HYDRAULIC CUTTER

!!!PLEASE READ THE FOLLOWING BEFORE USING THIS PRODUCT!!!

WARNING: This tool operates at pressures over 10,000 psi, use hoses and fittings rated for 10,000 psi.

WARNING: To prevent personal injury during operation keep all parts of body clear of the cutting head and blades.

WARNING: Inspect hoses and couplings before each use. Repair or replace if leaks, cracks, wear or damage is evident.

WARNING: Relieve pressure from both supply pressure and high pressure lines before disconnecting hoses.

WARNING: No field adjustment should be made to the "Safety Relief Ground Dump Valve" located in the connector assembly. For any repair or correction to this valve return tool to manufacturer.

Master-Lee Engineered Products
HYDRAULIC CUTTER OPERATION INSTRUCTIONS - HC-OI-001

Hydraulic Cutter with Wrist

The standard cutter head is a "C" type cutter with a maximum cutting force of 15,102 pounds and can cut a ½ inch grade 3 steel bolt or a 3/4 inch mild steel rod. The weight of the cutter is head is 8.7 pounds and the cutter has an overall dimension of 4" wide by 15 in. Long. An optional larger cutter head is also available will cut up to 1½ inch schedule 40 pipe. The overall dimensions of this optional cutter are 29 in. Long, 2 ½ inches wide closed 12 inches wide open the weight of the cutter is 31 pounds and maximum cutting forces 21,990 pounds.

An articulating Wrist is featured with the cutter assembly which enables the operator to position the cutter in any direction. The Wrist interfaces with the standard quick disconnect end of the Master Lee engineered products handling mast. The hydraulic Cutter connects with the Wrist via a mounting block which bolt together and surrounds the body of the cutter. The mounting block is then connected with the wrist upper portion using a clevis arraignment it is located in the center of the wrist block, and is the attachment point to the mast.

Five different positions are available on a wrist enabling the cutter to be faced up, down or 45 degrees from horizontal. To reposition the cutter and one of these axises the operator removes the pin and rotates mount until two holes lineup near the desired position. The ball lock pin is then reinserted.

GENERAL ASSEMBLY PROCEDURE

The hydraulic cutter is preassembled, assembly of the hoses to the cutter head and to the pump is all that is needed. These connections are made with quick disconnect fittings and therefore require no tools. Refer to the accompanying general arrangement drawing for the following description.

Attach the short (10 feet long) hydraulic hoses to the cutter, note that the disconnects cannot be assembled backwards.

NOTE: THE "C" CUTTER ONLY USES THE ONE HOSE AND IS SPRING RETURN OPEN.

WARNING: ENSURE THAT THE FITTINGS ARE BOTTOMED OUT, i.e. THERE IS NO GAP BETWEEN THE COLLAR (SCREW ON PART) AND THE BODY OF THE MATING PART. IF THE ABOVE WARNING IS NOT HEEDED, THE CUTTERS WILL NOT OPERATE.

NOTE: CHECK VALVES ARE INSTALLED IN THE ENDS OF THE FITTINGS TO PREVENT THE LOSS OF FLUID WHEN THE HOSES ARE DISCONNECTED.

A complete description of the operation of the pump and cutter follows this section.

ATTACHMENT OF THE WRIST

If it is necessary to install the hydraulic cutter head to the cutter wrist. Refer to the attached drawing. To attach the wrist to the cutter head remove all four bolts from the wrist clamp section. Place the cutter head in the saddle area of the wrist and reinsert the bolts. Rotate the cutter head to the desired position (vertical, horizontal, or some angle between) then torque the four nuts to a maximum of 3 foot pounds.

Attach the wrist to the bottom section of the AIRGRIPS handling mast. To change the angle of the wrist, pull the ball lock pin out of the wrist by first pushing the ball detent pin. Rotate the wrist about the center pivot bolt and reinsert the ball lock pin in the nearest hole. The holes in the center plate are purposely made larger than the pin diameter to aid in locating the hole.

OPERATION

The hydraulic cutter system is very easy to use and very effective for cutting a wide range of materials and sizes. Sizes of material that can be cut for each of the two heads are printed in the description of the system in the front of this manual. Be advised that the harder the material the shorter the life of the cutter blades and the cutter itself. The "C" cutter head can cut a complete set of flux thimbles (58) from a PWR type reactor before the blades need replaced. Also, 50 cuts of 3/8 inch steel rod had been cut with one set of blades. These are not guarantees, but are only guide lines as to the replacement interval of the blades.

Prior to operation of the cutter system always check the level of the fluid in the pump reservoir. Failure to do so will lead to introduction of air into the system and will render the cutter inoperative. ONLY USE AN APPROVED HYDRAULIC FLUID.

If the material is too hard to cut or the item is too thick the pump will automatically trip out to prevent an over pressure condition. When the pressure valve trips it makes a clunk sound in the pump and the pump motor will increase slightly in speed. To reset, simply release the control valve and try again, if the pressure valve trips again, the article cannot be cut. The maximum operating pressure of the system is 10,000 PSI.

GENERAL OPERATING PROCEDURE

1. Plug the unit into a 110-volt power supply.
2. Check the fluid level in the tank (1" FROM TOP OF RESERVOIR).
3. Depress the on/off switch on the remote to the on position.
4. Move the valve handle on the pump to the center (OPEN) position.
5. Position the cutter over the piece that is to be cut.
6. Position the valve handle to the close position.
7. The cutter blades will close until the material is contacted, the pump will then run slower and pressure will build.
8. When the cutter breaks through the piece, it will snap. Ensure both ends of material being cut are controlled.
9. Place the valve in the opposite position to open the cutter blades.
10. Release the cutter remote control switch.
11. Disconnect the hoses from the cutter prior to storage.

PRE OPERATION INSPECTION

The hydraulic cutter system should be inspected before every use. Inspection consists primarily of inspection of the hoses and cutter blades. Inspect the hoses for abrasion marks, cuts, and kinks, any of which will drastically reduce the pressure rating of the hose.

Inspect the cutter blades for nicks, cracks or excessive wear.
Actuate the cutter all the way to the stops and allow the pump to go into over pressure to ensure that the pressure valve is working and inspect the cutter and hose couplings for leaks.

CAUTION: BECAUSE OF THE CONDITIONS AND PRESSURES THESE TOOLS ARE OPERATED UNDER, ANY OF THESE PROBLEMS SHOULD BE ADDRESSED BEFORE THE SYSTEM IS USED IN THE FIELD.

MAINTENANCE

Maintenance consists primarily of replacing the cutter blades. The blades are easily replaced by removing the retaining bolts and bolting on new blades. Due to the complexity and probable radiological contamination of the pump, hoses, and cutter it is advised that defective components are replaced rather than attempting repair.

INSTRUCTION MANUAL
MODEL 2009

Holmatro reserves the right to change the contents of this manual at any time without prior notice. Holmatro also reserves the right to change any part or component of any machine referenced in this manual at any time without prior notice.

This manual is intended for use solely with the basic version of each piece of equipment and each product referenced and should not be used in connection with any modified, altered or adapted version of any piece of equipment without the express prior written consent of Holmatro.

Additional information on adjustments, maintenance and repair of any product contained herein will be provided upon written request of the technical department of your supplier. If not provided, contact Holmatro directly.

I. MAJOR HAZARDS

*Before operating the 2009 all by-standers must be removed from the extrication area.

*The safety valves between the couplers must never be adjusted. In the event a problem develops with the safety valves, contact your local dealer.

*The pumps should never be connected or disconnected when there is hydraulic pressure in the lines.

*The model 2009 must only be operated with the non-toxic mineral based hydraulic oil distributed by Holmatro.

*The vehicle or object must be stabilized before beginning any extrication technique.

*When operating the model 2009, the user must always wear protective clothing and eyewear (SEE WARNING LABELS).

*Only trained and qualified personnel are authorized to use the model 2009.

II. INSPECTION

Check the model 2009 for any leakage or other visual damage that may have occurred during shipping. The warranty card should be completed and returned to the address listed. Failure to complete the warranty card as instructed may result in the warranty becoming invalid. An instruction manual should be included for the model 2009. If a pump is shipped with the model 2009 a manual from that engine will be included from the manufacturer, Briggs & Stratton, Robin, Honda or Yanmar. Briggs & Stratton, Robin, Honda and Yanmar offers a one (1) year warranty on the engine. Any problems occurring during the warranty period should be directed to Briggs & Stratton, Robin, Honda or Yanmar directly.

III. INTENDED USE

The cutter model 2009 is designed to cut the frames of vehicles and for various industrial applications.. The model 2009 can be used for both extrication procedures and for industrial applications. The tool is a one-man operated light-weight tool, meaning that one person would be able to position, guide and operate the tool without the assistance of another. To facilitate this usage, the tool is equipped with a chrome-plated, U-shaped carrying handle which provides an even balance for use of the tool in all positions, even with one hand. It must be stressed, that the model 2009 is a light-weight tool and therefore some extrication procedures may require the use of additional equipment. For safety purposes the model 2009 may only be used in conjunction with other Holmatro equipment or equipment of comparable specifications and capabilities.

V. CAPACITIES

Holmatro Hydraulic Rescue Tools work on a maximum operating pressure of 10,500 psi (720 bar). The tool operates with a non-toxic, mineral based hydraulic oil. The tool, hose and pump are equipped with quick connecting couplers for fast and easy operation. The couplers are equipped with locking rings to prevent accidental uncoupling. Dust caps are also provided to protect the couplers when they are not being used. The model 2009 is fully operational under water to a depth of 50 feet.

The hoses possess a minimum burst pressure strength of at least 20,000 psi (1360 bar), which is two times their working pressure. The hoses are delivered filled with the proper grade of non-toxic mineral based hydraulic oil. For maximum safety of the operator, only non-toxic mineral based hydraulic oil should be used. Phosphate ester fluid or similar toxic fluid substitutes must never be used. If the user is unsure as to whether a certain fluid is acceptable or not, they should contact their local dealer.

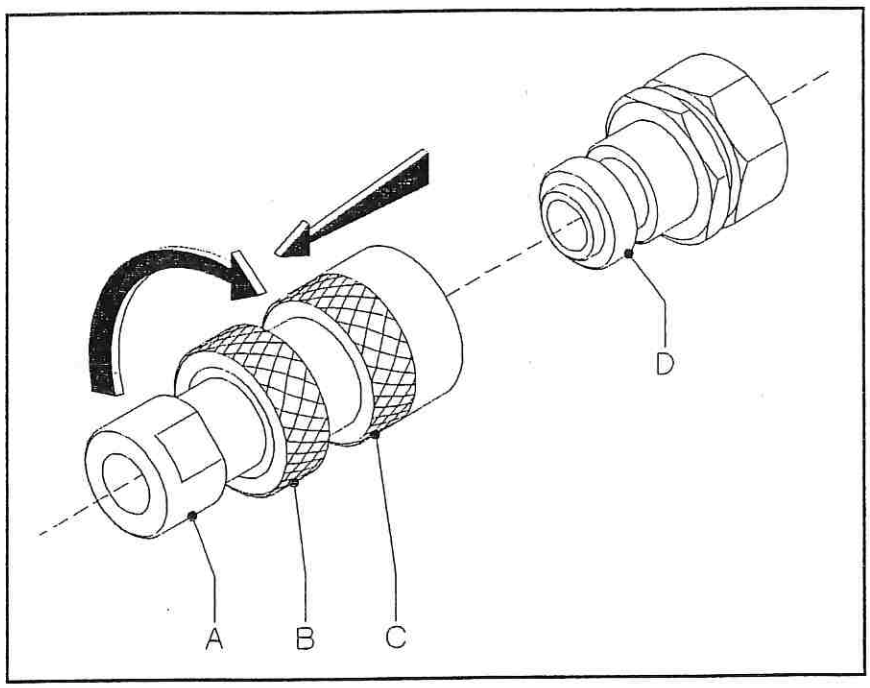
The model 2009 has a wet weight of 33 lbs. (15 kg). The width of the model 2009 including the carrying handle is 8 3/4 inches (220 mm), length is 35 inches (870 mm) and height is 7 inches (180 mm).

The blades of the tool are machined from hi-grade tool steel, hardened for durability. Their blades are regrindable. The teeth on the blades are specially designed to cut high tensile steel bars up to 1 inch diameter, strips of 4 inch x 3/8 inch, tubing with a diameter up to 2 inches and a thickness of 1/8 inch, square section with a width of 2 inches and a thickness of 1/8 inch, angle bar of 2 inches x 2 inches x 1/8 inch. Regrinding may only be performed by Holmatro, Inc. All moving parts are concealed with special covers designed to protect the user. These special covers should never be removed or adjusted. Internal and external aluminum parts of the tool that are susceptible to wear or corrosion are protected by anodization to provide maximum durability.

Holmatro tools are compatible with other tools manufactured by Holmatro. For safety reasons Holmatro tools should only be used with other Holmatro tools and accessories, or tools and accessories provided they are manufactured to comparable specifications and capabilities.

VI. PREPARING FOR USE

Note: Before connecting pumps, be sure the hydraulic lines are not under pressure. The high pressure hoses and the valve block of the pump are equipped with a quick connect lockable coupler.



A. To Connect the Pump:

The high pressure hoses should be connected as follows: remove the dust caps; pull back the 'C' ring (retaining ring) of the female coupler 'A' and push in the male coupler 'D' of the pump unit releasing the 'C' ring. Lock the couplers by turning the 'B' lock ring against retaining ring 'C' to prevent the hose from disconnecting inadvertently. In the event the connection is not done properly, oil will leak between the couplers and the equipment will not operate at its full capacity. Snap the dust cap together to protect the quick disconnect coupler against dust or dirt. Dust or dirt can damage the oil seals or other sealing parts of the tool. Over time, if dust or dirt is allowed to remain in the tool, its working capacity will be severely diminished. Connect all other couplers in the same manner as previously described.

After connecting the model 2009 to the pump, check the operation by activating the pump and turning the deadman handle into the open position. The cutter blades should open when the deadman handle is activated. In the closed position, the blades should close. Once the deadman handle is released, it should return to the neutral position. The deadman handle is activated by twisting the rotary handle, located at the base of the tool.

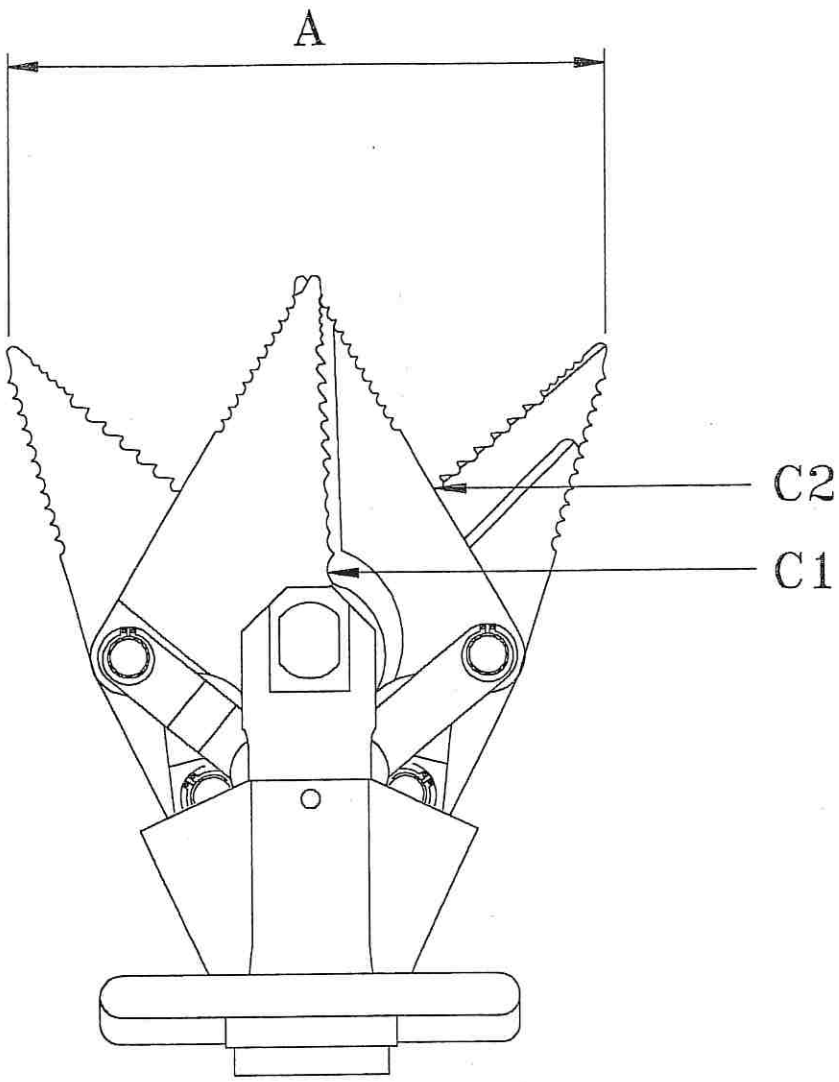
When the deadman handle is released, it should return to the neutral position automatically. The deadman handle provides one-handed control for cutting. The deadman handle is located in such a way that it can be operated, guided and supported easily by right and left handed operators without having to change the position of the hands. Automatic non-return check valves have been built in so that the tool will hold the load when the deadman handle is released. Should pressure drop, i.e. because of interruption of power source, the tool will hold the load, in the event it is spreading. Check for visible oil leaks from the couplers. If oil has leaked from the couplers, re-check the oil level.

B. To Disconnect the Couplers.

The pump control valves should be put in the neutral or release position to prevent the oil from traveling through the hoses to the equipment. If a relief valve is present, it should also be opened. Disconnect the high pressure hoses according to the following procedure: detach the dust caps, and turn lock nut 'B' as far away from ring 'C' as possible; pull ring 'C' back and at the same time disconnect the couplers. Under no circumstances should the hydraulic lines be disconnected while under pressure.

WARNING: In the event a coupler is not connected properly, a safety valve will be activated. Under no circumstances should the safety valve between the couplers be adjusted. Any repairs or alterations must be performed by an authorized distributor, dealer or manufacturer of Holmatro Rescue Tools.

VI. FUNCTIONS OF THE MODEL 2009



Cutting

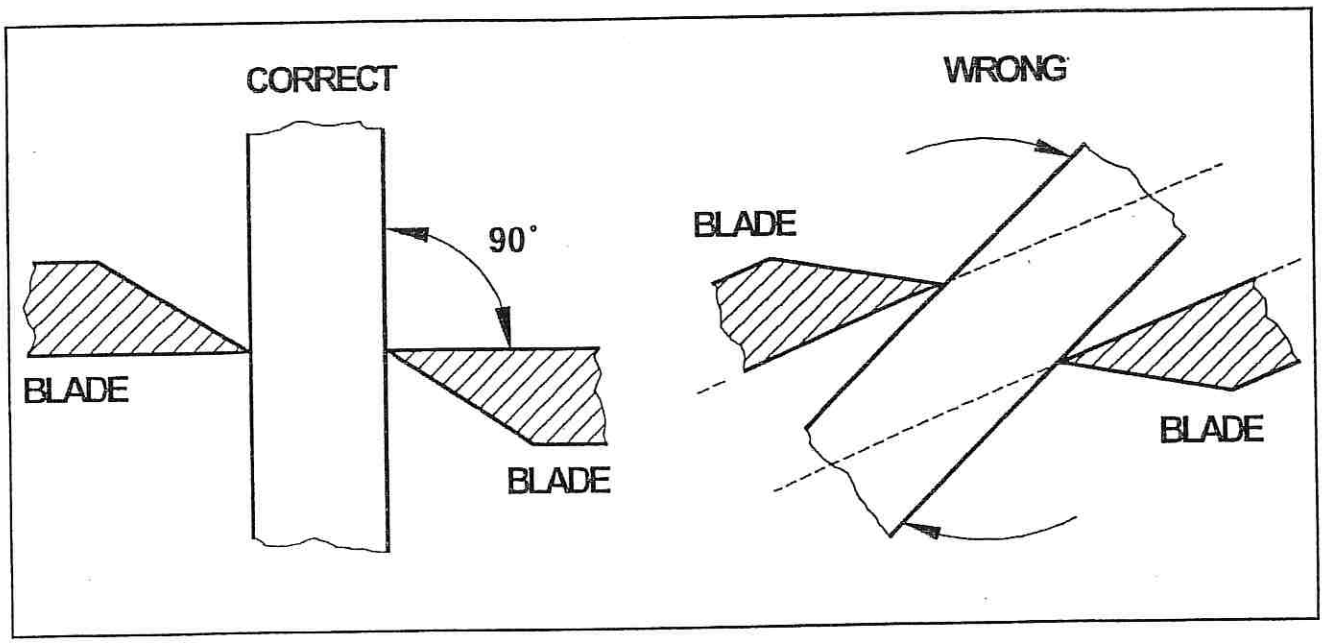
The cutting force in the recess (C1) is no less than 67,000 lbs. (30,450 kg), and the cutting force in the middle of the blade teeth (C2) is no less than 29,300 lbs. (8450 kg). The blades are developed for cutting the framework of vehicles, i.e., door posts, support pillars or rods. In emergencies, the nader bolt or similar sized bolts can be cut. However, such repeated action will cause permanent damage to the blade or tool. When cutting, the operator must be on level ground and the tool must not be allowed to twist during operation. Place the model 2009, blades open, at right angles to the object being sheared, then close the blades. The blades will create an even cutting action. Make sure that the blades remain 90 degrees to the material. In the event the tool twists rapidly, stop immediately and take another position. If the user continues with twisted blades the blades will become permanently damaged. If the tool is used to cut the 'B' post, it should never be done through the seat belt harness reinforcement plate. Cutting through the seat belt harness area will damage the tool and blades, and may shear pieces of metal.

Side loading of the blades is a situation that can severly damage the tool and break the blades. Side loading of the blades is not a warranty item; it is a result of misuse. Side loading of the blades can happen in two ways.

- The first is caused by allowing metal, from the object being cut, to get between the blades and separate them. This metal creates a "wedge" effect that will damage the blades. If the operator sees that metal is about to get between the blades, STOP. Reposition the blades and resume cutting. Sometimes trying to cut too much material will force metal between the blades. If this happens, make smaller cuts to prevent damage. The material being cut must be secured to prevent twisting.

- The second occure when the cutter's blades are not kept perpendicular to the object being cut. When this happens, the blades begin to twist around in a motion that will make them seem parallel to the object (see fig. 1.1). This twisting motion can separate the blades and cause damage (see fig. 1.2). When cutting an object, if the blades begin to twist, STOP. Reposition the blades to a 90°angle with the object and finish the cut (see fig. 1.3).

DIAGRAM OF BLADES AT 90 DEGREES



Side loading of the tool is a situation that can severely damage the tool, specifically the piston rod, cylinder, and blades. Side loading of the tool is not a warranty item; it is a result of misuse.

Side loading of the tool happens when the operator is performing an operation and the rear of the tool hits a firm object. If the operation is not stopped immediately, the blades can be cracked or broken, the piston can be bent, or the couplings can be snapped off. If the operator sees that the back of the tool is coming close to a fixed object, it is their responsibility to reposition the tool and continue the operation.

Maintenance. Check the model 2009 blades for visible cracks or distortions before and after each use. Check the deadman handle to make sure it is fully operational. Once the deadman handle is released, it should return the neutral position. Clean the couplers with a silicone based lubricant or compressed air. If the couplers are not properly cleaned the internal seals will be damaged. If dirt is found in the system, the whole system should be flushed out immediately. The model 2009 should not be reused until it has been properly cleaned. Ensure that the lock rings are in proper working order. The dust caps must be cleaned with a silicone based lubricant or compressed air after each use. The model 2009 must be stored with open blades. With the pump running and pressure to the tool, open the blades. Operate the handle to close the blades just until they overlap. Release pressure at the pump. Disconnect the cutter and place the dust caps over the couplers on the cutter. All of the bolts should be securely fastened. If they are not securely fastened, the tool should be sent to the local dealer for repairs. Any loose bolt must be tightened by the dealer and the user should not attempt to fix it.

The hinge parts and blades must be greased at least every six months or more frequently if used under water, or in wet or dusty conditions (SEE WARNING LABEL). The hydraulic mineral based fluid needs to be replaced at least once a year. Check for oil leakage between the couplers. If leaking occurs, contact your dealer for instructions, do not attempt to adjust the safety valves. After using the model 2009 under water, have authorized Holmatro dealer rinse with clean water and grease the pivotal parts with 'Never-Seize' lubricant.

VII. SAFETY REQUIREMENTS

Compliance with all of the instructions set forth in this manual is necessary for the safe and proper operation of Model 2009. If the purchaser elects to use non-Holmatro equipment, parts or accessories in conjunction with Model 2009 (provided they are compatible), purchaser assumes all risks related to such use, including, but not limited to, all safety issues. Holmatro makes no representation or warranty as to the safety of the use of such non-Holmatro equipment, parts or accessories in connection with Model 2009. If the purchaser fails to strictly observe each and every one of the obligations set forth in this manual or if the purchaser fails to use any equipment, parts or accessories specified to be used by Holmatro in conjunction with Holmatro Model 2009, then the purchaser agrees to defend, indemnify and save Holmatro harmless from any liability or obligation, including the costs and attorney's fees related thereto, incurred by Holmatro as a result of persons being injured or property being damaged, directly or indirectly, in connection with the operation of Model 2009 or related parts and accessories.

IX. TROUBLE SHOOTING

Problem	Solution
1. The couplers on hoses cannot be connected.	A. Loosen lock nut B. B. The hose is pressurized; open the relief valve on the pump. C. Use relief tool on hoses.
2. The tool does not react when the deadman handle is activated.	A. Check the coupler connections. B. Check the pumps: (i) change over-valve position; (ii) relief valve; (iii) oil level.
3. Oil leakage between the hose connections at the back of the model 2009 (the safety valve has automatically been activated).	A. Check all couplers to make sure they are properly connected. The safety valve should not be adjusted.
4. The deadman handle cannot be moved or did not return to the neutral position once released.	A. Check for visual distortions to the handle. If damaged, contact your local dealer.

Repairs

Repairs may only be made by qualified persons authorized by Holmatro. The sealed parts can only be disassembled by an active and presently authorized Holmatro dealer. If other problems occur, contact your dealer for further advice. In the event you are unable to contact your dealer, write Holmatro at:

Holmatro, Inc.
1110 Benfield Boulevard
Millersville, Maryland 21108
Fax: (410) 987-1638

In the event back-up equipment is unavailable and an extreme emergency occurs, phone Holmatro at (410) 987-6633 from 8:30 am to 5:00 pm EST. Inquiries should be directed to the customer service department.

1. Introduction

We congratulate you on this purchase. Be sure to read and understand this user manual before using the unit. The user manual covers all relevant aspects for safe and optimal use of this unit.

This is a single-acting hydraulic unit designed to be driven exclusively by a Holmatro® hydraulic hand or foot pump. The entire system operates with mineral oil and 720 bar allowable operating pressure. See Table 1, page 47 for further details.

The unit is suitable for cutting light structural steel such as car pedals, steering wheel spokes, chair frames, etc. in small spaces and locations with difficult access.

2. Product identification

A. Fixed cutter
B. Movable cutter
C. Quick-action couplings
D. 30 cm connection hose
E. 360° swivel elbow
F Cylinder
G. 2 m supply hose
H. 90° elbow (only for connection to hand pump HTW300)
I. Rubber fender
J. Bolt

3. Operation

The oil from the hydraulic pump is supplied to the unit through a high-pressure hose. No oil can flow to or from the hydraulic cylinders if the pump is set in its pressure relief (neutral/open) position. The oil will flow to the relevant hydraulic cylinder if the pump is set in its pressure relief (operation/closed) position. The cutter extends and the mini-cutter starts cutting. The plunger and the cutter will be retracted by a spring in the neutral/open position.

For further details see operating instructions for the relevant pump.

4. Use

4.1 Initial use (first time only)

* Check the equipment for damage. Do not use the equipment if it is not in good condition. Notify the supplier.

4.2 Preparation for use

Coupling

The unit is provided with a female quick-action coupling. The pump is equipped with a male quick-action coupling (see Fig. 1, page 48).

* Check whether the pump is in its neutral/open position. Never connect the quick-action couplings when the pump is in operation.
* Check whether the red locking ring is screwed home at the back.
* Remove the dust caps from the quick-action couplings and fit them into each other to prevent dirt.
* Slide the ring of the female coupling backwards, insert the male coupling and release the ring.
* Screw the locking ring against the ring. This is to prevent the quick-action couplings from accidentally coming loose when in use.
* Repeat this procedure for all quick-action couplings.

Cutting Set the pump in its operation/closed pressure relief position. Operate the pump. The cutter extends and the mini-cutter starts cutting.

➔ Ensure that the material to be cut is always at the centre of the cutters and only then cut the material (see Fig.2, page 48).

The cutter returns (spring return) when the pump is set in its neutral/open pressure relief position.

Shutting down Return the unit in its original home position after completion of the work (completely retracted cutter).

Disconnection Check whether the pump is in its neutral/open pressure relief position (see Fig. 3, page 48).

* Release the locking ring.
* Slide the ring of the female coupling back. The male coupling will come off.
* Remove any dirt from the couplings and the dust caps to prevent it from coming into the hydraulic system.
* Take the dust caps apart and replace them on the relevant quick-action couplings.

Cleaning and storage

* Clean the unit and the accessories used before they are stored.
* Clean all quick-action couplings. Ensure that the dust caps are installed.
* Check the unit for external damage and/or oil leakages.
* Dry the unit if it has been used in wet conditions. Lightly oil the steel parts.
* Regularly apply fresh grease to the guide.

5. Troubleshooting

In case of failures or repairs, always specify the model and serial number of the unit to the supplier.

5.1 The quick-action couplings cannot be connected or disconnected

- Check the position of the locking ring.	- Release the locking ring further.
- Check whether there is any pressure in the system.	- Set the pump in its operation/closed pressure relief position.

5.2 The unit is not - or is no longer - operating properly

- Check all quick-action couplings.	- Connect any loose couplings.
- Check the pressure relief valve position on the pump.	- Set the pump in its operation/closed pressure relief position.
- Check the oil level of the pump.	- Refill the pump with the correct hydraulic oil (see Table 1, page 47).

5.3 Poor cutting performance

- Check the cutters for damage	- Grind or file the cutter edges to the proper shape
- The unit fails to cut/close	- The object to be cut is too thick/too strong, try cutting at a thinner location

Consult the supplier if the solutions offered do not produce the required results or in the event of other defects.

6. Maintenance

Wear personal protection equipment during maintenance. Ensure that the hydraulic oil to be replaced is collected and disposed of in a responsible manner. Remember the environment.

6.1 Regular maintenance (minimum every 3 months)

It makes sense to carry out maintenance on a regular basis. At least quarterly, depending on the use.

* Check the operation of the equipment.

6.2 Annual maintenance

Many years of safe use is guaranteed if the unit is properly cared for and maintained. To this end the unit must be inspected at least once a year. This must be carried out by a trained engineer who has the necessary tools and testing equipment available. It is also possible for you, as the user, to carry out the maintenance yourself. In the context of your own safety and the product liability it is necessary that the appropriate training is followed first. Your supplier can advise you on this and/or attend to the annual maintenance on a contract basis, if desired. In the latter case you will be assured of proper and safe operation.

6.3 Five yearly maintenance and testing

We advise you to have the unit checked and tested by your supplier or another body certificated by Holmatro after a maximum of five years of use. Consult your supplier for further details.

6.4 Long-term storage

* Ensure that the unit is completely depressurized.
* Store the unit in a dry, well-ventilated area. Use additional preservatives on the external steel parts.

6.5 Cutter replacement

Cutter replacement, set of loose cutters, Art. No. 150.013.179 (see Fig. 4, page 48)

- Jack out the cutter (B) until the spring collet (A) is just visible.
  ➔ Jacking out the cutter too far results in damage of the spring in the cylinder.
- Then remove the spring collet with a punch.
- Fit new cutter using the spring collet.

Changing the fixed cutter; fixed cutter kit, Art. No. 150.013.179 (see Fig. 5, page 48):

- Release cap screw (A), 5 AF
- Place new cutter (B) in the recess
- Install cap screw (A) and slightly tighten it, 5 AF
- Extend the movable cutter and allow it to push against the fixed cutter at full pressure
- Depressurize the pump

7 Decommissioning/Recycling

The various parts can be re-used at the end of their service life. Collect the hydraulic oil and dispose of it separately. The unit consists of steel, aluminium, neoprene (seals) and plastic. The unit does not contain any pressurized components.

Consult your supplier about recycling.

8. Accessories

- Maintenance kit, Art. No. 150.013.178
- 30 cm connection hose, Art. No. 150.571.046
- 360° swivel elbow, Art. No. 150.013.177

Tabel 1. Technical specifications

Mini-cutter model	HMC 8 U	HMC 8 U	HMC 8 U	HMC 8 U
Art. No.	150.012.025	150.012.026	150.012.027	150.012.028
Allowable operating pressure (Pn)	720 bar	720 bar	720 bar	720 bar
Max. cutting force	78.5 kN	78.5 kN	78.5 kN	78.5 kN
Max. jaw opening	40 mm	40 mm	40 mm	40 mm
Cutter width	40 mm	40 mm	40 mm	40 mm
Weight, ready for use	3 kg	3 kg	3 kg	3 kg
Dimensions (lxwxh) storage box	-	358x140x88 mm	358x140x88 mm	558x340x184 mm
Dimensions (LxWxH)	320x62x86 mm	605x62x86 mm	605x62x86 mm	-
Type of oil used	ISO-L HV VG 15/22			
Temperature range	-20 °C +80 °C			

Tabel 2. Summary of materials to be cut

In general only low-alloy structural steel can be cut. High-alloy and special steel may damage the cutters. A general summary is given below.

Type of section	Maximum dimension	Max. hardness (HRB)
Solid round bar	15	80-85
Flat bar	30 x 5	80-85
Pipe	25 x 3	80-85

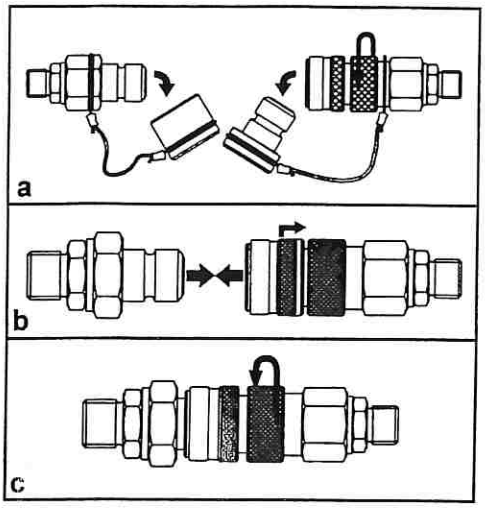


FIG 1

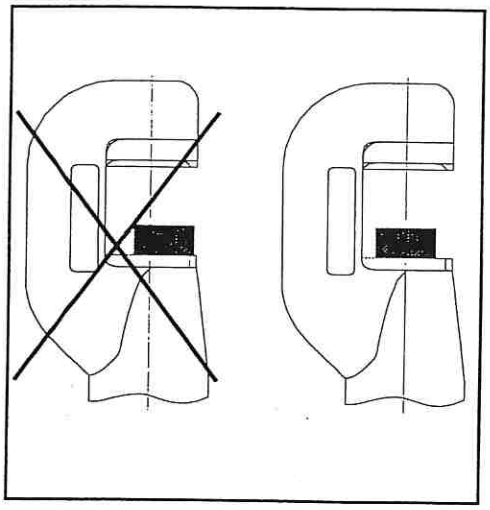


FIG 2

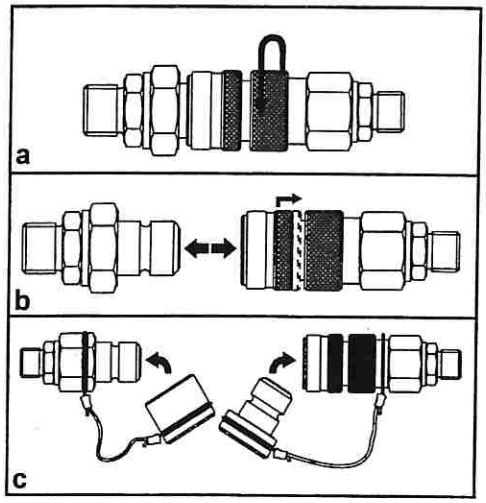


FIG 3

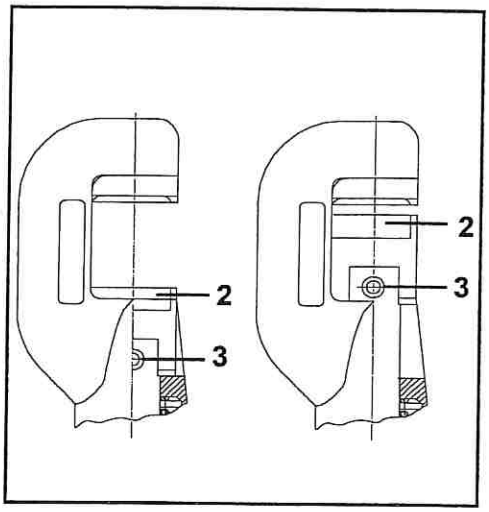


FIG 4

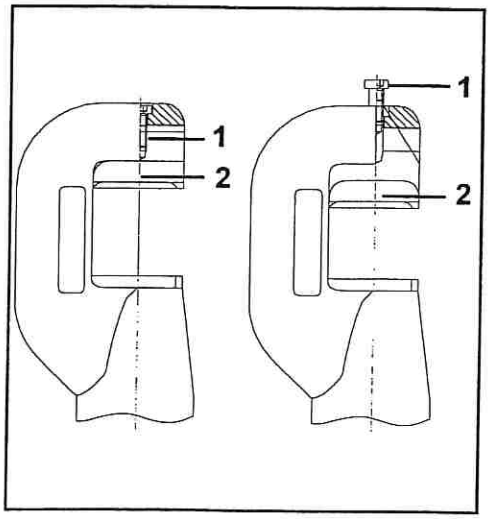


FIG 5