



Operation and Maintenance Manual

CRL/SOMACA NS450 NOTCHING SAW



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WARRANTY STATEMENT

SOMMER & MACA machinery Division of C.R. Laurence Co., Inc. (Seller) warrants products of its manufacture to be free from defects in materials and workmanship in normal use for six months from the date of shipment unless a shorter period is provided elsewhere in this document. Seller's obligation and Buyer's exclusive remedy shall be limited to the repair or replacement at Seller's option, of defective parts within warranty period, provided Buyer gives Seller immediate written notice of such alleged defects, and if requested by Seller, returns the defective parts to Seller's factory for Seller's inspection.

The warranties contained herein are in lieu of any other warranty expressed or implied, including any warranty of MERCHANTABILITY OR FITNESS FOR PURPOSE.

In the case of equipment furnished by Seller but not of Seller's manufacturer, Seller's liability to Buyer hereunder. Adjustment at the manufacturer thereof makes to Seller. Seller shall in no event be liable for consequential damages.

Warranties hereunder shall not apply to any equipment that shall have been damaged by misuse, neglect, failure to perform maintenance or accident after the shipment thereof by Seller. In addition thereto, this warranty shall be null and void if:

1. Machine is used in a manner contrary to instruction or after malfunction is noticed.
2. Buyer does not honor terms of payment.
3. Machine is modified or altered without the agreement of Seller.

PREFIX

We suggest to carefully follow the instructions in this manual and to regularly follow procedures of maintenance, which will allow you to obtain a higher degree of reliability, safety and durability of the product.

- This manual contains several precautions for safe use. We urge you to read them carefully. In this way you will avoid danger, injuries and eventual damage to the machine.
- Exclusively trained personnel must do maintenance and repairs.

4.) TECHNICAL FEATURES

Machine Dimensions

Length	20"
Width	17.6"
Total Height	18.5"
Weight	67 Lbs.

Electrical Requirements

Voltage (Std)	115 V AC / 1-Phase
Frequency (STD)	60 Hz

Machine Performance Description

Motor Horsepower	$\frac{3}{4}$ HP
Motor RPM	3450

SAFETY RULES

The machine is provided with guards in order to avoid any contact with moving parts by the operator.

It is absolutely prohibited for anyone to alter or remove any safety devices with the power on!! Any kind of verification, control, cleaning, maintenance, change or substitution of parts must be done with the power off.

The manufacturer declines any and every responsibility for lack of following safety rules and of injury prevention described below. He moreover declines every responsibility of damages caused by an improper use of the equipment or changes made without authorization. It is also necessary for personal safety that no one beside the operator remains in proximity of the equipment when in use.

General Safety Rules

When operating electric equipment, it is necessary to adopt the appropriate safety precautions to minimize the risk of electrical shock or injuries. Before operating the machine, read the manual carefully and memorize the following safety rules and save this booklet for future reference:

- Keep the work area clean and orderly, as unorganized work areas encourage accidents.
- Before starting, verify the condition of the machine. Check for standard operation and for broken and or damaged parts. Replace all broken or damaged parts by a competent and authorized service person.
- All repairs performed by unauthorized service personnel will void the warranty and will constitute operating the equipment in an unsafe manner leading to potential danger.

General Safety Rules -continued

- It is absolutely prohibited to let children, outsiders, untrained, or people in poor health to touch or use this equipment.
- Verify that the electrical power source conforms to the electrical specifications before connecting or operating this machine.
- Plug the saw into a grounded outlet of the correct voltage for your application.
- Verify that the outlet is appropriate and compatible with the machine.
- Any extension cord, if used, must have a grounded receptacle, plug and cable as per code.
- Never stop the machine by disconnecting the power.
- Periodically check the condition of the cord and replace it should it become cut or frayed. This work is to be performed only by qualified personnel.
- Do not allow any personnel to come in contact with this power cord.
- Do not ignore these cautions. Such an act will constitute an unsafe use of this equipment and will create a potential danger.
- Only personnel authorized by the manufacturer must make repairs.
- The manufacturer is available for immediate technical assistance to insure optimum performance and maximum production from your NS450 saw. Call (866) 583-1377.

5.) INSTALLATION AND CONNECTIONS

Environmental Working Conditions.

The machine can operate at temperatures between 40 and 113 degrees Fahrenheit.

Space Requirements

Make sure that the clearance provided around the machine is sufficient to be able to provide that material can be maneuvered into the saw freely.

Machine Installation Requirements.

Before placing the machine in its final location, proceed with the following checklist:

- Check the mounting surface to be sure it is stable and level.
- Check the lighting around the machine. It should be free from shaded areas, inconvenient high beams and or stroboscopic lights that could create dangerous conditions.
- Check the condition of the machine for damage as a result of transportation.
- The saw may be bolted to the work surface but it is not necessary.

Electrical connection

Work performed on electrical parts and electrical safety of this equipment is assured only when it is correctly connected and properly grounded as per federal, state, and local codes concerning the same.

Check the motor nameplate to ensure correct service wiring prior to installation. This machine can be supplied with optional voltages if requested.

The manufacturer is not responsible for damages caused by an improperly connected machine.

6.) SET-UP INSTRUCTIONS

Adjusting Material Support

The lower material support, item No 8, must be adjusted up or down so as to remove the fin from the tube accurately. **Disconnect the power to the machine.** Slightly loosen the two bolts behind this support in the bracket. Position the support where you would like it and hand tighten the bolts. (see Aligning Material Support below).

Aligning Material Support

The lower material support, item No. 8, must be adjusted parallel to the saw blade to achieve a square cut. **Disconnect the power to the machine.** It may be easier to align the support with the guard, item No. 6, removed. Set a straight edge on the bottom edge of the saw blade. Visually adjust the material support square to this edge while maintaining the proper height. This will allow the fin slot to be cut squarely. Firmly tighten the two bolts holding the material support, making sure that the support does not move.

Adjusting Depth of Cut

The depth of cut can be adjusted by loosening the nut on the round material stop, item No. 10, on top of the machine. Screw the stop in or out to achieve the depth needed. Retighten the nut once this depth is correct. It is advisable to make a “test cut” on a sufficiently long scrap to be sure of a square cut at the correct depth.

7.) OPERATION AND MAINTENANCE

Operation

After installation and adjustments, replace guards and plug machine into correct power supply. Pull sliding saw plate back fully toward operator. Place tube into the material support bracket and up against material stop, holding firmly with left hand. Grasp handle with right hand. Operate trigger and push saw assembly through the material to be notched. Release switch and remove material.

WARNING: ALWAYS WEAR PROPER EYE PROTECTION AND HEARING PROTECTION WHILE OPERATING THIS MACHINE!!

Be very careful to maintain a firm grasp on the material against the material support bracket. If the tube being notched were to catch and be expelled from the machine, it could result in serious operator injury and/or irreparable damage to the blade or machine.

Maintenance

Sharpening or Replacing the Blade: (for best results keep blade sharp and replace if teeth are missing)

- Start by disconnecting the power supply.

- Remove the blade guard (item No. 6)

- Remove the blade cover (item No. 12) with handle and switch attached.

- NEVER RUN THE SAW WITH THE GUARD OR BLADE COVER REMOVED!

- Hold the blade spindle (item No. 13) with a wrench and remove the bolt on top of the blade along with the spindle cap.

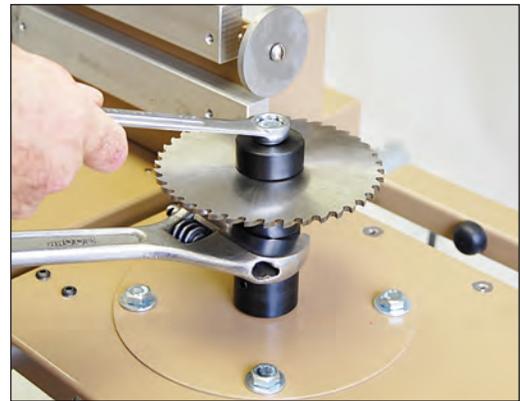
- Remove the blade being sure not to lose the key in the spindle. Also note the direction of the blade rotation. The new blade (item No. 31, part No. 412 -order from back of this manual) must be placed with the saw teeth going in the same direction (see ROTATION sticker on guard).

- Fit new blade, Tighten bolt on spindle cap and replace blade cover and guard.

- Reconnect power supply.



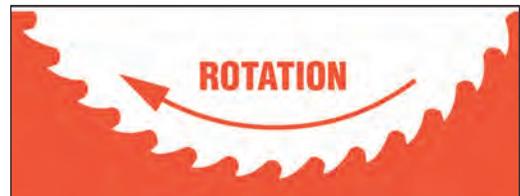
1. Access the blade by removing the Blade Cover and Guard.



2. Remove the blade by holding the spindle with a wrench and loosen the bolt on top of the blade.



3. Be sure to retain the spindle key when changing the blade



4. The blade rotation is marked on this sticker on the blade guard.

Lubrication

The motor for the NS450 saw has sealed ball bearings and does not require maintenance lubrication. The carriage guide rails and bearings benefit from a periodic wipe-down with a light oil such as 3-In-1. Do not use WD40.

8.) Parts List for NS450 Notching Saw

Item No.	Quan.	Part No.	Description
1	4	3-99087-00	LEG
2	2	3-99088-00	CROSSMEMBER
3	2	3-99089-00	GUIDE SHAFT
4	1	3-99090-00	BASE, MATERIAL SUPPORT
5	3	3-99091-00	BEARING BLOCK
6	1	3-99092-00	BLADE GUARD
7	1	3-99093-00	MATERIAL BRACKET
8	1	3-99094-00	MATERIAL SUPPORT BAR, LOWER
9	1	3-99095-00	MATERIAL SUPPORT BAR, UPPER
10	1	3-99096-00	MATERIAL STOP
11	1	3-99097-00	MOTOR PLATE
12	1	3-99098-00	BLADE COVER
13	1	3-99150-00	BLADE SPINDLE
14	1	3-99151-00	BLADE SPINDLE CAP
15	1	3-99152-00	SWITCH BOX
16	1	3-99153-00	CHIP GUARD
17	1	410-0480-0	MOTOR, 3/4 HP, TEFC, 56C, 120/203/220VAC
18	4	469-0234-0	PLUG, RECT. TUBE, 1-1/2 x 1, 14-16 ga
19	2	469-0121-0	BUMPER, 1"DIA x X/X LG 10-24 THD
20	1	DMP-105	GRIP
21	1	414-2043-0	SWITCH, TOGGLE
22	2	414-3001-0	STRAIN RELIEF BUSHING
23	3ft	234-0407-0	CORD, 14-3 SJO
24	1	2200110VPC	CORD, POWER, 14/3 120VAC
25	2	414-2309-0	TERMINAL, RING, 18-14 GA #8 SCREW INSUL.
26	2	114-0145-0	BOX CONNECTOR
27	2	414-2202-0	CONNECTOR, WIRE NUT, 14-22 GA ORANGE
28	2	414-2203-0	CONNECTOR, WIRE NUT, 10-18 GA YELLOW
29	1	3-79286-07	KEY, 3/16 SQUARE x 1-1/2" LG
30	1	3-79287-25	KEY, 1/4 SQUARE x 3/4" LG
31	1	412	BLADE, NOTCHING SAW 5"x1/8"x1"
32	1	414-2310-0	TERMINAL, RING, 18-14 GA #10 SCREW INSUL.
33	1	414-2325-0	TERMINAL, FORK, 10-12 GA #10 SCREW NONINSUL.
34	1	3-99179-00	LABEL, NS-450 NOTCHING SAW
35	2	3-99180-00	LABEL, CAUTION "HANDS CLEAR"
36	1	3-99181-00	LABEL, BLADE ROTATION
501	12	450-0482-5	HHCS, 1/-20 x 1/2 Z/P
502	4	450-0003-3	HHCS, 1/-20 x 3/4 Z/P
503	8	150-0007-0	HHCS, 1/-20 x 1-1/2 Z/P
504	24	451-1373-0	WASHER, FLAT 1/4" Z/P
505	1	151-0000-0	HEX NUT, 1/4-20 Z/P
506	4	150-0055-1	HHCS, 3/8-16 x 3/4 Z/P
507	1	150-0056-1	HHCS, 3/8-16 x 1-1/4 Z/P
508	4	151-1395-0	WASHER, FLAT 3/8" Z/P
509	1	151-1037-1	WASHER, SPLIT LOCK 3/8" Z/P
510	2	450-1986-1	RHMS, 8-32 x 3/8 LG SLOTTED Z/P
511	6	450-4501-6	BHCS, 10-24 x 1/2 BLK
512	1	450-4882-1	SSS, 5/16-18 x 3/8 LG KNURLED CUP POINT BLK
513	6	451-1030-1	WASHER, #10 SPLIT LOCK Z/P

NS450 Related Products

CRL 5" x 1/8" Notching Saw Blade

The CRL Notching Saw Blade replaces the original blade supplied with the NS450 and the NS400 saws. This blade is designed for cutting aluminum storefront material and is the only blade recommended for these saws. It should not be used on any other types of metal.

CAT. NO.	DESCRIPTION
412	Replacement 5" Saw Blade

*Minimum order is one each.



CRL Protective Goggles - Individual Package

These soft vinyl covered CRL Protective Goggles offer comfort and protection against flying particles, dust and splashes. Goggles even fit over large sized prescription glasses. Perforated for maximum ventilation. The replaceable, optical quality polycarbonate lens is distortion free. Available individually or in cartons of 50.

CAT. NO.	DESCRIPTION
ES432	Protective Goggles

*Minimum order is one each.



CRL Clear Radians® Classic™ Safety Glasses

The CRL Radians® Classic™ Glasses feature a 100% polycarbonate lens that meets ANSI Z87.1-1989 Standard, and is distortion free with fog and scratch resistance built in. The adjustable temple and full 155° width provide increased protection.

CAT. NO.	DESCRIPTION
CL0210	Radians® Safety Glasses

*Minimum order is one each.



CRL Ear Plugs

Our CRL Ear Plugs are soft and pliable for a comfortable, non-irritating fit. They permit hearing at a normal conversational level yet offer effective protection against noise pollution. Resistant to soil and wax. They are easily washed with mild soap and warm water. Includes case and neck cord.

CAT. NO.	DESCRIPTION
ES513	Reusable Ear Plugs

*Minimum order is one each.



CRL Disposable Ear Plugs

These low density CRL Foam Ear Plugs are easy to use. Simply roll them in your hand to reduce their diameter, insert into ears, and they will expand and stay secure while providing hearing protection. Permits hearing conversational sound levels. Sold in boxes of 200 individually wrapped pairs.

CAT. NO.	DESCRIPTION
ES986	Disposable Foam Ear Plugs

*Minimum order is one each.



**Technical Service or Questions
(866) 583-1377**

**Parts can be ordered by calling Sommer & Maca,
Machinery Division of C. R. Laurence Co., Inc.
(866) 583-1377**

**Parts can also be ordered on line from the web site:
*www.crlaurence.com***

**Toll Free (800) 421-6144
International (323) 588-1281**

**NS450 Notching Saw
Manufactured in the U.S.A.
by Sommer & Maca, Machinery Division of C. R. Laurence**