

INCH-POUND

A-A-59196
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 SUPERSEDING
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COMMERCIAL ITEM DESCRIPTION

TRUCK, AIRCRAFT SERVICING (AST), 3 TON HIGH LIFT, FOR LOADING C-5 AIRCRAFT UPPER DECK

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

1. **SCOPE.** This Commercial Item Description (CID) describes an air transportable (AST) utilizing a commercial diesel engine driven, automatic transmission, cab and chassis, with a elevating van body capable of servicing a C-5 aircraft. The (AST) shall transport a three ton payload, and shall be capable of elevating, and transferring the payload a minimum of 27 feet above ground level.

2. SALIENT CHARACTERISTICS.

2.1 The AST shall be an assembly of new materials and shall be free of defects in design and construction affecting, maintainability, serviceability, durability and appearance. The AST shall conform to the more stringent of State or Federal laws applicable to a vehicle of this type, for mobility on the public roads and on the flightline service area for the defined purpose. All components of the AST shall be represented in the manufacturer's commercial sales literature as standard or optional equipment. Failure of the AST to meet the defined salient characteristics shall be cause for rejection of the vehicle. The AST shall be provided with and/or meet all of the following;

Beneficial comments, recommendations, additions, deletions, clarifications, etc., and any data which may improve this document should be sent to: ALC/TILB, 420 SECOND STREET, SUITE 100, ROBINS AFB GA 31098-5609	WR-
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AMSC N/A

FSC 2320

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2.1.2 Chassis and vehicle components.

2.2 The AST shall be based on a commercial cab and chassis, complying with FED-STD-807. The elevating van body system shall comply with the recommendations of SAE Aerospace Recommended Practice (APR)1247, REV. C, General Requirements for Aerospace Ground Support Equipment, Motorized and Non-motorized, and as specified herein.

2.3 The AST truck chassis shall have a rear bumper installed. The rear bumper shall be configured to provide rear protection and a step access to the van body floor. The first bumper step shall not exceed 22 inches above the ground.

2.4 The AST shall have a powered stabilizing system capable of preventing blow-over of a fully loaded and fully elevated van body, with the service platform fully extended. Wind loads and jet blasts are defined in APR1247. The stabilizing system controls shall be located in the cab, positioned to be accessible to a person standing on the ground with the driver's door open.

2.5 The AST shall have a powered lifting system capable of elevating the van body floor to a minimum of 27 feet above level ground. The lifting system shall have two control stations. A lifting system control station shall be located inside the van body at the left (driver's) side front corner. A lifting system control station shall be located in the cab, positioned to be accessible to a person standing on the ground with the driver's door open. The lifting system control stations shall override each other.

2.6 The AST shall have a service platform, with guard rails, capable of powered extension, retraction, and lateral positioning.

a. The service platform guard rail shall be a minimum of 42 inches high, shall move with the platform, and shall provide protection from one side of the van body door opening, around the platform, to the opposite side of the door opening. The end section of the guard rail shall be removable or hinged for access into the aircraft.

b. The service platform shall be a minimum of 48 inches wide between guard rails. The service platform and guard rail shall extend a minimum of seven feet beyond the truck front bumper. The service platform and guard rail shall laterally position to provide a full width walkway from one side of the van body roll-up door opening to the other.

c. The service platform shall have a stored position not less than three inches above the truck cab behind the truck front bumper. The platform floor shall be constructed of material designed for high traffic, slip free wet service, under foot and wheeled cart transport. The platform floor shall support a single 1000 pound per square foot load, at any point on the floor, at any position, within the range of platform motion, without permanent deflection. The platform floor shall travel vertically with the van body floor when above the stored platform position.

d. Threshold plates shall prevent an operating personnel foot from being trapped between a rising van body and the stored platform structure. Threshold plates shall span between the van body and

the platform and over the extending sections of the platform. The threshold plates shall span over trip hazards.

e. The leading edge of the platform shall have a cushioned edge at the aircraft contact point. The contact edge shall also limit the aircraft contact pressure, at any point, to no more than 15 pounds force. The service platform positioning controls shall be located adjacent to the hoist controls located in the van body.

2.7 The AST shall be equipped with a closed van, aircraft servicing, body for the purpose of containing and protecting a 6000 pound payload of personnel and cargo. The van body shall have minimum finished interior dimensions of 78 inches high, 90 inches wide and 168 inches long. The front and rear walls shall have manual activated counter-balanced roll-up doors, with clear openings not less than 54 inches wide by 72 inches high. Also included shall be side windows and cargo tie-down points. Chain clearance shall be provided between the tires and the floor sub-structure above.

a. The van body walls and top shall be of an insulated, double wall construction. The body exterior shall be of weatherproof materials and construction, while operating at highway speeds. Drip moldings shall be provided above the roll-up doors and windows. The body interior wall and ceiling surfaces shall be covered with not less than ¼ inch thick, unfinished, A-B, exterior grade plywood. Interior corners, between the walls and between the walls and ceiling, shall be covered with radiused metal (cove) strips. The intersecting corners of cove strips shall be joined with a matching inverted radius metal corner caps.

b. The van body floor shall provide a permanent slip free, when wet, surface under high foot traffic and wheeled cart transport. The floor shall support the maximum design load, uniformly distributed at 1000 pound per square foot, at any location, without permanent deflection. Floors constructed of more than one piece shall have the joints reinforced from below and shall provide an uninterrupted work surface, without exposed seams or edges. The floor edges shall be radius bent to project up the interior walls at least four inches, with welded corners. Heavy gauge cove strips, extending at least four inches up the interior walls, may be substituted for radius bending the floor. The intersecting corners of cove strips shall be joined with a matching inverted radius metal corner caps. A drain shall be located at the center of the floor.

c. Roll-up doors, counter-balance, tracks and hardware shall not obstruct the minimum front and rear van body clear opening requirement. All components of each door and seals shall be fabricated of corrosion resistant materials, and shall provide a weatherproof assembly while operating at highway speeds. Each doors shall be restrained to prevent over-travel. Each door shall have latches provided at the driver's side lower corner. Each latch shall be operable and lockable from both inside and outside of the body. Each door shall have a loop style pull-down strap hanging within 60 inches of the floor, with the door fully open. An open mesh metal barrier shall protect the back of the cab, should the front door be open, while the body is in the down position. The metal mesh shall be capable of preventing a 1 ½ inch diameter projectile from striking the cab and shall not be sharp edged.

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d. Four windows, with a minimum clear glass area of 12 inches wide by 18 inches high, shall be located, two per side of the van body. Windows shall be centered at the $\frac{3}{4}$ point of the wall height above the floor. Windows shall be of a top hinged awning type fitted with safety glass and interior screens. Windows shall latch and shall be mechanically opened and limited to no more than three inches. Hinged and latched guards shall be located on the inside body and shall protect the window from being struck by a $\frac{1}{2}$ inch round projectile, while providing at least 50% free area.

e. A minimum of 24 rope tie cargo restraint points shall be provided, 12 per side wall. The cargo restraints shall be equally spaced in three tiers of four each and attached to wall structural members. Tier height shall be at six inches, and at $\frac{1}{3}$ and $\frac{2}{3}$ of the wall height above the floor.

2.8 Lighting

a. Two forward facing cargo transfer lights shall be located on the roof of the van body. Each light shall be sealed beam type, minimum of 30,000 candlepower, mounted on an adjustable base. Lights shall be switched at a location near the van body hoist controls.

b. Four interior recessed wall lights shall be provided, two per side of the van body. The lights shall be so located and of sufficient intensity to provide a minimum light level of 40 foot candles at any location inside the body. Each light lens shall be protected by a hinged guard allowing service access to the light. Lights shall be switched at a location near the van body hoist controls.

c. Two red flashing warning lights shall be provided, one over each roll-up door. The warning lights and a beeping alarm shall be activated when the van body is being elevated or retracted. Lights and alarm shall be automatically switched by the hoist controls in the truck cab and the van body.

d. Two amber flashing warning lights shall be provided, one over each roll-up door. The warning lights shall be activated by a labeled switch at the hoist controls, in the truck cab and the van body.

2.1.9 Finish.

a. Exterior surface finish colors will be specified at the time of purchase.

b. The truck shall have an applied corrosion treatment (rustproofing) to a tropical level. The first production truck shall not have the corrosion treatment applied until after the initial tests and inspections are completed.

3. REGULATORY REQUIREMENTS.

3.1 The offeror/contractor is encouraged to use recovered materials in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

3.1.1 For the purpose of this requirement, recovered materials are those materials that have been collected from solid waste and reprocessed to become a source of raw materials, as distinguished from virgin raw materials. The components, pieces and parts incorporated in the vehicle may be newly fabricated from recovered materials to the maximum extent practicable, provided the vehicle produced meets all other requirements of this CID. Used, rebuilt or re-manufactured components, pieces and parts shall not be incorporated.

4. QUALITY ASSURANCE PROVISIONS.

4.1 Product conformance.

4.1.1 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.

4.2 Commercial Item Requirement.

4.2.1 The vehicle furnished must meet the "commercial item" definition, as specified in FAR 2.101, as of the date of award. The government reserves the right to ask the offeror/ contractor to prove that their product meets the referenced commerciality requirements. The offeror/contractor shall provide two copies of their commercial descriptive catalogs with their offer, as specified in Clause I106. The offeror/contractor shall identify all modifications made to their commercial model in order to meet the performance and descriptive requirements of the CID or referenced documents. In regard to the offered item, the offeror/contractor shall identify any/all variations from compliance with or modifications to the performance requirements of the CID or the referenced documents.

4.3 Contractor requirements.

4.3.1 The contractor shall provide, at the time of delivery, two sets of manuals, including operation, maintenance and parts with each truck delivered. The part's manuals shall list the contractor's component part numbers and the component and equipment manufacturer's part numbers, as applicable. Manuals shall be provided for review 30 days prior to the time of demonstration. The contractor shall provide a product familiarization video tape with each truck, that verbally and visually provides the users with all information required for operation and routine maintenance of the truck and its components, using the commercial manuals as a baseline.

4.4 Testing:

4.4.1 The first production truck shall be demonstrated to the purchaser, prior to delivery, for compliance with the requirements of the CID, the referenced documents, and tests 4.4.3 through 4.4.9, by the Contractor, at his facility. Subsequent production trucks shall perform the production unit tests from the referenced documents and tests 4.4.3, 4.4.5, 4.4.6, and 4.4.9.

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4.4.2 Failure of the first production vehicle to comply with the CID or the referenced documents, or any of the tests shall be cause for refusal of acceptance, until corrective reconfiguration and successful re-test is completed. Failures shall also include: structural cracks; misalignment; interference; safety hazards; operational instability; spillage of fluids, fuel or coolant; overheating.

4.4.3 Examination of product. A check list of AST salient characteristics from this CID and the reference documents shall be compared to configured truck. Where specific certifications are required, copies shall be provided.

4.4.4 A tabulation of the current load for the truck cab and chassis, for the stabilizing, hoist, and platform operating systems, and for the van body controls and lighting shall be provided. The load data shall be compared to the alternator output, individual circuits, and wire sizing for the margin of safety in the design.

4.4.5 The contractor shall furnish a description of all interference devices used to suppress all vehicle electromagnetic radiation in accordance with SAE J551. Sufficient data shall be available for a visual determination that all of the suppression devices have been installed.

4.4.6 The complete stabilizing, hoist, and platform operating system(s) shall be fully cycled 10 consecutive times. The operating system(s) shall show no reduction in operational speed and shall not exceed the design limits for heat build up.

4.4.7 The maximum design load (6000 pounds over six square feet) shall be located at each of the extreme corners of the van body floor and the hoist shall be fully cycled five times. No evidence of hoist linkage binding, permanent deformation, or other failure mode shall be detected following each load position cycle.

4.4.8 With the van body fully elevated, the platform shall be loaded with 750 pounds at the extreme right front corner and the platform shifted to the extreme right position. The platform shall be fully extended and retracted five times. The load and platform shall be shifted to the left extremes and the five cycles repeated. At the end of each cycle, the platform and hoist operating systems and linkages shall be inspected. No evidence of binding, permanent deformation, or other failure mode shall be detected.

4.4.9 Operational test. A fully loaded truck shall be driven, at an average 50 miles per hour, over 10 miles of paved highway. All loads shall be removed and all structure and surfaces shall be visibly inspected for failure or permanent deformation.

5. PACKAGING.

5.1 Preservation and packaging shall be the minimum necessary to afford protection against corrosion, deterioration and physical damage during shipment from the supply source to the first receiving activity.

5.2 Unless otherwise provided in the contract, the truck shall be prepared for delivery by common carrier. A permanently marked identification plate, shall be mounted in the truck cab. The identification plate shall contain the following information:

NOMENCLATURE

MANUFACTURER'S MAKE AND MODEL

MANUFACTURER'S SERIAL NUMBER

REGISTRATION NUMBER

NATIONAL STOCK NUMBER (NSN)

VEHICLE CURB WEIGHT: kg(pounds)

PAYLOAD, MAXIMUM: kg(pounds)

GROSS VEHICLE WEIGHT (GVW): kg(pounds)

GROSS COMBINATION WEIGHT RATING: kg(pounds)

DATE OF DELIVERY (month and year)

WARRANTY (month and km(miles))

CONTRACT NUMBER

US PROPERTY

6. NOTES.

6.1 Options.

6.1.1 From the referenced FED-STD-807, the purchaser shall specify the following at the time of purchase:

- a. Finish color
- b. Winterization system elements
- c. Spare tire assembly
- d. Tire tools
- e. Heated mirrors
- f. Engine hour meter
- g. Air conditioning system
- h. Emergency equipment

CUSTODIAN:

AIR FORCE - 99

PREPARING ACTIVITY:

AIR FORCE - 84

AGENT:

AIR FORCE - 99

Project Number: 2320-0745

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 waiver any portion of the referenced document(s) or to amend contractual requirements.

I RECOMMEND A CHANGE:

1. DOCUMENT NUMBER
A-A-59196

2. DOCUMENT DATE (YYMMDD)
98/03/25

3. DOCUMENT TITLE

TRUCK, AIRCRAFT SERVICING (AST), 3 TON HIGH LIFT, FOR LOADING C-5 AIRCRAFT UPPER DECK

4. OF CHANGE *paragraph number include proposed if possible. Attach extra 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)*

e. DATE SUBMITTED
(YYMMDD)

(1) Commercial

(2) AUTOVON
(If applicable)

8. PREPARING ACTIVITY

a. NAME

WR-ALC/TILB

b. TELEPHONE *(Include Area Code)*

(1) Commercial

(912) 926-6488

(2) AUTOVON

468-6488

c. ADDRESS *(Include Zip Code)*

WR-ALC/TILB

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IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:

Defense Quality and Standardization Office

5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466

Telephone (703) 756-2340 AUTOVON 289-2340