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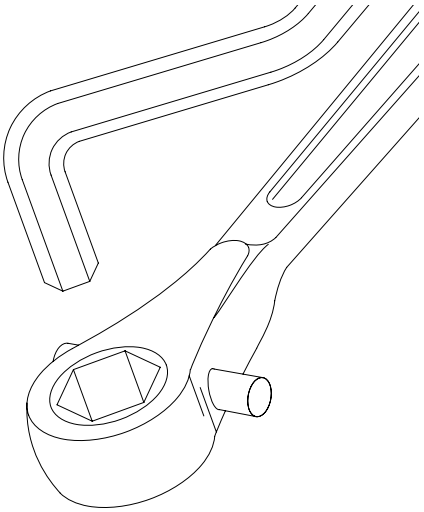

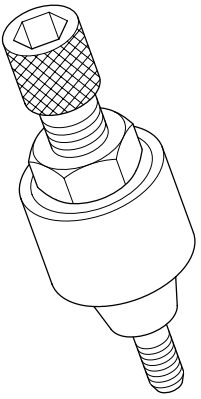

Operating Manual
Riveting Tool R1

For installing
blind rivet nuts

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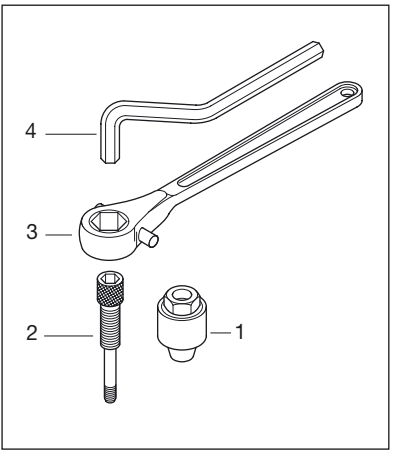
1. Introduction

1.1 General instructions

The relevant accident prevention regulations, which protect people and property, have been observed in designing and manufacturing this tool. Before using this manual riveting tool, it is vital that you read these operating instructions and follow the guidelines and safety specifications.

Any improper use of this riveting tool, which results in the mechanism being damaged, will render the warranty void.

1.2 Description of the riveting tool



Legend:

1 Tool shank
2 One-piece threaded mandrel
3 Ratchet wrench
4 Allen key

The tool shank (1) consists of two removable parts and a snap ring. The top removable part is fitted with a hexagonal nut and threads into the screwed-in, one-piece threaded mandrel (2).
The bottom removable part is tapered and acts as a counter bearing for the blind rivet nut during the installation process.
To withdraw the threaded mandrel through the tool shank, hold the one-piece threaded mandrel (2) in place with an Allen key (4) and turn the top removable part of the tool shank clockwise using the ratchet wrench (3). Pull the blind rivet nut screwed onto the threaded mandrel (2) towards the bottom removable part and then upset it.

Once the rivet has been installed, unscrew the manual riveting tool to remove it from the blind rivet nut.

1.3 Safety instructions

The symbols used in these operating instructions indicate the following:

This note highlights potentially dangerous situations and indicates that the tool may become severely damaged.

→ *This note provides useful advice and guidelines designed to improve the performance and reliability of the tool.*

Please read and follow these guidelines before using the manual riveting tool.

The manual riveting tool was tested before leaving the factory to ensure that it is in proper working order.

Always use the manual riveting tool with the original one-piece threaded mandrel.

Keep the work area clean at all times and ensure it is well lit.

Be alert at all times.

Follow the work you are doing carefully. Carry out your tasks sensibly. Never use the tool when you are not fully concentrated.

→ *The manufacturer accepts no responsibility or liability if the tool is improperly repaired or non-original spare parts are used.*

The tool is often used by various different people.
Before working with the tool, please therefore check that:
– there are no signs of damage to its exterior,
– the tool shank works smoothly,
– the threaded mandrel or the threaded mandrel ball-bearing is able to move when screwed into the tool shank.

→ *Only use the one-piece threaded mandrel supplied and listed in these instructions.*

1.4 Intended use

The R1 manual riveting tool is designed to be used to install blind rivet nuts.

No other use is permitted and could potentially be dangerous.

The manufacturer accepts no liability for any unintended use.

Be sure to use the correct thread size for the one-piece threaded mandrels (Sect. 1.6 Scope of delivery)

1.5 Technical data

Tool model: R1

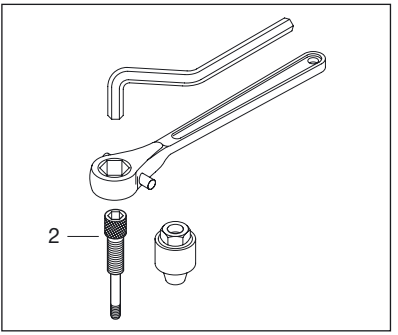
Height:	50 mm
Width:	250 mm
Weight: approx	0.9 kg

Scope of use

Blind rivet nuts:

Aluminium	M4 ... M12
Steel and brass	M4 ... M10
Stainless steel	M4 ... M6

1.6 Scope of delivery



Initial equipment:

Thread ø	One-piece threaded mandrel (2)
M 4	●
M 5	●
M 6	●
M 8	●
M 10	●
M 12	●

● Initial equipment

1.7 Storing the riveting tool

Clean the manual riveting tool after each use.

After cleaning, apply a thin layer of acid-free oil to the threaded mandrel and threaded mandrel ball bearing, and store in a dust-free area.

Damaged threaded mandrels must be replaced immediately (Sect. 4 Spare parts).

Only use original parts.

2. Operating the riveting tool

2.1 Information on place of use

Since the manual riveting tool does not require an external energy source, it can be used in every area of mechanical production.

It can be operated in any work location.

Please observe the accident prevention regulations.

⚠ *Hold the riveting tool at right angles to the area where you want to install the blind rivet nuts.*

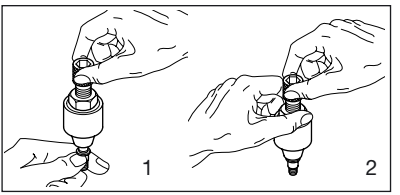
2.2 Operation – Installation sequence

Preparatory steps:

Check the manual riveting tool.

Set the clamping area so that it matches the thickness of the rivets you intend to install and keep the matching blind rivet nuts to hand.

Installation sequence:



1. Screw the blind rivet nut onto the threaded mandrel (1).

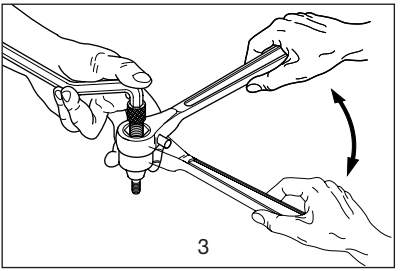
→ *Ensure that the threaded mandrel covers the entire length of the blind rivet nut. Screw on the closed-end blind rivet nuts as far as they will go.*

2. Keep hold of the hexagonal nut on the tool shank and unscrew the threaded mandrel until the top of the blind rivet nut rests on the tool shank (2).

3. Insert the attached blind rivet nut into the pre-drilled hole.

For details on hole diameters, please refer to the specifications in the manufacturer's catalogue. Incorrect hole diameters will result in faulty installation.

→ *Hold the riveting tool at right angles to the area where the rivet is to be installed.*



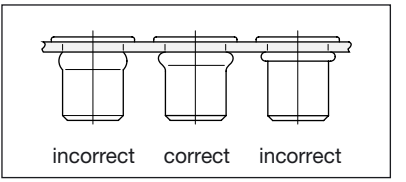
3

4. Place the ratchet wrench over the hexagonal nut on the tool shank.

   Insert the Allen key into the Allen screw on the threaded mandrel.

   Hold the Allen key in place with one hand and turn the ratchet wrench clockwise with the other hand (3).

   The tool will travel back and forth several times when installing the blind rivet nut.



→ *The blind rivet nut should look pear-shaped if upset correctly.*

If the blind rivet nut is upset too far or the threaded mandrel over-rotates, either the blind rivet nut thread or the threaded mandrel will be damaged.

5. Once the blind rivet nut is installed, press the change button on the ratchet wrench and turn the ratchet wrench at least a half turn in the opposite direction.

   This will loosen the hexagonal nut on the tool shank.

⚠ *If the hexagonal nut on the tool shank does not loosen and the threaded mandrel is removed with force using the Allen key, the upset blind rivet might turn at the same time causing the threaded mandrel to break as a result of the torsion.*

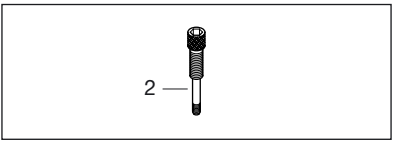
6. Remove the Allen key and ratchet wrench.

   Unscrew the tool shank and threaded mandrel from the installed blind rivet nut by hand.

The installation sequence is complete.

→ *Whenever you have finished using the riveting tool, apply evenly-spaced drops of oil along the entire threaded mandrel.*

2.3 Replacing the threaded mandrel



One-piece threaded mandrel (M 4 ... M 12)

1. Unscrew the threaded mandrel (2) from the tool shank.

2. Apply a few drops of oil to the new threaded mandrel and screw it into the tool shank.

3. Care

3.1 Care and maintenance

→ *All care, maintenance and inspection work must be carried out correctly and to professional standards.*

⚠ *If the tool is used as intended, the user should be at no risk once the work is complete.*

The manual riveting tool for blind rivet nuts requires special care.

The following tasks are recommended, however:

Clean the tool and check for any mechanical faults depending on where and how it has been used.

⚠ *No cleaning agents that are aggressive or contain alcohol and no flammable liquids should be used to clean the tool.* ***Risk of fire!***

Replace all damaged or worn parts or send the tool to the Maintenance department.

Only use suitable tools.

⚠ *Only use original parts. No responsibility or liability is accepted if the riveting tool is improperly repaired or non-original spare parts are used.*

After cleaning and before storing the tool away for an extended time, apply a thin coat of oil to all metal parts.

Apply evenly-spaced drops of oil along the entire threaded mandrel.

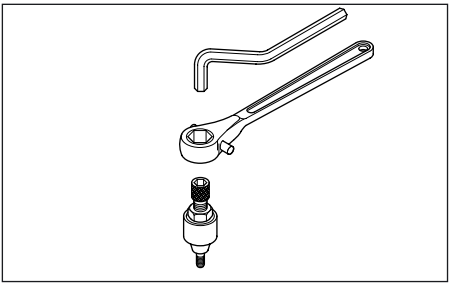
4. List of parts

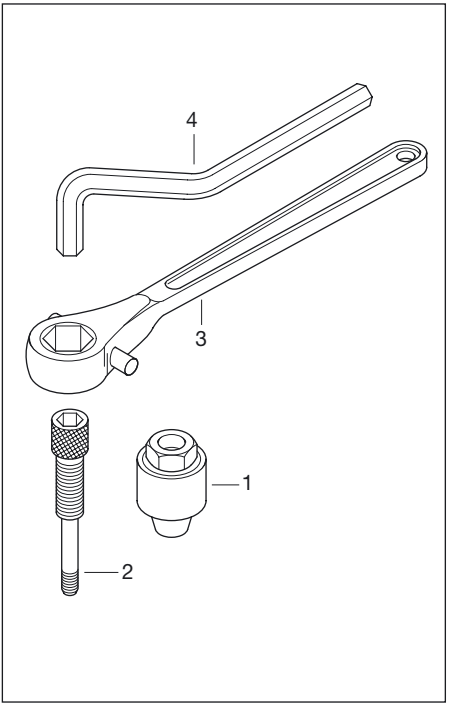
Description	Part No.
Tool M 4	**349 041 001**
Tool M 5	**349 051 001**
Tool M 6	**349 061 001**
Tool M 8	**349 081 001**
Tool M 10	**349 101 001**
Tool M 12	**349 121 001**

4.1 Spare parts list

Item	Qty.	Description	Part No.
1	1	Tool shank for M 4	**349 304 870**
	1	Tool shank for M 5	**349 305 870**
	1	Tool shank for M 6	**349 306 870**
	1	Tool shank for M 8	**349 307 870**
	1	Tool shank for M 10	**349 308 870**
	1	Tool shank for M 12	**349 323 870**
2	1	One-piece threaded mandrel M 4	**349 047 870**
	1	One-piece threaded mandrel M 5	**349 057 870**
	1	One-piece threaded mandrel M 6	**349 320 870**
	1	One-piece threaded mandrel M 8	**349 302 870**
	1	One-piece threaded mandrel M 10	**349 303 870**
	1	One-piece threaded mandrel M 12	**349 322 870**
3	1	Ratchet wrench for M 4 – M 6	**349 309 870**
	1	Ratchet wrench for M 8 – M 12	**349 310 870**
4	1	Allen key for M 4 – M 6	**349 311 870**
	1	Allen key for M 8 – M 12	**349 312 870**

We reserve the right to make technical changes





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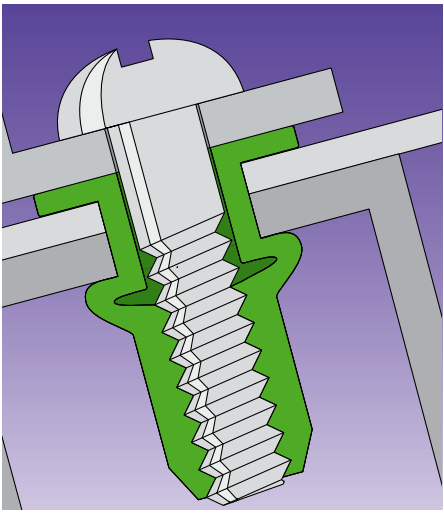

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