

QUARTERMASTER CORPS  
TENTATIVE SPECIFICATION

*Superseded*  
*J Q D No. 88 B*  
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June 30, 1942  
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RUCKSACK

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 -

- T-T-881 - Twine; cotton, seine.
- V-T-276 - Thread; cotton.
- NN-B-601 - Boxes; wood, cleated-plywood.
- NN-B-621 - Boxes; wood, nailed and lock-corner.
- QQ-M-151 - Metals; general specification for inspection of.
- UU-P-271 - Paper; kraft, wrapping, waterproofed.
- CCC-D-771 - Duck; cotton, plied-yarns (Army, numbered, and tent duck).
- CCC-T-191 - Textiles; general specifications, test methods.

A-1b. United States Army Specifications -

- 2-97 - Wax (saddlers' and stitching).
- 3-124 - Bronze finish.
- 6-185 - Webbing, cotton, natural or in colors.
- 100-2 - Standard specifications for marking shipments.

A-1c. Quartermaster Corps Drawings -

- B-191 - Rucksack, illustration and details.
- B-192 - Rucksack, frame.
- B-194 - Rucksack, details "A".
- B-195 - Rucksack, details "B".
- B-196 - Rucksack, details "C".
- B-197 - Rucksack, details "D".
- B-198 - Rucksack, details "E".
- B-199 - Rucksack, details "F".
- B-201 - Rucksack, camouflage cover.
- 4-1-2 - Loops "A".
- 4-1-4 - Snaps "A".
- 4-1-7 - Buckles, tongueless, bar "A".
- 4-1-9 - Clips, end.
- 4-1-10 - Fasteners, snap, style 2.
- 4-1-12 - Rings-D "A".
- 4-1-23 - Eyelets, grommets and washers.
- 4-1-41 - Hardware, miscellaneous "D".

B. TYPE AND SIZE.

B-1. This specification covers one type and size of rucksack.

C. MATERIAL AND WORKMANSHIP.

C-1. Materials. - The materials shall conform in all respects to the specifications and drawings listed in section A.

C-1a. Rucksack.

C-1a(1). Duck, cotton, used in the manufacture of the Rucksacks shall be dyed an approved shade of olive drab with either vat dyes, mineral dyes, or a combination of the two, and made highly water repellent by treating with aluminum acetate (sulphur free) wax and soap. The duck used for the rucksack pouch bottom shall be 12.25 ounces per square yard and for all other parts of the rucksack 9.85 ounces per square yard conforming to the requirements for Type III, Table III, Federal Specification CCC-D-771.

C-1a(1)a. The dyed and finished duck shall withstand a hydrostatic pressure for the 9.85 oz. of 30 centimeters and for the 12.25 oz. of 35 centimeters on the Suter type apparatus before the third drop appears.

C-1a(2). Webbing, cotton, shall be vat dyed an approved shade of olive drab. The 3/4", 30/100 oz. and 1", 40/100 oz. per linear yard, shall conform to the requirements for Type I, light weight; 2-1/4", 2-16/100 oz. per linear yard to Type II, medium heavy weight; and 5/8", 1 oz. per linear yard, and 1", 1-33/100 oz. per linear yard to Type III, heavy weight, United States Army Specification 6-185.

C-1a(2)a. The color shall have good fastness to laundering agents containing active chlorine.

C-1a(3). Thread, cotton, machine (heavy) 3-ply, ticket No. 10/3, shall be dyed an approved shade of olive drab and conform to the requirements for Type IIIA or IIIB, Table IV, and thread, cotton, machine, 4-ply, ticket No. 16, shall be vat dyed an approved shade of olive drab and conform to the requirements for Type 1A3 or 1B3, Table I, Federal Specification V-T-276. The dyed thread shall have good fastness to laundering agents containing active chlorine.

C-1a(4). Thread, cotton, machine (heavy) unbleached, 6-ply, ticket No. 8/6, conforming to the requirements for Type IIIA or IIIB, Table IV, Federal Specification V-T-276 shall be used in lieu of thread, linen, machine, 6-cord, specified on drawing B-191.

C-1a(5). Cord, sash, cotton, braided, No. 4, olive drab, polished finish, shall be of a good commercial grade.

C-1a(6). Wax, stitching, shall be Type II, conforming to the requirements of United States Army Specification 2-97. White or russet wax may be used. The use of liquid wax or pre-waxed prepared thread will not be permitted.

C-1a(7). Leather, smoked elk, 4/64" thick and 10/64" thick (plus 3/4 or minus 1/2 sixty-fourth), shall be 50 percent grade "A" and 50 percent grade "B".

C-1a(7)a. Hides shall be from cattle.

C-1a(7)b. Tannage shall be well pickled, thoroughly chromed, and tanned soft.

C-la(7)c. Currying shall be by fat liquoring with a mixture of sulphonated oil and animal fats, and oils, only to such an extent as will give softness. The finished, curried, well dried leather shall contain not more than 6 percent currying mixture.

C-la(7)d. The leather shall contain no salts unessential to its quality. Ash shall not exceed 6 percent.

C-la(7)e. The finish of the leather shall be of the usual smoked color, and may be boarded by hand, three ways, but shall not be embossed by machine.

C-la(7)f. The leather shall be capable of passing the tests ordinarily employed in commercial practice for strength, crackiness, appearance of fiber, and general condition.

C-la(8). Fastener, slide, metal, 10-1/2" long, shall be Talon No. 5 size, regular (closed end) Type, with 9/16" olive drab color tape, equipped with non-lock slider pull No. 3013 and bridge top stop. Any other fastener equal to the above will be acceptable.

C-lb. Camouflage Cover for Rucksack.

C-lb(1). Cloth used in the manufacture of camouflage covers shall be a bleached 80 x 80 thread count print cloth 36 inches wide, waterproofed with "Zelan" or equivalent conforming to the following requirements:

:Wt. per	: Width	: Threads	:	:	: Breaking Strength	:
:Sq. yd.	: Inches	: per inch	: Ply of	:	: (Min) (1x1x3 Grab	:
: (Min)	: (Min)	: (Minimum)	: Yarns	:	: Method)	:
:Ounces	:	:	:	:	: Pounds	:
:	:	:Warp	: Filling:	: Warp	: Filling:	: Warp
:	:	:	:	:	:	:
: 3.36	: 35	: 87	: 75	: 1	: 1	: 52
:	:	:	:	:	:	: 33
:	:	:	:	:	:	:

C-lb(2). Thread, cotton, machine, bleached, 4-ply, ticket No. 20, shall conform to the requirements of Type 1A2 or 1B2, Table I, Federal Specification V-T-276.

C-lb(3). Twine, seine, cotton, No. 96, bleached, shall be medium laid and conform to the requirements of Federal Specification T-T-881.

C-2. Substitution of Materials. - See paragraph H-2.

C-3. Workmanship. - The finished articles shall be clean, well finished, and free from any defects which 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 specifications and drawings listed in section A.

E-2. Rucksack.

E-2a. When stitching of duck, leather, or webbing is not a continuous thread, it shall be back-stitched not less than 1-inch at each break. All stitching shall be backstitched at the ends to prevent raveling, except when ends are turned under in a hem or held down by other stitching. Thread tension shall be properly maintained so that the lock will be embedded in the center of the materials sewed.

E-2a(1). Stitching with 6-ply, ticket No. 8/6, thread shall be done on a machine capable of using the hot stitching wax specified in paragraph C-1a(6).

E-2b. Black waterproof ink or waterproof stencil paint shall be used in stamping or printing the marks shown on drawing. No other brands or marks shall show on the rucksack.

E-2c. Bronze finishing of specified bronze finish hardware shall be done in accordance with United States Army Specification 3-124.

E-2d. Grommets shall be securely clinched without cutting the duck. The holes punched in duck to receive the grommets shall be smaller than the outside diameter of the grommet barrel, so that barrel must be forced through hole, thus insuring a tightly secured grommet.

E-2e. End clips shall be firmly attached without cutting the webbing which shall be inserted the full depth and lie flat at the point where it enters.

E-2f. Fasteners, snap, style 2, shall be tightly clinched. When holes are punched before inserting the male or female part of the fastener, they shall be smaller than the outside diameter of fastener tube, so that tube must be forced through hole.

E-2g. The male part of die or anvil used for inserting eyelets shall have a round, tapered point to prevent intentional cutting of threads in webbing. Eyelets shall be tightly clinched without splitting.

E-2h. All rivets shall be securely set.

E-2i. Buckle, 5/8", center bar, with roller. - The body shall be cast from a good commercial grade of malleable iron and have a steel tongue and roller. The finished buckle shall conform to the design, shape and dimensions as shown on drawing B-197.

E-2i(1). The casting shall be of uniform quality and condition, free from blowholes, porosity, hard spots, shrinkage defects, cracks and other injurious defects. The casting shall be made smooth by necessary filing and tumbling before final finish is applied.

E-2i(2). The fabricated buckle shall be given a commercial XC plate finish.

E-3. Camouflage Cover for Rucksack.

E-3a. When stitching is not a continuous thread, it shall be back-stitched not less than 1-inch at each break. All stitching shall be back-stitched at the ends to prevent raveling. Thread tension shall be properly maintained so that the lock will be embedded in the center of the material sewed.

E-3b. Black waterproof ink or waterproof stencil paint shall be used in stamping or printing the marks shown on drawing. No other marks shall show on the cover.

E-3c. Grommets shall be securely clinched without cutting the cloth. The holes punched in cloth to receive the grommets shall be smaller than the outside diameter of grommet barrel, so that barrel must be forced through hole, thus insuring a tightly secured grommet.

E-4. Frame for Rucksack.

E-4a. Construction. - The frame shall be made in accordance with the design, shape, dimensions and material as specified on drawing B-192.

E-4b. Finish. - The fabricated frame shall be given two coats of olive drab synthetic lustreless enamel, or olive drab lustreless lacquer.

E-4c. All welds shall be sound and smooth.

E-5. 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 article 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.

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 article 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. - Tests shall be in accordance with Federal Specification CCC-T-191, insofar as applicable.

G. PACKAGING, PACKING, AND MARKING.

G-1. Packaging. - Unless otherwise specified in invitation

for bids, the rucksack shall be completely assembled by attaching the bag to the frame. After neatly folding the cover and placing it in the front pocket of bag, the complete assembly shall be securely tied at each end with a suitable twine or cord.

G-2. Packing. - Unless otherwise specified in invitation for bids, contract, or order, the packaged rucksacks shall be packed 10 per box, in boxes conforming to and constructed in accordance with any of the following specifications:-

Style 4 or 5 - Federal Specification NN-B-621

Style A or B - Federal Specification NN-B-601

Inside dimensions of boxes shall be 23 inches long, 20 inches wide, and approximately 18-1/2 inches deep. Boxes shall be lined with Type B, water-proofed, kraft paper conforming to Federal Specification UU-P-271. One style of box only shall be used for any one contract.

G-3. Marking. - Unless otherwise specified in invitation for bids, contract, or order under which shipment is made, shipping containers shall be marked in accordance with United States Army Specification 100-2.

#### H. NOTES.

H-1. Before production is commenced, unless otherwise specified in invitation for bids, a finished rucksack shall be submitted to the contracting officer for approval.

H-2. In the event of an emergency, and subject to the approval of the proper authority as indicated below, substitution of materials, etc., will be permitted in the manufacture of rucksack, as follows:-

When such substitutions are permitted, the extent of the substitution shall be as indicated in the invitation for bids.

H-2a. Upon approval of the contracting officer:-

a. Substitution for buckles 1", tongueless, double bar, bronze, bronze finish. Drg. 4-1-7.

1st Sub. - Buckles, 1", tongueless, double bar, bronze, oxidized finish.

2nd Sub. - Buckles, 1", tongueless, double bar, (substitute) stamped brass, bronze finish. Drg. 4-1-7.

3rd Sub. - Buckles, 1", tongueless, double bar, (substitute) stamped brass, oxidized finish.

b. Substitution for buckles, 5/8", tongueless, double bar, bronze, bronze finish. Drg. 4-1-7.

1st Sub. - Buckles, 5/8", tongueless, double bar, bronze, oxidized finish.

2nd Sub. - Buckles, 5/8", tongueless, double bar, (substitute) stamped brass, bronze finish. Drg. 4-1-44.

3rd Sub. - Buckles, 5/8", tongueless, double bar, (substitute) stamped brass, oxidized finish.

c. Substitution for buckles, end, 1", bronze, bronze finish. Drg. 4-1-41.

1st Sub. - Buckles, end, 1", bronze, oxidized finish.

- 2nd Sub. - Buckles, end, 1", stamped brass, bronze finish.
- 3rd Sub. - Buckles, end, 1", stamped brass, oxidized finish.

d. Substitution for snaps, 1", bronze, bronze finish. Drg. 4-1-4.

- 1st Sub. - Snaps, 1", bronze, oxidized finish.
- 2nd Sub. - Snaps, 1", (substitute) stamped brass, bronze finish.  
Drg. 4-1-44.
- 3rd Sub. - Snaps, 1", (substitute) stamped brass, oxidized finish.

e. Substitution for loops, strap, 1" x ".5, style 2, brass wire, bronze finish. Drg. 4-1-2.

- Sub. - Loops, strap, 1" x ".5, style 2, brass wire, oxidized finish.

f. Substitution for D-rings, 1" x ".875, brass wire, bronze finish. Drg. 4-1-12.

- Sub. - D-rings, 1" x ".875, brass wire, oxidized finish.

g. Substitution for clips, end, 5/8" and 1", brass, bronze finish. Drg. 4-1-9.

- Sub. - Clips, end, 5/8" and 1", brass, oxidized finish.

h. Substitution for fasteners, snap, style 2, brass, bronze finish. Drg. 4-1-10.

- Sub. - Fasteners, snap, style 2, brass, oxidized finish.

i. Substitution for eyelets, No. 4132, brass, bronze finish. Drg. 4-1-23.

- Sub. - Eyelets, No. 4132, brass, oxidized finish.

j. Substitution for rivets, belt, 1/4", No. 12, with burrs, brass, bronze finish.

- Sub. - Rivets, belt, 1/4", No. 12, with burrs, brass, oxidized finish.

H-2b. Upon approval of The Quartermaster General:-

Substitution of materials and/or finishes in lieu of those required by this specification. In all cases, the finished dimensions and design of the substitute article shall be substantially the same as for the standard article shown on the drawings insofar as is consistent with good commercial practice.

a. Substitution for buckles, 1", tongueless, double bar, bronze, bronze finish. Drg. 4-1-7.

- Sub. - Buckles, 1", tongueless, double bar, malleable iron or stamped steel, finished in accordance with the requirements for Type II specified in Quartermaster Corps Tentative Specification J.Q.D. No. 144. Coatings, baked, for equipment hardware made of ferrous or zinc alloy metals.

b. Substitution for buckles, 5/8", tongueless, double bar, bronze bronze finish. Drg. 4-1-7.

- Sub. - Buckles, 5/8", tongueless, double bar, malleable iron or stamped steel, finished in accordance with the requirements for Type II specified in Quartermaster Corps

Tentative Specification J.Q.D. No. 144. Coatings, baked, for equipment hardware made of ferrous or zinc alloy metals.

c. Substitution for buckles, end, 1", bronze, bronze finish.  
Drg. 4-1-41.

Sub. - Buckles, end, 1", (body only) malleable iron and/or stamped steel, finished in accordance with the requirements for Type II specified in Quartermaster Corps Tentative Specification J.Q.D. No. 144. Coatings, baked, for equipment hardware made of ferrous or zinc alloy metals.

d. Substitution for snaps, 1", bronze, bronze finish. Drg. 4-1-4.

Sub. - Snaps, 1", malleable iron and/or steel, finished in accordance with the requirements for Type II specified in Quartermaster Corps Tentative Specification J.Q.D. No. 144. Coatings, baked, for equipment hardware made of ferrous or zinc alloy metals.

e. Substitution for loops, strap, 1" x ".5, style 2, brass wire, bronze finish. Drg. 4-1-2.

Sub. - Loops, strap, 1" x ".5, style 2, malleable iron or steel wire, finished in accordance with the requirements for Type II specified in Quartermaster Corps Tentative Specification J.Q.D. No. 144. Coatings, baked, for equipment hardware made of ferrous or zinc alloy metals.

f. Substitution for D-rings, 1" x ".875, brass wire, bronze finish. Drg. 4-1-12.

Sub. - D-rings, 1" x ".875, malleable iron or steel wire, finished in accordance with the requirements for Type II specified in Quartermaster Corps Tentative Specification J.Q.D. No. 144. Coatings, baked, for equipment hardware made of ferrous or zinc alloy metals.

H-2c. Other substitute materials and/or finishes of materials in addition to the various substitutes heretofore mentioned may be permitted subject to the approval of the contracting officer.

NOTICE:- When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data, is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

NOTE:- Unless otherwise specified in invitation for bid or purchase order, copies of this specification may be obtained at the following point:-

Jeffersonville Quartermaster Depot, Jeffersonville, Indiana.