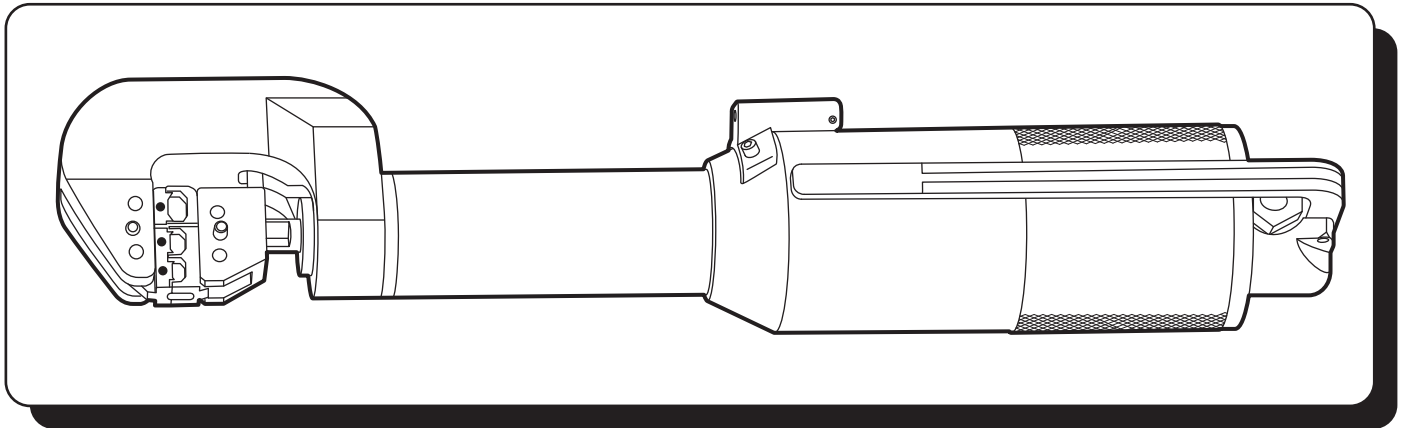


Operating Instructions for PAIR22-6 AIR-POWERED CRIMPING TOOL



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

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1.0

GENERAL INFORMATION

1.1 DESCRIPTION

The PAIR22-6 Air-powered Hydraulic Crimping Tool is a portable, Sta-Kon® crimping tool intended to crimp terminals on 22 AWG thru 6 AWG wire using appropriate dies.

1.2 SAFETY

Safety is essential in use and maintenance of Thomas & Betts tools and equipment. This manual and any markings on the tool provide information for avoiding hazards and unsafe practices related to the use of this tool. Observe all of the safety information provided.

1.3 PURPOSE OF THIS MANUAL

This manual is intended to familiarize all personnel with the safe operation and maintenance procedures for the following Thomas & Betts tool:

PAIR22-6 Air-powered Crimping Tool
Keep this manual available to all personnel.
Replacement manuals are available upon request at no charge.

1.4 SPECIFICATION

Crimping Tool

Length..... 14" (356 mm)
Mass/Weight.....2.5 lb (1.13 kg)

Crimping Capacities

Maximum Crimping Force.... 1.25 tons@100 psi (16 kn)
Normal Operating Pressure.....85-90 psi



1.5 TOOL WARRANTY

WARRANTY: Thomas & Betts sells this product with the understanding that the user will perform all necessary tests to determine the suitability of this product for the user's intended application. Thomas & Betts warrants that this product will be free from defects in materials and workmanship for the period stated on the enclosed warranty card. Upon prompt notification of any warranted defect, Thomas & Betts will, at its option, repair or replace the defective product. Misuse, misapplication or modification of Thomas & Betts products immediately voids all warranties.

Limitations and Exclusions: THE ABOVE WARRANTY IS THE SOLE WARRANTY CONCERNING THIS PRODUCT, AND IS IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE SPECIFICALLY DISCLAIMED. LIABILITY FOR BREACH OF THE ABOVE WARRANTY IS LIMITED TO COST OF REPAIR OR REPLACEMENT OF THE PRODUCT, AND UNDER NO CIRCUMSTANCES WILL THOMAS & BETTS BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

1.6 IDENTIFICATION

All specifications are nominal and may change as design improvements occur. Thomas & Betts shall not be liable for damages resulting from misapplication or misuse of its product..

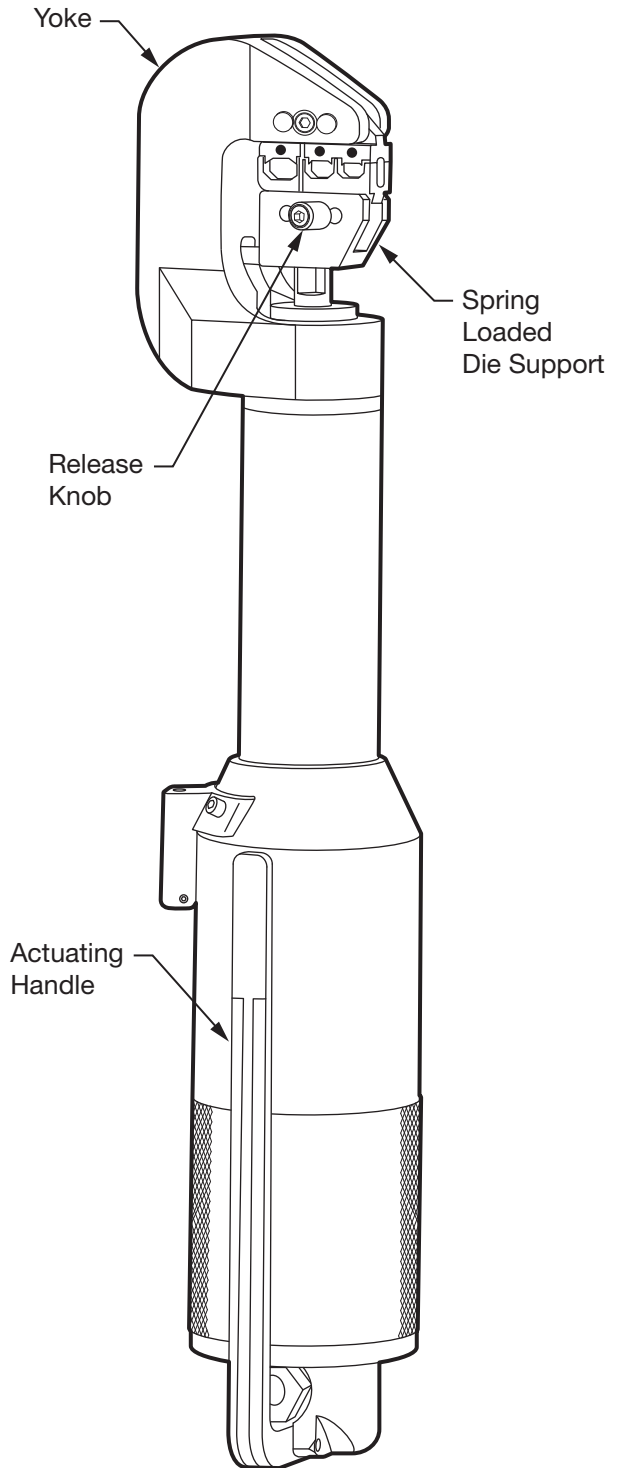


FIGURE 1

2.1

SAFETY ALERT SYMBOL



This symbol is used to call your attention to hazards or unsafe practices which could result in an injury or property damage. The signal word, defined below, indicates the severity of the hazard. The message after the signal word provides information for preventing or avoiding the hazard.

! DANGER !

Immediate hazards which, if not avoided, WILL result in severe injury or death.

! WARNING !

Hazards which, if not avoided, COULD result in severe injury or death.

! CAUTION !

Hazards or unsafe practices which, if not avoided, MAY result in injury or property damage.

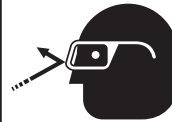
2.2

WARNINGS & CAUTIONS



! WARNING !

Read and understand all of the instructions and safety information in this manual before operating or servicing this tool.
Failure to observe this warning could result in severe injury or death.



! WARNING !

Wear eye protection when operating or servicing this tool.
Failure to wear eye protection could result in serious eye injury from flying debris or hydraulic oil.



! WARNING !

Electric shock hazard:
This tool is not insulated. When using this unit near energized electrical lines, use proper personal protective equipment.
Failure to observe this warning could result in severe injury or death.



! WARNING !

Pinch points:
Keep hands away from the crimping head when crimping.
Failure to observe this warning could result in severe injury or death.



! WARNING !

Do not use solvents or flammable liquids to clean the crimping tool. Solvents or flammable liquids could ignite and cause serious injury or property damage.

! WARNING !

An incomplete crimp can cause a fire.

- Use proper die, connector, and cable combinations. Improper combinations can result in an incomplete crimp.

Failure to observe these warnings could result in severe injury or death.

! CAUTION !

Do not perform any service or maintenance other than as described in this manual. Injury or damage to the tool may result.
Failure to observe this precaution may result in injury or property damage.

NOTE: Keep all decals clean and legible, and replace when necessary.

3.1 SET UP TOOL

The tool is shipped fully assembled (less dies).

1. Remove tool assembly from shipping container.
2. Position the tool on a workbench or table.
3. Connect air supply line to the inlet at the rear of the tool.

NOTE: Do not add airline extensions between the foot pedal and filter/regulator/lubricator assembly. This will prevent line pressure drops.

NOTE: Cylinder and pneumatic components are designed to operate without lubrication. If you choose to lubricate use a quality grade, non-detergent, SAE #10 paraffin base oil. Rate of lubrication should not exceed one drop per 100 crimping cycles.

3.2 DIE INSTALLATION

1. Disconnect air supply
2. Install die nest into spring loaded support and die indenter into yoke using screws provided. Screws should be lightly hand tightened at this time.
3. Ensure that the die nest and indenter are engaged and aligned. Securely tighten screws so that dies will not move within support blocks.

NOTE: Some dies require use of special headed pins combined with the screws (See Figure 2).

4. Connect air supply.

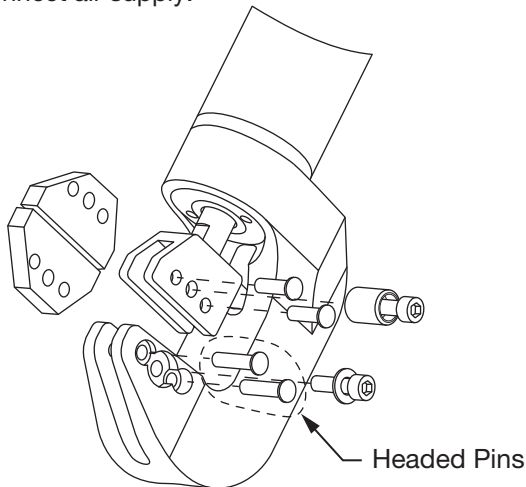


FIGURE 2

	! WARNING !
	<p>Wear eye protection when operating or servicing this tool. Failure to wear eye protection could result in serious eye injury from flying debris or hydraulic oil.</p>

3.3 TOOL OPERATION

1. To operate the tool properly, it is essential to hold the actuating handle (see Figure 1) down until the tool cycles completely. This assures a sustained volume of air in the cylinder at full pressure to complete the crimp.
2. The tool is equipped with a spring loaded lower die support to hold the terminal.

3.4 PREPARING CABLE

Follow the terminal manufacturer's instructions for appropriate cable strip length.

! WARNING !

- Inspect tool and dies before use. Replace any worn or damaged parts. A damaged or improperly assembled tool can break and strike nearby personnel.
- Failure to observe this warning could result in severe injury or death.
- Do not attempt to connect the tool to an energized air line.
- Disconnect tool from air supply when servicing or changing dies.

! CAUTION !

- Do not operate the tool without dies. Damage to the ram or crimping head can result.
- Never exceed 100 psi operating pressure.
- Use this tool for manufacturer's intended purpose only.

Failure to observe these precautions may result in injury or property damage.

3.5 STA-KON® ORDERING INFORMATION

CAT. NO.	DESCRIPTION
DIE2001	Insulated 22-10 AWG Sta-kon® Terminals
DIE2002	Non-insulated 22-10 AWG Sta-Kon® and Spec-Kon Terminals
DIE2005	Non-insulated 16-6 AWG Sta-Kon® and Spec-Kon Terminals
DIE2007	Insulated 8-6 AWG Sta-Kon® Terminals
DIE2500	Insulated 22-10 AWG Spec-Kon® Terminals

3.6

CRIMPING CABLE

1. Using release knob (see Figure 1), open spring loaded lower die.
2. Insert the terminal into the proper crimping head die nest, and allow lower die to close.
3. Insert stripped cable into the terminal
4. Depress and hold the actuating handle (see Figure 1) until tool ram extends completely. Repeat Step 4 for the next crimp (see Figure 3).

! WARNING !

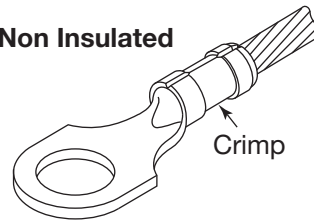
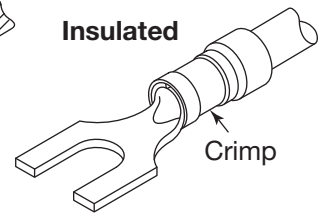
An incomplete crimp can cause a fire.

- Use proper die, connector, and cable combinations. Improper combinations can result in an incomplete crimp.
- The tool will cycle completely to indicate a successful crimp. If tool does not cycle completely, crimp is unsuccessful.

Failure to observe these warnings could result in severe injury or death.

Sta-Kon® Terminals

One crimp required.

Non Insulated**Insulated****Sta-Kon® Splices**

Two crimps required, one crimp on each side.

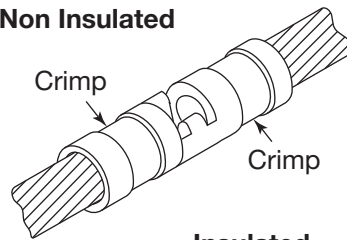
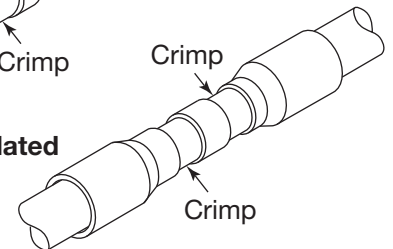
Non Insulated**Insulated**

FIGURE 3

4.0

MAINTENANCE

4.1

EACH OPERATING DAY

Before use:

1. Inspect dies for wear or damage such as cracks, gouges, or chips.
2. Inspect the tool for damage or air leaks. If damage is detected, return the tool to an authorized Thomas & Betts service center for inspection, **1-800-284-TOOL** (8665).
3. Ensure all fasteners are properly tightened.
4. Make sure spring loaded die holder is free to travel without binding. Lubricate ram if needed.

After use:

1. Wipe all tool surfaces clean with a damp cloth and mild detergent. **IMPORTANT:** See warning located in Step 4.2.

4.2

MONTHLY

Before use:

Thoroughly clean all surfaces.



! WARNING !

Do not use solvents or flammable cleaners to clean the crimping tool body. Solvents could ignite, causing serious injury or property damage.

4.3

FIELD SERVICE

Before use:

1. These are precision tools and must be handled accordingly. Therefore, all maintenance must be performed by qualified personnel only.

NOTE: To assure proper compression, all tools have a low oil warning device mounted on the side of the air cylinder (see Figure 4). This device contains a red rod which extends when the hydraulic oil needs replenishment.

4.0

MAINTENANCE.....Continued

4.4

FILL TOOL WITH HYDRAULIC OIL

1. Unscrew hydraulic cylinder from air cylinder (see Figure 4).
2. Hold tool upright with air cylinder at top; pull the two cylinders completely apart.
3. Pour hydraulic oil (T&B Cat. No. 21061) through opening in packing gland until oil level reaches top of gland.
4. Insert piston rod into gland opening and screw air cylinder onto hydraulic cylinder. Hand tighten only.

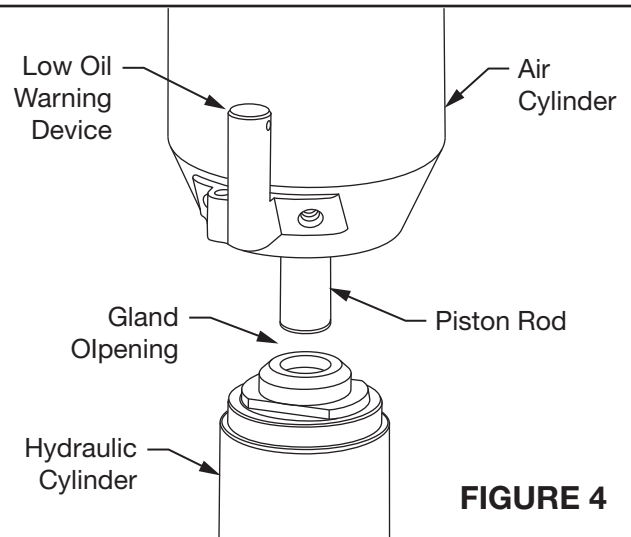


FIGURE 4

CAUTION

It is essential that the piston rod be inserted into hydraulic cylinder opening before reassembling tool.

5.0

TROUBLESHOOTING

5.1

TABLE 1

Problem	Probable cause	Probable Remedy
Tool is inoperative.	Insufficient air pressure	Ensure air supply of 85-90 psi to tool.
	Tool components worn or damaged.	Return tool to an authorized Thomas & Betts service center.
	Oil level low.	Add oil.

For parts or service, contact Thomas & Betts tool service center at **1-800-284-TOOL** (8665).

6.0

CALIBRATION VERIFICATION

6.1

SAFETY

NOTE: Calibration verification procedure should be performed whenever the tool is damaged or damage is suspected.



WARNING

This tool is equipped with the SHURE STAKE® full stroke compelling mechanism.

Keep fingers clear of die nest during gaging procedure.

6.2

VISUAL INSPECTION

Tool must be free of cracks, sharp edges and other obvious imperfections that may affect performance of the tool. Nest area must be free of burrs, dents or scratches.

