

# **Instruction Manual**



BT-5/BT-6 Battery Rivet Tool



# Technical specifications Battery - powered BT-5/BT-6 battery riveting machine

For processing blind rivets with pole cross - sections of 2.4 - 6.4 mm, all materials

• Weight: BT-5 1.5 kg/BT-6 1.55 kg (without

battery)

• Stroke: BT-5 22 mm/BT-6 26 mm

• Engine: 18.0 V DC motor

• Installation force: BT-5 10,000 N

BT-6 20,000 N

• CE according to EU regulation No. 2006/42/EG

# Quick - replacement of the rechargeable battery

• Nominal voltage: 18.0 V • Capacity: Li-Ion 2.0 Ah • Weight: 2.0 Ah: 0.38 kg

#### Data on noise and vibrations

• Noise emission: LPA= 78,8dB

• Uncertainty: K = 3 dB

• The noise level during operation can exceed 80 dB(A)

• Use ear protectors! • Vibrations: <2.5 m/s2

# **Charging device**

• Input voltage: 100 - 240 V / 50 - 60 Hz

• Output voltage: 18.0 V • Output current: max. 1.5 A

• Recharging time: 2.0 Ah: <80 minutes

• Weight: 0.37 kg

Total weight (including 1x2.0 Ah battery, charging device and packaging): 3.5 kg Configurations with power plugs for worldwide use are available (CE/ECM/UL/ETL/CB/SAA)

Security advice <u>^</u>



#### General security advice for battery operated riveting machines

# 1. Workspace safety

- a) Keep your workspace in a clean condition and provide sufficient lighting.
- b) Do not operate this machine in an environment with risk of explosions which contains flammable liquids, gases or dust.
- c) Keep away children and other persons while operating this machine.

## 2. Battery safety

Do not expose battery operated riveting machines to rain or humidity. Water entering a battery-operated riveting machine increases the risk of electric shock.

## 3. People safety

a) Stay alert, be careful with your actions and use this machine in a reasonable way.



Do not use this machine if you are tired or under the influence of alcohol, drugs or medication. A momentary inattentiveness while using this machine can lead to serious injuries.

- b) Wear protective clothing and always wear protective goggles.
- c) Remove adjusting tools and screwdrivers before switching on the battery riveting machine.

A tool or screwdriver placed into a rotating part of the device can lead to injuries.

d) Avoid unnatural body positions.

Ensure you are standing firmly and always preserve your balance.

This way you can better control the battery riveting machine, should an unexpected situation occur.

e) Wear appropriate clothes. Do not wear large clothes or jewelry.

Avoid putting your hair, clothes and gloves close to the moving parts of the device. Wide clothing, long hair and jewelry can be caught up in the moving parts.

f) If the mandrel collection devices can be mounted, make sure that they are connected and used correctly.

# 4. Operation and handling of this riveting machine

a) Do not overload the machine.

Use the machine that is suitable for your work. The suitable riveting machine allows you to work better and safer in the specified range of performance.

- b) **Do not use a riveting machine that has a defect power switch.** A riveting machine which cannot be turned on and off any more is dangerous and has to be repaired.
- c) Remove the battery before making adjustments to the device, changing accessories or putting the device away.

  This safety precaution prevents the inadvertent start of this machine.
- d) Store unused riveting machines out of the reach of children.
- e) Pay attention to the maintenance of this riveting machines.

Check if the moving parts are functioning flawlessly and do not jam. Check for broken and damaged parts that could influence the operation of this riveting machine. Repair the damaged parts before using the device. Many accidents with the riveting machines stem from maintenance failures.

f) Use this machine, accessories, tools etc. according to these instructions.

#### 5. Use and handling of the battery tools

a) Only recharge the batteries in charging devices approved by the manufacturer.

There is a risk of fire when using a charging device designed for a specific battery type when it is used with other batteries.

b) In the machines, only use batteries that have been designed for this type of use.

Using other battery types may lead to fire and injuries.

- c) When not using the battery, keep it away from paper clips, coins, keys, nails, screws and other small metallic object which may cause the contacts to connect. If the battery contacts short circuit, it may lead to burns or fire.
- d) Fluid may emerge from the battery if it is used incorrectly.

Avoid contact with that fluid. In case of accidental contact with the body, rinse the area with water. If the battery fluid comes in contact with the eyes, additionally call for medical help. Emerging battery fluid can lead to burns and irritation of the skin.

#### 6. Service

Only let qualified personnel repair your battery riveting machine and use only original spare parts for that.

This ensures the continuous safety of the battery riveting machine.

# 7. Security advices for battery riveting machines

• Hold the battery riveting machine firmly with both hands when working and keep standing steadily. The battery riveting machine can be operated safer when using both hands.

- Immediately turn off the battery riveting machine if the riveting tool jams.
- Be prepared for a high reacting torque which causes strong recoil. The tool jams when the battery riveting machine is overloaded.
- Hold the battery riveting machine tightly.
- Secure the workpiece that is to be riveted. A workpiece is held more securely by a clamping device or a bench vise than by hand.
- Make sure that the power switch is turned to the "Off" position before inserting a battery. Holding your fingers close to the power switch when carrying this machine or inserting a battery while is "On" may lead to accidents.
- Do not open the battery, as this leads to the risk of a short-circuit. Keep the battery away from heat (e.g. permanent sun radiation) and from fire due to risk of explosion.
- If the battery is damaged or used in an inappropriate manner, vapors may emerge from it. Get some fresh air and call for medical help in case of complaints. The vapors can lead to irritation of the respiratory tracts.
- If the battery is defective, fluid may emerge from it and coat adjacent objects. Check the parts affected, clean them or replace them, if necessary.
- Use the battery only with this battery riveting machine. This is the only way to prevent dangerous overload of the battery.

## **Operational description**

# **Depicted components**

The numbering of the components in the picture refers to the main exterior parts of the battery riveting machine.

- A) Nosepiece
- B) Nose casing
- C) Mandrel collector
- D) Trigger
- E) Riveting area illumination
- F) Battery
- G) Battery locking switch
- H) Operational indicator



#### Charging the battery

Note: The battery is partially charged on delivery.

To guarantee full power of the battery, charge it completely in the charger before first use. Pay attention to the charge indicator on the charging device. The Li - Ion battery can be recharged at any time without affecting its fatigue life. Interrupting the charging process doesn't damage the battery.

The battery is equipped with a temperature monitoring system which only allows for charging between 0°C and 45°C.

Please consider the notices for disposal.

#### Removing the battery

The battery (F) is equipped with a locking mechanism (G) As long as the battery remains inside the machine it is held in position by a spring. To remove the battery (F), press the unlocking button (G) and pull the battery from the riveting device. Don't use force.

#### Putting the device into operation

Insert the battery. Only use original Li-Ion batteries with the voltage depicted on the type label of your battery riveter.

The use of other batteries may lead to injuries and risk of fire.

Push the battery (F) from under into the stand of the riveting machine, holding the locking button (G) pressed. Push the battery into the stand completely until it is securely locked.

# Changing nose pieces

The nose piece (A) are marked with numbers corresponding to the rivet cross - section. Hold the power switch (D) pressed, that will lead to the clamping mechanism moving into the rear position. Use the included wrench SW 12 to switch to the required nose piece and release the power switch.

#### **Riveting**

Insert the rivet into the nose piece (A) and the other end of the rivet into the work - pieces to be riveted. Press the power switch until the rivet is removed, then release the power switch. Tilt the riveting device backwards so that the removed rivet pin falls into the mandrel collection device (C). If the rivet doesn't come off in a single working stroke, repeat the procedure.

#### **Failure**

If rivets which exceed the indicated power of the device are used or if the battery is empty or overloaded, the device will stop operating and the red LED

(H) will light up. Wait until the **red LED** (H) goes out and press the power switch (D) for a short time. The device will revert to the original position.

If the battery is empty, the device is powered down by a protective circuit and the working tool doesn't move anymore. Don't press the power switch again after the riveting machine has been powered down automatically, this may lead to battery damage.

# Notices on optimal handling of the battery

Keep the battery away from wetness and water. Only store the battery at temperatures from 0° to 45°C. Do not leave the battery in the car, e.g. in summer. If the battery is working for significantly shorter periods of time after a recharge, it is used up and needs to be replaced. Please consider the notices for disposal.

#### Maintenance and service

Take the battery out of the battery riveting machine for transportation and storage. Risk of injury occurs if you inadvertently press the power switch.

Keep the battery riveting machine and the ventilation slots clean to ensure good and safe operation.

If the battery riveting machine should fail despite the meticulous manufacturing and quality control procedures, the repairs should be done by an authorized service center for the battery riveting devices.

Please quote the serial number indicated on the type label of the battery riveting machine whenever turning to customer service or ordering spare parts.

Battery riveting machines, accessories and packaging should be disposed in a way which makes them available for environment - friendly recycling. Only valid for European Union countries:

Do not dispose of battery riveting machines in household waste. According to European regulation 2002/96/EG concerning battery and electronic appliances and its implementation in national laws, the battery

riveting machines that are not functional need to be collected separately to make them available for environment - friendly recycling.

## **Batteries:**

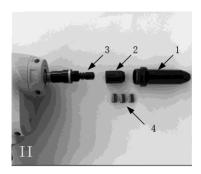
Li-Ion: Do not dispose of batteries in household waste, do not throw them into fire or water. Batteries should be collected and recycled or disposed of in an environment - friendly way. Only valid for European Union countries: According to

European regulation 91/157/EWG, defective and used up batteries need to be recycled. Batteries that are not functional can be handed over at your store or directly disposed of in an environment - friendly way.

# Changing the clamping jaw.

The clamping jaws are wearing parts. If you are unable to rivet in a single working stroke you should change the clamping jaws:





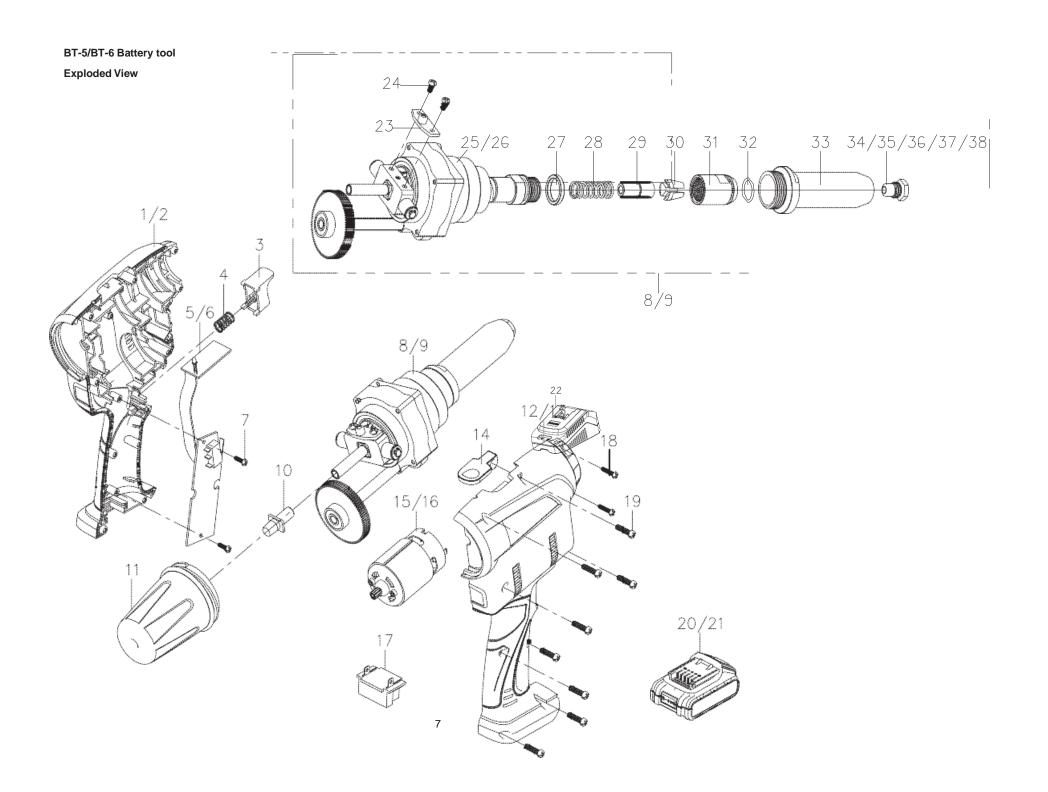




- I. (1) Nose casing
- II. (2) Jaw's housing
  - (3) Riveting machine
  - (4) Clamping jaws (3 parts)

Remove the nose casing (1) and the Jaw's housing (2) from the device (3) and remove the clamping jaws (4) from the Jaw's housing (2).

- III. Hold the Jaw's housing (2) so that its forward part is faced down.
  - Place the clamping jaws (4) in the Jaw's housing (2) with their smooth sides facing outwards.
- IV.. Mount the Jaw's housing (2) with the new clamping jaws (4) and finally replace the nose casing (1



Ref	Part Number	Description	Qty	Used for Tool
1	M96450	Left Housing (Black)	1	BT5
2	M96451	Left Housing (Blue)	1	BT6
3	M96452	Switch Trigger	1	BT5 / BT6
4	M96453	Spring	1	BT5 / BT6
5	M96454	Printed Circuit Board	1	BT5
6	M96455	Printed Circuit Board	1	BT6
7	M96456	Tapping Screw	2	BT5 / BT6
8	M96457	Core Assembly	1	BT5
9	M96458	Core Assembly	1	BT6
10	M96459	Tail Tube	1	BT5 / BT6
11	M96460	Collector	1	BT5 / BT6
12	M96461	Right Housing (Black)	1	BT5
13	M96462	Right Housing (Blue)	1	BT6
14	M96463	Hook	1	BT5 / BT6
15	M96464	Motor Assembly	1	BT5
16	M96465	Motor Assembly	1	BT6
17	M96466	Clip	1	BT5 / BT6
18	M96467	Tapping Screw	2	BT5 / BT6
19	M96468	Tapping Screw	8	BT5 / BT6
21	M38992	Battery Pack(blue latch)	1	BT5 / BT6
22	M38995	Charger	1	BT5 / BT6
23	M96469	Magnet Holder	1	BT5 / BT6
24	M96470	Screw wWasher	2	BT5 / BT6
25	M96471	Core (non-removable)	1	BT5
26	M96472	Core (non-removable)	1	ВТ6
27	M96473	Metal Ring	1	BT5 / BT6
28	M96474	Spring	1	BT5 / BT6
29	M96475	Jaw Pusher	1	BT5 / BT6
30	M96476	Jaws	3	BT5 / BT6
32	M96477	O'ring	1	BT5 / BT6
33	M96478	Frame Head	1	BT5 / BT6
34	M96479*	Nosepiece 332"	1	BT5
35	M96480	Nosepiece 18'	1	BT5
36	M96481	Nosepiece 532"	1	BT5 / BT6
37	M96482	Nosepiece 31'	1	ВТ6
38	M96483	Nosepiece 14"	1	BT6
40	M96484	Lock Nut	1	BT5 / BT6
41	M96485	Spring	1	BT5 / BT6
42	M96486	Anti-Loosen Clip	1	BT5 / BT6
43	M96487	Rear Sleeve	1	BT5 / BT6
44	M96488	Jaws Housing	1	BT5 / BT6
45	M38993	Battery Pack (4.0Ah)		BT5 / BT6