

OPERATION MANUAL REX N25A

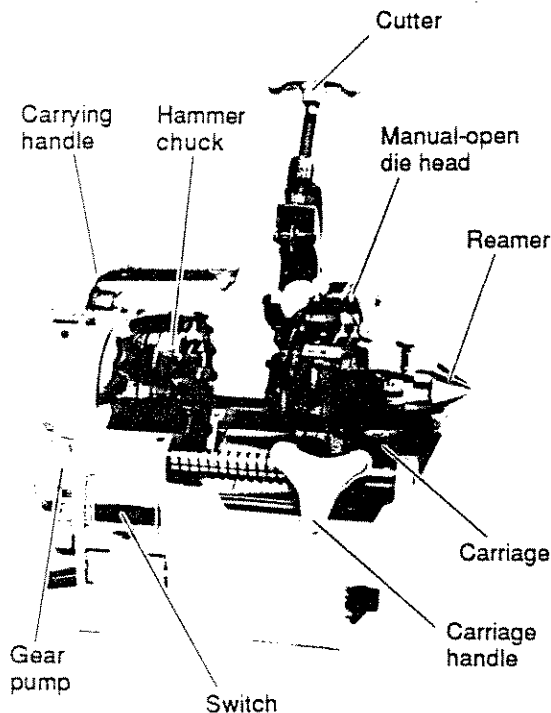


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Part Names, Specifications and Accessories



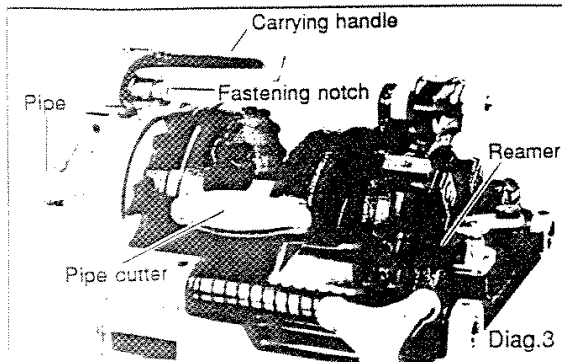
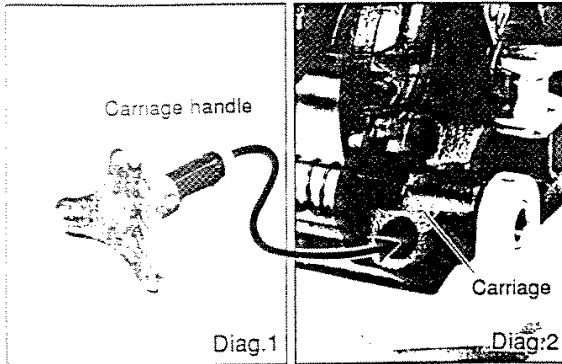
■ Specifications

Threading capacity:	1/2-1*(threading, cutting, reaming)
Voltage:	120V and 220V models available
Motor:	Single phase 330W series motor
Rotation speed:	50rpm (no load condition)
Net weight:	33 lbs (15kg)
Dimensions:	305(L)X240(W)X267(H)mm

■ Standard Accessories

Die head:	Manual-open (1/2-1") for N25A
Dies (BSPT or NPT):	(1/2-3/4") for N20AIII, (1") for N25A, one each
Hexagonal keys:	3, 5mm, one each
Carriage handle:	1 pc

Preparation



This machine fits into the case with the carriage handle removed. After taking the machine out of the case, install the handle as shown in diagrams 1 and 2.

1. Transportation

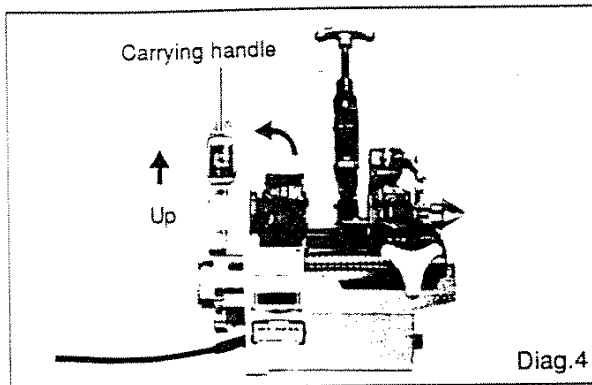
It is not necessary to drain the oil when transporting this machine.

To prepare the machine:

1. Insert a short pipe and tighten the chuck firmly.
Caution: Make sure the length of the pipe is short enough to allow the die head to be lowered into position for transportation.
2. Release the lever nut and open the dies. Place the eccentric handle in the threading position so that the dies will not drop out of the die head.
3. Place the reamer arm in the reaming position.
4. Lower the pipe cutter and turn the carriage handle clockwise to advance the cutter towards the chuck.
5. Turn the cutter handle, and secure the roller and pipe. The machine should then be secure during transportation.

When transporting the machine, place the carrying handle in the position shown in diagram 3 and check to make sure that the fastening notch is in far enough. Then lift the machine by the carrying handle to transport it.

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2. Setting Up

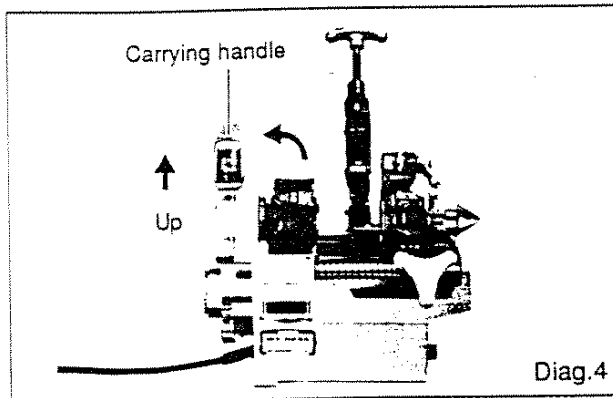
1. When setting up the machine, the side on which the carrying handle is located should be slightly more elevated than the hammer chuck so that oil does not flow back down the pipe being cut.
2. While pulling back the fastening notch, place the carrying handle in the position shown in diagram 4.



3. Operating Voltage

■ Power Supply

Before using, check the voltage on the nameplate. Only AC power should be used and you should always ground the machine before use. If an extension cord is used, it must be as short as possible and of sufficient capacity to carry the power needed by the motor.



Diag.4



Diag.5

2. Setting Up

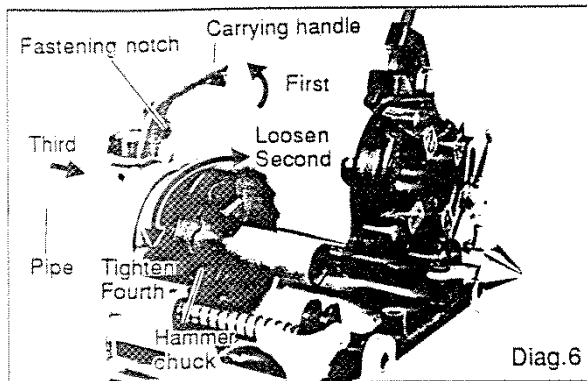
1. When setting up the machine, the side on which the carrying handle is located should be slightly more elevated than the hammer chuck so that oil does not flow back down the pipe being cut.
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3. Operating Voltage

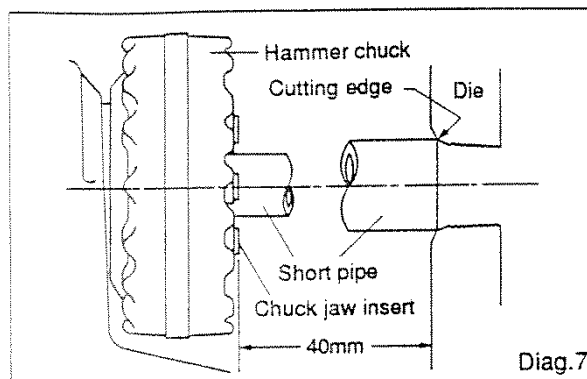
■ Power Supply

Before using, check the voltage on the nameplate. Only AC power should be used and you should always ground the machine before use. If an extension cord is used, it must be as short as possible and of sufficient capacity to carry the power needed by the motor.

Operating Guide



Diag.6



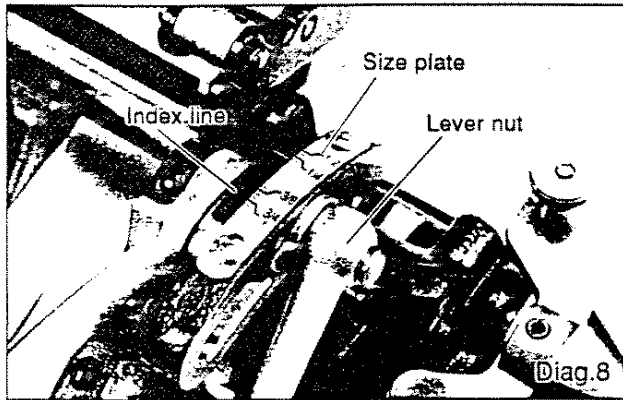
Diag.7

1. Setting the Pipe

1. While pulling back the fastening notch, place the carrying handle in the position shown in diagram 6.
2. Open the hammer chuck until it is wider than the pipe diameter, then insert the pipe from the back side of the chuck, as shown by the arrow in diagram 6. In the case of a short pipe, insert it from the hammer chuck side.
3. Support the pipe with one hand and close the hammer chuck with the other hand, carefully aligning the chuck jaw insert on the hammer chuck with the pipe. Then clamp the pipe securely with the clamping wheel.
4. A sharp jerk in the opposite direction will release the pipe after cutting has been completed.

■ Hints for Short-Pipes

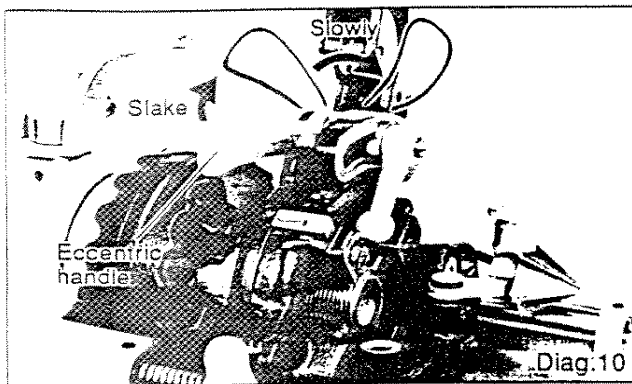
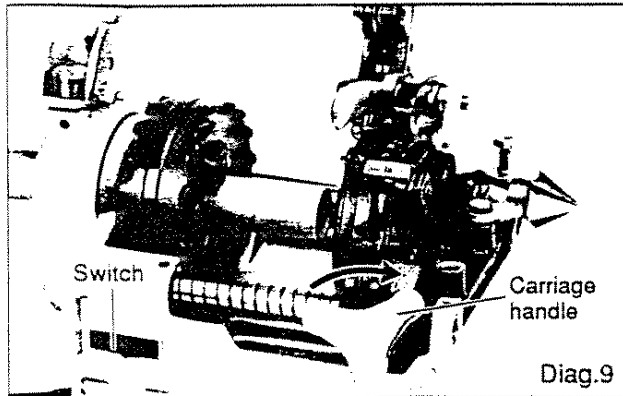
Setting up a short pipe (which does not reach the rear chuck). With the hammer chuck loosened slightly, move the pipe into contact with the dies as shown in diagram 7. This will help hold the pipe on center while the hammer chuck is tightened. This way a smooth taper cut is ensured every time. However, make sure the pipe protrudes at least 40mm from the front of the chuck jaw insert on the chuck.



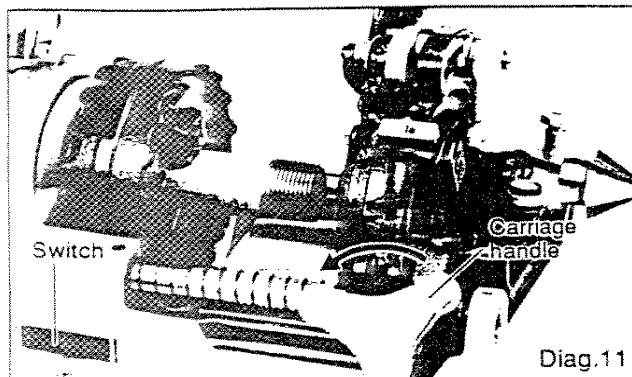
2. Threading Instructions

This die head is used exclusively with the N25A machine. No other type of die head can be used. The 1/2-3/4" dies are interchangeable with the ones for N20AIII. The 1" dies are used exclusively with the N25A machine.

1. Install the correct set of dies in the die head and fit the die head on the carriage.
2. Loosen the lever nut and set the index line to the desired thread size.
Refasten the lever nut to lock the die in position.
3. When the die head is securely engaged press the switch to start the motor.
4. Be sure the pipe is rotating counter-clockwise. Turn the carriage handle clockwise to advance the die head towards the pipe. Be sure oil is flowing from the die head before starting to cut the threads.



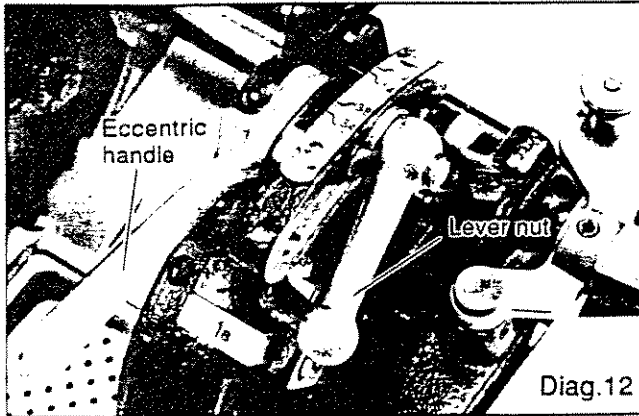
5. Apply clockwise pressure on the carriage handle until the dies engage the pipe for a distance of three or four threads. From this point on the carriage handle may be released. A standard taper thread will be cut automatically. If the dies are opened too rapidly, a stepped edge may appear on the thread, so be sure to open the eccentric handle slowly and smoothly. Then move the handle in the direction shown in diagram 10.



6. When threading is complete, switch off the motor and move the carriage out of the way to the right. Then raise the die heads to the rest position. This action will automatically stop the oil flowing.

Caution:

Be sure there are no cutting scraps or debris in the bottom of the scrap receiver to interfere with the die head.

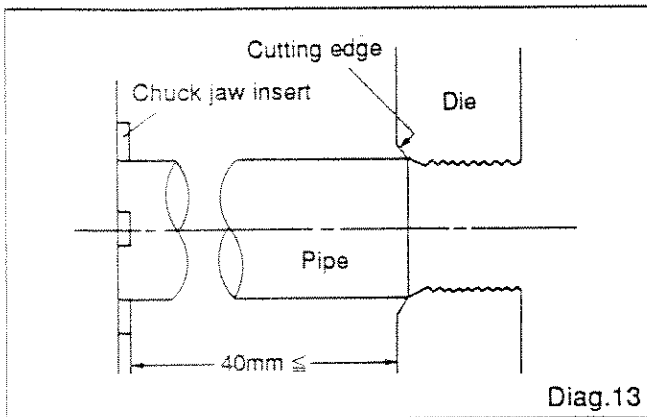


■ Points to Watch During Threading

1. Before adjusting the size of the thread to be cut, pull the eccentric handle towards you, until it is in the position indicated in diagram 12.
2. Sufficient force will be applied if you lightly tighten the lever nut by hand.
3. Adjustment of the thread size can be simply made with the lever nut. Move the lever towards you to increase the thread size and away from you to decrease the thread size.

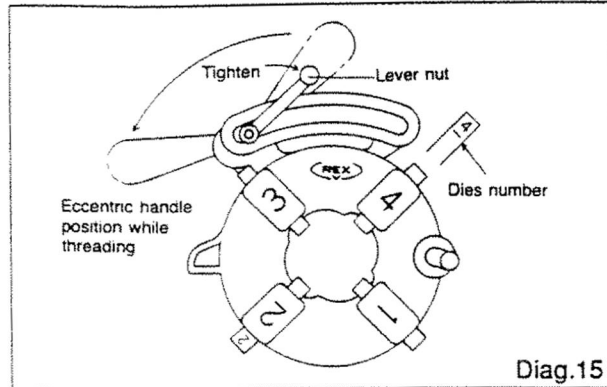
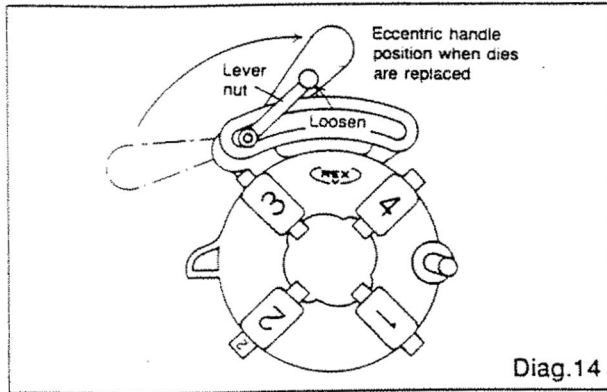
Caution:

When adjusting the thread width, be sure to check the adjustment with a gauge.



3. Precautions for Threading

1. As the dies come into contact with the pipe, the carriage handle should be turned with gradually increasing strength until the dies are biting firmly. After the dies fully engage the pipe they will travel smoothly by themselves. However, optimum cutting will be assured if the carriage handle is turned with a slight pressure to keep pace with the die movement.
2. If, for any reason, the motor suddenly stops during threading, switch off the motor immediately. Failure to do so may result in damage to the motor.
3. When chucking, make sure the pipe extends at least 40mm beyond the front of the chuck jaw inserts, or else damage may be caused by the carriage hitting the main body during the threading operation.



■ Replacing the Dies

(Note: There is no need to remove the die head from the machine.)

Removing the Dies:

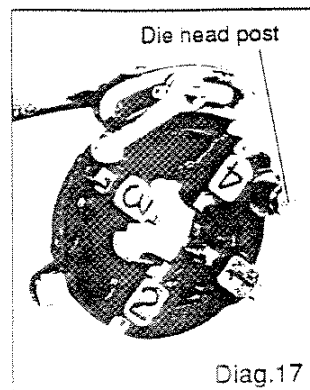
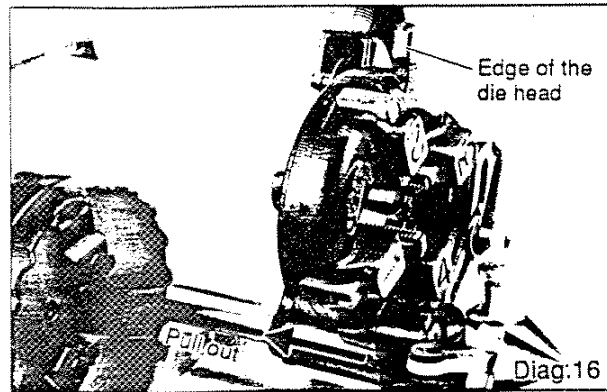
1. Remove the dies from the carriage with the eccentric handle in the disengaged position. Loosen the lever nut and push the handle over to the far left. In this position remove dies 3 and 4.
2. Rotate the die head and remove dies 1&2.

Attaching the Dies:

1. Using the same procedure (the procedure used for removing the dies) in reverse, insert the dies into the die grooves on the die head and push them in until they fit snugly into the notch. If they do not fit snugly, one or more of the dies are incorrectly positioned, and they should be reinserted one by one.
2. In order to insert the dies into the die head, match the die number with the groove number on the side of the die head, and insert the dies. Select the size of the thread to be cut, then start cutting the threads.

Caution:

- Threads cannot be cut if the die head groove numbers and die numbers do not match.
- A die set is made up of 4 dies. If a die from a different set is inserted and threading is attempted, the pipe threads may not be cut properly. Always use dies in their complete, original sets.



4. Replacing the Die Head

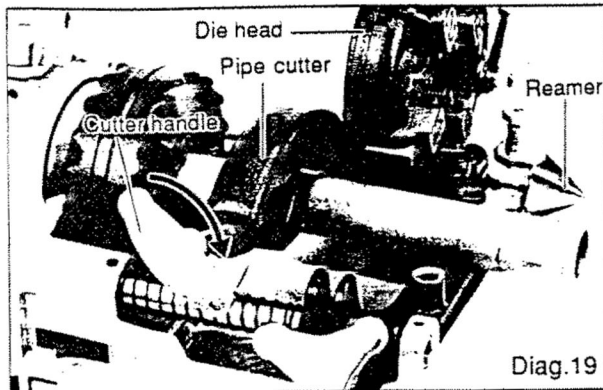
Be sure to turn off the power first, then pull back the fastening notch and place the carrying handle in the threading position.

Removing the Die Head:

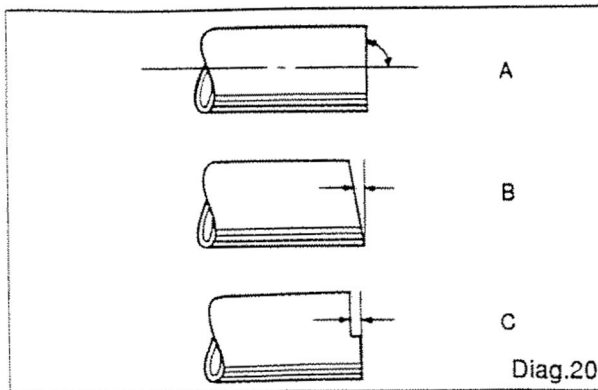
1. Lift the cutters not being used, and push the reamer away from you, towards the other side.
2. Lift the die head slightly so the edge of the die head protrudes from the die head holder groove on the carriage. Then pull the die head out in the direction of the cutter to remove it.

Attaching the Die Head:

1. Thoroughly clean both the surface of the die head post of the new die head and the die head post hole on the carriage. Insert the die head post of the new die head into the die head post hole until the notch is engaged.
2. Set the die head onto the die head post holder groove. This completes the replacement of the die head.



Diag.19



Diag.20

5. Pipe Cutting

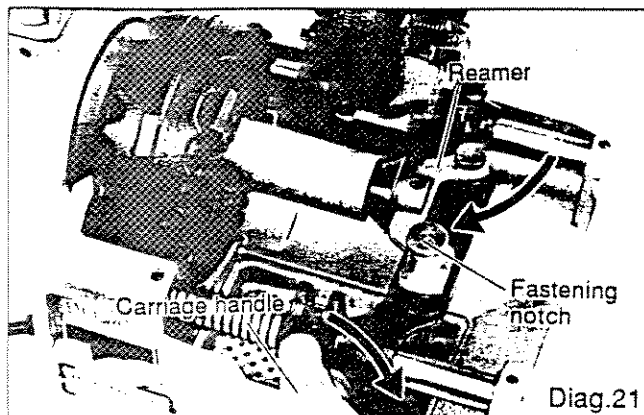
1. Raise the die head and reamer out of the way and adjust the pipe to the length to be cut.
2. Adjust the pipe cutter so that it is wider than the diameter of the pipe and lower it into position.
3. Tighten the cutter by turning the handle to the right until the cutter wheel firmly engages the pipe, (see diagram 19), start the machine, and tighten the cutter handle 1/4 of a revolution for each revolution of the pipe being cut, until the pipe is completely cut.

Warning:

If the cutter handle is tightened too quickly, when the cutter wheel cuts into pipe, it can distort the shape of the pipe.

■ Special Grinder Cutting Precautions

We strongly recommend that you only use the pipe cutter attached to the machine to cut pipes which you intend to thread. If a grinder is used to cut a pipe, make sure that the cut face is square and does not angle back or have steps as shown in diagram 20.



Diag.21

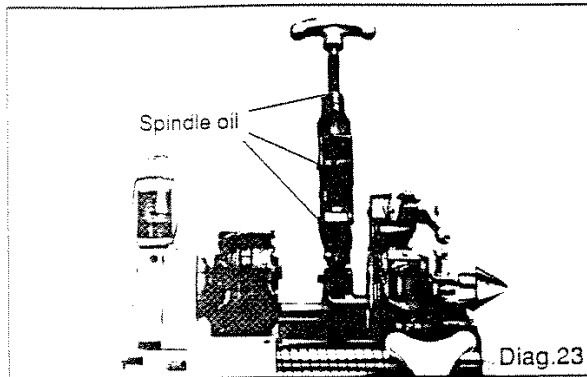
6. Reaming

After cutting the pipe with the pipe cutter, be sure to chamfer the inside with a reamer before threading the pipe.

1. Lift the die heads and cutters not being used out of the way.
2. Pull back the fastening notch located on the reamer holder and set the reamer holder in the correct position on the carriage (see diagram 21).
3. Turn on the motor and, after the pipe is turning, use the carriage handle to push the reamer into the pipe.

This completes the chamfering operation.

Maintenance



Rex products are made with the finest materials throughout, but even the very best products need attention sometimes. To ensure a long and trouble-free working life for your machine, we recommend the following maintenance procedures.

1. Lubrication

■ Main Shaft Lubrication

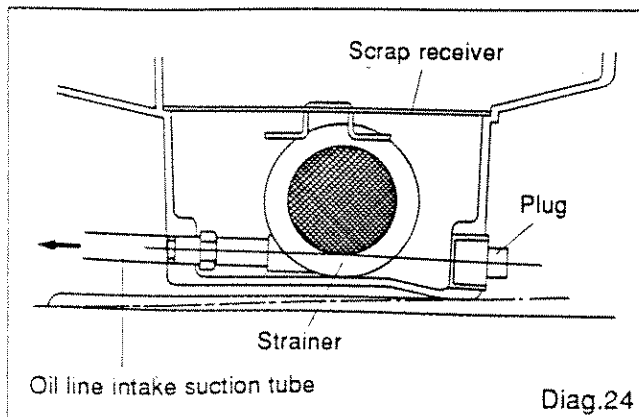
The main shaft bearings are made with specially designed oiled metal, but they should be lubricated once every six months with spindle oil or machine oil to ensure continued smooth running.

■ Pipe Cutter Lubrication

The cutter feed screw and the rollers need to be oiled once a day with spindle oil. Lack of oil not only makes it more difficult to perform the operation, but it also detracts from the efficiency of the machine.

2. Changing the Brushes

For inspection and replacement of the carbon brushes, see your dealer or sales outlet. When replacing parts, be sure to use genuine parts which meet the specifications.



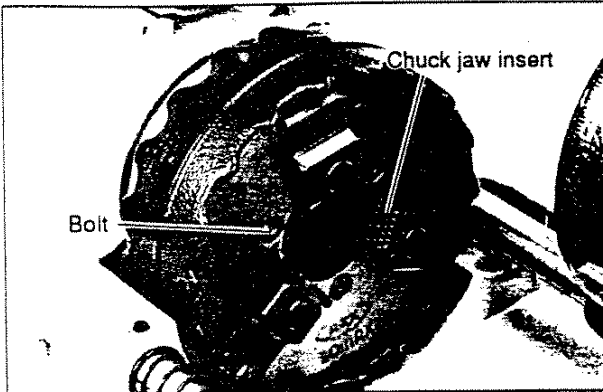
3. Cutting Oil System

The oil tank is constructed so as to prevent cutting scraps and the like from being sucked into the oil pump. Scraps will still collect in the tank, however, so it should be thoroughly cleaned out when it is dirty. Ensuring that the cutting fluid is always clean will prolong the life of the pump. The interior of the tank is built to hold 1/2 liter of cutting fluid.

■ Keep the Oil System Clean As Follows

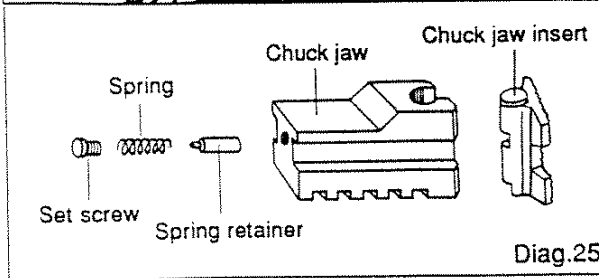
First, remove the scrap receiver. Next, remove the plug and drain the cutting fluid from the tank. When all of the fluid has drained out, clean the interior of the tank thoroughly.

Then screw the plug back in and add new cutting fluid.



4. Hammer Chuck Construction and Maintenance

The chuck jaw insert on the end of the hammer chuck should be cleaned with a wire brush so the holes are not clogged. In order to replace the chuck jaw insert, the hammer chuck must be removed. Contact your dealer or sales outlet. The hammer chuck is fastened to the spindle by three fastening bolts. If these bolts are loose, threading operations will be adversely affected. Check periodically to make sure that the bolts are securely fastened.



Wiring Diagram

