

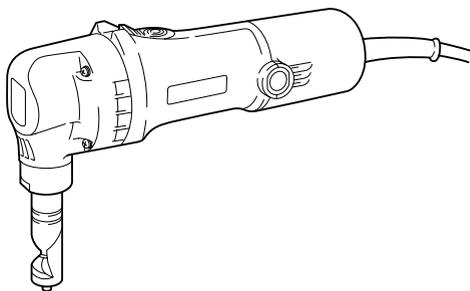


ENGLISH (Original Instructions)

INSTRUCTION MANUAL

# Nibbler

JN1601



004772

 DOUBLE INSULATION

**IMPORTANT:** Read Before Using.

## ENGLISH (Original instructions)

# SPECIFICATIONS

Model		JN1601
Max. cutting capacities	Steel up to 400 N/mm <sup>2</sup>	1.6 mm / 16 ga
	Steel up to 600 N/mm <sup>2</sup>	1.2 mm / 18 ga
	Steel up to 800 N/mm <sup>2</sup>	0.8 mm / 22 ga
	Aluminum up to 200 N/mm <sup>2</sup>	2.5 mm / 13 ga
Min. cutting radius	Outside edge	50 mm
	Inside edge	45 mm
Strokes per minute (min <sup>-1</sup> )		2,200
Overall length		261 mm
Net weight		1.6 kg
Safety class		□/II

- Due to our continuing programme of research and development, the specifications herein are subject to change without notice.
- Specifications may differ from country to country.
- Weight according to EPTA-Procedure 01/2003

END201-5

## Symbols

The following show the symbols used for the equipment. Be sure that you understand their meaning before use.



- Read instruction manual.



- DOUBLE INSULATION



- Only for EU countries  
Do not dispose of electric equipment together with household waste material! In observance of European Directive 2002/96/EC on waste electric and electronic equipment and its implementation in accordance with national law, electric equipment that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

ENE037-1

## Intended use

The tool is intended for cutting sheet steel and stainless sheet steel.

ENF002-2

## Power supply

The tool should be connected only to a power supply of the same voltage as indicated on the nameplate, and can only be operated on single-phase AC supply. They are double-insulated and can, therefore, also be used from sockets without earth wire.

ENG905-1

## Noise

The typical A-weighted noise level determined according to EN60745:

Sound pressure level ( $L_{pA}$ ) : 83 dB(A)  
Sound power level ( $L_{WA}$ ) : 94 dB(A)  
Uncertainty (K) : 3 dB(A)

## Wear ear protection

ENG900-1

## Vibration

The vibration total value (tri-axial vector sum) determined according to EN60745:

Work mode : cutting sheet metal  
Vibration emission ( $a_h$ ) : 7.0 m/s<sup>2</sup>  
Uncertainty (K) : 1.5 m/s<sup>2</sup>

ENG901-1

- The declared vibration emission value has been measured in accordance with the standard test method and may be used for comparing one tool with another.
- The declared vibration emission value may also be used in a preliminary assessment of exposure.

## ⚠WARNING:

- The vibration emission during actual use of the power tool can differ from the declared emission value depending on the ways in which the tool is used.
- Be sure to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).

## For European countries only

### EC Declaration of Conformity

We Makita Corporation as the responsible manufacturer declare that the following Makita machine(s):

Designation of Machine:

Nibbler

Model No./ Type: JN1601

are of series production and

**Conforms to the following European Directives:**

2006/42/EC

And are manufactured in accordance with the following standards or standardised documents:

EN60745

The technical documentation is kept by our authorised representative in Europe who is:

Makita International Europe Ltd.

Michigan Drive, Tongwell,

Milton Keynes, Bucks MK15 8JD, England

30.1.2009



Tomoyasu Kato

Director

Makita Corporation

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Anjo, Aichi, 446-8502, JAPAN

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GEA005-3

## General Power Tool Safety

### Warnings

**⚠ WARNING Read all safety warnings and all instructions.** Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

### Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

#### Work area safety

- Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- 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.
- Keep children and bystanders away while operating a power tool.** Distractions can cause

you to lose control.

#### Electrical safety

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.
- Use of power supply via a RCD with a rated residual current of 30mA or less is always recommended.**

#### Personal safety

- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- Do not overreach. Keep proper footing and balance at all times.** This enables better control

of the power tool in unexpected situations.

16. **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
17. **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.

#### Power tool use and care

18. **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
19. **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
20. **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
21. **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
22. **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
23. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
24. **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

#### Service

25. **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.
26. **Follow instruction for lubricating and changing accessories.**
27. **Keep handles dry, clean and free from oil and grease.**

## NIBBLER SAFETY WARNINGS

1. **Hold the tool firmly.**
2. **Secure the workpiece firmly.**
3. **Keep hands away from moving parts.**
4. **Edges and chips of the workpiece are sharp. Wear gloves. It is also recommended that you put on thickly bottomed shoes to prevent injury.**
5. **Do not put the tool on the chips of the workpiece. Otherwise it can cause damage and trouble on the tool.**
6. **Do not leave the tool running. Operate the tool only when hand-held.**
7. **Always be sure you have a firm footing. Be sure no one is below when using the tool in high locations.**
8. **Do not touch the punch, die or the workpiece immediately after operation; they may be extremely hot and could burn your skin.**
9. **Avoid cutting electrical wires. It can cause serious accident by electric shock.**

## SAVE THESE INSTRUCTIONS.

### ⚠WARNING:

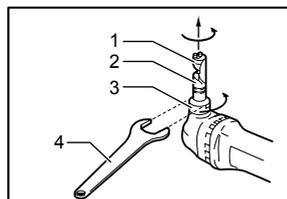
**DO NOT** let comfort or familiarity with product (gained from repeated use) replace strict adherence to safety rules for the subject product. **MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.**

## FUNCTIONAL DESCRIPTION

### ⚠CAUTION:

- Always be sure that the tool is switched off and unplugged before adjusting or checking function on the tool.

### Changing the die position



1. Die
2. Die holder
3. Lock nut
4. Wrench

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

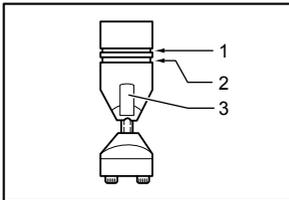
1. Loosen the lock nut with the wrench provided.

- Pull the die holder slightly and turn it to the desired position for operation.
- 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:

- Loosen the lock nut with the wrench provided.
- 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.
- Turn the die holder slightly to make sure that it is positively locked into position.
- Tighten the lock nut to secure the die holder.

### Permissible cutting thickness



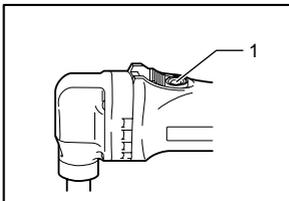
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The thickness of material to be cut depends upon the tensile strength of the material itself. The groove on the die holder acts as a thickness gauge for allowable cutting thickness. Do not attempt to cut any material which will not fit into this groove.

### 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.

### Switch action



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### 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.

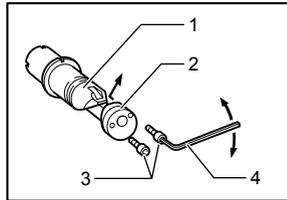
To switch off, depress the rear of the switch lever.

## ASSEMBLY

### CAUTION:

- Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.

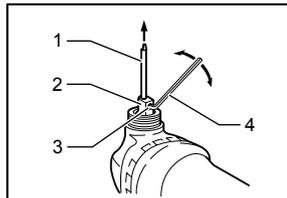
### Removing or installing the punch and die



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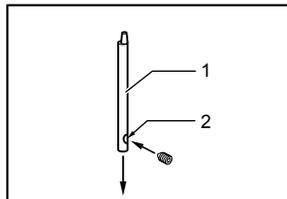
Always replace the punch and die as a set. To remove the punch and die, loosen the lock nut with the wrench. Remove the die holder from the tool. Use the hex wrench to loosen the bolts which secure the die. Remove the die from the die holder.

Use the hex wrench to loosen the screw which secures the punch. Pull the punch out of the punch holder.



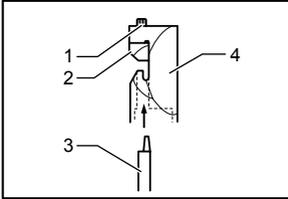
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To install the punch and die, insert the punch into the punch holder so that the notch in the punch faces toward the screw. Tighten the screw to secure the punch. Install the die on the die holder. Tighten the bolts to secure the die.



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Then install the die holder on the tool 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 tool for a while.



1. Bolts
2. Die
3. Punch
4. Die holder

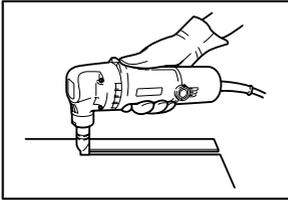
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## OPERATION

### Pre-lubrication

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

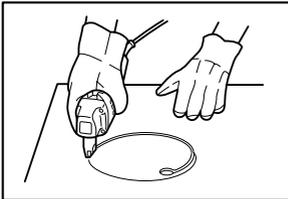
### Cutting method



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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.

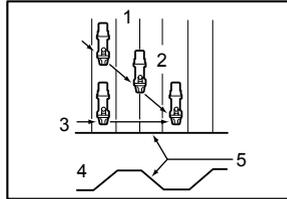
### Cutouts



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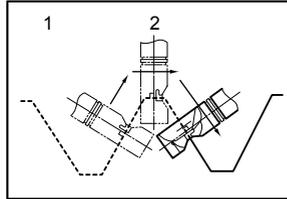
Cutouts can be done by first opening a round hole over 21 mm in diameter which the cutting head can be inserted into.

## Cutting the corrugated or trapezoidal sheet metals



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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°) to the cutting surface as shown in the figure.



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1. From the top view
2. Cutting at an angle to grooves
3. Cutting perpendicular to grooves
4. From the side view
5. Corrugated or trapezoidal sheet metal

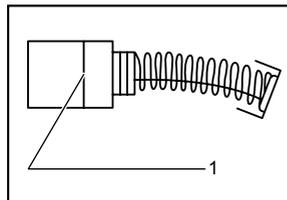
1. From the side view
2. Cutting head should be at a right angle (90°) to cutting surface.

## MAINTENANCE

### ⚠CAUTION:

- Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.
- Never use gasoline, benzene, thinner, alcohol or the like. Discoloration, deformation or cracks may result.

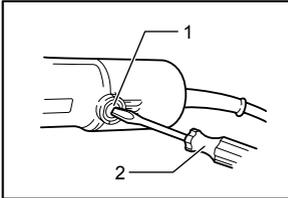
### Replacing carbon brushes



001145

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.



1. Brush holder cap
2. Screwdriver

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To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by Makita Authorized 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. Only use accessory or attachment for its stated purpose.

If you need any assistance for more details regarding these accessories, ask your local Makita Service Center.

- Die
- Punch
- Hex wrench
- Wrench 32

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