



Your Forever Working Partner



KuDos Mechanical Co., Ltd

SAFE OPERATION & MAINTENANCE INSTRUCTIONS

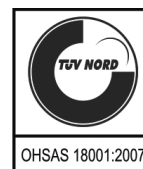
**Hydraulic Crimper Tool
HYCP-4413**



ATTENTION!

SAFE OPERATION & MAINTENANCE INSTRUCTIONS MUST BE FOLLOWED

KuDos hydraulic crimper tools are carefully inspected for quality and tested for safety. We meet ISO 9001:2015, ISO 14001:2015, IECQ QC 080001, OHSAS 18001:2007&UVDB.



Safety Warnings

Carefully read ALL warnings before operating this tool:

WARNING:	
	DO NOT attempt to disassemble or repair this product. Doing so will violate the terms of the warranty.
	DO NOT use this tool on glass, plastic, wood or any other materials which could shatter. Do not exceed equipment ratings.
	Always wear safety goggles when operating this product. Projectiles or hydraulic fluid under pressure can cause serious injuries.
	This product is NOT an insulator. Use protective equipment when working near power lines.
ATTENTION!	
	Read all instructions and warnings carefully. Follow all safety precautions to avoid injury or damage to property.
	Only crimp terminals and sleeves that fit the tool specifications. DO NOT attempt to crimp oversized fittings

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Thank you for using KuDos® products. This manual must be read carefully prior to operating this product. Special attention should be paid to the section ‘Safety Instructions’.

Damages and injuries caused by improper use of this product are NOT included in our warranty. We would like to remind you to work safely and to keep this manual on hand.

Safety Instructions

WORK AREA SAFETY

1. Keep the area around the equipment clean and free of obstructions
2. Bystanders should stay clear of the work area to ensure safety

PERSONAL SAFETY

1. Stay alert while using this hydraulic equipment to prevent serious injury. Do not use under the influence of drugs, alcohol or medicine.
2. Do not wear loose hair or clothes that may get caught while the equipment is in operation.
3. To reduce the risk of injury, wear nonconductive gloves and non-skid safety-shoes. Always wear protective eyewear.
4. Work safely. Maintain your balance and do not reach while operating hydraulic tools.

TOOL USE AND CARE

1. Do not use this tool if there are any abnormalities or damage to any of its components.
2. Keep out of the reach of children. All users should be familiar with its use before operating.
3. Inspect the tool before and after every use. Do not use this tool if it is damaged in any way.
4. Personal injury can be caused by operating damaged or poorly maintained tools. Check for loose parts before use.
5. Use only KuDos recommended accessories with this tool.
6. Do not use this tool in wet conditions. Store this tool in a dry place.

SERVICE

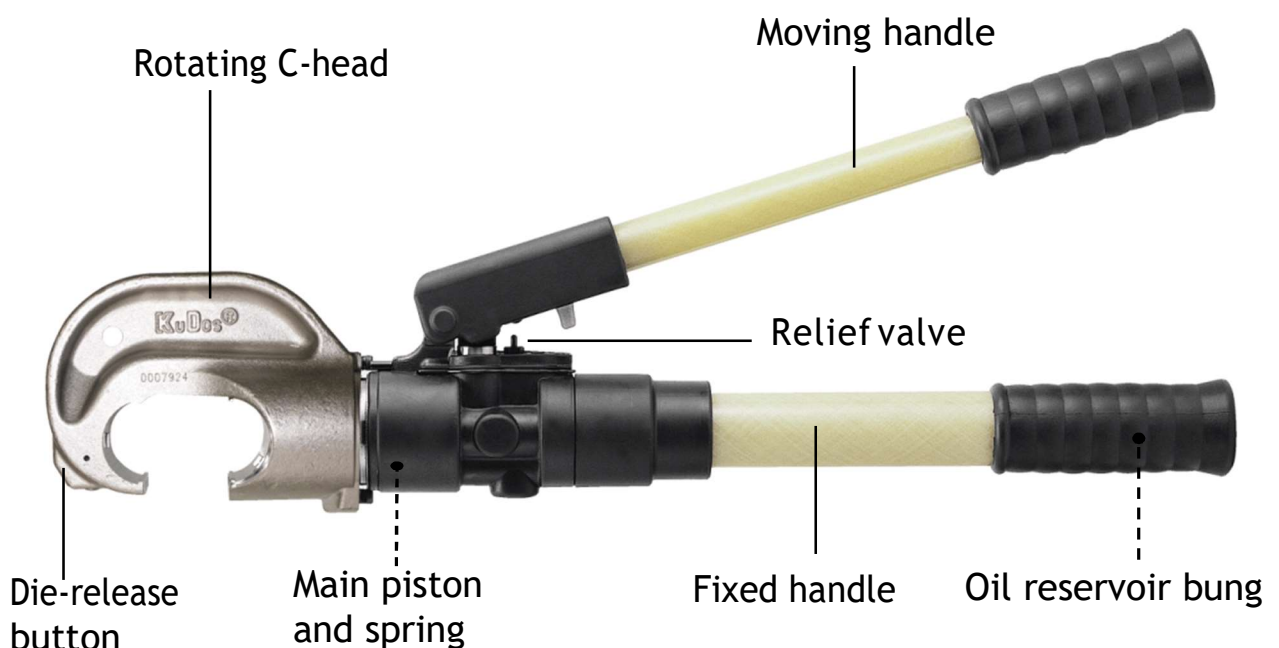
1. This tool must be repaired by qualified technicians. Do not attempt to disassemble or repair this tool yourself.
2. When having the tool serviced, always use identical KuDos replacement parts.

Product Description

- SPECIFICATIONS:**
- Dimensions: (L)641 × (W)150 × (H)70mm
 - Weight: 7.6kg
 - Max. pressure: 700 bar/10,000psi
 - Max. output: 12.7 tons/125KN
 - Jaw opening: 44mm
 - Oil required: 80cc

- FEATURES:**
- 180° rotating tool head
 - Adjustable pressure relief valve for overload protection
 - Two-stage system with automatic low/high-pressure conversion for rapid/slow advance
 - Durable, lightweight fiberglass handles
 - Accessories: KuDos plastic tool case
 - Die sets sold separately

- CRIMPING RANGE:**
- Max. compression: 40mm copper lugs
 - Accepts all dies used by Alcoa, Burndy, T&B, Klauke, Cembre and Blackburn 12-ton compressors
 - Die sizes available: CU 16/25/35/50/70/95/120/150/185/240/300/400

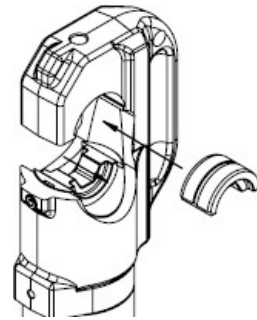


Operating Instructions

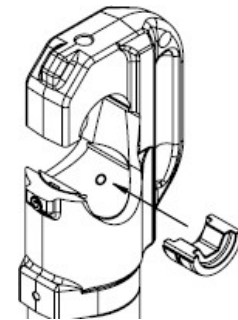
BEFORE USE, DON'T FORGET TO...

- Make sure all parts of the product are clean and rustless, and that no loose parts exist.
- Check that no leakage occurs while the tool is resting or while the product is tested without cables.

1. To start, rotate the moving handle clockwise and bring the tool handles together. This will depress the release valve stem to fully retract the piston.



2. Place the upper die by pulling up the spring pin and pushing the die into the opening of the die seat along the groove.

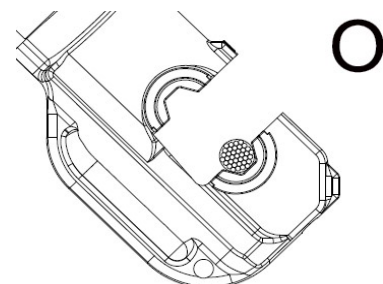


3. To place the lower die, push down the die release button on the piston and slide the die onto the die seat along its groove.



4. Position the cable and fitting into the C-head opening. Pump the moving handle back and forth to advance the piston.

5. Press the cable and fitting into the center of the upper die as the piston advances. Off-centered crimping may damage or deform the tool head.



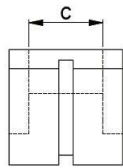
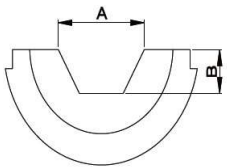
6. The rapid motion of the piston with low hydraulic pressure will convert to a slow motion with high pressure once the upper and lower dies press together.
7. The operation will be complete when the hydraulic pressure reaches 700 bar and the relief valve activates. There is an audible click as the pressure is relieved.
8. Turn the moving handle clockwise and press the handles together to return the piston to start position.
9. Follow connector specifications to apply the right number of crimps. See the diagrams on page 9 for the crimping sequence.

AFTER USE, DON'T FORGET TO...

- Clean the product and check to ensure that all pieces are in working condition.
- Apply rust preventive oil to the product and blades before returning it to the carrying case.

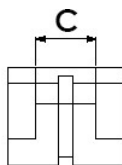
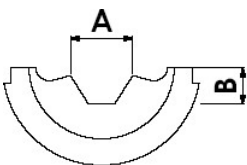
Die Sets

1) HEX DIES FOR COPPER LUGS



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

2) HEX DIES FOR SOLDERLESS TERMINALS

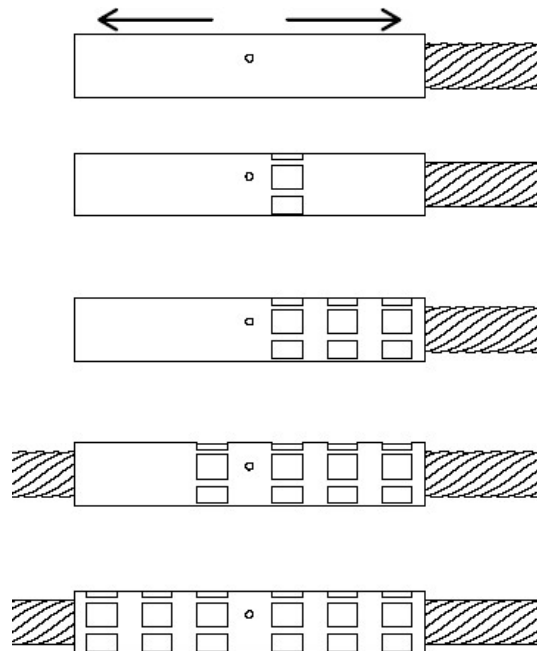


Die No.	A	B	C
CU-8-14	7.40	3.50	8.00
CU-22	8.80	4.30	10.00
CU-38	11.50	5.40	11.50
CU-60-70	13.40	6.00	15.00
CU-80	15.00	6.75	18.00
CU-100	18.00	8.00	15.00
CU-150-180	21.00	9.10	13.00
CU-200	28.44	12.32	11.20
CU-325	30.00	14.56	11.50

Compression Diagrams

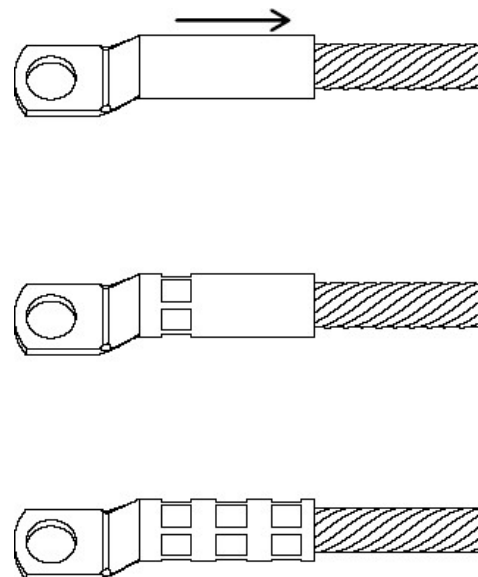
1) SLEEVE FITTINGS

Direction of Compression:
Single-sided/Outward



2) TERMINAL FITTINGS

Direction of Compression:
Outward



Hydraulic Fluid Maintenance

Restore piston action by following the steps below:

1) REMOVING AIR FROM THE SYSTEM:

1. Position the tool upside-down in a vice with the pump handle in the open position.
2. Unscrew the main handle from the body, then remove the reservoir bung/cap.
3. Pump the moving handle a few times to advance the ram.
4. Press the release lever to release the pressure in the hydraulic circuit until the ram is fully retracted and the oil has returned completely into the reservoir.
5. Repeat the process several times to assure that all air bubbles are ejected.
6. Close the rubber reservoir and insert the filler cap, then reassemble the main handle.

2) REFILLING THE OIL RESERVOIR:

1. Check the oil reservoir every six months and make sure the reservoir is full.
2. To refill the oil reservoir, follow the steps above to disassemble the tool.
3. Do not use restored, used oil, or mix different kinds of oil.

ATTENTION:

- Use only new SHELL T15 hydraulic fluid or equivalent.
- The hydraulic fluid must be changed every 24 months.
- Using the incorrect type of oil will damage the seals in the pump and cause the pump to malfunction.

Maintenance

Follow these tips to ensure long product life:

- Hydraulic fluid must be replaced every 24 months.
- Keep the tool head free of dirt and metal chips. Use a lubricant to clean the tool when necessary.
- Routine application of rust preventive oil to the product is needed. Avoid bringing the tool into contact with water or solvents.
- DO NOT let the tool drop to the ground or into the carrying case to avoid damage to internal parts or to the plastic case.
- DO NOT keep this product in places with high temperatures, high humidity, or direct sunlight.
- Suggested working temperatures are -10° C to 40° C. Check hydraulic fluid specifications.
- Hydraulic fluid temperatures over 65° C might soften seals and cause fluid leaks.
- DO NOT DISASSEMBLE OR ATTEMPT TO REPAIR THIS TOOL.

 **ATTENTION:**

- KuDos tools must be serviced by a qualified technician.
- Replace any worn or damaged parts immediately. Only use parts supplied by Kudos.
- Contact KuDos service representatives to request parts or for problems not shown here.

Troubleshooting

The fitting cannot be crimped:

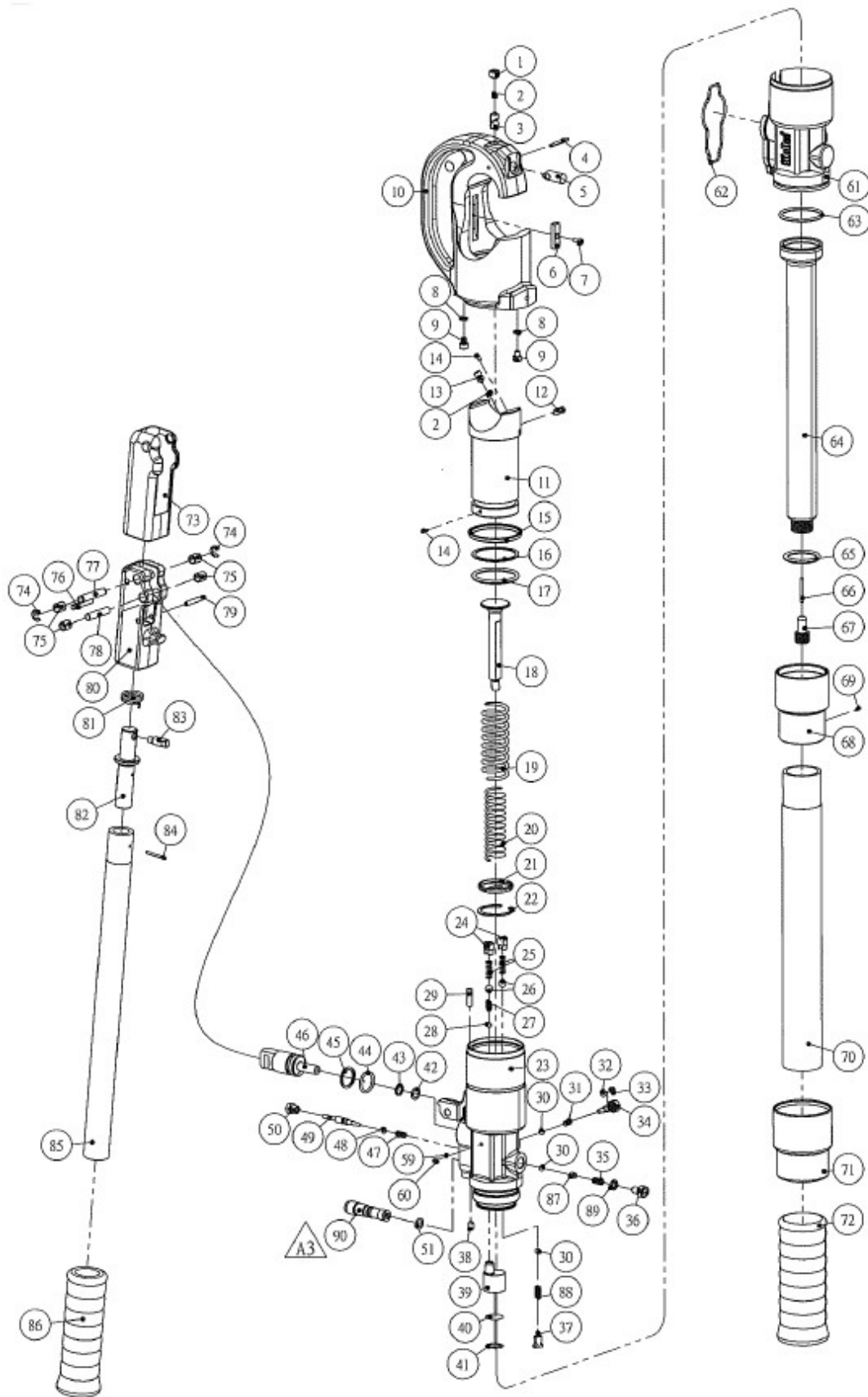
- 1. One or more tool parts require repair. Replace the parts immediately to prevent serious personal injury or property damage.
- 2. Applied fitting is over-specification.
- 3. Insufficient hydraulic fluid. Follow steps on page 10 to add fluid.
- 4. The cylinder piston might be deformed after crimping an off-center fitting, or from the tool being used in a manner for which it was not intended.

Handle is stuck or can't release the pressure:

- 1. Clean the moving handle to remove impediments.
- 2. Pressure can be released by pressing down the release lever manually.
- 3. Torsional spring is stuck: Contact your KuDos® service representatives.

Piston action is slow or spongy:

- 1. There is air in the hydraulic system. Follow steps on page 10 to expel any air in the system.
- 2. Insufficient hydraulic fluid. Follow steps on page 10 to add fluid.



No.	Part	Q'ty	No.	Part	Q'ty
1	Set Screw	1	43	Backup Ring	1
2	Spring	2	44	O-Ring	1
3	Die Holder Pin	1	45	Backup Ring	1
4	Spring Pin	1	46	Pump Piston	1
5	Die Release Button	1	47	Spring	1
6	Guide Plate	1	48	O-Ring	1
7	Screw	1	49	Release Pin	1
8	Washer	2	50	Locating Screw	1
9	Screw	2	51	O-Ring	1
10	C-Head	1	59	Steel Ball	1
11	Piston	1	60	Set Screw	1
12	Die Release Button	1	61	Cylinder Cover	1
13	Die Holder Pin	1	62	Gasket	1
14	Spring Pin	2	63	O-Ring	1
15	Oil Seal	1	64	Oil Reservoir	1
16	Backup Ring	1	65	O-Ring	1
17	O-Ring	1	66	Magnetic Bar	1
18	Spring Rod	1	67	Oil Reservoir Cap	1
19	Spring	1	68	Stop Collar	1
20	Spring	1	69	Spring Pin	1
21	Spring Seat	1	70	Body Handle	1
22	Circlip	1	71	Insulation Tube	1
23	Hydraulic Cylinder	1	72	Tool Handle Grip	1
24	Set Screw	2	73	Handle Insulator Cover	1
25	Spring	2	74	Circlip	2
26	Steel Ball	2	75	Bushing	4
27	Spring	1	76	Spring Pin	1
28	Steel Ball	1	77	Hinge Pin	1
29	Spring Pin	1	78	Arresting Pin	1
30	Steel Ball	3	79	Conical Pin	1
31	Spring	1	80	Handle Insulator	1
32	O-Ring	1	81	Torsion Spring	1
33	Backup Ring	1	82	Guide Bolt	1
34	Valve Screw	1	83	Release Pin	1
35	Spring	1	84	Spring Pin	1
36	Screw	1	85	Moving Handle Tube	1
37	Screw	1	86	Tool Handle Grip	1
38	Set Screw	1	87	Steel Ball Seat	1
39	Oil Filter	1	88	Spring	1
40	Strainer	1	89	Copper Washer	1
41	Push-in Fastener	1	90	Relief Valve Set	1
42	O-Ring	1			