin	1	46073
54	Chain link	4	46074
55	Link pin	1	46075
56	Washer M12	2	46076
57	Chain roller	2	46077
58	Washer M8	4	46078
59	Bush	2	46079
60	Bolt M8x75	2	46080
61	Spring washer M8	4	46081
67	Thumbscrew M6	1	46082
68	Nut M6	6	46083
69	Thumbscrew M5	1	46084
70	Water jet	1	46085
72	Bushing Plate	2	46086
73	Snap ring S-50	2	46087
74	Snap ring S-25	2	46088
79	Nut M10	4	46018
80	Nut M16	1	46089
81	Spring washer M10	4	46017
82	Spring washer M16	1	46090
82-1	Washer M16	1	46091
83	Nut M8	2	46092
84	Bolt M4x55	1	46093
85	Nut M4	2	46094