



Air-Operated 5:1 Oil Pump Kit

3.7 GPM

Owner's Manual



⚠ WARNING: Read carefully and understand all ASSEMBLY AND OPERATION INSTRUCTIONS before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

Item #58313

READ & SAVE THESE INSTRUCTIONS

Thank you very much for choosing an Ironton™ product!

For future reference, please complete the owner's record below:

Serial Number/Lot Date Code: _____

Purchase Date: _____

Save the receipt, warranty, and this manual. It is important that you read the entire manual to become familiar with this product before you begin using it.

This pump is designed for certain applications only. Northern Tool and Equipment is not responsible for issues arising from modification or improper use of this product such as an application for which it was not designed. We strongly recommend that this product not be modified and/or used for any application other than that for which it was designed.

For technical questions, please call **1-800-222-5381**.

Table of Contents

Intended Use.....4

Packaging Contents.....4

Technical Specifications4

Important Safety Information5

Specific Operation Warnings7

Main Parts of Product8

Assembly Instructions.....10

Before Each Use.....13

Operating Instructions.....13

After Each Use.....15

Maintenance16

Troubleshooting.....16

Parts Diagram.....18

Parts List.....20

Replacement Parts23

Limited Warranty24

Intended Use

The Ironton Air-Operated 5:1 Oil Pump Kit is suitable for dispensing oil at medium/high viscosity for mobile installations and fixed systems at long distances. The multi-drum trolley ensures high mobility and high efficiency.

Packaging Contents

Part#	Description	Quantity
1701052	5:1 Ratio pump	1
18123522	Digital control valve	1
1763413	1/2 in. connection hose	1
1708001	Drum trolley	1

Technical Specifications

Property	Specification
5:1 Ratio Pump	
Compression ratio	5:1
Operating pressure (psi)	70-115
Maximum pressure (bar/psi)	115
Air consumption (min)	115 psi/4.5 CFM
Max. free flow rate (gallon/min)	3.7 GPM
Tube diameter (inch)	1-5/8"
Suction tube length (mm/inch)	10-5/8"
Digital Control Valve	
Model#	18123522
Inlet	1/2" NPT
Flow rate	1-35 L/min
Max operation temperature	140°F
Accuracy	±0.5%
Battery	ER14250 3.6V
Others	
Hose ID (in.)	1/2"
Drum Trolley	
Drum diameter	15.16"
Drum application	13-16 gallons

Important Safety Information

⚠️WARNING

- Read and understand all instructions. Failure to follow all instructions may result in serious injury or property damage.
- The warnings, cautions, and instructions in this manual cannot cover all possible conditions or situations that could occur. Exercise common sense and caution when using this tool. Always be aware of the environment and ensure that the tool is used in a safe and responsible manner.
- Do not allow persons to operate or assemble the product until they have read this manual and have developed a thorough understanding of how it works.
- Do not modify this product in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the product. There are specific applications for which the product was designed.
- Use the right tool for the job. DO NOT attempt to force small equipment to do the work of larger industrial equipment. There are certain applications for which this equipment was designed. This product will be safer and do a better job at the capacity for which it was intended. DO NOT use this equipment for a purpose for which it was not intended.
- Industrial or commercial applications must follow OSHA requirements.

⚠️WARNING

WORK AREA SAFETY

- Inspect the work area before each use. Keep work area clean, dry, free of clutter, and well-lit. Cluttered, wet, or dark work areas can result in injury. Using the product in confined work areas may put you dangerously close to cutting tools and rotating parts.
- Do not use the product where there is a risk of causing a fire or an explosion; e.g., in the presence of flammable liquids, gases, or dust. The product can create sparks, which may ignite the flammable liquids, gases, or dust.
- Do not allow the product to come into contact with an electrical source. The tool is not insulated and contact will cause electrical shock.
- Keep children and bystanders away from the work area while operating the tool. Do not allow children to handle the product.
- Be aware of all power lines, electrical circuits, water pipes, and other mechanical hazards in your work area. Some of these hazards may be hidden from your view and may cause personal injury and/or property damage if contacted.

⚠️WARNING

PERSONAL SAFETY

- Stay alert, watch what you are doing, and use common sense when operating the tool. Do not use the tool while you are tired or under the influence of drugs, alcohol, or medication. A moment of

inattention while operating the tool may result in serious personal injury.

- Dress properly. Do not wear loose clothing, dangling objects, or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts. Air vents on the tool often cover moving parts and should be avoided.
- Wear the proper personal protective equipment when necessary. Use ANSI Z87.1 compliant safety goggles (not safety glasses) with side shields, or when needed, a face shield. Use a dust mask in dusty work conditions. Also use non-skid safety shoes, hardhat, gloves, dust collection systems, and hearing protection when appropriate. This applies to all persons in the work area.
- Do not overreach. Keep proper footing and balance at all times.
- Remove keys or wrenches before connecting the tool to an air supply, power supply, or turning on the tool. A wrench or key that is left attached to a rotating part of the tool may cause personal injury.
- Secure the work with clamps or a vise instead of your hand when practical. This safety precaution allows for proper tool operation using both hands.

⚠ CAUTION

PUMP USE AND CARE

- Do not force the pump. Products are safer and do a better job when used in the manner for which they are designed. Plan your work, and use the correct product for the job.
- Check for damaged parts before each use. Carefully check that the product will operate properly and perform its intended function. Replace damaged or worn parts immediately. Never operate the product with a damaged part.
- Do not use a product with a malfunctioning switch. Any power tool that cannot be controlled with the power switch is dangerous and must be repaired by an authorized service representative before using.
- Disconnect the power/air supply from the product and place the switch in the locked or off position before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally.
- Store the pump when it is not in use. Store it in a dry, secure place out of the reach of children. Inspect the tool for good working condition prior to storage and before re-use.
- Use only accessories that are recommended by the manufacturer for use with your product. Accessories that may be suitable for one product may create a risk of injury when used with another tool. Never use an accessory that has a lower operating speed or operating pressure than the tool itself.
- Keep guards in place and in working order. Never operate the product without the guards in place.
- Do not leave the tool running unattended.

Specific Operation Warnings

⚠WARNING

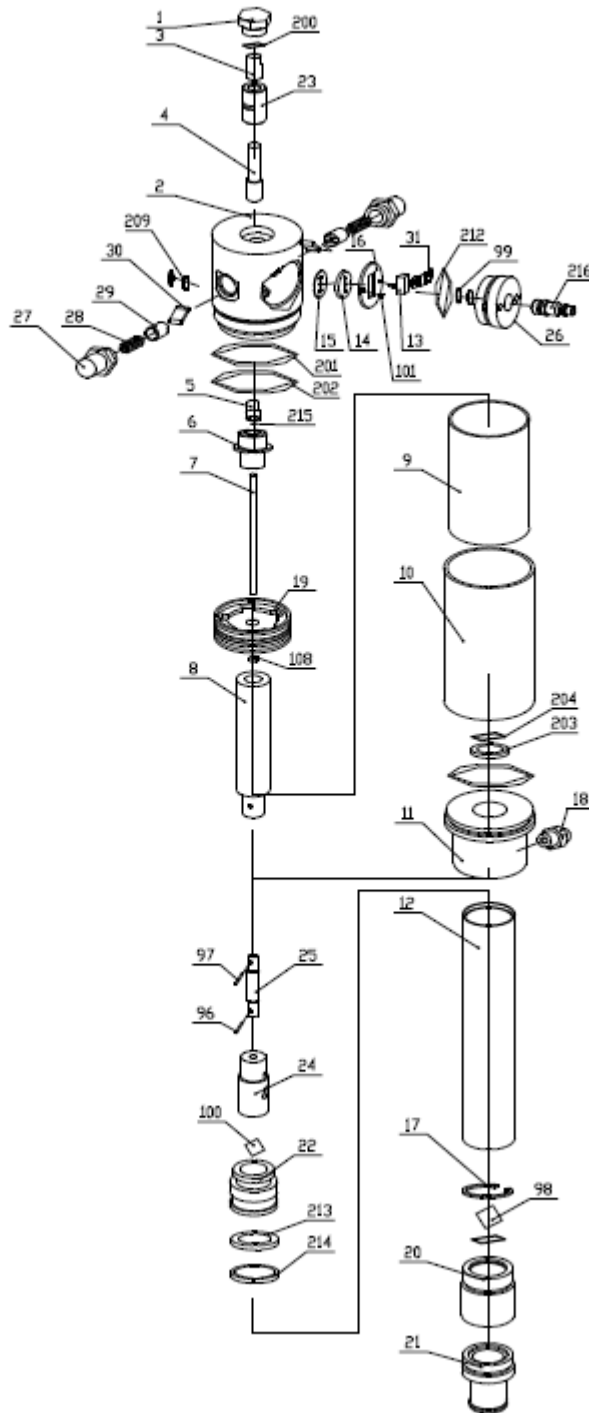
- To prevent serious injury or property damage, read and understand owner's manual before operating.
- Wear ANSI Z87.1 compliant goggles and other protective gear while operating.
- Do not exceed the maximum working air pressure of 115 PSI.
- Never point the dispenser at people or animals.
- Do not use the pump near open flames. Do not smoke during this operation.
- When not in use, disconnect the air supply air to the pump.
- Inspect before each use; check that all connections are tight and secure.
- Never use if parts are damaged or broken; replace damaged or broken parts before operating.
- Use only original parts when repairing the pump.
- Always disconnect the air supply after use so that oil can't leak out in case one of the pump's components should break.
- The compressed air must be filtered to avoid dust and moisture into pump.
- Do not use with any liquid besides the intended oil, lubricants, or antifreeze liquids. See owner's manual for intended oil.
- Disconnect air hose and relieve air pressure before servicing.
- Always dispose of oil and other liquids according to local waste authority guidelines.
- Not for use by or around children.

Main Parts of Product



Reference	Subassembly
1	5:1 Oil pump
2	Digital control valve
3	Connection hose
4	Trolley

5:1 SERIES OIL PUMP EXPLODED VIEW



Reference	Subassembly	Quantity	Reference	Subassembly	Quantity
1	Air motor cover	1	34	Spring seat	2
2	Piston	1	35	Trip shoe guide	2
3	Air motor shell inside	1	36	Press piece	1
4	Air motor shell outside	1	37	Nut	1
5	Bracket	1	102	Pin	3
6	Air control center	1	103	Ball	2
7	Slider	1	104	Circlip	1

Reference	Subassembly	Quantity	Reference	Subassembly	Quantity
8	Gasket	1	105	Small circlip	2
9	Soft gasket	1	106	Nut	1
10	Securing washer	1	107	Screw	2
11	Bracket	1	208	O-ring	2
12	Washer	1	209	O-ring	2
13	Connect tube	1	210	Silencer	2
14	Piston shell	1	211	O-ring	1
15	Valve seat	1	212	O-ring	1
16	Taper washer	1	213	O-ring	1
17	Filter	1	214	O-ring	1
18	Shovel washer	1	215	O-ring	1
19	Suction tube	1	216	O-ring	1
20	Shovel rod	1	217	O-ring	1
21	Valve	1	218	OD-ring	2
22	Piston	1	219	Outlet	1
23	Spring	2	220	Quick coupling	1
24	Spring seat	1	221	Connector	1
25	Connect shaft	1			
26	Connect shell	1			
27	Middle shaft	1			
28	Air center cover	1			
29	Slider shell	1			
30	Piston shaft	1			
31	Washer	2			
32	Spring shell	2			
33	Spring	2			

Assembly Instructions

When the pump is connected to the compressed air supply:

- The compressed air must be filtered to avoid dust into pump.
- The max compressed air pressure must not exceed 115 psi.
- To deliver oil, press the knob on the delivery gun; delivery stops when the knob is released but the whole system remains under pressure.
- Position the gun so that the circuit can't open accidentally, otherwise oil could leak onto the ground.
- Never point the gun at people or animals.
- Press the gun knob only after you are sure that the gun is in the right place so that the oil doesn't leak onto the ground.
- Always cut off the air supply after use so that oil can't leak out in case one of the pump's components should break.
- Use only original spare parts in case the pump has to be repaired or its components have to be replaced.
- Ensure the tightness of all joints and screwed unions.
- When there is not a load, cut off compressed air to stop pump.
- Do not use the pump near open flames. Do not smoke during this operation.
- Wear oil-proof gloves.
- The pumps can be used only to deliver oil. Do not use the pump for any other substance.

Pump Installation

- When the pump is applied to a high-viscosity oil, or used in low temperature, an oil follower plate is recommended to avoid air pockets and to get the most out of your oil.
- The follower plate, which is pulled towards the bottom of the drum by suction pressure produced by the air operated pump, compress the oil, preventing the formation of air pockets which may cause a blockage in delivery and the follower plate will always keep the oil clean to preserve its characteristics and also enable the oil to be collected from the bottom of the drum to avoid waste.
- Loosen the bung adaptor or wall bracket adaptor star nut. Slide the bung adaptor off of the suction tube.
- Carefully place the pump through the bung adaptor and the follower plate. Tighten the star nut firmly in order to attach the pump.

Connection of the Air Inlet Line

- Air inlet connection is 1/4" quick coupling (or 1/4" NPT female) in all versions.
- Compressed air connection (to be supplied by the customer) should be done using suitable tubes.
- A compressed air treatment unit (filter and regulator) is recommended to be attached to the pump. In order to improve the efficiency of the pump, the installation of a lubricator is also recommended.

Connection of Oil Discharge

1. The oil discharge outlet is a 1/2" Male. Connect the outlet to the high pressure hose (according to DIN-SAE norms) through the corresponding adapter and terminal.
2. Ensure the gun or corresponding valve is closed.
3. Slowly open the pump's compressed air inlet valve. The pump will start to function, filling the feed circuit with oil. Maintain pressure on the gun until the oil start to come out. The pump is now ready for its usual function.

Digital Installation:

Fig. 1 shows a typical installation.

The installation shown in Fig. 1 is only a guide. The components shown are typical; however, it is not a complete system design. Contact your distributor for assistance in designing a system to suit your particular needs.

Pre-Installation Procedure

1. Relieve the pressure.
1. Close the fluid shut-off valve (item 4 in Fig.1).
2. Ground the hose and reel or console. Do not use PTFE tape on the pipe joints; it may cause a loss of ground across the pipe joint.

Installation Procedure

If this is a new installation, or if the oil in the lines is contaminated, flush the lines before you install the dispense valve.

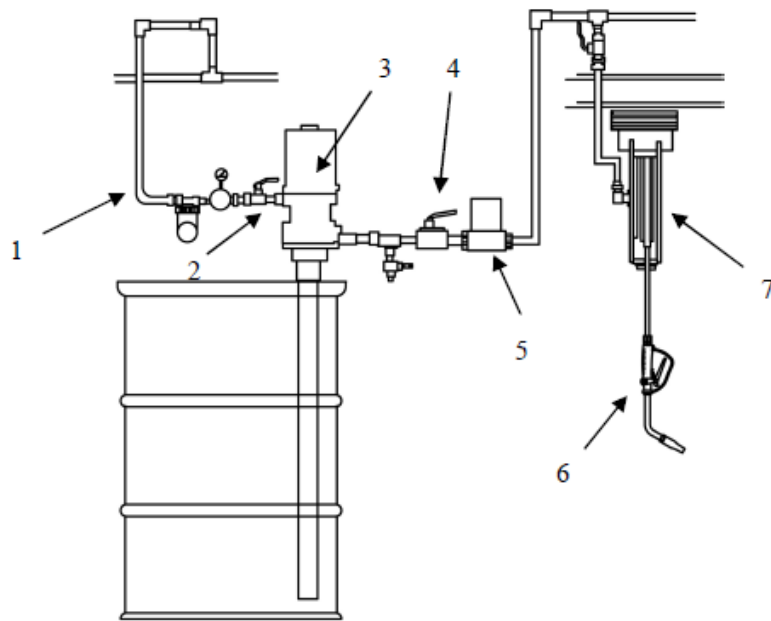


Fig. 1

- 1: Air inlet 2: Air shut-off valve 3: Oil pump 4: Fluid shut-off valve
5: Meter 6: Hose reel 7: Control valve

Fig. 1

- 1: Air inlet 2: Air shut-off valve 3: Oil pump 4: Fluid shut-off valve
5: Meter 6: Hose reel 7: Control valve

New Installation

1. Relieve the pressure.
2. Close the fluid shut-off valves at each dispense position.
3. Make sure the main fluid outlet valve at the pump is closed, the air pressure to the pump motor is adjusted, and the air valve is open. Slowly open main fluid valve.
4. Place the hose end (with no dispense valve connected) into a container for waste oil. Secure the hose in the container so it will not come out during flushing. If you have multiple dispense positions, first flush the dispense position farthest from the pump, and work your way toward the pump.
5. Slowly open the shut-off valve at the dispense position. Flush out a sufficient amount of oil to ensure that the entire system is clean, and close the valve.
6. Repeat step 5 at all other dispensing positions.

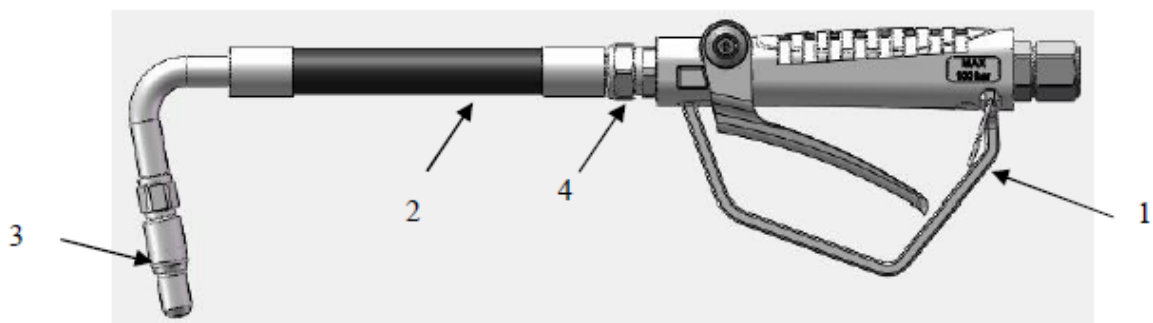


Fig. 2

- 1: Trigger 2: Nozzle 3: Tip 4: Swivel nut

Note: If you want to adjust the angle of the nozzle, you can loosen the #4 swivel nut, then turn the nozzle to your desired position and tighten the nut.

Existing Installation

1. Relieve the pressure.
2. Loosen and disconnect the hose from the old dispense valve (the one that you are replacing).
3. Thread the extension into the outlet of the dispense valve, and tighten firmly.
4. Apply thread sealant to the male threads of the hose fitting, thread the hose fitting into the swivel, and tighten firmly.
5. Thread the new nozzle or nozzle adapter onto the extension, and tighten firmly.
6. Open all dispense position shut-off valves, and start the pump to pressurize the system. See the operation section for proper operation.
7. For metered dispense valves, to ensure dispensing accuracy, purge all air from the fluid lines and dispense valves before you use them.

Grounding

Proper grounding is an essential part of maintaining a safe system. To reduce the risk of static sparking, ground all system components per local and national electrical codes. Refer to the user manual for the pump and other system components to ground the following:

- Pump: Follow manufacture's recommendations.
- Air and Fluid hoses: Use only grounded hoses.
- Air compressor: Follow manufacture's recommendations.
- Fluid supply container: Follow your local code.
- To maintain grounding continuity when flushing or relieving pressure, always hold a metal part of the valve firmly to the side of a grounded metal pail, then trigger the valve.

Before Each Use

⚠WARNING

- Inspect before each use; check that all connections are tight and secure.
- Never use if parts are damaged or broken; replace damaged or broken parts before operating.
- Disconnect air hose and relieve air pressure before servicing. **TIGHTEN** all fluid connections securely before each use. High pressure fluid can dislodge a loose coupling or allow high pressure spray to be emitted from the coupling.
- **DO NOT** try to mend it with tape or any other device. A repaired hose cannot safely contain the high pressure fluid.

Operating Instructions

⚠WARNING

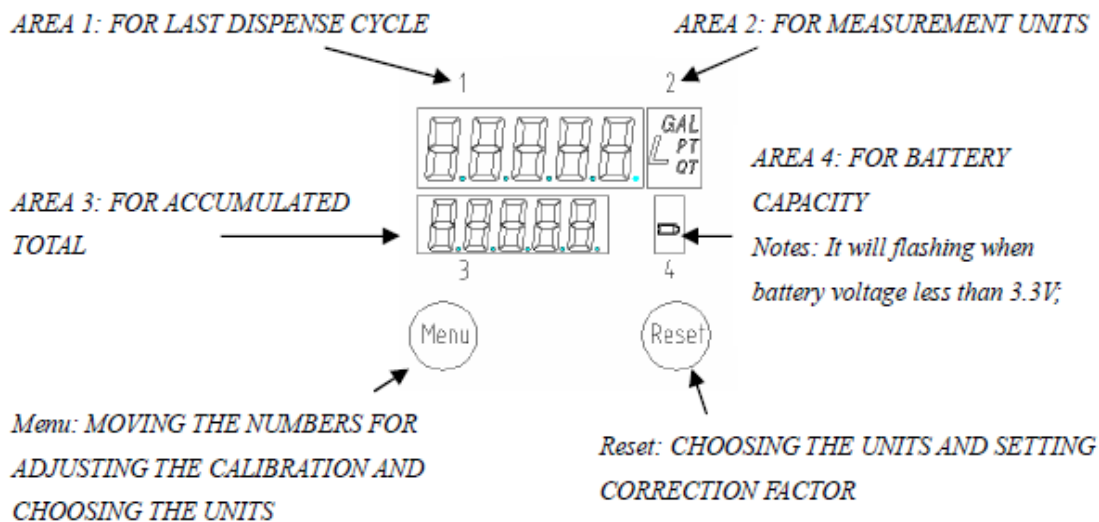
- Wear ANSI Z87.1 compliant goggles and other protective gear while operating.
- Do not exceed the maximum working air pressure of 115 PSI.
- Never point the dispenser at people or animals.
- Do not use the pump near open flames. Do not smoke during this operation.

- The compressed air must be filtered to avoid dust and moisture into pump.
- Do not use with any liquid besides the intended oil, lubricants, or antifreeze liquids. See owner's manual for intended oil. Never operate the meter with the plastic cover removed. The cover protects the meter from damage due to impact. Meters are factory sealed to keep moisture and dirt out.
- To prevent line contamination, which can cause equipment malfunction or damaged, flush the lines before you install this equipment in the system.

Pump Operation

- If the pump has already been primed and the compressed air feed is connected to the appropriate work pressure level (70-115psi), the pump will start automatically when the nozzle or gun situated at the end of the oil delivery circuit is opened.
- To stop the pump, simply close the nozzle or disconnect the air inlet line.

Display and Button Usage



Activating the Digital Display

Press the RESET key pad to clear the meter before starting a new dispense cycle. This is the best way to activate the meter, because it also clears the quantity of the last dispense cycle.

The digital display can also be activated by pressing the MENU key pad or by running fluid through the meter.

Calibrating Automatically

- Press the RESET key for 1 second and Area 1 shows .000 L.
- Keep running fluid through the meter until the fluid running out of the certain measuring cylinder. The display will show certain value as *.*L, press the MENU key for 3 seconds. The meter will enter instrument calibration mode and Area 1 shows 00*.*L.
- Press MENU key to move the flashing digital, press the RESET key to choose number, enter the fluid volume and press MENU key again for 3 seconds. Exit the calibration mode. The calibration is set.

Displaying Current Correction Factor

- Press the MENU key and the RESET key together. The display will show the correction factor, which can be reset.

Resetting the Resettlement Total

- Press the MENU key for 10 seconds. the accumulated total will be reset to be "0".

Changing the Measurement Units (L / GAL/ PT / QT meter only)

- Move the flashing display to Area 2 by pressing the MENU key, then press MENU key to choose the measurement unit.

-Press the MENU key over 3 seconds to exit the setting mode.

Dispensing Procedure

Note: Before you begin, make sure you understand how to unlock the trigger.

1. Pull the trigger toward the valve body to open the valve and begin dispensing.
2. Lock the valve open by keeping the trigger squeezed and depressing the trigger lock button. Then release the trigger, releasing your forefinger from the trigger lock last.
3. Pull the trigger toward the valve body to release the trigger lock. The trigger lock disengages. Release the trigger to stop dispensing.

After Each Use

⚠WARNING

- Always disconnect the air supply after use so that oil can't leak out in case one of the pump's components should break.
- Handling and storage of the new pump do not require any special procedures. However, after the pump has been used, empty the used oil in the suction tube into an appropriate container. This is done by overturning the pump.
- The dust in compressed air can slow down and even block the motor cylinder. The following steps may prevent this from happening:
 - Add 50 grams of appropriate lubricating oil to the air inlet hole weekly; operate the pump for several minutes after adding oil.
 - Turn on the pump for several minutes until moving parts are fully lubricated.
 - You may repeat the above operation if necessary. These steps should be carried out on a weekly base.
- For the pumps that are attached with compressed air treatment equipment, empty the water retained in the reservoir of the filter-purger frequently.
- For the pumps that are attached with a lubricator, pay close attention to the lubricator's oil level and refill with SAE 20, SAE 30, or antifreeze oil for extreme conditions when necessary.
- Contact a technician when the pump needs further maintenance.
- Keep the product in a dry and cool place out of the reach of children.

Maintenance

- The user should perform only routine maintenance operations (filters, silencers, cleaning) in order not to damage it or compromise its safety. Contact our service centers when the pump needs further maintenance.
- How to clean the pump: Operate the pump and drain off the oil. The pump can now be used with another oil.

Troubleshooting

Pump Troubleshooting

Failure	Possible Cause	Corrective Action
The pump continues to operate after the gun trigger has been released.	There is an oil leak at some point in the circuit.	Check and tighten connections. Repair the leak.
	Valve sets (part# 22, 203, 204, 213, 214) close incorrectly due to dirt or wearing.	Have damaged parts repaired.
Reduction of the oil delivery or reduced pressure in the oil delivery.	Silencer (209) is dirty.	Clean or recharge silencer.
	Blockage at some point in the oil circuit.	Use clean oil.
	Ball valve set (20,100) incorrectly due to dirt or wearing.	Have damaged parts repaired.
Air loss through the air exhaust.	The sliding valve (13) does not close properly.	<ol style="list-style-type: none"> 1. Disassembly and clean. 2. Have damaged parts repaired.
	Broken press piece (31).	
	Damaged O-ring (201, 202, 215).	
	Damaged piston (19).	
	Broken spring (28).	
Oil leaks through the air exhaust.	Seal set (203, 204) is damaged.	Have damaged parts repaired.

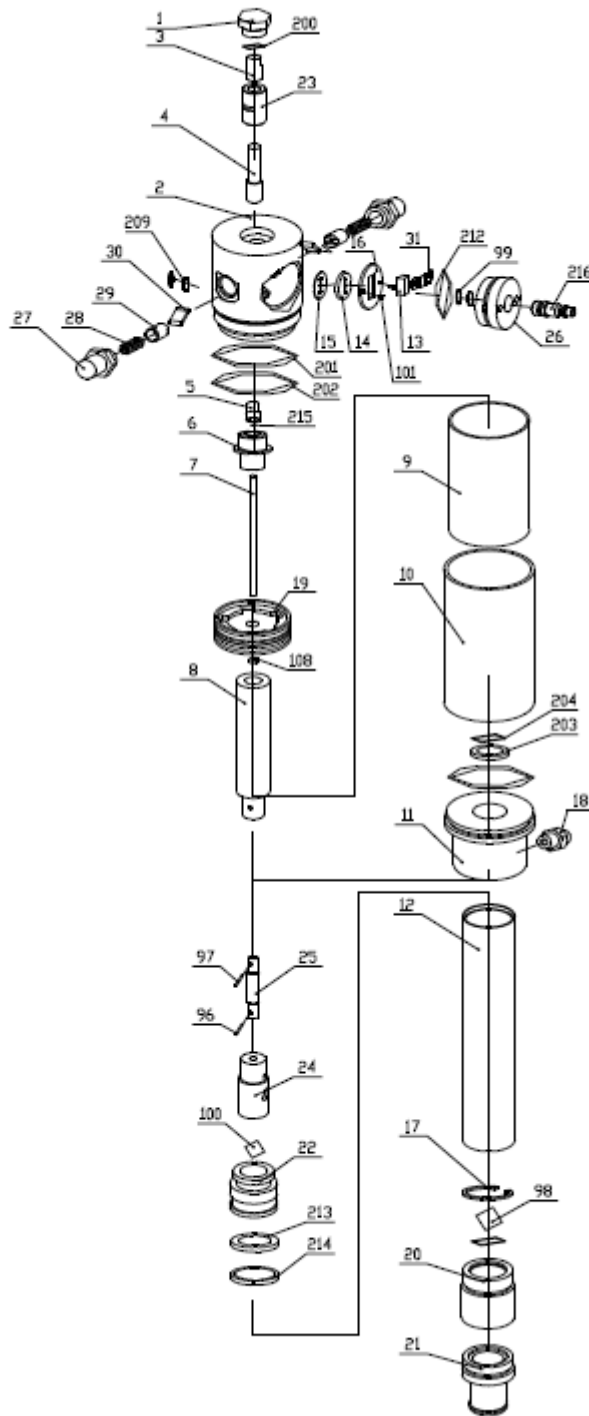
Digital Control Valve Troubleshooting:

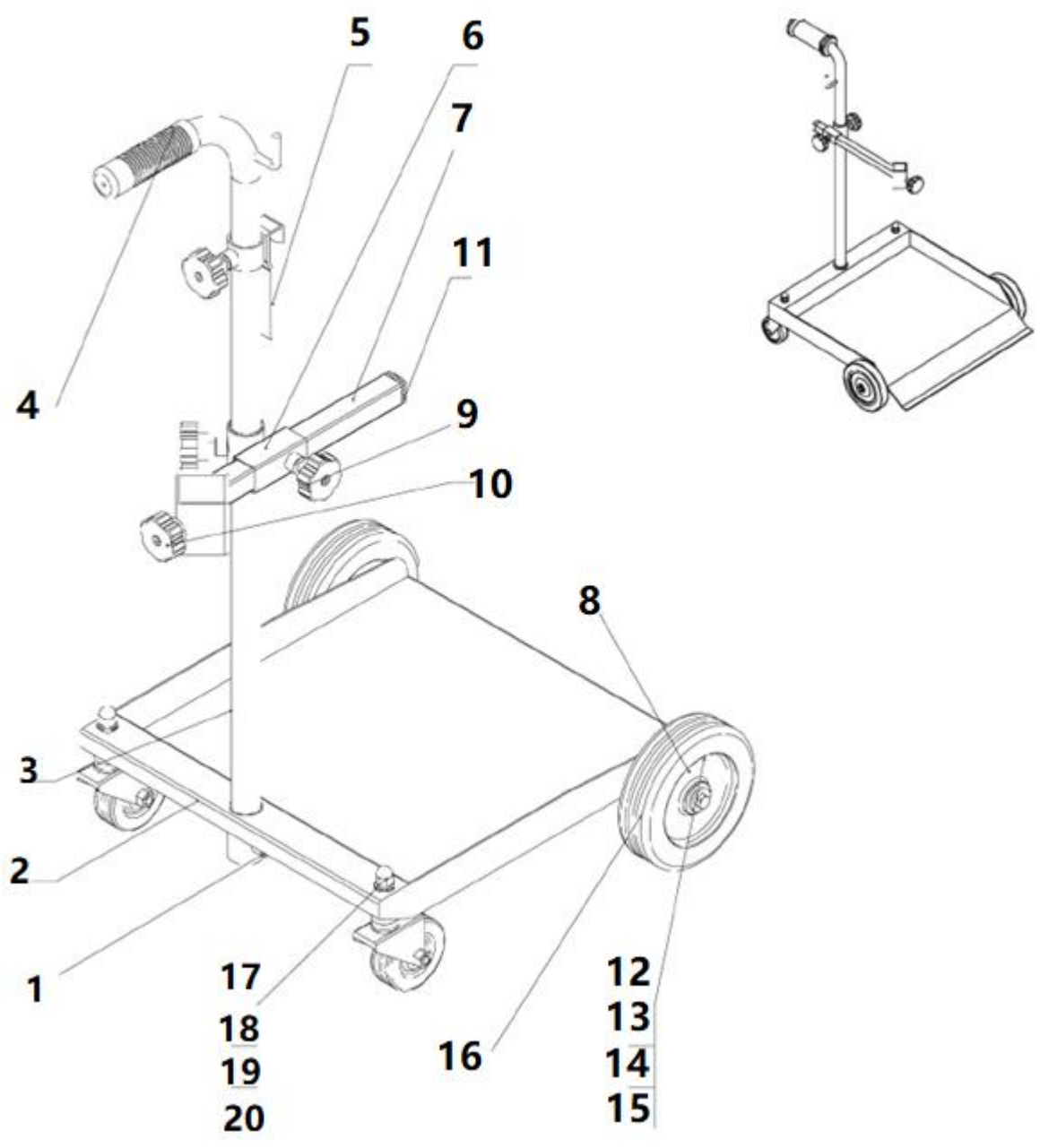
Failure	Possible Cause	Corrective Action
Slow or no fluid flow.	Filter is clogged, pump pressure is low, shut-off valve is not fully opened, or foreign material is jammed in the metering element.	Relieve the pressure.
		Loosen swivel fitting, clean, or replace the filter.
		If the problem remains, contact your distributor for repair or replacement.

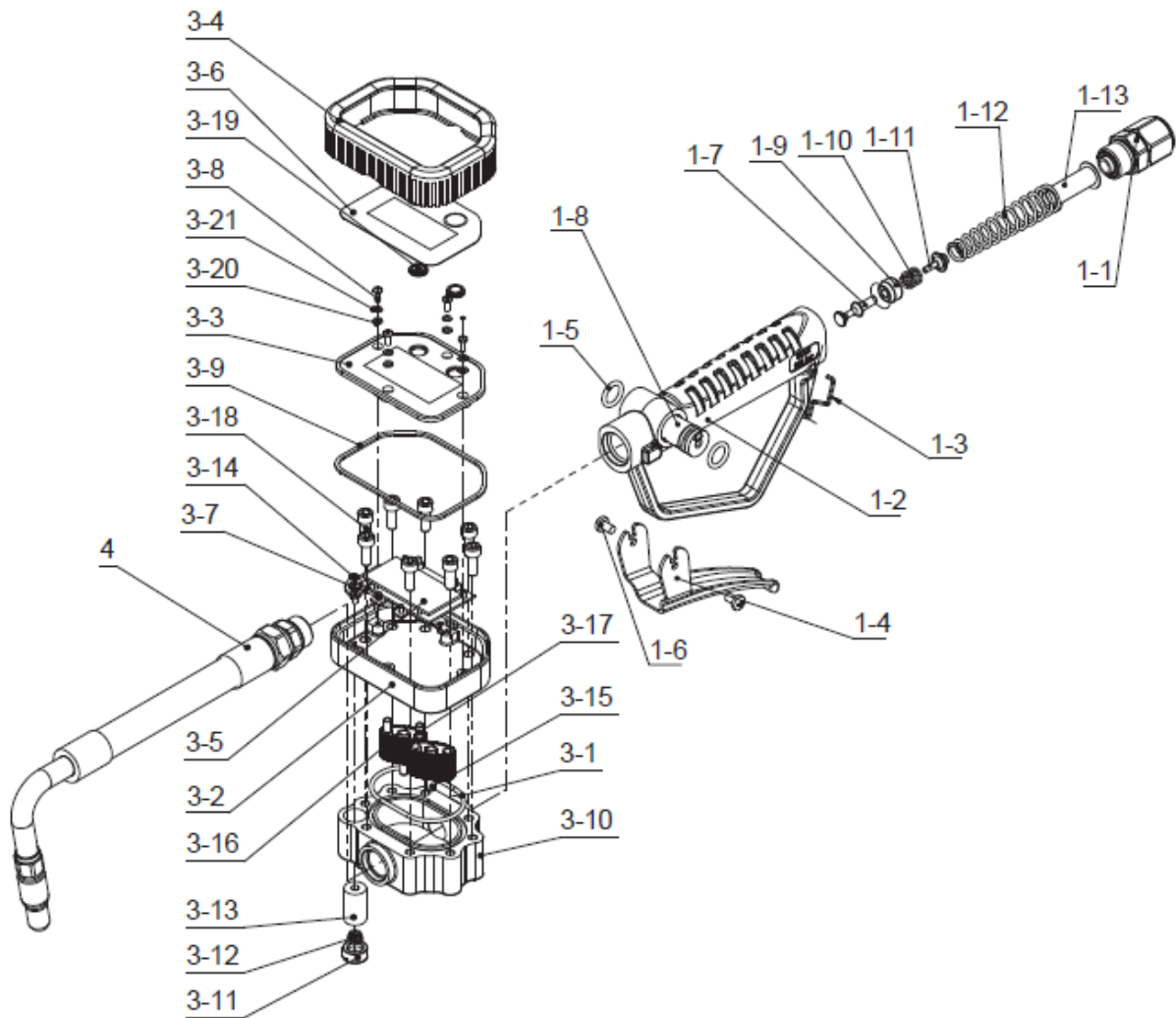
Failure	Possible Cause	Corrective Action
Oil leaks from swivel.	Swivel is loose.	Torque the swivel. If the problem remains, contact your distributor for repair or replacement.
	O-ring is worn or damaged.	Replace the O-ring. If the problem remains, contact your distributor for repair or replacement.
Valve leaks.	O-rings or valve seat is worn or damaged.	Replace the O-rings and /or the valve set. If the problem remains, contact your distributor for repair or replacement.
Meter has a leak.	O-ring damaged.	<ol style="list-style-type: none"> 1. Take the meter off the dispense system. 2. Remove the protector. 3. Loosen four the socket head cap screws on the cover of the meter. 4. Loosen eight the hex bolts on the bottom of the meter. 5. Take off the seat. 6. Check the O-ring and replace if it is damaged. After replacing the O-ring, assemble the meter and attach it back to the dispense system.

Parts Diagram

5:1 SERIES OIL PUMP EXPLODED VIEW







Parts List

Pump

Reference	Subassembly	Quantity	Reference	Subassembly	Quantity
1	Air motor cover	1	34	Spring Seat	2
2	Piston	1	35	Trip shoe guide	2
3	Air motor shell inside	1	36	Press piece	1
4	Air motor shell outside	1	37	Nut	1
5	Bracket	1	102	Pin	3
6	Air control center	1	103	Ball	2
7	Slider	1	104	Circlip	1
8	Gasket	1	105	Small circlip	2
9	Soft gasket	1	106	Nut	1
10	Securing washer	1	107	Screw	2
11	Bracket	1	208	O-ring	2
12	Washer	1	209	O-ring	2
13	Connect tube	1	210	Silencer	2
14	Piston shell	1	211	O-ring	1
15	Valve seat	1	212	O-ring	1
16	Taper washer	1	213	O-ring	1

Reference	Subassembly	Quantity	Reference	Subassembly	Quantity
17	Filter	1	214	O-ring	1
18	Shovel washer	1	215	O-ring	1
19	Suction tube	1	216	O-ring	1
20	Shovel rod	1	217	O-ring	1
21	Valve	1	218	OD-ring	2
22	Piston	1	219	Outlet	1
23	Spring	2	220	Quick coupling	1
24	Spring seat	1	221	Connector	1
25	Connect shaft	1			
26	Connect shell	1			
27	Middle shaft	1			
28	Air center cover	1			
29	Slider shell	1			
30	Piston shaft	1			
31	Washer	2			
32	Spring shell	2			
33	Spring	2			

Trolley

Reference	Subassembly	Quantity
1	screw	1
2	trolley top	1
3	Handle	1
4	Handle cover	1
5	Drum support	1
6	Adjustable cover	1
7	Adjustable Pole	1
8	Hexagon bolt	2
9	Handle wheel	3
10	Accessory	1
11	Blocker	1
12	M6 Bolt	2
13	Washer	2
14	M8 Bolt	2
15	Washer	2
16	Wheel	2

Digital Control Valve

Digital Control Valve Parts List		
1-1	Swivel	1
1-2	Handle	1
1-3	Trigger lock	1
1-4	Trigger	1
1-5*	O-ring	2
1-6	Screw	2
1-7*	Rod	1
1-8	Cam	1
1-9*	Seat	1
1-10	Spring	1
1-11	Seat	1
1-12	Spring	1
1-13*	Filter	1
2	Adapter	1

3-1*	O-ring	1
3-2	Meter holder	1
3-3	Meter cover	1
3-4	Rubber protector	1
3-5	Main circuit board	1
3-6	Front label	1
3-7	Screw	4
3-8	Screw	4
3-9	O-ring	1
3-10	Seat	1
3-11	Battery cover	11
3-12	Spring	1
3-13*	Battery	1
3-14	Screw	2
3-15	Shaft	2
3-16	Oval gear	2
3-17	Magnetic rod	2
3-18	Bolt	8
3-19*	Waterproof protector	2
3-20*	Seal washer	4
3-21	Washer	4
4	Nozzle with tip	1
MH10001	Rigid nozzle	N/A
MH10002	Flexible nozzle	N/A
MT10001	Manual tip	N/A
MT10002	Auto tip	N/A
MT10003	Semi-auto tip	N/A
1-5*	O-ring	2
1-9*	Seat	1
1-13*	Filter	1
1-4	Trigger	1
3-1*	O-ring	1
3-9*	O-ring	1
3-13*	Battery	1
3-19*	Waterproof protector	1
3-20*	Seal washer	4

Item No. 4

Reference	Subassembly
MH10001	Rigid nozzle
MH10002	Flexible nozzle
MT10001	Manual tip
MT10002	Auto tip
MT10003	Semi-auto tip

Wearing Parts

Reference	Subassembly	Quantity	Reference	Subassembly	Quantity
1-5*	O-ring	2	3-9*	O-ring	1
1-7*	Washer, flat	2	3-13*	Battery	1
1-10*	Seat	1	3-19*	Waterproof protector	2

Reference	Subassembly	Quantity	Reference	Subassembly	Quantity
1-13*	Filter	1	3-19*	Waterproof protector	2
3-1*	O-ring	1	3-20*	Seal washer	4

Replacement Parts

- For replacement parts and technical questions, please call Customer Service at **1-800-222-5381**.
- Not all product components are available for replacement. The illustrations provided are a convenient reference to the location and position of parts in the assembly sequence.
- When ordering parts, the following information will be required: item description, item model number, item serial number/item lot date code, and the replacement part reference number.
- The distributor reserves the rights to make design changes and improvements to product lines and manuals without notice.

Limited Warranty

Northern Tool and Equipment Company, Inc. ("We" or "Us") warrants to the original purchaser only ("You" or "Your") that the Ironton product purchased will be free from material defects in both materials and workmanship, normal wear and tear excepted, for a period of **90 days** from date of purchase. The foregoing warranty is valid only if the installation and use of the product is strictly in accordance with product instructions. There are no other warranties, express or implied, including the warranty of merchantability or fitness for a particular purpose. If the product does not comply with this limited warranty, Your sole and exclusive remedy is that We will, at our sole option and within a commercially reasonable time, either replace the product or product component without charge to You or refund the purchase price (less shipping). This limited warranty is not transferable.

Limitations on the Warranty

This limited warranty does not cover: (a) normal wear and tear; (b) damage through abuse, neglect, misuse, or as a result of any accident or in any other manner; (c) damage from misapplication, overloading, or improper installation; (d) improper maintenance and repair; and (e) product alteration in any manner by anyone other than Us, with the sole exception of alterations made pursuant to product instructions and in a workmanlike manner.

Obligations of Purchaser

You must retain Your product purchase receipt to verify date of purchase and that You are the original purchaser. To make a warranty claim, contact Us at 1-800-222-5381, identify the product by make and model number, and follow the claim instructions that will be provided. The product and the purchase receipt must be provided to Us in order to process Your warranty claim. Any returned product that is replaced or refunded by Us becomes our property. You will be responsible for return shipping costs or costs related to Your return visit to a retail store.

Remedy Limits

Product replacement or a refund of the purchase price is Your sole remedy under this limited warranty or any other warranty related to the product. We shall not be liable for: service or labor charges or damage to Your property incurred in removing or replacing the product; any damages, including, without limitation, damages to tangible personal property or personal injury, related to Your improper use, installation, or maintenance of the product or product component; or any indirect, incidental or consequential damages of any kind for any reason.

Assumption of Risk

You acknowledge and agree that any use of the product for any purpose other than the specified use(s) stated in the product instructions is at Your own risk.

Governing Law

This limited warranty gives You specific legal rights, and You also may have other rights which vary from state to state. Some states do not allow limitations or exclusions on implied warranties or incidental or consequential damages, so the above limitations may not apply to You. This limited warranty is governed by the laws of the State of Minnesota, without regard to rules pertaining to conflicts of law. The state courts located in Dakota County, Minnesota shall have exclusive jurisdiction for any disputes relating to this warranty.



Distributed by:

Northern Tool & Equipment Company, Inc.

Burnsville, Minnesota 55306

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