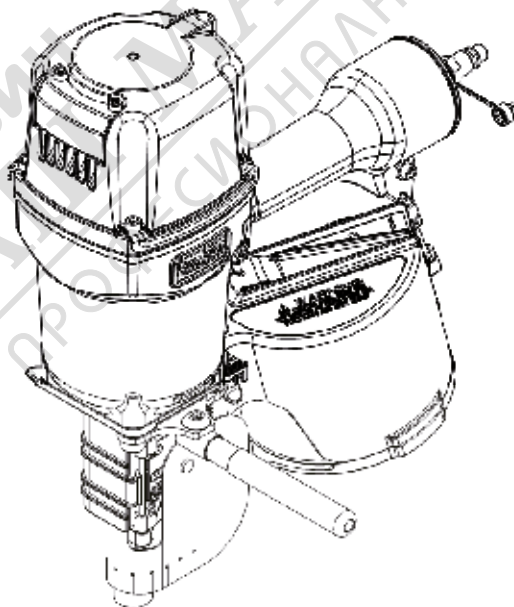
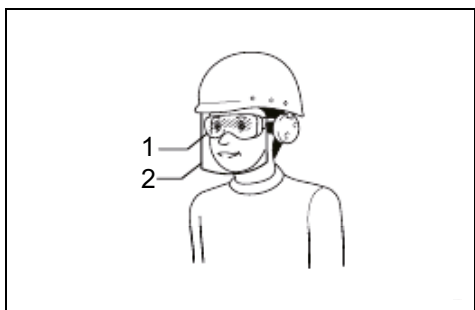




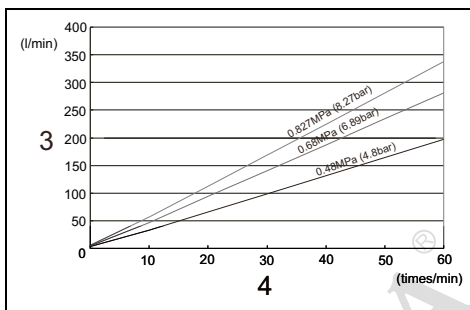
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<b>F</b>	<b>Cloueur Pneumatique Pour Palettes</b>	<b>Manuel d'instructions</b>
<b>D</b>	<b>Druckluft Coil Nagler</b>	<b>Betriebsanleitung</b>
<b>I</b>	<b>Chiodatrice a bobina pneumatica</b>	<b>Istruzioni per l'uso</b>
<b>E</b>	<b>Clavadora Neumática para Palets</b>	<b>Manual de instrucciones</b>
<b>P</b>	<b>Pregador Pneumático para Pallet</b>	<b>Manual de instruções</b>
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**AN960**  
**AN961**

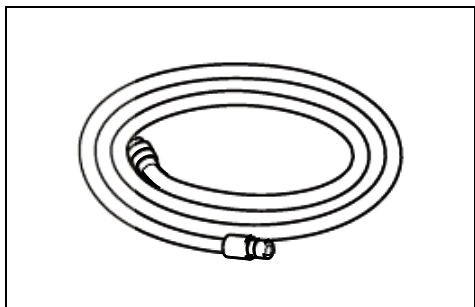




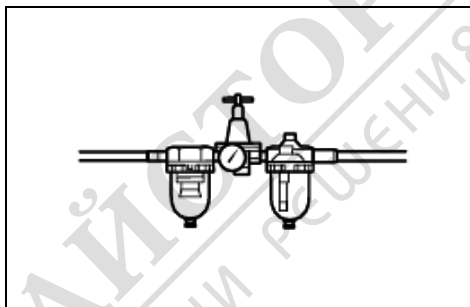
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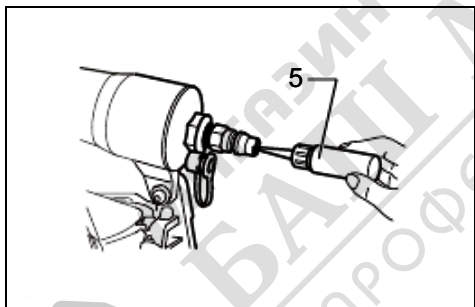
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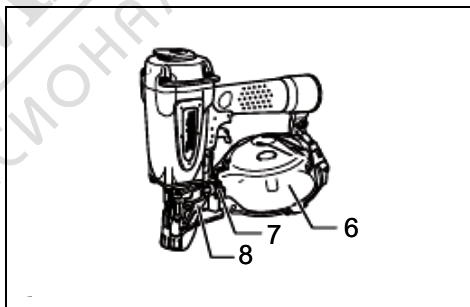
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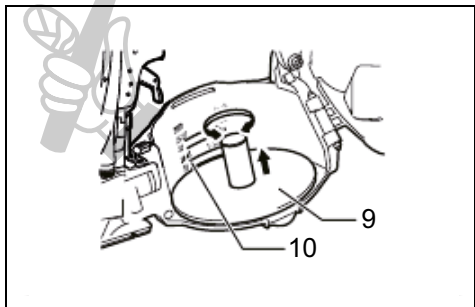
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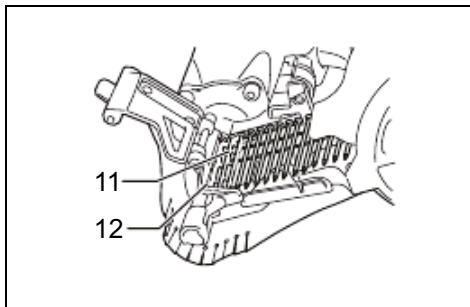
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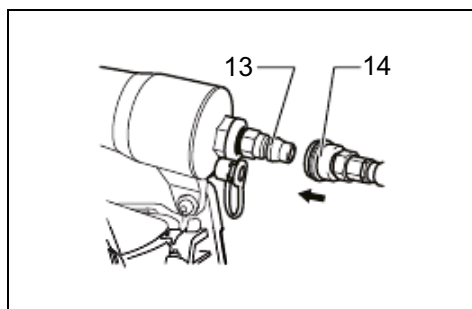
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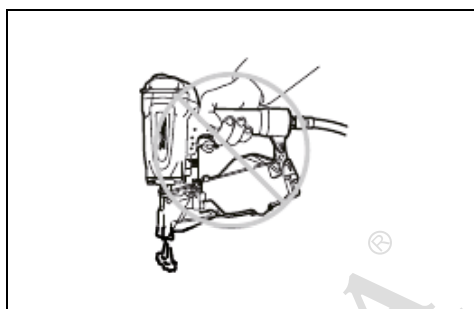
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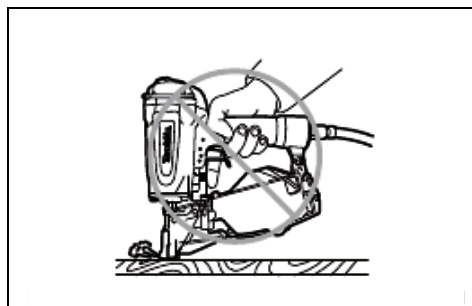
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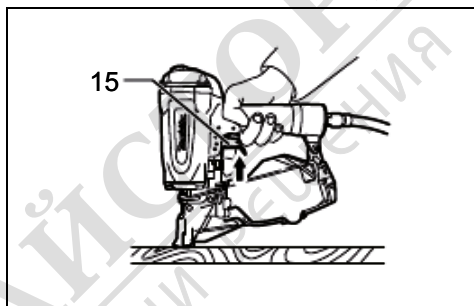
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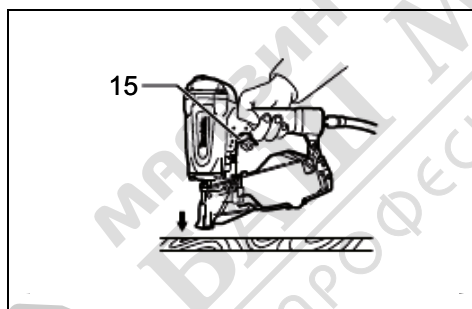
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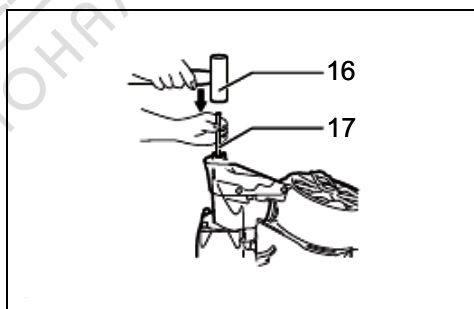
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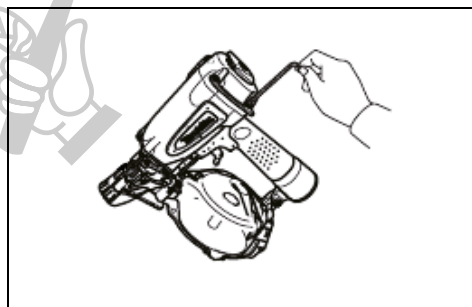
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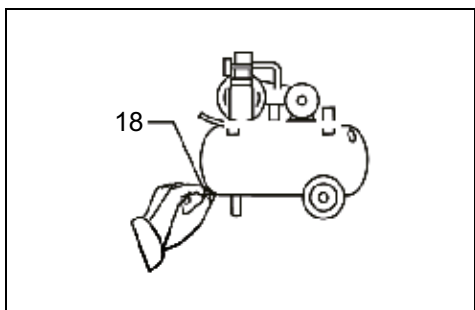
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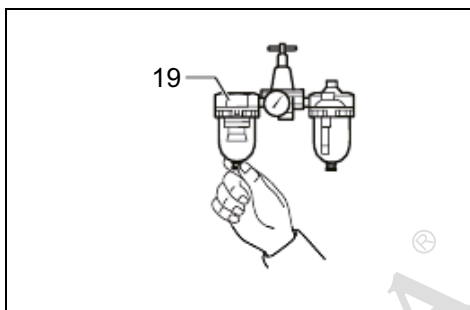
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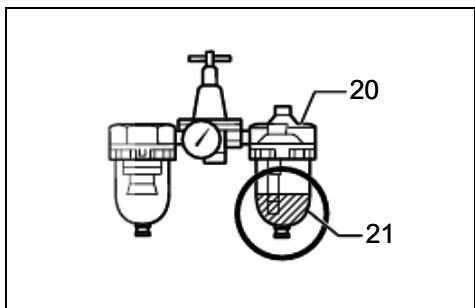
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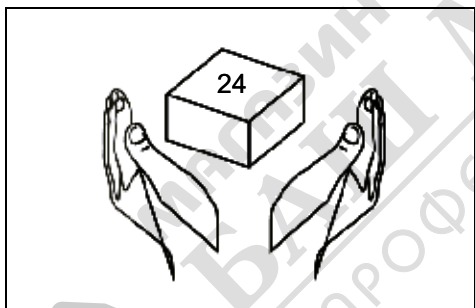
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21



22

Explanation of general view

1 Safety glasses	9 Coil support plate	18 Drain cock
2 Face shield	10 Graduation	19 Air filter
3 Compressor air output per minute	11 Feed claw	20 Oiler
4 Nailing frequency	12 Driver channel	21 Pneumatic oil
5 Pneumatic tool oil	13 Air fitting	22 Thinner
6 Magazine cap	14 Air socket	23 Stove
7 Latch lever	15 Trigger	24 Nail
8 Door	16 Hammer	25 Humid
	17 Small rod	26 Hot

**SPECIFICATIONS**

Model	AN960	AN961
Air pressure	0.49 – 0.83 MPa (4.9 – 8.3 bar)	0.49 – 0.83 MPa (4.9 – 8.3 bar)
Applicable nail	Wire welded nails 57 mm – 100 mm	Wire welded nails 55 mm – 100 mm
Nail capacity	225 – 300 pcs.	225 – 300 pcs.
Dimensions (L × H × W)	338 mm × 153 mm × 418 mm	338 mm × 153 mm × 418 mm
Min. hose diameter	8.0 mm	8.0 mm
Pneumatic oil	Turbine oil	Turbine oil
Net weight	5.1 kg	5.3 kg

- Due to our continuing program 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

**Symbols**

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



- Read instruction manual.



- Wear safety glasses.



- Do not use on scaffoldings, ladders.

**Intended use**

The tool is intended for the making pallets and wooden boxes.

**Pneumatic nailer/stapler safety warnings**

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

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

For personal safety and proper operation and maintenance of the tool, read this instruction manual before using the tool.

**General safety**

- Do not permit those uninstructed to use the tool.
- No horseplay. Respect the tool as a working implement.

- Do not operate when under the influence of alcohol, drugs or the like.
- Never alter the tool.

**Personal protective equipments**

- Always wear safety glasses to protect your eyes from dust or fastener injury.

**⚠ WARNING:** It is an employer's responsibility to enforce the use of safety eye protection equipment by the tool operators and by other persons in the immediate working area.

**For Australia and New Zealand only**

Always wear safety glasses and face shield to protect your eyes from dust or fastener injury. The safety glasses and the face shield should conform with the requirements of AS/NZS 1336. (Fig. 1)

- Wear hearing protection to protect your ears against exhaust noise and head protection. Also wear light but not loose clothing. Sleeves should be buttoned or rolled up. No necktie should be worn.

**Work area safety**

- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- Do not operate the tool in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Operating the tool can create sparks which may ignite the dust or fumes.
- Keep children and bystanders away while operating the tool. Distractions can cause you to lose control.
- Illuminate the work area sufficiently.
- There may be local regulations concerning noise which must be complied with by keeping noise levels within prescribed limits. In certain cases, shutters should be used to contain noise.

## Safety devices

- Make sure all safety systems are in working order before operation. The tool must not operate if only the trigger is pulled or if only the contact arm is pressed against the wood. It must work only when both actions are performed. Test for possible faulty operation with fasteners unloaded and the pusher in fully pulled position.
- Do not play with the contact element: it prevents accidental discharge, so it must be kept on and not removed. Securing the trigger in the ON position is also very dangerous. Never attempt to fasten the trigger. Do not operate a tool if any portion of the tool operating controls is inoperable, disconnected, altered, or not working properly.
- Do not attempt to keep the contact element depressed with tape or wire. Death or serious injury may occur.
- Always check contact element as instructed in this manual. Fasteners may be driven accidentally if the safety mechanism is not working correctly.

## Loading fasteners

- Do not load the tool with fasteners when any one of the operating controls is activated.
- Use only fasteners specified in this manual. The use of any other fasteners may cause malfunction of the tool.

## Power source

- Never connect the tool to compressed air line where the air pressure can exceed the suitable air pressure range of the tool, specified in the "SPECIFICATIONS" table, by 10%. Make sure that the pressure supplied by the compressed air system does not exceed the suitable air pressure range of the tool. Set the air pressure initially to the lower value of the suitable air pressure range.
- Operate the tool at the lowest pressure required for the application, in order to prevent unnecessarily high noise levels, increased wear and resulting failures.
- Never use the tool with other than compressed air. If bottled gas (carbon dioxide, oxygen, nitrogen, hydrogen, air, etc.) or combustible gas (hydrogen, propane, acetylene, etc.) is used as a power source for this tool, the tool will explode and cause serious injury.
- Always disconnect the air hose and remove all of the fasteners:
  - when unattended;
  - before performing any maintenance or repair;
  - before cleaning a jam;
  - before moving the tool to a new location.
- Use only pneumatic tool oil specified in this manual.

## Operational safety

- **Always check the tool** for its overall condition and loose screws before operation. Tighten as required.
- **Handle the tool carefully**, as there is high pressure inside the tool that can be dangerous if a crack is caused by rough handling (dropping or striking). Do not attempt to carve or engrave on the tool.
- **Stop the operation immediately** if you notice something wrong or out of the ordinary with the tool. An improperly functioning tool must not be used.
- Do not point the ejection port at anyone in the vicinity. Keep hands and feet away from the ejection port area.
- Always assume that the tool contains fasteners.
- Never point the tool toward yourself or anyone whether it contains fasteners or not.
- Do not rush the job or force the tool. Handle the tool carefully.

- Do not activate the tool unless the tool is placed firmly against the workpiece.
- Never hold or carry the tool with a finger on the trigger or hand it to someone in this condition. Accidental firing can cause serious injury.
- Never use fastener driving tools marked with the symbol "Do not use on scaffoldings, ladders" for specific application for example:
  - when changing one driving location to another involves the use of scaffoldings, stairs, ladders, or ladder alike constructions, e.g. roof laths;
  - closing boxes or crates;
  - fitting transportation safety systems e.g. on vehicles and wagons.
- Check walls, ceilings, floors, roofing and the like carefully to avoid possible electrical shock, gas leakage, explosions, etc. caused by striking live wires, conduits or gas pipes.
- Do not use the tool for fastening electrical cables. It is not designed for electric cable installation and may damage the insulation of electric cables thereby causing electric shock or fire hazards.
- Watch your footing and maintain your balance with the tool. Make sure there is no one below when working in high locations, and secure the air hose to prevent danger if there is sudden jerking or catching.
- On rooftops and other high locations, drive fasteners as you move forward. It is easy to lose your footing if you drive fasteners while inching backward. When driving fasteners against perpendicular surface, work from the top to the bottom. You can perform driving operations with less fatigue by doing so.
- A fastener will be bent or the tool can become jammed if you mistakenly drive fastener on top of another fastener or strike a knot in the wood. The fastener may be thrown and hit someone, or the tool itself can react dangerously. Place the fasteners with care.
- Do not leave the loaded tool or the air compressor under pressure for a long time out in the sun. Be sure that dust, sand, chips and foreign matter will not enter the tool in the place where you leave it setting.
- Never attempt to drive fasteners from both the inside and outside at the same time. Fasteners may rip through and/or fly off, presenting a grave danger.

## Service

- Perform cleaning and maintenance right after finishing the job. Keep the tool in tip-top condition. Lubricate moving parts to prevent rusting and minimize frictionrelated wear. Wipe off all dust from the parts.
- Ask Makita authorized service center for periodical inspection of the tool.
- To maintain product SAFETY and RELIABILITY, maintenance and repairs should be performed by Makita Authorized Service Centers, always using Makita replacement parts.

## 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.**

## INSTALLATION

### Selecting compressor (Fig. 2)

The air compressor must comply with the requirements of EN60335-2-34.

Select a compressor that has ample pressure and air output to assure cost-efficient operation. The graph shows the relation between nailing frequency, applicable pressure and compressor air output.

Thus, for example, if nailing takes place at a rate of approximately 60 times per minute at a compression of 0.68 MPa (6.89 bar), a compressor with an air output over 281 L/minute is required.

Pressure regulators must be used to limit air pressure to the rated pressure of the tool where air supply pressure exceeds the tool's rated pressure. Failure to do so may result in serious injury to tool operator or persons in the vicinity.

### Selecting air hose (Fig. 3)

Use an air hose as large and as short as possible to assure continuous, efficient nailing operation. With an air pressure of 0.49 MPa (4.9 bar), an air hose with an internal diameter of over 8.0 mm and a length of less than 20 m is recommended when the interval between each nailing is 1 second. Air supply hoses shall have a minimum working pressure rating of 1.03 MPa (10.3 bar) or 150 percent of the maximum pressure produced in the system whichever is higher.

#### ⚠ CAUTION:

- Low air output of the compressor, or a long or smaller diameter air hose in relation to the nailing frequency may cause a decrease in the driving capability of the tool.

### Lubrication (Fig. 4)

To insure maximum performance, install an air set (oil, regulator, air filter) as close as possible to the tool. Adjust the oiler so that one drop of oil will be provided for every 50 nails.

When an air set is not used, oil the tool with pneumatic tool oil by placing 2 (two) or 3 (three) drops into the air fitting. This should be done before and after use. For proper lubrication, the tool must be fired a couple of times after pneumatic tool oil is introduced. (Fig. 5)

## ASSEMBLY

### Loading nailer

#### ⚠ CAUTION:

- Always disconnect the hose before loading the nailer. Depress the latch lever and open the door. And then open the magazine cap. (Fig. 6)

Lift and turn the coil support plate so that the coil support plate points the graduation of the nail length that you are going to install. (Fig. 7)

#### Notice:

An improperly positioned coil support plate may cause poor nail feed or malfunction of the tool. (Fig. 8)

Place the nail coil over the coil support plate. Uncoil nails enough to reach the feed claw. Place the first nail in the driver channel and the second nail in the feed claw. Place other uncoiled nails on feeder body. Make sure that the nail coil is set properly in the magazine and close the magazine cap.

### Connecting air hose (Fig. 9)

Slip the air socket of the air hose onto the air fitting on the nailer. Be sure that the air socket locks firmly into position when installed onto the air fitting. A hose coupling must be installed on or near the tool in such a way that the pressure reservoir will discharge at the time the air supply coupling is disconnected.

## OPERATION

#### ⚠ CAUTION:

- WITH THE TRIGGER HELD IN A HALF-PULLED POSITION, an unexpected nailing could occur, if contact element is allowed to re-contact against the workpiece or the other surface under the influence of recoil. In order to avoid this unexpected nailing, perform as follows;
  - Do not place the contact element against the workpiece with excessive force.
  - Pull the trigger fully and hold it on for 1 – 2 seconds after nailing.
- Do not operate the tool without nails. It shortens the life of the tool.
- Make sure all safety systems are in working order before operation. (Fig. 10)
  - Only pulling trigger without contact element contacting workpiece must not bring about the tool firing. (Fig. 11)
  - Only contact element contacting workpiece without pulling trigger must not bring about the tool firing.

### Driving nails (Fig. 12)

Place the contact element against the workpiece and pull the trigger, or pull the trigger first and then place the contact element against the workpiece. (Fig. 13)

The first method is for intermittent nailing, when you wish to drive a nail carefully and very accurately.

The second method is for continuous nailing.

### Use of sequential trip trigger (accessory)

To drive a nail, you may place the contact element against the workpiece and pull the trigger.

#### ⚠ CAUTION:

- WITH THE TRIGGER HELD IN A HALF-PULLED POSITION, an unexpected nailing could occur, if contact element is allowed to re-contact against the workpiece or the other surface under the influence of recoil. In order to avoid this unexpected nailing, perform as follows;
  - Do not place the contact element against the workpiece with excessive force.
  - Pull the trigger fully and hold it on for 1 – 2 seconds after nailing.

### Jammed nailer

#### ⚠ CAUTION:

- Always disconnect the air hose and remove the nails from the magazine before cleaning a jam. (Fig. 14)
- When the nailer becomes jammed, do as follows:  
Open the magazine cap and remove the nail coil. Insert a small rod or the like into the ejection port and tap it with a hammer to drive out the nail jamming from the ejection port. Reset the nail coil and close the magazine cap.

## MAINTENANCE

### CAUTION:

- Always disconnect the air hose from the tool before attempting to perform inspection or maintenance.
- Never use gasoline, benzene, thinner, alcohol or the like. Discoloration, deformation or cracks may result.

### Maintenance of nailer (Fig. 15)

Always check the tool for its overall condition and loose screws before operation. Tighten as required.

With tool disconnected, make daily inspection to assure free movement of the contact element and trigger. Do not use tool if the contact element or trigger sticks or binds. (Fig. 16)

When the tool is not to be used for an extended period of time, lubricate the tool using pneumatic tool oil and store the tool in a safe place. Avoid exposure to direct sunlight and/or humid or hot environment.

### Maintenance of compressor, air set and air hose (Fig. 17 & 18)

After operation, always drain the compressor tank and the air filter. If moisture is allowed to enter the tool, it may result in poor performance and possible tool failure. (Fig. 19)

Check regularly to see if there is sufficient pneumatic oil in the oiler of the air set. Failure to maintain sufficient lubrication will cause O-rings to wear quickly. (Fig. 20) Keep the air hose away from heat (over 60°C, over 140°F), away from chemicals (thinner, strong acids or alkalis). Also, route the hose away from obstacles which it may become dangerously caught on during operation. Hoses must also be directed away from sharp edges and areas which may lead to damage or abrasion to the hose.

### Handling nails (Fig. 21)

Handle nail coils and their box carefully. If the nail coils have been handled roughly, they may be out of shape or their connector breaks, causing poor nail feed. (Fig. 22) Avoid storing nails in a very humid or hot place or place exposed to direct sunlight.

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.

## OPTIONAL 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.

- Nails
- Air hoses

### NOTE:

- Some items in the list may be included in the tool package as standard accessories. They may differ from country to country.

## Noise

The typical A-weighted noise level determined according to EN792:

A-weighted sound pressure level at workstation ( $L_{pA}$ ): AN960: 95.7 dB (A), AN961: 97.4 dB (A)  
A-weighted sound power level ( $L_{WA}$ ): AN960: 96.9 dB (A), AN961: 98.0 dB (A)  
Uncertainty (K): 1.5 dB (A)

### Wear ear protection

ENG905-1

## Vibration

The vibration total value determined according to EN792:

Vibration emission ( $a_h$ ): 5.35 m/s<sup>2</sup>  
Uncertainty (K): 2.14 m/s<sup>2</sup>

ENG904-2

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:  
Pneumatic Pallet Coil Nailer  
Model No./Type: AN960, AN961  
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:  
EN792

The technical documentation is kept by:

Makita International Europe Ltd.  
Technical Department,  
Michigan Drive, Tongwell,  
Milton Keynes, Bucks MK15 8JD, England

29.11.2013



Tomoyasu Kato  
Director

Makita Corporation  
3-11-8, Sumiyoshi-cho,  
Anjo, Aichi, 446-8502, JAPAN