



# JWTS<sup>®</sup> Tools

iwis tools facilitate the breaking and riveting of roller chains pursuant to DIN 8187/8188 and the iwis norm and are useful for workshop use. The iwis tool product range also includes repairing tools for tube and can conveyor chains, power and free conveyor chains and plate chains.

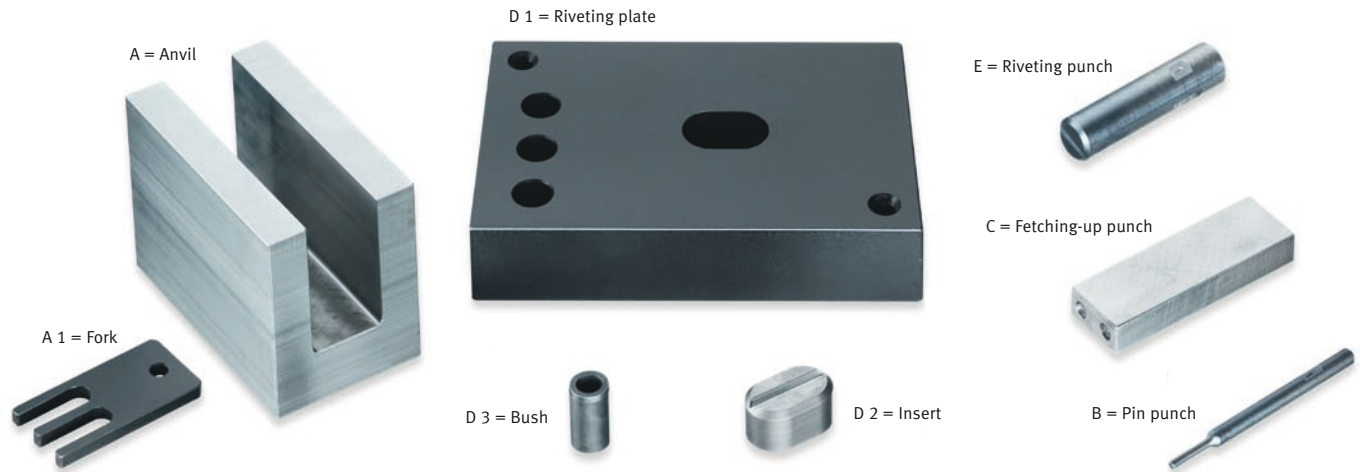


## **iwis**® Tool set for workshop use

The fork and anvil extraction kit is suitable for use with chains manufactured to DIN 8187/8188. Anvil (A) and fork (A 1) are suitable for breaking chains which have shouldered bearing pins.

To break chains with parallel bearing pins it is necessary to use plate (D 1) together with pin punch (B). The tool kits can also be used to assemble chains.

Fetching up punch (C) and bearing pin riveting punch (E) are used to complete this operation.



DIN ISO no.	Ref. no. iwis	Pitch (")	Anvil A	Fork A 1	Pin punch B	Fetching-up pun. C	Riveting plate D 1	Insert D 2	Bush D 3	Riveting punch E
<b>Order no.</b>										
05 B	G 52, D 52	8 mm	-	-	5014	40006688	5024	5026	5033	5038
06 B	G 62 1/2, G 67, G 68, EC-6-M	3/8"	-	-	5011	40006689	5024	5026	5033	5038
06 B	D 67, EC-6-D	3/8"	5001	5007	5011	40006689	5024	5026	5033	5038
-	P 83 V	1/2"	-	-	5011	40006692	5024	5026	5033	5038
08 A	S 84 V, L 85 A, D 85 A	1/2"	-	-	5011	40006691	5024	5027	5034	5039
08 B	L 85 SL, D 85 SL, EC-8-M, EC-8-D	1/2"	5000	5004	5012	40006690	5024	5027	-	5039
10 B	M 106 SL, D 106 SL, EC-10-M	5/8"	5000	5005	5013	40006693	5024	5027	-	5039
10 A	M 106 A, D 106 A	5/8"	-	-	5013	40006694	5024	5028	5034	5040
12 B	M 127 SL, D 127, EC-12-M, EC-12-D	3/4"	5000	5006	5013	40006695	5024	5028	-	5040
12 A	M 128 A SL, D 128 A	3/4"	-	-	5016	40006696	5024	5028	5035	5040
16 A	M 1610 A, D 1610 A	1"	-	-	5015	40006705	5024	5029	5035	5041
16 B	M 1611, D 1611, EC-16-M, EC-16-D	1"	5002	5008	5015	40006697	5024	5029	-	5041
20 B	M 2012, D 2012, EC-20-M, EC-20-D	1 1/4"	5003	5009	5015	40006698	5025	5030	-	5042
24 B	M 2416, D 2416, EC-24-M, EC-24-D	1 3/4"	-	-	5017	40006699	5025	5032	5036	5044

## Applications

### Breaking chains and chain assembly

#### BREAKING (PARALLEL BEARING PIN)



The outer link to be broken has to be placed over the holes in the riveting plate (D). The bearing pins are hammered flush with the outer plate and then driven through the chain with pin punch (B) whose diameter must be smaller than that of the bearing pin ①. To assist when breaking large pitch chains it is recommended that the rivet head is initially ground away.

#### BREAKING (SHOULDERED BEARING PIN)



The fork (A 1) is placed through the chain at the outer link which is to be removed. The fork is then supported by the anvil and the bearing pins are driven through the chain using punch (B) ②. Multiple strand chains can also be broken in this way, the fork should then be placed in the top strand of the chain.

#### ASSEMBLY



The procedure used is common to both shouldered and parallel bearing pin chains. The new riveting link connects the two inner links. This connecting link is supported by an insert in riveting plate (D) ③.



A new outer link plate is fitted using fetching-up punch (C) ④. With parallel bearing pin chain it is possible to over fit the outer link plate on the bearing pins. It is necessary to check that the joint remains free and easily moveable after fitting.



The newly fitted outer link then requires the bearing pin ends to be riveted. This is done with riveting punch (E) ⑤.

## **iwis**® Chain breaker

### How to use the iwis multi station chain breaker

#### CHAIN BREAKER

This multi-station rivet extractor can be clamped in a vice or screwed onto the workbench. Positioning it along the front edge of the bench will provide clearance so that the full range of chains can be cut. Supports to the left and right make chain handling easier when long chains are being inserted.

The rotating head holds five sets of ejector tools. Each set is marked with the pitch of the chain which they cut. The rotating head holds five sets of ejector tools marked with the chain size. The following iwis chains can thus be taken apart at the correct setting. A distinction is made here between:

- Chains with shouldered pins
- Chains with parallel pins

(look at page 79)

**ARTICLE NO. 4500**

#### REPLACING THE PRESSURE PINS AND SUPPORT FORKS

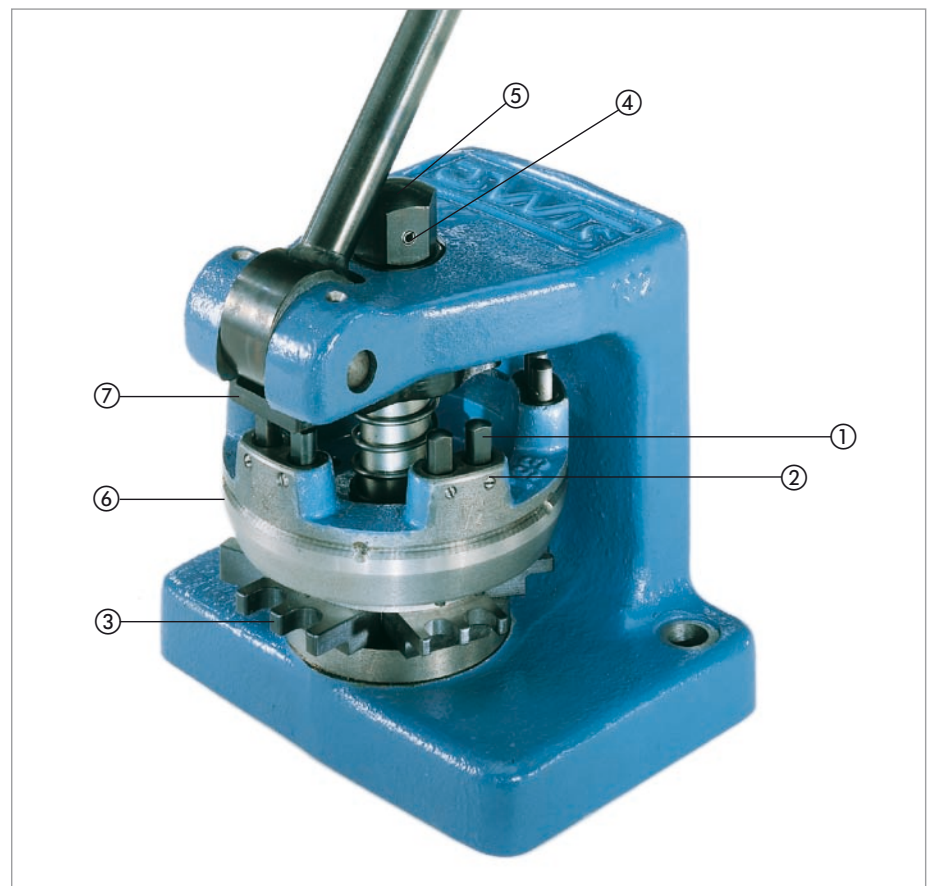
##### **Pressure pins ①:**

Loosen grub screws ② pull pins out upwards. Replace as a complete set.

##### **Support forks ③:**

Loosen top nut ④ after knocking out safety spring pin. Press out middle bolt ⑤ downwards and remove tool tray ⑥ forward. Take out the two spring pins which secure the support fork. Insert new fork.

Pay attention when reassembling, that the pressure plate ⑦ is correctly positioned with the latch pin at the back of the body casting. Tighten nut ④ back up and secure with pressure pin.



## **iwis**® Chain breaker

### How to use the iwis multi-station chain breaker

#### A) CHAINS WITH SHOULDERED PINS



Chain link with shouldered pin

For breaking chains with shouldered pins the chain is fitted into the appropriate fork according to pitch, and the complete outer link is pressed out when the lever is pulled. It is important that the chain is fully located in the fork.

DIN ISO no.	Ref. no. iwis	Pitch	Adjustment
06 B - 2	D 67	3/8 x 7/32"	3/8"
06 B - 3	Tr 67	3/8 x 7/32"	3/8"
08 B - 1	L 85 SL	1/2 x 5/16"	1/2"
08 B - 2	D 85 SL	1/2 x 5/16"	1/2"
08 B - 3	Tr 85	1/2 x 5/16"	1/2"
10 B - 1	M 106 SL	5/8 x 3/8"	5/8"
10 B - 2	D 106 SL	5/8 x 3/8"	5/8"
10 B - 3	Tr 106	5/8 x 3/8"	5/8"
12 B - 1	M 127 SL	3/4 x 7/16"	3/4"
12 B - 2	D 127	3/4 x 7/16"	3/4"
12 B - 3	Tr 127	3/4 x 7/16"	3/4"

#### B) CHAINS WITH PARALLEL PINS



Chains with parallel bearing pins

For breaking chains with parallel pins it is necessary to grind off the rivet heads on one side of the chain. Afterwards the outer link is pressed out as above.

DIN ISO no.	ANSI type	Ref. no. iwis	Pitch	Adjustment
06 B - 1	-	G 67	3/8 x 7/32"	3/8"
08 A - 1	ANSI 40	L 85 A	1/2 x 5/16"	1/2"
08 A - 2	ANSI 40-2	D 85 A	1/2 x 5/16"	1/2"
08 A - 3	ANSI 40-3	Tr 85 A	1/2 x 5/16"	1/2"
10 A - 1	ANSI 50	M 106 A	5/8 x 3/8"	5/8"
10 A - 2	ANSI 50-2	D 106 A	5/8 x 3/8"	5/8"
10 A - 3	ANSI 50-3	Tr 106 A	5/8 x 3/8"	5/8"
12 A - 1	ANSI 60	M 128 A SL	3/4 x 1/2"	3/4"
12 A - 2	ANSI 60-2	D 128 A	3/4 x 1/2"	3/4"
12 A - 3	ANSI 60-3	Tr 128 A	3/4 x 1/2"	3/4"

If a grinding device is not available the rivets can be knocked out with a punch after the outer sideplate has been pressed off. Here the bushes must be well supported to prevent them coming off the inner plates

when the pressure pins and support forks are being replaced. Although chains can be taken apart without pregrinding the riveted head the danger of damage to the bush bore does exist. This could reduce chain

life. The iwis multi-station chain breaker can also be used to cut conveyor chains with straight or bent attachments plates of corresponding size. It is not suitable for 3/8 x 5/32" chains.

## **iwis**® Repairing tool for tube and can conveyor chains

### Replacement of conveyor pins

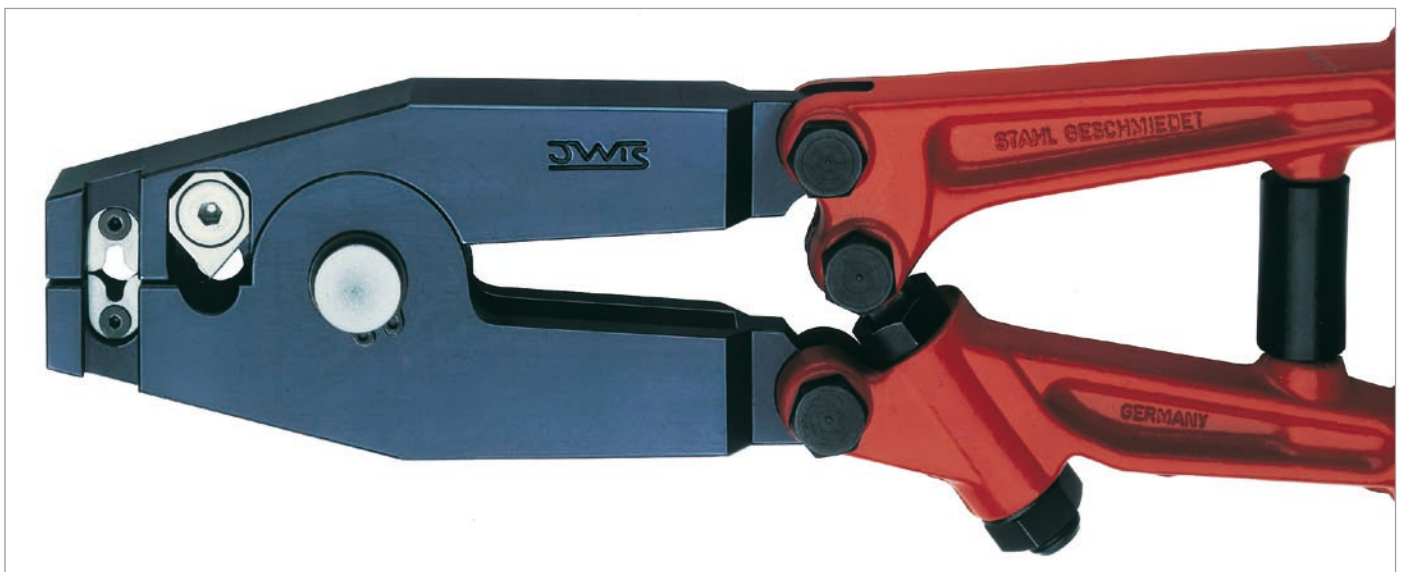
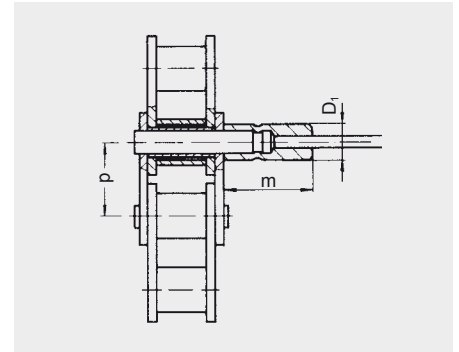
#### SPECIAL TOOL

The above represented iwis tool has been specially developed to repair tube and can conveyor chains.

It allows easy replacement of conveyor pins on already installed chains, types L 85 SL, M 106 SL, M 127 SL, M 128 ASL and M 128 A-SB (changeable).

**ARTICLE NO. 40000421**

Chain	Pitch	$D_1$	m
L 85 SL	12,7	8,0	22,0
M 106 SL	15,876	8,0	22,0
M 127 SL	19,05	8,0	22,0
M 128 ASL	19,05	10,0	22,0
M 128 A-SB	19,05	10,0	22,0



## How to employ it

### Removal and fastening of pin adapter

#### REMOVE PIN ADAPTER



Insert the adapter into the jaws ① and break it by closing the tool. If necessary, repeat the action after 45° rotation. Once the adapter has been broken, remove the pin.



#### FIXING OF A NEW CONVEYOR PIN



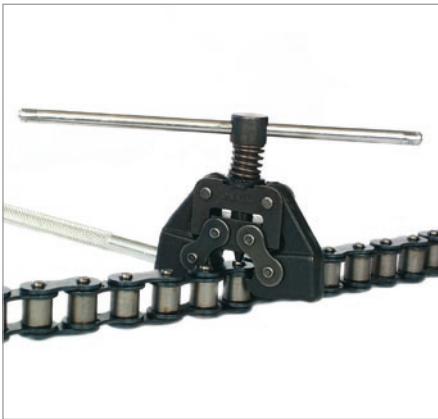
The new adapter is set onto the extended pin. Seize it with the gripping jaws ② and clamp it with the tool. Thus repaired, the chain is operational again.





## **iwis**® Chain pin extractor and **iwis**® Chains pullers

### UNIVERSAL CHAIN PIN EXTRACTOR H



#### ARTICLE NO. 4511

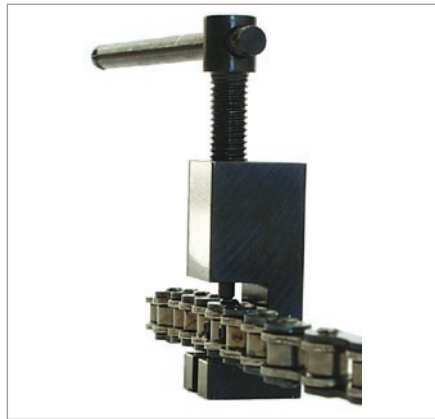
For use with any chain having shouldered bearing pins only.

#### Chain range and reference numbers 0.500" to 0.750" pitch:

- L 85 SL
- D 85 SL
- Tr 85
- M 106 SL
- D 106 SL
- Tr 106
- M 127 SL
- D 127
- Tr 127

The chain is clamped between the extractor jaws and the pins are then pressed out one by one by rotating the extractor handle.

### SIMPLE RIVET EXTRACTOR F



#### ARTICLE NO. 4516

For chains with parallel pins.

#### Chain ref:

- P 83 V
- S 84 V

The chain is placed in the tool and the pins are pressed one by one through both outer plates. (Note: This extractor should not be used on chain with shouldered pins).

### CHAIN PULLERS



#### ARTICLE NO. A) 4518 B) 4519

- a) No. 35 for 3/8 to 3/4" pitch chain
- b) No. 80 for 1" pitch chains and bigger

## **iwis**® Tools for breaking and riveting of roller chains

### Outline

	no.	Art-No.
Multi-station rivet extractor		4500
<b>Spare parts for iwis multi station rivet extractor</b>		
Pressure plate	7	9806
Spare-part-set fork and 2 punch points for 3/8" incl. spring		11926
Spare-part-set fork and 2 punch points for 1/2" incl. spring		11927
Spare-part-set fork and 2 punch points for 5/8" incl. spring		11928
Spare-part-set fork and 2 punch points for 3/4" incl. spring		11929
<b>Universal rivet extractor</b>		
Universal rivet extractor H for chains of 1/2" to 3/4" pitch		4511
Replacement spindle		4512
Reversible replacement pin		4513
Simple rivet extractors F no.4 for F82V, S84V, L85A		4516
Replacement pin		4517
<b>iwis special tools</b>		
Repairing tool for tube and can conveyor chains		40000421
Tool for breaking power and free conveyor chains		
Insert for assembling/disassembling		40000646
Replacement pin		40001734
Chain disassembly tools for plate chain		40003392
<b>Tensioner for mounting procedure</b>		
No. 35 3/8" to 3/4"		4518
No. 80 from 1" on		4519
<b>Additional articles</b>		
Chain gauge		4568
Chain lubricant VP 6 Kombi superplus 400 ml (packaging unit: 12 pcs.)		15701

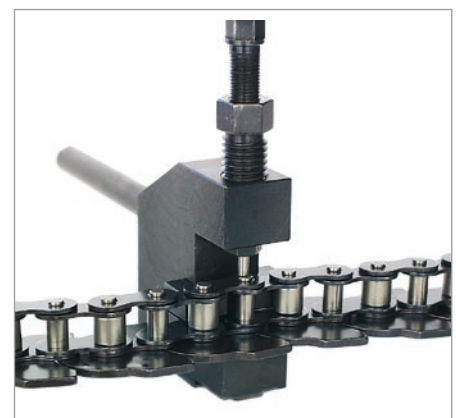
#### CHAIN DIASSEMBLY TOOLS



#### ARTICLE NO. 40000646

For power and free conveyor chains M 120 SF and M 127 SF with pitch 3/4".

#### CHAIN DIASSEMBLY TOOLS



#### ARTICLE NO. 40003392

For plate chains M 127 with pitch 3/4".

**iwis® Tools**  
Outline

Tools

DIN ISO No.	No.	Art-No.
<b>Anvil A</b>		
08 B, 10 B, 12 B	2	5000
06 B	3	5001
16 B	4	5002
20 B	5	5003
<b>Fork A1</b>		
08 B	2	5004
10 B	3	5005
12 B	4	5006
06 B	6	5007
16 B	8	5008
20 B	9	5009
-	10	5010
<b>Pin punch B</b>		
06 B, 08 A	1	5011
08 B	2	5012
10 B	3	5013
05 B	4	5014
20 B, 16 A, 16 B	5	5015
12 A	6	5016
24 B	7	5017
<b>Fetching up punch C</b>		
05 B	1	40006688
06 B	3	40006689
Company norm 1/2"	4	40006692
08 A	5	40006691
08 B	6	40006690
10 B	7	40006693
10 A	8	40006694
12 B	9	40006695
12 A	10	40006696
16 A	11	40006705
16 B	12	40006697
20 B	13	40006698
24 B	14	40006699

DIN ISO No.	No.	Art-No.
<b>Reveting plate D1</b>		
05 B-16 B, 08 A-16 A	1	5024
20 B, 24 B	2	5025
<b>Insert D2</b>		
05 B, 06 B	1	5026
08 A, 08 B, 10 B	2	5027
10 A, 12 A, 12 B	3	5028
16 A, 16 B	4	5029
20 B	5	5030
-	6	5031
24 B	8	5032
<b>Bush D3</b>		
05 B, 06 B	1	5033
08 A, 10 A	2	5034
12 A, 16 A	3	5035
24 B	4	5036
-	5	5037
<b>Riveting punch E</b>		
05 B, 06 B	1	5038
08 A, 08 B, 10 B	2	5039
10 A, 12 A, 12 B	3	5040
16 A, 16 B	4	5041
20 B	5	5042
-	6	5043
24 B	7	5044