

*Obsolete?*

QUARTERMASTER CORPS  
TENTATIVE  
SPECIFICATION

J.Q.D. No. 53A  
March 27, 1942.  
Superseding J.Q.D. No. 53  
January 7, 1942.

STOVES, HEATING, CANNON TYPE, U. S. ARMY

A. APPLICABLE SPECIFICATIONS.

A-1. The following specifications and drawings, of the issue in effect on date of invitation for bids, shall form a part of this specification:

A-1a. Federal Specifications -

- 1 2 3 QQ-I-652 - Iron, Gray; castings.
- 1 2 3 QQ-M-151 - Metals; general specifications for inspection of.

A-1b. United States Army Specifications -

- 1 2 3 48-5 - Wire, soft iron and steel, bare and coated.
- 1 2 3 57-136 - Steel sheets and strips, carbon and alloy.
- 1 2 3 100-2 - Standard specification for marking shipments.

A-1c. Quartermaster Corps Drawings -

- 1 2 3 5-11-32 - Heaters, cannon, U. S. Army, Nos. 15, 18, 20. Illustration and assembly.
- 1 2 3 5-11-33 - Heaters, cannon, U. S. Army, Nos. 15, 18, 20. Parts common.
- 1 5-11-34 - Heaters, cannon, U. S. Army, No. 15, Details "A".
- 1 5-11-35 - Heaters, cannon, U. S. Army, No. 15, Details "B".
- 1 5-11-36 - Heaters, cannon, U. S. Army, No. 15, Details "C".
- 2 5-11-37 - Heaters, cannon, U. S. Army, No. 18, Details "A".
- 2 5-11-38 - Heaters, cannon, U. S. Army, No. 18, Details "B".
- 2 5-11-39 - Heaters, cannon, U. S. Army, No. 18, Details "C".
- 2 5-11-40 - Heaters, cannon, U. S. Army, No. 18, Details "D".
- 3 5-11-41 - Heaters, cannon, U. S. Army, No. 20, Details "A".
- 3 5-11-42 - Heaters, cannon, U. S. Army, No. 20, Details "B".

- 3 5-11-43 - Heaters, cannon, U. S. Army, No. 20,  
Details "C".
- 3 5-11-44 - Heaters, cannon, U. S. Army, No. 20,  
Details "D".
- 1 2 3 5-11-45 - Crates for Heaters, cannon, U. S. Army  
Nos. 15, 18 and 20.
- 1 2 3 B-231 - Stove Poker, 24-inch.
- 1 2 3 B-278 - Dampers, Stove Pipe.

- 1 Required when Heaters, cannon, U. S. Army No. 15, only are manufactured.
- 2 Required when Heaters, cannon, U. S. Army No. 18, only are manufactured.
- 3 Required when Heaters, cannon, U. S. Army No. 20, only are manufactured.

B. TYPES AND SIZES.

B-1. This specification covers one type of Stove, Heating, Cannon type, U. S. Army, in the following sizes:

- Size No. 15.
- Size No. 18.
- Size No. 20.

B-1a. Unless otherwise specified in invitation for bids, contract or order the following component parts shall be considered a part of and furnished with each size Stove, heating, cannon type, U. S. Army:

- 1 - Shaker, lifter.
- 1 - Poker, stove, 24-inch.
- 1 - Damper, stove pipe (6" for Size No. 15; 7" for  
Sizes No. 18 and 20).
- 1 - Elbow, stove pipe (6" for Size No. 15; 7" for  
Sizes No. 18 and 20).
- 7 - Joints, stove pipe (6" for Size No. 15; 7" for  
Sizes No. 18 and 20).

C. MATERIAL AND WORKMANSHIP.

C-1. Material.- The materials shall conform in all respects to the specifications and drawings listed in section A and as specified herein.

C-1a. The finished castings of the various parts of the stove shall meet the requirements of class 25, Federal Specification QQ-I-652, and conform to the following chemical analysis:-

Carbon	2.00 - 3.25 percent
Silicon	1.75 - 3.00 percent
Manganese	- 0.75 percent (max.)
Phosphorus	- 0.80 percent (max.)
Sulphur	- 0.15 percent (max.)

C-1b. Cement used for sealing joints shall be a good commercial grade of furnace cement.

C-1c. Steel, sheet or strip used in the manufacture of ash pans shall be W.D. No. 1010 conforming to the requirements of U. S. Army Specification 57-136.

C-1d. Wire, steel, used in the manufacture of ash pan bail shall be W.D. No. 1010 conforming to the requirements of U. S. Army Specification 48-5.

C-1e. Wire, steel, used in the manufacture of poker, stove shall be W.D. No. 1020 conforming to the requirements of U. S. Army Specification 48-5.

C-2. Workmanship.- The finished articles shall be free from blowholes, porosity, hard spots, shrinkage defects, cracks and any other injurious defects that may affect appearance or serviceability.

D. GENERAL REQUIREMENTS.

D-1. See section E.

E. DETAIL REQUIREMENTS.

E-1. All detail requirements for the manufacture of the finished articles and their component parts shall be as shown by drawings and specifications listed in section A, and as specified herein.

E-2. Stove Pipes, (Joints and Elbows).- The stove pipes shall be made of sheet steel, blue annealed, 0".025 thick, conforming to W.D. 1010 U. S. Army Specification 57-136. The steel sheet shall be capable of withstanding being bent cold through an angle of 180°, flat on itself, without cracking on the outside of the bent portion.

E-2a. Joints.- The joints shall be 24" long, and shall be of the knocked-down type construction, 6" in diameter for the Size No. 15 stove and 7" in diameter for Size No. 18 and 20. The joints shall have a lock seam and be formed ready to put together, crimped and beaded at top. Bead to be 2" from end.

E-2a(1). One joint of each set of stove-pipe joints shall have suitable size holes punched to accommodate the damper.

E-2b. Elbows.- The elbows shall be 90° angle of either corrugated or pieced type construction, 6" in diameter for the Size No. 15 stove, and 7" in diameter for Sizes No. 18 and 20. Corrugated type elbows shall be made of one piece, riveted at large end and crimped at small end. Pieced type elbows shall be made of not more than four pieces, riveted at both ends and crimped at small end.

E-2c. The fabricated joints and elbows shall be thoroughly coated both inside and outside with a mixture composed of one part boiled linseed oil and three parts gasoline.

E-3. Dampers, stove shall be made in accordance with drawing B-278. Other dampers of a commercial design will be acceptable, provided they have the same characteristics as the damper shown on drawing and are equipped with a steel spindle.

E-4. All rivets in ash pans and elbows shall be securely set.

E-5. Stamping and marking on Stoves shall be as shown by drawings. No other brands or marks shall show on the stove. Stove pipe shall be stamped or marked with the letters "U.S." in characters one-fourth inch high, and the name, trade name, or trade-mark, and the year manufactured in characters three-sixteenths inch high. No other brands or marks shall show on the stove pipes. Dampers shall be embossed as shown on drawing B-278.

E-6. The contractor shall inspect all finished articles for compliance with this specification prior to submitting them to the United States Government for final inspection.

#### F. METHODS OF SAMPLING, INSPECTION AND TESTS.

F-1. Sampling.- Samples of any materials, components, etc., not furnished by the United States Government, entering into the manufacture of the articles covered herein shall be selected from time to time by the Government inspector, and carefully examined and tests made to determine if they are in accordance with the drawings and specifications listed in section A, and with this specification.

F-2. Inspection.- Inspection may be made throughout the entire process of manufacture. The passing as satisfactory of any detail of construction or materials shall not relieve the contractor of responsibility for faulty workmanship or materials which may be discovered at any time prior to final acceptance. Final inspection of the finished articles shall be made either at point of production or at point of delivery designated in the contract or purchase order of procuring agency. In case of factory inspection, every facility shall be afforded inspectors, by the manufacturer for the prosecution of their work.

F-3. Tests.- For the purpose of testing casting materials, two (2) sets of test specimens shall be cast from each four (4) hour run or fraction thereof and prepared in accordance with the requirements of Federal Specification QQ-M-151, and furnished to the contracting officer at such place as he may designate.

#### G. PACKING AND MARKING.

G-1. Packing.- Unless otherwise specified in invitation for bids, contract or order, Stoves, heating, cannon type, U. S. Army, one (1) Size No. 15, 18 or 20 complete with seven joints of stove pipe, one elbow, one damper, one poker and one shaker-lifter shall be packed per crate as shown on drawing 5-11-45, and in the following manner: Exception to drawing 5-11-45 shall be as indicated in paragraphs a and b below.

a. Top heads of crates shall be the same size as bottom heads of crate.

b. The center slat of top head of crate to be cut off flush with inside edge of cross slat. The specified wording "Fit to front of pipe flange on stove" shown on drawing 5-11-45 in top (inside view) illustration is thereby to be considered as void.