
* INCH-POUND *

A-A-50352B

29 March 1991

SUPERSEDING

A-A-50352A

10 March 1982

COMMERCIAL ITEM DESCRIPTION

CLAMP, MATERIAL LIFTING (PLATE, VERTICAL LIFT)

The General Services Administration has approved the use of this Commercial Item Description in lieu of GGG-C-412b, type II, style B, class 2.

Abstract. This CID covers vertical plate material lifting clamps of the eccentric cam gripping type with the lock-open, lock-closed feature for use with various mobile and overhead cranes in lifting, turning, and moving or transporting flat steel plate.

Salient characteristics.

1. Requirements. The clamp shall meet the requirements specified herein and in table I. Clamps of rated capacity greater than that specified will be acceptable, provided they are marked with the minimum capacity specified and meet all other requirements of this CID. Clamps having a plate thickness capacity covering a wider range than that specified in table I will be acceptable, provided they meet all other requirements.

TABLE I. Requirements.

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* Rated capacity	* Plate thickness capacity	* Single eye	* Weight	*
* (minimum)	* (minimum range)	* shackle opening	* (maximum)	*
-----*				
* 8,000 pounds	* 0 to 1-1/4 inches	* 2-3/8 inches	* 46 pounds	*
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2. Material. Clamps shall be constructed of steel of a quality to produce clamps conforming to the requirements as hereinafter specified.

Beneficial comments (recommendations, additions, deletions) and any pertinent
 *data which may be of use in improving this document should be addressed to: *

*Commanding Officer (Code 156), Naval Construction Battalion Center, Port *

*Hueneme, CA 93043-5000, by using the self-addressed Standardization *

*Document Improvement Proposal (DD Form 1426) appearing at the end of this *

*document or by letter. *

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3. Rated capacity. The clamp, when used with various mobile and overhead cranes in lifting, turning and moving or transporting flat steel plate, shall meet or exceed the rated capacity specified in table I.
4. Body or frame. The body or frame shall have jaws of unequal length, the shorter jaw being on the side opposite the cam grip in order to facilitate the entrance of steel plates between the jaws. The shorter jaw shall be recessed or other means shall be provided for a positive support of the gripping pad. The lever of the safety lock shall be located within the body or frame, or mounted externally. All other working parts, with the exception of the lifting shackle, shall be constructed within the body or frame.
5. Lifting shackle. The lifting shackle shall be constructed in such a manner that when a steel plate is lifted, it will hang in practically a vertical position directly under the crane hook or sling attachment. The minimum shackle opening shall be as specified in table I.
6. Cam grip. The plate gripping surfaces of the cam grips shall have serrations and shall be hardened to a minimum Rockwell "C" hardness reading of 50.
7. Gripping pad. The plate gripping surface of the gripping pad shall be serrated. The serrations shall be of a shape and depth to assure a positive grip. Means shall be provided to allow the pad to swivel (rotate) in any direction which contributes to alignment of the clamp with the direction of pull. The entire gripping pad or the serrations thereon shall be hardened to a minimum Rockwell "C" hardness reading of 50.
8. Safety lock. The safety lock mechanism shall be of such design that when the lever is in the lock-closed position, the cam grip shall be locked onto a steel plate both with and without tension being applied. Before a suspended steel plate is lowered to rest in an upright plate rack, the actuating lever is moved to a neutral position by the rigger. When the steel plate is lowered to rest (causing a complete release of lifting tension), the actuating lever automatically moves to the lock-open position. In the lock-open position, the cam grip shall be locked in an open position. The clamp may then be raised from the steel plate. Means shall be provided for attachment of a pull cord to the lever.
9. Marking. The minimum rated capacity of each clamp shall be metal die stamped, engraved, or embossed in plain view on each clamp. Marking shall be legible at a distance of ten feet and shall remain legible throughout the life of the equipment.
10. Painting. Each clamp shall be painted with manufacturer's standard high-visibility paint in accordance with the manufacturer's standard practice.
11. Standards compliance. The clamps shall conform to the requirements of ASME B30.20. The contractor may submit independent proof, satisfactory to the contracting agency, that the clamp conforms to ASME B30.20, including the operational and rated load tests.

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Quality assurance provisions.

1. Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Unless disapproved by the Government, except as otherwise specified in the contract, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein.
2. Responsibility for compliance. The inspection requirements specified herein are classified as quality conformance inspection.
3. Quality conformance inspection. The quality conformance inspection shall be performed on sample clamps selected in accordance with the inspection lot and sampling requirements. This inspection shall include examination and operational tests as specified herein.
4. Inspection lot. All units offered to the Government at one time shall be considered a lot for purposes of inspection. A sample unit shall be one complete clamp.
5. Examination. Each sample selected in accordance with the inspection lot and sampling requirements shall be examined for compliance with the salient characteristics requirements specified herein. This element of inspection shall encompass all visual examinations and dimensional measurements. Noncompliance with any specified requirements or presence of one or more defects preventing or lessening maximum efficiency shall constitute cause for rejection.
6. Tested capacity. When tested with various plates of suitable thickness, the clamp shall lift and hold a load equal to not less than three times the rated capacity of the clamp, while mounted in normal operating position for a period of two minutes. Inspection of the clamp after the test shall show no evidence of damage, distortion, or malfunction.

Contractor certification. The contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this CID and that the product conforms to the producer's own drawings, specifications, standards, and quality assurance practices. The Government reserves the right to require proof of such conformance prior to first delivery and thereafter as may be otherwise provided for under the provisions of the contract.

Metric products. Products manufactured to metric dimensions will be considered on an equal basis with those manufactured using inch-pound units, provided they fall within specified tolerances using conversion tables contained in the latest revision of FED-STD-376, and all other requirements of this CID are met.

If a product is manufactured to metric dimensions and those dimensions exceed the tolerances specified in the inch-pound units, a request should be made to the contracting officer to determine if the product is acceptable. The contracting officer has the option of accepting or rejecting the product.

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

Packaging. Unless otherwise specified in the contract or order, the preservation, packing, and marking shall be in accordance with ASTM D 3951.

ASME Standards are available from the American Society of Mechanical Engineers, United Engineering Center, 345 East 47th Street, New York, NY 10017.

ASTM Standards are available from ASTM, 1916 Race Street, Philadelphia, PA 19103.

FED-STD-376 is available from Standardization Documents Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

MILITARY INTERESTS:

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Review Activities

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CIVIL AGENCY COORDINATING ACTIVITY:

GSA - FSS

PREPARING ACTIVITY:

Navy - YD

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