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[INCH-POUND]
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April 14, 1997
SUPERSEDING
MIL-T-29233A(YD)
5 July 1991

COMMERCIAL ITEM DESCRIPTION

TRAILER, EQUIPMENT, ELEVATING BODY, 4-WHEEL

The General Services Administration has authorized the use of this commercial item description by all Federal agencies.

1. SCOPE. This commercial item description (CID) covers a 4-wheel, 12,000 pound (lb) (5 436 kilogram (kg)) load capacity, vehicle and equipment transporting trailer with capabilities of lowering and elevating the body (bed) for loading and unloading at ground and loading dock levels. The trailer is intended for use loading, transporting, and unloading forklifts in areas where there may be no ramps or other facilities to assist. The trailer may be used on improved and unimproved roadways having grades usually found on main and access roads in and about military bases.

2. CLASSIFICATION. This section is not applicable to this commercial item description.

3. SALIENT CHARACTERISTICS.

3.1 Design. The trailer shall consist essentially of a flatbed surface (body), 4-wheels in tandem with hydraulically operated mechanism that will lower and elevate the body through the wheel spindle center lines to facilitate loading and unloading with not less than 12,000 lb (5 436 kg) capacity. The assembled trailer shall be equipped with electric brakes and a pull type tongue with lunette ring hitch.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data which may improve this document should be sent to: Commanding Officer (Code 1581), Naval Construction Battalion Center, 1000 23rd Avenue, Port Hueneme, CA 93043-4301, by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A FSC 2330

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3.2 Standard commercial product. The trailer shall, as a minimum, be in accordance with the requirements of this CID and shall be the manufacturer's standard commercial product. Additional or better features which are not specifically prohibited by this CID but which are a part of the manufacturer's standard commercial product, shall be included in the trailer being furnished. A standard commercial product is a product which has been sold or is being currently offered for sale on the commercial market through advertisements or manufacturer's catalogs, or brochures, and represents the latest production model.

3.3 Performance. Trailer performance requirements, as specified in 3.3.1 through 3.3.4.1, shall be met by trailer when fully equipped, with payload distributed over trailer load area, completely serviced, and towed by a towing vehicle over improved and unimproved surfaces (see 7.3).

3.3.1 Towing speed and trailing ability. When transporting the rated payload, (see 3.1), while being towed over dry, level, smooth, improved, and prepared hard-surfaced roads at sustained speeds to 45 miles per hour (mph) (72 kilometre per hour (km/h)), and over dry unimproved and gravel roads at speeds up to 10 mph (16 km/h), the trailer shall follow the towing vehicle without exceeding the tracking deviations as specified in Federal Motor Carrier Safety 393.70.

3.3.2 Turning ability. When coupled to a towing vehicle operating in its minimum turning circle, the trailer shall follow without cramping. The trailer shall be capable of moving up to an angle of not less than 60 degrees in relation to the towing vehicle without interference between vehicles. The angle shall be measured between the longitudinal axis of the trailer and the longitudinal axis of the towing vehicle at the coupling device.

3.3.3 Suspension system. The axles, mounts, accessories, and components of the suspension system shall withstand the imposed loads without evidence of permanent set, part failure, or malfunctioning under the operating conditions specified.

3.3.4 Service brakes. The service brakes of the trailer, in conjunction with the towing vehicle (truck-trailer combination), under all conditions of loading, shall control, decelerate, and stop the vehicle combination in accordance with Federal Motor Carrier Safety Regulation 393.52. The trailer shall be equipped with an automatically actuated device to apply the vehicle brakes upon breakaway from the towing vehicle. The breakaway system shall conform to Federal Motor Carrier Safety Regulation 393.43. Wheel chocks shall be provided for each trailer.

3.4 Trailer components.

3.4.1 Suspension. The trailer shall be equipped with an individual wheel suspension system having a rated capacity not less than the load imposed on each member, measured at the ground, with the vehicle loaded as specified in 3.1. When the suspension is rated at the spring pads, the unsprung weight shall be deducted.

3.4.2 Landing leg. The trailer shall be equipped with a retractable landing leg with cranking handle (rigid or swivel type) permanently installed. The landing leg shall have a vertical range of adjustment. The landing leg shall permit the operator to lower the cargo body to ground level.

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When the cargo body is in its maximum travel position, the landing leg shall have sufficient vertical adjustment to permit the operator to couple the coupling device to the towing vehicle when the top of the pintle hook of the towing vehicle is 17.75 inches (451 millimetre (mm)) above ground level. The landing leg and related parts shall withstand, without permanent deformation, the combined static and dynamic forces due to the proportionate weight of the gross weight and impacts during coupling and uncoupling operations. The landing leg shall operate freely, and shall be protected from malfunctioning by the accumulation of foreign matter. When placed in travel position, the landing leg shall remain positively locked to provide ground clearance in the course of normal towing operations.

3.4.3 Coupling device and towbar. The trailer shall be furnished with a 3-inch (76 mm) lunette ring. The hitch arm assembly shall permit the trailer body to be lowered to ground level and raised to hauling position without uncoupling the trailer from the towing vehicle. Safety chains shall be provided. Chains shall conform to Federal Motor Carrier Safety Regulation 393.70. When specified (see 7.2), the trailer tongue shall be designed to allow for adjustment of lunette ring location for towing vehicle attachment between the range of 16 inches (406 mm) and 24 inches (610 mm) to top of ring with trailer in level position.

3.4.4 Load leveler. A load leveling system which maintains the trailer body in level position on the transverse plane while being towed or raised, regardless of weight distribution on the cargo bed, shall be provided.

3.4.5 Trailer dimensions. Trailer dimensions shall be as specified in table I.

TABLE I. Dimensions.

Feature	Dimension
Overall length	Minimum practicable
Overall width	Not greater than 96 inches (2 438 mm)
Body dimension	
Length (inside)	Not less than 180 inches (4 572 mm)
Width (inside)	Not less than 60 inches (1 524 mm)
Height (platform to ground)	Minimum practicable
Ground clearance	Maximum practicable

3.4.6 Wheels and tires. The wheel and tire ratings shall conform to Tire and Rim Association recommendations for the type and size of tires furnished. Tire and wheel sizes shall be the same for all wheels on the trailer. Tires shall be tubeless type with highway tread.

3.4.7 Spare wheel and tire. The trailer shall be provided with a spare wheel with an inflated spare tire, mounted on a tire carrier. A carrier for the spare wheel and tire shall be provided and installed in a readily accessible location. Means shall be provided for securing the tire to the carrier to prevent accidental loss.

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3.4.8 Tools. Each vehicle shall be furnished with tools required for exchanging mounted tire assembly with spare tire assembly and shall include not less than a jack, jack handle, and wheelnut wrench. The jack shall be of such closed height as to permit its location under an axle or other satisfactory lift point, at any wheel with tire flat. The jack, without blocking, shall be capable of raising any wheel of the loaded vehicle to a height adequate to permit removal and replacement of the wheel and tire assembly.

3.4.9 Service brakes. The trailer shall be equipped with a 12-volt (V) direct current (dc), electric brake system wired in accordance with 3.4.11.3. The systems shall include a manual controller kit for mounting on the dash area of the towing vehicle, a controller kit for synchronizing the trailer electric brakes with the brakes of the towing vehicle, and an emergency breakaway kit. Kits shall be complete with all necessary parts and installation instructions. Unless otherwise specified (see 7.2), the synchronizing controller shall be for use with hydraulic brake system.

3.4.10 Parking brakes. Manually applied parking brakes shall be furnished. Parking brakes shall conform to Federal Motor Carrier Safety Regulation 393.41. When brake cables are used, the cables shall be corrosion-resistant steel. Provisions shall be made for slack adjustment. Lubrication fittings shall be provided.

3.4.11 Electrical system. The electrical system shall be 12V dc and all lights, reflectors, and wiring shall conform to Federal Motor Carrier Safety Regulations 393.15, 393.19, 393.20, 393.22, 393.23, 393.25, 393.26, and 393.27 through 393.33.

3.4.11.1 Electrical receptacle. A trailer electrical receptacle with a spring-loaded cover assembly shall be installed on the forward end of the drawbar. The receptacle shall conform to SAE J560, with conductors connected and color-coded as specified in SAE J560.

3.4.11.2 Brake wiring. Electric brakes shall be wired to the auxiliary circuit of the SAE J560 seven-conductor electrical connector. All wiring shall be properly mounted and secured with clamps. Wiring shall be heavy-wall thermoplastic insulated cable.

3.4.11.3 Electrical cable. A coiled electrical cable conforming to SAE J1067, with a cable plug at each end conforming to SAE J560, shall be provided. Both plugs shall be equipped with a grip for withdrawing from the connector sockets. The cable, when fully extended, shall be not less than 3 feet (914 mm) longer than the distance from the trailer electrical receptacle to the hitch assembly.

3.4.11.4 Turn signals. Turn signals conforming to SAE J558 shall be furnished.

3.4.12 Body and frame. The trailer shall be equipped with a body and frame of all steel welded construction. Body floor and side panels shall be of adequate gage and construction so as to support trailer payload specified without evidence of deformation or permanent set. Tiedown devices shall be welded to the cargo body and located near the center of each side and at each corner.

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3.4.12.1 Tailgate. A tailgate shall be furnished. The tailgate shall be hinged at the floor level of the cargo body. The inside surface of the tailgate shall be covered with safety steel tread plate. The tailgate shall accept a rolling load equal to the specified payload without evidence of deformation or permanent set. The tailgate shall be so constructed that the approach ramp shall be not more than 0.375-inch (9.5 mm) above the ground surface. The tailgate shall be provided with a latch to hold in an upright or closed position.

3.4.12.2 Body mounting. The body (bed) shall be mounted in accordance with manufacturer's standard commercial practice.

3.4.12.3 Fenders. The vehicle shall have fenders over the wheels. The fenders shall have inside shields and shall have sufficient crown to control mud and water from splashing on the chassis and trailer bed.

3.4.12.4 Suspension system. The axles, accessories, and components of the suspension system shall exhibit capacity to withstand the imposed loads without evidence of overload, permanent set, part failure, or malfunction when the trailer is subjected to the loading and operation conditions specified herein.

3.4.13 Hydraulic lift unit. The trailer shall be provided with a 12Vdc, electrically operated pump hydraulic lift unit. The hydraulic lift unit shall be capable of lowering the body to ground level and raising the cargo body not less than 52 inches (1 321 mm) with rated payload. The hydraulic lift unit shall elevate the cargo body, with rated payload, from ground level to travel position in not more than 35 seconds. Guards shall be provided to retain the body in travel position. Guards shall be provided to prevent damage to the hydraulic system. The hydraulic pump shall be provided with a built-in reservoir and shall be completely sealed to prevent dirt from entering the system. The hydraulic cylinder system shall be provided with external seals to wipe plungers and to clean and keep out foreign matter.

3.5 Treatment and painting. Painting and preparation shall be in accordance with manufacturer's standard practice. Color shall be gloss white conforming to FED-STD-595.

3.5.1 Instruction plates. The trailer shall be equipped with instruction plates suitably located, describing any special or important procedures to be followed in operating and servicing the equipment. Plates shall be made of a material which will last and remain legible for the life of the equipment. Plates shall be securely secured to the equipment with nonferrous screws or bolts of not less than 0.125-inch (3.175 mm) diameter.

3.5.2 Identification marking. Identification shall be permanently and legibly marked directly on the trailer or on a corrosion-resisting metal plate securely attached to the trailer at the source of manufacturer. Identification shall include the manufacturer's model and serial number, name and trademark to be readily identifiable to the manufacturer.

3.6 Lubrication. Means for lubrication shall be in accordance with the manufacturer's standard practice. The lubrication points shall be easily visible and accessible. Hydraulic lubrication

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fittings shall be in accordance with SAE J534. Where use of high-pressure lubricating equipment, 1,000 pound-force per square inch (psi) (6 894 kilopascals (kPa)) or higher, will damage grease seals or other parts, a suitable warning shall be affixed to the equipment in a conspicuous location.

3.7 Servicing and adjusting. Prior to acceptance of the trailer by the Government, the contractor shall service and adjust the trailer for immediate operational use as required in the operator's manual. The servicing and adjusting shall include not less than the following:

a. Inflation of all tires.
b. Proper functioning of all lighting and electrical systems.
c. Complete lubrication with grades of lubricants recommended for ambient temperature at delivery point.

The trailer shall be conspicuously tagged to identify the lubricants and their temperature range.

3.8 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 version of ASTM E 380, and all other requirements of this commercial item description including form, fit and function 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 specification preparing activity for changes to the document.

4. REGULATORY REQUIREMENTS.

4.1 Recovered materials. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

5. QUALITY ASSURANCE PROVISIONS.

5.1 Product conformance. The products provided shall meet the salient characteristics of this commercial item description, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial market. The government reserves the right to require proof of such conformance.

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

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7. NOTES.

7.1 Source of documents.

7.1.1 Copies of specifications and standards required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.

7.1.2 The Federal Acquisition Regulation (FAR) may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

7.1.3 ASTM Standards are available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

7.1.4 The Department of Transportation Federal Motor Vehicle Safety Standards and Regulations and Federal Motor Carrier Safety Regulations is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

7.1.5 The SAE Standards and Recommended Practices is available from the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096.

7.1.6 The TRA Yearbook is available from the Tire and Rim Association, Inc., 175 Montrose West Avenue, Suite 150, Copley, OH 44321.

7.2 Ordering data. Acquisition documents should specify the following:

a. Title, number, and date of this specification.
b. When adjustable lunette ring hitch is required (see 3.4.3).
c. When synchronizing controller is required (see 3.4.9).

7.3 Definitions. The following definitions are used for this CID:

Improved Road	An improved road is a smooth, hard surfaced road, such as a concrete or asphalt paved highway.
Unimproved Road	An unimproved road is an unpaved unstabilized road with an undulating surface, having occasional chuckholes and exposed rocks.

7.4 Subject term (key word) listing.

Cargo
Elevating mechanisms
Equipment

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7.5 National Stock Numbers (NSNs). The following is a list of NSNs assigned which correspond to this CID. The list may not be indicative of all the NSNs associated with the CID.

NSN	Description
2330-01-314-8304	Trailer, Elevating
2330-01-333-3135	Semitrailer, Elevating
2330-01-384-4157	Trailer, Elevating

MILITARY INTEREST:

Custodian:
Navy - YD1

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - FSS

PREPARING ACTIVITY:

Navy - YD1

(Project 2330-0260)

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STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.

2. The submitter of this form must complete blocks 4, 5, 6, and 7.

3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

I RECOMMEND A CHANGE:	1. DOCUMENT NUMBER	2. DOCUMENT DATE (YYMMDD)
	A-A-50579	970414

3. DOCUMENT TITLE
TRAILER, EQUIPMENT, ELEVATING BODY, 4-WHEEL

4. NATURE OF CHANGE *(Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)*

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME *(Last, First, Middle Initial)*	b. ORGANIZATION	
c. ADDRESS *(Include Zip Code)*	d. TELEPHONE (Include Area Code) (1) Commercial (2) AUTOVON *(if applicable)*	**7. DATE SUBMITTED** (YYMMDD)

8. PREPARING ACTIVITY

a. NAME	b. TELEPHONE *Include Area Code)* (1) Commercial	(2) AUTOVON
RUDY PAMPLONA	805-982-5843	551-5843
c. ADDRESS *(Include Zip Code)* COMMANDING OFFICER, NCBC CODE 15E2D 1000 23RD AVENUE PORT HUENEME, CA 93043-4301	**IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:** DEFENSE QUALITY AND STANDARDIZATION OFFICE 5203 Leesburg Pike, Suite 1403, Falls Church, VA 22401-3466 Telephone (703) 756-2340 AUTOVON 289-2340	