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| SAFETY | Y644MBH DIELESS HYPRESS™ |
| OPERATING & MAINTENANCE | |
| INSTRUCTIONS | |
| | Y644MBH |





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WARRANTY

The BURNDY™ Y644MBH is warranted to be free of defects in materials and workmanship for a period of 5 years, except in the case of abuse or modification.

Any BURNDY Y644MBH found to be defective in material or workmanship and returned to the FCI Tool Service Center within 5 years of shipment will be repaired or the tool will be replaced free of charge at the option of the FCI Tool Service Center.

After 5 years, units will be repaired and billing will be based on a sliding scale according to how long the unit has been in service.

Any BURNDY Y644MBH returned for repair must be shipped prepaid to the FCI Tool Service Center, 150 BURNDY Road, Littleton, New Hampshire, USA 03561. On your packaging slip indicate the nature of the repair required (or describe the problem) and the number of the purchase order requesting service. Please provide a contact name and phone number in the event we need to call you regarding the repair or service.

FRAMATOME CONNECTORS USA INC., herein after referred to as FCI, disclaims all other warranties, expressed or implied, including without limitation the warranties of merchantability and fitness for a particular purpose.

Only crimp dies and accessories designed and manufactured by FCI are recommended for use with the BURNDY Y644MBH. Use of non-BURNDY, non-conforming products with this tool shall be deemed abuse and will void the warranty.

FCI will not under any circumstances be liable for the cost of removal or reinstallation of goods or the cost of disassembly or reassembly of equipment in connection therewith, or for the loss of the use of the Buyer's equipment or facilities, or for the loss of business or good will or profits, or for the cost of inspection or storage, or for any incidental or consequential damages of any nature or description whatever which may arise from FCI's sale of goods to Buyer.

For information, contact: FCI TOOL SERVICE CENTER
150 BURNDY Road
Littleton, NH 03561
or call, toll free 1-800-426-8720

Additional or replacement manuals may be obtained free of charge from the FCI Tool Service Center.

SAFETY INFORMATION



The above symbols are used to call your attention to instructions concerning your personal safety. Look for these symbols; read and follow the instructions that accompany them. Failure to follow the safety information provided can lead to serious personal injury or death.

SAFETY FIRST

WARNING



The information provided in this manual is essential for the safe handling, operation, and maintenance of a BURNDY Y644MBH. The operator must read, understand, and follow these instructions and ALL safety warnings and labels before operating these tools.

Use these tools only in accordance with the manufacturer's specifications. Other use of these tools may lead to serious personal injury or death.

Each employer shall instruct each employee and user in the recognition and avoidance of unsafe working conditions and the laws and regulations applicable to his/her work environment to control or eliminate any hazards or other exposure to illness or injury. Reference: OSHA 29CFR 1910 etseq. (latest revision).

If a conflict arises between the material contained in this manual, rules of the user, his/her employer or company, and legal or industry guidelines the more stringent rules take precedence and must be followed. Observe and follow all other safety rules and regulations for the job. Safety is everyone's responsibility.

OPERATING SAFETY PRECAUTIONS

WARNING



Tools are NOT insulated for use on or near energized conductors. Use of these tools near energized conductors may lead to electrical shock, causing severe injury or death. Do NOT use these tools near energized conductors without adequately insulating operator and surroundings.



Pinch Point hazard. Crimp ram can operate at high speed and force and can cause severe personal injury. Keep all body parts away from moving parts of the tool when connected to a hydraulic power source or during operation.



Hydraulic fluid under pressure. Do NOT use any part of your body to locate a hydraulic leak. Escaping fluid under pressure can cause severe injury or death. If injury results from escaping hydraulic fluid, seek immediate medical attention to avoid serious bodily injury.



Do NOT over-reach while operating this tool. Loss of balance can cause serious personal injury or death. Move closer to work area and securely support yourself and your work. ALWAYS keep proper footing and balance.

⚠ WARNING



Use all appropriate personal safety equipment when handling, operating, and servicing this tool such as: safety shoes, hard hat, eye and ear protection, work gloves, and long sleeves.

To help ensure safe operation of this tool, keep all safety labels clean and legible. Replace label when necessary with new labels. See the PARTS SECTION of this manual for information on reordering.

DESCRIPTION

The BURNDY Y644MBH DIELESS HYPRESS™ is a pump driven, hydraulic crimping tool with an infinitely rotating head for virtually all dieless compression applications. The tool head weighs only 9 1/2 lbs, yet delivers 11 tons of force, (22,000 lbs.). The head rotates a full 360°. The result is easy tapping, splicing, and terminating of de-energized lines and equipment. The Burndy Y644MBH DIELESS HYPRESS™ crimps connectors for use on conductor ranges of #6 - 1000 kcmil AL/CU. The Burndy Y644MBH is made in the United States and represents a tool manufactured by a company with 50 years of tool design experience.

FEATURES AND BENEFITS

| Features | Benefits |
|------------------------------|---|
| - Pivoting die nest | - Provides easy tool removal from continuous conductors |
| - Dieless system | - Eliminates the need to purchase and maintain dies. |
| - Infinitely rotational head | - Versatile tool head positioning, lets user get into tight areas with ease |

SPECIFICATIONS - TOOL

| | |
|---------------------|----------------------------------|
| Output Force: | 11 tons (22,000 lbs.) (9,979 kg) |
| Weight: | 9 1/2 lbs. (4.31kg) |
| Head Width: | 4" (102 mm) |
| Operating Pressure: | 10,000 psi (68.9 MPa) |
| Overall length | 12" (305 mm) |

PRE-OPERATION INSTRUCTIONS

⚠ WARNING

Read and follow all PRE-OPERATION and safety instructions provided for your BURNDY Y644MBH DIELESS HYPRESS™. Failure to follow the proper operating instructions and safety information provided can lead to serious personal injury or death.

Follow these PRE-OPERATION instructions to ensure your tool is in proper working condition. If your tool does not exhibit normal functions as described below, see the TROUBLESHOOTING section.

We recommend only Burndy connectors be installed with the BURNDY Y644MBH.

WARNING

Any hydraulic power source used to operate this tool must meet the requirements for the tool as outlined in the tool specification portion of this manual to avoid damage to the tool and serious personal injury.

CAUTION

Always make certain that the latch detent pin is completely locked before operating the tool. To remove and install the tool from a splice connection, open the head of the tool by pulling on the latch detent pin and pivot the head open. Failure to follow this procedure could cause damage to the tool.

Inspect the operating features of the tool.

- 1) Open the head of the tool by pulling on the latch detent pin and pivot the head open. Close the head and push the latch detent pin in fully.
- 2) Connect the tool to the power source. Ensure that all components used are rated for 10,000 psi working pressure. Ensure all couplers are securely fastened.
- 3) Operate the power source to supply pressure to the Y644MBH. The tool ram should advance smoothly and contact the head nest. When the power source reaches full pressure an audible pop will be detected.

If you experience any problem(s) with your Burndy Y644MBH tool, refer to the TROUBLESHOOTING section in manual. If the problem(s) persists, contact FCI Tool Service Center at: 1-800-426-8720.

OPERATION

- 1) Read and follow the PRE-OPERATION INSTRUCTIONS to ensure that your tool is functioning properly.
- 2) Ensure that all components of the system are rated for 10,000 psi working pressure.
- 3) Place the connector/conductor in the die nest and operate the power source until ram advances and crimps the connector/conductor. Be sure die nest detent pin is fully inserted prior to operating.
- 4) Remove tool. (If splicing, open die nest by pulling on detent pin and rotating nest).
- 5) Visually inspect the resultant crimp for correctness.

DIE INSERTION AND REMOVAL

Making Burndy H-Crimpit™ Connections:

- 1) Select appropriate ("O" or "D3") as labeled on connector. Unscrew thumb screw on die.
- 2) Position die so the color dots line up. Rotate die onto piston so the pin on die slips into hole. Screw thumb screw to lock into place. To ease installation, advance ram and open die nest.
- 3) Place matching connector in die nest. Follow Steps 3 and 4 in operating instructions.

ACCESSORIES

The following items are available for your Burndy Y644MBH

CATALOGUE

#PT30541

#PT30540

ITEM DESCRIPTION

Die for YFO Series H-CRIMPIT™ Connectors ("O" die)

Die for YFD Series H-CRIMPIT™ Connectors ("D3" die)

MAINTENANCE

PREVENTIVE MAINTENANCE

CAUTION Failure to perform regular maintenance tasks could result in bodily injury and/or property damage.

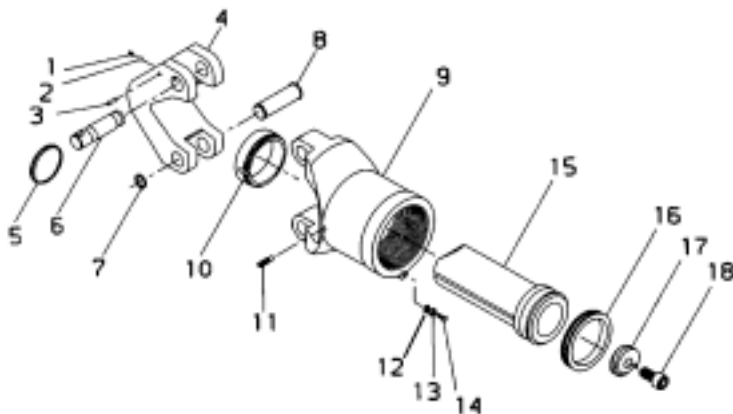
The service life of a tool can be greatly improved with proper care and maintenance. To extend the life of your Burndy Y644MBH tool, follow the recommended maintenance tasks outlined below.

DAILY

1. Keep all tool surfaces free of grease, dirt and foreign material. Avoid contact of movable parts with abrasive materials, (oxide inhibitors of some connectors, sand, soil, dust, etc.) as they could induce abnormal wear.
2. Inspect the tool for signs of cracks, wear, or damage.
3. Wipe the tool with a clean, dry rag before placing the tool back into the case.

MONTHLY

1. Lubricate the pivoting head and pin with a high grade silicon spray. (such as Krylon #1325)



The following size Hydent lugs and two way splices, when crimped with the Y644MBH Dieless Hypress Tool, produce the following range taking capabilities.

COPPER HYLUG™ & HYLINK™ CONNECTORS
COPPER CODE CONDUCTOR

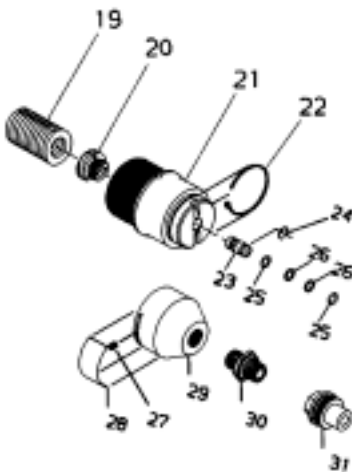
ALUMINUM HYLUG™ & HYLINK™ CONNECTORS
ALUMINUM OR COPPER CODE CONDUCTOR

| -Catalog No.- Terminal* Splice** | | Stranded Wire Size | Expanded Wire Range |
|-------------------------------------|----------------------------------|--|--|
| YA6C- YA5C- YA4C- YA3C- | YS6C- YS5C- YS4C- YS3C- | #6 AWG #5 AWG #4 AWG #3 AWG | #6 AWG #4-#6 AWG #4-#6 AWG #3-#6 AWG |
| YA2C- YA1C- YA25- YA26- | YS2C- YS1C- YS25- YS26- | #2 AWG #1 AWG 1/0 AWG 2/0 AWG | #2-#6 AWG #1-#6 AWG 1/0-#6 AWG 2/0-#6 AWG |
| YA27- YA28- YA29- YA30- | YS27- YS28- YS29- YS30- | 3/0 AWG 4/0 AWG 250 KCMIL 300 KCMIL | 3/0-#6 AWG 4/0-#6 AWG 250 KCMIL-1/0 AWG 300 KCMIL-2/0 AWG |
| YA31- YA32- YA34- YA36- | YS31- YS32- YS34- YS36- | 350 KCMIL 400 KCMIL 500 KCMIL 600 KCMIL | 350 KCMIL-3/0 AWG 400 KCMIL-4/0 AWG 500 KCMIL-4/0 AWG 600-250 KCMIL |
| YA39- YA40- YA44- | YS39- YS40- YS44- | 750 KCMIL 800 KCMIL 1000 KCMIL | 750-500 KCMIL 800-500 KCMIL 1000-750 KCMIL |

| -Catalog No.- Terminal* Splice** | | Stranded Wire Size | Expanded Wire Range |
|--------------------------------------|--------------------------------------|--|--|
| YA6CA- YA4CA- YA2CA- YA1CA- | YS6CA- YS5CA- YS2CA- YS1CA- | #6 AWG #4 AWG #2 AWG #1 AWG | #6 AWG #4-#6 AWG #2-#6 AWG #1-#2 AWG |
| YA25A- YA26A- YA27A- YA28A- | YS25A- YS26A- YS27A- YS28A- | 1/0 AWG 2/0 AWG 3/0 AWG 4/0 AWG | 1/0-#1 AWG 2/0-#1 AWG 3/0-#1 AWG 4/0-#1 AWG |
| YA29A- YA30A- YA31A- YA32A- | YS29A- YS30A- YS31A- YS32A- | 250 KCMIL 300 KCMIL 350 KCMIL 400 KCMIL | 250 KCMIL-1/0 AWG 300 KCMIL-2/0 AWG 350 KCMIL-3/0 AWG 400 KCMIL-4/0 AWG |
| YA34A- YA36A- YA39A- YA40A- | YS34A- YS36A- YS39A- YS40A- | 500 KCMIL 600 KCMIL 750 KCMIL 800 KCMIL | 500 KCMIL-4/0 AWG 600-250 KCMIL 750-500 KCMIL 800-500 KCMIL |
| YA44A- | YS44A- | 1000 KCMIL | 1000-750 KCMIL |

* 1 Crimp ** 1 Crimp per side

* 1 Crimp ** 1 Crimp per side



| Y 6 4 4 M B H | ITEM | PART NO. | DESCRIPTION |
|---------------------------------|-----------|----------------|-------------------------|
| | 1 | PT17386 | DETENT SPRING |
| | 2 | BALL 12 | STEEL BALL |
| | 3 | 094X38RLPN | ROLL PIN |
| | 4 | PT30548 | DIE NEST |
| | 5 | PT17393 | PULL RING |
| | 6 | PT17387 | DETENT PIN |
| | 7 | PT17388 | RETAINING RING |
| | 8 | PT17346 | PIVOT PIN |
| | 9 | PT30549B | HEAD |
| | 10 | PT30545 | GUIDE BEARING |
| | 11 | PT30544 | KEY |
| | 12 | 101TTLKWSHR | LOCK WASHER |
| | 13 | PT15449 | SCREW SPACER |
| | 14 | 10-24X50-BHSCS | BUTTON HEAD CAP SCREW |
| | 15 | PT207189-01 | PISTON |
| | 16 | PT80970-01 | GT-RING |
| | 17 | PT23415 | UPPER SPRING HOLDER |
| | 18 | 31FX75SHCS | SPRING STUD |
| | 19 | PT30538 | EXTENSION SPRING |
| | 20 | PT23410 | LOWER SPRING HOLDER |
| | 21 | PT207188-01 | CYLINDER BODY |
| | 22 | PT23443 | LOCKING WIRE |
| | 23 | PT23488 | REMOTE PASSAGE |
| | 24 | 5103-43TRR | EXTERNAL RETAINING RING |
| | 25 | PT11154-U | O-RING |
| | 26 | PT23451 | BACK-UP RING |
| | 27 | 8-32X12SHSS | SET SCREW |
| | 28 | PT207191-01 | LABEL |
| | 29 | PT23489 | SWIVEL CAP |
| | 30 | PT11148 | MALE PIPE COUPLING |
| | 31 | PT94 | MALE COUPLING |
| | NOT SHOWN | PT207190-01 | CARRYING CASE, STEEL |
| | NOT SHOWN | Y644MBHOMI | MANUAL |

SERVICE

WARNING

We do not recommend that you attempt to service or repair any tool yourself. Tool servicing by unqualified personnel will void the warranty and may lead to serious personal injury.

DISASSEMBLY OF THE TOOL IS NOT RECOMMENDED. SHOULD YOU HAVE ANY QUESTIONS ABOUT YOUR BURNDY Y644MBH HYDRAULIC TOOL, PLEASE DO NOT HESITATE TO CONTACT THE CUSTOMER & TECHNICAL SERVICE DEPARTMENTS BY CALLING 1-800-346-4175 OR CONTACT THE FCI TOOL SERVICE CENTER FOR SERVICING AND REPAIR RELATED QUESTIONS AT 1-800-426-8720.

TROUBLESHOOTING

It is not recommended that the end user attempt to perform repairs on this tool, as specialized repair tools, training, and/or procedures may be required.

Should you have any questions or problems with your BURNDY hydraulic tooling, please do not hesitate to contact the Customer or Technical Service Departments by calling 1-800-346-4175 or the FCI Tool Service Center for tool servicing and repair related questions at 1-800-426-8720.

TROUBLESHOOTING GUIDE

| SYMPTOM | CAUSE | REMEDY |
|--|--|--|
| Ram does not advance. | - Hose or pump connection not securely fastened. - Pump is damaged. | - Tightened securely. - Refer to pump manual. |
| Ram does not fully extend to head closure. | - Insufficient hydraulic fluid. | - Refer to pump manual. |
| Ram advance is erratic | - Air in hydraulic fluid | - Refer to pump manual. |

FOR INFORMATION WRITE OR CALL:



150 Burndy Road
Attn: Tool Repair Center
Littleton, NH 03561
Telephone: 800-426-8720

S1GMT
Reorder Form 206265
Rev. 1