

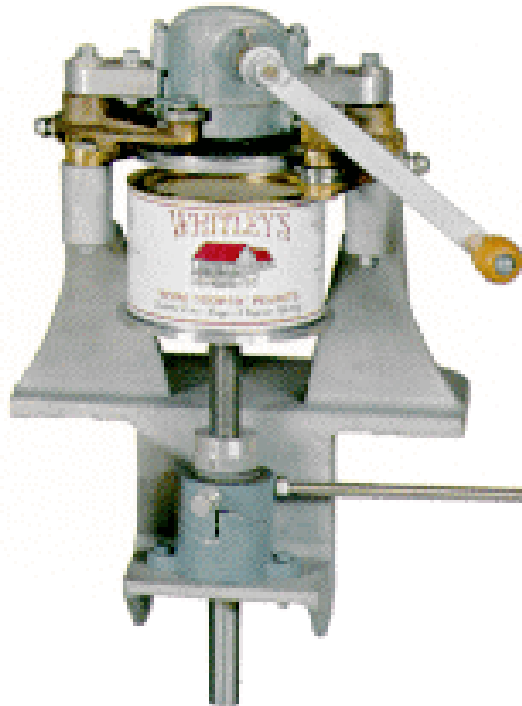


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Worldwide Dependability — Can Packaging & Processing Equipment

OPERATOR'S MANUAL Model 10H Hand Crank Seamer



INTRODUCTION

Your Model 10H Hand Crank Seamer was customized and tested closing the sample containers and ends provided with your order.

INSTALLATION

1. Unpack the seamer and attach securely to table.
2. Turn the hand crank clockwise until the seaming rolls are in their neutral or outermost position in relation to the seaming chuck.

OPERATION

Before operating your Dixie Double Seamer make certain that:

1. The machine is properly secured to a table.
2. All moving parts are oiled and operate freely.
3. The machine is properly adjusted.
4. If this machine is used occasionally or is inactive for more than a few days, give special attention to servicing before and after storage.

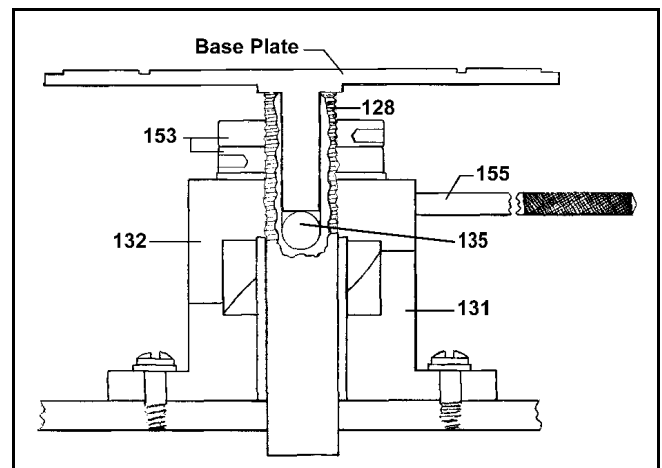
TO OPERATE:

1. Move can raising handle [155] to the extreme right position which lowers the base plate.
2. Place top on the can to be closed and set can on the base plate. Move can raising lever [155] to the extreme left position so the upper base plate cam block [132] locks onto the lower base plate cam block [131], thus raising the can and clamping the top (lid) tightly against the chuck.
3. Turn the hand crank 20 times clockwise to complete the seaming cycle.
4. Move the can raising lever to the right and remove the can.

BASE PLATE PRESSURE ADJUSTMENTS

Proper base plate pressure is required to produce essential body hook and to prevent the can from slipping during the seaming cycle. The can should always be clamped snugly between the base plate and seaming chuck. Adjust base plate pressure as follows:

1. Use pin wrenches [154] to loosen upper base plate adjusting nut [153] by turning in a counterclockwise direction.
2. Again using pin wrenches, turn lower base plate adjusting nut [153] to proper height on can raising shaft [128] to obtain proper base plate tension.
3. Tighten upper base plate adjusting nut to fit snugly against lower base plate adjusting nut to lock in place.



SECTIONAL VIEW OF BASE PLATE ASSEMBLY

The steel ball [135] and the can raising shaft [128] must be cleaned and oiled periodically.

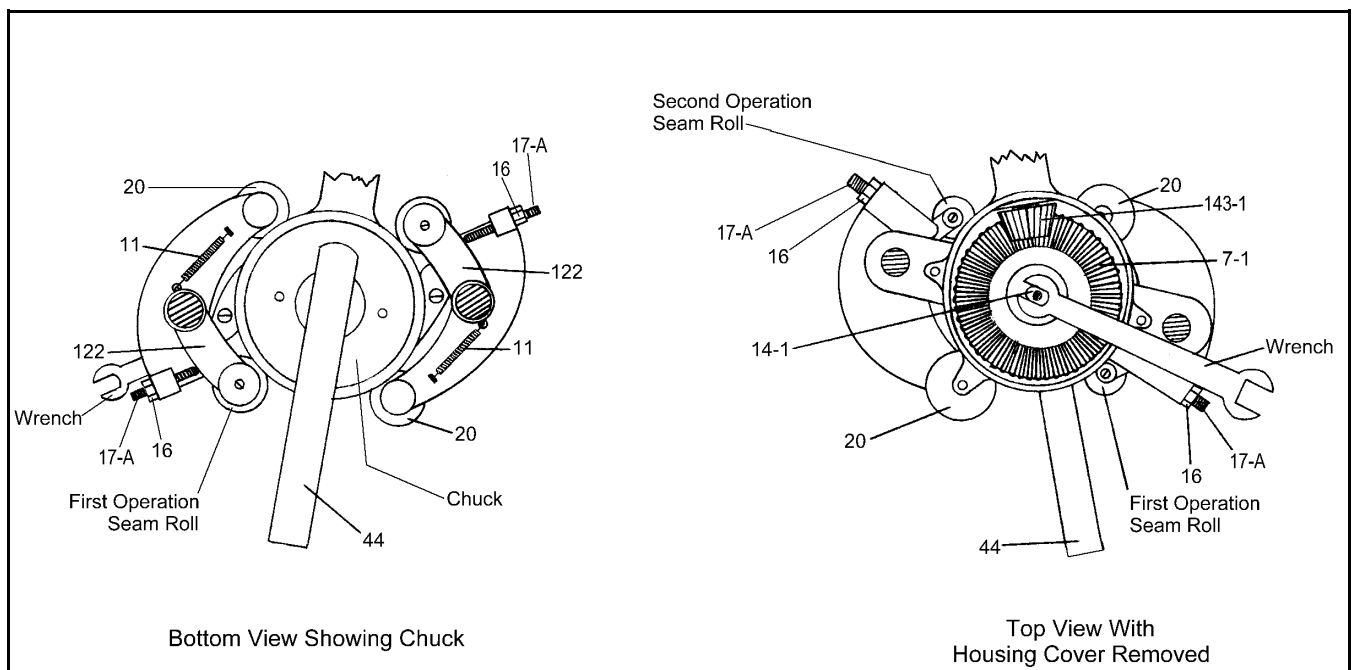
CHANGING FROM ONE SIZE CAN TO ANOTHER

Change parts are required for each different can size or type. Your can manufacturer or supplier may recommend seam roll profiles for your cans.

1. Turn the hand crank [5] until seam rolls assume their neutral position.
2. Remove housing cover [1] to expose the upper end of the chuck shaft [14-1].
3. Loosen lock nuts [16] and set screws [17-A] until seam roll levers [122] are back as far as they will go. If needed, change seam rolls. Seam roll screws [9-A] have left hand threads and must be turned clockwise to loosen.

To install a new chuck, hold the chuck shaft with an open end wrench and hand tighten the chuck onto the lower end of the chuck shaft. To install, turn the chuck to the right. Use the chuck wrench to finish tightening the chuck snugly against the shoulder of the chuck shaft.

5. Replace gear housing cover [1].
6. Install the proper base plate for the can to be closed and adjust the base plate pressure and seam rolls.



4. Change chucks. **CAUTION:** To prevent damage to the chuck shaft and/or internal gears use an open end wrench to hold the chuck shaft while loosening or tightening the chuck.

To remove the chuck, hold the chuck shaft [14-1] with an open end wrench on the top of the shaft located under the gear housing cover. Then place the two pins of the chuck wrench [44] provided with your seamer into two of the four holes located on the bottom of the chuck. (The pins of the chuck wrench will fit into either diagonal or adjacent holes depending on the diameter of the chuck.) To loosen, turn the chuck to the left. Finish removing the chuck by hand.

NEUTRAL POSITION

The machine is in a neutral position when both cam rolls [20] are in their innermost position and both seam rolls are in their outermost position.

SEAMING ROLL ADJUSTMENTS

There are twenty (20) revolutions per seaming cycle, ten (10) for each seaming roll. The function of the first operation seam roll is to curl the cover hook and body hook into proper position. The function of the second operation seam roll is to complete the sealing of the can.

FIRST OPERATION

1. Make certain that both cam roll levers are in neutral position.
2. Make 9 turns of the hand crank [5] clockwise. This will bring the first operation seam roll to its innermost position in relation to the chuck.
3. Loosen lock nut [16] and adjust set screw [17-A] until the first operation seam roll is snugly in position with the chuck. While holding the first operation (larger) gauge wire [40] in position between the chuck lip and the ground profile of the first operation seam roll, tighten the lock nut. **DO NOT PLACE WIRE IN GROOVE OF SEAMING CHUCK.** The larger diameter gauge wire [40] is the approximate THICKNESS of the first operation seam. There should be sufficient friction to turn the seam roll as the gauge wire is moved back and forth. Too much pressure may cause damage to the machine. Insufficient pressure may result in producing a short cover hook. Final adjustments may be made after a can is closed and the double seam inspected.
4. Tighten lock nut [16]. Use a 3/16" allen wrench to keep screw [17-A] from turning when tightening the lock nut.

SECOND OPERATION

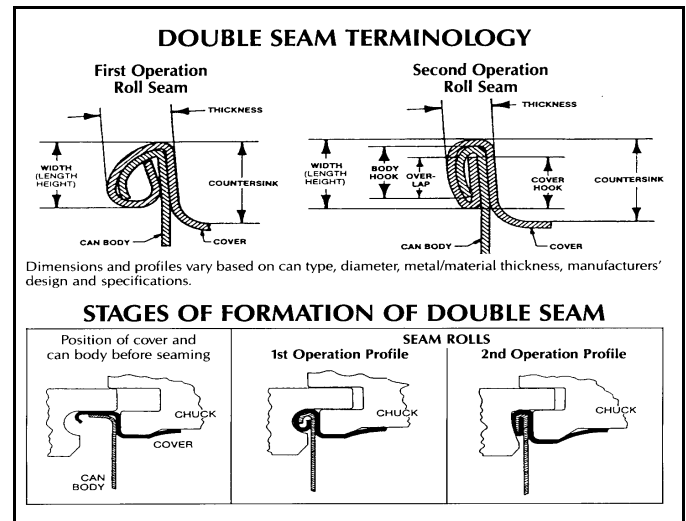
1. After adjusting first operation roll, turn the hand crank [5] exactly nine (9) more revolutions in the direction indicated by the arrow. This is equivalent to eighteen turns from the original six o'clock position and brings the second operation seam roll to its innermost position in relation to the chuck.
2. Loosen lock nut [16]. Place the second operation (smaller) gauge wire [41] in the groove of the second operation seam roll and adjust the screw [17-A] until the gauge wire fits snugly between the roll and the roughened or knurled edge of the chuck. Moving the gauge wire back and forth should barely turn the seam roll. **DO NOT PLACE WIRE IN GROOVE OF SEAMING CHUCK.** The small diameter gauge wire [41] represents the approximate THICKNESS of the second roll seam. Final adjustments may be made after a can is closed and the double seam inspected.
3. Tighten lock nut [16]. Use a 3/16" allen wrench to keep screw [17-A] from turning when tightening the lock nut. Move the gauge wire back and forth to ascertain that there is sufficient friction to turn the seam roll. Too much

pressure may damage the double seam at the can body side seam and insufficient pressure will not produce a proper seal.

4. Turn the hand crank [5] two additional turns to place seamer in neutral position.
5. Close a can, tear down and inspect the double seam. Make final adjustments of the seaming rolls and base plate pressure to produce essential body hook, cover hook, overlap and tightness recommended by the container manufacturer or for a hermetically sealed can. If you are unable to obtain the essential measurements recommended or a hermetically sealed container, you may need seam rolls with different profiles.

NOTE: When adjusting seam rolls, make sure you start from neutral position. Be sure seam roll is in its innermost position when inserting gauge wire. Also be sure to place the gauge wire in the groove of the seam roll, **NOT** in the groove of the chuck.

If your seamer shows a tendency to work overly hard or "lock," check adjustments of the seam rolls. **CAUTION:** To avoid damage to your seamer, make certain that the seam roll is not so close to the chuck that the small gauge wire can not be inserted.



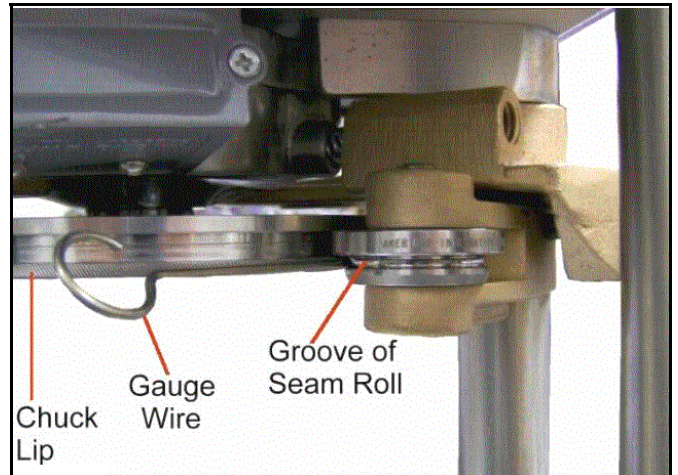
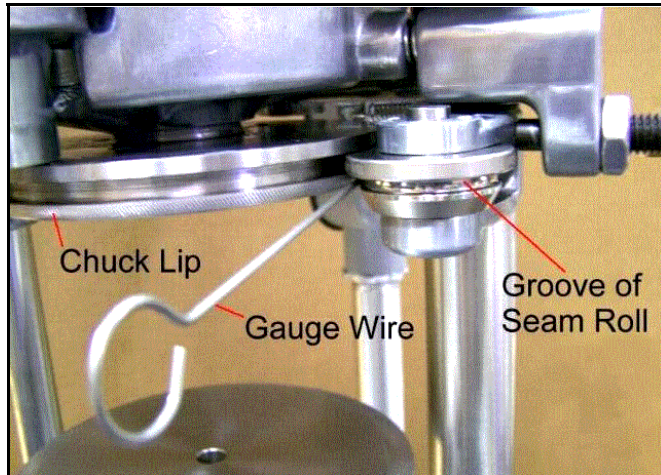
GAUGE WIRES

Gauge wires are used as a starting point for adjusting seaming rolls. Final adjustments may be necessary to obtain specific seam dimensions recommended by your can supplier or manufacturer.

The first operation gauge wire is the approximate thickness of the first operation seam. The second operation gauge wire is the approximate thickness of the second operation seam.

Gauge Wire Sizes

	<u>Dixie Part No.</u>	<u>Thickness</u>
Metal containers:	40 1st Operation	0.062
	41 2nd Operation	0.031
Composite Containers:	40-C 1st Operation	0.080
	41-C 2nd Operation	0.050
Plastic Containers:	40-P 1st Operation	0.090
	41-P 2nd Operation	0.075



CORRECT POSITIONING OF GAUGE WIRE

Gauge wires should be positioned in the groove of the seaming roll and against the lip of the chuck.

CHANGE PARTS AND REPAIR PARTS

Photographs of parts, assemblies, machine sections, base plates and height spacers with the corresponding part number are shown on other pages. A Parts/Price List is furnished separately. When ordering parts, always furnish both the part number and the name of the part. When ordering change parts for cans, always send six (6) loose tops and can bodies of the size can(s) to be closed.

REPAIR PARTS AND REBUILDING SERVICE

A complete stock of parts is maintained by Dixie Canner Company. Parts may be ordered as needed to replace worn or damaged parts.

Your Dixie Double Seamer may be returned to Athens, Georgia for complete rebuilding at a nominal service charge, plus the cost of parts needed. When returning the machine for the rebuilding service, please observe the following:

1. Return the complete machine and include several cans and tops of the exact size and type closed. Properly crate the machine and cans for safe delivery and return shipment, and prepay the shipping cost.
2. Write a letter authorizing the rebuilding service and mention any problem with the machine. Also mention particular instructions concerning return shipment, urgency, and other pertinent instructions.

HELPFUL HINTS – TROUBLESHOOTING

Until the operator is familiar with the mechanics of your can closing machine and learns to recognize irregularities in the essential requirements of the double seam, the outline below is intended to help notice obvious defects and list some causes that may serve as a guide in correcting minor troubles.

MECHANICAL DEFECTS AND COMMON CAUSES

- A. Can slips during seaming operation
 - 1. Damage or lack of oil in the base plate, lift shaft, height spacer or steel ball
 - 2. Insufficient base plate pressure
 - 3. Worn or wrong size chuck
 - 4. Seaming rolls binding on pin
- B. Machine operates with undue noise or "locks"
 - 1. Machine not properly timed
- C. Unusually loose seaming rolls
 - 1. Seaming roll or pins worn
- D. Seaming rolls do not return to neutral position
 - 1. Seaming roll levers binding
 - 2. Seaming lever spring weak or broken
 - 3. Machine not properly timed
- E. Machine seems to "labor" or freeze tight
 - 1. Needs oil.
 - 2. Too much base plate pressure
 - 3. Seaming rolls too tight
 - 4. Misalignment of moving parts

DOUBLE SEAM DEFECTS and COMMON CAUSES

- A. Cut over. Unusually sharp edge at top inside edge of seam
 - 1. 1st or 2nd operation seam roll set too tight
 - 2. Worn seam rolls or worn chuck
- B. Cut or fractured seam
 - 1. Seam rolls set too tight

- C. Droop or lap in double seam at or near can body side seam
 - 1. Too much base pressure
 - 2. 1st operation seam roll set too loose
 - 3. Worn 1st operation seam roll
- D. Excessive countersink depth
 - 1. Too much base pressure
 - 2. 1st operation seam roll set too loose
 - 3. Chuck not properly seated in can top
 - 4. Chuck groove worn
- E. False seam. Body hook and cover hook do not overlap
 - 1. Can top not properly seated on can
 - 2. Damaged can flange or can top curl
- F. Long body hook
 - 1. Too much base pressure
- G. Long cover hook
 - 1. 1st operation seam roll set too tight
- H. Short body hook
 - 1. Insufficient base pressure
 - 2. 1st operation seam roll set too tight
 - 3. 2nd operation seam roll set too loose
- I. Short cover hook
 - 1. Too much base pressure
 - 2. 1st operation seam roll set too loose
 - 3. Worn 1st operation seam roll
 - 4. Excessive countersink depth
- J. Cover hook or body hook not uniform
 - 1. Base plate or plunger worn
 - 2. Chuck or seam rolls out of alignment
- K. Droops, vees, wrinkles
 - 1. Excessive base pressure
 - 2. 1st operation seam roll too loose or worn
 - 3. 2nd operation seam roll too tight
 - 4. Defects in can body or top
 - 5. Incorrect seam roll profiles

