99404
UB-412 (HYCP-400)

KuDos®
Your Forever Working Partner.

Model No. UB-412 (HYCP-400)

Length: 590 (L)mm
Weight: 7.0 kgs

Specifications:

Max. Pressure: 700 bar
Oil Required: 145 cc
Max Output: 12 ton
Jaw Opening: 32mm
Two stage pump action

Crimping Capacity:

- Max. Compression: 400 mm^2 copper lugs
- Accepts all dies used for Alcoa, Burndy, T&B, Klauke, Cembre and Blackburn 12-ton compressors
- Dies sold separately (See page 47) (CU 16/25/35/50/70/95/120/150/185/240/300/400)

Features:

- Fiberglass handles are durable and light weight .
- Pressure relief valve for overload protection.
- Automatic low/high-pressure conversion with rapid/slow operating motion.
- 180° rotating head for convenient operation.
- External adjustable relief valve.
- Two-stage hydraulic system reduces the number of pumps necessary.

Accessories:

KuDos plastic carrying case (See page 80)

KuDos®
Your Forever Working Partner.

KuDos Industrial Inc. U.S.A.

Safety Operating & Maintenance Instructions

Hydraulic Hand Compression Crimper

UB-412

Version: 2006/07

KuDos Hydraulic Hand Compression Crimpers comply with ISO 9001:2000. We guarantee our qualities and services.

ATTENTION!

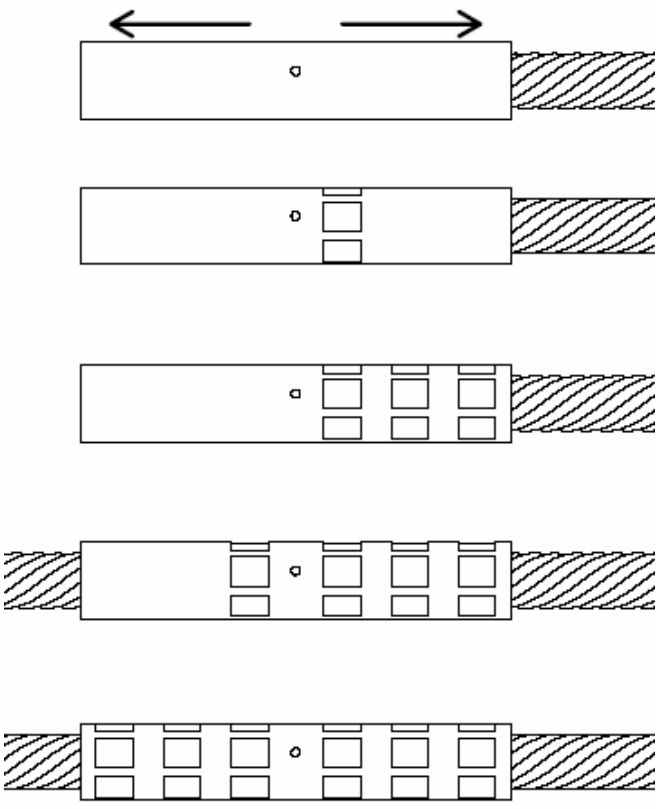
Safety Operating & Maintenance Instructions must be followed.

Table of Contents

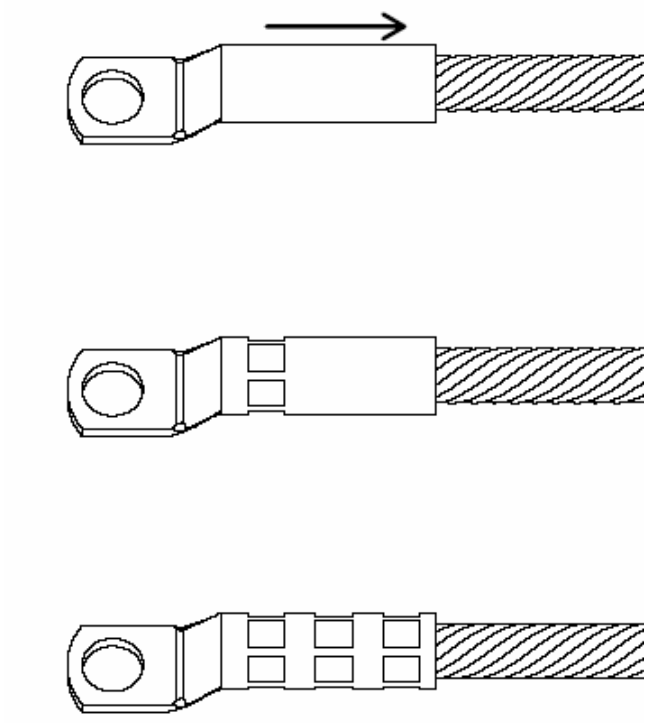
- Table of Contents 1
- Safety Instructions 2
- Product Description 3
- Characters & Functions 4
- Operation Manual 5
- Trouble – Shooting 8
- Maintenance 9
- Limited Warranty 10
- Diagram of Parts & Components 11
- Table of Parts & Components 12
- Dies 13
- Operation Instructions 14
- Manufacture & Quality Certificate

Operation Instructions

■ Direction of Compression：
Single-sided / Outward

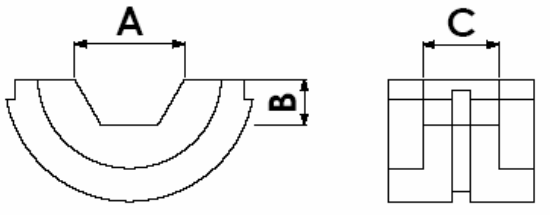


■ Direction of Compression：
Outward



Dies

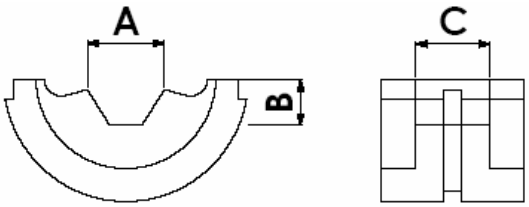
■ Hex Dies（For Copper Lugs）



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

■ Hex Dies（For Solderless Terminals）



Unit: mm

Die No.	A	B	C
CU-8-14	7.40	3.50	8.00
CU-22	8.80	4.30	10.00
CU-38	11.50	5.40	11.50
CU-60-70	13.40	6.00	15.00
CU-80	15.00	6.75	18.00
CU-100	18.00	8.00	15.00
CU-150-180	21.00	9.10	13.00
CU-200	28.44	12.32	11.20
CU-325	30.00	14.56	11.50

Thank you for using KuDos products. This handbook must be read carefully prior to operating the product. Special attentions should be paid to the section "Safety Instructions". Damages and injuries caused by improper uses of the product are **NOT** included in our warranty. We would like to remind you to work safely and keep this handbook on hand.

Safety Instructions

■ Follow instructions to assure safety.

WARNING	
	Keep hands off the compression section while operating the product.
	This product is NOT an insulator. Proper equipments should be used to avoid electric shock.
ATTENTION	
	Goggles are recommended during operation of the product.
	Safety Operating & Maintenance Instructions must be read carefully prior to operating the product.

Product Description

■ Subassemblies

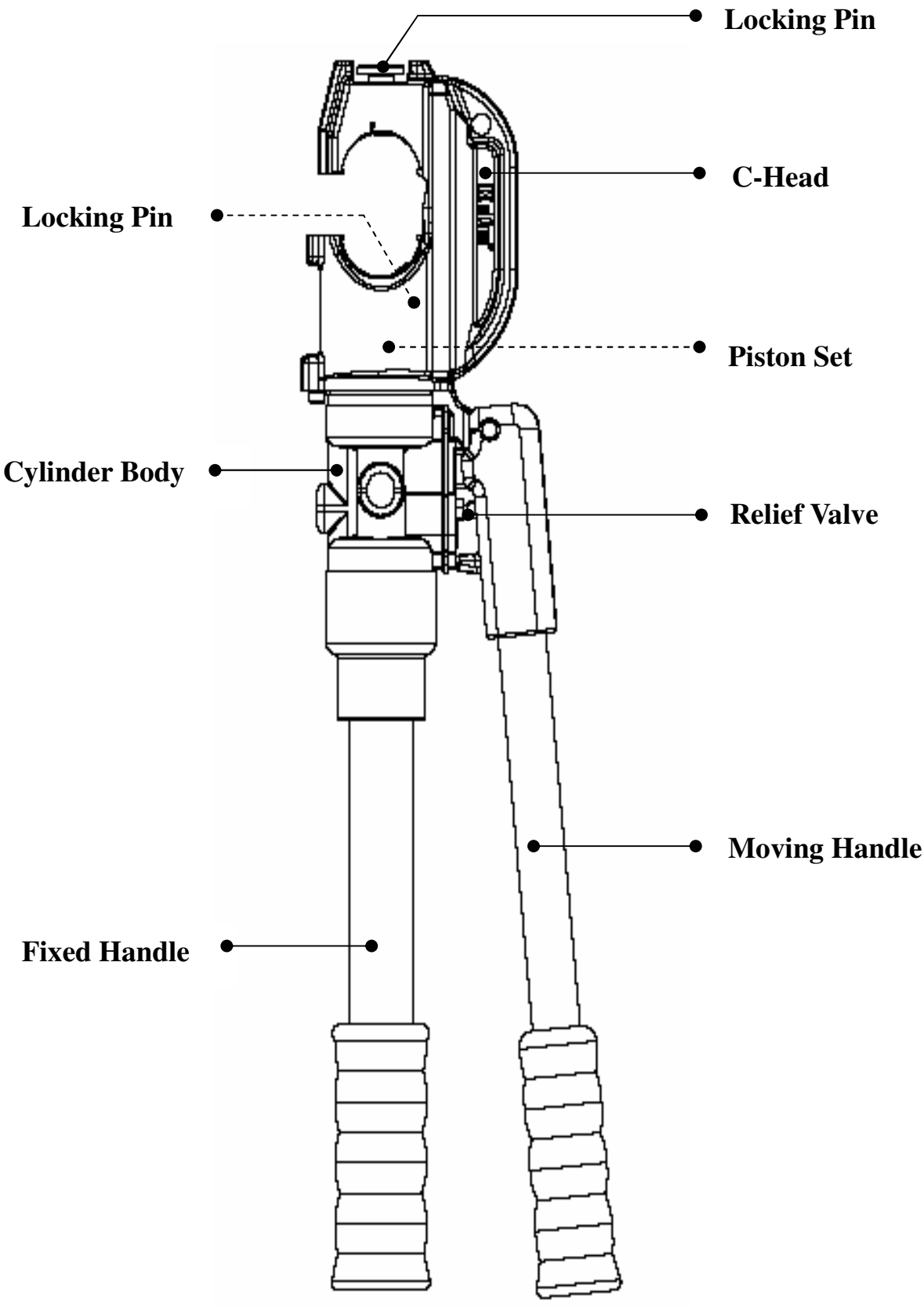
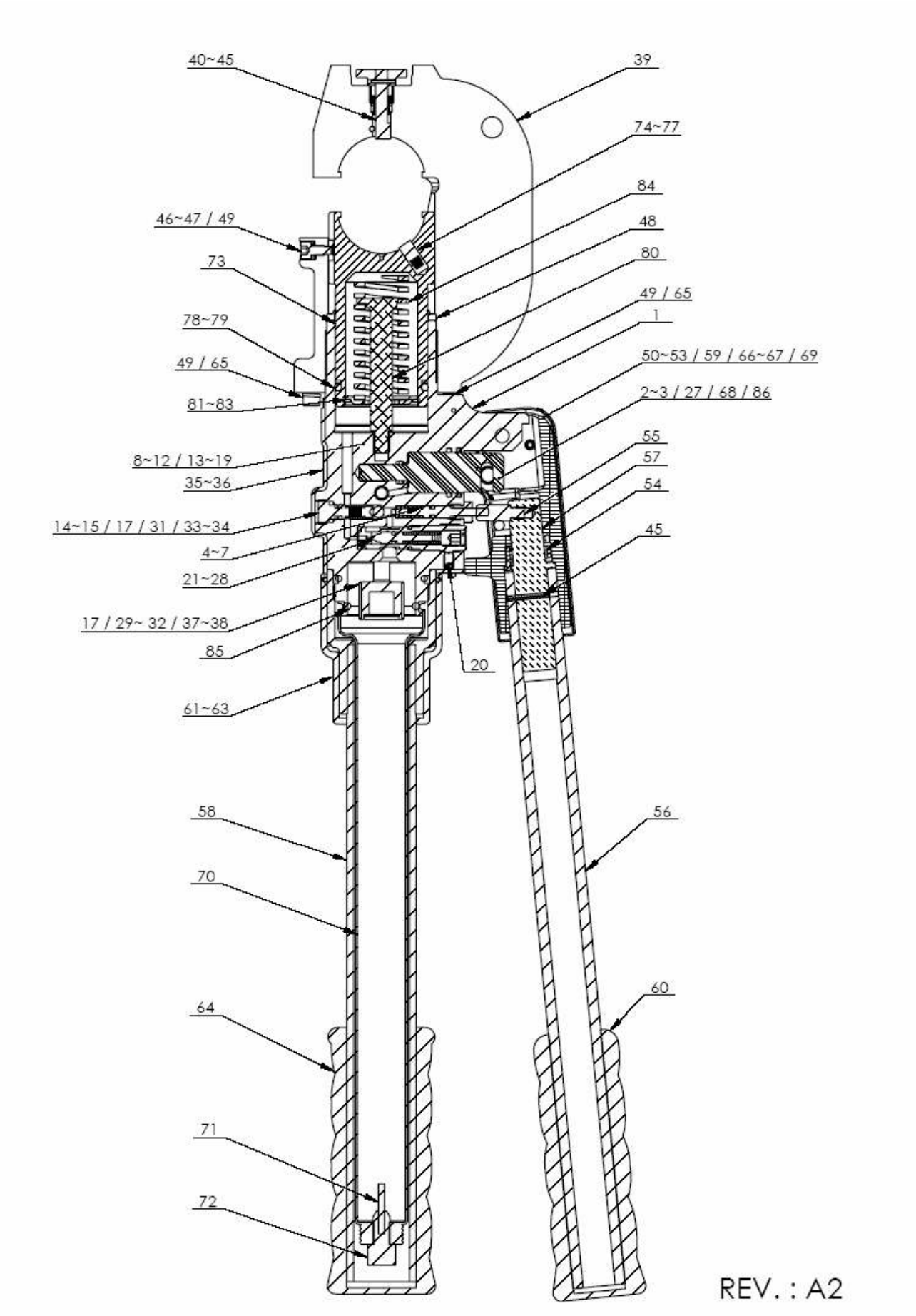


Table of Parts & Components

No.	Q'ty	Part	No.	Q'ty	Part
1	1	Cylinder Body	44	1	Arresting Pin
2	1	Dust Seal	45	2	Spring Pin
3	1	O-Ring	46	1	Socket Head Cap Screw
4	1	Locating Screw	47	1	Guide Block
5	1	Release Lever	48	1	Dust Seal
6	1	O-Ring	49	3	Spring Washer
7	1	Compression Spring	50	1	Cap
8	2	Valve Screw	51	1	Spring Pin
9	2	Compression Spring	52	4	Bushing
10	2	Ball	53	1	Conical Pin
11	1	Compression Spring	54	1	Torsional Spring
12	1	Ball	55	1	Release Pin
13	1	Screw	56	1	FRP Pipe
14	2	Back Up Ring	57	1	Guide Bult
15	2	O-Ring	58	1	Insulation Cap
16	1	Compression Spring	59	1	Robber Handle Tube
17	3	Ball	60	1	Extention Tube
18	1	Set Screw	61	1	FRP Pipe
19	1	Ball	62	1	Spring Pin
20	1	Set Screw	63	1	Insulation Tube
21	1	Relief Valve Set	64	1	Rubber Handle Tube
22	1		65	2	Socket Head Cap Screw
23	1		66	2	Crescent
24	1		67	1	Hinge Pin
25	1		68	1	Pumping Piston
26	1		69	1	Arresting Pin
27	2	O-Ring	70	1	Oil Bag
28	1	O-Ring	71	1	Magnetic Bar
29	1	Solid Filter	72	1	Bung
30	1	Push-In Fastener	73	1	Main Piston
31	2	Compression Spring	74	1	Arresting Pin
32	1	Screw	75	1	Spring
33	1	Ball Seat	76	1	Compression Spring
34	1	Screw	77	1	Locating Pin
35	1	Insulation Cover	78	1	Back Up Ring
36	1	Hook Spring	79	1	O-Ring
37	1	O-Ring	80	1	Spring Rod
38	1	Funnel	81	1	Compression Spring Support
39	1	C Head	82	1	Inverse Ring
40	1	Spring Pin	83	1	Spring Pin
41	1	Locating Ring	84	1	Compression Spring
42	1	Stop Screw	85	1	O-Ring
43	1	Compression Spring	86	1	Back Up Ring

Diagram of Parts & Components

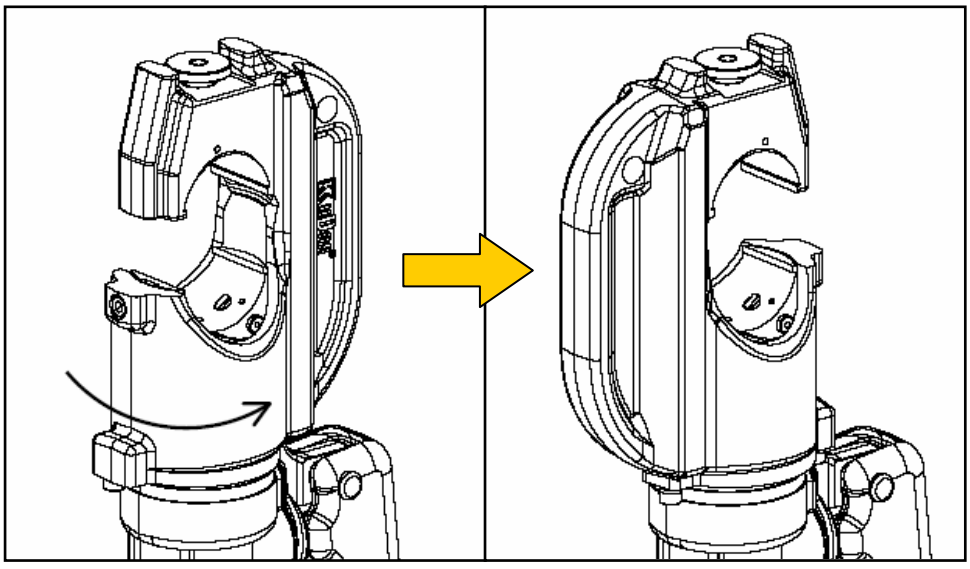


Characters & Functions

Specifications

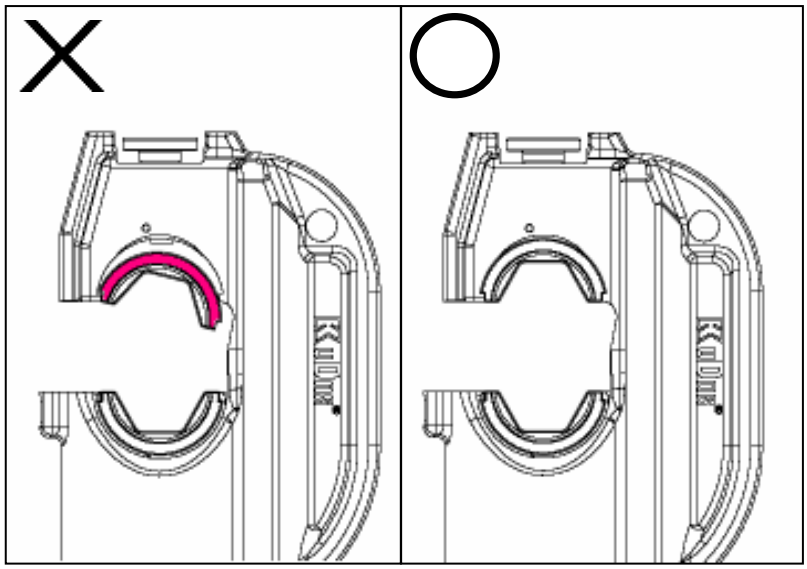
■ Item	Hydraulic Hand Compression Crimper
■ Model No.	UB-412
■ Max. Pressure	700 bar / 10,000 psi
■ Max. Output	12 Tons
■ Dimensions	590mm(L)×150mm(W)×70mm(H)
■ Net Weight	4.4 kgs
■ Gross Weight	7.0 kgs
■ Accessories	KuDos plastic carrying case / Dies not included

- ☐ C-Head open : 32 mm
- ☐ Max. compression : 32 mmΦ copper lugs
- ☐ Max. operating pressure : 700 bar / 10,000 psi
- ☐ External adjustable relief valve
- ☐ Pressure relief valve for overload protection
- ☐ Automatic low-/high-pressure conversion with rapid/mild operating Motion
- ☐ 180° rotating head



Operation Manual - I

- Make sure all parts of the product are clean and rustless.
- No leakage occurs while the product is not operated.
- No leakage occurs (either at low pressures or at high pressures) while the product is tested without cables.
- Hydraulic pressure should be able to reach 700 bar / 10,000 psi while tested without cables.
- Operations without dies in place are strictly prohibited.



- Check the cleanness of the product before use.
- Make sure no loose parts exist before use.
- Always use dies which fit the specifications. No overloaded compression is allowed.
- Stop operating immediately in case of any abnormalities.
  （Please refer to "Page 8 : Trouble-Shooting"）
  1. Compression of lugs cannot be implemented.
  2. Moving handle is stuck or is unable to rotate to release the pressure.
  3. Dies can not be set in place or can not be removed.
  4. The piston is stuck or is unable to retract after operation.
- Clean the product and dies after use. Apply rust preventive oil to the product and dies before putting back to the carrying case.

Limited Warranty

- Limited warranty of KuDos® goods are valid for a period of one year from the date of purchase.
- Receipt and warranty card are required for warranty services.
- This warranty is subject to the exclusions and limitations described below.
  1. This warranty does not cover damages of products which are **NOT** installed, operated, used and maintained in accordance with written instructions.
  2. This warranty does not cover damages resulted from isassemblies or attempted disassemblies by parties other than KuDos® or its authorized service representatives.
  3. This warranty does not cover damages caused by improper storage of the product, use of components not manufactured or authorized by KuDos®, acts of God, accidents, use in a manner for which they are not intended or use which is contrary to instructions for the product.
  4. This warranty does not cover ordinary wear and tear, which cannot be imputed to defects in material and workmanship.
- KuDos® 's liability in all cases is limited to, and shall not exceed,the purchase price paid.
- All revisions in warranty policy and product informations will be included in new versions of handbooks. Individual notification will **NOT** be issued.

Maintenance

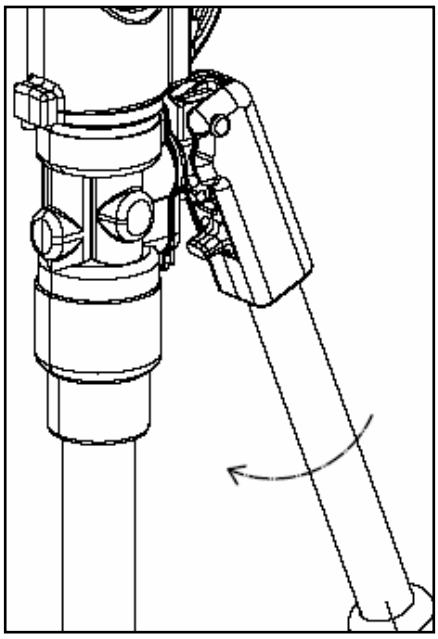
- Always keep the product clean. Any sands or impediments might cause malfunctions or even damages to the product. Routine renewal of hydraulic fluid is required.
- Do **NOT** keep the product in places with high temperature, high humidity, or direct sunlight.
- Operation with dies in accordance with the specifications in this handbook is required.
- Inform KuDos® authorized distributors in case of any abnormalities or malfunctions of the product. Receipt and warranty card are required for warranty services.

※ ***Do Not disassemble/repair or attempt to disassemble/repair the product.***

- Suggested working temperatures：-10℃ ~ 40℃
- Hydraulic fluid temperatures over 65℃ might cause damages to components sealed inside the product. It might also damage the product severely.
- The hydraulic fluid pressure should be adjusted only by KuDos® service representatives.
- Do **NOT** operate the product without dies in place, or the C-head might be deformed or broken, the piston might be damaged, operators might even be injured.
- To keep the product in best working conditions, do **NOT** slam it on the ground.

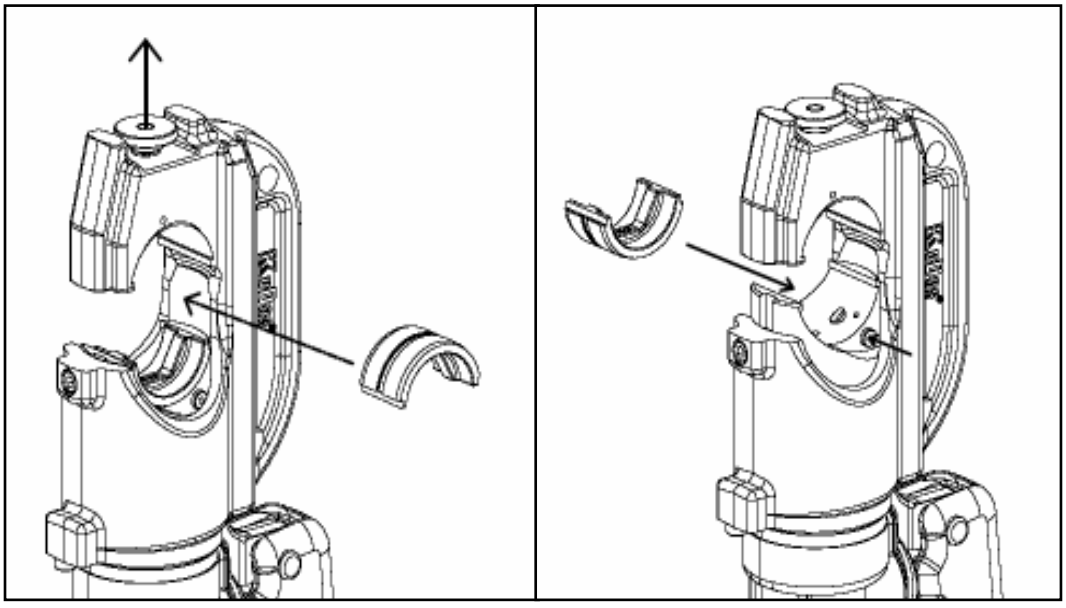
Operation Manual - II

1. Release the hydraulic fluid pressure and retract the piston before placing dies：Pull out the moving handle and rotate it clockwisely, press down the release lever by pushing down the moving handle, release the moving handle and the product is ready to work when the piston returns to its starting position.



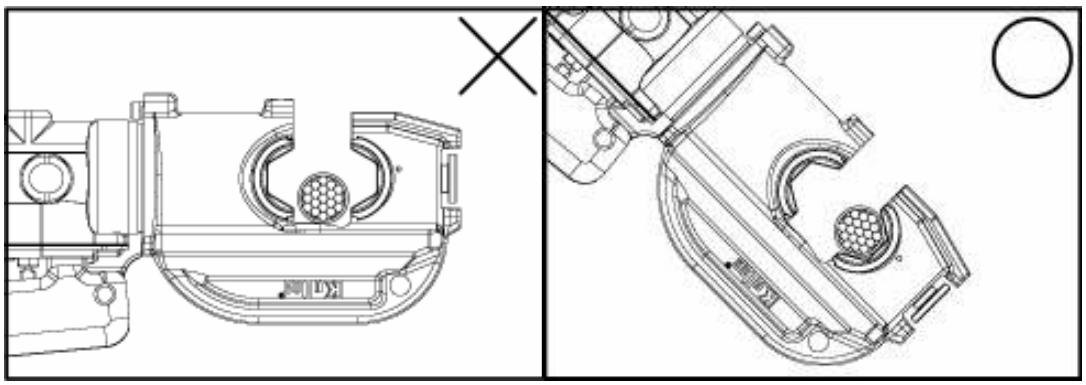
2. To place the upper die, pull up the spring pin (#40) and push the die into the open of C-head along its groove.

3. To place the lower die, press down the arresting pin (#74) and push the die into the open of C-head along its groove.



Operation Manual - III

4. Place the working cable and terminal into the open of C-head. To reach the best results, the cable and terminal must be positioned at the CENTER of the open top to balance the compression. It might damage the dies or even deform the C-head if the cable and terminal are off-center.



5. Exercise the moving handle back and forth to push the piston and lower die forwards.

6. The rapid motion of piston with low hydraulic pressure will convert to a slow motion with high pressure after the upper and lower dies are tightly pressed.

7. Operation completes when the hydraulic pressure reaches 700 bars at which the relief valve releases the internal pressure. Repeat step 1 and remove the cable. Pull up the spring pin (#40) to remove the upper die, and press down the arresting pin (#74) to remove the lower die.

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

Trouble-Shooting

■ Compression of lugs cannot be implemented.

A. Insufficient hydraulic fluid : Routine refill or renewal of hydraulic fluid is required.

B. Internal leakage: Contact KuDos® service representatives.

※ ***Do NOT attempt to disassemble or repair the product.***

C. Operation instructions were not followed. The product or dies have been alreaady damaged.

D. Applied cables or terminals are over-specification.

■ Moving handle is stuck or is unable to rotate to release the pressure.

A. Clean the moving handle to remove impediments.

B. Contact KuDos® service representatives for stuck torsional spring.

※ ***Do NOT attempt to disassemble or repair the product.***

C. Pressure can be released by pressing down the release lever manually.

■ Dies can not be set in place or can not be removed.

A. Deformed C-head or dies. Contact KuDos® service representatives.

※ ***Do NOT attempt to disassemble or repair the product.***

B. Clean the grooves on C-head to remove impediments.

C. Clean the die seats on C-head to remove impediments.

■ The piston is stuck or is unable to retract after operation. The piston might be deformed by uneven stress distribution when the product was operated with off-center cables and terminal. Contact with KuDos® service representatives.

※ ***Do NOT attempt to disassemble or repair the product.***