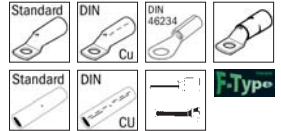




**Electro-hydraulic crimping tool
"AH-12"**

Art. 216503



1. Technical data

Area of application:	For the creation of an electrical connection by means of compression
Scope of delivery:	1 crimping tool, 1 charger, 2 batteries, 1 carry strap, in a plastic case, without dies.
Pressing force:	120 kN
Oil type:	ISO class viscosity 15
Feed rate:	2 speeds: Closing (fast) feed to bring the pressing dies to the conductor and working feed for compression. Switching between the two speeds is carried out automatically.
Safety:	The tool is fitted with a safety value that has been set at the factory.
Structure:	The working head can be rotated by 180° to make it easier to adapt to the operation to be carried out. The hydraulic crimping tool does not protect the operator when working on cables that carry power.
Guarantee:	2 year guarantee if used for the purpose it is intended.

2. Area of work

- Pressing force in kN: 120 kN
- Working pressure in bar: 700
- Opening/ Hub: 20 mm
- Pressing width: width
- Motorstop
- **H-head „Deep Indent Pressing“:** Cu/Al Tube Cable lugs and connectors
- Crimping range cable lugs: Cu 10-400 / DIN Cu 10-300 / DIN Al 16-240
- Crimping range connectors: Cu 10-400 / DIN Cu 10-300 / DIN Al 16-240
- Pressing time, battery-operated in seconds: 6-12
- Battery charging time in minutes: 60
- Battery type: NiMH, 14,4 V, 3 Ah
- Dual-piston pump
- Weight in kg: 7
- Weight of set in kg: 12

3. Operating instructions

CAUTION! TOOLS MAY NEVER BE USED WITHOUT FIRST INSERTING THE PRESSING DIES.

Ensure that the pressing dies fit precisely to the appropriate area and are seated perfectly in the holders.

OTHERWISE THIS MAY CAUSE SERIOUS DAMAGES OR BREAKAGES AND THE GUARANTEE WILL BE VOIDED.

Preparation:

Before starting up the tool, read the operating instructions first.

All current-carrying elements in the area you are working in should be disconnected.

Otherwise the protective procedures for working in the vicinity of components under current must be implemented. (DIN EN 50110)

Do not use the tool if you are tired or under the influence of medication, drugs or alcohol.

Take into account the valid accident prevention and safety regulations and use the tool exclusively for the purpose for which it is intended.

Only electro-technically trained persons over 16 years of age may process connecting materials using the tool.

The operating instructions must always be carried with the tool.

The instructions must have been read and understood by the user.

The operator must ensure that this is the case.



Operating:

- Select the appropriate pressing dies for the connection to be pressed.
- Insert the pressing dies in the tool head. All of the pressing dies that can be used in these models are half-circles, regardless of the type of crimping or pressing being carried out. They are made up of two parts with identical external measurements, so that they both can be inserted at will into the piston or the head.
- The procedure for inserting pressing dies is identical for mounting to both piston and head.
- The dies are inserted via the guides until they come to a stop at the blocking pin.



Operating:

- When inserting into the piston, you must only ensure that this is pushed far enough forward for the release button to be visible and accessible.
- To remove the dies, in both instances, the relevant release button must be activated. Then allow the dies to slide out. Please note that in order to remove the inserts at the piston, the steps listed above must be carried out in reverse order.

Start:

- Bring the tool to the working position.
- Select the appropriate pressing dies for the connection to be pressed.
- Insert the pressing dies in the tool head.
- Feed the conductor into the connector.
- Place the connector between the two pressing dies.
- Approach of the pressing dies (closing feed rate)
- Hold the tool securely and press the operating button to move the piston quickly forwards until the pressing dies meet the connector to be compressed.
- As soon as the pressing dies start to compress the connectors, the system automatically switches from closing feed to working feed.
- Press until the pressure limiter can be heard or the pressing dies meet.
- Pressing the front operating button takes the pressure off the system and piston travels back (fully or partially, to directly carry out a second compression action).

4. Removing and inserting the battery

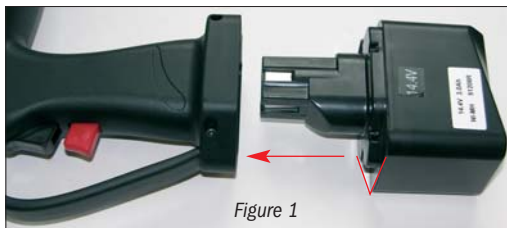
Hold the tool firmly and press the battery release button to remove the battery.

ATTENTION:

Never short-circuit the battery.

Inserting the battery

Insert the battery until it clicks into place. Make sure the poles are facing the right way.



Charging

Before using the tool, charge the battery as follows:

Connect the cable of the charger to a socket (AC). As soon as the charger is connected to the power supply, the red LED will light up.

Inserting the battery into the charger

Insert the battery firmly as shown in *Figure 2* shown here until it touches the bottom of the charging compartment.



Figure 2

ATTENTION:

If the battery is inserted incorrectly (Figure 1), then it will not only not be charged, it may also damage the charger (e.g. by bending the terminals/short-circuiting).

Charging

When you insert a battery into the charger, the battery will start charging and the green control light will also light up.

When the battery is fully charged the green control light will flash.

If the yellow control light comes on, the battery is overheating. Remove the battery immediately and disconnect the charger from the power supply.

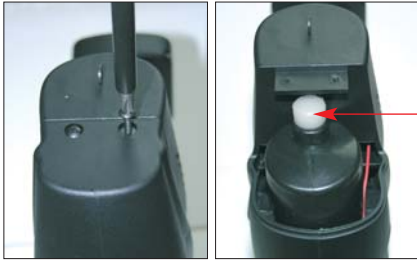
5. Care and maintenance

Cleaning

- Careful cleaning of the tool, in particular, the moving parts contributes towards a longer useful life. Remember that dust, sand, environmental influences, in particular a high salt index, and dirt in general are extremely damaging to hydraulic tools.
- Particular care should be taken when cleaning the pump drive piston and the piston. The tiniest of contaminations may scratch the walls of the cylinder and damage the leak-proof seals. For correct cleaning of the piston, we recommend extending the piston and then cleaning it with a high-quality, non-corrosive solution.

Power switch

Check to see whether the switch on the machine automatically pops out again when you release it.



Turn off the cap and fill in the oil on demand

Filling level of the oil tank

Ensure that the oil level is always sufficient. Do not fill the tank with unsuitable oil or brake fluid. Oil type: VESTA HLP-15 from VERKOL or an oil of a similar quality. Remove the tank lid and top up the oil. The oil must be filtered first. If necessary, purchase the required oil from the HAUPA service centre (Art. 216254).

Storage

To prevent damage to the tool as a result of bumps, dust etc. you should if possible store the tools in the original packaging.

Oil level

The oil level in the tank should be checked at regular intervals, in particular, when it has been used for a long time and topped up whenever necessary.

Oil filling

This process should only be carried out by an authorised technician.

Important: The hydraulic oil must be filtered, have an ISO viscosity class of 15 and a viscosity index of 100 and correspond to the standards AFNOR NFE 48603-HM and ISO 6743/4 L-HM.

WARNING NOTES!

A natural working position is required in order to operate the tool correctly, thus the handle must point downwards.

6. Diagnosing faults

Before you carry out any work on the tool, ensure that it is no longer connected to the power supply.

CAUTION! If you have a problem that is not listed in the table below, contact your local technical customer support service for assistance.

PROBLEM	POSSIBLE CAUSE	SOLUTION
The tool does not move, moves slowly or jumpily forwards	Air in the system	Hold the pressing head upright and press the operating buttons for feed and the release valve simultaneously for around 10 seconds
	Oil level low	Fill oil in accordance with the instructions above
	Cylinder piston jammed	Check the cylinder for damages. Contact info@haupa.com
The tool does not move, only partially or moves slowly	Leaks on the installed pump	Contact info@haupa.com
	Air in the system	Bleed as described above
	Return spring damaged or other damage to the cylinder	Contact info@haupa.com
	O-rings damaged	Contact info@haupa.com
Oil loss at piston	O-rings damaged	Contact info@haupa.com
Crimp process is not completed or does not return to the basic position	Battery is not sufficiently charged, therefore there is not sufficient hydraulic energy to release	Insert the replacement battery. Ensure that the replacement battery is always charged. CAUTION: Pushing the operating button too firmly may cause damage to the release valve.

6.1. WARNING NOTES!

Caution:

Do not attempt to force the head to turn when the hydraulic circuit is pressurised.

Guarantee:

2 year guarantee when used for the purpose it is intended when the annual maintenance intervals are maintained by an authorised HAUPA service centre. We reserve the right to rework the product.

Disposal:

Individual components must be disposed off separately.

The oil must be drained and disposed of at the designated points.

Caution:

Hydraulic oils represent a risk to the groundwater. Uncontrolled drainage or incorrect disposal carries penalties. (Environmental Liability Law)

The remaining components of the aggregate must be disposed in accordance with the relevant environmental standards.

The disposal should be carried out by authorised specialist companies. The free return to the manufacturer cannot be guaranteed.

Always use original replacement parts. Other parts may seriously damage the tool and will void the guarantee.

If the tool still does not work correctly, send it to the nearest repair service for specialist maintenance and fine tuning, or send and email to: info@haupa.com

WITH EVERY REPLACEMENT PART ORDER, INCLUDE THE FOLLOWING INFORMATION:

- 1) Article number.
- 2) Article description.
- 3) Reference to the operating instructions and/or date.
- 4) Tool type.
- 5) Serial number of the tool.

The guarantee is voided if you use parts that are not original replacement parts from HAUPA.

Spare parts list art. 216503

No.	Description	PU	No.	Description	PU	No.	Description	PU
1	PLASTIC BOX (L)	1	38	O RING	1	75	BEARING	1
2	PLASTIC BOX (R)	1	39	OIL RESERVOIR	1	76	BEARING BASE	1
3	UP PLASTIC CAP	1	40	OIL RESERVOIR PLUG	1	77	FIRST GEAR BASE	1
4	BATTERY 14.4V	1	41	SNAP RING	1	78	FIRST GEAR PART	4
5	PUMP BODY	1	42	SPRING FIXED PIECE	1	79	RING GEAR	2
6	SCREW	2	43	SPRING	1	80	RUBBER WASHER	1
7	SPRING	2	44	AXEL	1	81	SECOND GEAR BASE	1
8	BALL CAP	2	45	O RING	1	82	SECOND GEAR PART	4
9	BALL 7.0 mm	2	46	BACK-UP RING	1	83	WASHER	1
10	SPRING	2	47	PISTON	1	84	GEAR BOX CAP	1
11	BALL 4.75 mm	4	48	PIN	1	85	SCREW	2
12	SPRING	1	49	PISTON BUTTON	1	86	MOTOR FIXED PIECE	1
13	O RING	1	50	PLATE	1	87	SCREW	4
14	BACK-UP RING (P4)	1	51	PIN	1	88	GEAR	1
15	SCREW	1	52	SPRING	1	89	MOTOR	1
16	WASHER	1	53	FIXED BUTTON	1	90	LOCK RING	1
17	VALVE BODY	1	54	C-TYPE HEAD	1	91	PROTECT CAP	1
18	SPRING	1	55	SCREW	1	92	MONITOR	1
19	SPRING	2	56	BALL	2	93	SCREW	2
20	BALL 4.0MM	3	57	SPRING	2	94	RELAY	1
21	SCREW	4	58	SPRING BASE	2	95	OVER LOAD BREAKER	1
22	O RING	2	59	NUT	2	96	SPRING	2
23	VALVE BASE	1	60	-		97	PLASTIC FIXED PIECE	1
24	O RING	1	61	-		98	SCREW	4
25	VALVE BODY	1	62	-		99	FLYING RING	2
26	VALVE ROD	1	63	-		100	PROTECT CAP	1
27	O RING	1	64	SNAP RING	1	101	SWEACH	1
28	SPRING	1	65	SCREW	1	102	SWEACH PIN	1
29	PIN	1	66	ALUM-HEAD	1	103	SPRING	1
30	BACK-UP RING (P8)	1	67	RELEASE	1	104	SWEACH	1
31	SPRING	1	68	NUT	1	105	SCREW	2
32	O RING	1	69	SCREW	1	106	INSULATE PLATE	1
33	PISTON	1	70	MONITOR	1	107	LOCK PLATE	2
34	O RING	1	71	SCREW	1	108	CONDUCTION PLATE	2
35	ROTATION ROD	1	72	SCREW	4	109	SCREW	1
36	O RING	1	73	BEARING	2	110	SCREW	1
37	RELEASE VALVE STEM	1	74	ROTATION ROD	1	111	SCREW	5
						112	SCREW	2

Exploded assembly drawing art. Art. 216503

