INCH-POUND
A-A-59831A
14 AUGUST 2014
SUPERSEDING
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COMMERCIAL ITEM DESCRIPTION

TRUCK, LIFT, FORK, ELECTRIC, SIT DOWN, SOLID TIRES, 4000 POUND CAPACITY AT 24 INCH LOAD CENTER, 144 INCHES MINIMUM LIFT HEIGHT

The General Services Administration has authorized the use of this Commercial Item Description (CID) for all federal agencies.

1. SCOPE

1.1 Scope. This Commercial Item Description (CID) covers the general requirements for an electric, front wheel drive, rear wheel steer, sit down operator, solid tired, 4,000 pound at 24 inch load center capacity, Forklift Truck. The forklift is intended for handling cargo in and around warehouses, loading platforms, docks, and on paved or other hard surfaces.

2. CLASSIFICATION

2.1 Classification. The forklifts shall be one of the following types and classes, as specified (see 7.3).

2.1.1 Types. The types of forklifts are as follows:

Type I	Certified
Type II	Non-certified

Beneficial comments, recommendations, additions, deletions, clarifications, etc., and any data which may improve this document should be sent to: WR-ALC [AFMC AFLCMC/WNZ], 235 Byron Street, Suite 19A, Robins AFB GA 31098-1813. Since contact information can change, you may want to verify the currency of this address information using the ASSIST database at https://assist.dla.mil.

AMSC N/A FSC 3930

2.1.2 Class. The forklift classes are as follows:

Class A	E rated
Class B	EE rated
Class C	EX rated

3. SALIENT CHARACTERISTICS

3.1 Safety. The forklift shall conform to ANSI/ITSDF B56.1, UL 583, and OSHA standards in effect at the time of manufacture. Unless otherwise specified as Type EE in the contract (see 7.3), the forklift shall be an electrically powered unit Type E in accordance with UL 583. A commercial fire extinguisher shall be mounted on the truck in an easily accessible location. The fire extinguisher shall be at the very minimum, a 2 ½ pound capacity ABC type or equivalent UL listed type. An operator's seatbelt conforming to SAE J386 in conjunction with 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. The final color of the forklift truck shall be the manufacturer's standard commercial color for safe operation in an indoor environment.

3.1.1 Design and Safety (Type I). In addition to the requirements of 3.1, the forklift shall also meet the requirements of Air Force Manual 91-118. 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 forklift truck shall be capable of operating in temperatures ranging from 0 degrees F to +125 degrees F. When specified (see 7.3), the forklift shall be winterized to -25 degrees F. As a minimum, a cab, cab heater, and windshield defroster shall be provided.

3.3 Battery. The battery shall be a commercially available 48, 72 or 80 volts. The battery shall be a least 500 amp hours. The battery-mounted, half connector shall be "SB" type locking half connectors. When specified (see 7.3), the appropriate battery charger shall be shipped with the forklift truck.

3.4 Hydraulic system(s). A pressure relief protection device shall be required along with pump(s), cylinders, control valves, filter(s), reservoir, hoses, and all other applicable 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.

a. Type I. The hydraulic lift system shall be designed so that in the event of hydraulic hose or pump failure, the lift system will automatically prevent load lowering. A manual override for load lowering and tilt functions shall also be provided to safely lower the

load and provide for load removal; lowering speed of the forks shall not exceed eight (8) inches per second under any load conditions.

b. Type II. 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 rated; 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.

3.5 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.

3.6 Forks and carriage. Fork tines shall have the standard dimensions shown in Table I. The forks shall be mounted so that when fully lowered and forklift 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. When specified (see 7.3), optional forks shall be furnished.

TABLE 1. Fork tine dimensions

Dimension	Standard Forks	Optional Forks *
Length	48 ± 1 inches	36 to 60 inches
Width	4.0 inches (maximum)	4.0 to 5.0 inches
Thickness	1.5 inches (maximum)	1.5 to 2.0 inches

* User dimensions specified at time of order

3.7 Fork Spacing. Manual forklifts shall have manual fork positioning.

a. Type I. The forks shall allow tine spacing of 12 inches (or less) to 45 inches (or more), measured between centerlines of the forks.

b. Type II. The forks shall allow tine spacing of 12 inches (or less) to 32 inches (or more), measured between centerlines of the forks.

3.8 Side shift. A hydraulically powered side shift capability shall be furnished. It shall be controlled by the seated operator, and shall provide at least four-inch side shift capability each side of center (or 8.0 inches minimum total travel) with rated load on the forks.

3.9 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. Load securing rings or eyes shall be provided on both the left and right sides of the backrest and located not less than 15 to not more than 25 inches above the load carrying surface of the forks. Safety factor for the load securing devices shall not be less than 3 to 1, based on yield strength, assuming each device is loaded equally. Ring or eye opening shall be determined using MIL-STD-209. The load securing device, when not in use, shall not extend

forward of any surface on front face backrest. The backrest assembly/load securing device combination shall be capable of withstanding a horizontal force (at load securing devices) equal to three times the truck capacity without failure or permanent deformation of carriage assembly (see 5.3.21).

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

3.11 Service Brakes. Power brakes conforming to ANSI/ITSDF B56.1 shall be furnished.

3.11.1 Service brakes (Type I). The service brakes shall also be capable of holding the forklift, with rated load, on a minimum 20% grade (11.3 degree) without assistance of the parking brake.

3.12 Parking brake. Parking brakes conforming to ANSI/ITSDF B56.1 shall be furnished.

3.12.1 Parking brake (Type I). In addition to the requirements of 3.12, the parking brake shall be independent of the service brake system and shall e capable of holding the forklift, with rated load, on a minimum 20% grade (11.3 degree).

3.13 Electrical system. A 48, 72, or 80 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.

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

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

3.15 Lighting. Minimum two sealed beam floodlights, one facing forward and one facing rearward shall be furnished. 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 floodlight, and rear floodlight. The forklift shall be equipped with an amber colored strobe light with an intensity of at least 40 candela.

3.16 Horn. Horn button shall be located in the center of the steering wheel.

3.17 Operator's overhead guard. The overhead guard shall be a falling-object-protective-structure (FOPS) conforming to ANSI/ITSDF B56.1. The overhead guard height from ground to top of guard shall be 88 inches maximum.

3.18 Cab. When specified (see 7.3), the forklift, shall be equipped with an enclosed cab that shall incorporate FOPS requirements of ANSI/ITSDF 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 doors shall be capable of being locked in either the open 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. The manufacturer's heaviest duty heater and defroster shall be furnished. There shall be at least two wipers furnished, one on the front windshield and one on the rear window.

3.19 Tires. The tires shall be pneumatically-shaped solid tires. Tire loading shall not exceed those specified in the Tire and Rim Association (TRA) Yearbook.

3.20 Performance. The truck shall be capable of meeting the following performance requirements:

a. Capability to safely handle a 4,000 pound, 48 inch per side cube with the center of gravity at the center of the cube. It shall be able to handle this load at all lift heights that the forklift is capable of attaining.

b. Lifting speed: Shall be capable of raising the rated load at least 7.0 inches per second.

c. Lowering speed: Shall be no more than 16 inches per second with rated load on the forks and not less than 4 inches per second with no load and with engine at idle speed.

d. 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 160 inches.

e. Travel speed: While carrying the rated load on the forks, the travel speed shall be 5 miles per hour (mph) minimum (not to exceed 15 mph), in both forward and reverse. The vehicle speed shall be governed so that the maximum speed for safe operations is not exceeded.

f. 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 15% (8.5 degree) slope from a dead stop.

g. Upright tilt: With no load on the truck, the forks shall have at least 5.0 degrees of forward tilt, and at least 5.0 degrees of rear tilt.

h. Upright height (collapsed mast height) and Maximum fork lift height: With no load on the forks and the forks on the ground, the maximum upright height shall be 88 inches. The maximum fork “lift height” shall be at least 144 inches with rated load on

the forks and the forks horizontal.

i. Free lift height: The height that the forks can raise the rated load before the collapsed mast height is increased shall be at least 45.0 inches.

j. Ground clearance: With rated load on the forks and mast vertical, ground clearance beneath the mast shall be at least 3.0 inches. With no load on the forks, the ground clearance of the truck other than the mast and axles shall be at least 4.0 inches.

k. Load drift: With hydraulic fluid at normal operating temperature, the lift assembly shall hold rated load at maximum lift height for at least 10.0 minutes with not more than 1-¾ inch of vertical drift, and not more than 1.0 degree of rotational drift.

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

m. Noise limits: Maximum allowable noise level shall not exceed 84dB(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 92dB(A) are not acceptable.

3.21 Painting. The forklift shall be primed and painted using standard commercial practices. The final paint shall be a standard, commercially available polyurethane. The paint finish shall show no evidence of uneven application, curtains, runs snags, orange peel, lack of adhesion, or other defects. The color shall be the manufacturer’s standard color. If any components on the truck are not painted, the components shall have a commercially available, protective coating (such as zinc plating).

3.22 Identification plates. Corrosion resistant identification plate shall be provided and mounted on the vehicle. The identification plate shall contain the following information:

- Nomenclature:
- Make and Model:
- Manufacturers Serial Number (VIN):
- Registration Number:
- National Stock Number (NSN):
- Vehicle Curb Weight (lbs.):
- Payload, Maximum (lbs.):
- Gross Weight, Maximum (lbs.):
- Date of Delivery:
- Warranty (months/miles):
- Contract Number:
- Ship to _____ Mark for _____
- U S Property

3.23 Walkway coating. Floor plates and step surfaces shall be coated with a nonslip coating compound, or be furnished with a nonslip metal or Tread Plate surface.

3.24 Lifting and tiedown provisions. There shall be permanently installed lifting devices that enable the forklift to be lifted in its normal travel configuration, and tiedown 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 "TIEDOWN" shall be stenciled, in black, near each lifting and tiedown device.

3.25 Electromagnetic interference (EMI) suppression. The forklift shall comply with the EMI requirements shown in Table II (Type I) and Table III (Type II).

Table II (Type I). Electromagnetic Interference (EMI)

Name	Description	Parameters
MIL-STD-461	Compatibility	N/A
RE-102	Emissions	(Frequency Range: 2 MHz to 18 GHz)
RS-103	Susceptibility	(Frequency Range: 30 MHz to 18 GHz) 10 V/m (100 kHz to 1 GHz) 50 V/m (above 1 GHz)

Table III (Type II). Electromagnetic Interference (EMI)

Name	Description	Parameters
SAE J551/1	Compatibility	N/A
CISPR 12 & CISPR 25	Emissions	(Frequency Range: 30 to 1000 MHz)
MIL-STD-461, RS-103	Susceptibility	(Frequency Range: 100 kHz to 18 GHz) 20 V/m (100 kHz to 200 MHz) 50 V/m (above 200 MHz)

3.26 Highway transportability. The truck, when loaded on a semitrailer, shall be within the highway permit limits for all states.

3.27 Workmanship. The truck shall withstand any operation specified herein without permanent deformation, breakage of connections, malfunction, or component interference caused by incorrect workmanship. Riveted and bolted connections shall be adequately designed. Welding shall be performed by a certified welder.

3.28 Certification Testing (Type I). The forklift shall undergo a full first-article test process outlined in section 5, if any one of the following conditions is encountered:

1. The manufacturer has not previously produced such a forklift for the Air Force.

2. The forklift has not been previously purchased by the Air Force.

3. The forklift has been upgraded/modified in any way to affect Form, Fit or Function from previous production models on contract.

4. The forklift has not been purchased within a 60 month time frame from a previous first article test, assuming the forklift has not changed from the configuration that had been previously tested.

4. REGULATORY REQUIREMENTS

4.1 Recycled, recovered, environmentally preferable, or bio-based materials. Recycled, recovered, or environmentally preferable, or bio-based 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 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.

4.2 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 Product Conformance. The forklift truck 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 forklift truck offered for sale in the commercial marketplace, modified as necessary to comply with the requirements herein. 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.

5.1.1 Type I. Unless otherwise specified (see 7.3) 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 (Type I). 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.

5.3 First article inspection (Type I). The first article truck and its components, contractor drawings and literature, and vendor literature shall be compared to Section 5 of this document to verify compliance. The truck shall then be subjected to the demonstrations and test specified in 5.3.1 through 5.3.22.

5.3.1 Demonstrations and test (Type I). The following demonstrations and tests may be performed in any order, as determined by the contractor. The forklift shall be examined to determine compliance with this document. Occurrence of any of the following conditions during the testing specified herein shall be cause for rejection of the truck:

a. Inability to meet specified performance requirements or inability to complete any test.

b. Permanent deformation, over-heating, malfunctions, leakage of lubrications, hydraulic fluid, or any other seepage failures, in excess of Class 3 for dust free conditions and Class 3D for dusty conditions in accordance with SAE J1176.

c. Any binding, jerking, or uneven operation of any component or system.

d. Any wearing, galling, gouging or other material removal.

e. Any unsafe operation that jeopardizes the operator or forklift.

5.3.2 Demonstration conditions (Type I). Unless otherwise specified (see 7.3), demonstrations shall be conducted at the ambient temperature and climatic conditions existing at the place of demonstration. Only that maintenance established by the contractor shall be performed during the demonstration. All distance and time measurements, and other required data obtained during the testing shall be recorded and included in the first article test report.

5.3.3 Rated load. The rated load shall be a 4,000 pound (+200, -0) pound cube with a center of gravity located at the geometrical center of the cube. The cube shall be sized to provide a 24 inch load center on the forks.

5.3.4 Maximum fork lift height. With rated load and forks level, raise forks to their maximum lift height. Measure from ground to top surface of one fork and determine maximum lift height. Failure to obtain a minimum 144 inch lift height shall be cause for rejection.

5.3.5 Lifting and lowering speed (Type I). Measure distance from ground to top surface of forks in fully lowered position. Measure time required to raise rated load from ground to maximum lift height. Subtract distance from ground to top surface of forks from maximum lift height, and calculate lifting speed. Lower rated load, at maximum lowering speed (fully open lowering control) and abruptly stop the load at 1 to 2 foot height. Record this time. Measure distance from

ground to top surface of one fork. Subtract this figure from the maximum lift height and calculate loaded lowering speed. Remove load and raise forks to maximum lift height. Measure time required to lower forks to ground level. Calculate the unloaded fork lowering speed. Nonconformance with Section 3.20 shall be cause for rejection.

5.3.6 Travel speed (Type I). Operate the truck at maximum speed in both forward and reverse directions with rated load in load carry position. Inability to safely obtain 5 mph, or exceeding 15 mph shall be cause for rejection.

5.3.7 Longitudinal slope operation (Type I). Drive the truck forward with rated load in uphill position onto a ramp, hill, or other suitable surface with a minimum 15 percent (or 8.5 degree) slope. Stop the truck on the slope, then accelerate up the slope reaching a steady measured speed. The truck shall descend the slope, with the load in the uphill position, at a safe, measured speed.

5.3.8 Drift (Type I). Raise rated load to maximum lift height, with hydraulic fluid at ambient temperature. Place forks in horizontal position and shut off engine. Measure from ground to top surface of one fork. Let truck sit for a minimum 2.0 minutes. Using the same fork and reference points, measure from ground to top surface of fork. Vertical drift exceeding 1-3/4 inches, or rotational drift exceeding 1.0 degrees, shall be cause for rejection.

5.3.9 Right angle turn (Type I). With rated load on forks, position the truck so that it is perpendicular to a wall with the load facing the wall. Using the wall as a reference, measure a point 160 inches perpendicular from the wall. Mark location and other points 160 inches away from the wall so that a line parallel to the wall can be formed. Back vehicle so that a full right turn can be accomplished to the point the forklift is positioned parallel to the wall. Any portion of the forklift or load that extends beyond the 160 inch line shall be cause for rejection. Repeat test for left turn.

5.3.10 Fork tine operation (Type I). Measure both forks for length, width, thickness, thickness at tip, and bottom taper. Demonstrate side-shift capability through its full range. Repeat at least five times each for unloaded and at rated capacity. With rated load on forks, raise forks to maximum lift height, then lower at maximum lowering speed and quickly stop at one to two feet above ground level. Repeat at least five times. Occurrence of any condition listed in 5.3.1 shall be cause for rejection. Position unloaded forks approximately horizontal and 3 to 5 inches above ground level. Measure fork tilt. Without touching the tilt control lever, raise forks to maximum fork height, then lower to original position. Verify that the forks maintain the same tilt while being raised and lowered. Repeat procedure with rated load on forks and forks at approximately five degrees rear tilt. Inability to maintain the fork tilt shall be cause for rejection.

5.3.11 Stability (Type I). Conduct the “longitudinal stability stacking”, “longitudinal stability travel”, “lateral stability stacking”, and “lateral stability travel” tilting platform tests of ANSI/ITSDF B56.1. Failure to meet the minimum tilting requirements specified in ANSI/ITSDF B56.1 shall be cause for rejection.

5.3.12 Electromagnetic interference (EMI) (Type I). Test the truck to determine compliance with MIL-STD-461 RE102 and RS103. Failure to meet requirements shall be cause for rejection.

5.3.13 Service brakes (Type I). Demonstrate that the service brakes can stop the truck, with rated load, in accordance with ANSI/ITSDF B56.1. Position forklift, with rated load, on a minimum 20% incline (11.3 degree) and demonstrate the service brake system can hold the truck. Maintain position for one minute without assistance from the parking brake system. Failure to meet ANSI/ITSDF B56.1 requirements or inability to maintain the forklift position on the incline shall be cause for rejection.

5.3.14 Parking brake (Type I). Demonstrate that the parking brake can hold the truck, with rated load, on a minimum 20% incline (11.3 degree) without assistance from the service brake system. Maintain position for at least three (3) minutes. Inability to maintain the forklift position shall be cause for rejection.

5.3.15 Starter disconnect switch (Type I). Start the engine and let it run for at least 10 seconds. Energize the starter switch (move to “off” then “on” position if applicable) while the engine is running. Any evidence of starter engagement while the engine is running shall be cause for rejection. With the engine not running, place transmission selector in the lowest forward gear and energize the starter switch. Repeat for all forward and reverse gears. Any evidence of starter engagement while transmission is in any gear shall be cause for rejection.

5.3.16 Overload (Type I). Perform a stress analysis of the truck to determine all critical stress points. Apply strain gauges or other suitable instrumentation at all the critical stress points to measure stress during the test. Place truck on a level surface and position forks at least 24 inches above ground level with the forks centered on the carriage. Position supports under the frame or front axle to relieve load on front tires, and secure the rear of the truck to compensate for the additional test load. For the test load, use 3 times the rated load or 2 times the maximum dynamic load, whichever is greater. Apply this test load to the forks. Let overload remain on the forks for at least 10 minutes. Remove the load and inspect truck structure, frame, mast, and hydraulic system for deformation, cracks, broken welds, hydraulic fluid leaks, etc. Inspect forks a minimum of six (6) inches on either side of heel by magnetic particle or dye penetrant method. Record readings from strain gauges and convert to, and record, the corresponding stresses. Failure to meet these requirements shall be cause for rejection. Include results of the stress analysis that determined the stress caused by the static and dynamic loads in the first article test report. The entire stress analysis is not necessary, just the location of critical stress points.

5.3.17 Fail safe hydraulic lift system (Type). Raise the rated load to maximum lift height with forks level. Measure vertical distance from ground to top surface of one fork. No personnel shall be under or in front of the load during the next step. Disconnect hydraulic line(s) that supply pressure to the lift system. Re-measure vertical distance from ground to same point on fork surface. A drop of more than 1/2 inch shall be cause for rejection. Measure fork tilt. Disconnect hydraulic line(s) that supply pressure to prevent forward tilting. Remeasure fork tilt. A change of more than 1.0 degrees of tilt shall be cause for rejection. Use the manual override provided to lower rated load to ground.

5.3.18 Fork lifting mechanism (Type I). Raise the rated load from ground level to maximum lift height and lower back to ground. This shall be considered one cycle. Repeat until 100 cycles have been completed. This is a severe test of the hydraulic system so raising and lowering may be stopped after every 10 cycles to allow cooling of the hydraulic system. Inability to complete the test, binding or erratic movement, any failure of the lifting system, or overheating of the hydraulic fluid shall be cause for rejection.

5.3.19 Fork spacing and side shift mechanism (Type I). The forks on rigid frame trucks shall be side shifted with the rated load from extreme left to extreme right position, and back to extreme left. This shall be considered one cycle. Repeat until 100 cycles have been completed. This is an extreme test of the hydraulic system and side shifting may be stopped after 20 cycles to allow cooling of the hydraulic fluid. For side shifting, any binding, erratic movements, inability to complete the test, failure of the system, or overheating of the hydraulic fluid shall be cause for rejection.

5.3.20 Air transportability verification (Type I). Verify the forklift can meet all air transportability requirements, including tiedowns, negotiation of ramps, and dimensional and weight limitations. Inability to meet requirements shall be cause for rejection. Refer to MIL-STD-1791 as a Guide

5.3.21 Load backrest restraints (Type I). Apply a forward, horizontal force of 3.0 times rated load to load restraint devices for 10 minutes. The test load may be applied to all devices at once, or 3.0 times the proportional share of the load may be applied to each device. Remove load and inspect restraint devices, welds and supporting structure for deformation, cracks, broken welds, or any type of distortion, which shall be cause for rejection.

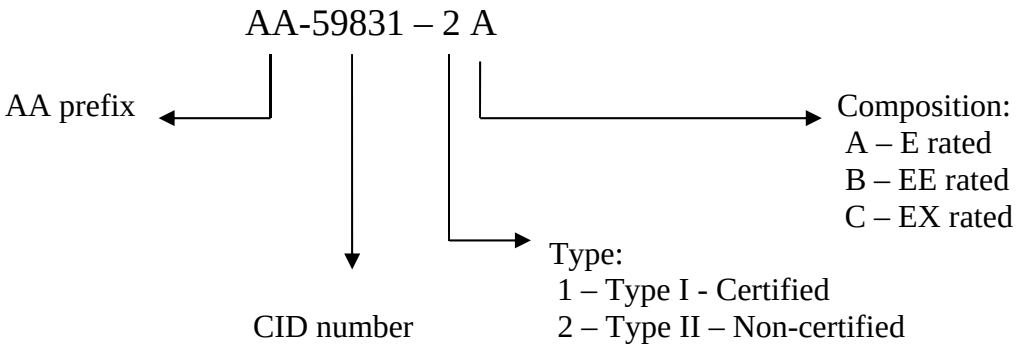
5.3.22 Travel (Type I). The truck shall be driven at least 1.0 miles at varying speeds, including maximum speed. At least five right and five left turns shall be made at maximum turn angle. During the test, the horn, windshield wipers, lights, heater, defroster, and other components shall be operated. Occurrence of any conditions listed in 5.3.1, or in-operability of any component listed, shall be cause for rejection.

6. PACKAGING

6.1 Preservation, Packaging, Labeling and Marking. Preservation, packing, and marking shall be as specified in the contract. Unless otherwise specified in the contract (see 7.3), 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 and handling. 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. Shipping containers shall be properly marked and in compliance with both national and uniform motor freight classifications. Intermediate and exterior package quantities, labeling and marking shall be as specified in the contract and/or order.

7. NOTES

7.1 Part or Identification Number (PIN). The following PIN is for government purposes and does not constitute a requirement for the contractor. The PIN to be used for spring loaded pressure relief valves acquired to this CID is formatted as follows:



7.2 Source of documents.

7.2.1 Government documents. Copies of Military Standards and Federal documents referenced herein may be obtained online at http://quicksearch.dla.mil/ or from the Standardization Document Order Desk, Building 4, Section D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

7.2.2 ITSDF Standards. Copies of ITSDF standard may be obtained online at http://www.itsdf.org/ or from the Industrial Truck Standards Development Foundation, Suite 460, 1750 K Street NW, Washington, DC 20006.

7.2.3 SAE Standards. Copies of SAE standards may be obtained online at http://www.sae.org/ or from the Society of Automotive Engineers, 400 Commonwealth Drive, Warrendale, PA 15096.

7.2.4 TRA Standards. Copies of TRA standards may be obtained online at http://www.us-tra.org/ or from the Tire and Rim Association, 175 Montrose West, Suite 150, Copley, OH 44321.

7.2.5 UL Standards. Copies of UL standards may be obtained online at http://www.ul.com/ or from the Underwriters Laboratories INC., 333 Pfingsten Road Northbrook, IL 60062.

7.2.6 The FAR. Copy references of the FAR may be obtained from the Superintendent of Documents, P.O. Box 371954, Pittsburgh PA 15250-7954 or online at https://www.acquisition.gov/far/.

7.2.7 Air Force (AF) Manual. Copies of AF manuals may be obtained online at http://www.e-publishing.af.mil or from the Air Force Departmental Publishing Office (AFDPO) customer service phone at (202) 404-2438.

7.3. Ordering data. Procurement documents should specify the following:

a. Title, number and date of this CID
b. Type and class of forklift, unless otherwise specified (see 2.1)
c. Winterization, if required (see 3.2 & 3.18)
d. Battery charger, if required (see 3.3)
e. Optional forks, if required (see 3.6)
f. Enclosed cab (see 3.18)
g. Inspection and testing responsibility, if different (see 5.1.1)
h. Demonstration conditions, if different (see 5.3.2)
i. Packaging requirements, if different (see 6.1)

7.4 National Stock Number (NSN). The following is a list of NSNs assigned that correspond to this CID. The list may not be indicative of all possible NSNs associated with this CID.

NSN	3930-00-053-9175
NSN	3930-01-513-3420

7.5 Keywords.
Front wheel drive
Hydraulic
Rear-wheel steer

MILITARY INTERESTS:

Custodians:
Air Force – 84

Preparing Activity:
Air Force - 84

Reviewer:
Air Force - 99

Agent:
Air Force - 99
(Project 3930-2014-004)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at https://assist.dla.mil .