

OPERATION MANUAL



EP-410 (HEX)



Hydraulic Crimping Tool 12T

Read and understand all of the instructions and safety information in this manual before operating or servicing this tool.

THANK YOU...

for purchasing our product. Our mission is to supply the finest connecting and cutting tools and cable-related products to the transmission and distribution markets. TEK+ Electronic ApS products represents the quality tools and are dependable & safe.

Please take the time to read this manual carefully to learn how to correctly operate and maintain your tool.

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TEK+ Electronic ApS product carry a warranty 1 year! In case it is a manufacture defect the product will be change by us free of charge.

The warranty does not cover any damages incurred from a tool including damages to property, bodily injuries and lost wages resulting from such injuries. This warranty solely covers the repair or replacement of tools supplied by TEK+ Electronic ApS or via our website www.tek-tools.dk. These remedies are exclusive, and the total liability of TEK+ Electronic ApS, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the tool. In no event shall TEK+ Electronic ApS be liable for consequential, incidental or special damages.

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TEK+ Electronic ApS reserves the right to determine all warranty claims. TEK+ Electronic ApS will not warranty tools containing parts or batteries not originally supplied by us. Failure due to misuse, improper maintenance, misapplication, not following instructions or warnings, abuse or repairs attempted by anyone will renders this warranty null and void.

Repair and Warranty Claims

All claims must be sent by email info@tek-tools.dk or by post to TEK+ Electronic ApS, Kløvervej 66, 9900 Frederikshavn, Denmark . A Return Goods Authorization (RGA) is required before shipping tools back to us. Secure the authorization by telephone or on writing/e-mail to TEK+ Electronic's main office with details of the claim. Non-warranty repairs are handled using the same procedure.

Payment Terms

1. TEK+ Electronic ApS standard payment terms are net 14 days from the date of issue of prepaid invoice that need to be paid before delivering the goods.

2. Payment directly via our website **www.tek-tools.dk** .Visa, Mastercard, PayPal (on request) and American Express are accepted.

Freight

Goods will be shipped pre-paid and added, unless otherwise specified.

Quotations

Special quantity quotations should be phoned in to discuss the scope of your tool requests.

**Safety Alert Symbol:**

This safety alert symbol indicates a potential personal injury hazard; it is not used for messages related to property damage only.

**Wear eye protection:**

when operating this tool. Failure to wear eye protection could result in serious eye injury from flying debris.

**Electric Shock hazard:**

Use proper personal protective equipment when using this unit on or near energized electrical lines.

Pinch Point Hazard:

Compression Dies at high force can cause severe personal injury. Keep all body parts away from moving parts of the tool while operating.



SPECIFICATIONS & KIT INCLUDES

- 1 Compression Tool
- 1 Carrying Case



Specifications	
Crimping force	12 Ton /120KN
Weight	6,40 KG
Lenght	585 mm
Stroke	25mm
Oil Capacity	124cc
Crimping range	
Tube Terminals	35 - 240 mm2 AL
	50 - 300 mm2 Cu

Crimping shape HEX (Hexagonal)

Features

- Protective Rubber Boot on "C" Head
- External Pressure Adjustment

NOTE:

EP-410 it is compatible with 12 Ton "U" type dies!

Die sets (mm2): EPH50, EPH70, EPH95, EPH120, EPH150, EHP185, EHP240, EPH300

Crimping die sets are sold separately!

The EP-410, hand operated, compression tool features a two stage rapid advance pumping system. It accepts all U-type dies currently manufactured for 12 ton tools on the market. Consult TEK+ Electronic ApS via e-mail or direct our website: www.tek-tools.dk for exact cable, connector, tube terminal and crimping die combinations.

Compression

1. Select the appropriate compression die set for the connector and cable being used. The "U" style EPH-series dies are to be used with the EP-410.
2. To insert the dies, depress the die release pin on the ram, and slide die into place. Then, depress release pin on "C" head as well and slide other die half in place. Be sure both die halves are secure before operating the tool.
3. Position the connector between the dies and pump tool handle until the connector is held in place. Fully insert the cable into the barrel of the connector.
4. Continue to pump the tool handle and completely crimp the connector. These tools all have a built in by-pass cartridge that will automatically activate when full pressure is reached. There will be a notice-able decrease in handle pressure when the by-pass is reached. a high pitched squeaking sound is normal when the tool is operating in the high pressure stage.
5. To release the tool, lift pump handle out and rotate clockwise until handle stops. With handle twisted, push down so the pin on the handle contacts the release pin on the tool body. The ram will retract and the tool is ready to begin its next cycle. In the event the tool will not release due to excess flash, hold release pin down with handle and pry tool jaws apart.
6. A force test gauge tool, model PG-4 it is needed with the EP-410 for checking output pressure. Consult manual for proper adjusting procedure.

MAINTENANCE AND INSPECTION

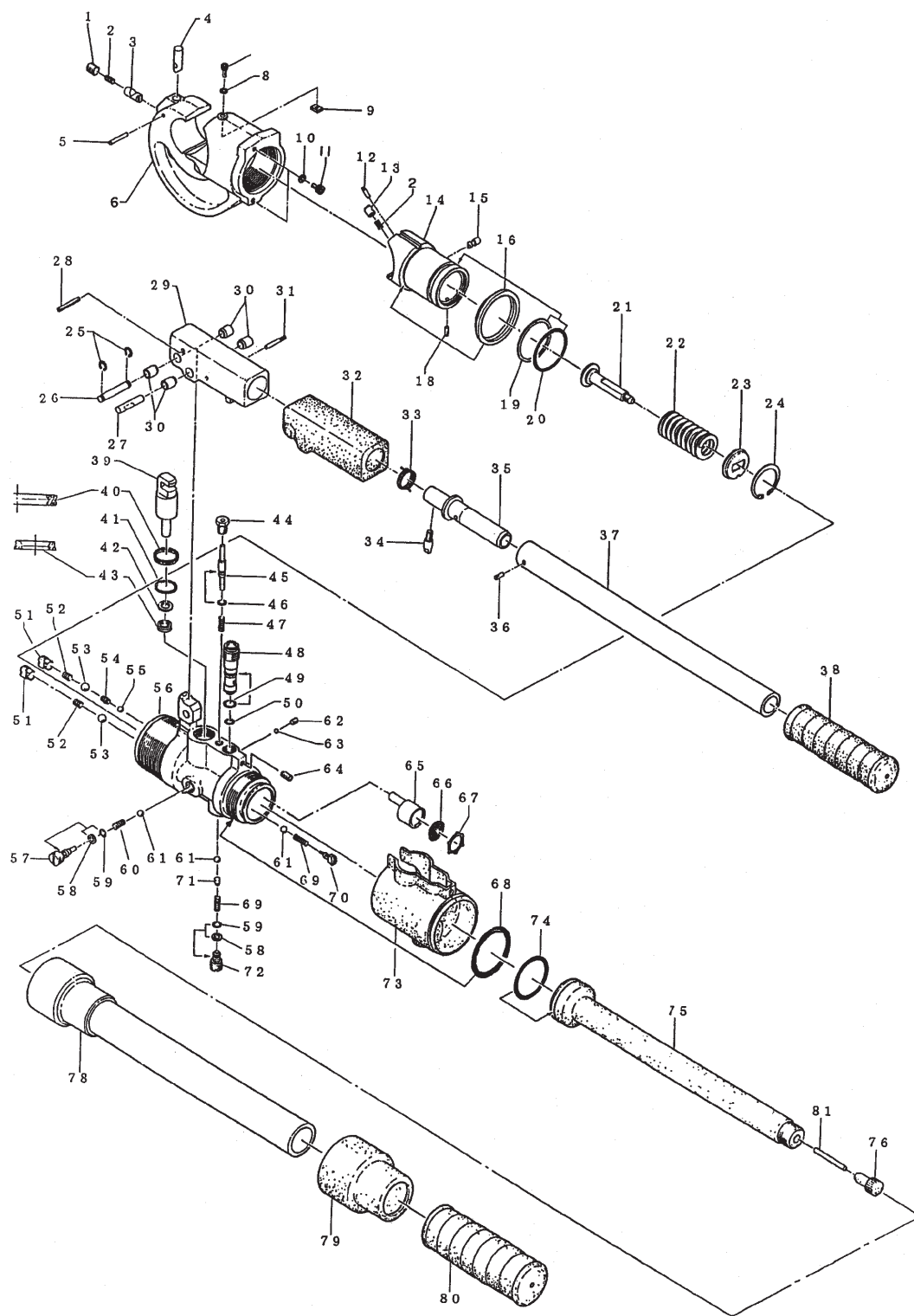
1. Daily maintenance is required to ensure that the tool is kept in good working condition.
2. Do not store the tool in a humid environment.
3. Wipe away any excess oil with a soapy cloth.
4. Provided that maintenance of the tool is carried out regularly, the tool should provide many years of service.

PRECAUTION

1. Always point the tool **AWAY** from other people.
2. If the tool is stored for an extended period at a temperature of less than -5°C / 25° F, the tool should be allowed to return to room temperature to ensure smooth operation. Use the tool only after it has been at room temperature for 1 hour.
3. Do not drop the tool. Dropping the tool may damage the hydraulic circuit and result in the tool not functioning correctly.
4. Keep the head and ram clean and free of debris. Solvents can be used to clean the head, but should not be used on the plastic body. Use soap and water to clean the body.
5. Do not use tool for continuous use. If any sign of over heating, allow the tool to cool for 15 mins.
6. Do not allow tool to be submerged in water. The tool may be used in damp or wet environments. However it is recommended for tool to be air-dried before use.

TROUBLESHOOTING

1. Never operate tools without dies in place. Failure to insert dies before operation will cause damage to the "C" frame and tool ram.
2. Never attempt to adjust pressure setting without the use of the proper test gauge. Consult factory for proper adjusting procedure.
3. All manually operated hydraulic compression tools are equipped with our external replaceable bypass cartridge. These cartridges should not have to be replaced for 10,000 to 12,000 compressions.
4. Die hang up is common with all types of compression tools. Should this occur, the jaws can easily be separated by holding the pump handle in the release position while prying the jaws apart. Never attempt to hit connector or tool jaw with hammer as this will damage connector and tool.
5. If tool fails to advance upon receipt or after an extended period of storage, invert tool and rap compression head sharply on ground. The suction valve check ball can become stuck after extended storage or during shipment, not allowing the tool to advance.
6. Always clean tool after use to keep ram track clear of dirt and debris.



NO.	DESCRIPTION	CODE	QTY.
1	M10 X 10 Screw (F.P.)	16-41	1
2	Spring (177)	410-01	2
3	Retainer Pin (A)	410-02	1
4	Die Release Pin (A)	410-03	1
5	2.5 X 25 Drive Pin (BW)	410-04	1
6	Head	410-05	1
7	M4 X 10 Screw	410-06	1
8	M4 Lock Washer	410-07	1
9	Key	410-08	1
10	M5 Lock Washer	410-09	2
11	M5 X 6 Screw	410-10	2
12	2.5 X 14 Drive Pin (BW)	410-11	1
13	Retainer Pin (B)	410-12	1
14	Ram	410-13	1
15	Die Release Pin (B)	410-14	1
16	Dust Seal	430-03	1
18	2.5 x 8 Dowel Pin (B)	410-17	1
19	P-40 Back-Up Ring (B.C.)	22-16	1
20	P-40 O-Ring (C.P.)	410-70	1
21	Ram Spring Guide	410-18	1
22	Spring (65)	410-19	1
23	Ram Spring Support	410-20	1
24	OV-36 Snap Ring	410-21	1
25	CE-7 Snap Ring	40-49	2
26	Pin (85)	410-22	1
27	Pin (84)	410-23	1
28	5 X 32 Dowel Pin (G)	85-57A	1
29	Pump Handle Head	410-24	1
30	Bushing	410-25	4
31	4 X 26 Dowel Pin (G)	410-26	1
32	Handle Head Insulation	410-27	1
33	Spring (146)	85-60	1
34	Push Pin	85-61	1
35	Pump Handle Stem	410-28	1
36	3 X 8 Dowel Pin (G)	410-29	1
37	Pump Handle	410-30	1
38	Pump Handle Grip (2)	410-31	1
39	Pump Piston	410-32	1
40	P-20 X-Ring	410-33	1
41	P-20 O-Ring (C.P.)	410-34A	1
42	P-8 Back-Up Ring (B.C.)	85-33	1
43	PS-8 Pent Seal	16-44	1
44	Release Valve Screw (7)	85-35	1
45	Release Valve Stem	410-35	1
46	P-3 O-Ring (C.P.)	UC-27	1
47	Spring (144)	85-37	1
48	Bypass Cartridge	410-36	1
49	S-9 O-Ring	410-71	1

NO.	DESCRIPTION	CODE	QTY.
50	P-8 O-Ring (C.P.)	410-43	1
51	Valve Screw (10)	410-44	2
52	Spring (67)	85-39	2
53	9/32" Ball	16-40	2
54	Spring (66)	85-40	1
55	3/16" Ball	16-49	1
56	Body	410-45	1
57	Suction Valve Plug	410-46	1
58	P-4 Back-Up Ring (B.C.)	410-47	2
59	P-4 O-Ring (C.P.)	410-48A	2
60	Spring (4)	16-48	1
61	7/32" Ball	16-26	3
62	M4 X 4 Screw (F.P.)	85-47	1
63	1/8" Ball	40-20	1
64	M5 X 8 Screw	410-49	1
65	Strainer	410-72A	1
66	Filter Screen	410-73	1
67	SI-20 Ring	410-74	1
68	G-40 O-Ring	05	1
69	Spring (43)	85-49	2
70	Valve Screw (22)	410-80	1
71	Spring Holder	410-51	1
72	Valve Plug (1)	410-52	1
73	Body Insulation	410-53	1
74	G-30 O-Ring	75-26	1
75	Oil Reservoir	410-54	1
76	Reservoir Cap	410-55	1
78	Ass'y(Yellow)	410-58B	1
79	Insulation	410-59	1
80	Body Handle Grip	410-60	1
81	Magnet	ROB-25	1

PG4 - Force Test Gauge Tool



NOTES

Zhejiang VASUNG Tools Co., Ltd.

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