




SAFETY AND OPERATING MANUAL

PIPE THREADING MACHINE MODEL NO. 250 1" Capacity

Please record your machine Model No. and Serial No. which are located on nameplate.

Model No.	Serial No.
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 **WARNING:** For your own safety and effective operation, read this Safety and Operating Manual carefully and completely before assembling and operating this unit. Failure to understand and follow the contents of this manual may result in electrical shock, fire and/or serious personal injury.

Store this manual on your hand

Save this manual for future reference

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SAFETY INFORMATION

1. Safety Symbols

The purpose of safety symbols is to attract your attention to possible dangers.

The safety symbols, and the explanations with them, deserve your careful attention and understanding.

The safety warnings do not by themselves eliminate any danger.

The instructions or warnings they give are not substitutes for proper accident prevention measures.

SYMBOL	MEANING
	WARNING: Failure to obey a safety warning can result in serious injury to yourself or to others. Always follow the safety precaution to reduce the risk of fire, electric shock, and personal injury.
	CAUTION: Failure to obey a safety warning may result in property damage or personal injury. Always follow the safety precaution to reduce the risk of fire, electric shock, and personal injury.
	NOTE: Advises you of information instructions vital to the operation or maintenance of the equipment.



2. General Safety

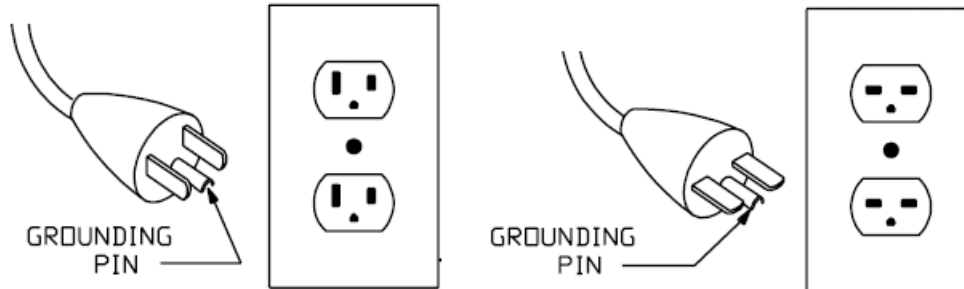
- 1) Read all these instructions in this manual completely and carefully for your protection against serious injuries.
- 2) Save this manual. Refer to them frequently and use them to instruct other users.

3. Personal Safety

- 1) Stay alert, watch what you are doing and use common sense when operating a power tool. Never operate machine when tired or under the influence of drugs or alcohol. A moment of inattention while operating machine may result in serious personal injury.
- 2) Do not wear gloves, loose clothing or jewelry that can get caught in machine's moving parts and cause serious injury. Cover up or tie up long hair. Keep sleeves and jackets buttoned for reduction of risk any accident.
- 3) Always wear safety glasses.
- 4) Protect your hearing by earmuffs or earplugs. If you use machine daily or in a noisy area.
- 5) Protect your lungs by using dust mask when work area is dusty.
- 6) Keep your hands and face away from dies, cutter blade, auto-chuck or other moving parts.
- 7) Avoid accidental starting. Make sure switch is OFF position before plugging in. Plugging in tools in that have the switch ON invites accidents.
- 8) Keep hands away from rotating pipe and fittings. Stop the machine before wiping pipe or screw. Allow the machine to come to a complete stop before touching the pipe or machine chucks. This practice will prevent serious injury.
- 9) Tighten rear and front chuck and engage rear centering device on the pipe before turning on the machine for reducing risk of accident.
- 10) Do not over-reach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.
- 11) Unplug power cord when not in use, before making any adjustments, changing accessories, or storing the tools. Such prevention safety measures reduce risk of starting tool accidentally.

4. Electrical Safety

- 1) In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances. Never modify the plug provided – if it will not fit the outlet, have the proper outlet installed by a qualified electrician.



- 2) Avoid body contact with grounded surfaces. If your body is grounded, There is an increased risk of electrical shock
- 3) Never expose electrical tools to rain or wet condition. Water entering a tool will increase the risk of electrical accident.
- 4) Do not abuse cord. Never carry machine by the cord or yank the cord to disconnect it from outlet. Keep cord from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords will cause the risk of electrical shock.
- 5) When used outdoors, use only extension cord intended for use outdoors and so marked.
- 6) Use only three-wire extension cords which have three-prong grounding plugs and three-pole receptacles which accept the tool's plug.
- 7) Use extension cord in good condition. Make sure to use one heavy enough to carry the current the machine will draw. An undersized cord will cause a drop on line voltage resulting in loss of power and overheating. The extension cord chart shows the correct sizes to use depending on cord length and ampere rating.

Minimum gage for cord

Ampere Rating on Nameplate	Total length of cord in feet (30cm)			
	0 - 25	26 – 50	51 – 100	101 – 150
0 – 6	18 AWG	16 AWG	16 AWG	14 AWG
6 – 10	18 AWG	16 AWG	14 AWG	12 AWG
10 - 12	16 AWG	16 AWG	14 AWG	12 AWG
12 – 16	14 AWG	12 AWG	Not Recommended	
MCC Model No.250	18 AWG	16 AWG	14 AWG	12 AWG

- 8) Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.
- 9) Keep all electric connections dry and off the ground. Do not touch plugs or tool with wet hands. Reduce the risk of electrical shock.

5. Work Area Safety

- 1) Keep the work area clean. Cluttered work area invite accident.
- 2) Do not use machine in dangerous environment. Do not use machine near gasoline or other flammables or gases, or in damp locations. Do not expose machine to rain or direct sunlight. Keep work area well lighted.
- 3) Keep floors dry and free of slippery materials such as oil. Slippery floors invite accidents.
- 4) Keep children away from work area. All visitors should be kept at a safe distance from the work area. Guard or barricade for the work area when work piece extends beyond machine will reduce the risk of accident.

- 5) When not in use, machine should be stored in a dry and locked-up place out of the reach of children.
- 6) Never leave the machine running unattended. Turn off the power and stay there until machine comes to a complete stop.

6. Machine Safety

- 1) Threading machine is made to thread and cut pipe or bolt. Follow instruction on proper use of this machine. Do not use for other purpose such as drilling holes or turning winches. Other uses or modification this power drive for other applications may increase the risk of serious accident.
- 2) Secure machine to bench or stand. Support long heavy pipe with supports. This practice will prevent tipping.
- 3)
- 4) Remove hex keys and adjusting wrenches from machine before operation.
- 5) Do not force machine. It will do the job better and safer at the rate for which it is designed.
- 6) Maintain the machine with care. Periodically check lubrication and consumables. Replace cutting oil or dies when necessary. Inspect extension cord periodically and replace if damaged.
- 7) Use only manufacturer's recommended accessories. Consult this manual for recommended accessories. Using improper accessories may increase the risk of injury.
- 8) Do not use machine if switches are broken or switch does not turn it ON or OFF. Any tool that can not be controlled with the switch is dangerous and must be repaired.
- 9) Check for broken or damaged parts and alignment of moving parts before using machine. Repair or replace damaged parts by an authorized dealer to insure proper operation of the machine. Use only genuine MCC replacement parts. Poorly maintained machine cause risk of accident.
- 10) Keep handles dry and clean and free from oil and grease for better control of the machine.

ELECTRICAL CONNECTION

Your MCC Threading Machine is powered by a precision built electric motor.

It should be connected only to a power source that satisfies the power input listed on the machine's nameplates.

If the nameplate is marked AC or 60 or 50Hz, the machine must be operated only with alternating current (normal household current).

Never operate the machine with a direct current (DC), such as a generator. A substantial voltage drop will cause a loss of power and overheating.

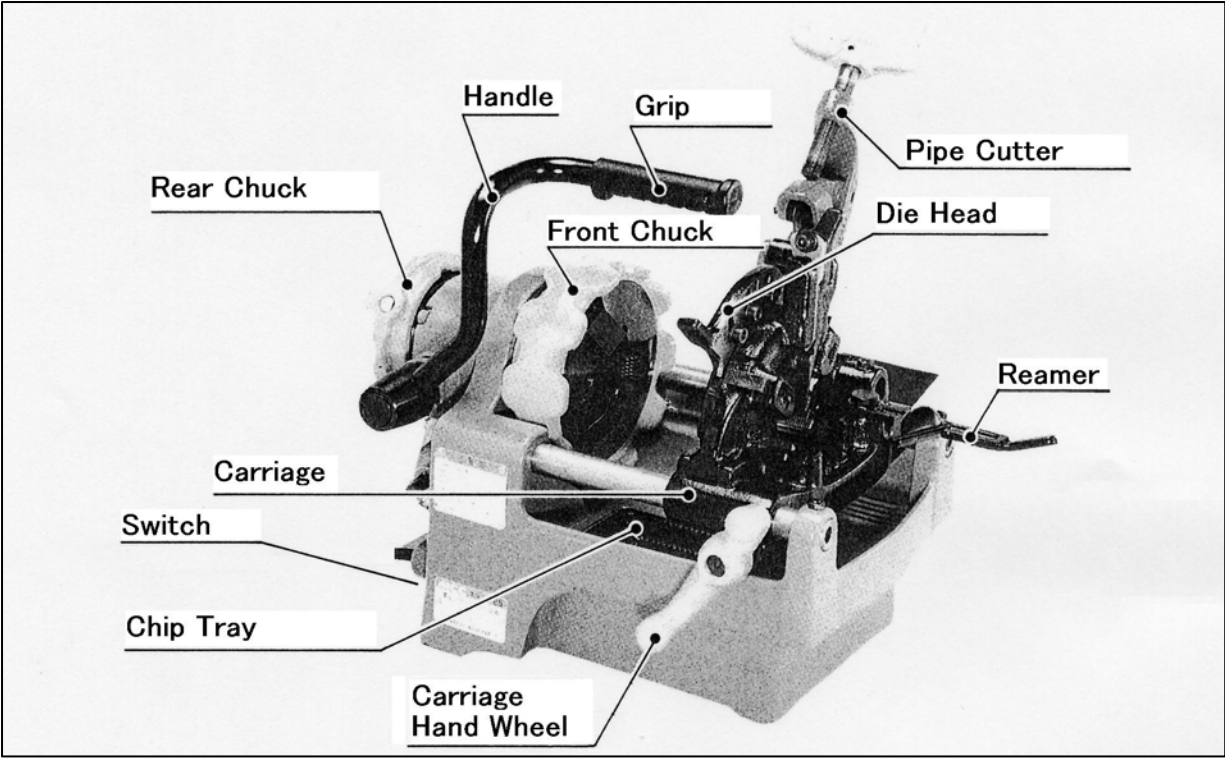
If the machine does not operate when plugged into an outlet, make sure the power supply rating.

WARNING: Keep the cord away from the work area and position the cord so that will not be caught on the work pieces, tools, or other objects during threading.



Parts Name for MCC Pipe Threading Machine

Model No. MCC250



Description, Specifications and Standard Equipment

Description

The MCC Model No.250 Threading Machine is an electric motor-driven machine that centers and chucks the pipe and rotates it while cutting, reaming and threading operations are performed. Threading dies are mounted in the automatic opening die head. An integral oiling system is provided to flood the work with thread cutting oil during the threading operations.

Specification

Model No.	MCC 250
Die Head	Automatic Opening Type
Threading Capacity	Pipe 1/2" through 1" NPT or BSTP
Motor	Single Phase Motor 350W 50/60Hz
Rotation Speed	58 RPM (No-Load)
Controls	Toggle Switch and
Dimension (mm)	L: 372 x W: 324 x H: 310
Weight (kg)	21 Kg

Standard Accessories

- | | | |
|--------------------------------------|-----------|-----------|
| 1) Pipe Die Head (1/2" through 1") | | 1 set |
| 2) NPT or BSPT Pipe Dies (1/2"-3/4") | | 1 set |
| 3) NPT or BSPT Pipe Dies (1") | | 1 set |
| 4) MCC Cutting Oil | | 1 Liter |
| 5) Hex Keys | | 5 mm/each |
| 6) Instruction Manual | | 1 pc |

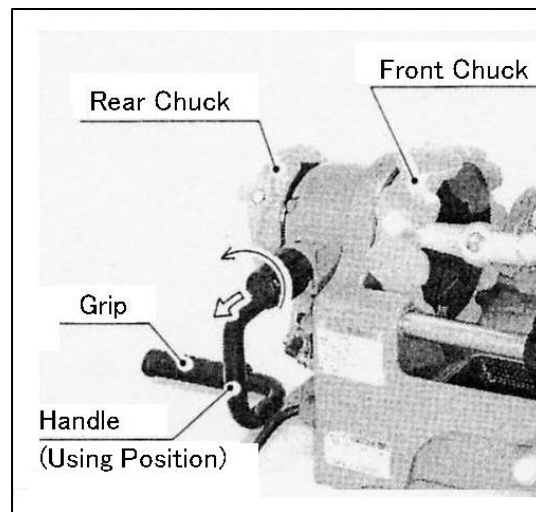
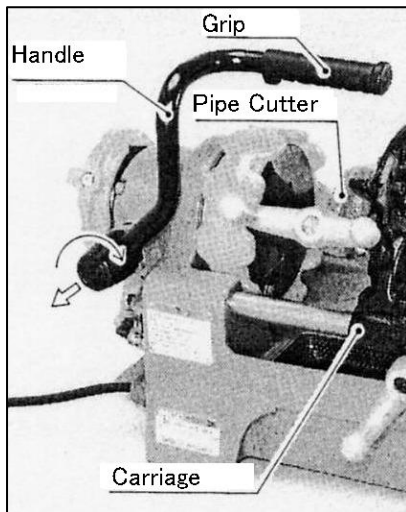
Optional Equipments/Accessories

- 1) Machine Stand
For MCC250 and MCC400
- 2) Pipe Support for MCC250
- 3) MCC Cutting Oil W (for waterworks pipe)
4 liter
10 liter

Preparing for Operation

1. Machine Mounting

To prevent serious injury, proper mounting of the machine is required. The following procedures should be completed.



- 1) Pull the Handle towards front in order to swivel the Handle.
- 2) Swivel the Handle until the Handle is locked as shown in the picture (R). Grip should touch the mounting base(floor, stand, or bench) and your machine should tilt to the right for avoiding the cutting oil coming out from the pipe end at your left side while threading.
- 3) For unlock the Handle, pull the Handle towards front again.

WARNING: Failure to mount the threading machine to a stable floor, stand or bench may result in tipping and serious injury.



2. Machine Inspection

To prevent serious injury, inspect your threading machine on a daily basis in accordance with following procedure.


- 1) Make sure your threading machine is unplugged and the ON/OFF switch is set to OFF position.
- 2) Inspect the jaw in the front chuck for excessive wear. If it is worn down, it needs replacement.
- 3) Inspect the Grip of Handle for any degradation. The sever damage causes risk of injury which might be caused the grip removing from the handle.
- 4) Inspect the power code and plug for damage. If the plug has been modified, is missing the grounding pin, or if the cord is damaged, do not use the threading machine until the cord has been replaced.
- 5) Inspect the threading machine for any broken, missing, misaligned parts as well as any other conditions which may affect the safe and normal operation of the machine.

WARNING: Do not use the threading machine until any problem has been repaired. The machine with any broken, missing, misaligned parts can cause serious injury.



- 6) Lubricate the threading machine if necessary according to the Maintenance Instructions.
- 7) Use tools and accessories that are designed for your threading machine. The correct tools and

accessories allow you to do the job successfully and safely.


 **WARNING:** Do not use any accessories designed for use with other equipment. It can cause serious injury. The machine allows using only the attachment or accessory designed for this machine.

- 8) Clean any oil, grease or dirt from all handles and controls. This reduces the risk of injury due to a tool or control slipping from your grip.
- 9) Inspect the cutting edges of your tools and dies. If necessary, replace them prior to using the threading machine.
- 10) Clean metal shavings and other debris from the chip tray of the threading machine. Check the level and quality of the cutting oil. Replace or add oil if necessary. The suitable quantity is 80% of the tank inside. Cutting oil lubricates and cools the threads during the threading operation. A dirty or poor grade cutting oil can result in poor thread quality and reduce die life.
- 11) To drain dirty oil and replace the oil, refer to the Maintenance Instructions.

3. Machine and Work Area Set-Up

To prevent serious injury, proper set-up of the machine and work area is required. The following procedures should be completed.

- 1) Locate a work area properly by considering adequate lighting, eliminating flammable liquids, vapors or dust
- 2) Make sure the grounded electrical outlet.
- 3) Clear path to the electrical outlet that does not contain any sources of heat or oil, sharp edges or moving parts that may damage electrical cord.
- 4) Dry place for machine and operator. Do not use the machine while standing in water.
- 5) Make sure the level ground for mounting your threading machine.
- 6) Clean up the work area prior to setting up any equipment. Always wipe up any oil that may have splashed or dripped from the machine to prevent slips and falls.
- 7) If the workpiece extends more than four (4) feet beyond the threading machine, use one or more pipe stands to prevent tipping and the oscillation of the pipe.
- 8) If the workpiece extends beyond the threading machine, set-up guards or barricades to avoid any accident.
- 9) Make sure ON/OFF switch is in the OFF position.
- 10) Stand facing the machine.
- 11) Have convenient access to the ON/OFF switch, tools and chucks without reaching across the machine. Machine is designed for one person operation.
- 12) Plug the threading machine into the electrical outlet making sure to position the power cord along the clear path selected earlier. If the power cord does not reach the outlet, use an extension cord in good condition.
- 13) To avoid electrical shock and electrical fires, never use an extension cord and understand the "Electrical safety" in "Safety Information" well

 **WARNING:** Keep all electrical connections dry and off the ground. Do not touch plug with wet hands. Otherwise, you can not avoid the risk of electrical shock.

- 14) Check the threading machine to insure it is operating properly.
- 15) Flip the switch to ON. Check that the threading machine rotates in a counterclockwise direction as you are facing the front chuck.
- 16) Inspect the moving parts for misalignment, binding, odd noises or any other unusual conditions that may affect the safe and normal operation of the machine. If such conditions are present, have the machine serviced.
- 17) Flip the switch to OFF.

4. Cutting Oil Lubrication

WARNING: FIRST AID TREATMENT



If oil gets in eyes, wash them with pure water and see a doctor.

If oil sticks to skin, wash well with water and soap.

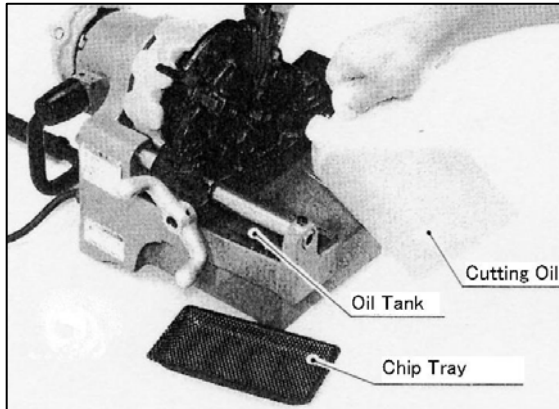
If swallowed, do not induce vomiting and see a doctor.

If inhaled mist, move to the clean place, cover with blanket, keep warm and quiet and see a doctor.

Use genuine MCC Cutting Oil W 1 Liter can.

MCC cutting oil W improves the finished screw surfaces and extends Die's service life.

MCC Cutting oil W is suitable for water works pipe for easy washing.



1) Remove Chip Tray from oil tank.

[NOTE]

Remove foreign substance from oil tank.

Change the whole oil if rain turns the oil cloudy or dirty.

(See page 17.)

2) Fill the tank 80% full with the cutting oil.

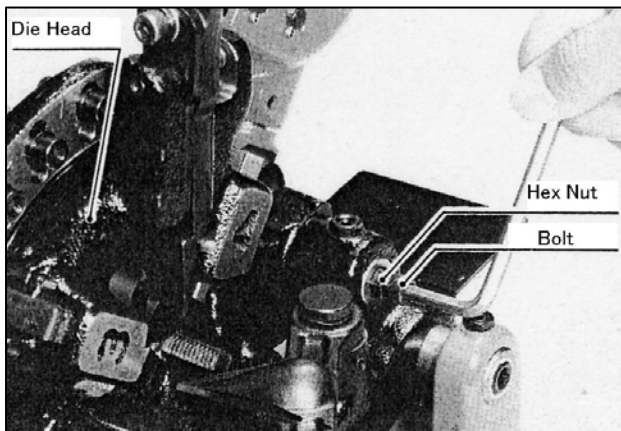
3) Reinstall Chip Tray.

STORAGE

Store machine in a place inaccessible to children and out of the way of people. This is chemical product. Never leave machine in an area exposed to direct sunlight. Always store it in a cool, dark location. Make sure that Punching Plate is tightly in place and the machine is covered when not in use to avoid contamination (e.g. dust and moisture).

Adjustment of the oil flow

The flow of oil out of die head can be increased or decreased by adjusting oil control bolt.



1) When Die Head is down in working position, the cutting oil starts to flow.

2) First loose the Hex Nut. To increase oil flow, turn the Bolt clockwise and to reduce, turn the Bolt counterclockwise.

3) Be sure to tighten the Nut after adjustment.

[REFERENCE]

When Die Head is swung back to out-of-way position, cutting oil does not flow.

Machine Operation

WARNING: * Always read and follow "Safety Information" (See Page 3) and "Preparing for Operation"(See Page 8)



- * SHARP! Do not touch cutting edges.
- * Moving Parts! Keep hands and face away from moving blades and parts. Moving parts could pull in objects such as clothing, hair, jewelry and fingers.
- * If there is a problem or malfunction, IMMEDIATELY stop the machine and disconnect the power cord.
- * Always remove the chip and keep machine clean before and after operation.
- * After operation, switch off and disconnect Power Cord.

Failure to follow these instructions could result in Serious Personal Injury.

1. Installing and Removing the Pipe

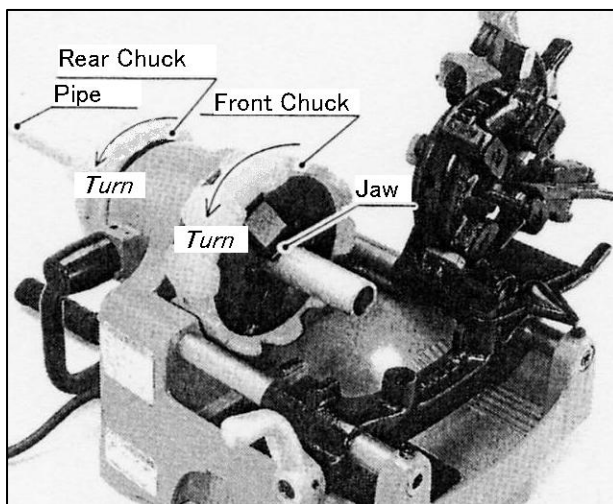
Installing Pipe

WARNING: * Keep power off and unplug power cord when installing pipe



- * Do not touch cutting edges.
- * Make sure that work area is clear before inserting long pipe.

Failure to follow these instructions could result in Serious Personal Injury.



- 1) Swing Pipe Cutter, Die Head and Reamer back to their upright position.
- 2) Open Rear Chuck and Front Chuck enough to insert pipe.
- 3) Insert pipe from Rear Chuck side.
- 4) Close Rear Chuck turning as shown the left figure.
- 5) Holding pipe in right hand, close Front Chuck with left hand by rotating hand wheel toward you until Chuck Jaws engage pipe.
- 6) Tighten Chuck Jaws with a repetitive counterclockwise snap spin of external hand wheel of Front Chuck.

Removing Pipe

WARNING: SHARP!



Do not touch cutting edge of Reamer with hands because It is sharp.

* Reverse the installing procedure to remove pipe.

- 1) Make sure machine is completely stopped.
- 2) Open Front Chuck and Rear Chuck enough to remove the pipe.
- 3) Remove the pipe.

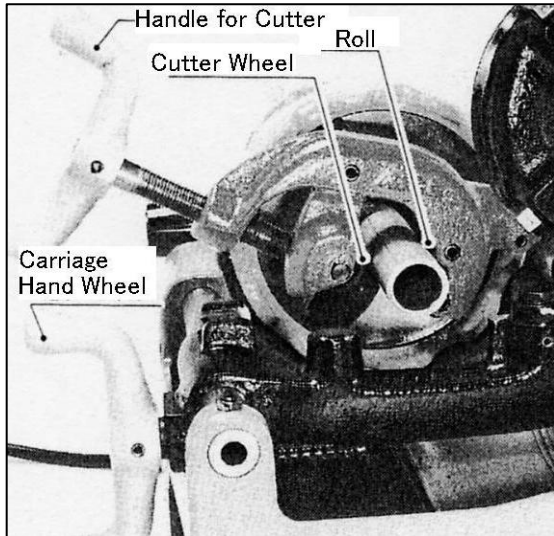
CAUTION: Pipe can be dangerous.



Check to see that there is no one around machine when removing pipe, especially long pipe.

2. Cutting Pipe

- WARNING:**
- * Be sure to inspect machine for broken or damaged parts before using machine.
 - * SHARPI Do not touch cutting edges.
 - * Do not wear gloves, loose clothing or jewelry that can get caught in machine's moving parts and cause serious injury. Cover up or tie up long hair.
 - * Keep hands and head away from blades, moving part or chip flow chute.
 - * Use pipe support for long pipes.



- 1) With Reamer and die head in their upright position, loosen handle and open Cutter Wheel enough to insert pipe.
- 2) Pull down Pipe Cutter toward you and move Carriage to line up Cutter Wheel to desired cut off mark.
- 3) Switch the power ON and cut the pipe by turning handle slowly.
- 4) When cutting is completed, switch the power OFF and return Pipe Cutter to out of way position.

[ATTENTION]

Cut slowly. Rapid cutting tends to produce inner burrs and pipe deformation.

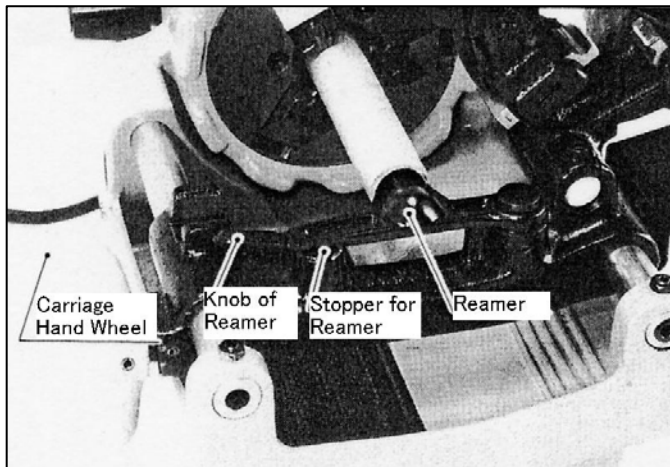
3. Reaming Pipe

- WARNING:**
- * Be sure to inspect machine for broken or damaged parts before using machine.
 - * SHARP! Do not touch cutting edges.
 - * Do not wear gloves, loose clothing or jewelry that can get caught in machine's moving parts and cause serious Injury. Cover up or tie up long hair.
 - * Keep hands and head away from blades, moving part or chip flow chute.
 - * Use pipe support for long pipes.



[CAUTION]

Reaming should always be done before threading. Reaming after threading will expand the bore of the Pipe resulting in thread deformation.



- 1) With Pipe Cutter and die head in their upright position, swing Reamer just in front of Stopper. Make sure that Reamer securely mount on the Stopper.
- 2) Feed the Carriage toward pipe.
- 3) With slight hand wheel pressure, feed Reamer into pipe to achieve desired ream.
- 4) Turn machine off and return Reamer to back position.

4. Threading Pipe

WARNING: * Be sure to inspect machine for broken or damaged parts before using machine.

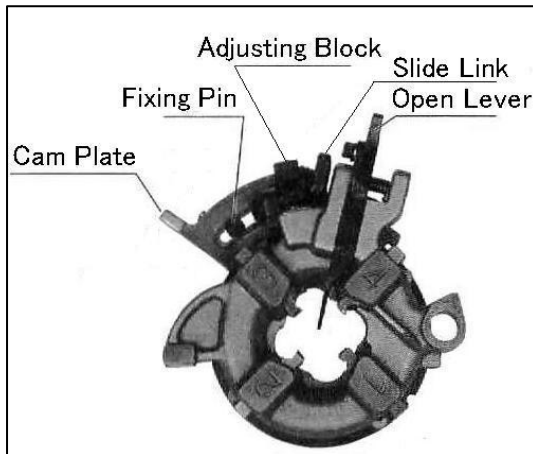


- * SHARPI Do not touch cutting edges.
- * Do not wear gloves, loose clothing or jewelry that can get caught in machine's moving parts and cause serious injury. Cover up or tie up long hair.
- * Keep hands and head away from blades, moving part or chip flow chute.
- * Use pipe support for long pipes.
- * Handle with care to insure Automatic Open System accuracy
- * Before operation, ascertain whether Open Lever moves smoothly. If not, lubricate to the sliding parts.

CAUTION: Be sure to set the pipe with more than 2 inch length from Front Chuck surface.



The pipe which is less than 2 inch from Front Chuck surface cause Die Head hitting Jaws.



1) Push Open Lever and Release to set initial position.

2) Clipping Slide Link and Die Head as shown in figure, slide the Slide Link until the Open Lever set in.

3) With die head in working position and Pipe Cutter and Reamer in upright position, switch the power ON. Cutting oil automatically flows out from Die Head.

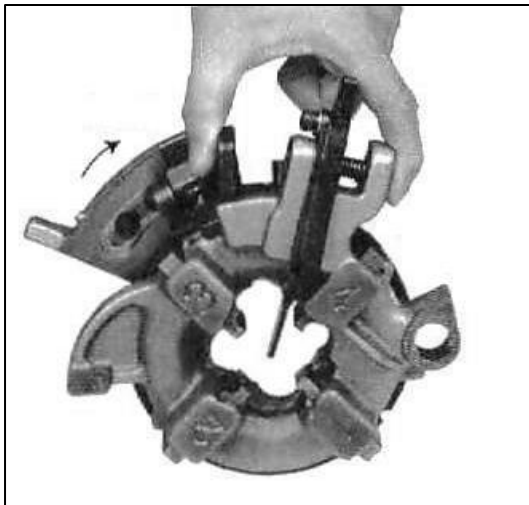
3) Feed Carriage towards Front Chuck to bring die head against end of pipe. Continue to apply pressure to hand wheel to start threading.

4) When pipe is threaded in proper length, Slide Link is released automatically by Open Lever slide out off. It is unnecessary to release the dies from the pipe by operator.

5) Switch the power OFF. Turn Carriage Hand Wheel to back Carriage away from Front Chuck, and disengage die head from pipe

6) Check if thread length is correct

7) Wash oil off the pipe.



Adjustment of Die Head

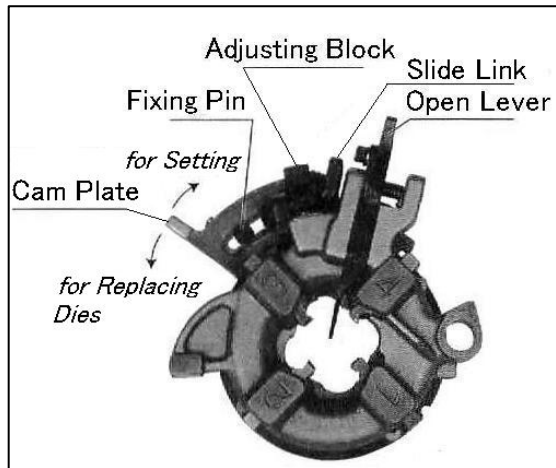
WARNING: * Always read and follow "Safety Information" (see page 3) and "Preparing for Operation" (Page 8) before using machine.



* Always unplug power cord before servicing machine.
* Do not touch cutting edges because they are sharp.

Failure to follow these Instructions could result In serious personal injury

1. Replacement of Dies

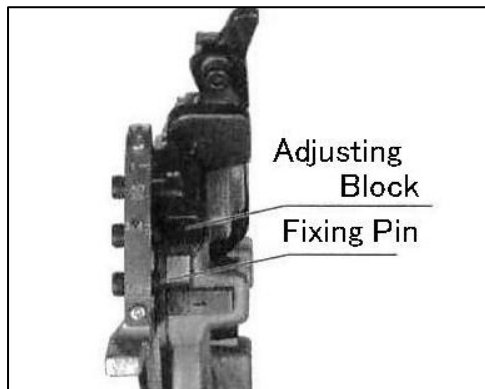


- 1) Remove Adjusting Block from Fixing Pin and turn Cam Plate counterclockwise all the way. It allows you to displace all the Dies.
- 2) Confirming the numbers indicated on Dies and each slot on Die Head to be matched, insert each Die until you feel a click.

*** Insert Dies Into Die Head until ball position in die head engages V notch in Die. Feel the click.**

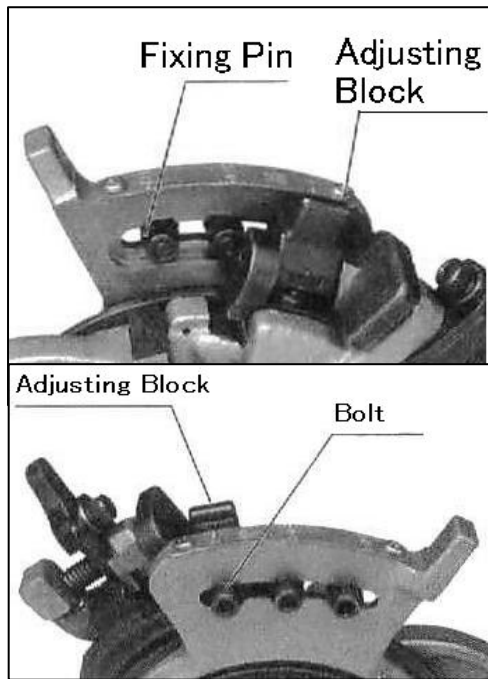
- 3) Slide the Cam Plate back and forth to see if all Dies are engaged properly. Please check the following if any Die doesn't move when Cam Plate is operated.
 - A. Number on Dies and Die Head
 - B. Right-to-Left side of Dies
 - C. Position of the Dies inserted
(Contact V notch with Steel Ball)

2. Selection of Size



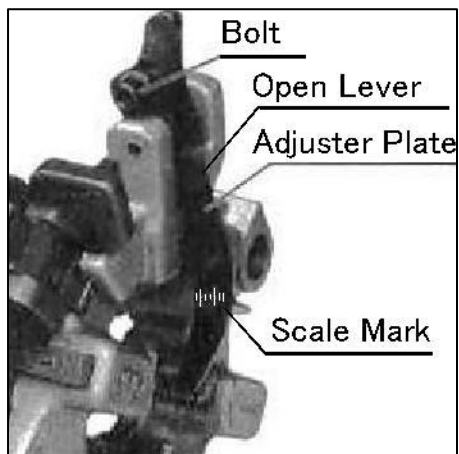
- 1) Remove Adjusting Block from Fixing Pin and move the Cam Plate until where your requested size is made. Set the Adjusting Block to the Fixing Pin again.

3. Adjustment for thread O.D.



- 1) Set the Adjusting Block to the Fixing Pin of which size need to be modified on you request
- 2) Loosen the Bolt penetrating the Cam Plate.
- 3) To make larger thread, turn Cam Plate counterclockwise. To make smaller thread, turn Cam Plate clockwise.
- 4) Tighten the Bolt and conduct a test cutting.

4. Adjustment for thread length



- 1) Loosen the Bolt on top of the Open Lever.
- 2) Adjust the Adjuster Plate using the scale on the Open Lever.
- 3) To make thread longer, move Adjuster Plate to the Front Chuck. To make thread shorter, move Adjuster Plate to opposite direction.
- 4) Tighten the Bolt and conduct a test cutting.

Maintenance Instruction

WARNING:



Always unplug Power Cord before servicing machine.

1. Lubrication

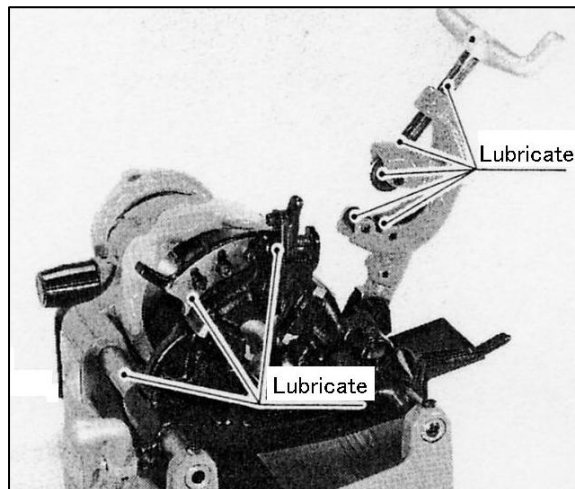
(1) Where to lubricate

Lubricate to Feed Screw, Cutter Wheel, Cutter Roller and Carriage(Support Bar) for smooth Operation.

(2) Automatic Opening Die Head

When Open Lever does not move smoothly, Lubricate to the following parts.

- Open Lever
- Slide Link
- Cam Plate
- Other Friction Part



2. Carbon Brush Replacement

WARNING:



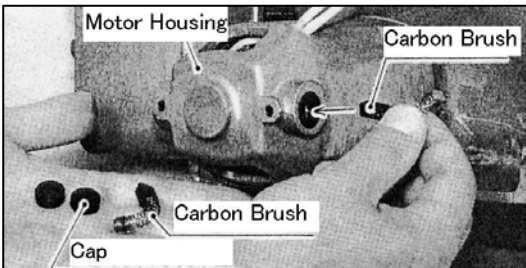
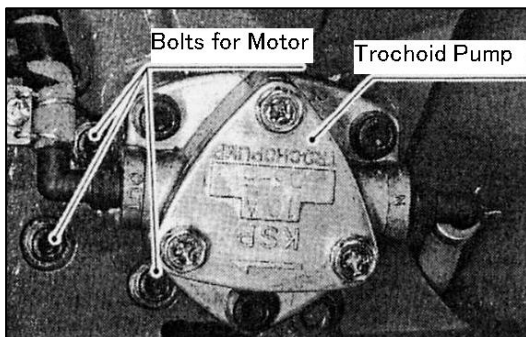
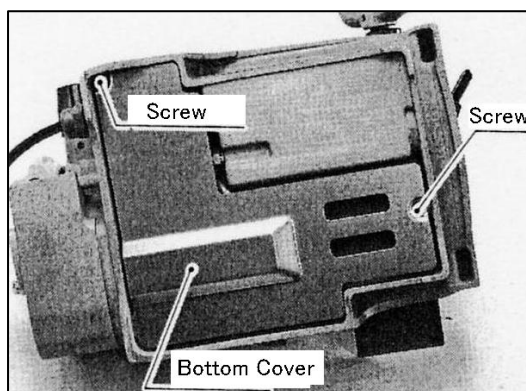
Always unplug Power Cord before servicing machine.

When Carbon Brush wears out, motor automatically stops. Follow the steps below to replace Carbon Brushes.

[NOTE]

Replace both two Carbon Brushes at the same time.

- 1) Remove all of the Oil in the Oil Tank cleanly and turn the machine upside down.
- 2) Loosen two screws and remove the Bottom Cover
- 3) Loosen the three Bolts next to the Trochoid Pump.
- 4) Slide and remove the Motor Housing from the Main Body.
- 5) Remove Carbon Brush Cap with a flat-head screwdriver.
- 6) Remove old Carbon Brushes and install new.
- 7) After installing new Carbon brushes, reverse the above procedures to close cover.



3. Cleaning

(1) Cleaning Oil Tank

WARNING: FIRST AID TREATMENT



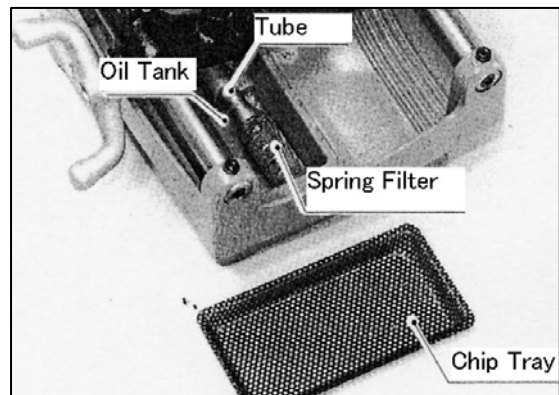
If oil gets in eyes, wash them with pure water and see a doctor.
If oil sticks to skin, wash well with water and soap.
If swallowed, do not induce vomiting and see a doctor.
If inhaled mist, move to the clean place, cover with blanket, keep warm and quiet and see a doctor.

Clean Oil Tank about once a month and remove impurities and small metal chips.

[NOTE]

Replace thread cutting oil when it becomes dirty or Contaminated.

- 1) Remove Chip Tray.
- 2) Remove cutting oil and clean oil tank and Spring Filter.
- 3) Refill Oil in the oil tank 80% full with proper cutting oil.
Do not dilute or mix proper oil with other oil or liquid.
- 5) Reinstall Chip Tray.
- 6) Seal the container of old oil and properly dispose it.



(2) Cleaning Carriage

Carriage should move smoothly. If not, clean Support Bar.

(3) Cleaning the surface

Wipe the surface of machine with soft dry cloth.

[NOTE]

Do not use thinner, benzine, gasoline, oil, earth oil, etc. to clean machine. Failure to follow this instruction may cause the surface finish to peel off.

(4) Clearing metal chips

Remove metal chips from the setting flutes of Die Head, Pipe Cutter and Reamer.
Always keep Chip Tray clean.

Trouble Shooting

WARNING:



Never attempt to repair the machine by yourself beyond the list of maintenance tips stated below. Always contact your nearest dealer or distributor for all service, maintenance and repair needs.

Failure to follow any of these instructions may cause electrical shock, serious personal injury, death or damages to machine.

The following list of suggestions may be helpful in handling minor problems. If any problems persist after attempting these remedies, IMMEDIATELY unplug power cord and contact nearest dealer.

PROBLEMS	CHECK LIST	MAINTENANCE TIPS
Threading oil does not flow	Is Oil Tank full of cutting oil? Is Chip Tray and Filter clean? Is pump working?	Fill Oil Tank to 80% full. (See Page 10) Clean Chip Tray, Sink Filter and Oil Tank. Contact your dealer.
Low Power	Is the power voltage high enough and not too low? Is the extension cord not too long or thin?	Make sure correct voltage is used. Extension cord should be over AWG14 (2.0 mm ²) and as short as possible.
Motor does not start	Is Power cord plugged in? Are Carbon Brushes worn out?	Plug Power cord into outlet firmly. Replace Carbon Brushes.
Threads are not normal	Is cutting oil not contaminated or duty? Is the pipe not deformed? Is the end of the pipe cut at a right angle? Are dies chipped or worn out?	Replace cutting oil and clean Oil Tank. Deformation of pipe cause non-standardized threads. Use non-deformed pipes. Cut the pipe at a right angle Replace Dies. (See page 14)
No thread can be made.	Is Dies size correct? Does number on die agree with number on die head? Is size adjustment of Die Head correct?	Check Dies size and replace them. (See page 14) Match numbers on Dies and Die Head slots. (See page 14) Find the correct size and follow instruction of "Adjustment of Die Head" (See page 14)



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