



PORTABLE POWER THREADER OWNER'S MANUAL



WARNING:

Read carefully and understand **RULES FOR SAFE OPERATION** and instructions before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

Item# 190933



PORTABLE POWER THREADER OWNER'S MANUAL

Thank you very much for choosing a NORTHERN TOOL + EQUIPMENT CO., INC., Product! For future reference, please complete the owner's record below:

Model: _____ Purchase Date: _____

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


This machine is designed for certain applications only. Northern Tool + Equipment strongly recommends this machine is not modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the machine until you have first contacted Northern Tool + Equipment to determine if it can or should be performed on the product.

For technical questions and replacement parts, please call 1-800-222-5381.

TECHNICAL SPECIFICATIONS

ITEM	DESCRIPTION
Power Supply	120V / 50-60Hz / 1.6HP /Single Phase AC / 10Amps
Power Switch	Heavy-Duty Paddle Type
Spindle Speed	18-28 RPM (Threading), 51 RPM (Reverse)
Directional Lever	Mechanical Control (Separate Forward/Reverse Switch)
Gear Head	Die Cast Aluminum Housing
Support Arm	Absorbs Threader Handle Forces
Die Head Adapter	Used with 1/2in. through 2in. Die Heads
Overall Dimensions	29 1/4in. x201/4in. x 22in.
Pipe Die Heads	11R Type Die Heads: 1/2in., 3/4in., 1in., 1 1/4in., 1 1/2in., 2in.

GENERAL SAFETY INFORMATION

 **WARNING:** Read and understand all instructions. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury.

WORK AREA SAFETY

- Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.
- Do not operate power tools in the presence of flammable liquids, gases or dust. Tools create sparks, which may ignite the dust or fumes.
- Keep bystanders, children and visitors away while operating a tool. Distractions can cause you to lose control.
- Keep floors dry and free of slippery materials such as oil. Slippery floors invite accidents.

ELECTRICAL SAFETY

- Avoid body contact with grounded surfaces. There is an increased risk of electrical shock if your body is grounded.
- Do not expose power tools to rain or wet conditions. Water entering a tool will increase the risk of electrical shock.
- Do not abuse the cord. Never use the cord to carry the tool or unplug the tool from an outlet. Keep the cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electrical shock.

- Keep all electric connections dry and off the ground. To reduce the risk of electric shock, do not touch plugs or power tools with wet hands.

PERSONAL SAFETY

- Stay alert. Watch what you are doing and use common sense when operating a power tool.
- Do not use the tool when tired or under the influence of drugs, alcohol, or medications. A moment of inattentiveness while operating power tools may result in serious personal injury.
- Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
- Avoid accidental starting. Be sure the switch is OFF before plugging in the tool. Carrying tools with your finger on the switch or plugging in tools that have the switch ON invites accidents.
- Remove all adjusting keys and wrenches. Make a habit of checking that the adjusting keys and wrenches are removed from the tool before turning it on.
- Do not overreach. Keep proper footing and balance at all times. Proper footing and balance allows for better control of the tool in unexpected situations.
- Use safety equipment. Eye protection should be worn at all times when operating this machine. Use ANSI approved safety glasses. Everyday eyeglasses only have impact resistance lenses. They are NOT safety glasses. A dust mask, respirator, non-skid safety shoes, a hard hat, or hearing protection must be used in appropriate conditions.

TOOL USE AND CARE

- Use a clamp or other practical method of securing and supporting the work piece. Holding the work by hand is unstable and may lead to a loss of control.
- Do not force the tool. Use the correct tool for your application. The correct tool will do a better and safer job when used for that which it was designed.
- Make sure the ON/OFF switch functions. Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- Disconnect the plug from the power source before making any adjustments, changing accessories or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally.
- Store idle tools out of the reach of children and other untrained persons. Tools are dangerous in the hands of untrained users.
- Maintain tools with care. Keep cutting tools sharp and clean. Properly maintained tools with sharp cutting edges are less likely to bind and are easier to control.
- Check for poor alignment or binding of moving parts, breakage of parts and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.

- Use only accessories that are recommended for your tool. Accessories that may be suitable for one tool may be hazardous when used on another tool.
- Keep handles dry, clean and free from oil and grease. This will allow for better control of the tool.

MACHINE SAFETY

WARNING: Hold the Threader firmly. If the Threader cannot be secured by the Support Arm, use other mechanical means. The Support Arm resists high handle forces during use and prevents losing control of the tool.

WARNING: Only use the Aluminum Gear Case to secure the Threader. Using the Motor Housing or the handle may result in damage to these parts.

- Do not use dull or damaged Dies. Sharp cutting tools require less torque and the Threader is easier to control.
- Do not use this Threader if the ON/OFF switch is broken. This switch is a safety device that lets you shut off the motor by releasing the switch.
- Do not wear gloves or loose clothing when operating the Threader. Keep sleeves and jackets buttoned. Clothing can get caught, resulting in entanglement and serious injury.

DESCRIPTION

This Threader has a double-insulated drive, which provides power for threading pipe and conduit.

- When switching between Forward and Reverse, cut off power firstly, then switch Forward or Reverse; If it is stuck, push the FOR/REV switch while turn on the power, then the FOR/REV should work.
- The Threader is designed to use 11R type Die Heads (1/2in.-2in. pipe).
- An Adapter is required for the 1/2in.-1 1/4in. pipe size.
- The Support Arm should be used to secure the Threader and resist high handle forces developed when threading 3/4in. or larger pipe.

INSPECTION BEFORE USE

1. Make sure the Threader is unplugged.
2. Inspect the power cord and plug for damage. If the plug has been modified or if the cord is damaged, do not use the Threader until the cord has been replaced.
3. Inspect the Threader for any broken, missing, poorly aligned parts, binding parts or any other conditions that may affect the safe and normal operation of the tool. If any of these conditions exist, do not use the Threader until the problem has been repaired.
4. Use tools and accessories that are designed for your Threader and meet the needs for your application. The correct tools and accessories allow you to do the job successfully and safely.

Accessories suitable for use with other equipment may be hazardous when used with this Threader.

5. Clean oil, grease and dirt from all equipment handles and controls. This reduces the risk of injury due to a tool or control slipping from your grip.
6. Inspect the cutting edges of your Dies. If necessary, have them replaced prior to using the Threader. Dull or damaged Dies can lead to binding and poor quality threads.
7. When threading, use the attached oiler (oil not included) to inject the thread cutting oil to the die head to lower down the working temperature and lubricate the die head.

NOTE: Thread cutting oil lubricates and cools the threads during the threading operation. A good quality cutting oil is helpful for better thread quality.

OPERATING INSTRUCTIONS

WARNING: Do not wear gloves or loose clothing when operating the Threader. Keep sleeves and jackets buttoned.

WARNING: Do not use this Threader if the switch is broken. Always wear ANSI-approved eye protection to protect eyes from dirt and other foreign objects.

WARNING: When threading pipe 3/in. or larger, use Support Arm to resist high handle force developed during threading.

INSTALLATION OF ADAPTER

An Adapter is required for 1/2in. through 1 1/4in. 11-R Die Heads. Push the Adapter into the Threader and tighten the Ring on the opposite side (Fig. 1 & 2). Installation can only be performed from one side of the Threader.



Fig.1



Fig.2

THREADING WITH 11R DIE HEADS

1. For 1 1/2in.-2in. 11-R Die Heads, push the Die Heads and Spline, end first, squarely into the Threader until the spring engages securely. For 1/2in.-1 1/4in. 11R Die Heads, rotate the Adapter Cap clockwise, then push the Die Heads into the Adapter Spline, end first. Release the Adapter Cap to hold the Die Head (Fig. 3 & 4).

NOTE! Installation can be made from only one side of the Threader.



Fig.3

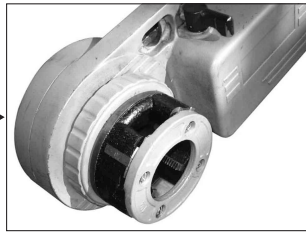


Fig.4

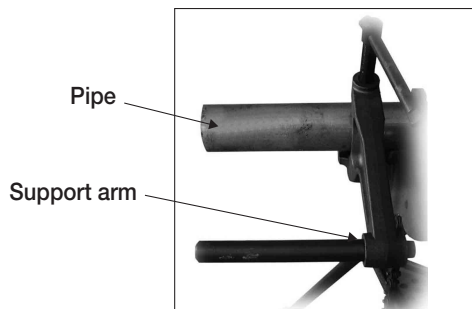
2. If possible, secure the pipe in a portable tri-stand vise or a bench vise.

To prevent tipping, long lengths of pipe should also be supported with pipe stand.

3. Position the Support Arm on the pipe so the end of Support Arm is in line with the end of the pipe (Fig. 5). Make sure the Jaws contact the pipe squarely and then tighten the handle firmly to prevent the Jaws from slipping.

Note! To avoid serious injury from a loss of control of the Threader, the Support Arm should be used when threading 3/4in. or larger pipe.

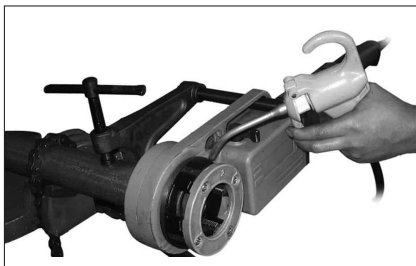
When threading pipe less than 3/4in. in size without the Support Arm, hold on to the Threader firmly with one hand to exert pressure against the handle.



Support arm mounted on pipe.

Fig. 5

4. Place the Die Head over the end of pipe and insert the post of Support Arm through the notch in the Gear Case.
5. Simultaneously actuate the ON/OFF switch and exert pressure against the Die Head with the palm of your free hand to assist in starting the thread. Apply plenty of thread cutting oil to the Dies during threading. This will reduce the torque required to thread and improve the thread quality (Figure 6).



Pipe Threading with 11R type Die head.
We suggest using a specific oiler.

Fig. 6

6. Keep the ON/OFF switch depressed until the end of the pipe is even with edge of the Dies. Release the switch.
7. Back off the Die Head from the threaded pipe, reversing the directional switch and actuating the ON/OFF switch.

CAUTION: Hold on to the Threader handle firmly while backing off the Die Head.

8. When the Dies clear the end of the pipe, grip the handle on top of the Threader and remove the Threader and Die Head from the pipe.

9. Remove the Support Arm from the pipe.

CAUTION: To avoid injury, make sure long sections of pipe are supported at the far end prior to removal.

MAINTENANCE INSTRUCTIONS

WARNING: Make sure the machine is unplugged from the power source before performing maintenance or making any adjustments.

MOTOR BRUSH REPLACEMENT

Check the Motor Brushes every 6 months and replace the Brushes when they are worn to less than 1/4in.

1. Two Carbon Brushes are located on both sides of the Motor Complete (#41).
 2. Periodically remove the Brush Caps with a screwdriver to inspect the Carbon Brushes.
 3. When they are worn to less than 1/4in. they must be replaced. Do not operate the saw if the brushes are worn to less than 1/4in.
 4. The Carbon Brushes must be replaced in pairs. For proper operation, the Brushes should wear equally.
 5. If the Carbon Brushes are dirty, carefully scrape or wipe them off.
 6. When installing, make sure the Carbon Brushes fit closely into their holders, and the Springs operate freely.
 7. Make sure the carbon portion of the Carbon Brushes contacts the Motor Armature, and the springs face away from the motor.
 8. After inspecting or replacing the Carbon Brushes, replace the Brush Caps with a screwdriver, and tighten firmly.
- NOTE: The Carbon Brushes are made of carbon and have the strength of pencil lead. Do not overstress the Carbon Brushes while cleaning or they may break.

TOOL STORAGE

Motor-driven equipment must be kept indoors or well covered in rainy weather. Store the Threader in a locked area that is out of reach of children and people unfamiliar with the Threader. This power tool can cause serious injury in the hands of untrained users.



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TROUBLESHOOTING



WARNING: Always unplug the power cord before servicing the Threader.

PROBLEM	CAUSE	CORRECTION
Motor does not start	The Threader is unplugged	Plug it in to the power source
	The Brushes do not touch Armature	Check the Brushes and replace if worn
Motor sounds overloaded	Overload because of dull Dies	Replace the Dies
	Bad quality or insufficient thread cutting oil	Change the thread cutting oil
Sparks forming at motor	Bad contact between the Brushes and the Brush Holder	Tighten the screws, make sure the Brush is pressed firmly onto the Armature
	Brushes do not touch Armature properly	Replace the worn Brushes
	Sharp edge on Brush	Dull the edge with sand paper
Die Head does not start threading	Dull or broken Dies	Replace Dies
	The machine is running in the wrong direction	Check setting on the direction switch
	Improperly set Dies	Reset Dies
Damaged Thread	Dull Dies	Replace Dies
	Dies not assembled in correct sequence	Put Dies in correct sequence
	Low quality pipe	Make sure only pipe of good quality is used
	Bad quality or insufficient thread cutting oil	Change the thread cutting oil
Support Arm turns while threading	Support Arm Feed Screw not tight	Tighten Feedscrew
	Support Arm Jaws dirty	Clean it with a wire brush
	Support Arm not square on pipe	Make sure it sits square on pipe
Die Heads cannot be changed properly	Burr has occurred at the Spline end of the Die Head	Eliminate the burr with a file
REV/FOR switch doesn't engage	The ON/OFF Paddle switch is released	Don't release the ON/OFF paddle switch and keep the threader running when you want to switch the REV/FOR smoothly

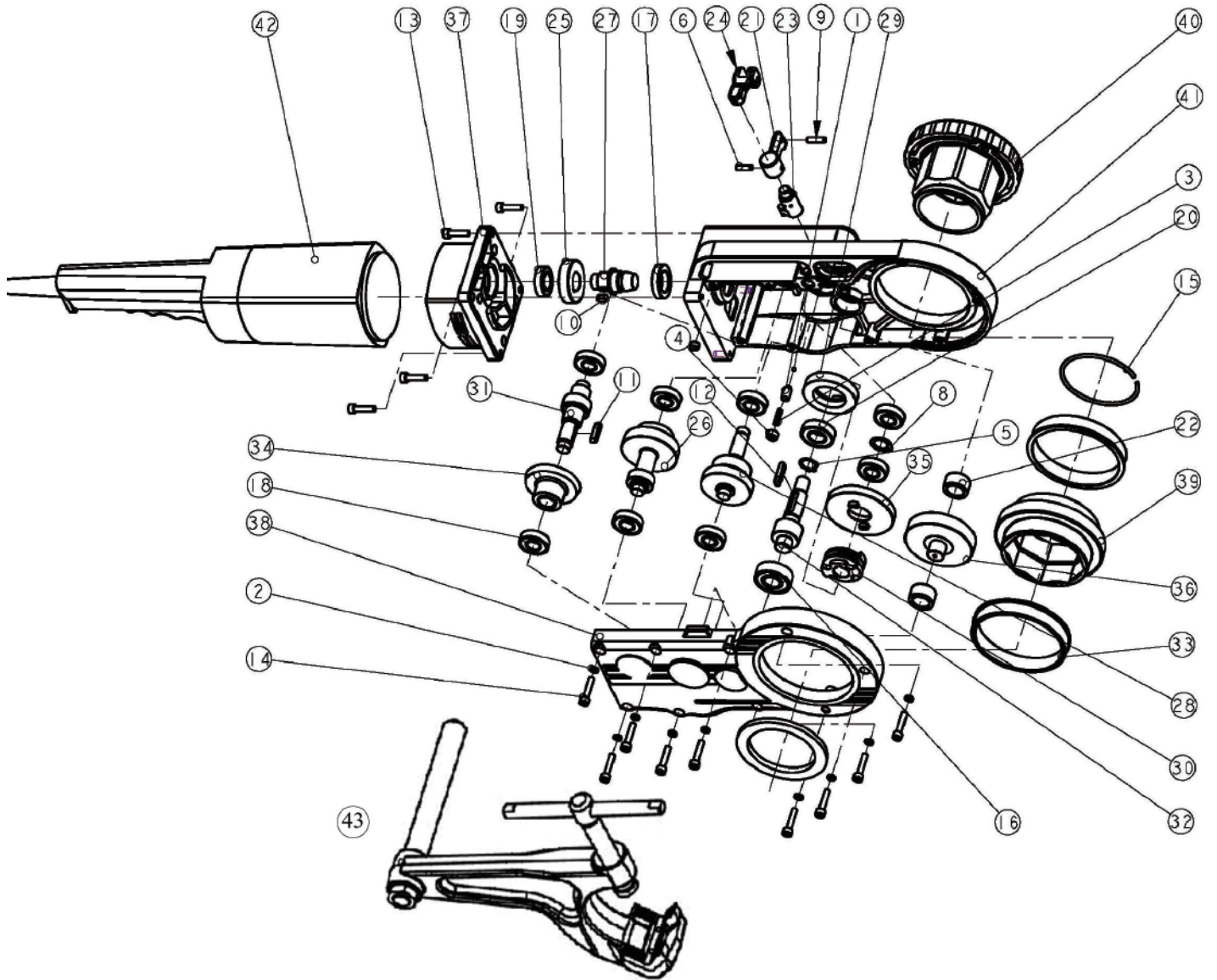
PORTABLE ELECTRIC PIPE THREADER PARTS LIST

S/N	Description
1	Block
2	Washer
3	Spring
4	Screw M10x10
5	Retaining ring 14.7
6	Pin 4x16
7	Bushing
8	Retaining ring
9	Pin 5x18
10	Key 5x10
11	Key 5x22
12	Key 5x25
13	Screw M5x20
14	Screw M5x25
15	Retaining ring

S/N	Description
16	Bearing 202
17	Bearing 1000804
18	Bearing 101
19	Bearing 1000902
20	Bearing 102
21	Directional switch
22	Needle bearing 4524901
23	Switch bar
24	Extension lever
25	Hi-speed gear
26	3 linkage gear
27	Bevel gear
28	Feeding gear shaft
29	Feeding gear

S/N	Description
30	Clutch
31	Conical gear shaft
32	Out-put gear
33	Bearing bronze
34	Bevel gear
35	Clutch gear
36	Gear
37	Mounting plate
38	Gear cover
39	Ring gear
40	Adapter complete
41	Gear housing
42	Motor complete
43	Support arm

PORTABLE ELECTRIC PIPE THREADER DIAGRAM





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WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints,
- Crystalline silica from bricks and cement and other masonry products, and
- Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.



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