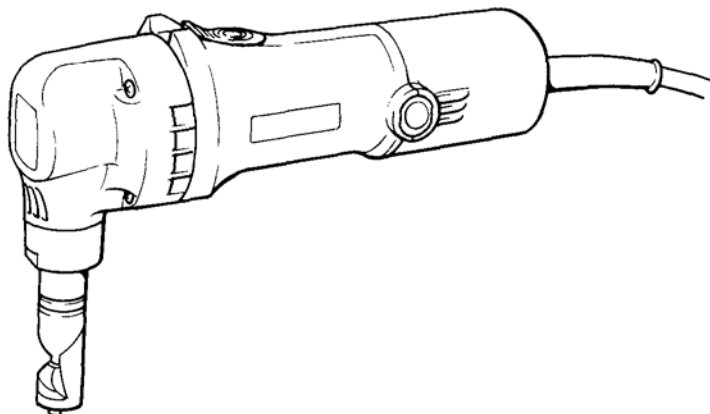




# Nibbler

MODEL JN1601

## INSTRUCTION MANUAL



### SPECIFICATIONS

| Max. cutting capacities |                   |                   | Min. cutting radius |                     | Strokes per minute | Overall length      | Net weight          |
|-------------------------|-------------------|-------------------|---------------------|---------------------|--------------------|---------------------|---------------------|
| Mild steel              | Stainless         | Aluminum          | Outside edge        | Inside edge         |                    |                     |                     |
| 1.6 mm<br>(1/16")       | 1.2 mm<br>(3/64") | 2.5 mm<br>(3/32") | 50 mm<br>(2")       | 45 mm<br>(1-25/32") | 2,200              | 261 mm<br>(10-1/4") | 1.6 kg<br>(3.5 lbs) |

\* Manufacturer reserves the right to change specifications without notice.

\* Note: Specifications may differ from country to country.

WARNING: For your personal safety, READ and UNDERSTAND before using.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

# GENERAL SAFETY RULES

(For All Tools)

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


## SAVE THESE INSTRUCTIONS

### READ ALL INSTRUCTIONS.

#### WORK AREA

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control.

#### ELECTRICAL SAFETY

4. **Double Insulated tools are equipped with a polarized plug (one blade is wider than the other.) This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way.** Double insulation  eliminates the need for the three wire grounded power cord and grounded power supply system.
5. **Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is grounded.
6. **Don't expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
7. **Do not abuse the 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 electric shock.
8. **When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W."** These cords are rated for outdoor use and reduce the risk of electric shock.

#### PERSONAL SAFETY

9. **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 medication.** A moment of inattention while operating power tools may result in serious personal injury.
10. **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.

11. **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.
12. **Remove adjusting keys or switches before turning the tool on.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
13. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.
14. **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**

15. **Use clamps or other practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
16. **Do not force tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
17. **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.
18. **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.
19. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
20. **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.
21. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tools operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
22. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool, may become hazardous when used on another tool.

#### **SERVICE**

23. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
24. **When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual.** Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electric shock or injury.








## Specific Safety Rules

1. Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.
2. Always lead the power supply cord away from the tool towards the rear.
3. Do not touch the blade or the workpiece immediately after operation; they may be extremely hot and could burn your skin.

**SAVE THESE INSTRUCTIONS.**

## SYMBOLS

The followings show the symbols used for tool.

|   |       |   |
|---|-------|---|
| V   | ..... | volts                                   |
| A   | ..... | amperes                                 |
| Hz  | ..... | hertz                                   |
| kg  | ..... | kilograms                               |
| h   | ..... | hours                                   |
| min   | ..... | minutes                                 |
| s   | ..... | seconds                                 |
|    | ..... | alternating current                     |
|    | ..... | direct current                          |
| $n_0$   | ..... | no load speed                           |
|  | ..... | alternating or direct current           |
|  | ..... | Class II Construction                   |
|  | ..... | splash-proof construction               |
|  | ..... | watertight construction                 |
| .../min   | ..... | revolutions or reciprocation per minute |
|  | ..... | number of blow                          |

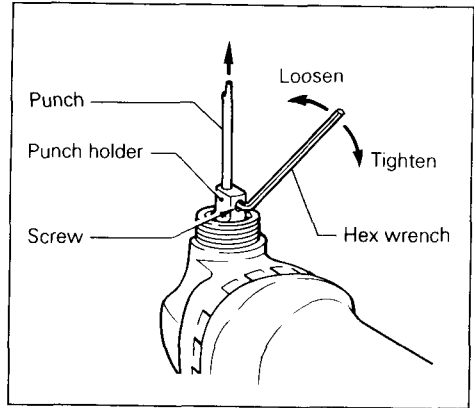
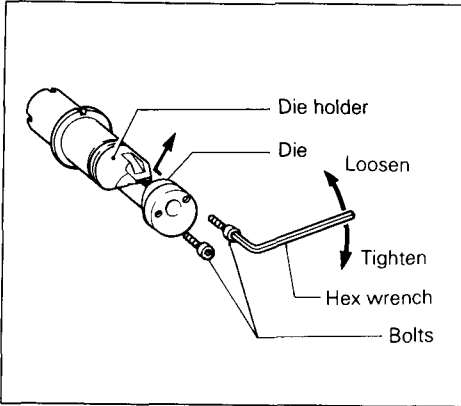
## ASSEMBLY

### Removing or installing the punch and die

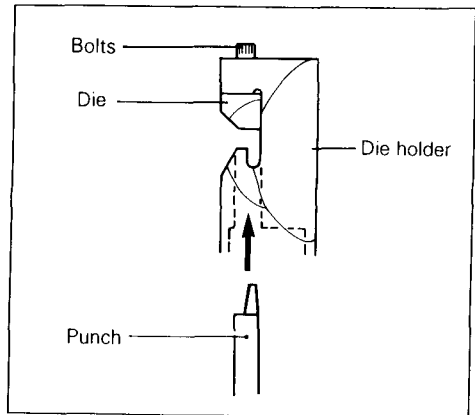
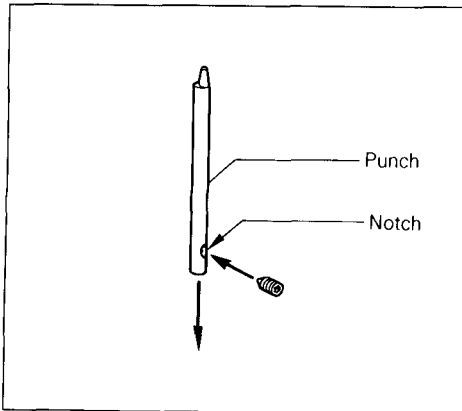
#### CAUTION:

Always be sure that the tool is switched off and unplugged before removing or installing the punch and die.

Always replace the punch and die as a set. To remove the punch and die, loosen the lock nut with the wrench. Remove the die holder from the tool. Use the hex wrench to loosen the bolts which secure the die. Remove the die from the die holder. Use the hex wrench to loosen the screw which secures the punch. Pull the punch out of the punch holder.



To install the punch and die, insert the punch into the punch holder so that the notch in the punch faces toward the screw. Tighten the screw to secure the punch. Install the die on the die holder. Tighten the bolts to secure the die. Then install the die holder on the machine so that the punch is inserted through the hole in the die holder. Tighten the lock nut to secure the die holder. After replacing the punch and die, lubricate them with machine oil and run the machine for a while.



## OPERATION

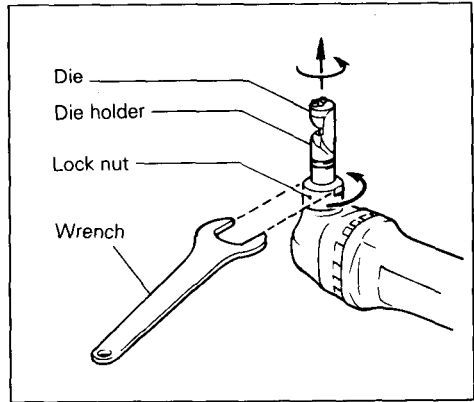
### Changing the die position

#### CAUTION:

Always be sure that the tool is switched off and unplugged before changing the die position.

The die position can be changed 360°. To change it, proceed as follows.

1. Loosen the lock nut with the wrench provided.
2. Pull the die holder slightly and turn it to the desired position for operation.
3. Tighten the lock nut to secure the die holder in the desired position.



There are four positive stops at 90° each: 0°, 90° left and right and 180°. To position the die to any of these positive stops:

1. Loosen the lock nut with the wrench provided.
2. Pull the die holder slightly and depress lightly while turning it to the desired position. The die holder will lock into one of the positive stop positions as desired.
3. Turn the die holder slightly to make sure that it is positively locked into position.
4. Tighten the lock nut to secure the die holder.

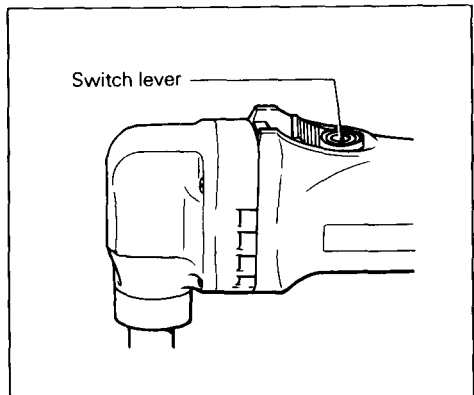
### Switch ON and OFF

#### CAUTION:

Before plugging in the tool, always check to see that the switch actuates properly and returns to the "OFF" position when the rear of the switch lever is depressed.

To switch on, depress the rear of the switch lever and push it forward. Then depress the front of the switch lever to lock it.

To switch off, depress the rear of the switch lever.

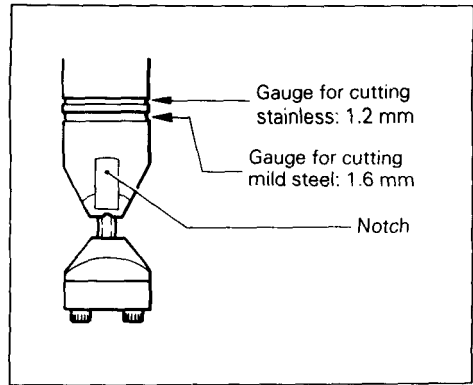


### Thickness gauge

The grooves in the die holder serve as the thickness gauge for allowable cutting thickness.

### Cutting line

The notch in the die holder indicates your cutting line. Its width is equal to the cutting width. Align the notch to the cutting line on the workpiece when cutting.

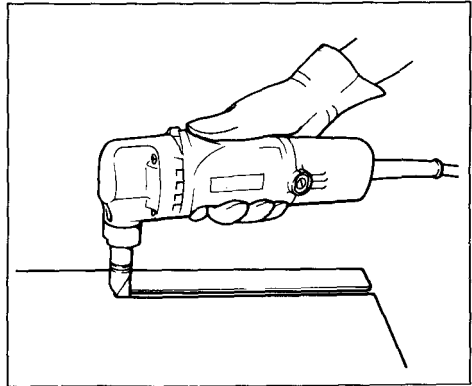


### Pre-lubrication

Coat the cutting line with machine oil to increase the punch and die service life. This is particularly important when cutting aluminum.

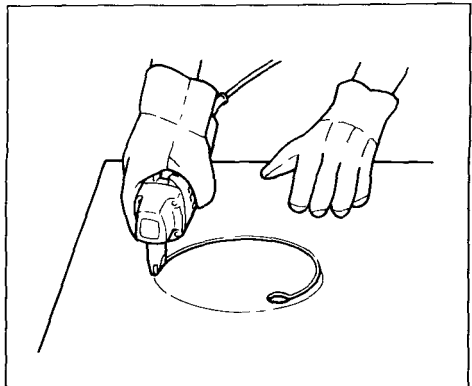
### Cutting method

Hold the tool so that the cutting head is at a right angle (90°) to the workpiece being cut. Move the tool gently in the cutting direction.



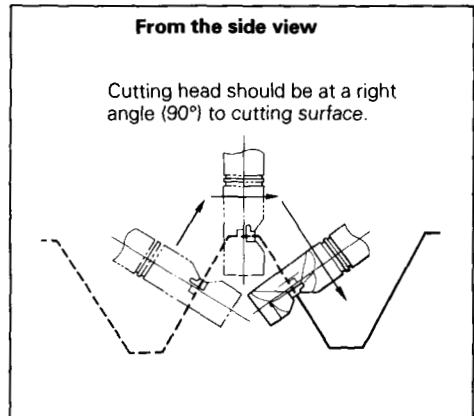
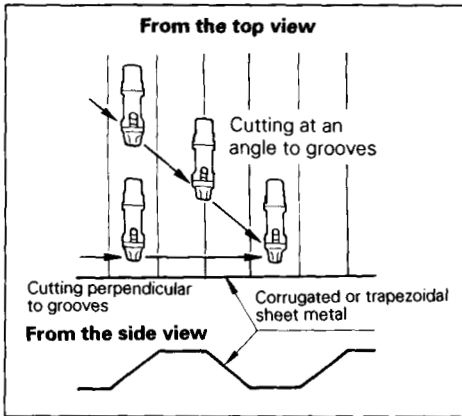
### Cutouts

Cutouts can be done by first opening a round hole over 21 mm in diameter which the cutting head can be inserted into.



### Cutting the corrugated or trapezoidal sheet metals

Set the die position so that the die faces the cutting direction either when cutting at an angle or perpendicular to grooves in corrugated or trapezoidal sheet metals. Always hold the tool body parallel to the grooves with the cutting head at a right angle ( $90^\circ$ ) to the cutting surface as shown in Fig.





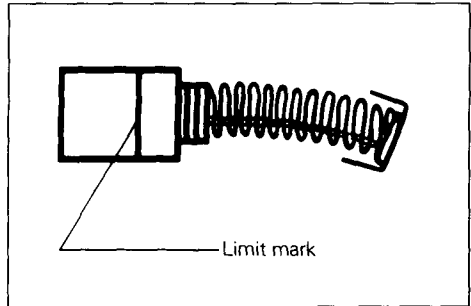
## MAINTENANCE

### CAUTION:

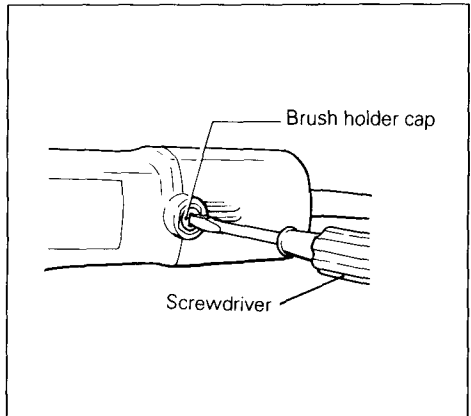
Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.

### Replacing carbon brushes

Remove and check the carbon brushes regularly. Replace when they wear down to the limit mark. Keep the carbon brushes clean and free to slip in the holders. Both carbon brushes should be replaced at the same time. Use only identical carbon brushes.



Use a screwdriver to remove the brush holder caps. Take out the worn carbon brushes, insert the new ones and secure the brush holder caps.



To maintain product SAFETY AND RELIABILITY, repairs, any other maintenance or adjustment should be performed by Makita Authorized or Factory Service Centers, always using Makita replacement parts.

## ACCESSORIES

### CAUTION:

These accessories or attachments are recommended for use with your Makita tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. The accessories or attachments should be used only in the proper and intended manner.

#### •Die

Part No. A-15051



#### •Punch

Part No. A-15067



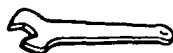
#### •Hex wrench

Part No. 783208-8



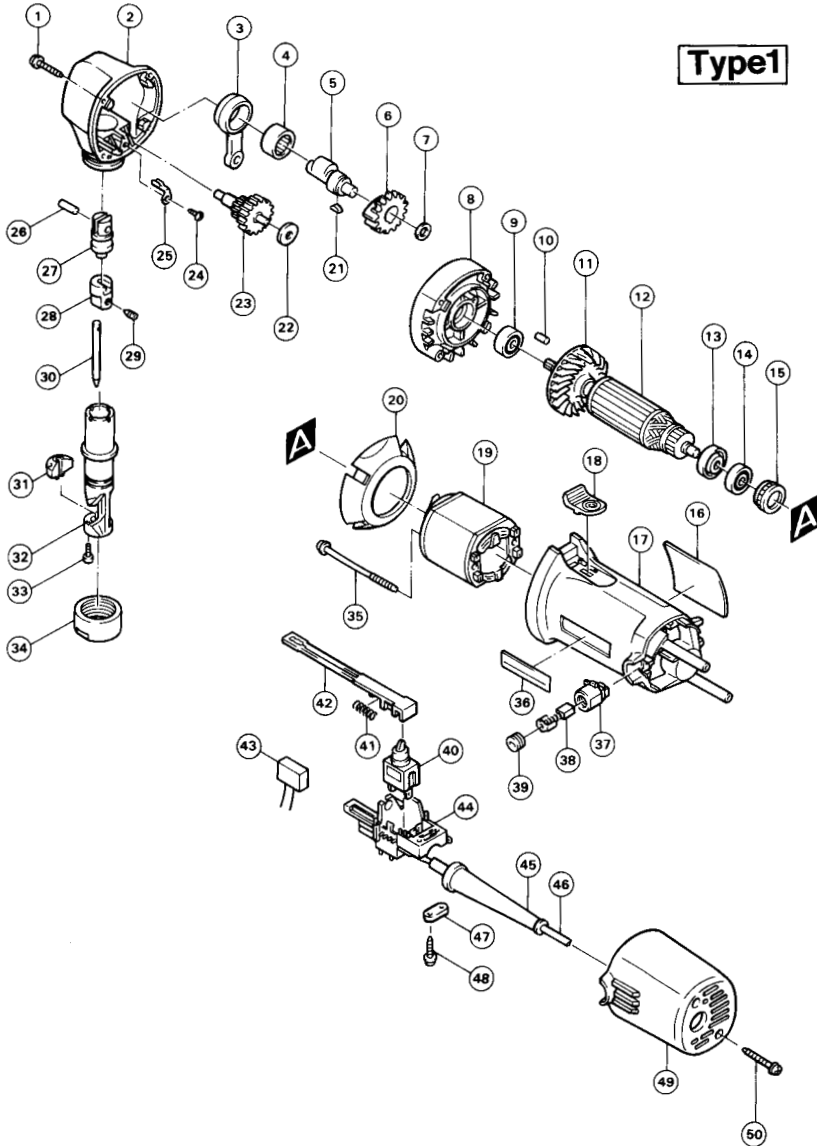
#### •Wrench 32

Part No. 781013-7



# NIBBLER Model JN1601

**Type1**



Note: The switch, noise suppressor and other part configurations may differ from country to country.

MODEL JN1601

| ITEM NO.       | NO. USED | DESCRIPTION                                     | ITEM NO.       | NO. USED | DESCRIPTION                  |
|----------------|----------|---|----------------|----------|------------------------------|
| <b>MACHINE</b> |          |   | <b>MACHINE</b> |          |                              |
| 1              | 4        | Tapping Screw Flange PT 4x35                    | 25             | 1        | Stopper                      |
| 2              | 1        | Gear Housing Complete                           | 26             | 1        | Pin 6                        |
| 3              | 1        | Rod   | 27             | 1        | Ram                          |
| 4              | 1        | Needle Bearing 1612                             | 28             | 1        | Punch Holder                 |
| 5              | 1        | Crank Shaft                                     | 29             | 1        | Hex. Socket Head Bolt M5x8   |
| 6              | 1        | Spur Gear 34                                    | 30             | 1        | Punch                        |
| 7              | 1        | Flat Washer 8                                   | 31             | 1        | Die                          |
| 8              | 1        | Gear Housing Cover Complete                     | 32             | 1        | Die Holder                   |
| 9              | 1        | Ball Bearing 608DDW                             | 33             | 2        | Hex. Socket Head Bolt M3x12  |
| 10             | 1        | Rubber Pin 4                                    | 34             | 1        | Lock Nut                     |
| 11             | 1        | Fan 54  | 35             | 2        | Tapping Screw Flange PT 4x65 |
| 12             | 1        | ARMATURE ASSEMBLY<br>(With Item 9, 11, 13 & 14) | 36             | 1        | Makita Label                 |
| 13             | 1        | Insulation Washer                               | 37             | 2        | Brush Holder                 |
| 14             | 1        | Ball Bearing 607LLB                             | 38             | 2        | Carbon Brush                 |
| 15             | 1        | Rubber Ring 19                                  | 39             | 2        | Brush Holder Cap             |
| 16             | 1        | Name Plate                                      | 40             | 1        | Switch                       |
| 17             | 1        | Motor Housing Complete                          | 41             | 1        | Compression Spring 4         |
| 18             | 1        | Switch Knob                                     | 42             | 1        | Switch Lever                 |
| 19             | 1        | Field   | 44             | 1        | Support                      |
| 20             | 1        | Baffle Plate                                    | 45             | 1        | Cord Guard                   |
| 21             | 1        | Woodruff Key 3                                  | 46             | 1        | Cord                         |
| 22             | 1        | Flat Washer 6                                   | 47             | 1        | Strain Relief                |
| 23             | 1        | Gear Complete 13-37                             | 48             | 2        | Tapping Screw 4x18           |
| 24             | 1        | Tapping Screw Bind CT 4x8                       | 49             | 1        | Rear Cover                   |
|                |          |   | 50             | 2        | Tapping Screw Flange PT 4x35 |

Note: The switch and other part specifications may differ from country to country.