

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

TECHNICAL MANUAL

OPERATOR, ORGANIZATIONAL AND DIRECT SUPPORT
MAINTENANCE MANUAL
INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST

HEATER, SPACE, OIL FIRED: 70,000 BTU, W/ CIRCULATING FAN

(PREWAY INC. MODEL 444-3A) FSN 4520-930-4991;
(PREWAY INC. MODEL 444-3ABJ) FSN 4520-930-4992;
(PREWAY INC. MODEL 444-2-ABEX) FSN 4520-912-3871;
(PREWAY INC. MODEL 444-4-ABJ) FSN 4520-176-4305;
(MONTAG MODEL SH-70B) FSN 4520-863-2172,
W/O CIRCULATING FAN OR ROOF JACK;
(PREWAY INC. MODEL 444-4A) FSN 4520-143-9482;
HEATER SPACE, OIL FIRED 50,000 BTU, W/ CIRCULATING FAN
(PREWAY INC. MODEL 441-4ABJ) FSN 4520-116-6836

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Current as of 28 January 1972

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*This manual supersedes TM 5-4520-226-13, 13 February 1968 including C1, 28 May 1969; and C2, 14 April 1970; and TM 5-4520-235-13, 21 October 1969 including C1, 18 August 1970.

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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope

This manual is for your use in operating and maintaining Space Heaters, Preway Inc. Models 444-3-A, 444-3-ABJ, 444-2ABEX, 444-4A, 441-4ABJ, 444-4ABJ, and Montag Model SH-70B.

1-2. Maintenance Forms and Records

Maintenance forms and records that you are required to use are explained in TM 38-750.

1-3. Reporting of Errors

You can improve this manual by calling attention to errors and by recommending improvements, using DA Form 2028 (Recommended Changes to Publications), or by a letter, and mail directly to Commanding General, U.S. Army Mobility Equipment Command, ATTN: AMSME-MPP, 4300 Goodfellow Boulevard, St. Louis, Mo. 63120. A reply will be furnished directly to you.

1-4. Equipment Serviceability Criteria (ESC)

This equipment is not covered by an ESC.

1-5. Destruction of Army Materiel to Prevent Enemy Use

For information pertaining to the destruction of this equipment to prevent enemy use, refer to TM 750-244-3.

1-6. Administrative Storage

For information relative to the administrative storage of this equipment, refer to TM 740-90-1.

Section II. DESCRIPTION AND DATA

1-7. Description

a. General. The Preway Models 444-3-ABJ, 444-2-ABEX, 444-4A, 444-4ABJ and Montag Model SH-70B Space Heaters (fig. 1-1 and 1-2) are fuel oil burning, non-electric, high radiant type heaters having an output capacity of 70,000 British Thermal Units (BTU) per hour. Preway Model 441-4ABJ has an output capacity of 50,000 BTU per hour. These space heater models are supplied complete with stove pipe, T-joint, draft regulator, adjustable pitch roof jack assembly, circulating fan, and are designed for floor installation. Preway basic unit) Models 444-3A and 444-4A space heaters come equipped without air circulating fan and adjustable pitch roof jack. This basic stove unit is interchangeable with the above mentioned models.

b. Fuel System. Fuel oil is supplied to the control valve from a standard military rectangular 5 gallon fuel can, which is hung on the left side of the heater frame. A siphon starts the fuel flowing from the can to the control valve. The fuel can is easily removed, permitting uninterrupted burner operation during fuel can servicing.

c. Combustion Chamber. The combustion chamber consists of a metal drum surrounded by a perforated metal guard and is mounted on a metal base. The burner is a vaporizing pot type which vaporizes the oil, mixing it with the combustion air. Combustion air is drawn into the drum through an opening in the bottom.

d. Controls. The fuel control valve is of the manually adjusted type. Fuel burning can be varied from a low pilot flame to maximum output.

e. Circulating Fan. A 650 CFM fan is attached to the lower end of the ventilator tube of the roof jack to improve warm air distribution and for summer ventilation. The fan motor is a sealed bearing type requiring no lubrication.

f. Roof Jack Assembly. The roof jack assembly serves both as an exhaust for the heater flue gases, and as a ventilator for the building. The lower end of the ventilator tube is equipped with an adjustable damper which controls the amount of air passing up the tube.

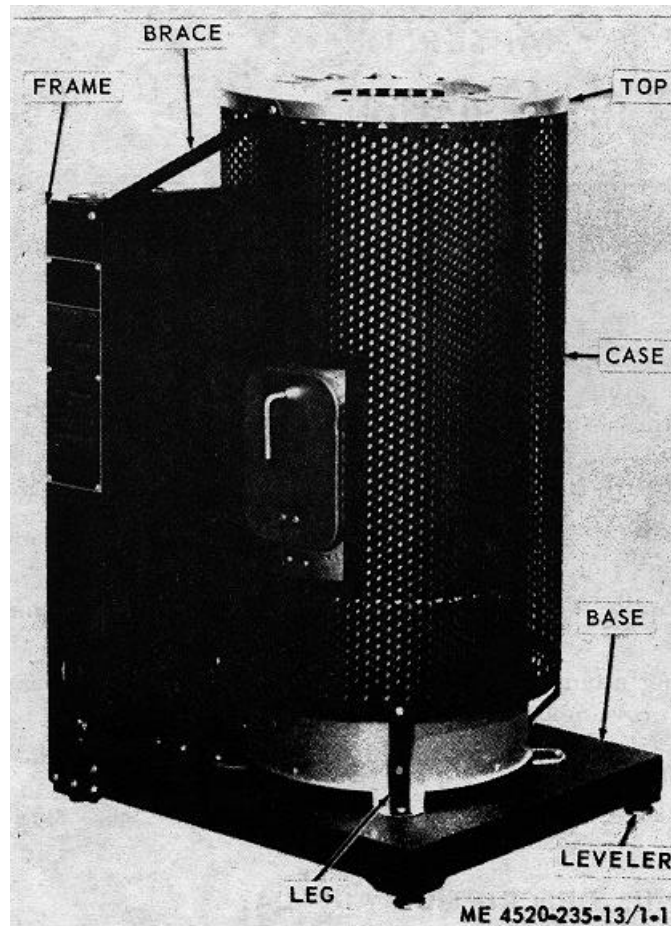


Figure 1-1. Space heater.

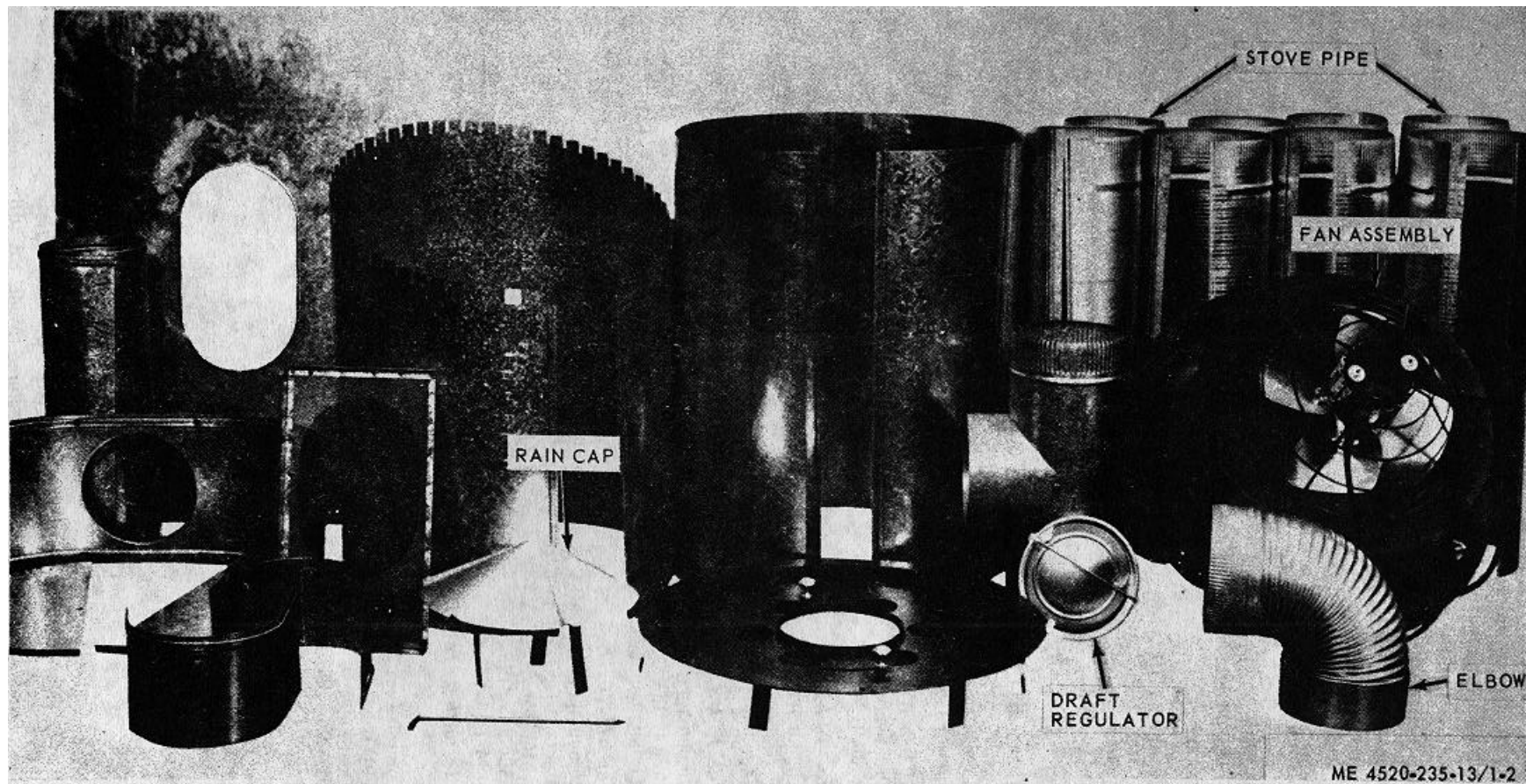


Figure 1-2. Roof jack assembly, stove pipe, draft regulator, circulating fan, parts packed with space heater.