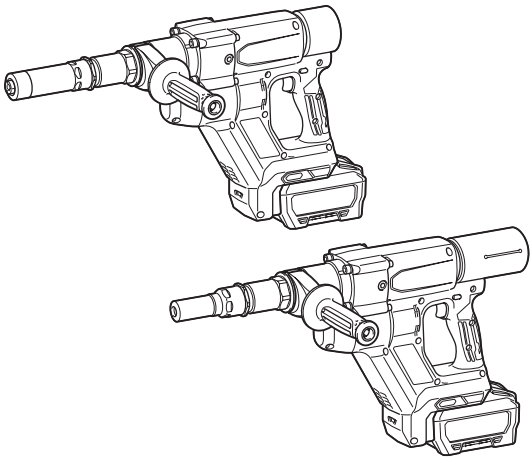
ENGLISH: Original instructions

INSTRUCTION MANUAL

Lockbolt/Blind Rivet Installation Tool

BV17-177
BV13-177



IMPORTANT: Read Before Using.

SPECIFICATIONS

Model:		BV17-177	BV13-177
Pulling force		75 kN	55 kN
Stroke		45.0 mm (1-3/4")	
Overall length with BL4050F		600 mm (23-5/8")	
Rated voltage		D.C. 36 V - 40 V max	
Net weight		*** - *** kg (*** - *** lbs)	
Applicable rivet	lockbolt (without breaking off a mandrel)	Applicable	
	blind rivet or lockbolt (with breaking off a mandrel)	NOT applicable	Applicable

NOTICE: **Do not use BV17-177 for a blind rivet or lockbolt (with breaking off a mandrel).** Otherwise the broken off mandrel jamms in the tool and malfunction result.

- Due to our continuing program of research and development, the specifications herein are subject to change without notice.
- Specifi cations may differ from country to country.
- The weight may differ depending on the attachment(s), including the battery cartridge. The lightest and heavi - est combination, accor ding to EPTA-Procedure 01/2014, are shown in the table.

Applicable battery cartridge and charger

Battery cartridge	BL4025* / B L4040* / BL4050F * * : Recommended battery
Charger	DC40RA / DC40RB / DC40RC

- Some of the battery cartridges and chargers listed above may not be available depending on your region of residence.

⚠***WARNING:*** **Only use the battery cartridges and chargers listed above.** Use of any other battery cartridges and chargers may cause injury and/or fire.

EC Declaration of Conformity

For European countries only

Manufacturer: Howmet Fastening Systems Ltd. Units C & D Stafford Park 7, Telford, Shropshire, TF3 3BQ, United Kingdom. **Description of Machinery: Model Name "HUCK Rechargeable Battery Tool", Model No. "BV17-177" and "BV13-177".**
Relevant Provisions complied with: Council Directive related to Machine (2006/42/EC), EN 62841-1:2015, Electric motor-operated hand-held tools, transportable tools and lawn and garden machin - ery – Safety – Part 1: General requirements. **Council Directive related to EMC (2014/30EU), EN55014-1:2017+A11:2020**, Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 1: Emission. **EN 55014-2:2015**, Electromagnetic compatibility – Requirements for household appliances, elect ric tools and similar apparatus – Part 2 : Immunity – Product family stan - dard. **Council Directive related to RoHS (2011/65/EU), EN IEC 63000:2018**, Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances.
European Representative: Andrew Frost, Howmet Fastening Systems Ltd.
Authorized Signature/Date: I, the undersigned, do hereby declare that the equipment specified above conforms to the above Direc tive(s) and standard(s).

Signature:

Full name: Andrew Frost
Position: Engineering Manager, **Location:** Howmet Fastening Systems - Industrial Fastener Division. Units C & D, Stafford Park 7, Telford, Shropshire, TF3 3BQ, United Kingdom. **Date:**dd.mm.yyyy

SAFETY WARNINGS

General power tool safety warnings

⚠***WARNING:*** **Read all safety warnings, instructions, illustrations and specifications provided with this power tool.** Failure to follow all instructions listed below 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

1. **Keep work area clean and well lit.** Cluttered or 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 children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

Electrical Safety

1. **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.
2. **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.
3. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
4. **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.
5. **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.
6. **If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply.** Use of a GFCI reduces the risk of electric shock.
7. **Power tools can produce electromagnetic fields (EMF) that are not harmful to the user.** However, users of pacemakers and other similar medical devices should contact the maker of their device and/or doctor for advice before operating this power tool.

Personal Safety

1. **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.
2. **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.
3. **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.
4. **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.
5. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
6. **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.
7. **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.
8. **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.
9. **Always wear protective goggles to protect your eyes from injury when using power tools. The goggles must comply with ANSI Z87.1 in the USA.**
   It is an employer's responsibility to enforce the use of appropriate safety protective equipment by the tool operators and by other persons in the immediate working area.

Power tool use and care

1. **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.
2. **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.
3. **Disconnect the plug from the power source and/or remove the battery pack, if detachable, 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.
4. **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.
5. **Maintain power tools and accessories. 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.
6. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. **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.
8. **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

9. **When using the tool, do not wear cloth work gloves which may be entangled.** The entanglement of cloth work gloves in the moving parts may result in personal injury.

Battery tool use and care

1. **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
2. **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
3. **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
4. **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.
5. **Do not use a battery pack or tool that is damaged or modified.** Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
6. **Do not expose a battery pack or tool to fire or excessive temperature.** Exposure to fire or temperature above 130 °C may cause explosion.
7. **Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.** Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

Service

1. **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.
2. **Never service damaged battery packs.** Service of battery packs should only be performed by the manufacturer or authorized service providers.
3. **Follow instruction for lubricating and changing accessories.**
4. **Do not modify or attempt to repair the appliance or the battery pack except as indicated in the instructions for use and care.**

Lockbolt/blind rivet installation tool safety warnings

1. **Hold the tool firmly.**
2. **Keep hands or face away from moving parts.**
3. **Always secure workpieces in a vise or similar hold-down device.**
4. **Always be sure you have a firm footing. Be sure no one is below when using the tool in high locations.**
5. **Never place the tool on unstable surface.** When the tool drops from high locations, it may cause an accident or injury.
6. **When operating the tool, do not block or seal the ventilation windows of the tool.**

Symbols

The followings show the symbols used for tool.

V	volts
⎓	direct current

Important safety instructions for battery cartridge

1. **Before using battery cartridge, read all instructions and cautionary markings on (1) battery charger, (2) battery, and (3) product using battery.**
2. **Do not disassemble or tamper with the battery cartridge.** It may result in a fire, excessive heat, or explosion.
3. **If operating time has become excessively shorter, stop operating immediately. It may result in a risk of overheating, possible burns and even an explosion.**
4. **If electrolyte gets into your eyes, rinse them out with clear water and seek medical attention right away. It may result in loss of your eyesight.**
5. **Do not short the battery cartridge:**
   (1) **Do not touch the terminals with any conductive material.**
   (2) **Avoid storing battery cartridge in a container with other metal objects such as nails, coins, etc.**
   (3) **Do not expose battery cartridge to water or rain.**

   A battery short can cause a large current flow, overheating, possible burns and even a breakdown.
6. **Do not store and use the tool and battery cartridge in locations where the temperature may reach or exceed 50 °C (122 °F).**
7. **Do not incinerate the battery cartridge even if it is severely damaged or is completely worn out. The battery cartridge can explode in a fire.**
8. **Do not nail, cut, crush, throw, drop the battery cartridge, or hit against a hard object to the battery cartridge.** Such conduct may result in a fire, excessive heat, or explosion.
9. **Do not use a damaged battery.**
10. **The contained lithium-ion batteries are subject to the Dangerous Goods Legislation requirements.**
    For commercial transports e.g. by third parties, forwarding agents, special requirement on packaging and labeling must be observed.
    For preparation of the item being shipped, consulting an expert for hazardous material is required.
    Please also observe possibly more detailed national regulations.
    Tape or mask off open contacts and pack up the battery in such a manner that it cannot move

around in the packaging.

11. **When disposing the battery cartridge, remove it from the tool and dispose of it in a safe place. Follow your local regulations relating to disposal of battery.**
12. **Use the batteries only with the products specified by Makita.** Installing the batteries to non-compliant products may result in a fire, excessive heat, explosion, or leak of electrolyte.
13. **If the tool is not used for a long period of time, the battery must be removed from the tool.**
14. **During and after use, the battery cartridge may take on heat which can cause burns or low temperature burns. Pay attention to the handling of hot battery cartridges.**
15. **Do not touch the terminal of the tool immediately after use as it may get hot enough to cause burns.**
16. **Do not allow chips, dust, or soil stuck into the terminals, holes, and grooves of the battery cartridge.** It may cause heating, catching fire, burst and malfunction of the tool or battery cartridge, resulting in burns or personal injury.
17. **Unless the tool supports the use near high-voltage electrical power lines, do not use the battery cartridge near a high-voltage electrical power lines.** It may result in a malfunction or breakdown of the tool or battery cartridge.
18. **Keep the battery away from children.**

SAVE THESE INSTRUCTIONS.

⚠*CAUTION:* Only use genuine Makita batteries. Use of non-genuine Makita batteries, or batteries that have been altered, may result in the battery bursting causing fires, personal injury and damage. It will also void the Makita warranty for the Makita tool and charger.

Tips for maintaining maximum battery life

1. **Charge the battery cartridge before completely discharged. Always stop tool operation and charge the battery cartridge when you notice less tool power.**
2. **Never recharge a fully charged battery cartridge. Overcharging shortens the battery service life.**
3. **Charge the battery cartridge with room temperature at 10 °C - 40 °C (50 °F - 104 °F). Let a hot battery cartridge cool down before charging it.**
4. **When not using the battery cartridge, remove it from the tool or the charger.**
5. **Charge the battery cartridge if you do not use it for a long period (more than six months).**

FUNCTIONAL DESCRIPTION

⚠*CAUTION:* Always be sure that the tool is switched off and the battery cartridge is removed before adjusting or checking function on the tool.

Installing or removing battery cartridge

⚠*CAUTION:* Always switch off the tool before installing or removing of the battery cartridge.

⚠*CAUTION:* Hold the tool and the battery cartridge firmly when installing or removing battery cartridge. Failure to hold the tool and the battery cartridge firmly may cause them to slip off your hands and result in damage to the tool and battery cartridge and a personal injury.

To remove the battery cartridge, slide it from the tool while sliding the button on the front of the cartridge.

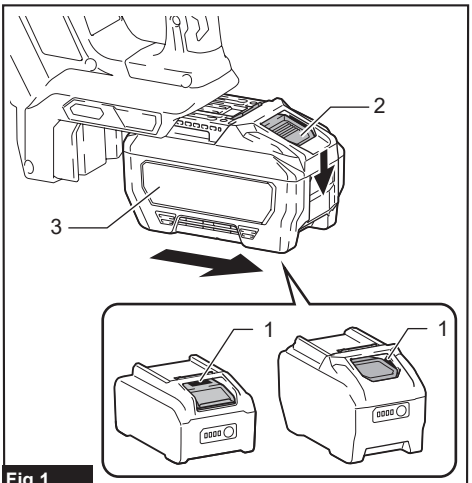


Fig.1

► **1.** Red indicator **2.** Button **3.** Battery cartridge

To install the battery cartridge, align the tongue on the battery cartridge with the groove in the housing and slip it into place. Insert it all the way until it locks in place with a little click. If you can see the red indicator on the upper side of the button, it is not locked completely.

⚠*CAUTION:* Always install the battery cartridge fully until the red indicator cannot be seen. If not, it may accidentally fall out of the tool, causing injury to you or someone around you.

⚠*CAUTION:* Do not install the battery cartridge forcibly. If the cartridge does not slide in easily, it is not being inserted correctly.

Indicating the remaining battery capacity

Press the check button on the battery cartridge to indicate the remaining battery capacity. The indicator lamps light up for a few seconds.

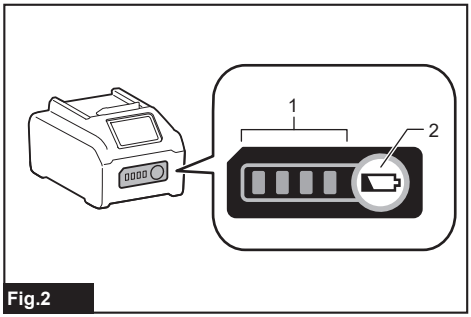


Fig.2

► **1.** Indicator lamps **2.** Check button

Indicator lamps			Remaining capacity
Lighted	Off	Blinking	
■	□	◪	
■ ■ ■ ■			75% to 100%
■ ■ ■ □			50% to 75%
■ ■ □ □			25% to 50%
■ □ □ □			0% to 25%
◪ □ □ □			Charge the battery.
■ ■ □ □ ↑ ↓ □ □ ■ ■			The battery may have malfunctioned.

NOTE: Depending on the conditions of use and the ambient temperature, the indication may differ slightly from the actual capacity.

NOTE: The first (far left) indicator lamp will blink when the battery protection system works.

Tool / battery protection system

The tool is equipped with a tool/battery protection system. This system automatically cuts off power to the motor to extend tool and battery life. The tool will automatically stop during operation if the tool or battery is placed under one of the following conditions:

Overload protection

When the battery is operated in a manner that causes it to draw an abnormally high current, the tool automatically stops without any indication. In this situation, turn the tool off and stop the application that caused the tool to become overloaded. Then turn the tool on to restart.

Overheat protection

When the tool or battery is overheated, the tool stops automatically and the lamp blinks. In this case, let the tool and battery cool before turning the tool on again.

Overdischarge protection

When the battery capacity is not enough, the tool stops automatically and the lamp blinks. In this case, remove the battery from the tool and charge the battery.

Switch action

⚠*WARNING:* Before installing the battery cartridge into the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.

⚠*CAUTION:* When not operating the tool, depress the trigger-lock button from 🔒 side to lock the switch trigger in the OFF position.

To prevent the switch trigger from accidentally pulled, the trigger-lock button is provided. To start the tool, depress the trigger-lock button from A (🔓) side and pull the switch trigger. Release the switch trigger to stop. After use, depress the trigger-lock button from B (🔒) side.

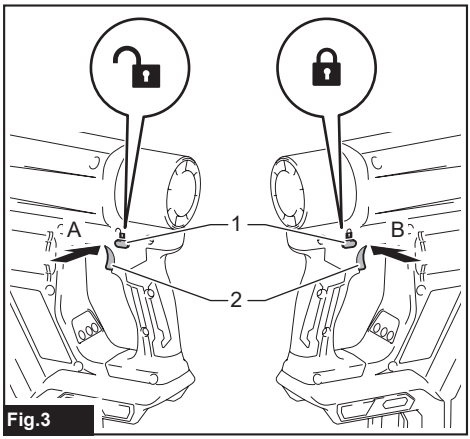


Fig.3

► **1.** Trigger-lock button **2.** Switch trigger

Control panel

You can adjust the pulling force of the tool. You can also lock the buttons on the control panel.

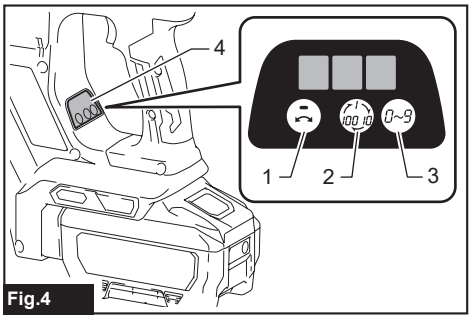


Fig.4

► **1.** Button A **2.** Button B **3.** Button C **4.** Control panel

Pulling force adjustment

To change the pulling force, follow the steps below.

1. Press button A for a few seconds.

2. Enter the value for the pulling force.

To change the value, press button C. To change the digit, press button B. To set the value, press button A for a few seconds. The value can be set between "000" and "999".

Locking the buttons

To lock the buttons on the control panel, press button A and button C for a few seconds. To unlock the buttons, press button A and button C for a few seconds again.

NOTE: When the buttons are locked, "hyphen (---)" is displayed instead of digit.

Lighting up the front lamp

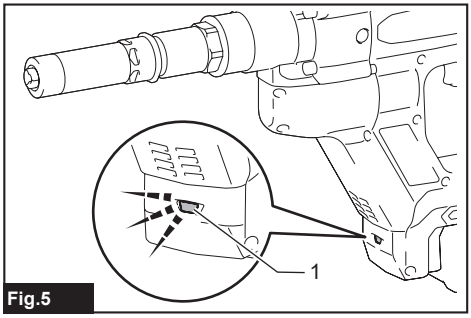


Fig.5

► **1.** Lamp

⚠*CAUTION:* Do not look in the light or see the source of light directly.

Pull the switch trigger to light up the lamp. The lamp keeps on lighting while the switch trigger is being pulled. The lamp goes out approximately 10 seconds after releasing the switch trigger.

NOTE: When the remaining amount of the battery becomes low, the lamp blinks a few times. In this case, charge the battery or replace the battery with a charged one.

NOTE: Use a dry cloth to wipe the dirt off the lens of the lamp. Be careful not to scratch the lens of lamp, or it may lower the illumination.

ASSEMBLY

⚠*CAUTION:* Always be sure that the tool is switched off and the battery cartridge is removed before carrying out any work on the tool.

Installing or removing the pulling unit (nose assembly)

⚠*CAUTION:* Follow the procedure according to this instruction with an appropriate tool when installing or removing the pulling unit (nose assembly). Insufficient assembly of the pulling unit (nose assembly) may cause an injury.

The component configuration of the pulling unit (nose assembly) is as shown in the figure.

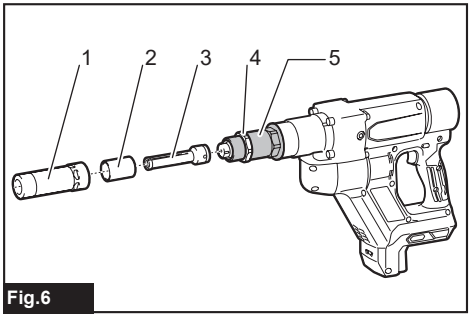


Fig.6

► **1.** Anvil holder **2.** Sleeve **3.** Puller * **4.** Lock nut **5.** Nose adapter

* The number of parts that compose the puller varies on your tool.

Removing the pulling unit (nose assembly)

1. Loosen the lock nut with a wrench while holding the anvil holder with another wrench.

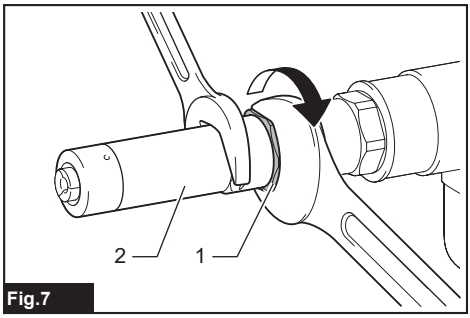


Fig.7

► **1.** Lock nut **2.** Anvil holder

2. Remove the anvil holder with a wrench while holding the nose adapter with another wrench.

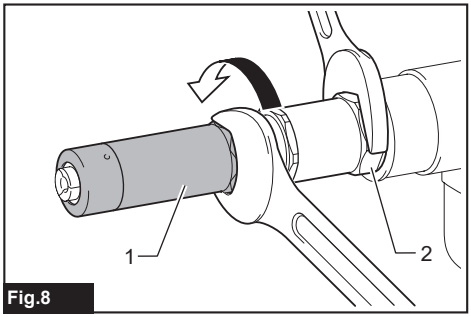


Fig.8

► **1.** Anvil holder **2.** Nose adapter

3. Remove the sleeve by sliding it in the arrow as shown in the figure.

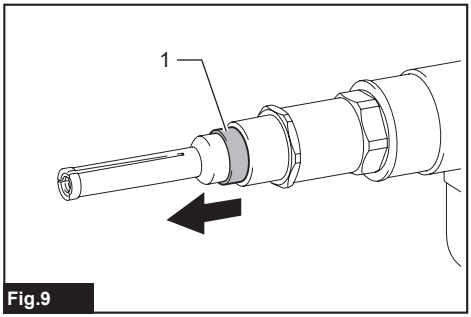


Fig.9

► **1.** Sleeve

4. Loosen the puller while holding the nose adapter.

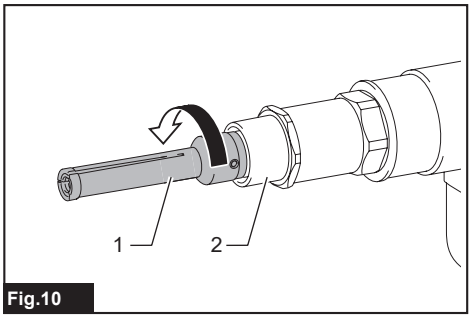


Fig.10

► **1.** Puller **2.** Nose adapter

Installing the pulling unit (nose assembly)

1. Once install the puller all the way until it contacts the surface of the joint.

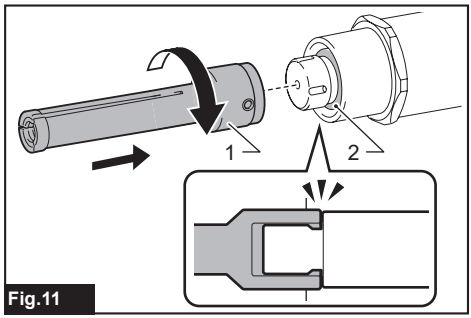


Fig.11

► **1.** Puller **2.** Surface of the joint

2. Slightly loosen the puller so that the steel ball fits in one of the grooves on the joint.

If the steel ball is not fit in the groove, the sleeve cannot be installed in the correct position.

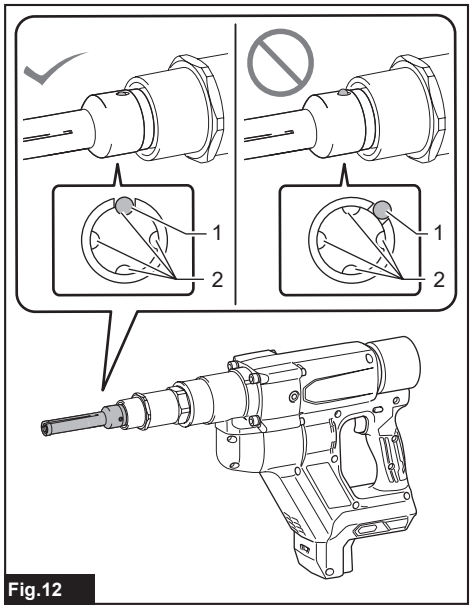


Fig.12

► **1.** Steel ball **2.** Grooves on the joint

3. Install the sleeve.

4. Install the anvil holder with a wrench while holding the nose adapter with another wrench. Be sure to tighten the anvil holder firmly.

5. Install the lock nut with a wrench while holding the anvil holder with another wrench. Be sure to tighten the lock nut firmly.

Installing or removing the mandrel container

For model BV13-177

NOTICE: **Be sure to install the mandrel container to the tool before operating the tool.** If the mandrel container is not installed to the tool, the tool will not operate.

Remove the mandrel container from the tool when you empty the mandrel container.
To remove the mandrel container, rotate it counter clockwise.

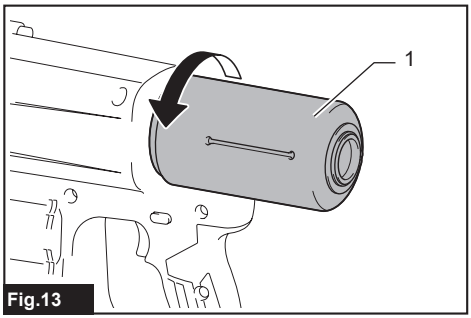


Fig.13

► **1.** Mandrel container

NOTICE: ***For model BV17-177***

Do not remove the rear cap from the tool. No need to remove the rear cap. If the rear cap is not installed to the tool, the tool will not operate.

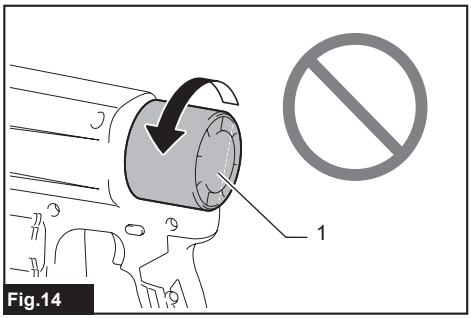


Fig.14

► **1.** Rear cap

Installing side grip

⚠CAUTION: **After installing or adjusting the side grip, make sure that the side grip is firmly secured.**

NOTICE: **Do not install the side grip to any other area than the designated mounting area.**

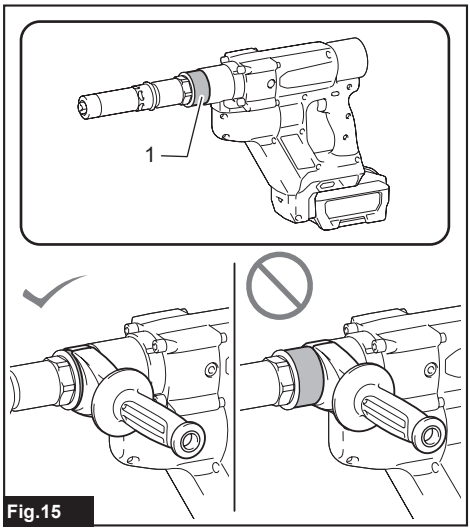


Fig.15

► **1.** Mounting area

Side grip (auxiliary handle)

The side grip can be swung, allowing easy handling of the tool in any position. Loosen the side grip by turning it counterclockwise, swing it to the desired position and then tighten it by turning clockwise.

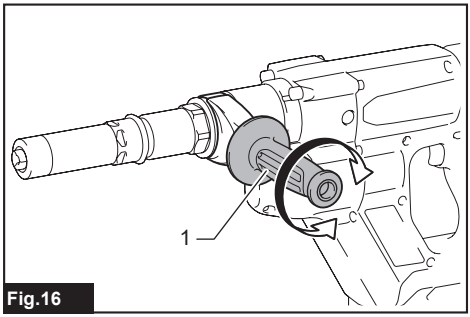


Fig.16

► **1.** Side grip

OPERATION

⚠***CAUTION:*** **Keep your hand or face away from the front part of the tool.** The rivet or broken off mandrel may accidentally ejected, and you may be injured.

⚠***CAUTION:*** **Do not operate the tool without workpiece.** Otherwise the lockbolt or blind rivet may come off the tool and cause injury.

⚠***CAUTION:*** **Never point the tool towards any other persons.** Otherwise the lockbolt or blind rivet may come off the tool and cause injury.

⚠***CAUTION:*** **Keep adequate clearance around the tool as shown in the figure.** The tool moves forward during operation. Insufficient clearance may cause personal injury.

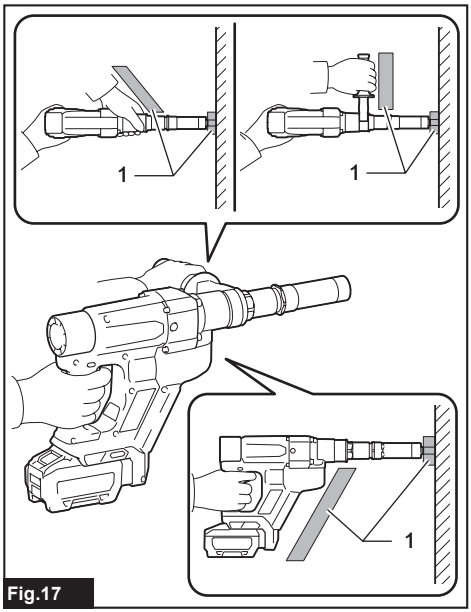


Fig.17

► **1.** Clearance

Installing a lockbolt (without breaking off a mandrel)

For model BV17-177, BV13-177

1. Insert the pin into the hole. Attach the collar to the pin.

2. Fit the hole of the puller on the pin, and then press the tool against the collar. Pull the switch trigger.

3. After the collar is tightened with the specified force, the tool stops tightening and the puller returns to the original position automatically.

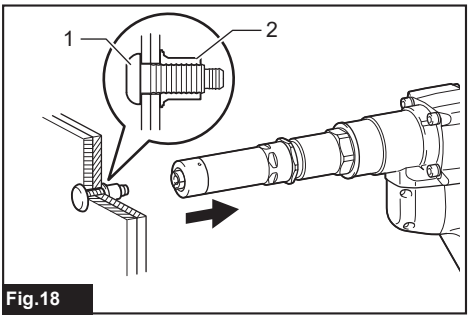


Fig.18

► **1.** Pin **2.** Collar

NOTE: If you release the switch trigger during operation, the puller returns the original position automatically.

NOTICE: **If the operation stops halfway due to the protection system, pull the switch trigger again.** The puller in the middle returns to the original position regardless of the specified force. **Hold on the switch trigger until the puller returns to the original position, and then you can restart the operation.**

If the puller does not return even if you pull the switch trigger again, the display of control panel blinks for a few seconds. Ask your local Makita Service Center for support.

Installing a blind rivet or lockbolt (with breaking off a mandrel)

For model BV13-177

⚠***CAUTION:*** **Before the mandrel container becomes full, empty it regularly by removing the mandrel container.** Otherwise, the tool may be damaged, and the damaged parts may cause an injury.

⚠***CAUTION:*** **When inserting a blind rivet or lockbolt into the nose piece, be sure to switch off the tool.** Otherwise, you may be injured with the tool tip.

⚠***CAUTION:*** **Be careful not to drop the broken off mandrel from high locations.** Doing so may cause an accident or injury.

1. Insert the blind rivet or lockbolt into the nose piece.

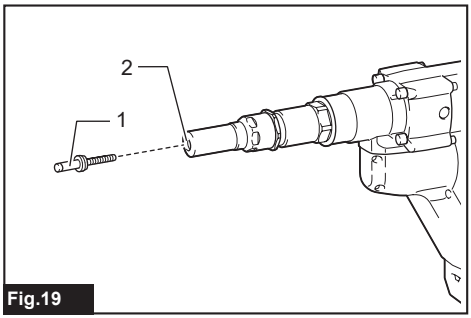


Fig.19

► **1.** Blind rivet or lockbolt **2.** Nose piece

2. Press the tool tip against the workpiece, and then pull the switch trigger.

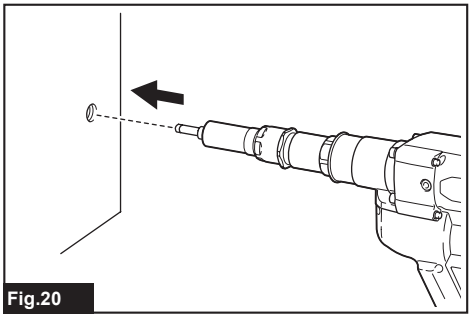


Fig.20

3. After the mandrel is broken off, release the switch trigger. The nose piece returns to the original position automatically.

NOTE: If you release the switch trigger during operation, the nose piece returns the original position automatically.

NOTE: If the specified force is less than the breaking force, the tool stops before breaking off the mandrel, then the nose piece returns the original position automatically.

NOTICE: **Tilt the tool back so that the broken off mandrel falls into the mandrel container after each operation.** Otherwise, the broken off mandrels may get stuck in the tool.

NOTICE: **If the operation stops halfway due to the protection system, pull the switch trigger again.** The nose piece in the middle returns to the original position regardless of the specified force. **Hold on the switch trigger until the nose piece returns to the original position, and then you can restart the operation.**

If the nose piece does not return even if you pull the switch trigger again, the display of control panel blinks for a few seconds. Ask your local Makita Service Center for support.

Installing Eyebolts

Eyebolts can be attached on both side of the tool.

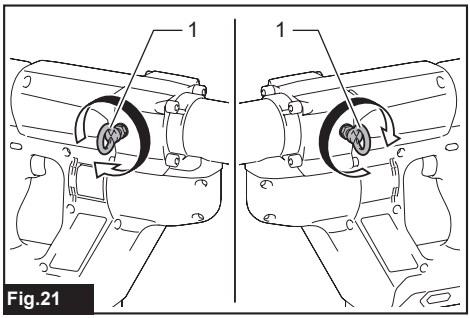


Fig.21

► **1.** Eyebolt

⚠***CAUTION:*** **Do not use the eyebolt for lanyard (tether strap).** Doing so may result in serious injury because the mounting part of the eyebolt is not intended for a safety device for fall prevention.

⚠***CAUTION:*** **When installing the eyebolt,**

— **make sure that there is no damage to the eyebolt;**

— **check if the size of the eyebolt is correct;**

— **do not use extremely long or thin eyebolt;**

— **and secure the eyebolt onto the tool firmly.**

Otherwise a falling accident may occur.

⚠***CAUTION:*** **Do not apply excessive force to the suspended tool.** Otherwise a falling accident may occur.

⚠***CAUTION:*** **Make sure that there is no one or object around the tool when using the tool suspended. Keep others out of the suspended area.** The tool may hit people or objects and cause injury.

MAINTENANCE

⚠***CAUTION:*** **Always be sure that the tool is switched off and the battery cartridge is removed before attempting to perform inspection or maintenance.**

NOTICE: **Never use gasoline, benzine, thinner, alcohol or the like. Discoloration, deformation or cracks may result.**

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.

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.

- Nose Assembly
- Makita genuine battery and charger

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

< USA only >

WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

< Sólo en los Estados Unidos >

ADVERTENCIA

Algunos polvos creados por el lijado, aserrado, esmerilado, taladrado y otras actividades de la construcción contienen sustancias químicas reconocidas por el Estado de California como causantes de cáncer, defectos de nacimiento y otros peligros de reproducción. Algunos ejemplos de estos productos químicos son:

- plomo de pinturas a base de plomo,
- sílice cristalino de ladrillos y cemento y otros productos de albañilería, y
- arsénico y cromo de maderas tratadas químicamente.

El riesgo al que se expone varía, dependiendo de la frecuencia con la que realice este tipo de trabajo. Para reducir la exposición a estos productos químicos: trabaje en un área bien ventilada y póngase el equipo de seguridad indicado, tal como las máscaras contra polvo que están especialmente diseñadas para filtrar partículas microscópicas.

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