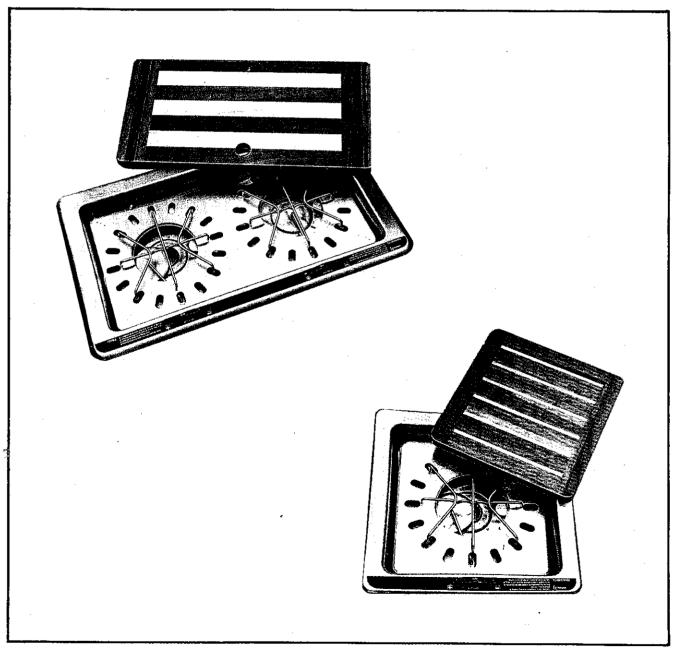


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**ALCOHOL STOVE MODELS 113 & 226** 

OPERATING INSTRUCTIONS and PARTS LIST



#### INTRODUCTION

The operation instructions which follow are for the model 113 (single burner) and 226 (double burner) alcohol stoves. Both are countertop units with self-priming, self-pressurized burners.

Kenyon Marine stoves have been engineered exclusively for the marine environment. Design considerations and materials were dictated by the requirement for safety, reliability, long life, low maintenance, and operation in a salt atmosphere.

## **INSTALLATION INSTRUCTIONS**

### MODEL 113 & 226

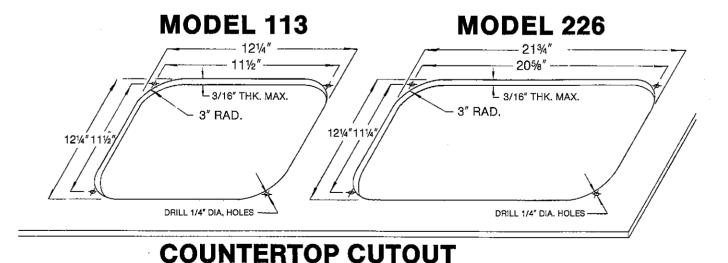
**NOTE:** Installation should comply with ABYC standard A-3, "Recommended Practices and Standards covering Galley Stoves," and/orthe "Fire Protection Standards for Motorcraft." NFPA #302.

**LOCATION:** The stove must be located in an area with adequate ventilation for occupants safety and efficient stove operation. It should be installed with adequate clearance between the stove top and all surrounding surfaces (i.e. curtains, cabinets, etc.) in order to minimize heat transfer to these surfaces. Also fire resistant materials should be attached to any surrounding surfaces, especially overhead.

CLEARANCE: Once a location for the stove has been chosen, it is important to check clearances underneath the counter for the bottom portion of the stove and its moving parts. The stove extends 6¾ inches below the

countertop and 2¼ inches in front of the cutout edge. If drawers or cabinets are located under the stove, a rigid barrier must be installed to prevent combustable items, (i.e. rags, paper, etc.) from coming in contact with the hot stove. The barrier must be ventilated so wire mesh or a similar material must be used.

**INSTALLATION:** Once the cutout and holes are prepared, as shown below, tilt and insert the front portion of the stove first. Care should be exercised so as not to damage or bend any moving parts. Next, lower the stove into the cutout, making sure the studs line up correctly with the drilled holes. When the stove is in position, place the washers and nuts (provided with the installation package) on the pan studs. The studs should be tightened down firmly leaving no space between the countertop and the flange corners.





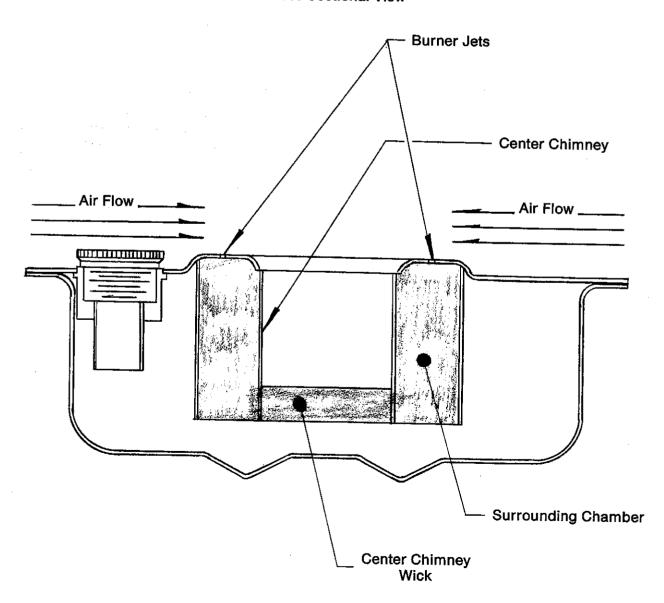
# **OPERATING INSTRUCTIONS**

Before attempting to operate the stove, please read the theory and instructions carefully and become thoroughly familiar with the various parts of the stove and how they operate. An internal parts diagram has been provided below to illustrate burner functions and characteristics under operating conditions.

# Theory of Operation

The newly developed system incorporates an internal tank and burner assembly that does not require external pressurization and is fueled with ethyl alcohol. The "center chimney" contains a ceramic wick which is lit to start the burner. A separate surrounding chamber, within the burner, is rapidly heated by the flame from the wick, vaporizing and pressurizing the alcohol inside. A ring of holes (burner jets) in the top of this vaporization chamber allows the escape of the alcohol vapor which is ignited by the central flame. The central flame than diminishes and the burner functions in the normal manner.

# SELF-PRIMING / SELF-PRESSURIZED BURNER Cross Sectional View



### OPERATING COMPONENTS

A FILL CAP is located on each burner with a rubber washer (gasket) underneath each fill cap. Be sure the washer is in place and the fill cap reasonably tight when operating the stove. If either are lost or damaged replace at once. DO NOT ATTEMPT TO OPERATE THE BURNER WITHOUT A CAP OR WITH ANY NON COMPATIBLE REPLACEMENT.

The BURNER CONTROL WHEEL(S) are located in the front flange of the stove. The purpose of the control wheel is to regulate the burner flame. With the control wheel positioned to the extreme right, the flame control cap will completely cover the burner ports. With the control wheel positioned to the extreme left, the burner ports will be completely exposed. Other variations of the control wheel position will allow for flame adjustment between maximum and minimum heat output.

# **BURNER FUELING INSTRUCTIONS**

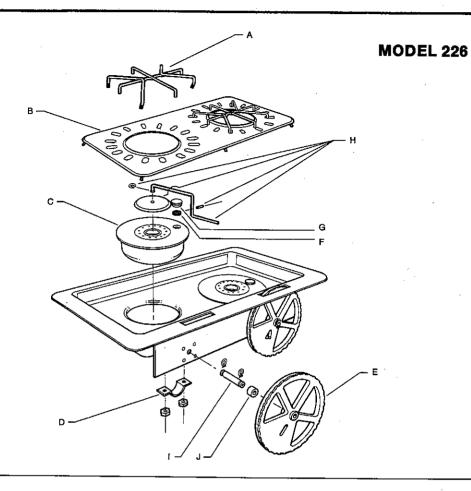
- The burners are designed exclusively for denature ethyl alcohol which is readily available as "alcohol stove fuel" at marine stores. DO NOT SUBSTITUTE ANY OTHER FUEL, AS FIRE OR EXPLOSION COULD RESULT. Denatured ethyl alcohol fire is readily extinguished by water, or by smothering with a noncombustable material.
- Before attempting to fuel the stove, be sure that the burners are not in operation and that all flames and other sources of ignition in the galley area are extinguished.
- The central wheels must be in the off position (rotate completely to the right) which places the flame control cap completely over the burner ports.
- 4. Remove the grate.
- 5. Be aware that alcohol flame is invisible in sunlight. If the stove has been operated recently, be particularly

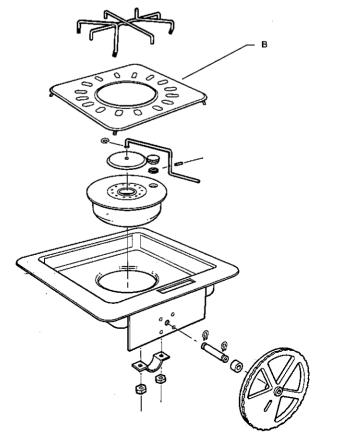
- careful to make sure that all burner flames are extinguished and the burner is cool. DO NOT PROCEED UNTIL FLAMES ARE EXTINGUISHED AND BURNER HAS COOLED.
- 6. Remove the fill cap and fill the burners slowly with denatured ethyl alcohol six (6) ounces only. The burner fuel storage tank is designed to readily accept the proper amount of fuel and discourage overfilling. Do not attempt to fill with more fuel than can be readily poured in. Six (6) ounces will be enough to moisten the primary wick and provide ideal conditions for proper function of the stove burners. More than six ounces may cause the chimney to flood. A flooded chimney will cool the surrounding chimney and the burner will not operate as intended, (see theory).
- Replace the fill cap, making sure the rubber washer (gasket) is in place.
- 8. Wipe up any alcohol spills and replace the grate.



# **BURNER OPERATING INSTRUCTIONS**

- Completely open the flame control cap by rotating the control wheel to the left.
- Ignite the ceramic wick (in center chimney). A match may be used, a Bar-B-Que grill igniting wand is ideal. Do not leave matches in the center chimney, they will inhibit the efficiency of the burner.
- Allow the approximately two (2) minutes for flames to appear in the burner jets (see theory of operation). Cooking may be initiated immediately after ignition of the center chimney. This will not effect the preheating of the main burner and automatic switch-over to normal full operation.





# MODEL 113

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PARTS LIST

ITEM	MODEL 113	MODEL 226	PART #	PART NAME
Α	X	Х	240-340	Grate Ass'y
В		X	240-334	Deflector Ass'y
	X		240-343	Deflector Ass'y
С	X	X	240-342	Burner
D	x	x	141-342	Spring Bracket
E	X	X	240-337	Control Wheel Ass'y
F	X	X	H1221	Rubber Washer
G	X	X	141-356	Fill Cap
Н	X	X	240-338	Control Arm Ass'y
1	X	X	141-341	Axle, Control Wheel
J	X	χ¯	141-393	Spacer, Control Wheel