

Hydraulic Crimper

SECTION

1

Safety Instructions

1.1 Specified Applications

As portable crimping tools, hydraulic crimper apply to sealing connection of the rubber hoses and their associated hose joints and accessories corresponding to the design module. Any other applications will be regarded as non specified applications.

Our company will not claim any responsibility for any damage incurred by non specified applications, whether hydraulic crimper are used by other manufacturers or our company.

Specified applications include compliance with use instructions, inspection and maintenance requirement and other use safety instructions.

As portable crimping tools, hydraulic crimper shall not be used for fixed occasions. Any auxiliary force application tools shall be used, or **permanent damage to the equipment will occur.**

Hydraulic crimper are used only for specified applications.

1.2 General Safety Regulation

 **CAUTION !** Please observe all the safety instructions and descriptions.

- ▲ **Any breach of safety instructions and descriptions resulting from negligence maybe leads to a fire, personal injury or other seious results.**
- ▲ **Keep all the safety instructions and descriptions properly in order to read them at any time.**
- ▲ **The term “portable tool” used in the safety instructions refers to the tools which are held only by hands and shall be not fixed or placed on ground.**

1) Work Area

- a. Keep the work area clean and tidy. A messy and dark work area always leads to an accident.
- b. Avoid use of the hydraulic crimper in flammable, explosive and dusty environment. A spark caused by collision of black metal maybe leads to a fire or explosion.
- c. Keep the hydraulic crimper away from children or other personnel. Lack of concentration maybe leads to an accident.

2) Personal Safety

- a. Be cautious during operation of hydraulic crimper. Keep safety consciousness in mind. During operation, fatigue or drug administration, drinking or drug injection will lead to serious personal injury.
- b. Please wear personal protective equipment, especially protective goggles always. According to the use environment and conditions, wear personal protective equipment, such as dust mask, anti-slip work shoes, helmet, earprotector, etc., in order to reduce injury risk.
- c. Before use of hydraulic crimper, remove the adjusting tool or spanner, check that the key does not hamper the use, or personal injury maybe occurs.
- d. Avoid excessive extension of the rubber hose, keep it in an appropriate position, and balance it in order to control the hydraulic crimper better in case of an fortuitous event.
- e. Wear appropriate clothes, not loose clothes or jewelry. Avoid hair, clothes or gloves close to the mouth of tongs or handle resulting in personal injury.

f. Keep the dust collector or absorber, if any, on, and use it properly to avoid any accident caused by dust.

3) Use and maintenance of hydraulic crimper

a. **Avoid operation of hydraulic crimper at overload.** Before use, retract the piston completely, and counterclockwise rotate the handwheel of the pressure relief valve so that the crimping clip of hydraulic crimper can go back to the fixed clip seat.

b. Counterclockwise rotate the fixed clip seat of the hydraulic crimper so that it leaves the cylinder bottom, remove the movable pin connected to the key chain, and replace the crimping module group matching with the hose.

c. Select the copper or aluminium joint matching with the hose, insert the hose completely, and check the assembly in place.

d. Install the above hose joint in the clip seat (i.e. mouth of tongs), fold the movable clip seat to the fixed clip seat so that the pin holes of two clip seats can coincide, and completely insert the movable pin connected to the key chain.

e. Clockwise rotate the fixed clip seat of the hydraulic crimper so that it presses close to the cylinder bottom.

f. **Re-check if the piston completely returns**, counterclockwise rotate the handwheel of the pressure relief valve until the piston completely returns, and clockwise rotate the handwheel of the pressure relief valve **so that the pressure relief valve is completely closed (firmly tightened)**.

g. Slightly press the handle so that the crimping clip is slowly close to the hose joint, and adjust the position of the hose joint in the mouth of tongs simultaneously. When it reaches the designed position, the crimping work begins.

h. During crimping, observe the joint change at any time to ensure crimping quality and aesthetic appearance.

i. At the end of crimping, counterclockwise rotate the handwheel of the pressure relief valve slowly, so the piston will rapidly return under the action of its spring force. Remove the movable pin connected to the key chain, open the mouth of tongs, and take out the crimped hose joint.

j. Perform crimping of the next joint or clean and store the tools in a tool kit.

⚠ CAUTION ! Please keep the tools out of reach of children. The use of the hydraulic tools by untrained person maybe leads to the damage to the tools or personal injury.

⚠ CAUTION ! Do not increase the arm strength by expanding the handle, or the tools will be permanently damaged.

⚠ CAUTION ! If the hose and joint are not in their places, the clip seat is not close to the cylinder bottom, or a module group does not match the hose joint, etc., it is impossible to start the piston handle, or the tools will be permanently damaged. In addition, keep no hand at any clipping point during use of the tools.

Table: Module Group, Hose and Joint

NO.	Hose specification given conditions	Hose size inner diameter	Hose size Outer diameter	Hose fitting outer diameter	Remark
6SRB	5/16" , Dn8	$\Phi 8 \pm 0.4$	$\Phi 14.5 \sim 16.5$	Aluminium joint $\Phi 19.5$ Steel joint $\Phi 17.5$	Dn8 Thin-wall hose
8SRB , 6	5/16" , Dn8	$\Phi 8 \pm 0.4$	$\Phi 18.5 \sim 20.5$	Aluminium joint $\Phi 23.5$ Steel joint $\Phi 21.5$	Dn8 Thick-wall hose
	13/32" , 3/8" , Dn10	$\Phi 10 \sim 11.5$	$\Phi 16.5 \sim 20.5$	Aluminium joint $\Phi 23.5$ Steel joint $\Phi 21.5$	Dn10 Thin-wall hose
8	13/32" , Dn10	$\Phi 10 \sim 10.5$	$\Phi 22 \sim 23.5$	Aluminium joint $\Phi 26.5$ Steel joint $\Phi 24.6$	Dn10 Thick-wall hose
10SRB	1/2" , Dn13	$\Phi 12.4 \sim 13.5$	$\Phi 19.5 \sim 22$	Aluminium joint $\Phi 25$	Dn13 Thin-wall hose
10	1/2" , Dn13	$\Phi 12.4 \sim 13.5$	$\Phi 23 \sim 25.5$	Aluminium joint $\Phi 27.7$ Steel joint $\Phi 25.5$	Dn13 Thick-wall hose
12SRB	5/8" , Dn16	$\Phi 14.8 \sim 16$	$\Phi 22.5 \sim 25$	Aluminium joint $\Phi 27.8$	Dn16 Thin-wall hose
12	5/8" , Dn16	$\Phi 15 \sim 16.5$	$\Phi 28 \sim 29.5$	Aluminium joint $\Phi 32.5$	Dn16 Thick-wall hose

Note: Use the correct model dimension, or leak or crimping fault may occur !

4) Equipment Maintenance

The equipment can be maintained by professional technicians using only the original parts in order to ensure the equipment safety.

1.3 Important Instructions

Keep no hand or limb at the work area of hydraulic crimper.

If serious damage to the equipment leads to a large leakage or cylinder burst, damage to piston and mouth of tongs, please stop work immediately. Unauthorized maintenance may lead to serious personal injury.

Replace the damaged parts only with original parts from our company.

Hydraulic crimper can be used only by the trained technicians for hose crimping.

The joint must match with the hose.

A defective joint must be cut before a new part is used for re-crimping.

On completion of crimping, each joint must undergo pressure test in order to meet the process requirement.

SECTION 2

Technical Index

Piston force	80 KN
Maximum travel of piston	14 mm
Hose dimension	Nominal diameter, Dn, 5/16"~5/8" (Reference outer diameter: $\Phi 17 \sim \Phi 30$ at 5MPa)
Standard module group	7
Operation mode	Manual
Ambient temperature	-10~ 60 °C
Arm strength	$\leq 75\text{Kg}$
Crimping time	about 10 s
Noise level	≤ 10 db (Not detected)
Appearance dimension (L x W x H)	780 x 412 x 43 mm
Weight	4.73 Kg

SECTION 3

Maintenance and Service

Check if hydraulic crimper function normally. Any damaged tool is never used and shall be sent to the authorized repair shop or our company.

Check that the parts at the mouth of hydraulic crimper can freely move. Periodically check that all the pipes, axes, and screws are not damaged. Any damaged part must be replaced with original part by the authorized technician.

After that, the hydraulic crimper shall be thoroughly cleaned. All the moving parts are greased only with premium hydraulic oil or ball bearing oil.

Other maintenance: Adjustment and maintenance must be performed by the our company authorized technicians.

If the seal is damaged, the quality assurance will not be cancelled.

The hydraulic crimper, which have undergone 20,000 crimping operations or have been used for two years, whichever is earlier,

must be maintained by the authorized repair shop or our company.

The hydraulic crimper are sent only after hydraulic oil must be thoroughly drained from them.

Associated hydraulic oil: HB30 (acid number: 0.81 mg KOH/g) 57ml

SECTION
4

Supplies

Hydraulic crimper	1 set
Die set	7
Suitcase	1

SECTION
5

Drawing

Appearance and Parts of Hydraulic Crimper.

