

## RELEVANT PRODUCTS OF CHAIN REPAIR SERVICE



**BS3510**  
Professional Chain Repairing  
Set



**BS3500**  
Chain Extractor



**BS1164**  
Drive Chain Tension Puller



**BS3506**  
Chain Link Pliers



**BS0353**  
Chain Adjustable C Hook  
Wrench

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Represent.



## **BS6943** Chain Breaker and Riveting Tool Instructions



The **Bikeservice Chain Breaker and Riveting Tool BS6943** is designed to break chains up to chain size #630 and press the hollow link pins and plates of the Master Link on chains up to #630.

Please read instructions thoroughly prior to use.

The Tool is designed for hand use (tightened by hand ) utilizing the T-Bar or 14mm spanner. The use of Power Tools or extension bars for extra leverage may cause damage to the tool and should be avoided.

## COMPONENT IDENTIFICATION



### Contents:

|                         |                                    |                                    |
|-------------------------|------------------------------------|------------------------------------|
| <b>A</b> Body           | <b>F</b> Spring                    | <b>L</b> Lower Guide for 2.2mm Pin |
| <b>B</b> Alignment Bolt | <b>G</b> 2.2mm Breaking Pin        | <b>M</b> Press Block (set)         |
| <b>C</b> Push Bolt      | <b>H</b> 2.9mm Breaking Pin        | <b>N</b> Large Anvil               |
| <b>D</b> T-Bar          | <b>I</b> 3.8mm Breaking Pin        | <b>P</b> Small Anvil               |
| <b>E</b> Handle         | <b>K</b> Upper Guide for 2.2mm Pin | <b>Q</b> Rivet Pin                 |

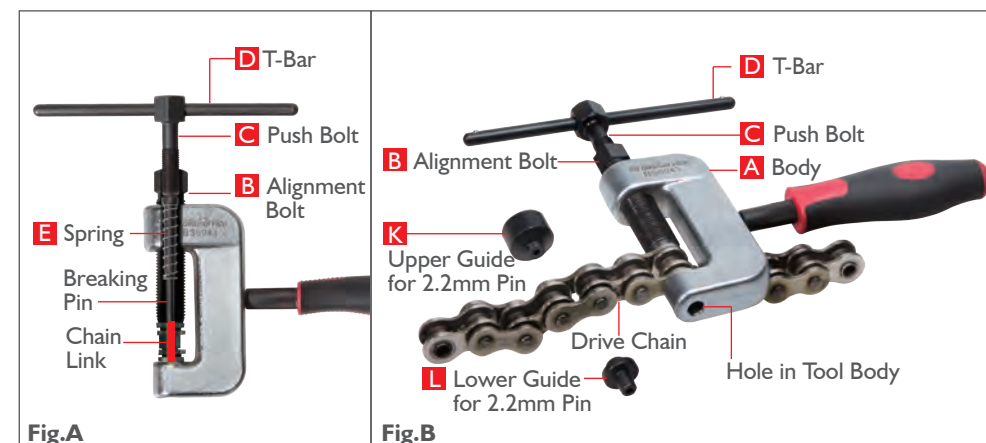
## BREAKING THE CHAIN

As chain sizes vary so do the pin sizes depending on the size of the chain links. The Tool breaking pins in the kit cover sizes to suit the following chain links.

Breaking Pin 2.2mm suits Cam Chains

Breaking Pin 2.9mm suits Chain sizes #25 to #35 and #415, #420

Breaking Pin 3.8mm suits Chain sizes #428 to #532 and #630.



(Fig A) Details the correct assembly of the Tool for breaking the Chain Pin.

### Assembly of the Tool

01. Screw the Alignment Bolt into the Tool body.
02. Select the correct size Breaking Pin, Spring depending on the chain size and assemble. Then insert the Breaking Pin into the centre of the Alignment Bolt.
03. Screw the Push Bolt or T-Bar into the Alignment Bolt to hold in position. For Cam Chains screw the Upper Guide into the base of the Alignment Bolt to ensure the centering of the pin. To prevent components from entering the engine cover with a cloth. Ensure that the Breaking Pin is retracted from the nosepiece.

(Fig B) Details the position of the chain prior to pressing the chain link pin prior to pressing the chain link pin out.

01. Ensure the Chain is positioned straight with the Chain Pin head over the hole in the body of the tool. To assist in the pin pressing operation grind flat the mushroomed head of the chain link pin. Ensure the pressing pin is aligned.
02. Using the T-Bar or a 14mm spanner, turn the Push Bolt forcing the breaker pin to push the chain pin out of the chain link.
03. Twisting of the Tool or misalignment could cause damage to the tool and the Breaking Pin. The underside of the link pin should be aligned over the hole in the Tool Body to allow the chain link pin to be pressed into the hole.

## CHAIN ASSEMBLY

### CAUTION

Should the chain link pin not press out do not use excessive force as this may damage the tool. Check the tool for alignment , disassemble the tool if necessary and reassemble , align and commence the operation as detailed above.

Chain assembly and riveting or mushrooming the head of hollow link pins. Riveting process is not required on solid link pin style master links with elongated U clip retainers.

### Master Link Identification



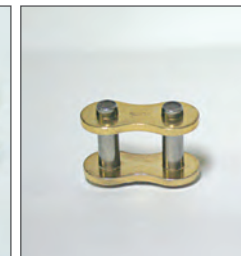
Solid Pin U-Clip Master Link



Solid Pin U-Clip Master Link Assembled



Hollow Pin Rivet Master Link

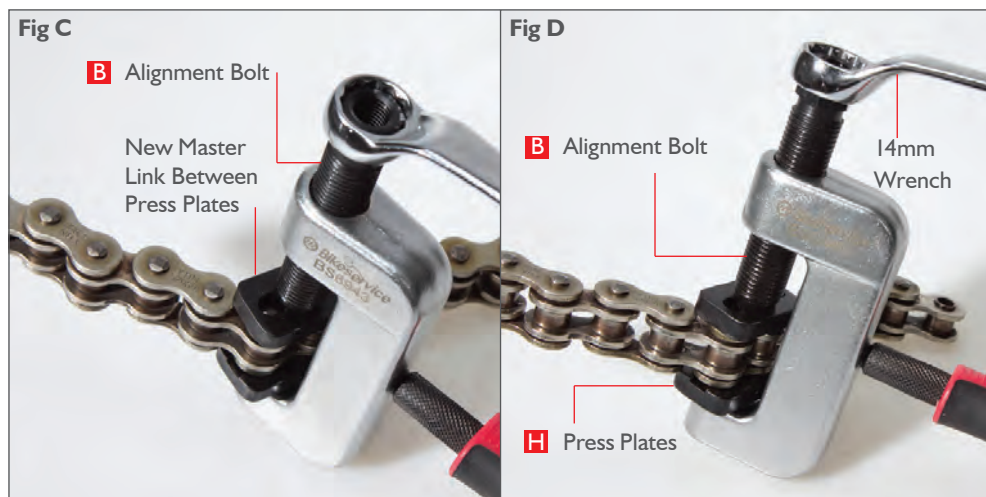


Hollow Pin Rivet Master Link Assembled

01. Thread the Alignment Bolt into the Body of the tool.
02. Check the chain manufacturer's instruction or workshop manual for installation instructions.
03. Install the new chain over the pulley's sprockets and swing arm.
04. Using the new Master link grease the O Rings and place these on the master link pins.
05. Join the chain using the master link from the back of the chain with the pins facing outwards.  
The rear sprocket will provide a position for the links to be joined easily.
06. Grease the Master link pins and install the O Rings onto the hollow pins and then position the Master link backing plate. Greasing the backing plate will hold the plate in position prior to riveting. Note Ensure that the O Rings are on the underside of the backing plate.

next....

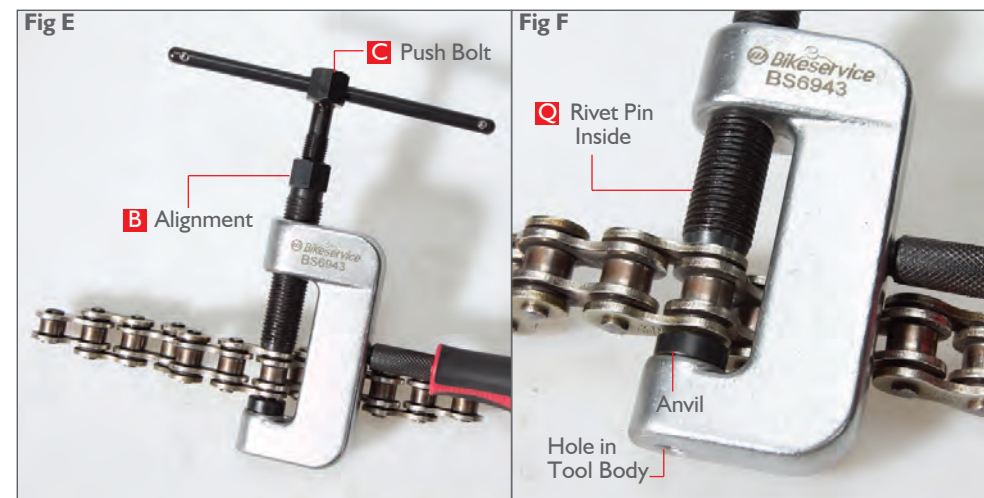
07. Refer to **(Fig C)** as there are 2 tool Backing Press plates (M) – 1 Grooved and 1 with two holes
08. The Grooved Backing plate is positioned base plate of the tool (fixed master link side) and the 2 hole plate on the forcing screw side end of the tool with the Master link plate underneath.
09. Using the Alignment Bolt or 14mm spanner tighten the Alignment Bolt checking that the link is correctly aligned.
10. Compress the chain link until the chain Master link pins protrude above the Master link backing plate. **(Fig D)**
11. Ensure that the link is evenly compressed on both sides. This measurement can be easily checked with a vernier caliper. Refer to the chain manufacturers specification of recommended protrusion as this may vary depending on the brand of chain.
12. For Master Link U Clip design attach the U clip ensuring that the U clip locks the backing plate firmly in position.



## RIVETING MASTER LINK HOLLOW PINS

### Assembly of the Tool

01. Reassemble the tool to rivet or mushroom the hollow pins. **(Fig G)**
02. Thread the Alignment Bolt into the Body of the tool.
03. Assemble the Rivet Pin and Spring and insert into the Alignment Bolt.
04. Wind the Push Bolt T-bar in a few turns to stop the Rivet Pin from falling out.
05. Place the Large Anvil (N) in the hole in the base of the tool. Only use the Small Anvil (P) for cam chains up to size 3 series chains.
06. Using a 14mm spanner firstly tighten the Alignment Bolt checking that the link is correctly aligned.
07. Tighten the forcing screw either via the T-bar or 14mm spanner ensuring the Tool Rivet is centered on the Master Link Pin. **(Fig E)**
08. Remove and repeat this procedure on the second Master Link Pin.
09. Check that the Master link Pins are correctly Riveted as per the chain manufacturers recommendation. **(Fig F)**
10. Do not over tighten as this can cause damage to the Master Link hollow pin or the Tool Riveting Pin.



Check the line of sight to ensure that the chain is aligned straight.

Tension the chain and align the wheel to the manufacturers specification.

