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Safe Operation & Maintenance Instructions

Hydraulic Compression Tool

PHCT400-Kit

ATTENTION

Safe Operation & Maintenance Instructions must be followed.

ISSUE: 10/13 ORIGINAL

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This manual must be read carefully prior to operating this product. Special attention should be made to the section "Safety Instructions". Damages and injuries caused by improper use of this product are **NOT** covered in our warranty.

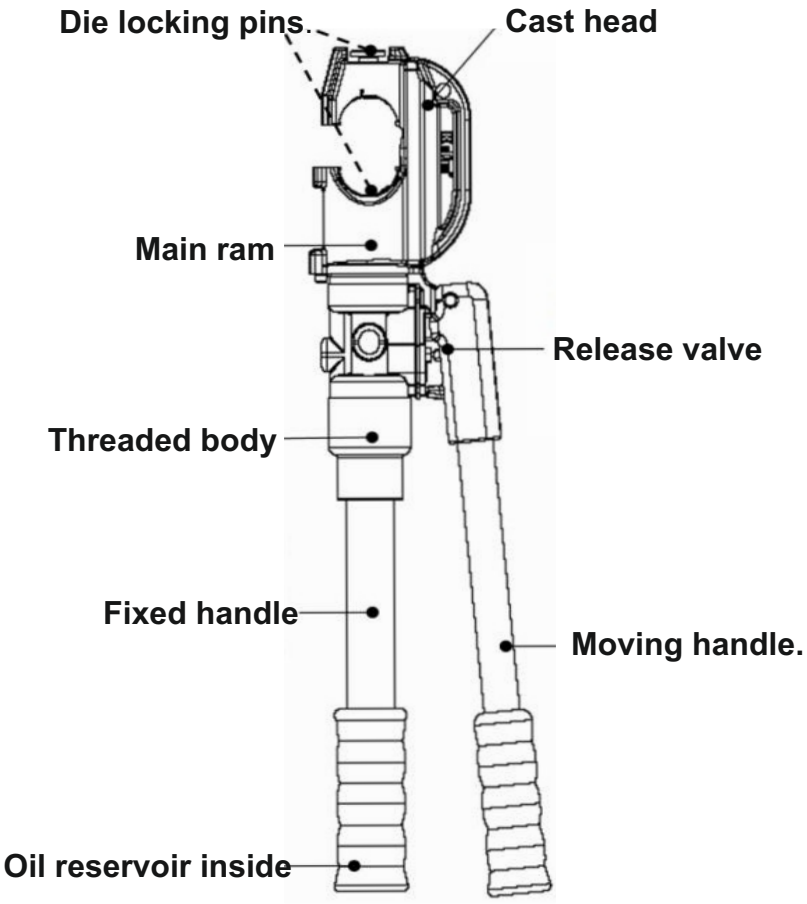
Safety Instructions

- Follow ALL instructions to ensure safety .

WARNING	
	Keep hands away from the compression area while operating this product.
	This product is fully insulated. Proper equipment should be used to avoid electrical shock.
ATTENTION	
	To prevent personal injury always wear goggles when operating this product.
	Read all instructions, warnings, and cautions carefully. Follow all safety precautions to avoid personal injury or property damage.

Product Description.

Subassembly.



Features:

180 degree head rotation.

Open fronted cast head for insertion and extraction of crimp joint.

Integral overload protection valve.

Two stage hydraulic system for fast ram extension.

Light weight body.

Dies can be supplied separately.

Length: 590mm.
Weight: 6.5 kgs.
Max pressure: 700bar.
Oil Capacity: 147cc.

Maintenance

- Tool should be kept free from dust, dirt and foreign particles were possible.
- Routine application of rust preventive oil / grease to the product is periodically required and should be applied liberally to the surface of the tool.
- Avoid bringing the tool into contact with water or solvents.
- Do **NOT** store this product in places with high temperatures, high humidity, or direct sunlight. Hydraulic fluid temperatures over 65ºC might cause damage to components sealed inside the unit.
- working temperatures：-10°C ~ 40°C.
- Before storage ensure that the ram and piston are fully retracted within unit.
- **DO NOT ATTEMPT TO REPAIR THIS TOOL** Inform Partex or their authorized distributors.

Operating Instructions

Before operation:

1. Make sure all parts of the product are clean and free from debris , check for any loose parts.
2. Check that no leakages are evident while the tool is in resting position or while the tool is tested without terminal connector.

ATTENTION Do not operate crimp tool when dies are not in place.

ATTENTION Be sure to select correct dies to suit the connector you are crimping. Improper selection can result in danger to the operator, damage to the unit or an inferior joint.

During operation:

1. Keep tool clean and free from debris. Excessive dirt & debris can contribute to the breakdown of the hydraulic system. Regular checks during operation cycle should be made for foreign matter or debris and removed immediately.

3. Stop operating immediately if abnormalities occur and refer to the **Trouble-Shooting** section of this manual, if:

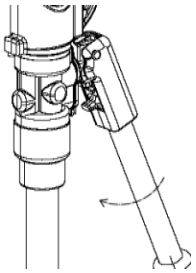
- **Compression of lugs cannot be completed**
- **Dies cannot be inserted or removed**
- **Piston is stuck or unable to retract after operation**

After operation:

1. Clean the product and check that all pieces are in fine working condition.
2. Apply rust preventive oil to the product and dies before returning it to the carrying case.

Operating instructions.

1) Open moving handle, twist clockwise and close handles together, this will bring the release mechanism in position to release hydraulic pressure. When the ram returns to the starting position the tool is ready to be operated.



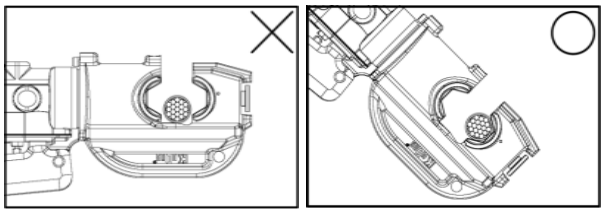
2) To place the upper top die into position, pull top die retaining pin upwards and insert die into grooved housing, push die until it is centralized. Release retaining pin making sure that the die is now held in a central position by the retaining pin.

3) To place bottom die into position, press the die retaining pin button (this is located at the side of the ram) and insert die into grooved housing. Push die until it is again centralized, release button making sure that the die is now held in a central position by the retaining pin.

Operating Instructions

1. Place the desired cable and terminal into the open head of the tool

   NOTE: For best results, the cable and terminal must be positioned at the **CENTER** of the upper die as this will balance the compression load ratio and not cause distortion of die or head.



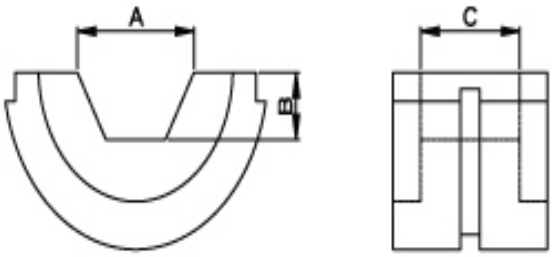
2. Pump the moving handle, the ram will rapidly advance. When the lower die makes contact with the terminal connector the tool will then slowly press the terminal until full compression is reached.

3. Continue pumping until both dies are touching. Operation is complete when the hydraulic pressure reaches 700bar, and the relief valve releases the internal pressure.

4. Twist the pump handle clockwise and close handles to retract the piston. Remove the crimped terminal or reposition if further compressions are required.

5. Clean the product and dies after use. Apply rust preventive oil to the product and dies before putting them back in the carrying case.

Die sets



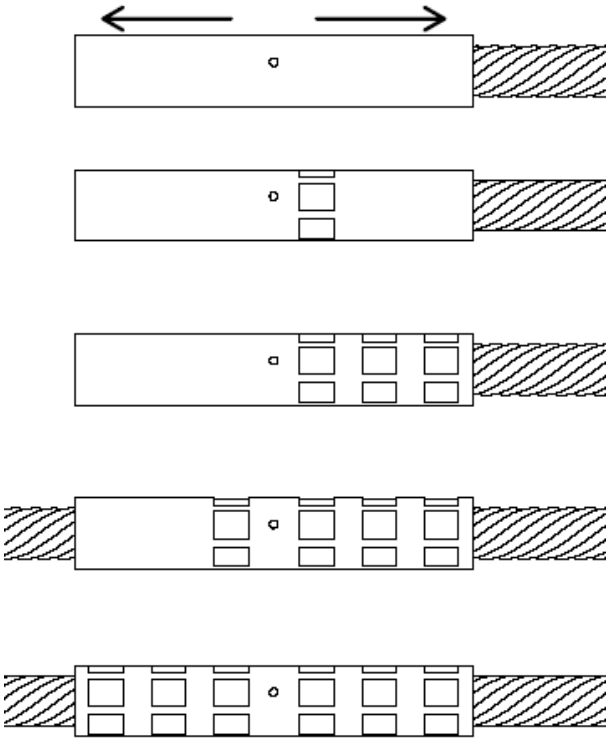
Unit: mm

Die No.	A	B	C
CU-16	7.20	3.12	14.00
CU-25	8.43	3.67	14.00
CU-35	10.00	4.33	16.00
CU-50	11.60	5.02	16.00
CU-70	13.70	5.95	15.60
CU-95	15.90	6.85	15.70
CU-120	17.98	7.79	16.00
CU-150	20.10	8.70	15.00
CU-185	22.33	9.67	14.00
CU-240	25.43	11.01	13.00
CU-300	28.44	12.32	11.20
CU-400	30.00	14.55	11.50

Compression Diagrams

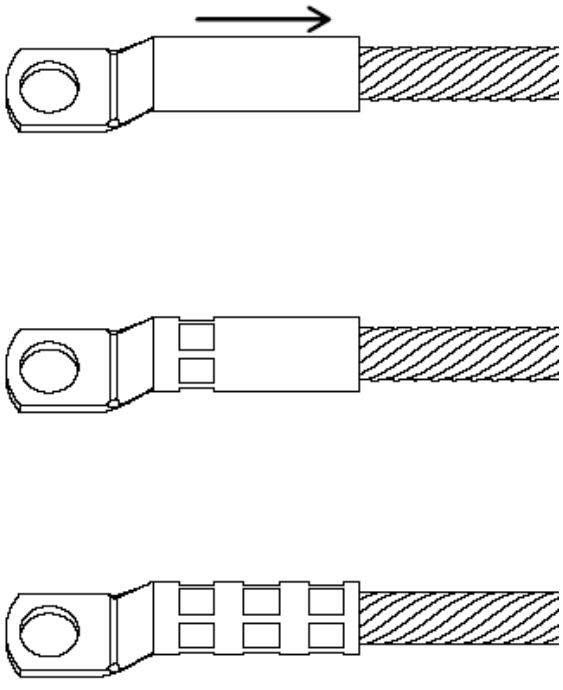
- **Butt connectors.**

  Direction of Compression: Single compression headed die.



- **Terminal Connectors.**

  Direction of Compression: Single Compression headed dies.



Trouble-Shooting

Compression cycle cannot be completed:

A. Incorrect combination of die sets and compression terminals
B. Damaged die sets
C. Pressure leakage or oil leakage externally or internally

Dies cannot be inserted or removed:

A. Deformed tool head runner or die holder.
B. Head die runners dirty or not lubricated .

Piston unable to advance or retract during operation:

A. Piston damaged or distored.
B. Die runners damaged.
C. Pressure leakage or oil leakage.

Do NOT attempt to repair this unit. Return to supplier.

Air in hydraulic system

a) Ram advances and retracts when handle is pumped.
b) Ram does not move when handle is pumped.
c) Unit does not reach pressure.

Removing Air From System.

1. Position the tool upside-down in a vice with the pump handle in the open position.

2. Unscrew the fixed main handle from the body, then remove the reservoir end cap.

3. Pump the moving handle and press the release button in at the same time, this will open hydraulic oil chambers and will allow the air bubbles to rise out of the tool system into the oil reservoir. The moving handle should be pumped for a minimum of 10 operations.

4. It is advised to leave tool upside down with end cap off for a further 10 to 15 minutes, this will allow any air bubbles that are trapped in reservoir to rise and escape.

5. Top up hydraulic fluid if required, pump the moving handle so the ram advances but does not come under pressure. Now twist clockwise and close moving handle.This will release oil back into the reservoir together with any trapped air bubbles.
(repeat this process several times to ensure that all air bubbles have been removed).

6. After all air bubbles have been released, lightly squeeze the top of the rubber reservoir so the oil is slightly over flowing and insert the filler cap. Any excess oil should be wiped from tool before use.

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Oil Refilling:

- Check oil level periodically and top up if required.
- OIL TYPE : TELLUS GRADE 15 ONLY.

PARTS LIST.

No.	Parts	Q'ty	No.	Parts	Q'ty
1	Tool Body	1	45	Spring Pin	2
2	Oil Seal	1	46	Screw	1
3	O-ring	1	47	Guide Block	1
4	Locating Screw	1	48	Oil Seal	1
5	Release Lever	1	49	Spring Washer	3
6	O-ring	1	50	Cap	1
7	Compression Ring	1	51	Spring Pin	1
8	Valve Screw	2	52	Bushing	4
9	Compression Spring	2	53	Conical Pin	1
10	Ball	2	54	Torsional Spring	1
11	Compression Spring	1	55	Release Pin	1
12	Ball	1	56	FRP Pipe	1
13	Screw	1	57	Handle Grip	1
14	Back up Ring	2	58	Guide Bolt	1
15	O-ring	2	59	Insulation Cap	1
16	Compression Ring	1	60	Extension Tube	1
17	Ball	3	61	Handle Grip	1
18	Screw	1	62	FRP Pipe	1
19	Ball	1	63	Spring Pin	1
20	Screw	1	64	Insulation Tube	1
21	Relief Valve Set	1	65	Screw	2
22			66	Crescent	2
23			67	Handle Pin	1
24			68	Piston	1
25			69	Handle Pin	1
26			70	Oil Reservoir	1
27	O-ring	2	71	Magnetic Pin	1
28	O-ring	1	72	Filler Cap	1
29	Solid Filter	1	73	Main Ram	1
30	Push-in Fastener	1	74	Die Retaining Button	1
31	Compression Spring	2	75	Spring Pin	1
32	Valve Screw	1	76	Compression Pin	1
33	Ball Seat	1	77	Locating Pin	1
34	Valve Screw	1	78	Back-up Ring	1
35	Insulation Cover	1	79	O-ring	1
36	Hook Spring	1	80	Guide Bolt	1
37	O-ring	1	81	Spring Holder	1
38	Funnel	1	82	Inverse Ring	1
39	C Head	1	83	Spring Pin	1
40	Split Pin	1	84	Compression Spring	1
41	Locating Ring	1	85	O-ring	1
42	Screw	1	86	Back-up Ring	1
43	Compression Spring	1	87	Copper Washer	1
44	Top Die Retaining Pin	1			

Parts Drawing.