

INSTRUCTION MANUAL

HALE
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ML-16S II

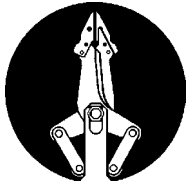


Combi-Tool

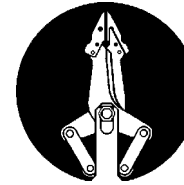
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 **HURST**
JAWS OF LIFE®



GENERAL MAINTENANCE



ASSEMBLY/STORAGE

GENERAL MAINTENANCE GUIDE *

DAILY MAINTENANCE/INSPECTION

- Inspect carefully for Hydraulic leaks
- Inspect hoses and couplings for wear and damage.
- Check control valve operation for easy operation and free return to neutral (center).
- Check inside frame yoke for dirt and debris.
- Be certain all parts are clean.
- Check blades for damage.
- Check that all fasteners (nuts, bolts, screws and retaining rings) are in place and securely fastened.

AFTER USE MAINTENANCE

- Clean tool.
- Check for wear or damage on all parts.
- Check that all fasteners (nuts, bolts, screws and retaining rings) are in place and securely fastened.

STORAGE

- Protect unit against moisture.
- Store in adequate space to prevent damage to hoses, connectors or tool itself.
- CAUTION: Before storage, connect the pigtail hoses to each other and move throttle control in both directions to equalize pressure in system.

6 MONTH MAINTENANCE

- Remove and inspect retainer rings, links and link pins. Replace if necessary. Remove locknut from pivot pin and remove pivot pin, blades and washers. Inspect for damage and wear. Replace if necessary. Lubricate all friction areas generously with a high temperature grease. Re-assemble components. Torque locknut on pivot pin to 250 ft-lbs. Care must be taken to insure all components are installed properly and that retainer rings are FULLY seated in pin grooves.
- Check hoses and couplings for wear and damage. Replace if necessary.

ANNUAL INSPECTION*

- Pressure check all valves and internal seals. Replace as required.
- Check operating pressure, unloaded through full operating cycle.
- Check blades for chips, cracks or other damage.
- Check opening and closing times.
- Replace operating decals, if necessary.
- Replace hoses, couplings and fasteners as required.
- Clean and lubricate.

*** Call your authorized Jaws of Life Distributor for maintenance and annual inspection care.**

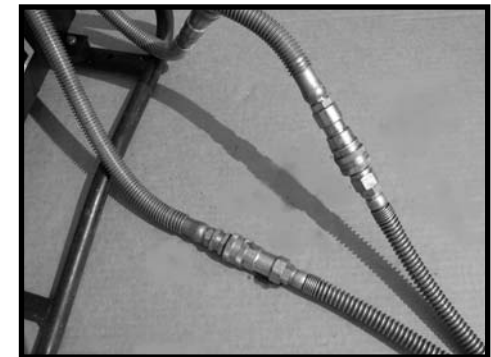
1

Remove the ML-16S II Combi-Tool from the shipping carton. Inspect unit and confirm that all bolts and screws are securely fastened and the unit has not been damaged in shipment



2

Before connecting the hydraulic hoses, place the power unit by-pass valve in the DUMP position



3

Connect the hoses from the power unit to the pigtail hoses on the tool as shown.



4

To operate the quick disconnect couplings, align the slot in the sleeve with the pin. Slide the sleeve back to connect or disconnect the coupling. After connecting the coupling, rotate the sleeve 1/4 to 1/2 turn to lock the coupling.

ASSEMBLY/STORAGE cont.



5

Start the power unit and move the operating lever on the power unit bypass valve to the PRESSURE position. Operate the cutter by turning the control valve to the right to open the blades and to the left to close the blades. If the tool does not operate correctly, make sure the quick disconnects are properly connected (Step 4). If needed, refer to the troubleshooting section of this manual.

6

For initial start-up and after service or maintenance, open and close the tool several times to purge any air from the system.



7

After use, position the blades slightly open for storage.

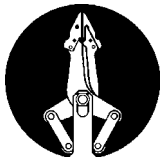


4

To spread an automobile door:

1. Pinch the rear edge of the door with the blade tips.
2. Rotate the Combi-Tool towards the front of the auto by prying open an access point at the rear of the door.
3. With the blades completely closed, insert the tips into the opening created in the previous step. If the opening is not large enough, repeat steps 1 through 3.
4. Open the blades to spread.



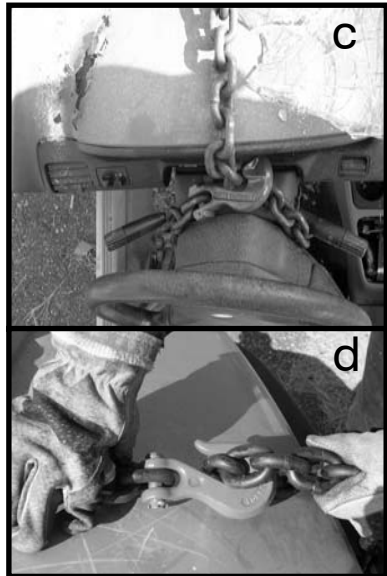


SPREADING / PULLING

1

To attach optional chain and shackle accessories for pulling operations, slip chain shackle over jaw and insert fas-pin to lock shackle to arm. Fas-pin detent ball and notch in shackle will only allow shackle to be installed on the outside of the blade.

Make sure both hooks are facing the same direction, up or down, to prevent the arms from twisting.



2

To lift a steering column:

- a) Open blades to maximum spread.
- b) Place shackles over the blade tips and insert the fas-pin.
- c) Wrap chain around the steering column and slip hook over the chain. Insert the opposite end of the chain into the hook on the tool shackle.
- d) Using the method shown, attach the other chain to the body frame under the bumper. Attach the opposite end of the chain to the hook on the tool shackle. Make sure both hooks are facing in the same direction to prevent the arms from twisting.
- e) With the rescue tool resting on the car hood, adjust chain length at the shackle hooks to remove all slack from the chains.

3

Lift steering column by closing the tool. If the steering column has not been pulled far enough from the victim when the tool has fully closed, open jaws and shorten chain length by adjusting chain at grab hooks until all the slack has been removed. Close the tool to pull steering column out a greater distance from the victim.



7



8

Remove hydraulic pressure from the tool. Move the throttle control in both directions to equalize the pressure. Before attempting to disconnect the tool from the power unit always move the operating lever of the power unit bypass valve to the DUMP position.

9

After disconnecting the tool from the power unit, connect the two short hoses (pigtails) together. Store in a moisture free location with adequate room to prevent tool damage and/or kinking of the hoses.



10

IMPORTANT:
Your tool MUST be registered.
Please return the self-addressed warranty card included with your documentation.

Should you have to contact us about your cutter, refer to the tool serial number (found on the tool as shown). This identification will expedite any service you may require and will also enable us to keep your records current.

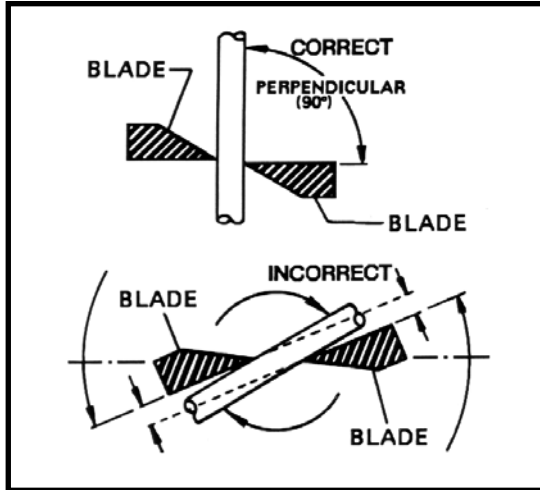


4

HURST

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CUTTING



1

CAUTION:
Hold blades perpendicular to the material being cut. Material to be cut **MUST** be secure so that it cannot twist.

WARNING:
If tool is not held firmly or if the material is forced between the blade flats, blade damage may result.

2

To cut, open tool. Place blades around object. Close tool to cut object. Maximum cutting forces are obtained at the notch or the portion of the blade nearest the center pivot point. When possible, start your cut in this area. After making cut, open blades to remove tool.



3

CAUTION:
Avoid cutting a loose end. If unavoidable, be sure the end of the object is secure.

WARNING:
Do **NOT** cut cables under tension. Do **NOT** cut electrical wires unless absolutely certain that **ALL** electrical power has been removed.

TROUBLESHOOTING GUIDE*

PROBLEM	CAUSE	REMEDY
<ul style="list-style-type: none"> Tool operates erratically, slowly or fails to operate. 	<ul style="list-style-type: none"> Hydraulic Fluid is low Air in Hydraulic System Valve thumb control lever is loose Low flow from power unit Erratic flow from power unit 	<ul style="list-style-type: none"> Check fluid level in reservoir and add fluids as required Fully open and close tool several times. Tighten or replace screw on thumb control lever, or replace thumb control lever assembly as required. Have power unit repaired. Have power unit repaired.
<ul style="list-style-type: none"> Tool has apparent loss of power 	<ul style="list-style-type: none"> Low pressure from power unit Leak in control valve seals Internal seal failure Coupling failure 	<ul style="list-style-type: none"> Have power unit repaired. Remove and replace control valve. Have tool repaired with new seals. Remove and replace couplings.
<ul style="list-style-type: none"> Tool fails to operate 	<ul style="list-style-type: none"> Couplings not properly connected Coupling failure - fails to open internal check when connected No flow from Power Unit Hoses Reversed on power unit Couplings reversed on tool 	<ul style="list-style-type: none"> Connect couplings correctly (See page 3, section 4) Remove and replace coupling Check power unit and repair as required. Remove and reverse hoses Remove and reverse couplings
<ul style="list-style-type: none"> Hydraulic fluid is leaking from valve/rear handle 	<ul style="list-style-type: none"> Couplings are not properly connected 	<ul style="list-style-type: none"> Put power unit in DUMP position and connect all couplings properly

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