

[INCH-POUND]  
A-A-58086  
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SUPERSEDING  
MIL-T-87997  
22 February 1990

## COMMERCIAL ITEM DESCRIPTION

TRUCK, LIFT, FORK, ELECTRIC, SIT DOWN, SOLID TIRES,  
3,000 POUND CAPACITY AT 24 INCH LOAD CENTER, 185 INCH MINIMUM LIFT

The General Services Administration has authorized the use of this commercial item description as a replacement for MIL-T-87997.

1. **SCOPE.** This commercial item description covers the general requirements for an electric, industrial type, forklift truck. It shall be capable of handling cargo in and around warehouses, loading platforms, and docks; on paved or other hard surfaces.

### 2. SALIENT CHARACTERISTICS.

2.1 **Safety.** The forklift shall comply with ASME/ANSI B56.1, OSHA, and all other applicable standards in effect at the time of manufacture. A seatbelt conforming to SAE J386, and restraint devices designed to ensure the operator's upper body remains entirely within the protection of the overhead guard in the event of tip-over shall be provided. Unless otherwise specified in the contract, the final color shall be forest green for safe operation in an outdoor environment.

2.2 **Environmental requirements.** The forklift shall be capable of continuous operation as specified herein at any ambient temperature from 0 degrees F to 120 degrees F.

2.3 **Maintainability.** All maintenance and servicing functions shall be capable of being performed using common hand tools.

2.4 **Lubrication.** Lubrication means shall be provided for all moving parts that require periodic lubrication. The types of lubricants shall be selected from and in accordance with SAE J754. Grease lubrication fittings shall conform to SAE J534.

2.5 **Fluid level indicator.** All fluid level indicators shall be located where they are accessible without danger of burns or injury to the operator. The indicators shall be in an open area, or covered by a hinged panel that can be opened and closed without the need for tools.

2.6 **Hydraulic system.** A pressure relief protection device is required along with pump(s), cylinders, control valves, filter(s), reservoir, hoses, and all other components necessary to make a complete hydraulic system(s).

Beneficial comments, recommendations, additions, deletions, clarifications, etc., and any data which may improve this document should be sent to: WR-ALC/LVRE, 225 Ocmulgee Court, Robins AFB GA 31088-1647
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2.7 Electric motors. Motors shall be industrial type. The insulation for motors shall be class B, F, or H as defined in NEMA standards.

2.8 Battery. The battery shall have adequate capacity to provide not less than 8.0 hours of continuous operation under normal industrial use. The battery mounted half connector shall be the "SB" type.

2.9 Forks. The fork and fork carrier shall conform to ANSI B56.1. Fork dimensions shall be 2 inches maximum thickness, 4 1/2 inches maximum width, and 42 (+1/2) inches in length. Fork thickness shall not exceed 0.5 inch at the tip, and there shall be a taper on the underside of the forks not less than 14 inches long.

2.10 Fork positioner. The forks shall be capable of being laterally positioned manually without the need of tools. With the forks at their widest spacing, they shall spread at least 28 inches, measured from the outside of the forks. With the forks at their narrowest spacing, they shall measure no more than 12 inches from outside to outside of the forks.

2.11 Side shift. The truck shall be equipped with a powered fork side shift that is operated by the seated operator. It shall side shift the forks not less than 4 inches each side center (8 inches total travel).

2.12 Load backrest. A metal backrest, or backrest with extension, shall be provided. There shall be no protruding bolts or appendages beyond the side plane of the load backrest. The load backrest, in conjunction with fork and hanger design, shall provide a vertical rear guard at least 47 inches high measured from the load carrying surfaces of the forks.

2.13 Uprights and carriage. With no load on the forks, the seated operator shall be able to see at least one fork tip at all lift heights and fork positions.

2.14 Steering. Power steering shall be furnished.

2.15 Service brakes. Service brakes conforming to ASME/ANSI B56.1 shall be furnished.

2.16 Parking brake. Parking brake shall conform to ASME/ANSI B56.1.

2.17 Seat. The cushioned seat shall meet SAE J889 as a minimum requirement.

2.18 Operator's overhead guard. The guard shall be in accordance with ASME/ANSI B56.1, including the falling-object-protective-structure (FOPS) requirements. Overhead guard height from ground to top of guard shall be 84 inches maximum.

2.19 Horn. A horn shall furnished, with the horn actuator located within reach of the seated operator.

2.20 Controls and instrumentation markings. All controls and instrumentation shall be provided with position markings conforming to ASME/ANSI B56.11.3. All load motion controls shall be self centering, that is they shall return to the neutral position when released.

2.21 Indicators. The truck shall be equipped with a battery discharge indicator and an hour meter, both visible to the seated operator.

2.22 Taillight. One combination stoplight and taillight shall be installed on the rear of the forklift.

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2.23 External lights. There shall be at least two sealed beam, 25 watts minimum, floodlights. One shall be facing forward, mounted on the upright or overhead guard, and one mounted in the rear, facing rearward.

2.24 Towing. A pin type towing device shall be recessed in the center rear of the truck.

2.25 Electromagnetic interference (EMI) suppression. The truck shall control EMI to meet the requirements of SAE J551.

2.26 Painting. The forklift shall be primed and painted using standard commercial practices. Unless otherwise specified in the contract, the final color shall be green, commonly called "forest green". All stenciled words, symbols or other markings (for example "3000 POUND CAPACITY" or "LIFT HERE"), shall be black.

2.27 Walkway coating. Floor plates and step surfaces shall be coated with a non-slip coating compound or be furnished with a non-slip metal surface in accordance with ASME/ANSI B56.1.

2.28 Slings provisions. Slings devices that provide a means of attaching a shackle or ring to the forklift for safe lifting shall be furnished to allow the truck to be lifted by a crane in its normal operating position. Each device shall be not more than 1.0 inch thick. The opening in the device shall be at least 3.0 inches in diameter. Each slinging device, when loaded as the truck will be picked up, shall withstand a load of 2.3 times the static load on each device. The words "LIFT HERE" shall be stenciled near each slinging device. If possible, the slinging devices may also be used as the tiedown devices.

2.29 Tiedown provisions. Tiedown devices shall be furnished that withstand the following loads: 3.0 times the unloaded truck weight in the forward and aft directions, 2.0 times the unloaded truck weight in the downward direction, and 1.5 times the unloaded truck weight in both lateral directions. Each device shall withstand at least 1.5 times the loads in the previous sentence without breaking or rupturing. The devices shall be not more than 1.0 inch thick, and the opening in the device shall be at least 3.0 inches in diameter. The word "TIEDOWN" shall be stenciled near each tiedown device. If possible, the tiedown devices may also be used as the slinging devices.

2.30 Informational aids. All stencils, decals, plates, or other similar items, that are provided on the manufacturer's standard product shall be included on the forklift. This shall include, but not be limited to: rated capacity, all cautions and warnings, and all references to safety related items.

2.31 PERFORMANCE. The truck shall be capable of meeting the following performance requirements:

(1) Rated Load. Capability to safely handle the rated load, defined as a 3,000 pound, 48 inch per side cube, with the center of gravity at the center of the cube. The truck shall be able to safely handle this rated load at all lift heights and fork side shift distances that it is capable of attaining.

(2) Lifting speed. At least 27 feet per minute with rated load on the forks.

(3) Lowering speed. With rated load on forks, not more than 80 feet per minute. With unloaded forks, not less than 30 feet per minute.

(4) Service brake. With rated load, the truck shall be capable of meeting the stopping distance requirements of ANSI B56.1.

(5) Parking brake: The brake shall be capable of holding the truck with rated load on a 15 percent grade in both forward and reverse directions

(6) Right angle turn. The truck, carrying rated capacity load, shall be capable of backing through a turn in either direction between two parallel walls not more than 135 inches apart.

(7) Travel speed. Shall be capable of traveling at least six miles per hour, in both forward and reverse directions, while carrying rated load on the forks.

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(8) Slope ascension. With the truck facing up the slope and with rated load on the forks, it shall be able to accelerate up a 15 percent (8.5 degrees) slope from a dead stop.

(9) Upright tilt. With no load on the truck the upright (or mast) shall have at least 5.0 degrees forward tilt, and at least 8.0 degrees of rear tilt. Positive means shall be furnished to prevent cavitation of the tilt cylinders.

(10) Collapsed mast height: Lowest upright height shall be 84.0 inches maximum with no load on the forks.

(11) Maximum fork lift height. With rated load on forks and forks horizontal, the forks shall be capable of raising at least 185 inches. This shall be measured from ground to the horizontal, lifting surfaces of the forks.

(12) Free lift height. With rated load on forks, and with the inner mast or carriage assembly just beginning to exceed the specified collapsed mast height, the distance from the ground to the top surfaces of the forks shall be not less than 35.0 inches.

(13) Drift of load. With hydraulic fluid at normal operating temperature, lift assembly shall hold rated load at maximum lift height for at least 10.0 minutes with not more than one inch of vertical drift, and not more than one degree of rotational drift.

(14) Stability. The forklift shall meet the ASME/ANSI B56.1 "forward stacking", "forward travel", "lateral stacking", and "lateral travel" stability requirements.

(15) Tire loading. Under all fork loading conditions, from empty forks up to rated load, the weight on any tire shall not exceed the maximum allowed by the Tire and Rim Association Yearbook

2.32 Identification plate. A corrosion resistant identification plate shall be permanently installed at an easily accessible location. It shall contain the following information:

NOMENCLATURE  
 MANUFACTURER'S NAME  
 MANUFACTURER'S ADDRESS  
 MANUFACTURER'S SERVICE TELEPHONE NUMBER  
 MANUFACTURER'S MODEL NUMBER  
 MANUFACTURER'S SERIAL NUMBER  
 DATE OF MANUFACTURE  
 CONTRACT NUMBER  
 NATIONAL STOCK NUMBER  
 REGISTRATION NUMBER

### 3. REGULATORY REQUIREMENTS.

3.1 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). However, used, rebuilt, or remanufactured components, pieces, and parts shall not be incorporated in the forklift.

### 4. QUALITY ASSURANCE PROVISIONS.

4.1 Product Conformance. The products provided shall 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 prior to first delivery and thereafter as may be otherwise provided for under the provisions of the contract.

4.2 Market Acceptability. The following market acceptability criteria are necessary to document the quality of the product to be provided under this CID.

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4.2.1 Commercial. The vehicle furnished shall be, as of the date of award, the latest model (with minor modifications, as that term is defined in DoD FAR Supplement 252.211-7012, Paragraph K-85 of the

solicitation) of an established product previously produced and sold in substantial commercial quantities [exceeding the criteria at FAR 15.804-3(f)(2)(ii)(A)] for at least three years. The vehicle furnished, or earlier models of it, absent minor modifications, shall have routinely been supported with spare/repair parts which were produced or sold in the normal course of business. At the time of delivery, the contractor shall furnish the Administrative Contracting Officer with verification of compliance with these requirements. Offerers shall provide, as part of their proposals, the following information on the vehicle (or its earlier models) being offered as a commercial item:

- (1) Total sales to the U.S. Government or to contractors for U.S. Government use during the three years.
- (2) Total sale of the item to the general public during the three years.
- (3) Length of time the item has been sold in the commercial market place.

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

## 6. NOTES.

### 6.1 Source of Documents.

6.1.1 ASME/ANSI documents may be obtained from American Society of Mechanical Engineers, 345 East 47th St., New York NY 10017.

6.1.2 SAE documents may be obtained from Society of Automotive Engineers, Inc, 400 Commonwealth Drive, Warrendale PA 15096.

### MILITARY INTERESTS:

#### CUSTODIANS:

Air Force - 99  
Army-AT  
Navy-SA

### CIVIL AGENCY COORDINATING ACTIVITY:

GSA-FSS

#### PREPARING ACTIVITY:

Air Force: 84  
AGENT: Air Force: 99

PROJECT NUMBER: 3930-0690