NOT MEASUREMENT SENSITIVE

MIL-S-62292B 23 April 1993 SUPERSEDING MIL-S-62292A(AT) 3 July 1981

#### MILITARY SPECIFICATION

SEMITRAILER, REFUSE COLLECTION: TANDEM AXLE,
57 CUBIC METERS (75 CUBIC YARD), FOR USE WITH STATIONARY COMPACTORS

AND

COMPACTOR, STATIONARY, 2.7 CUBIC METERS (3.5 CUBIC YARD), FOR USE WITH REFUSE COLLECTION SEMITRAILERS

This specification is approved for use by the US Army Tank-Automotive Command, Department of The Army, and is available for use by all Departments and Agencies of the Department of Defense.

### 1. SCOPE

1.1 Scope. This specification covers a commercial refuse collection semitrailer with an auxiliary engine driven hydraulic ejection plate, designed for rear loading by an electrically powered stationary compactor. This specification also covers an electrically powered stationary compactor for use with this type of semitrailer. The units (the semitrailer and compactor) procured under this specification are commercially designed by the same manufacturer and are required to be warranted by the manufacturer as specified in acquisition documents.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: US Army Tank-Automotive Command, ATTN: AMSTA-UED, Warren, MI 48397-5000, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC-2330

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

#### 2. APPLICABLE DOCUMENTS

# 2.1 Government documents.

2.1.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

# SPECIFICATION

FEDERAL

- Battery, Storage: Vehicular, Ignition, W-B-131 Lighting and Starting.

MILITARY

- Treatment and Painting of Material. MIL-T-704

STANDARDS

FEDERAL

FED-STD-595 - Colors Used in Government Procurement.

MILITARY - Nontactical Wheeled Vehicles Treatment, MIL-STD-1223 Painting, Identification Marking and Data Plate Standards. - Noise Limits for Army Materiel. MIL-STD-1474 - Qualification of Aircraft, Missile and MIL-STD-1595

- Aerospace Fusion Welders. (Unless otherwise indicated, copies of federal and military
- specifications, standards, and handbooks are available from the Naval Publications and Forms Center, Military Specifications and Standards, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)
- 2.1.2 Other Government documents, drawings and publications. The following other Government documents, drawings and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues shall be those in effect on the date of the solicitation.
- DEPARTMENT OF DEFENSE

Department of Defense Index of Specifications and Standards (DODISS).

(Copies of the DODISS are available on a yearly subscription basis either from the Government Printing Office for hard copy, or microfiche copies are available from the Director, Navy Publication and Printing Service Office, 700 Robbins Avenue, Philadelphia, PA 19111-5093.)

DEPARTMENT OF TRANSPORTATION (DOT) Federal Motor Carrier Safety Regulations (FMCSR). Federal Motor Vehicle Safety Standards (FMVSS).

- (Application for copies of DoT publications should reference the Code of Federal Regulations, 49 CFR, and the Federal Register, and should be addressed to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.)
- 2.2 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

AMERICAN NATIONAL STANDARDS INSTITUTE, INC. (ANSI) ANSI Designation Z245.1 - American National Standard Safety Requirements for Refuse Collection and Compaction Equipment.

(Application for copies of ANSI publications should be addressed to the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.)

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

ASME Boiler and Pressure Vessel Code (BPVC)

- Qualification Standard for Welding and Section IX

Brazing Procedures, Welders, Brazers, and Welding and Brazing Operators.

(Application for copies of ASME publications should be addressed to the American Society of Mechanical Engineers, United Engineering Center, 345 East 47th Street, New York, NY 10017.)

AMERICAN WELDING SOCIETY (AWS)

AWS B2.1 - Standard for Welding Procedure and

Performance Qualifications.

AWS D1.1 - Structural Welding Code-Steel.

(Application for copies of AWS publications should be addressed to the American Welding Society, 2501 NW 7th Street, Miami, FL 31025.)

THE EUROPEAN TYRE AND RIM TECHNICAL ORGANISATION (ETRTO) Standards Manual.

(Application for copies of ETRTO publications should be addressed to the European Tyre and Rim Technical Organisation, 32, Avenue Brugmann, 1060 Brussels, Belgium.)

\* NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA)

250-1985 - Enclosures.

MG1-1987 - Generators - Motors.

(Application for copies of NEMA publications should be addressed to the National Electrical Manufacturer's Association, 2101 L St., N.W., Washington, D.C. 20037.)

NATIONAL SOLID WASTES MANAGEMENT ASSOCIATION (NSWMA)
Listing of NSWMA-Rated Commercial/Industrial Stationary Compactors.

\* (Application for copies of NSWMA publications should be addressed to NSWMA, 1700 Rhode Island Avenue, Suite 1000, N.W., Washington, D.C. 20036.)

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

29 CFR 1910.145 - Specification for Accident Prevention Signs and Tags.

(Application for copies of OSHA publications should reference the Occupational Safety and Health Administration General Industry Standards, Part 1910, Title 29 of the Code of Federal Regulations and should be addressed to the Occupational Safety Health Administration, U.S. Department of Labor, Washington, D.C. 20210.)

# SOCIETY OF AUTOMOTIVE ENGINEERS, INC. (SAE)

SAE Standards and Recommended Practices.

•	J318	- Air Brake Gladhand Service (Control) and
		Emergency (Supply) Line Couplers - Trucks,
		Truck-Tractors, and Trailers.
*	J350	- Spark Arrester Test Procedure for Medium
		Size Engines (DoD Adopted).
*	J551	- Performance Levels and Methods of Measure-
		ment of Electromagnetic Radiation from
		Vehicles and Devices (30-1000 MHz).
	J560	- Seven Conductor Electrical Connector for
		Truck-Trailer Jumper Cable.
	J682	- Rear Wheel Splash and Stone Throw
		Protection.
	J700	- Fifth Wheel Kingpin - Commercial Trailers
		and Semitrailers (DoD Adopted).
	J702	- Brake and Electrical Connection Locations -
		Truck-Tractor and Truck-Trailer.
*	J1292	<ul> <li>Automobile, Truck, Truck-Tractor, Trailer</li> </ul>
		and Motor Coach Wiring.

(Application for copies of SAE publications should be addressed to SAE, INC., 400 Commonwealth Drive, Warrendale, PA 15096.)

THE TIRE AND RIM ASSOCIATION, INC. Year Book.

(Application for copies of Tire and Rim Association publications should be addressed to The Tire and Rim Association, Inc., 175 Montrose West Ave., Copley, OH 44321.)

(Non-Government standards and other publications are normally available from the organizations that prepare or distribute the documents. These documents also may be available in or through libraries or other informational services.)

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

# 3. REQUIREMENTS

- 3.1 Standard semitrailer, compactor, components and accessories. Except as specified in 3.1.1 through 3.1.1.7, the semitrailer, compactor, components, and accessories to be delivered under the contract shall be standard or optional items which meet or exceed the requirements of this specification. All items shall be as represented and rated in the manufacturer's technical data, including special bodies or mounted equipment. Technical data shall be limited to technical material, identical to that furnished to the authorized company representative for selection of semitrailer and compactor models and components. Technical data and special drawings necessary to identify the herein required semitrailer, compactor, and components shall be available to the engineering offices of the procuring activity prior to delivery of the items. The vehicle shall be a standard commercial semitrailer of a model sold to a significant number of buyers, other than the Government, in the course of normal business operations. The model furnished shall be not older than the manufacturer's current model on the date of invitation for bids.
- 3.1.1 <u>Special requirements</u>. In addition to the standard semitrailer, compactor and components specified in 3.1, the semitrailer and compactor shall be furnished with special equipment as specified herein.
- \* 3.1.1.1 Semitrailer treatment and painting. Treatment and painting shall be in accordance with MIL-STD-1223, as specified (see 6.2) by the procuring activity for the appropriate military service, except the exterior color shall be gloss white, matching color chip 17875 of FED-STD-595. One coat of rust inhibiting primer shall be applied to the interior of the body. The interior of the body shall be cleaned and properly prepared before applying the primer.

- \* 3.1.1.2 Marking and data plates. As specified by the procuring activity for the appropriate military service (see 6.2), identification marking and data plates shall be in accordance with MIL-STD-1223.
- 3.1.1.3 Compactor treatment and painting. Compactor treatment and painting shall be as specified in MIL-STD-1223, except:
  - (a) The exterior of the complete compactor body unit shall be cleaned in accordance with the manufacturer's standard commercial practice and treated and painted in accordance with type A of MIL-T-704.
  - (b) The interior of the compactor body shall be painted with rust inhibiting primer, grey in color, in accordance with type C of MIL-T-704.
  - (c) The color of the exterior of the compactor shall be gloss white, matching color chip 17875 of FED-STD-595.
  - (d) Rubber seals and hydraulic hoses need not be painted.
- 3.1.1.4 Compactor marking. Three metal signs, approximately
  230 millimeters (mm) by 150 mm (9 by 6 inches), with distinctive letters on a
  red background shall be permanently affixed, one to the center of the outside
  face of the compactor rear wall (away from the semitrailer) and one on each
  side wall. The signs shall read:

# WARNING

# STAY CLEAR AT ALL TIMES WHEN COMPACTOR IS IN OPERATION

"WARNING" shall be in Gothic type not less than 38 mm (1.50 inches) in height, and "STAY CLEAR AT ALL TIMES WHEN COMPACTOR IS IN OPERATION" shall be in Gothic type not less than 13 mm (0.50 inch) in height.

- \* 3.1.1.5 Noise level. If the noise level at the operator's position exceeds 84 decibels db(A) when measured in accordance with MIL-STD-1474, a warning plate stating "CAUTION: Hearing Protection Required" shall be permanently affixed to the semitrailer in a conspicuous location at the operator's position. The noise level shall be determined with the vehicle stationary and all systems operating at maximum governed speed and rated loads.
- \* 3.1.1.6 Welders and welding. In addition to the requirements of 3.22.4 and 3.24.2, all welders employed in the fabrication of the semitrailer and compactor shall be certified, before any welding is accomplished, in accordance with MIL-STD-1595; the welding qualifications of the ASME BPVC, Section IX, or AWS B2.1 or D1.1. The certification that the welders have passed the qualifications test shall be on file at the contractor's facility and shall be available for review by the Government.

\* 3.1.1.7 Brake lights. At least one pair of brake lights shall override the four-way emergency flasher or the two systems shall be independent of each other. Modifications to the manufacturer's standard product to accommodate this requirement shall not compromise conformance to any Federal Motor Carrier Safety Regulation referenced herein or to any Federal Motor Vehicle Safety Standard. If additional lights are added to the vehicle, the lights shall be selected from the chassis manufacturer's standard matching hardware.

# \* 3.2 General design.

- \* 3.2.1 <u>Safety Standards</u>. The vehicle shall comply with all Federal Motor Vehicle Safety Standards applicable to the type of semitrailer furnished and in effect on the date of manufacture. The compactor shall comply with OSHA standards and regulations applicable and in effect on the date of manufacture.
- \* 3.2.2 OSHA and FMCSR regulations. The vehicle, with all furnished attachments, accessories and equipment, shall enable compliance by any user with all OSHA and FMCSR user regulations that are vehicle or vehicle equipment dependent or compactor or compactor equipment dependent. Regulations shall be those that are applicable to a commercial user of such a similar type, class and size of semitrailer and compactor for the same general use. See 6.1.
- \* 3.2.3 <u>Ratings</u>. Vehicle ratings shall be the manufacturer's published ratings. Component and vehicular ratings shall not be raised to meet the requirements of this specification. When published ratings are not available, verification of ratings shall be available to the appropriate engineering office of the procuring activity.
- \* 3.2.4 <u>Dissimilar metals</u>. All dissimilar metals used throughout the vehicle and compactor shall be insulated from one another to prevent galvanic or electrolytic action.
- \* 3.2.5 Prohibited materials. Asbestos materials shall not be used in any form in any part of the vehicle. No item, part or assembly shall contain radioactive materials in which the specific activity is greater than 0.002 microcurie per gram or activity per item equals or exceeds 0.01 microcuries.
- \* 3.2.6 Accessibility. The design of the vehicle and optional equipment shall permit access for routine servicing and shall permit access for replacement and adjustment of component parts and accessories with minimal disturbance of other components and systems.
- \* 3.2.7 <u>Lubrication</u>. Lubrication means shall be provided for all parts of the semitrailer normally requiring lubrication. Where the use of high lubricating pressure will damage grease seals or other parts, fittings with pressure release shall be used.

- \* 3.2.8 <u>Safety</u>. All equipment or exposed portions of the equipment which are subject to extreme temperatures and inclement weather and all rotating or reciprocating parts which are of such a nature or so located as to become a hazard to operating personnel shall be insulated, fully enclosed, or properly quarded.
- \* 3.2.9 <u>Electromagnetic radiation</u>. The vehicle shall be suppressed to limit electromagnetic radiation in accordance with SAE J551.
- \* 3.3 <u>Performance</u>. The semitrailer shall evidence no part failure, deformation, permanent set or interference between parts when towed, both empty and when loaded with specified payload:
  - (a) At speeds as great as 32 kilometers per hour (km/h) (20 miles per hour (mph)) over unimproved roads and reasonably hard uneven terrain;
  - (b) At speeds as great as 97 km/h (60 mph) over improved roads; and
  - (c) At speeds as great as 16 km/h (10 mph) on 10 percent side slopes on unimproved roads and reasonably hard uneven terrain.
- \* 3.3.1 <u>Turning ability</u>. The semitrailer shall be capable of assuming a 90 degree angle to a coupled truck tractor without cramping and without damaging the semitrailer or the truck tractor.
- \* 3.3.2 Brake performance. The service brakes shall stop the truck tractor-semitrailer combination, with the semitrailer loaded as specified in 3.4, within the stopping distance requirements of Federal Motor Carrier Safety Regulation 393.52. Requirements shall be met with a truck tractor loaded to its full rated gross vehicle weight rating (GVWR) and gross combination weight rating (GCWR).
- \* 3.3.3 <u>Tracking ability</u>. The semitrailer shall conform to the tracking requirements of Federal Motor Carrier Safety Regulation 393.70(a).
- \* 3.4 Volume and payload. The net volume of the refuse body shall be not less than 57.3 cubic meters (m<sup>3</sup>) (75 cubic yards). Refuse payload capacity, evenly distributed within the load area, shall be not less than 16 350 kilograms (kg) (36,000 pounds).
- \* 3.4.1 Wheel loading. The axles of the semitrailer shall be positioned so that the total load imposed on the tires, measured at the ground, with the semitrailer loaded as specified in 3.4, shall be not more than 15 400 kg (34,000 pounds).
- 3.5 <u>Dimensions and clearance</u>. The semitrailer, uncoupled from the truck tractor, resting level on its landing legs on level ground, without payload, shall conform to the dimensions and clearances specified in table I:

TABLE I. Dimensions and clearances.

Feature	Dimensions mm	and clearances (inches)
Overall length shall be not more than	12 192	(480)
Overall width shall be not more than	2440	(96)
Overall height shall be not more than	4110	(162)
Ground clearance shall be not less than	230	(9)
Swing radius, from centerline of kingpin to most distant point on semitrailer nose, shall be not more than	1470	(58)
Distance from centerline of kingpin to front end of semitrailer shall be not		
less than	460	(18)
Turning clearance from the centerline of kingpin to any portion of semitrailer 150 mm (6 inches) or more below upper		
fifth wheel plate shall be not less than Upper fifth wheel height, from the ground	2130	(84)
to underside of plate, shall be	1220 <u>+</u> 2	25 (48) ( <u>+</u> 1)

- \* 3.6 Construction and stresses. Main frame members shall be fabricated of high strength steel with a yield strength of not less than 345 mega Pascals (mPa) (50,000 pounds per square inch). Main frame members shall be adequately braced with a sufficient number of crossmembers to present a rigid construction with sufficient strength for the dynamic and static loads imposed. All parts of the framing shall be completely electric-arc welded. The strength of the finished welds shall be such that they will not fail or crack when the semitrailer is subjected to the loads and performance requirements specified herein. When the semitrailer is loaded as specified in 3.4, the maximum fiber stress in each frame member shall be not greater than 50 percent of the frame material yield strength. Under the above cited conditions of loading, the main frame deflection below horizontal shall be not greater than 50 mm (2 inches). The unloaded semitrailer may have a maximum of 50 mm (2 inches) of upward camber over the length of the platform.
- \* 3.6.1 Frame splices. Main frame members shall have one piece upper and lower flanges, runing the full length of the semitrailer. Where frame members are otherwise spliced, joints shall be reinforced to fulfill the dynamic and the static loading requirements specified herein. Splices shall be designed to avoid stress concentration. Splice welds shall be continuous. Frame depth transition areas in the gooseneck-to-over-fifth-wheel area shall be smooth and rounded to minimize stress concentrations.

- \* 3.6.2 Stress analysis. A stress analysis for the semitrailer, loaded as specified in 3.4, shall be performed. The stress analysis shall include shear and moment diagrams and deflection calculations. Stress calculations shall include complete analysis of the gooseneck transition to over the fifth wheel area, floor, crossmembers, and longitudinal frame members.
- 3.7 Axles. The semitrailer shall be equipped with tandem axles. Axle ratings shall be at least equal to the load imposed on each axle, measured at the ground, with the semitrailer loaded as specified in 3.4. The wheel bearings and axle spindles shall be oil lubricated. Oil viscosity shall be in accordance with the manufacturer's recommendations. The hub caps shall have a metal, or heavy duty plastic, body and a window for visual determination of oil level. Provision for venting or equivalent method of withstanding internal pressure buildup without leakage, and for replenishing the oil supply, shall be incorporated.
- 3.8 <u>Suspension system</u>. Each component of the suspension system shall have a rated capacity at least equal to the load imposed, measured at the ground, when the semitrailer is loaded as specified in 3.4. Clearances shall prevent interference between tires with any other part of the semitrailer under the operating conditions specified herein.
- \* 3.9 Wheels, rims, tires and tubes. The semitrailer shall have dual disc type wheels on both axles. Rims and tire ratings, shall conform to Tire and Rim Association or European Tyre and Rim Technical Organisation recommendations, for the type and size of tires furnished. Multi-piece rims shall not be furnished. Tire, rim size, disc wheel size, and ply rating shall be the same for all wheels on each vehicle.
- \* 3.9.1 <u>Tires</u>. Tires shall be of the steel belted radial tubeless type with highway tread. Tires shall be of rated capacity at least equal to the load imposed on each tire, measured at each wheel, at the ground, with the semitrailer loaded as specified in 3.4. Tires shall conform to the Tire and Rim Association or to the European Tyre and Rim Technical Organisation recommendations.
- \* 3.10 <u>Brakes</u>. Service brakes shall be of the full air, internal expanding type and shall conform to Federal Motor Carrier Safety Regulations 393.40 through 393.43; 393.45 through 393.47 and 393.52. Brake linings shall be of nonasbestos material. The braking system shall include:
  - (a) Standard breakaway features
  - (b) Relay emergency valve
  - (c) Air reservoir
  - (d) Automatic slack adjusters
  - (e) Piping
  - (f) Hose connections
  - (g) Gladhands

- (h) Spring loaded dust covers or dummy gladhands equipped with security chains or cables, and
- (i) All other components required for a complete air-brake system.

Gladhands shall conform to SAE J318. Location of air-hose fittings shall comply with SAE J702. The braking system shall be installed in a manner which provides road clearance for travel over uneven terrain and protection against damage caused by objects striking components. No part of the braking system shall extend below the bottom of wheel rims. Slack adjusters shall be located above the bottom edge of the axle carrier.

- 3.10.1 Parking brakes. The semitrailer shall be equipped with spring or air diaphragm mechanical lock type parking brakes. The parking brakes shall hold the semitrailer, with rated payload, on a 10 percent grade despite the depletion of the compressed air supply. The parking brakes shall be automatically applied upon disconnection of the emergency air line and under emergency conditions. The parking brakes shall conform to Federal Motor Carrier Safety Regulation 393.41.
- \* 3.11 Upper fifth wheel plate. The upper fifth wheel plate shall be of sufficient size to completely cover a lower fifth wheel 910 mm (36 inches) in diameter, and shall conform to Federal Motor Carrier Safety Regulation 393.70(b). The kingpin shall be fabricated of heat treated alloy steel and shall conform to SAE J700. The forward end of the upper fifth wheel plate shall have a turned-up lip for ease of loading and for body protection.
- \* 3.12 Landing gear. The semitrailer shall have two vertical lift, telescopic, nonrotating, landing legs, with two-speed gears, and a handcrank at the curbside. The landing legs shall be equipped with self-leveling skid pads not less than 250 mm by 250 mm (10 inches by 10 inches) in area. A holder shall be provided for the handcrank when not in use. The landing gear shall withstand, without deformation, the combined static and dynamic forces due to proportion of gross weight sustained; the forces resulting from impact during coupling and uncoupling operations; and the movement during packing by the compactor. The landing gear shall have a minimum 81 700 kg (180,000 pound) static load rating and shall be reinforced horizontally and diagonally with not less than 100 mm (4-inch) channel or angle. When placed in travel position, the landing gear legs shall remain positively locked. The landing gear shall be protected to prevent the entrance of foreign matter which would impair its functioning or mechanical efficiency.
- \* 3.12.1 Landing gear range of adjustment. The landing gear shall have a range of adjustment sufficient to vary the height of the upper fifth wheel from 1220 mm (48 inches) to not less than 1320 mm (52 inches) from the ground. With the semitrailer coupled to a towing tractor and in level position, the clearance under the fully retracted landing gear shall exceed the semitrailer ground clearance, but shall in no case be less than 360 mm (14 inches).

- \* 3.13 Lighting. The electrical lighting system shall be of 12 volt potential. The lighting system shall conform to Federal Motor Carrier Safety Regulations 393.9, 393.11, 393.20, 393.22, 393.23, 393.25 through 393.29, 393.32, and 393.33. All lights and reflectors shall be protected from operational hazards by mounting in recessed or otherwise guarded locations. Lights and reflectors shall not be mounted on vertical surface of the rub rails (unless recessed and fully protected) or on semitrailer bumpers. Moisture proof, corrosion-resistant fixtures shall be provided for stoplights, tail lights, and turn signals. A completely sealed wiring system shall be provided for stoplights, tail lights, and turn signals. The front of the semitrailer shall be equipped with a receptacle conforming to SAE J560 with the conductors connected and color coded as specified therein. The receptacle shall be located in accordance with SAE J702. Lights shall be constructed for easy removal and replacement of lamps and lenses without the use of any tools. All electrical wiring shall conform to SAE J1292.
- 3.14 Rear end protection. The semitrailer rear end protection shall be in accordance with Federal Motor Carrier Safety Regulation 393.86.
- \* 3.15 Rear wheel splash and stone throw protection. Rear wheels shall have rigid splash shields in front and mud flaps at the rear. Splash and stone throw protection shall be in accordance with SAE J682. A metal strip not less than 3.2 mm (0.125 inch) thick and not less than 25 mm (one inch) wide, extending the entire width of the mud flap, shall be installed to prevent the bolt heads or bolt nuts from damaging the mud flap. As an alternate method of attaching the mud flaps, tabs or clips with minimum surface contact dimensions of 25 mm (1 inch) high by 32 mm (1.25 inch) wide by 2.4 mm (0.094 inch) thick shall be furnished at each bolt.
- 3.16 Body. The body configuration shall be the manufacturer's standard box shape with a full width and full height rear ejection door and with a second rear door, compatible with the configuration of the stationary compactor specified herein. The body sides, top and forward end shall be fabricated of not less than 12 gage (2.657 mm) (0.1046 inch) thick high tensile steel. The floor shall be fabricated of not less than 10 gage (3.416 mm) (0.1345 inch) thick high tensile steel. The compaction area, extending from the front to rear of the body, shall withstand the maximum pressure exerted by a stationary packer upon the refuse without permanent deformation. The interior surfaces of the body shall be smooth to expedite compaction, ejection and cleaning operations. The entire body shall be liquid tight to a height of not less than 125 mm (5 inches).
- \* 3.16.1 Conventional rear doors. Unless Dutch type rear doors are specified (see 3.16.2), rear doors shall be designed to mate with the compactor specified herein, and shall be of the "door-within-a-door" design. The inner door shall be hinged on the curb side, and retained on the road side by not less than 3 over-center, wedge-type latches of hot rolled steel, with a single handle located on the road side below floor level. The inner

door shall remain securely closed except when manually opened to discharge the load. The outer door shall cover the opening in the inner door for the acceptance of the compactor, and shall be held to the inner door for transporting and discharging the load by not less than 2 cam-action latches actuated by a handle located at the extreme rear of semitrailer, and readily operable by a person standing on the ground. With the semitrailer coupled to the compactor, the door opening shall be completely closed. Door hinges, latches, and reinforcements shall keep the doors tightly alined to prevent leakage.

- 3.16.2 Dutch type rear doors. When specified (see 6.2), Dutch type rear closure doors shall be provided. The doors shall be two-section steel construction and shall cover a discharge opening equal to the inside width and height of the semitrailer body. The doors shall consist of top and bottom sections with heavy duty hinges on the curb side and positive latches on the driver's side. The doors shall be of high tensile steel, reinforced by not less than 10 gage (3.416 mm) (0.1345 inch) and 4.8 mm (0.188 inch) boxed members. The lower door shall be retained by a set of not less than 4 wedge type adjustable latches along the bottom and one auxiliary side latch. All latches shall be operable by a single lever type handle located away from the discharge opening. The upper door shall cover the opening through which refuse is passed from the compactor specified herein into the semitrailer body. The upper door shall be retained during hauling by an independent cam latch system. A channel type or double lip neoprene gasket shall provide liquid tightness along the bottom and up both sides of the lower door to a minimum height of 460 mm (18 inches).
- 3.16.3 <u>Discharge spillage</u>. When necessary, provisions shall be made to prevent discharged refuse from spilling forward around the wheels and from collecting on suspension components.
- 3.16.4 Ejection plate. The ejection plate shall be driven by a double acting, telescopic, hydraulic cylinder assembly; shall have a travel length extending from the forward end of the body to the rear discharge door(s); shall closely fit the cross sectional dimensions of the body area to prevent bypassing refuse; and shall be guided to prevent scraping and gouging of the body inside walls. When maximum pressure is applied and released, no permanent misalinement shall be evident.
- 3.16.5 Ejection plate operation. The ejection plate operation shall conform to the following:
  - (a) The complete ejection cycle, consisting of ejection plate movement from the initial station at the front of the semitrailer to the final location at the discharge door opening and return, shall be achieved in not more than 2.5 minutes.

- (b) The ejection plate unit pressure force range shall be from a minimum of 17.2 kilopascals (k/Pa) (2.5 pounds per square inch (psi)) up to not less than 58.6 k/Pa (8.5 psi) predicted upon variance in force (product of pressure and area) exerted by the smallest and largest inside diameter (proportionate area) cylinders of the telescoping hydraulic cylinder assembly, operating pressure of the hydraulic pump less head losses, and ejection plate area. (The manufacturer shall certify that the ejection plate unit meets the unit pressure force range requirement.)
- (c) The ejection plate shall completely expel the total volume (maximum rated payload) of refuse without external assistance (manual raking or pulling of body contents).
- (d) The ejection plate action, from the extreme initial position at the front to the extreme final position at the discharge door, shall be achieved in a single continuous sweep.
- \* 3.16.6 Engine. The power source for semitrailer hydraulic equipment operation shall be a diesel engine. The engine shall be air-cooled, of standard commercial design, with the power, torque and speed necessary to satisfactorily operate the hydraulic system. The engine shall be furnished complete with all accessories necessary for operation, including air cleaner, starting system, alternator, battery, fuel tank of sufficient capacity for eight hours of normal operation, exhaust system, engine mounted instrument panel with throttle control, start/stop switch and battery charging indicator. The battery shall be of the maintenance-free type having the maintenance-free characteristics listed in W-B-131. The engine shall be provided with an ether aid cold start system, glow plug or grid heater.
- \* 3.16.6.1 Engine exhaust system. The exhaust system shall conform to Federal Motor Carrier Safety Regulation 393.33, and shall be furnished with a spark arrester. The spark arrester shall have an 80 percent arresting efficiency when rated in accordance with SAE J350. Means shall be provided to vent exhaust fumes away from operating personnel.
- 3.17 Hydraulic system. The hydraulic system shall include at least the components specified herein.
- 3.17.1 <u>Hydraulic pump</u>. The hydraulic pump shall have a flow rate of not less than 178 liters per minute (L/min) (47 gallons per minute (gpm)) at 1800 revolutions per minute (rpm).
- 3.17.2 Protective devices. The hydraulic system shall have overload protective device(s) (relief valves) for setting the maximum operating pressure to prevent damaging the hydraulic components. To prevent overtravel, automatic limit control devices shall be provided, where necessary, to stop the movement of the ejection plate at both ends of its travel.

- 3.17.3 Hydraulic cylinders. The hydraulic cylinders shall be the manufacturer's current standard size (inside diameters and lengths) and fitted with seals to prevent entrance of foreign matter and to prevent leakage of hydraulic fluid.
- 3.17.4 <u>Telescopic cylinders</u>. The double acting, telescopic cylinders for actuating the ejection plate shall meet the following requirements:
  - (a) Develop sufficient power to enable the ejection plate to provide the pressure specified in 3.16.5(b).
  - (b) Demonstrate continuous sweep action within the allotted time specified in 3.16.5(a).
  - (c) Be furnished with a fixed anchor (an adjustable traveling anchor is not acceptable).
- the capacity to maintain the fluid temperature within safe limits to prevent damage to the seals and shall have the capacity to prevent cavitation. The reservoir shall be equipped with a fluid level gage, visible from the operator's station, or a reservoir dipstick. The reservoir shall be free of foreign matter (mill scale and other particles) prior to filling with hydraulic fluid. Means shall be provided for draining, cleaning the interior, and refilling the reservoir. Filters, having capacity to permit unimpeded flow, shall be installed.
- 3.17.6 Pressure gage. A shock-resistant hydraulic pressure gage shall be permanently installed between the pressure (discharge) side of the hydraulic pump and the pressure (inlet) side of the hydraulic cylinders. The gage shall be visible from the operator's station. Provisions, such as a T-fitting with plug, shall be made for installing a pressure gage between the outlet side of the hydraulic cylinders and the return line to the fluid reservoir.
- 3.17.7 Hydraulic pressure lines and fittings. All hydraulic pressure lines shall be seamless steel hydraulic tubing or wire braid hoses with permanently attached fittings. All fittings shall be compatible with the rate of flow and pressure required to operate the hydraulic system smoothly and efficiently.
- 3.18 Controls. Either manual lever or electric pushbutton type controls shall be provided to regulate the movements of the hydraulic cylinders for actuating the ejection plate. The ejection plate hydraulic cylinder control shall have ejection, neutral, and return positions. All controls shall return automatically to neutral position when released. When manual lever type controls are furnished, the control movements shall coincide with the ejection movement, if possible. The controls shall be arranged to permit operation from ground level or from a station at engine platform level. All controls shall be identified as to function(s).

- 3.19 Sump tank. A liquid collection tank, of not less than 61 liters (L) (16 gallons) capacity, shall be provided under the body to catch drainage from wet refuse. A large faucet, or drain valve with gasketed hinge cap, for handling heavy liquids shall be provided to drain the tank. A sump tank need not be provided when equivalent provisions are incorporated in the semitrailer body.
- \* 3.20 Toolbox. A tool box shall be furnished. Minimum dimensions shall be 560 mm (22 inches) by 560 mm (22 inches) by 300 mm (12 inches). A door opening size of not less than 510 mm (20 inches) by 250 mm (10 inches) shall be furnished. The tool box shall be fabricated of not less than 12 gage (2.657 mm) (0.1046 inch) steel or of equivalent strength aluminum. The box shall be weatherproof and shall provide for locking with a padlock. The tool box shall be mounted in a protected but accessible location on the curbside of the vehicle.
- 3.21 <u>Servicing and adjusting</u>. Prior to acceptance of the semitrailer by the Government inspector, the contractor shall service and adjust the semitrailer for immediate operational use. The servicing and adjusting shall include at least the following:
  - (a) Inflation of all tires;
  - (b) Adjustment of the engine and brake systems;
  - (c) Check for proper functioning of all lighting; and
  - (d) Complete lubrication with grades of lubricants recommended for ambient temperature at the delivery point.
- \* 3.22 Workmanship. Defective components or parts and assemblies which have been repaired or modified to overcome deficiencies shall not be furnished. Bolted, riveted and welded construction used shall be in accordance with the highest standards of the industry.
- \* 3.22.1 Metal fabrication. Metal used in the fabrication of equipment shall be free from kinks and sharp bends. The straightening of material shall be done by methods that will not cause damage to the metal. Shearing and chipping shall be done neatly and accurately. All bends of a major character shall be made with controlled means in order to ensure uniformity of size and shape.
- \* 3.22.2 Bolted connections. Bolt holes shall be accurately punched or drilled and shall have the burrs removed. Washers or lockwashers shall be provided in accordance with good commercial practice, and all bolts, nuts, and screws shall be tight.
- \* 3.22.3 Riveted connections. Rivet holes shall be accurately punched or drilled and shall have the burrs removed. Rivets shall be driven with pressure tools and shall completely fill the holes. Rivet heads, when not countersunk or flattened, shall be of approved shape and of uniform size for

the same diameter of rivet. Rivet heads shall be full, neatly made, concentric with the rivet holes, and in full contact with the surface of the member.

- \* 3.22.4 Welding. Welding procedures shall be in accordance with a nationally recognized welding code. The surface of parts to be welded shall be free from rust, scale, paint, grease or other foreign matter. Welds shall be of sufficient size and shape to develop the full strength of the parts connected by the welds. Welds shall transmit stress without permanent deformation or failure when the parts connected by the welds are subjected to proof and service loading. See 3.1.1.6.
- 3.23 Stationary compactor. The stationary compactor shall consist of a frame structure, hopper, packer head (ram), packer guide, reciprocating packing mechanism, power unit and electric controls, all arranged for packing refuse in the rear of the semitrailer specified herein. The stationary compactor shall be completely compatible with the refuse collection semitrailer specified herein, with the compactor elevated on a loading dock not less than 1290 mm (51 inches) above the road surface on which the semitrailer is resting.
- 3.23.1 Frame. The compactor frame floor shall have a minimum 9.5 mm (0.375 inch) thick abrasion-resistant steel plate bottom, or shall be 9.5 mm (0.375 inch) steel with replaceable 6.4 mm (0.25 inch) abrasion resistant steel plate, reinforced with I-beams; 9.5 mm (0.375 inch) hot rolled steel side walls reinforced with 75 mm (3 inch) structural steel I-beams and channel. The frame shall be constructed to prevent overstressing at the header bar and the side walls.
- 3.23.2 Reinforcements. The stationary compactor shall be fully reinforced to withstand the stresses from heavy loading and rough usage, and to provide rigidity and resist buckling. The ends of angles, channels, pipes, and other hollow members shall be closed to prevent entry of vermin or other objects.
- 3.23.3 Hopper interior. The interior of the hopper shall be free of all structural members, presenting a smooth transition from the feeding hopper to the chamber. A replaceable scraper bar shall be mounted in such a way as to sweep clear the top of the ram and prevent refuse from falling behind the ram. The hopper opening shall be not less than 1980 mm (78 inches) long by 1470 mm (58 inches) wide.
- 3.23.4 Hopper exterior. One hundred-eighty mm (seven inch) ship and car channels shall run the entire length of the compactor exterior, one on each side, as additional reinforcing for the compactor, or a combination of I-beam and ship and car channel to provide equal strength. These channels shall completely integrate longitudinal forces within the compactor from the rear cylinder mount to the semitrailer latching devices.

- 3.23.5 Locking hooks. Locking hooks shall be located on the sides at the front of the stationary packer for locking the semitrailer in the mated position with the packer. The hooks shall engage the lugs on each side of the semitrailer when the semitrailer is brought into mating position with the compactor. The semitrailer and compactor shall remain secured throughout compaction use. Hooks shall be manually uncoupled from either side by a lever type handle. The locking hooks shall be constructed of high tensile steel having a minimum of 689 megapascals (mPa) (100,000 psi) yield strength.
- 3.23.6 Packing ram. The packing ram shall have 9.5 mm (0.375 inch) minimum thick steel bottom plate, 9.6 mm (0.375 inch) minimum thick hot rolled steel face plate, and 6.4 mm (0.25 inch) minimum thick hot rolled top plates. The plates in the ram shall be reinforced throughout with heavy structural steel shapes. The ram shall penetrate the semitrailer a minimum of 560 mm (22 inches). The critical areas, such as the ram top and frame floor shall be reinforced with structural steel shapes to withstand loading and impact conditions. The ram face shall be reinforced to withstand a minimum of 40 800 kg (90,000 pounds) of packing force. The packing ram shall displace not less than 2.7 cubic meters (m³) (3.5 cubic yards) with each reciprocating movement of the packer head ram. Capacity shall be measured in accordance with NSWMA procedures. The stroke of the ram shall be not less than 2920 mm (115 inches).
- 3.23.7 Ram cylinder(s). The ram shall be powered by cylinder(s) capable of exerting a minimum total force of 40 800 kg (90,000 pounds). The complete cycle of the ram shall not exceed 50 seconds under normal loading conditions.
- 3.23.8 Ram cover. A ram cover shall be furnished to protect the hydraulic components and electrical circuits from possible damage, and prevent personnel from getting in the way of the ram during loading operations. Hazardous moving components of the stationary compactor shall be enclosed, guarded, or otherwise designed to prevent injury to personnel.
- 3.23.9 Power unit. The power unit shall be a single self-contained unit, complete with electric motor coupled to a minimum 227 L/min (60 gpm) tandem hydraulic pump. An oil reservoir tank of sufficient capacity, with filters on both suction and return lines, shall be included.
- 3.23.9.1 Motor. The power unit shall be equipped with not less than 22 kilowatts (kW) (30 hp), totally enclosed, fan cooled motor designed for 440 volt, 3 phase, 60 hertz (Hz) operation and conforming to National Electric Manufacturer's Association (NEMA) code and standards.
- \* 3.23.9.2 Control panel. The power unit shall have a complete control panel that shall meet the NEMA code and standards. The control panel shall be capable of remote installation. Extra control cable shall be provided. The electrical controls shall be in compliance with ANSI Z245.1-1984, and shall include the following:

- (a) Key-operated "ON/OFF" switch.
- (b) Push button "START" switch.
- (c) Push button "STOP" switch.
- (d) Three-position switch ("IN" for ram forward position) ("OUT" for ram backward position) ("CYCLE" for automatic cycling determined by adjustable cycling timer. Operator to adjust for number of strokes desired). Three pushbutton switches accomplishing the same functions, may be substituted for the three-position switch.
- (e) Key-operated power boost "LOW/HIGH" switch to facilitate clearing compactor chamber when a full semitrailer is encountered.
- (f) All control mechanisms shall be complete and conveniently operable by the operator at remote locations (see above).

Instruments and controls shall be identified as to their function and installed in a manner to facilitate removal and servicing.

- 3.23.9.2.1 <u>Transformer</u>. An integral transformer shall be included to supply 110 volts for control circuitry and shall conform to NEMA code and standards.
- 3.23.9.2.2 <u>Indicator light</u>. An indicator light shall be provided to indicate that the compactor is filled to capacity. The light shall conform to NEMA code and standards.
- 3.23.9.2.3 Pressure gage. A pressure gage shall be furnished to indicate the hydraulic system operating pressure.
- 3.23.9.2.4 Oil heater. A thermostatically controlled oil reservoir immersion heater shall be furnished. The heater shall be of the plug type, designed to keep the oil temperature in the reservoir constant so there is no sluggishness in the hydraulic oil system during cold weather operations when ambient temperatures may be as low as  $-51^{\circ}$  Celsius (°C) (-60 degrees Fahrenheit (°F)).
- 3.23.9.2.5 <u>Low oil indicator</u>. A low oil indicator float switch shall be installed in the oil reservoir system which shall automatically shut off the compactor when the volume of hydraulic oil falls below the preset level.
- 3.23.9.2.6 Pin-off controls. Controls to assist in pin-off shall be provided. Controls shall supplement the main electrical controls when they are located in a place that prevents the operator from observing the ram during pin-off operation. Controls may be mounted on the compactor. Controls shall allow for jogging of the ram to position the ram against the semitrailer load during pin-off.

# 3.24 Workmanship, compactor.

- 3.24.1 Steel fabrication. Steel used in the fabrication of the compactor shall be free from kinks and sharp bends. The straightening of material shall be done by methods that will not cause damage to the metal. Shearing and chipping shall be done neatly and accurately. Flame cutting, using a tip suitable for the thickness of metal, may be employed instead of shearing or sawing. Re-entrant cuts shall be made in the best possible manner. All bends of a major character shall be made with controlled means in order to ensure uniformity of size and shape. Precautions shall be taken to avoid overheating, and heated metal shall be allowed to cool slowly. Burned surfaces of flame-cut material shall be ground or machined sufficiently to remove ash and checks. All joints, openings, and doors shall be square and neat appearing. The finished compactor shall be free from sharp edges, fins, burrs, and sharp projections.
- 3.24.2 Welding. The surface of parts to be welded shall be free from rust, paint, grease, or other foreign matter. Welds shall be continuous for all major joints, and shall have the strength required to satisfy the design, use, and loading conditions. Intermittent welds may be used for attaching reinforcement members provided such weldments will satisfy the design. Sequence of welding shall be such as to minimize the residual stresses in the steel. Members to be welded shall be positioned and held by jigs or fixtures when necessary to ensure accurate alinement. All outside corners of the compactor body shall be of lap butt joint construction and continuously welded. Welding shall be in accordance with recommendations of the American Welding Society as to electrodes, types of welds, and welding processes utilized. See 3.1.1.6.
- 3.24.3 <u>Castings and forgings</u>. Castings shall be sound and free from patching, misplaced cores, warping, or other defects which might render the castings unsound for use. Forgings shall be uniform in quality and condition, and shall be free from tears, cracks, seams, laps, internal ruptures, imbedded scale, segregations, or other defects which may prove detrimental to the purpose intended.

### 4. QUALITY ASSURANCE PROVISIONS

\* 4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements (examinations and tests) as specified herein. Except as otherwise specified in the contract, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

- \* 4.1.1 Responsibility for compliance. All items must meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility for ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.
- 4.2 Government verification. Quality assurance operations performed by the contractor will be subject to Government verification at unscheduled intervals. Verification will consist of observation of the operations to determine that practices, methods, and procedures of the contractor's inspection are being properly applied. Failure of the contractor to promptly correct product deficiencies discovered shall be cause for suspension of acceptance until corrections have been made or until conformance of product to specification criteria has been demonstrated.
- 4.3 First production inspection. The first production vehicle and compactor produced under the contract shall be inspected by the contractor at his plant under the direction and in the presence of Government representatives. The purpose of the inspection shall be to determine conformity to the requirements of the contract: Acceptance of the first production vehicle and compactor shall not constitute a waiver by the Government of its rights under the provisions of the contract.
- \* 4.3.1 Vehicle weight. The first production vehicle shall be weighed to determine net weight and distribution of net weight on the kingpin and the rear axles. The imposed loading on the kingpin and rear axles shall be computed using the net weight and the payload distributed as specified in 3.4. The calculated imposed load on the rear axles shall be compared to suspension, axle and tire capacities to ascertain that these components are of adequate capacity to meet contractual requirements.
- \* 4.3.2 Road test. The first production vehicle shall be coupled to a truck tractor and road tested with and without rated payload for a distance of not less than 80 km (50 miles). Sixteen km (10 miles) shall be accomplished with rated payload on unimproved roads and 24 km (15 miles) on improved roads (40 km (25 miles) total). The remaining 40 km (25 miles) shall be performed without payload. The vehicle shall be examined and tested to determine conformance to performance requirements specified herein.
- \* 4.3.3 <u>Electrical test</u>. An electrical test shall be conducted on the first production vehicle to determine that all vehicle lights are functioning.

- \* 4.3.4 Brake tests. Brake tests to determine conformance to requirements shall be conducted during the road test. The brake tests shall be conducted with the fully loaded semitrailer coupled to a fully loaded truck tractor. The truck tractor shall have a gross vehicle weight rating (GVWR) of not more than 17 250 kg (38,000 pounds) and a gross combination weight rating (GCWR) of not less than 31 800 kg (70,000 pounds). The truck tractor shall be without excessive brake capacity. GVWR and GCWR shall be the maximum ratings on the tractor only and not necessarily the actual maximum GVW and GCW of the combination of test vehicles. Failure of the vehicle combination to stop within the required 12 200 mm (40 feet) from a speed of 32 km/h (20 mph) shall be cause for rejection.
- \* 4.3.5 <u>Turning ability test</u>. A truck-tractor shall be coupled to the semitrailer and driven through turns up to 90 degrees to the towed vehicle, right and left. At the conclusion of five turns in each direction, the tractor and the semitrailer shall be examined for evidence of binding, misalinement or other damage.
- \* 4.3.6 Parking brake test. To test parking brakes, the semitrailer, with rated payload, shall be placed on a grade, first headed up the grade and then headed down the grade, and tested to determine conformance to 3.10.1. These tests shall be conducted with the semitrailer disconnected from the towing vehicle and resting on the landing legs.
- \* 4.3.7 Landing leg test. With the semitrailer disconnected from the towing vehicle and loaded as specified in 3.4, the landing legs shall be raised and lowered to vary the height of the upper fifth wheel over the landing gear's full range, to determine conformance to 3.12 and 3.12.1. The loaded semitrailer shall be coupled and uncoupled no less than 5 times and the landing legs shall be examined for binding and or misalinement.
- \* 4.3.8 <u>Electrical test</u>. An electrical test shall be conducted to determine that all vehicle lights are functioning.
- 4.3.9 <u>Ram ejection pressure</u>. The first production vehicle shall be tested to determine conformance to 3.16.5(b) or a certification, with calculation sheets attached, may be furnished.
- \* 4.3.10 Production sample. Upon acceptance of the first production vehicle, it shall remain at the manufacturing facility as a production sample, and shall be the last vehicle shipped on the contract. The manufacturer shall maintain the vehicle in an as new condition for the duration of the contract. Release of the first vehicle for shipment prior to completion of the contract shall be at the discretion of the local Government Quality Assurance Representative (QAR).

- 4.3.11 Test failure. The vehicle shall successfully complete the entire test. Failure of the vehicle to successfully complete the test shall be cause for nonacceptance of any of the contract quantity, pending correction of deficiencies and evidence of corrective action which shall prevent the recurrence of similar deficiencies in the contract quantity. Failure of the vehicle to successfully complete the test shall not constitute an excusable delay in meeting scheduled deliveries. The equipment shall be closely monitored throughout the test for interference with towing operations, and for instability as evidenced by poor tracking or uncontrollable sideslipping, skidding, swerving, or tilting. The equipment shall also be closely monitored for loosening of parts, interference between parts, leakage of fluids or lubricants, overheating of components, and for damage, permanent distortion, or excessive wear of parts and components. The equipment shall be disassembled to the extent necessary for inspection for unusual wear or damage to components. Substitution of a new semitrailer or replacement of a major component may require complete retest at the discretion of the Government representatives. Rejection of the test semitrailer shall be for damage or deficiencies, including but not limited to the following:
  - (a) Damage caused by collision
  - (b) Failure of any major component
  - (c) Vibration due to misalinement of wheels or frame
  - (d) Vibration due to the type of construction or mounting
  - (e) Evidence of abnormal tire wear due to misalinement or unbalance
  - (f) Failure of any vehicular safety device such as brakes or electrical circuits
  - (g) Evidence of structural weakness in any part of the vehicles, vehicle components, accessories or welds
  - (h) Loose mountings of parts or accessories due to workmanship or vehicular operation.
- \* 4.4 Inspection of production vehicles. The contractor's inspection system shall, as a minimum, assure that the vehicle conforms to the physical and dimensional requirements and its capable of meeting performance requirements contained herein. For each vehicle under contract, the contractor shall make available to the Government, at the point of final acceptance, records acceptable to the Government indicating that the servicing and adjusting required by 3.21 has been accomplished.

## 5. PACKAGING

5.1 <u>Vehicle and compactor processing</u>. The vehicle and compactor shall be processed for shipment, from manufacturer's plant to initial receiving activity, in accordance with the manufacturer's standard commercial practice.

# 6. NOTES

6.1 <u>Intended use, semitrailers</u>. The semitrailers are intended for use by the Military services for refuse collection from compactors at Military establishments.

- 6.1.1 <u>Intended use, compactors</u>. The compactors are intended for use by the Military services for compaction of refuse into refuse collection semitrailers.
  - 6.2 Ordering data. Acquisition documents should specify the following:
  - (a) Title, number, and date of this specification.
- \* (b) Issue of DODISS to be cited in the solicitation and, if required, the specific issue of individual documents referenced (see 2.1.1 and 2.2).
- \* (c) Identification of the appropriate military service for painting and marking (see 3.1.1.1 and 3.1.1.2).
  - (d) Two section, Dutch type rear doors if required (see 3.16.2).
- \* 6.3 Subject term (key word) listing.

  Discharge
  Dutch doors
  Ejection plate
  Fifth wheel plate
  Hopper
  Landing gear
  Pin-off
  Protective device
  Sump tank.
- \* 6.4 Changes from previous issue. The margins of this specification are marked with asterisks (\*) to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content regardless of the marginal notations and relationship to the previous issue.

Custodian:
Army - AT
Air Force - 99

Preparing activity: Army - AT

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