



Pipe Threading Machine

MODEL: SQ80C1



WARNING!

Read this Operator's Manual carefully before using this tool. Failure to understand and follow the contents of this manual may result in electrical shock, fire and/or serious personal injury.

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 explosive atmospheres, such as 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.
- Guard or barricade the area when work piece extends beyond machine. A guard or barricade that provides a minimum of three (3) feet clearance around the work piece will reduce the risk of entanglement.

Electrical Safety

- Grounded tools must be plugged into an outlet, properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
- Avoid body contact with grounded surfaces. There is an increased risk of electrical shock if your body is grounded.
- Don't expose electrical tools to rain or wet conditions. Water entering a tool will increase the risk of electrical shock.
- Do not abuse cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electrical shock.
- Use only three-wire extension cords which have three-prong grounding plugs and three-pole receptacles which accept the tool's plug. Use of other extension cords will not ground the tool and increase the risk of electrical shock.
- Keep all electric connections dry and off the ground. Do not touch plugs or tool with wet hands. Reduces the risk of electrical shock.

Personal Safety

- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medications. A moment of inattention 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 switch is OFF before plugging in. Carrying tools with your finger on the switch or plugging in tools that have the switch ON invites accidents
- Use safety equipment. Always wear eye protection. Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

Tool Use and Care

- Do not use tool if switch does not turn it ON or OFF. 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.
- Check for misalignment 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 become hazardous when used on another tool.
- Keep handles dry and clean; free from oil and grease. Allows for better control of the tool.

Machine Safety

- Secure machine to bench or stand. Support long heavy pipe with pipe supports. This practice will prevent tipping.
- Do not wear gloves or loose clothing when operating machine. Keep sleeves and jackets buttoned. Do not reach across the machine or pipe. Clothing can be caught by the pipe or machine resulting in entanglement and serious injury.
- Do not use this machine if the switch is broken.
- Keep hands away from rotating pipe and fittings. Stop the machine before wiping pipe threads or screwing on fittings. Allow the machine to come to a complete stop before touching the pipe or machine chucks. This practice will prevent entanglement and serious injury.
- Do not use this machine to make or break fittings. This practice is not an intended use of the machine and can result in serious injury.
- Tighten chuck handwheel and engage rear centering device on the pipe before turning on the machine. Prevents oscillation of the pipe.
- Keep covers in place. Do not operate the machine with covers removed. Exposure to moving parts may result in entanglement and serious injury.

Description, Specifications

Description

The SQ80C1 threader is an electric motor-driven machine which centers and chucks pipe, conduit and rod (bolt stock) and rotates it while threading, cutting and reaming operations are performed. Threading dies are mounted in self-opening die heads. An automatic oiling system is provided to flood the work with thread cutting oil during threading operations.

Specifications

Threading Capacity Pipe 1/2" through 3"

Chuck Speed Grip Chuck with Replaceable Jaw Inserts

Rear Centering Device....Cam Action Rotates with Chuck

Operating Speed 36 RPM

Motor:

Type..... Universal

Horsepower..... 1700 Watts

Volts 115V / 230V Single Phase AC 50Hz / 60 Hz

Controls FOR/OFF/REV Switch and ON/OFF Foot Switch (vary according to equipment)

Operating Instructions

Installing Pipe In Threader

1. Check to insure the cutter, reamer and die head are swung to UP position.
2. Mark the pipe at the desired length if it is being cut to length.
3. Insert the pipe into the Threading Machine so that the end to be worked or the cutting mark is located about 12 inches to the front of the speed chuck jaws (*Fig 1*).
4. Insert workpieces less than 2 feet long from the front of the machine. Insert longer pipes through either end so that the longer section extends out beyond the rear of the Threading Machine.

Tighten the rear centering device around the pipe by using a counterclockwise rotation of the handwheel at the rear of the Threading Machine. This prevents movement of the pipe that can result in poor thread quality.

6. Secure the pipe by using repeated and forceful counterclockwise spins of the speed chuck handwheel at the front of the Threading Machine. This action "hammers" the jaws tightly around the pipe.



Fig 1

Pipe setup

Installing dies (Fig 2)

1. Place Self-Opening Die Head flat on bench with numbers UP.
2. Make sure trigger assembly is released.
3. Loosen clamp lever.
4. Pull lock screw out of size bar slot so that roll pin in lock screw will bypass slot. Position size bar so that index line on lock screw is all the way to the end of REMOVE DIES position.
5. Remove dies from die head.
6. Insert new dies to mark. Die numbers 1 through 4 must agree with those on die head.
7. Rotate cam plate until roll pin on lock screw can be positioned in slot. In this position dies will lock in die head. Make sure roll pin points toward end of size bar marked REMOVE DIES.
8. Adjust die head size bar until index line on lock screw is aligned with proper size mark on size bar. (For bolt threads, align index line with BOLT line on size bar.)
9. Tighten clamp lever.
10. If oversize or undersize threads are required, set the index line in direction of OVER or UNDER size mark on size bar.

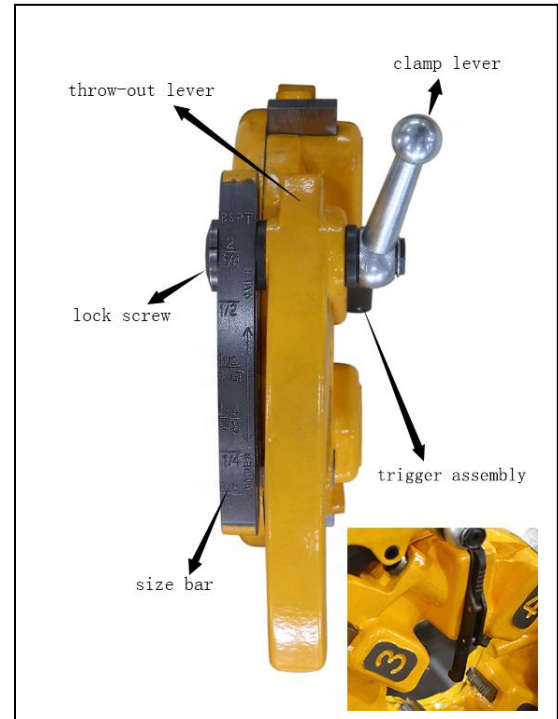


Fig 2

Threading Pipe

1. Swing cutter and reamer to UP position.
2. Swing die head to DOWN position with throwout lever set to CLOSE position.
3. Switch on to start machine.
4. Turn carriage handle to bring dies against end of pipe. Pressure on handle will start dies.
5. Self-Opening Die Head (Figure 3 & 4) – When die head end of pipe contacts trigger, throwout lever is automatically opened on tapered threads.

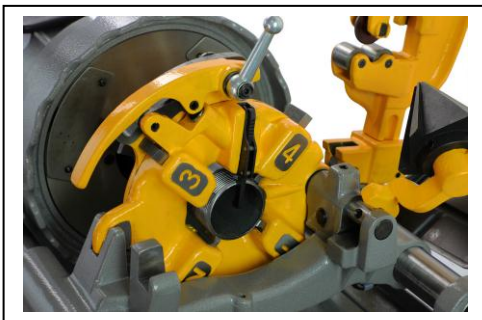


Fig 3 Pipe threading starts.



Fig 4 Automatic trigger off when threads length meets.

6. Turn off switch and turn carriage handle to back die head off.

Cutting Pipe

1. Swing reamer and die head to UP position.
2. Move pipe cutter DOWN onto pipe and move carriage with handle to line up cutter wheel with mark on pipe.
3. Tighten cutter feed screw handle on pipe keeping wheel aligned with the pipe.
4. Grasp the pipe cutter's feedscrew handle with both hands (Figure 5).
5. Switch on to start machine.
6. Tighten the feedscrew handle slowly and continuously until the pipe is cut. Do not force the cutter into the workpiece.
7. Turn off the switch.
8. Swing pipe cutter back to the UP position.



Fig 5

Pipe cutting

Reaming Pipe

1. Move reamer arm into DOWN position (Figure 6).
 2. Switch on to start machine.
 3. Advance reamer into pipe and complete reaming by exerting pressure on handle.
- NOTE! Do not apply excessive pressure on handle.**
4. Return reamer to UP position.
 5. Turn off the switch.

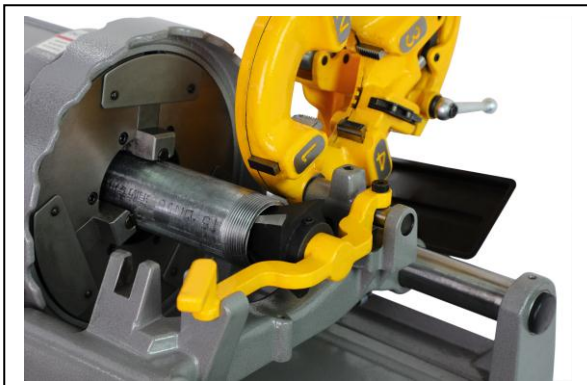


Fig 6

Pipe reaming

Removing Pipe from the threader

1. Turn off the switch.

2. Use repeated and forceful clockwise spins of the speed chuck handwheel at the front of the threader to release the workpiece from the speed chuck jaws.
3. If necessary, loosen the rear centering device using a clockwise rotation of the handwheel at the rear of the Threader.
4. Slide the workpiece out of the Threader, keeping a firm grip on the workpiece as it clears the Threader. To avoid injury from falling parts or equipment tip-overs when handling long workpieces, make sure that the end farthest from the Threader is supported prior to removal.
5. Clean up any spills or splatter on the ground surrounding the Threader.

Maintenance Instructions

Make sure machine is unplugged from power source before performing maintenance or making any adjustment.

Jaw Inserts

1. Clean teeth of jaw inserts daily with wire brush.
 2. Replace jaw inserts when teeth become worn and fail to hold pipe or rod.
- NOTE! Replace entire set of jaw inserts to insure proper gripping of the pipe or rod.

Jaw Insert Replacement

1. Place screwdriver in insert slot and turn 90 degrees in either direction.
2. Place insert sideways on locking pin and press down as far as possible.
3. Hold insert down firmly with screwdriver, turn until teeth face up.

Lubrication

Proper lubrication is essential to trouble-free operation and long life of Threader. Grease main shaft bearings every 2 to 6 months depending upon amount of Threader use. Grease fittings are provided on side base, one at each end of shaft. Use a good grade of cup grease.

Motor Brush Replacement

1. Check motor brushes every six (6) months and replace when worn to less than 1/2 inch.
2. If communicator is worn, the outer dimension of the communicator should be turned and the mica should be undercut before replacing brushes. This should only be done by qualified repair personnel.

Machine Storage

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

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