A-A-1292B
April 17, 1989
SUPERSEDING
A-A-1292A
May 16, 1988

COMMERCIAL ITEM DESCRIPTION

HAMMER, HAND, BLACKSMITHS' OR ENGINEERS' CROSS PEEN

The General Services Administration has authorized the use of this commercial item description in preference to Federal Specification GGG-H-86, Type X, Class 2, Styles A and B.

This commercial item description covers forged steel hammers used for driving nails, hammering metal, breaking stone, and similar uses.

SALIENT CHARACTERISTICS

The hammers shall conform to ANSI B173.3 and requirements stated herein.

Finish. Polished striking face shall not be coarser than 63 microinches AA/protective coating of the entire head to deter rusting. In accordance with ANSI/ASME B46.1M.

Handle. Hickory, (Grade B, or better) clear lacquered or fiberglass with handgrip. Handle shall be similar to figure 1.

Eye number. The eye number and dimensions (wood only) maybe furnished as a number 2 or 3 and shall be as specified in figure 2.

Identification marking. Each hammer shall be engraved, etched or stamped with the manufacturer's name or identifying symbol and the state or country of manufacture in such a manner that it will be permanent to the extent that it will remain clear and legible throughout the life of the item.

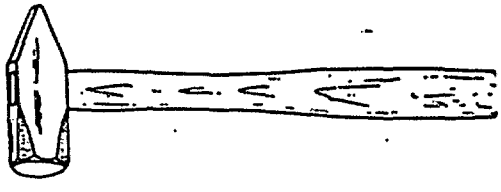

Figure 1.

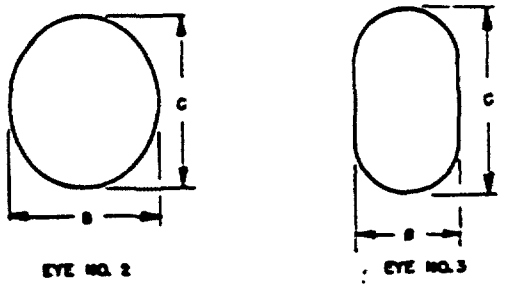

Figure 2.

(Figures are illustrative and not restrictive)

FSC 5120

DISTRIBUTION STATEMENT A. Approved for Public Release; Distribution is Unlimited.

Head Weight	Handle Type	Overall Length +1 inch -2 inch	Eye Dimensions ± 1/16 inch B	Eye Dimensions ± 1/16 inch C	National Stock Number
Pounds		Inches	Inch	Inches	
2 ± 3 ozs.	Fiberglass	16			5120-00-902-0092
3 ± 3 ozs.	Fiberglass	16			5120-00-900-6103
4 ± 3 ozs.	Fiberglass	16			5120-00-902-0093
6 ± 4 ozs.	Fiberglass	32			5120-00-904-0029
8 ± 4 ozs.	Fiberglass	32			5120-00-902-0094
3 ± 4 ozs.	Hickory	16	3/4	1	5120-00-242-3915
6 ± 4 ozs.	Hickory	32	1	1-1/4	5120-00-224-4127
8 ± 4 ozs.	Hickory	32	1	1-1/4	5120-00-224-4128
12 ± 4 ozs.	Hickory	34	1	1-3/8	5120-00-224-4130

Hammerhead alignment. The angle of the handle shall be no more than 2 degrees from the perpendicular when measured from the longitudinal centerline of the handle to a plane parallel to the top of the head.

In addition, the rotational variance around the longitudinal centerline of the handle shall be no more than 2 degrees when viewed from the butt end of the handle along the longitudinal centerline of the handle and when measured from the longitudinal centerline of the head to a line corresponding to the long dimension of the butt end of the handle.

In-process crack detection test. No hammer provided under this commercial item description shall exhibit any indication of cracks in the hammerhead. All hammerheads shall be 100 percent in-process inspected after heat treating, prior to finishing and assembly and subjected to either a bidirectional wet magnetic particle inspection test in accordance with ASTM E709-80 or an Ultrasonic detection test in accordance with ASTM E114-75. All surfaces shall be examined. If a hammerhead is found to have indications of a crack, the manufacturer may grind or buff to eliminate this condition but must maintain the overall weight and dimensional requirements.

Handgrip test. Hammers with handgrips shall be subjected to this test. Each sample shall be conditioned climatically to 30 degrees F, plus or minus 2 degrees F, and remain at this temperature for 1 hour or until thermal stabilization has occurred. The sample shall then be cycled to plus 120 degrees F, plus or minus 2 degrees, and remain at this temperature for 1 hour or until thermal stabilization has occurred. The sample shall then be conditioned to plus 70 degrees F, plus or minus 10 degrees F (room ambient temperature).

The samples shall then be subjected to a pull force test applied to the grip parallel to the longitudinal axis of the handle with the hammerhead securely captured to restrict movement. In order to minimize normal forces to the handle, the handgrip shall be captured using a woven wire cable grip or suitable device.

The pull force test is to be as noted below, except that for certain sizes where the handgrip pull force test is found to be greater than the pull-apart force (tensile force). In this instance the handgrips shall be subjected to the head pull-apart force (tension force) as a maximum in lieu of the specified force. Grips which loosen or separate from the handle shall be cause for rejection.

Hammerhead weight	Pull force test
Less than 16 oz.	500 lbs.
16 oz. and over	700 lbs.

After application of the pull force test, the hammers shall be secured by the head, and the grip twisted at the normal handgrip position by both hands in alternating directions. Five alternating twisting motions shall be performed, after which there shall be no grip looseness or separation from the handle.

Pull apart head/handle test. Each sample hammer shall be subjected to the tensile force test of ANSI B173.3.

Fiberglass handle overstrike test. Hammers with fiberglass handles shall withstand 23 full swinging overstrike blows by an average built person, commensurate with the end use and weight of the hammer. The blows shall be against that portion of the handle directly behind the head and on a substantially supported steel object having a minimum 3/8 inch full radius.

Fiberglass bending moment test. Hammers with fiberglass handles shall be subjected to the test below in lieu of the static force test found in ANSI B173.3. Samples of the assembled striking tool shall not break, chip, or crack when subjected to the applicable load and distance listed below. The distance shall be measured from the top of the tool head. The striking tool head shall be locked securely in the test fixture with the striking face down and with the handle extended in the horizontal plane. The load shall be applied gradually and in a vertical direction.

BENDING MOMENT TEST LOAD FOR FIBERGLASS HANDLE HAMMERS

Head weight (Pounds)	Distance (Inches)	Applied load (Pounds Minimum)
2	10	375
3	10	375
4	10	375
6	30	175
8	30	250

Workmanship. All hammers shall be free from imperfections which may affect their safety, appearance, serviceability or durability.

QUALITY ASSURANCE PROVISIONS

Responsibility for inspection. Unless otherwise stated in the contract, the contractor is responsible for the performance of all inspections as specified herein. Except as stated otherwise in the contract, the contractor may use his own or any other facilities available for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform the inspections set forth in the commercial item description if deemed necessary to assure supplies and services conform to the prescribed requirements.

Sampling for inspection and testing. Sampling for inspection and testing shall be in accordance with MIL-STD-105 at the inspection levels and AQL's specified below. The lot shall consist of all hammers of the same nominal head weight presented for inspection at the same time. The sample unit shall be one hammer.

Visual and dimensional requirements, and workmanship. Each sample hammer shall be examined for workmanship, marking, and dimensional requirements. The inspection level shall be S-4, with an AQL of 4.0 expressed in terms of percent defective.

Testing of the end item for all tests except crack detection. Each sample hammer shall be tested to determine conformance with all tests specified herein except crack detection. The inspection level shall be S-3, with an AQL of 2.5 expressed in terms of percent defective.

Final crack detection test. Final testing for indications of cracks shall be performed in accordance with the testing methods stated herein (In-process crack detection). Any hammerhead exhibiting indications of cracks shall be rejected. The inspection level shall be II with an AQL of .065 expressed in terms of percent defective.

Examination for preparation for delivery. An examination shall be made to determine whether packaging, packing, and marking comply with the requirements of the contract and this description. The sample unit shall be one shipping container fully prepared for delivery. The lot size shall be the number of containers in the inspection lot. The inspection level shall be S-2 with an AQL of 2.5 percent defective.

Regulatory requirements. The offeror/contractor is encouraged to use recovered materials in accordance with Public Law 94-580, as amended, to the maximum extent practicable.

Preservation, packaging, packing, labeling, and marking. The preservation, packaging, packing, labeling, and marking shall be as specified in the contract or purchase order.

Notes:

The issue of referenced documents in effect on the date of invitation for bid or request for proposals shall be used to determine compliance with the stated requirements.

ANSI standards are available from the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.

ASTM standards are available from the American Society for Testing and Materials, 1916 Race St., Philadelphia, PA 19103.

Military standards are available from the Naval Publications and Forms Center, 5801 Tabor Ave., Philadelphia, PA 19120.

MILITARY INTEREST:

Military Coordinating Activity

Army - GL

Custodians

Air Force-99
Army-GL

PREPARING ACTIVITY

GSA-FSS