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International Conference of Building Officials

RESEARCH COMMITTEE RECOMMENDATION

Report No. 2736

May, 1976

BUILT-IN FIREPLACES AND FREESTANDING FIREPLACE STOVES
PREWAY, INCORPORATED
 1430 2ND STREET NORTH
 WISCONSIN RAPIDS, WISCONSIN 54494

SEARS, ROEBUCK & COMPANY
 CHICAGO, ILLINOIS

I. Subject: Preway Built-In Fireplaces and Freestanding Fireplace Stoves.

II. Description: Built-In Fireplaces: The Models Nos. B128, B136 and B142 (Model No. B136 is also known as the Sears, Roebuck & Company Model No. 155.84490) are built-in fireplaces consisting of a firebox and an insulated structural support for as many intermediate chimney sections as necessary to reach the desired height; a hearth extension, a flashing assembly to be attached to the roof sheathing, a roof assembly and a firestop spacer for each joist penetrated by the chimney. A metal screen and a screen shield are provided for the fireplace opening. The fireplace body is a triple walled box. The middle and outer shells are No. 28 gauge galvanized steel with 2-inch thick fiberglass insulation between the shells.

The firebox consists of a No. 28 and No. 18 gauge sheet metal floor and wall and is lined with a porcelainized refractory material. It is set up on a floor shield support assembly of No. 28 gauge sheet metal. The chimney is a triple wall of No. 28 gauge metal with the pipe inner wall of stainless steel, the middle wall of aluminum coated steel and the outside wall of galvanized steel. The dimensions of the body of the fireplaces are as set forth in Table No. I.

The Models B142L and B142R differ in construction only as to the location of the hearth opening. These two model fireplaces have either a left or a right side opening in addition to a center opening.

Installation: The maximum overall height of all models of the fireplaces and chimney is limited to 35 feet, contingent on proper provisions made for lateral loads in accordance with Chapter 37 of the Uniform Building Code. The fireplace proper may be installed with zero clearance to combustible materials. The fireplace opening must be at least 36 inches from any unprotected combustible wall perpendicular to the fireplace opening. Chimney elbows of 15 or 30 degrees may be used with not more than four used per system. The chimney is to be a maximum of 30 degrees from vertical and have no more than a total of 15 feet of angled chimney. Additional support is to be provided every 6 feet for angled run of chimney.

The chimney is to be installed with not less than 1-inch clearance to combustible material, except for sections below the first joist area where a clearance of 2 inches is required for Models Nos. B142, B142L and B142R and 3 1/2 inches for Models Nos. B128 and B136 established by the integral spacer of the chimney.

Clearances to the floor and ceiling construction are to be those established by the installation of the factory-furnished fire stop spacer. Portions of the chimney which may extend through areas subject to personal contact are to be enclosed to avoid contact and damage to the chimney.

A hearth extension constructed of materials described in Section 3707 (1) of the Code is required to be installed with each fireplace unit. The hearth extension must extend a minimum of 12 inches on each side and 18 inches in front of the hearth opening.

Installation instructions and screens are provided with each fireplace.

Freestanding Fireplace Stoves: Model 84003: The fireplace stove identified as Model No. 84003, and called either "Moderne Fireplace" or "Contemporary Fireplace," is constructed of light gauge steel, stainless steel and aluminum. Identical fireplaces marketed by Sears, Roebuck & Company are identified as Model No. 155.842813, 155.842823, 155.842833, 155.842842, 155.842852, 155.842861, 155.842872, 155.842882, 155.842893 or 155.842913. The unit is conical shaped with an overall width of 38 1/2 inches, an overall depth of 29 1/4 inches and an overall height to the top of the flue connector of 41 1/4 inches. The fireplace opening is arch-shaped approximately 36 inches wide and 15 inches high. A

removable curved fire screen assembly fits into the opening and has triangular No. 24 gauge cold-rolled black painted screen shields 9 3/4 inches wide attached to each side to reduce the fireplace opening width.

The fireplace stove has a conical No. 18 gauge cold-rolled, carbon steel, ceramic coated hood supporting a No. 18 gauge ceramic coated steel throat and damper section. A No. 12 gauge 7 1/2 inch diameter adjustable damper is enclosed in the damper section. A No. 12 gauge ceramic coated steel base having a No. 10 gauge ceramic coated curved steel base strip 2 1/4 inches high in the opening area supports the hood. Three painted 3/8-inch square steel tube legs support the base approximately 7 inches off the floor. A No. 24 gauge painted aluminum floor shield assembly 2 1/2 inches deep is screwed to the steel base for support. The rear and sides of the firebox are lined with No. 20 gauge carbon steel hood shield assembly 16 inches high and located 2 1/2 inches clear of the inside of the hood proper. The hood shield is painted black with a heat resistant paint. A No. 24 gauge, No. 430 stainless steel inner hood shield 9 inches high and 18 inches wide is bolted to the main hood shield in four places, providing an additional 3-inch clearance from the rear of the hood proper. All assembly connections are bolted connections. The back and sides of the fireplace are located a minimum of 24 inches from combustible materials. A minimum clearance of 18 inches from the outside face of a single wall chimney connector is required to combustible surfaces. Clearances may be reduced where the wall construction is entirely noncombustible, such as concrete or masonry walls.

The fireplaces are designed to be installed in conjunction with an 8-inch diameter approved low-heat appliance type chimney conforming to Section 3702 of the Uniform Building Code. A chimney adapter may be fitted into the stack at ceiling height to allow reduction of the stack diameter from 8 inches to 7 inches.

Continental FB24: The fireplace stove identified as Models Nos. 568A3202BLK, 568A3202R, 568A3202FG, and called Continental FB24, are constructed of light gauge stainless steel, aluminumized steel, and galvanized steel. Identical fireplaces marketed by Sears, Roebuck and Co. are identified as Models Nos. 155.84350, 155.84352, 155.84356, 155.84357, 155.84358, 155.84359, 155.84360, and 155.84361. The unit has a hexagonal shape with an overall width of 42 1/4 inches, an overall depth of 30 1/4 inches, and an overall height of 41 1/4 inches. The fireplace opening is 24 inches wide and 17 inches high. A chain-mesh screen is provided for the fireplace opening. The fireplace consists essentially of a triple wall box, and the outer hood and sides are No. 18 gauge ceramic coated steel. The outer back is No. 20 gauge aluminumized steel with an additional outside shield of No. 20 gauge cold rolled steel painted black. The middle shield is No. 26 gauge aluminumized steel and the inner shell is No. 20 gauge aluminumized steel with an additional No. 22 gauge, No. 430 stainless steel inner shield. An 8 gauge ceramic coated steel hearth rests on a No. 16 gauge ceramic coated steel base bolted to a No. 16 gauge cold rolled steel base support painted black. A No. 20 gauge galvanized coated steel bottom shield is screwed to the base support. The No. 12 gauge ceramic coated steel screen guide is screwed to the base. The chimney connector consists of an upper and lower flue pipe of No. 30 gauge No. 430 stainless steel. A No. 24 gauge aluminumized steel flue shield is attached to the lower flue pipe. The outside upper and lower flue pipe shields are No. 22 gauge ceramic coated steel. A No. 22 gauge ceramic coated steel collar completes the fireplace. All parts of the fireplace are fastened together with plated steel sheet metal screws or bolts.

A minimum clearance of 9 inches must be maintained between the outside face of the flue pipe shield to combustible materials. A minimum clearance of 36 inches must be maintained between the outside face of the flue pipe shield to combustible materials on the sides. If the fireplace stove is installed in a corner, a minimum all-around clearance of 14 inches must be maintained to combustible surfaces.

Clearances may be reduced where the wall construction is entirely noncombustible, such as concrete or masonry walls.

The fireplace stoves are furnished with a metal protective screen. The floor immediately below the firebox must be of a noncombustible material of $\frac{1}{2}$ -inch minimum thickness, such as asbestos, tile, ceramic tile, brick, marble, steel or concrete projecting 12 inches on each side and back and 18 inches in front of the firebox opening.

Identification: Each built-in fireplace bears a label issued by the Underwriters Laboratories, Inc., with the manufacturer's name, model number, ICBO report number and clearance to combustibles.

Each freestanding fireplace stove bears a label issued by Underwriters Laboratories, Inc., with the manufacturer's name and address, model number, clearance to combustibles, type of chimney required and the ICBO report number. The label is attached to the floor-shield assembly or to the back of the fireplace.

III. Evidence Submitted: Report of tests conducted in accordance with UL Standards No. 127 and No. 737, drawings and installation brochures have been submitted.

Recommendation

IV. Recommendation: That the Preway Models Nos. BI28, BI36 (Sears, Roebuck & Company Model No. 155.84490), BI42, BI42L and BI42R are solid fuel-burning factory-built fireplaces which comply with the Uniform Building Code. That the Preway Model No. 84003 and Continental FB24 are solid fuel-burning freestanding fireplace stoves which comply with the Uniform Building Code. All units must be constructed, identified and installed as set forth in this report.

This recommendation is subject to annual re-examination.

TABLE NO. 1

MODEL NO.	OVERALL DIMENSIONS (in inches)				FIREPLACE OPENING (in inches)		FLUE OUTLET DIAMETER (in inches)
	Height	Front Width	Rear Width	Depth	Height	Width	
BI28	40"	38	22	24	16	28	13 $\frac{1}{2}$
BI36	42"	46	30	24	18	36	13 $\frac{1}{2}$
BI42	44"	52	36	24	20	42	15 $\frac{1}{2}$
BI42L	44"	47 $\frac{1}{2}$	47 $\frac{1}{2}$	24	16 $\frac{1}{2}$	42	15 $\frac{1}{2}$
BI42R	44"	47 $\frac{1}{2}$	47 $\frac{1}{2}$	24	16 $\frac{1}{2}$	42	15 $\frac{1}{2}$

The Preway Model No. BI36 is also known as the Sears, Roebuck & Company Model No. 155.84490 and is identical in every respect, except for the identifying nameplate.