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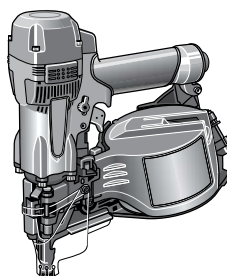
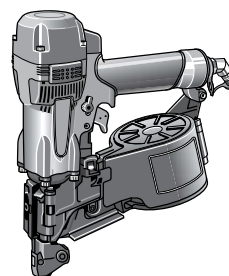
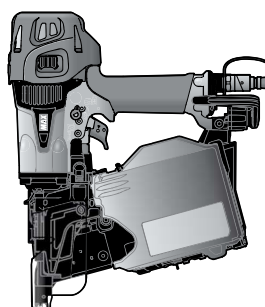
**OPERATING INSTRUCTIONS MANUAL  
MANUEL D'INSTRUCTIONS D'UTILISATION  
MANUAL DE INSTRUCCIONES DE FUNCIONAMIENTO  
BETRIEBSANLEITUNG  
MANUAL DE OPERACIONES Y MANTENIMIENTO**

**HIGH PRESSURE COIL NAILER  
CLOUEUSE À BOBINE HAUTE  
PRESSION  
CLAVADORA DE ALTA PRESIÓN PARA  
CLAVOS EN BOBINA  
HOCHDRUCK-COILNAGLER  
CHIODATRICE A BOBINA AD ALTA  
PRESSIONE**



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**HN65(CE)****HN65J(CE)****HN90F**

Original Language English

**▲WARNING**

Before using the tool, read and understand tool labels and Safety instruction manual and Operating instructions manual. Failure to follow warnings could result in serious injury. Keep these instructions with the tool for future reference.

**▲AVERTISSEMENT**

Veillez à lire et bien comprendre les étiquettes et le Manuel d'instructions sur la sécurité et le Manuel d'instructions d'utilisation avant d'utiliser cet outil. Tout manquement au respect des avertissements peut entraîner des blessures graves. Conservez ces instructions avec l'outil pour toute consultation ultérieure.

**▲ADVERTENCIA**

Lea y comprenda las etiquetas, el manual de instrucciones de seguridad y el manual de instrucciones de funcionamiento de la herramienta antes de usarla. El incumplimiento de las advertencias puede provocar lesiones graves. Conserve estas instrucciones junto con la herramienta para futuras consultas.

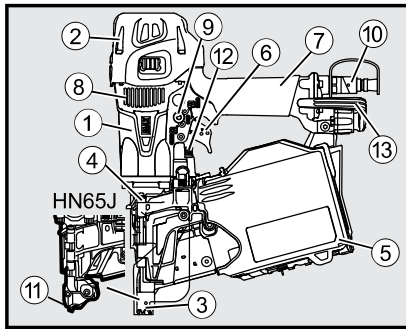
**▲WARNING**

Lesen Sie vor der Verwendung des Werkzeugs die Beschriftungen am Werkzeug, die Sicherheitsanleitung und die Betriebsanleitung sorgfältig durch. Das Nichtbefolgen der Warnungen kann zu schweren Verletzungen führen. Bewahren Sie diese Anweisungen zum späteren Nachschlagen mit dem Werkzeug zusammen auf.

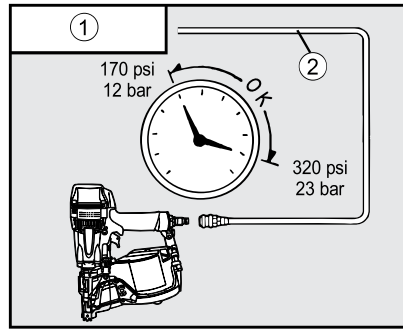
**▲AVVERTENZA**

Prima di utilizzare l'utensile, leggere e comprendere le etichette e i manuali Istruzioni di sicurezza e Istruzioni per l'uso dell'utensile. La mancata osservanza delle avvertenze potrebbe risultare in gravi lesioni personali. Conservare queste istruzioni insieme all'utensile per consultazioni future.

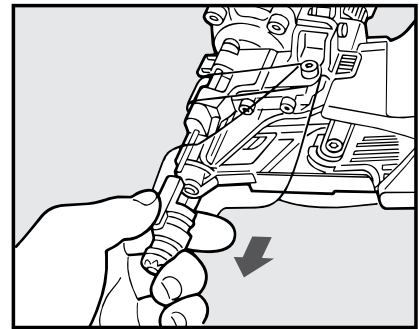
**Fig.1**



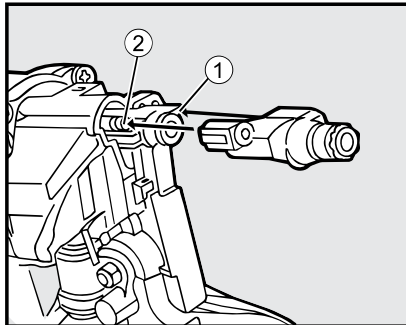
**Fig.2**



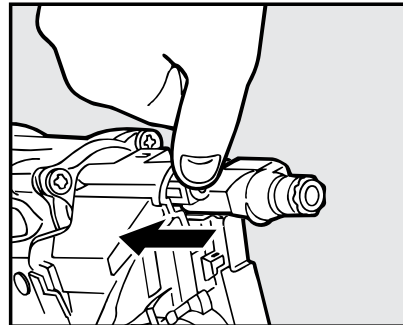
**Fig.3 (HN65)**



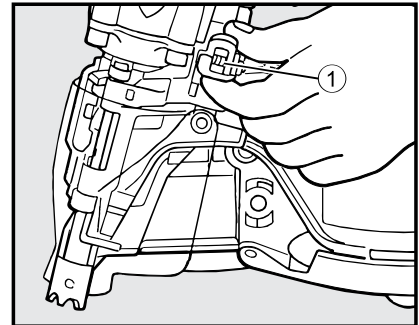
**Fig.4 (HN65)**



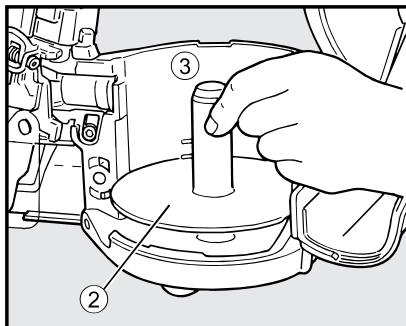
**Fig.5 (HN65)**



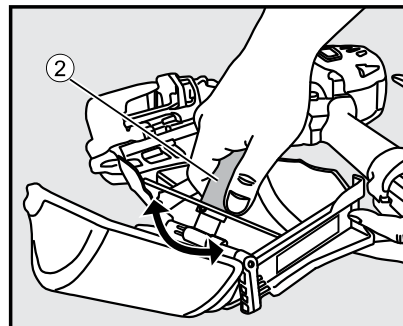
**Fig.6**



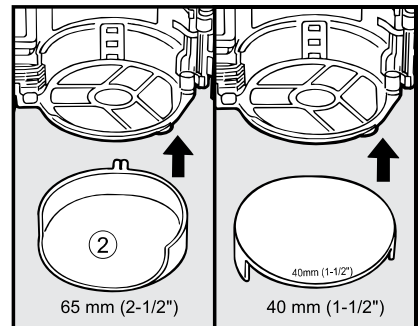
**Fig.7 (HN65)**



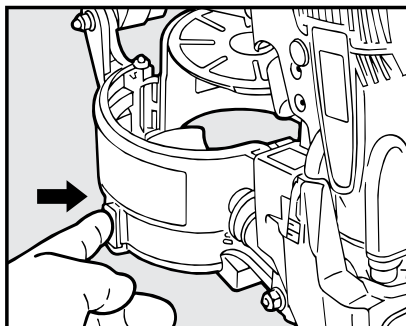
**Fig.8 (HN90F)**



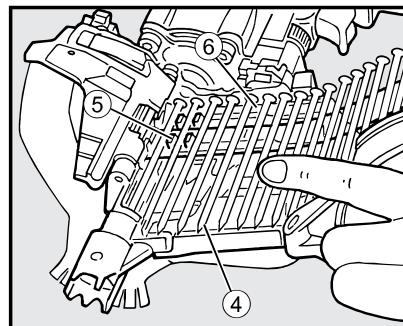
**Fig.9 (HN65J)**



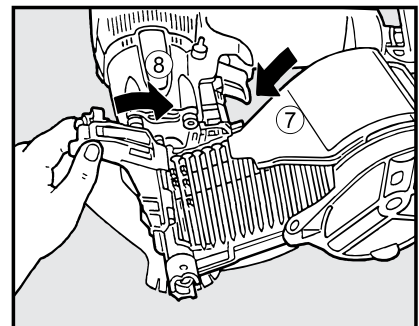
**Fig.10 (HN65J)**



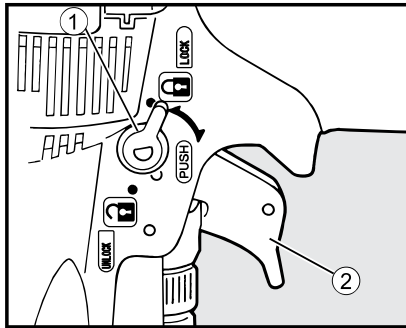
**Fig.11**



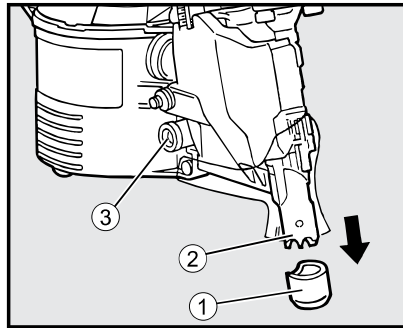
**Fig.12**



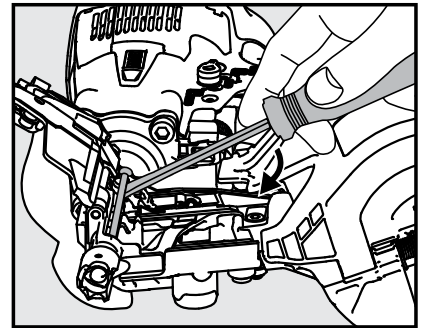
**Fig.13**



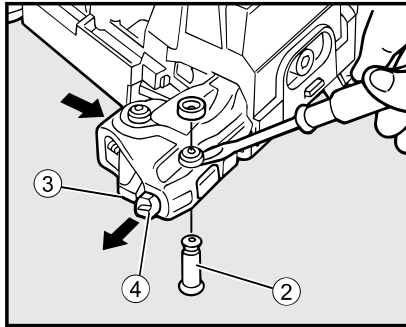
**Fig.14 (HN65, HN90F)**



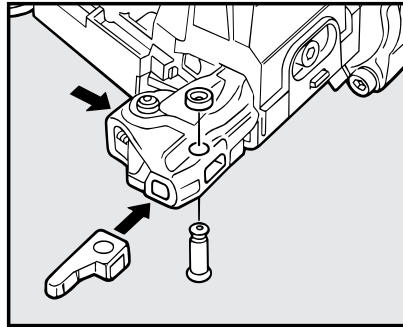
**Fig.15 (HN90F)**



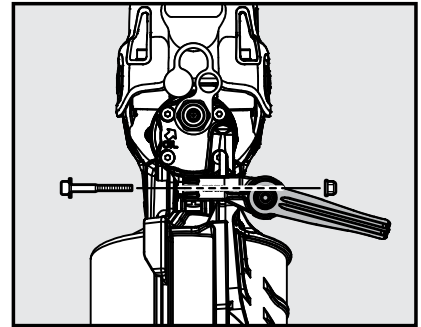
**Fig.16 (HN65J)**



**Fig.17 (HN65J)**



**Fig.18 (HN90F)**



# ENGLISH

## OPERATING INSTRUCTIONS MANUAL

### 1. SPECIFICATIONS AND TECHNICAL DATA

#### 1. NAME OF PARTS (SEE Fig.1)

- |                |                                |
|----------------|--------------------------------|
| ① Frame        | ⑧ Exhaust Cover                |
| ② Cylinder Cap | ⑨ Trigger Lock Dial            |
| ③ Contact Arm  | ⑩ Plug                         |
| ④ Nose         | ⑪ Aiming Guide Locator (HN65J) |
| ⑤ Magazine     | ⑫ Adjust Dial                  |
| ⑥ Trigger      | ⑬ Rafter Hook (HN90F)          |
| ⑦ Grip         |                                |

#### 2. TOOL SPECIFICATIONS

PRODUCT NO.	HN90F	HN65	HN65J
HEIGHT	331mm 13"	301mm 11-7/8"	291mm 11-1/2"
WIDTH	126mm 5"	129mm 5"	102mm 4"
LENGTH	298mm 11-3/4"	291mm 11-1/2"	291mm 11-1/2"
WEIGHT	2.6 kg 5.7 lbs.	1.9 kg 4.3 lbs.	2.0 kg 4.4 lbs.
RECOMMENDED OPERATING PRESSURE	12 to 23 bar 170 to 320 p.s.i.		
LOADING CAPACITY	300 Nails	400 Nails	100 Nails
AIR CONSUMPTION	3.4L at 18 bar / 257 p.s.i. operating pressure	1.7L at 18 bar / 257 p.s.i. operating pressure	1.4L at 18 bar / 257 p.s.i. operating pressure

#### 3. FASTENER SPECIFICATIONS

PRODUCT NO.	HN90F		HN65		HN65J
TYPE OF COLLATION	PLASTIC SHEET COLLATED	WIRE WELDED	PLASTIC SHEET COLLATED	WIRE WELDED	PLASTIC SHEET COLLATED
NAIL LENGTH	45 to 75mm 1-3/4" to 3"	45 to 90mm 1-3/4" to 3-1/2"	32 to 65mm 1-1/4" to 2-1/2"	38 to 65mm 1-1/2" to 2-1/2"	40 to 65mm 1-1/2" to 2-1/2"
SHANK DIAMETER	2.5 to 2.9mm .099" to .114"	2.5 to 3.8mm .099" to .148"	2.5 to 2.9mm .099" to .113"	2.1 to 3.3mm .083" to .131"	3.3 to 4.1mm .131" to .162"
SHANK TYPE	Smooth, Screw	Smooth, Ring, Screw	Smooth, Screw	Smooth, Ring, Screw	Smooth
HEAD DIAMETER	5.5 to 7.7mm .217" to .303"	6.0 to 7.7mm .236" to .303"	5.0 to 7.0mm .197" to .275"		7.2mm .283"

## 4. TECHNICAL DATA

### NOISE

	<b>HN90F</b>	<b>HN65</b>	<b>HN65J</b>
A-weighted single-event sound power level ----- LWA, 1s, d	93.1dB	90.0dB	89.9dB
A-weighted single-event emission sound pressure level at work station----- LpA, 1s, d	81.7dB	85.6dB	86.2dB
Uncertainty	3dB		

These values are determined and documented in accordance to EN12549:1999+A1:2008.

NOTE: These values are tool-related characteristic values and do not represent the noise generation at the point of use. Noise at the point of use will for example depend on the working environment, the workpiece, the workpiece support, and the number of driving operations. In addition, reference should be made to noise reduction measures.

NOTE: Workplace design can also serve to reduce noise levels, for example placing workpieces on sound-damping supports (see also ISO 11690-1).

### VIBRATION

	<b>HN90F</b>	<b>HN65</b>	<b>HN65J</b>
Vibration characteristic value	6.42 m/s <sup>2</sup>	4.13 m/s <sup>2</sup>	4.34 m/s <sup>2</sup>
Uncertainty	1.5 m/s <sup>2</sup>		

These values are determined and documented in accordance to ISO 28927-13

NOTE: The vibration emission value above is a tool-related characteristic value and does not represent the influence to the hand-arm-system when using the tool. Any influence to the hand-arm-system when using the tool will for example depend on the gripping force, the contact pressure force, the working direction, the adjustment of energy supply, the workpiece, the workpiece support.

## 5. APPLICATIONS

<b>HN90F</b>	<b>HN65</b>	<b>HN65J</b>
* Floor and wall framing * Subflooring * Roof and wall sheathing * Fencing	* Floor and wall framing * Subflooring * Roof and wall sheathing * Fencing	* Fastening metal connectors for wood construction.

## 6. ABOUT PRODUCTION YEAR

This product bears production number at the lower part of the grip of the main body. The two digits of the number from left indicates the production year.

(Example)

1 7 8 2 6 0 3 5 D

↑

Year 2017

## 2. AIR SUPPLY AND CONNECTIONS (Fig.2)

### A. HOSES AND SUPPLY SOURCE

WHEN USING THE TOOL, BE SURE TO USE A SPECIAL AIR COMPRESSOR AND AIR HOSE.

In order to improve its performance, it has set its working pressure higher than the conventional nailers. To use the tool, you always need the special air compressor ① and the air hose ② (MAX PowerLite Compressor and MAX PowerLite Hose).

Use of high pressure gas (for example, oxygen, acetylene, etc.) causes abnormal combustion, possibly resulting in explosion. Use only the special air compressor and air hose.

### B. OPERATING PRESSURE:

12 to 23 bar / 170 to 320 p.s.i. Select the operating air pressure within this range for best performance based upon the fastener application and work surface. Using the lowest acceptable to minimize noise, vibration and wear.

**⚠ DO NOT EXCEED 23 bar / 320 p.s.i.**

#### NOTICE:

Frequent, but not excessive, lubrication is required for the best performance. Upon completion of operations, place 2 or 3 drops of oil into the air plug inlet with the jet oiler.

## 3. INSTRUCTIONS FOR OPERATION

### 1. BEFORE OPERATION

- ① Wear Safety Glasses or Goggles.
- ② Do not connect the air supply.
- ③ Inspect screw tightness.
- ④ Check operation of the contact arm & trigger if moving smoothly.
- ⑤ Connect the air supply.
- ⑥ Check the air-leakage. (The Tool must not have the air-leakage.)
- ⑦ Hold the Tool with finger-off the trigger, then push the contact arm against the work-piece. (The tool must not operate.)
- ⑧ Hold the Tool with contact arm free from work-piece and pull the trigger. (The Tool must not operate.)
- ⑨ Disconnect the air supply.

### 2. OPERATION

#### ATTACHING THE CONTACT NOSE (HN65)

Attach the following contact noses depending on the nail head diameter used.

Head Diameter	Contact Nose	Color
5.0 to 6.0mm (.197" to .236")	Contact Nose S	Black
6.0 to 7.0mm (.236" to .275")	Contact Nose L	Silver

- ① (Fig.3) Pull the contact nose to remove it.
- ② (Fig.4,5) Aligning the rail with the contact arm, press the contact nose as shown in the figure to fit it until it clicks.

#### NAIL LOADING

- ① (Fig.6) Open the Magazine:  
Pull up Door Latch ① and swing Door open. Swing Magazine Cap open.
- ② (Fig.7) (HN65) Check adjustment:  
The Nail Support ② can be moved up and down to four settings. To change setting pull up on the Nail Post and twist to the correct step. The Nail Support should be adjusted correctly to the position indicated in inches and millimeters inside Magazine ③.  
(Fig.8) (HN90F)  
The nail support ② can be moved up and down to four settings. The nail support moves down by turning it counter-clockwise and moves up by turning it clockwise. The nail support should be adjusted correctly to the position indicated in inches and millimeters.

(Fig.9,10) (HN65J) When using 40mm / 1-1/2" nails, attach the nail support ② in such a manner that a mark "40" can be seen. When using 65mm / 2-1/2" ones, attach the nail support ② upside down.

To detach, push the latch on the back of the magazine with a finger.

- ③ (Fig.11) Nail loading:  
Place a coil of nails ④ over the Nail Post in the Magazine. Uncoil enough nails to reach the Feed Pawl ⑤, and place the second nail between the teeth on the Feed Pawl. The nail heads fit in slot ⑥ on Nose.

- ④ (Fig. 12) Swing Magazine Cap ⑦ closed.

- ⑤ (Fig. 12) Close the Door ⑧.

Check that Door Latch ① engages. (If it does not engage, check that the nail heads are in the slot ⑥ on the Nose).

#### TEST OPERATION

- ① Adjust the air pressure at 170 p.s.i. (12 bar) and connect the air supply.
- ② Without touching the Trigger, depress the Contact Arm against the work-piece.  
Pull the Trigger. (The tool should fire the fastener.)
- ③ With the tool off the work-piece, pull the Trigger.  
Then depress the Contact Arm against the work-piece. (Tool with red triggers should fire the fastener, but tool with orange triggers should not.)
- ④ Adjust the air pressure as much as the lowest possible according to the diameters and length of fastener and the hardness of work-piece.

#### DRIVING FASTENERS

HN65J

This tool is assembled with FULL SEQUENTIAL TRIP.



HN65, HN90F

This tool is shipped with CONTACT TRIP WITH ANTI-DOUBLE FIRE MECHANISM selected.

It is the responsibility of employer, tool owner or tool operator to select the appropriate actuation system for the fastener application and training of tool operator before changing the trigger setting.

SWITCHING CONTACT TRIP WITH ANTI-DOUBLE FIRE MECHANISM TO FULL SEQUENTIAL TRIP (Option) (HN90F, HN65)

To change the trigger system, please contact MAX CO., LTD. authorized distributors and have them change the system.

SWITCHING FULL SEQUENTIAL TRIP (Option) TO CONTACT TRIP WITH ANTI-DOUBLE FIRE MECHANISM (HN90F, HN65)  
To change the trigger system, please contact MAX CO., LTD. authorized distributors and have them change the system.

CONTACT FIRE OPERATION (CONTACT TRIP) (HN90F, HN65)

For contact fire operation, pull the Trigger and depress the Contact Arm against the work surface.

SINGLE FIRE OPERATION (ANTI-DOUBLE FIRE MECHANISM) (HN90F, HN65)

For single fire operation, depress the Contact Arm against the work surface and pull the Trigger. A fastener will be driven. Release trigger. Begin again.

SINGLE FIRE OPERATION (FULL SEQUENTIAL TRIP) (For tool with orange triggers)

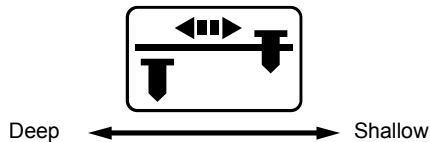
For single fire operation, depress the Contact Arm against work surface and pull trigger. A fastener will be driven. Release both trigger and Contact Arm. Begin again.

	PROCEDURE
	<ol style="list-style-type: none"> <li>1 Pulling the Trigger and keeping it pulled.</li> <li>2 Depressing the Contact Arm.</li> </ol>
CONTACT TRIP WITH ANTI-DOUBLE FIRE MECHANISM	The tool fires a nail each time when the Contact Arm is depressed.
SEQUENTIAL TRIP	The tool cannot fire a nail.

	PROCEDURE
	<ol style="list-style-type: none"> <li>1 Depressing the Contact Arm.</li> <li>2 Pulling the Trigger and keeping it pulled.</li> </ol>
CONTACT TRIP WITH ANTI-DOUBLE FIRE MECHANISM	The tool fires a nail. The tool cannot fire a second nail until the Trigger is released.
SEQUENTIAL TRIP	The tool fires a nail. In order to fire a second nail, you should both release the Trigger and remove the Contact arm from the surface.

### DRIVING DEPTH ADJUSTMENT DIAL

Adjust the driving depth by twisting the adjustment dial ⑫ as indicated below.



### TRIGGER LOCK MECHANISM (Fig.13)

This tool has a Trigger Lock. The trigger should be locked at all times until you intend to drive nail into the work surface. Push and rotate the Trigger LOCK Dial ① clockwise from LOCK to UN-LOCK position immediately before driving nails. When fastening is complete, push and rotate switch counterclockwise to LOCK position.

### CONTACT TIP (Fig.14) (HN90F, HN65)

Attach the Contact Tip ① on the tip of Contact Arm ②, when driving nails to a soft material.

The Contact Tip can be kept on the Arm Cover ③ when not using.

### REMOVING JAMMED NAILS (Fig.15)

#### **⚠ WARNING**

- **ALWAYS disconnect the air supply.**
- **Wear gloves when removing jams; do not use bare hands**
- **Confirm that you have removed all nails from nose of tool before reconnecting to air supply.**

- 1 Disconnect the air supply.
- 2 Open the tool door and remove nails from inside of the magazine.
- 3 Insert a thin metal stick in the tool nose and hit the metal stick with a hammer or remove the jam with a flathead screwdriver.
- 4 Put back the nails on the feed pawl and close the tool door.

### WHEN USING THE TOOL FOR STEEL PLATES

(HN90F, HN65)

(HN65) This tool is exclusively designed for 1.6mm / 16Ga. to 2.3mm / 13Ga. thick light gauge steel.

(HN90F) This tool is exclusively designed for 1.6mm / 16Ga. to 3.2mm / 11Ga. thick light gauge steel.

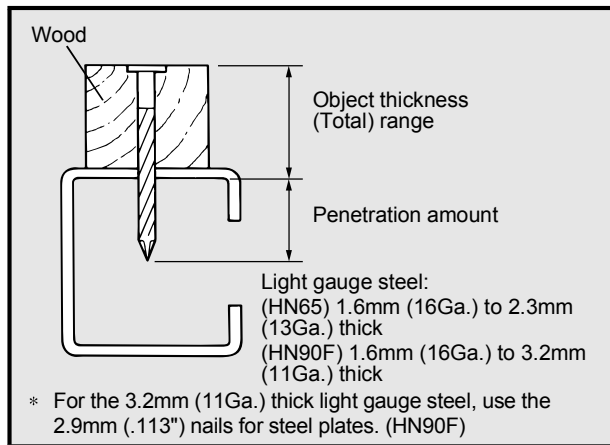
When using it, comply with the Work Standards, considering the object condition and work site environment.

- 1 Select appropriate nails according to the object thickness, seeing the Nail Selection Criteria Chart.
- \* The nails may not be driven into the object depending on its hardness or thickness.
  - \* If the object is thicker than an appropriate range of thickness, the nails may not be driven into it because of being bent.

- 2 If the thickness of the light gauge steel foundations material used is 3.2mm / 11Ga., use the 2.9mm / .113" nails for steel plate. (HN90F)
- 3 Never drive the nails directly into the light gauge steel because they will fly off, endangering you.
- 4 Be sure to apply the discharge outlet to the object at a right angle. If applied obliquely, the nails will fly off, endangering you.
- 5 Never use the nails for the roofs (roof foundations included) or ceilings (ceiling foundations included).
- 6 If the nails are driven into the steel plate too deeply, their holding force will be extremely reduced. When working with the tool, fully check the driven conditions.

### Nail Selection Criteria

Tool	Diameter	Length	Object thickness (Total) range	Light gauge steel thickness
HN65 HN90F	2.5mm (.098")	45mm (1-3/4")	25 to 35mm (1" to 1-3/8")	1.6 to 2.3mm (16Ga. to 13Ga.)
		50mm (2")	30 to 40mm (1-1/8" to 1-1/2")	
		57mm (2-1/4")	35 to 45mm (1-3/8" to 1-3/4")	
		65mm (2-1/2")	45 to 55mm (1-1/2" to 1-1/8")	
HN90F	2.9mm (.113")	45mm (1-3/4")	25 to 35mm (1" to 1-3/8")	1.6 to 3.2mm (16Ga. to 11Ga.)
		50mm (2")	30 to 40mm (1-1/8" to 1-1/2")	
		57mm (2-1/4")	35 to 45mm (1-3/8" to 1-3/4")	
		65mm (2-1/2")	45 to 55mm (1-1/2" to 1-1/8")	



### REPLACING THE AIMING GUIDE LOCATOR

(HN65J)

The aiming guide locator is worn out depending on the frequency of use.

If the machine cannot be easily held vertically when setting the aiming guide locator in a hole in a metal fitting, it is about time to replace.

Replace it in the following procedure:

- 1 (Fig.16) Remove a rubber washer ① with a regular screwdriver to pull out a pin ②. Push the nail leg guide ③ to remove the aiming guide locator ④.
- 2 (Fig.17) Attach a new aiming guide locator, set the pin and put back the rubber washer.

When replacing the aiming guide locator, contact the nearest MAX CO., LTD. authorized distributor.

### CHANGING THE HOOK DIRECTION (HN90F)

(Fig.18) The hook can be directed in the two direction. Remove the hexagon socket cap screw with hexagon wrench, change the direction, and then, put back the bolt to reassemble.