

COMMERCIAL ITEM DESCRIPTION
TRUCK, LIFT, FORK, DIESEL-ENGINE-DRIVEN, PNEUMATIC-TIRED,
10,000 POUND CAPACITY

1. SCOPE. This commercial item description covers the general requirements for a diesel engine driven, front wheel drive, rear wheel steer, pneumatic tired, 10,000 pound capacity, and forklift truck. The forklift is intended for handling cargo on the 463L pallet and miscellaneous cargo in and around aircraft and warehouses, loading platforms, docks, and on paved or other hard surfaces.

2. CLASSIFICATION. The forklift shall be following types and classes. The type and class to be furnished shall be as specified (see 7.2).

Type I: 10,000 pound capacity at 48 inch load center

3. SALIENT CHARACTERISTICS:

3.1 Safety. The forklift shall comply with ASME/ANSI B56.1, UL 558, and OSHA standards in effect at the time of manufacture. The vehicle shall be DS rated. An operator's seatbelt conforming to SAE J 386, 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.

3.1.1 Design and Safety (Class A). In addition to the requirements of 3.1, the forklift shall also meet the requirements of Air Force Manual 91.1 18. The forklift shall be designed for a structural safety factor (based on yield strength) of at least 3 times the rated load, or maximum dynamic load multiplied by a factor of 2, whichever is greater. The forklift shall be designed to minimize the transmission of mechanical shock to loads in all modes of operation.

3.2 Environmental requirements. The truck shall be capable of operating in temperatures ranging from 0 degrees F to +125 degrees F.

3.3 Engine. The forklift shall be powered by a standard, commercial, diesel engine. The engine shall operate on diesel fuel in accordance with A-A-52557 without detrimental effects on the engine, or its performance.

3.4 Fuel system. The forklift shall have all necessary filters, water separators, and components required for diesel fuel operation. The forklift shall have a fuel tank of sufficient capacity to allow at least eight hours of continuous operation.

3.5 Starting system. The starter switch shall not activate the engine starter while the engine is running, nor when the engine is not running and the transmission is in any forward or reverse gear. The starter switch shall only operate when the transmission is in the "neutral" or "park" positions.

3.6 Transmission. A torque converter and a power shift type of transmission shall be furnished, with at least two speeds forward and two speeds reverse. The transmission shall provide for positive inching control or de-clutch control that permits lifting of rated load at maximum lifting speed while the transmission control is in either forward or reverse direction, without vehicle movement. This control shall also apply the service brakes. When specified (see 7.2), a transmission oil cooler shall be furnished.

3.7 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. The hydraulic system shall also be designed to prevent forward tilt in the event of system failure; tilt angle shall not deviate more than two degrees if failure occurs at any position during load handling operations.

b. Class B. The hydraulic lift system shall be designed so that in the event of hydraulic hose or pump failure, the load shall not descend (freefall) at an uncontrolled rate; lowering speed shall not exceed eight (8) inches per second under any load condition. A manual override for the tilt function shall also be provided to allow for load removal.

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

3.9 Forks and carriage. Fork tines shall have the following dimensions. The forks shall be mounted so that when fully lowered and the forklift is operating in reverse, there is no damage or degradation to the fork tines, their attachment, or any other component of the carriage, including fork positioner and side shift.

Type I:

a. Length: 72 ± 1 inches

b. Width: 8 inches (maximum)

c. Thickness: 2.5 inches maximum, except bend in fork heel may exceed 2.5 inches.

d. Fork tip thickness: ½ inch (maximum)

e. Fork taper (underside of forks): Taper from fork tip rearward shall be 30 inches (minimum).

f. Fork carrier assembly width shall not exceed the overall width of the forklift truck.

THIS SPECIFICATION OF FORKS IS MANDATORY, NO EXCEPTIONS WILL BE ACCEPTED

3.10 Fork positioner. A hydraulically powered fork positioner shall be furnished and controlled by the operator while seated. The fork positioner shall allow tine spacing of 18 inches (or less) to 60 inches (or more), measured between centerlines of the forks.

3.11 Side shift. Hydraulically powered side shift capability shall be furnished. It shall be controlled by the seated operator, and shall provide at least six inch side shift capability (each side of center or 12.0 inches minimum total travel).

3.12 Load backrest. The load backrest, in conjunction with the forks and carriage, shall provide a vertical rear load guard of at least 48 inches high, measured from the load carrying surfaces of the forks.

3.13 Steering. Power steering, with emergency steering in the event of power failure, shall be furnished.

3.14 Service brakes. Power brakes conforming to ASME/ANSI B56.1 shall be furnished, except maximum brake pedal force during stopping shall not exceed 80 pounds.

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

3.16 Electrical system. A 12 volt direct current (VDC) electrical system shall be furnished. The electrical system shall consist of all electrical components necessary for operation of the forklift. The forklift shall have sufficient electrical grounding to prevent static discharge.

3.16.1 Backup alarm. An audible backup alarm shall be furnished. The alarm shall automatically activate when the transmission selector is placed in reverse.

3.17 Instruments and controls. In addition to the instruments supplied on the standard commercial forklift, an hour meter and tachometer shall be installed in the instrument panel. All instruments shall illuminate, except for the hour meter. All load motion controls shall be right hand operation controls and of the self-centering type, i.e. controls shall return to the neutral position when released.

3.18 Lighting. Minimum four sealed beam floodlights, two in front facing forward and two mounted in the rear facing rearward, shall be furnished. An additional floodlight shall be furnished that is adjustable from inside the cab by the operator while seated; the floodlight shall provide at least 270" rotation capability. Tail light(s) and brake stop light(s) shall be installed. All lights shall be protected by location or guards. Individual operator controlled switches shall be provided for front floodlights, rear floodlights, and adjustable lights.

3.19 Horn. Horn button shall be mounted in the center of the steering wheel.

3.20 Operator's overhead guard. The guard shall be in accordance with ASME/ANSI B56.1. It shall also be a falling-object-protective-structure (FOPS) conforming to ASME/ANSI B56.1. The overhead guard height from ground to top of guard shall be 102 inches maximum.

3.21 Cab. The forklift shall be equipped with an enclosed cab that shall incorporate overhead protection requirements of ASME/ANSI B56.1. The cab shall have a door on each side of the vehicle with at least one window per door which can be opened for ventilation; the windows shall be capable of being locked in either the open or closed positions. The doors shall be provided with hinges that can be serviced without door removal and shall allow adjustments for door fit. The doors shall be capable of being locked in either the opened or closed positions. In addition to the door windows, the cab shall be furnished with a front windshield, rear window, and roof window. The windshield and all windows shall be safety glass. The cab interior shall be furnished with water-resistant non-absorbent thermal insulation. A commercial fire extinguisher shall be mounted on the truck in an

easily accessible location. The fire extinguisher shall be a minimum 2 - ½ pound capacity ABC type, or equivalent. The fire extinguisher shall be UL listed.

3.22 Heater and defroster. The manufacturer's heaviest duty heater and defroster shall be furnished.

3.23 Windshield wipers. There shall be at least three wipers furnished, one on the front windshield, one on the rear window, and one on the roof window.

3.24 Performance.

3.24.1 Type I:

a. Capability to safely handle a 10,000 pound load, with a 48 inch load center, at all lift heights

b. Lifting speed. At least 14 inches per second, but not to exceed 17 inches per second.

c. Lowering speed. Not more than 14 inches per second with rated load on forks. Not less than eight (8) inches per second with rated load and with engine at idle speed.

d. Upright height with forks on ground (collapsed mast height): 97 inches maximum, with no load on the forks.

e. Maximum fork lift height. At least 150 inches with rated load on forks and forks horizontal.

3.24.3 Type I

a. Right angle turn. With rated load on the forks, forklift positioned perpendicular to a wall, and with the front of the load against the wall, the truck shall be able to back up and make a complete right angle turn (ending up parallel to the wall) within 210 inches.

b. Travel speed. 12 miles per hour (mph) minimum (not to exceed 18 mph), in both forward and reverse, while carrying rated load on the forks. The vehicle speed shall be governed so that maximum speed for safe operations is not exceeded.

c. Slope ascension. With the truck facing up the slope and with rated load on the forks, the truck shall be able to accelerate up a 20 percent slope from a dead stop.

d. Upright tilt. With no load on the truck, the forks shall have at least 3.0 degrees of forward tilt, and at least 6.0 degrees of rear tilt.

e. Ground clearance. With rated load on the forks and mast vertical, ground clearance beneath the mast shall be at least 5.0 inches. With no load on the forks, the ground clearance of the truck other than the mast and axles, shall be at least 7.0 inches.

f. Load drift. With hydraulic fluid at normal operating temperature, the lift assembly shall hold rated load at maximum lift height for at least 2.0 minutes with not more than 1- ¾ inch of vertical drift, and not more than 1.0 degree of rotational drift.

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

h. Noise limits. Maximum allowable noise level shall not exceed 84 dB(A) at the operator's ear. If the noise level at the operator's ear exceeds 84 dB(A) (85 to 92 dB(A)), a permanent warning decal or placard shall be installed inside the cab clearly visible to the operator. Noise level limits that exceed 92 dB(A) are not acceptable.

3.25 Painting. The forklift shall be primed and painted using standard commercial practices

3.26 Markings, data plates, and instruction plates. Corrosion resistant identification plate, hydraulic schematic, wiring schematic, and all warning and instruction plates shall be provided and mounted on the vehicle. The identification plate shall contain the following information:

Class A: Class B:

Truck, Lift, Fork Truck, Lift, Fork

Capacity: 10,000 pounds at () Capacity: 10,000 pounds at () inch
inch load center load center

Gross Vehicle Weight (GVW): Gross Vehicle Weight (GVW):

National Stock Number (NSN): National Stock Number (NSN):

Contract Number: Contract Number:

Serial Number: Serial Number:

Model Number: Model Number:

Registration Number: Registration Number:

Manufactured by: Manufactured by:

Name: Name:

Address: Address:

Service Phone Number: Service Phone Number:

US Property: US Property:

ANSI B56.1 conformance:

UL Type designation and conformance

3.27 Walkway coating. Floor plates and step surfaces shall be coated with a non-slip coating compound, or be furnished with a non-slip metal or tread plate surface.

3.28 Lifting and tie-down provisions. There shall be permanently installed lifting devices that enable the forklift to be lifted in its normal travel configuration, and tie-down devices that enable the forklift to be tied down to the floor of the transportation media. All devices shall have an inside diameter of 3.0 inches and minimum structural safety factor of 2:1, based on static load. The notation "LIFT HERE" and "TIE DOWN" shall be stenciled, in black, near each lifting and tie-down device.

4. REGULATORY REQUIREMENTS

4.1 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. The forklift shall comply with applicable Environmental Protection Agency (EPA) regulations.

5. PRODUCT CONFORMANCE 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.

5.1.1 Class A. Unless otherwise specified (see 7.2) the contractor is responsible for the performance of all inspections and testing specified herein, at his own or other facilities of his choosing. Government representatives shall witness all testing specified in Section 5 of this document.

5.2 Responsibility for compliance (Class A). All trucks on the contract shall meet all requirements of this document. The contractor shall comply with all requirements of this document, whether or not there is a corresponding inspection requirement in Section 5 of this document.

10 A-A-59340B

6. PACKAGING

6.1. Preservation, Packaging, Labeling and Marking. Unless otherwise specified (see 7.2), the preservation, packaging, and packing shall be to a degree of protection to preclude damage to containers and/or contents thereof under normal shipping conditions, handling, etc. This involves shipment from the supply source to the receiving activity, and reshipment from the receiving activity. The preservation, packaging, and packing shall conform to applicable carrier's rules and regulations. Intermediate and exterior package quantities, labeling and marking shall be as specified in the contract and/or order.

7. NOTES

7.1 Sources of referenced documents.

Department of Defense and Federal documents referenced herein may be obtained from the Document Automation and Production Service, Bldg 4D, 700 Robbins Avenue, Philadelphia PA 19111-5094, or online at <http://assist.daps.dla.mil>.

The Society of Automotive Engineers (SAE) documents may be obtained online at <http://www.sae.org/> or from SAE, 400 Commonwealth Drive, Warrendale, PA 15096.

ANSI/ASME documents may be obtained online from <http://www.asme.org/> or from the American Society of Mechanical Engineers, 345 East 47th Street, New York, NY 10017.

OCCUPATIONAL SAFETY AND HEALTH ASSOCIATION (OSHA) OSHA Standards

Occupational Safety and Health Standards for Industry

(Applications for copies should be sent to the U. S. Department of Labor, 200 Avenue NW, Room 423, Washington DC 20210), or online at <http://www.osha.gov>

Federal Acquisition Regulation (FAR) documents may be obtained at www.acqnet.gov/far or at the Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250.

Underwriters Laboratories (UL) Industrial Trucks, Internal-Combustion Engine Powered
(Applications for copies should be sent to the Underwriters Laboratories INC., 333 Pfingsten Road Northbrook, IL 60062), or online at <http://www.ul.com>

15 A-A-59340B