

# INSTRUCTIONS

## *MODELS HCM300 & HCM450 CUTTER MIXERS*

*HCM300      ML-32312*  
*HCM450      ML-32313*



EXECUTIVE OFFICES  
TROY, OHIO 45374

# Installation, Operation and Care of Models HCM300 and HCM450 Cutter Mixers



**Model HCM300**

# SAVE THESE INSTRUCTIONS

## GENERAL

The HCM300 and HCM450 Cutter Mixers cut, mix or blend foods quickly and efficiently. A transparent lid allows the operator to inspect the product during the mix-cut-blend process. The unit operates continuously, momentarily, or with a timer control which shuts-off the machine automatically after the set time has elapsed. The HCM300 has 30 quart liquid capacity, and the HCM450 has 45 quart liquid capacity.

The motors on both models are rated 5 H.P., 1140 R.P.M. and have inherent solid state thermal overload protection. The motors are totally enclosed with external fan cooling.

The Cut Mix Shaft Assembly is used for cutting meat products, vegetables, cheese, pastry, cake products and some doughs that require both cutting and mixing.

The Knead Mix Shaft Assembly is used for applications where cutting is not required. It is especially good for kneading yeast doughs.

The Strainer Basket may be used when cutting vegetables in water. After cutting, the Strainer Basket is raised and the water is allowed to separate from the food.

The bowl is locked in its vertical position during processing with the Lock Arm on HOLD. After processing, when you move the Lock Arm from HOLD to TILT, the bowl can pivot to allow easy pouring.

When cutting certain products, a hand operated Mixing Baffle may be used to stir or move the product into the knives. The Mixing Baffle may be removed when it is not needed.

## UNPACKING

Immediately after unpacking, check for possible shipping damage. If this unit is found to be damaged after unpacking, save the packaging material and contact the carrier within 15 days of delivery.

Prior to installation, test the electrical service to assure it agrees with the machine data plate located on the mainframe behind the control box.

## ASSEMBLY

Remove the cutter mixer from the skid and install rubber feet as follows:

Apply a bead of silicon sealant (not provided) around the edge of each leg.

Insert a rubber foot onto each leg and fasten with bolts and washers provided. Match the shape of the foot to conform to the shape of the leg. Two of each style are included.

**NOTE:** Optional right and left casters (with rubber caster pads) are available for installation on the two legs on the control panel side. Assemble with the bolts and washers provided for the rubber feet.

Place cutter mixer in the desired location.

## ELECTRICAL CONNECTIONS

**WARNING:** ELECTRICAL AND GROUNDING CONNECTIONS MUST COMPLY WITH APPLICABLE PORTIONS OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER LOCAL ELECTRICAL CODES.

**WARNING:** DISCONNECT ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING THAT THE CIRCUIT IS BEING WORKED ON.

Machines are shipped from the factory with a 6 foot cord and plug. A mating receptacle is furnished with the machine as standard equipment. Plug and receptacle vary according to the rated voltage of the machine (200/60/3 or 230/60/3 or 460/60/3). Receptacles for 200 or 230 volt units require 30 amp. electrical service, but receptacles for 460 volt units require 20 amp. service.

Check the machine for correct motor rotation as follows:

Check bowl to make sure it is empty and remove Cut Mix or Knead Mix Shaft Assembly. Close and latch lid. Connect power cord to receptacle.

Set timer on JOG. Press START Switch and then release it.

The motor should rotate in a clockwise direction as indicated by the arrow (Fig. 1).

If the motor rotation is incorrect, unplug the power cord, disassemble the plug, and interchange any two of the power leads (red, white, or black). Do not change the green ground wire. Then reassemble the plug and recheck.



Fig. 1

## ASSEMBLING BOWL SEAL AND ATTACHMENTS

Refer to the handbook accompanying the Cutter Mixer for recipe guidelines and advice regarding the appropriate selection of attachments for the desired application.

**WARNING:** BEFORE INSTALLING BOWL SEAL AND ATTACHMENTS, BE SURE THE POWER CORD IS UNPLUGGED.

**Bowl Seal:** Insert the black seal ring in the groove of the white seal retainer so the thin black edge is down and the tapered white part on the retainer is up (Fig. 2). Then install the seal onto the motor shaft with the thin black edge down (Fig. 3). Seat seal securely against the bottom of the bowl with a  $\frac{1}{4}$  turn. Store the extra seal shipped with the machine in a location where you can find it, if necessary.

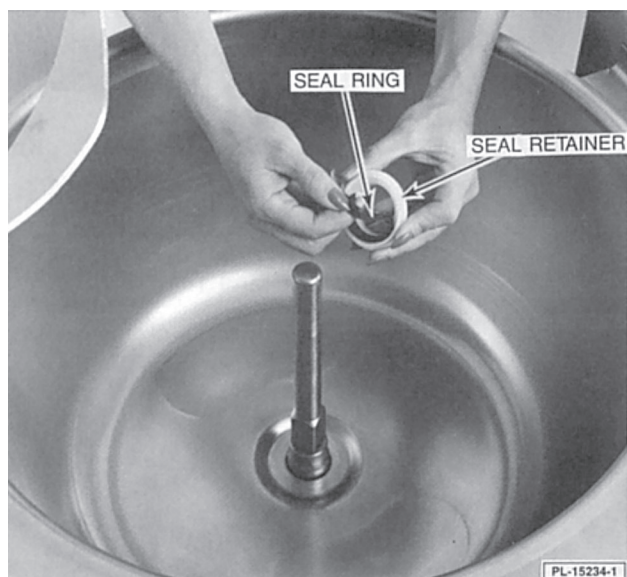


Fig. 2

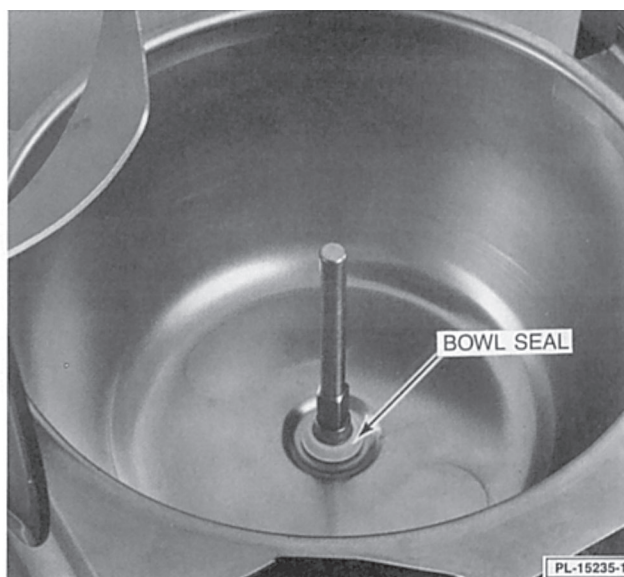


Fig. 3

**Strainer Basket:** If needed, insert basket in bowl over the motor shaft. **NOTE:** Never use Strainer Basket and Mixing Baffle at the same time.

**Cut Mix or Knead Mix Shaft Assembly:** Place on motor shaft, seat square drive at base, and tighten hand knob by turning counterclockwise.

**Lid Scraper:** Insert on bar opposite Mixing Baffle. Lid Scraper is used to clean the inside of the bowl cover.

**Mixing Baffle:** Insert shaft of Mixing Baffle into hole in the center of the lid. With baffle paddle down, hold Baffle Handle at an angle so lock handle hangs down, and insert onto shaft. Then tighten lock handle (Fig. 4).

### MIXING BAFFLE

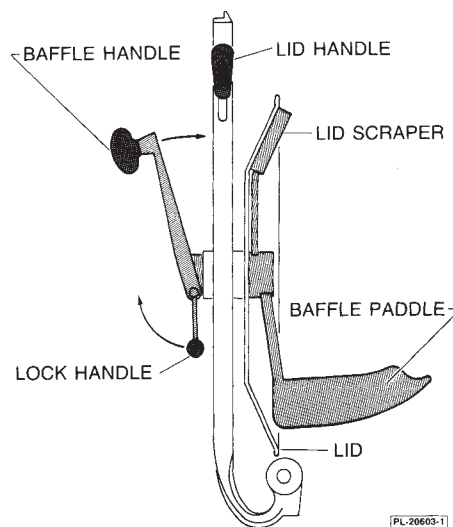


Fig. 4





Fig. 5

# OPERATION

Move Bowl Tilt handle to HOLD to lock bowl in vertical position (Fig. 5).

Close and latch the lid by grasping the lid handle with the left hand. Press lid handle down while turning the latch until lid lock is engaged (Fig. 5).

## CONTROLS (Fig. 5)

TIMER — Has three settings: Run, Jog, or Timer.

Run — Machine runs continuously after the Start Switch is pushed until the Stop Switch is pressed.

Jog — Machine jogs momentarily while the Start Switch is held down; turns off when you release Start Switch.

Timer — After you set the time and push Start, the machine will run for the amount of time on the timer. After the set time has lapsed, the machine automatically stops.

START Switch — Turns the machine on.

STOP Switch — Turns the machine off.

## UNLOADING

Push the stop switch. After the shaft has stopped, open the cover. **NOTE:** When the baffle is not in place, the lid opens a few inches upon release.

Remove the Cut Mix Shaft Assembly before emptying bowl. The Knead Mix Shaft Assembly may stay in place while emptying bowl.

Scrape lid (when necessary) before tipping bowl.

For products cut in water, lift out the strainer basket while the bowl is in the vertical position. Allow water to strain through holes in bottom of strainer basket.

Move the Bowl Tilt Handle to TILT.

The bowl may be tilted to any desired position depending upon the type of product. Grasp the lid handle, and cautiously tilt bowl by pulling towards you as the contents empty into a container.

After product has been removed, return bowl to vertical position. Return Bowl Tilt Handle to HOLD position and proceed to run another load or clean machine.

## **CLEANING**

**CAUTION: DAMAGE TO THE LID CAN RESULT IF EXPOSED TO CERTAIN CHEMICALS. DO NOT USE — HARSH ABRASIVES SUCH AS POWDERED OR LIQUID CLEANSERS, STEEL WOOL OR OTHER ABRASIVE PADS, CLEANERS CONTAINING AMMONIA SUCH AS WINDOW SPRAYS, CLEANERS CONTAINING CHLORINE, SOLVENTS, CHEMICAL ADHESIVES, HIGHLY CAUSTIC CHEMICALS SUCH AS DRAIN CLEANERS OR COMMERCIAL DISHWASHER DETERGENTS.**

### **Pre-Wash**

Before disassembling, put one gallon of warm water and one or two tablespoons of a mild liquid household dishwashing detergent such as Joy, Ivory or Palmolive Green in the bowl. Close AND LATCH the lid and JOG the machine on for 3 bursts of 3 seconds each so the solution is thoroughly mixed.

### **Wash Bowl and Components**

**WARNING: UNPLUG UNIT BEFORE CLEANING.**

Remove Cut Mix or Knead Mix Shaft Assembly and, if necessary, the Mixing Baffle. Do not leave attachments on motor shaft for storage.

Wash the inside of the bowl and the underneath side of the lid using a soft clean cloth or sponge. Use a soft plastic spatula to scrape the inside of the bowl if food soil adheres to the side of the bowl.

Hand wash the attachments.

Remove the wash water from the bowl.

### **Rinse**

Pour one gallon of warm rinse water into the bowl.

Rinse attachments and mixing baffle with water in bowl and remove them to dry. Thoroughly rinse the inside of the lid and bowl.

Remove the rinse water from bowl and dry with a clean cloth.

### **Remove Bowl Seal**

Remove the bowl seal by lifting seal up and off of the motor shaft. Separate seal from retainer, and wash, rinse, and dry both parts.

Reassemble seal and retainer (Figs. 2 & 3). Be sure bowl area is properly cleaned before reinstalling seal. Thin black edge is down; tapered white part is up. Replace seal on shaft, push down firmly and twist to seal it against bottom of bowl. NOTE: The Bowl Seal should be cleaned after every third batch or whenever the type of product is changed.

Leave the lid unlatched when machine is not in use.

## **MAINTENANCE**

The prelubricated motor bearings should be checked by a Hobart service technician every three to four years under normal use. No other lubrication is required.