

INCH-POUND

A-A-59914

18 April 2013

COMMERCIAL ITEM DESCRIPTION

BEAD BREAKER, PNEUMATIC TIRE

The General Services Administration has authorized the use of this Commercial Item Description as a replacement for PD03WR/LEEE Rev A, which replaced MIL-B-87986, for all federal agencies.

1. SCOPE.

This commercial item description (CID) defines the requirements of a pneumatic tire bead breaker rated at 25,000 lbs. The bead breaker is hydraulically actuated and powered by an air driven hydraulic pump (Type 1) or by an explosion proof electric motor (Type 2). The bead breaker is designed to break the bead of an aircraft tire (15 to 60 inches in diameter and 12 to 26 inches wide) from the rim of an aircraft wheel (13 to 32 inches in diameter).

2. CLASSIFICATION.

The pneumatic tire bead breakers defined by this document are of the following two types.

Type 1 – air driven hydraulic pump

Type 2 – explosion proof electric motor

3. SALIENT CHARACTERISTICS.

3.1 Functional requirements. The bead breaker shall provide a means of breaking the beads of tires from split wheel aircraft rims using a spider plate assembly with attaching segments or a universal spider adapter. It shall be capable of being operated by one person. The unit shall break both beads of the tire with one actuation (stroke) without damage to either tire or wheel.

The unit shall be provided with controls that allow in and out motion of the bead breaker cylinder as well as up and down positioning of the elevating cylinder. An instructional panel shall be affixed to the bead breaker. Instructions shall be clear, concise, and sufficient to enable operation of the machine without damage or injury to the operator. The panel shall be readily visible from the operator's position. The bead breaker shall be finished to protect against

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FSC 4910

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corrosion normally found in a shop/hanger environment. The shipping weight shall not exceed 2,000 pounds.

3.2 Hydraulic system. Type 1 bead breaker shall be provided with a hydraulic pump, control valve assembly, a relief valve and a hydraulic fluid reservoir. The air motor shall be capable of driving the pump and shall be equipped with an automatic safety relief valve to bypass hydraulic fluid from the pumps back to the reservoir. Type 2 bead breakers shall be provided with a hydraulic system consisting of an electrically powered pump and all components and fittings necessary for safe, reliable operation. Both types of units shall be compatible with fluid conforming to MIL-PRF- 5606. All controls shall be permanently marked as to operation and shall be capable of being operated by a person wearing heavy gloves. Action of controls shall be smooth and non erratic.

3.3 Electrical requirements (Type 2). Electrical equipment and wiring provided shall conform to the National Electrical Code, NFPA 70. Type 2 bead breakers shall be provided with an explosion proof electric motor conforming to Underwriters Laboratories Class I, Group D, designed for connection to 220/440 volts, 3phase, 60 Hertz electrical power unless otherwise specified in the contract or purchase order.

3.4 Spider plate assembly and universal adapter. Type 1 and type 2 bead breakers shall be provided with a spider plate assembly on both cylinders that allow for adjustable spades (fingers or segments) on each side. A universal spider adapter that incorporates these components can also be provided in lieu of the spider adapter and spade attachments. A minimum of four (4) spades or fingers shall be provided for each cylinder.

3.5 Safety.

3.5.1 Component protection. All space in which work is performed during operation, service, and maintenance shall be free of hazardous protrusions, sharp edges, or other features which may cause injury to personnel. All rotating and reciprocating parts and all parts subject to high operational temperatures or subject to being electrically energized, that are of such nature or so located as to be hazardous to personnel, shall be guarded or insulated to eliminate the hazard. All wires, cables, tubes, and hoses shall be supported and protected to minimize chafing and abrasion and shall be located so as to provide adequate clearance from moving parts and high operational temperatures. Grommets shall be provided wherever wires, cables, tubes, or hoses pass through bulkheads, partitions, or structural members.

3.5.2 Foreign object damage (FOD). All loose metal parts, such as pins or connector covers, shall be securely attached to the bead breaker with wire ropes or chains. "Dog tag" style beaded chains shall not be provided. Removable panels, if provided, shall be attached with captive fasteners. Tire valve stem caps shall be made of plastic.

4. REGULATORY REQUIREMENTS.

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4.1 Recycled recovered materials. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with 23.403 of the Federal Acquisition Regulation (FAR). However, used, rebuilt, or refurbished items shall not be provided.

4.2 Green Procurement Program. Green Procurement Program (GPP) is a mandatory federal acquisition program that focuses on the purchase and use of environmentally preferable products and services. GPP requirements apply to all acquisitions using appropriated funds, including services and new requirements. FAR 23.404(b) applies and states the GPP requires 100% of EPA designated product purchase that are included in the Comprehensive Procurement Guidelines list that contains recovered materials, unless the item cannot be acquired: a) competitively within a reasonable timeframe; b) meet appropriate performance standards, or c) at a reasonable price. The prime contractor is responsible for ensuring that all subcontractors comply with this requirement.

5. PRODUCT CONFORMANCE PROVISIONS.

5.1 Contractor certification. The contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this commercial item description, and the product conforms to the producer's engineering 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.

5.2. Examination. The bead breaker shall be visually examined to assure that it meets the requirements of this CID.

5.2.1 Static proof load. The bead breaker shall be capable of exerting a 25,000 lb. force between the cylinder and the stationary ram.

6. PACKAGING. Preservation, packing, and marking shall be as specified in the contract or order.

7. NOTES.

7.1 Source of documents.

7.1.1 Military Specifications, Standards, and Handbooks referenced herein may be obtained at <https://assist.dla.mil/> or available from the Standardization Documents Order Desk, 700 Robbins Ave, Bldg 4, Section D, Philadelphia, PA 19111-5094.

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7.1.2 NFPA documents may be obtained at <http://www.nfpa.org/index.asp> or from National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101 Quincy, Massachusetts 02269-9101.

7.1.3 FAR may be obtained from the Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. Electronic copies of the FAR may be obtained from <https://www.acquisition.gov/far/>.

7.1.4 Underwriters Laboratories (UL) copies may be obtained online at <http://ulstandardsinfolnet.ul.com/> or from: Underwriters Laboratories, 333 Pfingsten Road, Northbrook, IL 60062-2096.

7.2 National Stock Number (NSN). The following NSN corresponds to this CID. The NSN may not be indicative of all possible NSNs associated with this CID. (for reference only)

NSN 4910-01-190-9875

NSN 4910-01-267-7191

Approved Columbus Jack PNs:

PN 715J1000A-UA (Type 1)

PN 715J1000EX-UA (Type 2)

Approved Regent Jack PNs:

PN 7003-015 (Type 1)

7.3 Key words.

Electric Motor

Explosion Proof

Hydraulic Pump

Custodians:

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