

A-A-2550  
February 5, 1988

## COMMERCIAL ITEM DESCRIPTION

## PULLER, NAIL, HAND

The General Services Administration has authorized the use of this commercial item description in lieu of Type I, Class 1, Federal Specification GGG-P-791.

Scope. This description establishes requirements for a nail puller for use in extracting from wood nails of sizes up to and including 12-penny nails, assigned National Stock Number (NSN) 5120-00-542-4828.

Salient characteristics:Material:

Jaws and shank. The shank, the jaw which forms a part of the shank (known as the fixed jaw), and the short jaw or foot (known as the movable jaw) shall be forged carbon steel. The jaws shall be 1/4 inch, plus 1/32 inch and minus 1/16 inch, in width and shall be in alignment within a tolerance of 1/32 inch. The jaws shall be pivoted by a joint so designed that the jaws are held open by gravity when the tool is held vertically with the jaws pointed down. The pivot pin or bolt shall be steel alloy, with a minimum diameter of 1/4 inch except where a shoulder is provided on the shank or long jaw to take the impact, a carbon steel pin may be provided. The jaws shall be properly shaped to draw the nails, which have been driven into the wood with the head flush, without slipping. The shank shall be provided with a suitable handgrip not less than 3-5/8 nor more than 5 inches long and shall have a suitable handguard.

Rammer. The rammer shall be of a material that is able to withstand repeated blows without developing detrimental fatigue or ruptures and shall be not less than 11 nor more than 14 inches long. The handgrip on the rammer shall be not less than 3-3/4 nor more than 5 inches long. There shall be a flange not less than 1-1/2 inches in diameter or a 1-7/16 - by 1- 5/8-inch rectangular-shaped flange directly below the handgrip on the rammer to prevent the hand from slipping during the striking operation. The axial travel of the rammer on the shank or fixed jaw shall be not less than 5 nor more than 7 inches and shall have a smoothly guided action on the shank or fixed jaw. There shall be a positive mechanical means of preventing the separation of the rammer from the shank or fixed jaw.

Weight. The weight shall be not less than 3-3/4 nor more than 6 pounds.

Length. The length of the nail puller, when closed, shall be not less than 17 nor more than 20 inches.

Hardness:

Jaws. The jaws shall be properly heat-treated to withstand abrasion or spalling and shall show not less than 45 nor more than 50 on a Rockwell C scale when tested as specified. The hardness impression on the jaws shall be taken 1/4 to 3/4 inch from the point.

Pivot pin or bolt. When a shoulder is not provided on the shank or long jaw to take the impact, the pivot pin or bolt shall be heat treated to withstand abrasion or spalling and shall show not less than 45 nor more than 50 on a Rockwell C scale when tested as specified. When a shoulder is provided on the shank or long jaw to take the impact, a carbon steel pin shall be provided without heat-treatment.

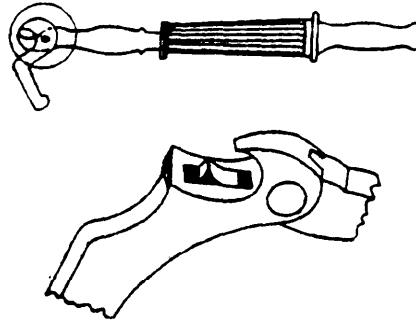
FSC 5120

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

A-A-2550

Finish. The rammer shall be black phosphate and oil coated. The shank and jaws shall have a natural steel finish or they may be polished or coated with japan or enamel in accordance with the manufacturer's trade practice.

Illustration. The puller shall be similar to the illustration shown below.



Marking. The manufacturer's name or identifying symbol, part number, and the country of origin shall be etched or stamped in a legible and permanent manner on each item.

Workmanship. The workmanship shall be of the highest grade throughout and shall be equal in every respect to the best commercial practice. The puller shall be free from rust, fins, burrs, external sharp edges, corners or surfaces and defects which may impair its serviceability or durability.

#### Testing:

Nail-pulling test. Each sample nail puller shall be tested under service conditions by gripping and drawing out completely 10 or more steel-wire nails (common type), varying in size up to and including 12-penny (148 mils diameter, 3-1/4 inches long) which have been driven with heads flush into Kiln-dried yellow pine or Douglas fir. Under this test the sample nail pullers shall show no indications of weakness, such as chipping, breaking, or bending of any of the parts. The inspection level shall be level II with an acceptable quality level (AQL) of 4.0 percent defective.

Hardness test. Sampling shall be level S-2 with an acceptable quantity level (AQL) of 2.5 defects per hundred units. Testing shall be in accordance with ASTM E18.

#### Quality Assurance Provisions:

Responsibility for inspection. Unless otherwise stated in the contract, the contractor is responsible for the performance of all inspection 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 pullers presented for inspection at the same time. The sample unit shall be one puller.

Visual and dimensional characteristics, and workmanship. The inspection level shall be S-4, with an AQL of 1.5 percent defective.

Testing. The inspection level shall be S-4 with an AQL of 0.65 percent defective.

A-A-2550

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

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

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

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

MILITARY INTERESTS:

PREPARING ACTIVITY

Military Coordinating Activity:  
Army-GL

GSA-FSS

Custodians:

Army-GL  
Air Force-99

Review Activities:

Air Force-84