

MIL-R-52507C(ME)  
3 August 1982  
SUPERSEDING  
MIL-R-52507B(ME)  
4 February 1975

## MILITARY SPECIFICATION

RAILWAY CAR, TANK: SULFURIC ACID, DOT-111A100-W-2

13,350-GALLON, 8-WHEEL, DOMESTIC-SERVICE

This specification is approved for use by the Mobility Equipment Research and Development 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 domestic-service railway tank car for transporting sulfuric acid.

### 2. APPLICABLE DOCUMENTS

#### 2.1 Government documents.

2.1.1 Specifications and standards. Unless otherwise specified (see 6.2), the following specifications and standards of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DoDISS) specified in the solicitation, form a part of this specification to the extent specified herein.

## SPECIFICATIONS

### MILITARY

MIL-P-3320

- Painting and Marking: Freight and Maintenance Cars.

MIL-P-3558

- Plates, Identification: Locomotives, Railway Cars, and Work Equipment.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: US Army Mobility Equipment Research and Development Command, ATTN: DRDME-DS, Fort Belvoir, VA 22060 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

FSC 2220

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STANDARDS

FEDERAL

FED-STD-H28 - Screw-Thread Standards for Federal Services.

MILITARY

MIL-STD-129 - Marking for Shipment and Storage.  
MIL-STD-889 - Dissimilar Metals.

(Copies of specifications and standards required by manufacturers in connection with specific acquisition functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other publications. The following document(s) form a part of this specification to the extent specified herein. The issues of the documents which are indicated as DoD adopted shall be the issue listed in the current DoDISS and the supplement thereto, if applicable.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

Welding Qualifications of the ASME

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

AMERICAN SOCIETY OF TESTING AND MATERIALS (ASTM)

A21 - Carbon Steel Axles Non-Heat Treated and Heat-Treated, for Railway Use.  
A36 - Structural Steel.  
A53 - Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.  
A242 - High Strength Low Alloy Structural Steel.  
A285 - Pressure Vessel Plates, Carbon Steel, Low and Intermediate Tensile Strength.  
A307 - Carbon Steel Externally Threaded Standard Fasteners.  
A325 - High Strength Bolts for Structural Steel Joints.  
A441 - High Strength Low Alloy Structural Manganese Vanadium Steel.  
A449 - Quenched and Tempered Steel Bolts and Studs.  
A515 - Pressure Vessel Plates, Carbon Steel.  
A572 - High Strength Low-Alloy Columbium-Vanadium Steel of Structural Quality.

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

AMERICAN WELDING SOCIETY (AWS)

D1.1 Structural Welding Code, Section 5, Qualification.

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(Application for copies should be addressed to the American Welding Society, 2501, NW 7th Street, Miami, FL 33125.)

DEPARTMENT OF TRANSPORTATION (DOT)

Federal Railroad Administration, Office of Safety.

Code of Federal Regulations, Title 49, Parts 179 and 231.  
Hazardous Materials Regulations.  
Railway Safety Appliances Standards - DOT-111A100-W-2

(Application for copies should be addressed to Superintendent of Documents, Government Printing Office, Washington, DC 20402.)

ASSOCIATION OF AMERICAN RAILROADS (AAR)

Manual of Standards and Recommended Practices, Mechanical Division.

Section A - Table of Contents, Miscellaneous Standards and Practices,  
Passenger Car Requirements.  
M-201 Steel Castings.  
Section B - Couplers and Freight Car Draft Components.  
Section C, Part II, Volume I - Specifications for Design, Fabrication and  
Construction of Freight Cars, M-1001.  
Section C, Part III - Specifications for Tank Cars, M-1002.  
Section D - Trucks and Truck Details.  
M-114 Helical Springs, Heat Treated Steel.  
S-316 Tolerance for Truck Bolsters.  
S-325 Limiting Dimensions for AAR Alternate Standard Pedestal Type  
Side Frames.  
Section E - Brakes and Brake Equipment.  
S-400 Specification No. 2518, Freight Car Brake Equipment, Installation  
Specification.  
M-601 Hose, Air-Brake and Train Air-Signal.  
Section E, Part II - Maintenance Requirements for Freight Car Air Brake  
Control Valves and Equipment - Shop Certification.  
S-486 Instruction Pamphlet No. 5039-4, Sup. 1, Single Car Testing.  
Device - Code of Test for Freight Car Equipment.  
Section G - Wheels and Axles.  
M-101 Axles, Carbon Steel, Non-Heat-Treated and Heat-Treated.  
Section H - Journal Bearings and Lubrication.  
Section H, Part II - Roller Bearing Manual.

Supplement to Manual of Standards and Recommended Practices.

Plate B - Equipment Diagram for Unrestricted Interchange Service.  
Plate B-1 - Maximum width of Cars with Various Truck Centers.

(Application for copies should be addressed to the Association of American Railroads, 59 East Van Buren Street, Chicago, IL 60605.)

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(Industry association specifications and standards are generally available for reference from libraries. They are also distributed among technical groups and using Federal agencies.)

2.3 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein, the text of this specification shall take precedence.

### 3. REQUIREMENTS

3.1 Description. The tank car shall be in accordance with DOT-111A100-W-2 as specified in AAR Manual of Standards and Recommended Practices, Section C, Part III, Specifications for Tank Cars, M-1002, except as specified herein. The car shall be capable of transporting a minimum of 13,350 gallons of sulphuric acid, 66° Baume, and shall be mounted on two 4-wheel trucks.

#### 3.2 First article.

3.2.1 First-produced car. The contractor shall furnish a car for examination and testing within the time frame specified to prove that his production methods and choice of design detail will produce cars that comply with the requirements of this specification. Examination and tests shall be as specified in Section 4 and shall be subject to surveillance and approval by the Government (see 6.3).

3.3 Materials. Materials shall conform to applicable AAR and commercial specifications currently used by the railroad industry for this type of equipment unless otherwise specified herein (see 6.9 and 6.10). Dissimilar metals as defined in MIL-STD-889 shall not be used in intimate contact with each other unless the metals are protected against galvanic corrosion.

3.3.1 Steel. Structural steel shall conform to ASTM A36, A285, A242, A441, A515 or A572. Casting shall conform to AAR M-201, Grades B and C.

3.3.2 Pipe and fittings. Pipe and fittings shall conform to the latest AAR requirements.

3.3.3 Fastener Materials. Bolts and nuts shall conform to ASTM A307, A325 or A449.

3.3.4 Threaded parts. Threaded parts shall conform to FED-STD-H28. The American National fine thread series shall be used for threaded parts less than 1/4-inch diameter. The Unified or American National coarse thread series shall be used for threaded parts 1/4-inch diameter and larger; however, the American National fine thread series may be employed for these sizes when applicable. Airbrake pipe threads shall conform to the American National pipe thread series.

3.3.5 Substitution of materials. Materials not conforming to the specifications referenced herein shall not be substituted, unless such substitutions are specifically approved by the contracting officer and; (1) it is clearly demonstrated that an improvement in operating characteristics, a

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saving in weight, conservation of critical or strategic materials, or a reduction in cost without sacrifice of reliability can be accomplished thereby; (2) that such substitutions will not preclude the subsequent use of specified materials in effecting repairs or replacements. Requests for approval of such substitutions shall be accompanied by completely detailed supporting data which clearly illustrate the use of the proposed substitute material.

3.4. Interchangeability. Jigs, templates, gages, and fixtures shall be used to insure interchangeability of like components and parts with respect to assembly, performance and quality. All parts having the same part number shall be functionally and dimensionally interchangeable.

3.5 Tolerances and fits. Tolerances and fits shall conform to appropriate AAR Manuals applicable to railway cars and as specified herein.

3.5.1 Adjustments. All parts and components subject to adjustment or replacement by operating or maintenance personnel shall be accessible. Adjusting facilities where provided shall operate without interference and shall maintain such adjustments under all conditions of service.

### 3.6 Clearance dimensions and weight.

3.6.1 Clearance. Clearance dimensions shall not exceed those shown on Plates B and B1, Equipment Diagrams for Unrestricted Interchange Service as contained in the AAR's Supplement to Manual of Standards and Recommended Practices.

3.6.2 Lightweight. Lightweight of the tank car complete with all appurtenances shall not exceed 59,000 pounds.

3.7 Curvature. The coupled and uncoupled car shall negotiate a curve with a radius in accordance with the AAR's Manual of Standards and Recommended Practices, Section C - Part II, Specifications for Design, Fabrication and Construction of Freight Cars, with no fouling of brake equipment or underframe.

3.8 Design and construction. Design and construction shall be in accordance with the AAR's Manual of Standards and Recommended Practices, Section C - Part II, Specifications for Design Fabrication and construction of Freight Cars, M-1001; Section C - Part III, Specifications for Tank Cars, M-1002; Supplement to the Manual of Standards and Recommended Practices; and other applicable AAR requirements except as specified herein. When impact testing is required by the AAR for new and untried designs, no visible permanent deformation to the car shall be observed. A full set of drawings and design calculations shall be submitted to the contracting officer. Sufficient documentation shall be submitted to the AAR for approval of the car. The car shall consist of the following components.

- (a) Underframe, draft gear, and couplers.
- (b) Trucks and brake system.
- (c) Tank platform, ladder, and fittings.

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3.8.1 Underframe. The underframe may be of the short draft sill type of welded construction and formed of rolled and pressed sections. A through-type draft sill underframe is acceptable as an alternate. Steel shall conform to ASTM A36, A441, or A572. The draft sill shall be AAR approved.

3.8.1.1 Draft gear. The draft gear shall be an end-of-car hydraulic cushioning type unit having 10-inch travel.

3.8.1.2 Couplers. The couplers shall be AAR Type SE60CE, top and bottom shelf type, bottom rotary operated, with coupler operating levers at diagonal corners. They shall comply with AAR's Section B, Couplers and Freight Car Draft Components, and all applicable Federal Railroad Administration (FRA) regulations (Code of Federal Regulations, Title 49, Part 179).

3.8.2 Trucks. Trucks shall be AAR 4-wheel 100-ton capacity, 56-1/2-inch gage, having built-in snubbing devices and double side springs.

3.8.2.1 Wheels. Wheel size and type shall be consistent with the car loading and number of axles in accordance with the AAR's Section G, Wheels and Axles.

3.8.2.2 Axles. Axles shall be heat treated forged of carbon steel in accordance with ASTM, A21, Grade G or AAR M-101, Class F, for 100-ton service. Journals shall be 6-1/2 by 12 inches for roller bearings.

3.8.2.3 Journal bearings. Journal bearings shall be AAR-approved non-field lubricated (NFL) roller type, applicable to interchange freight cars in accordance with AAR's Section H, Journal Bearings and Lubrication, and Section H-Part II, Roller Bearing Manual.

3.8.2.4 Side bearings. Each car shall be equipped with AAR-approved double roller-type side bearings adjusted to AAR specifications of 3/16-inch to 5/16-inch clearance.

3.8.2.5 Side frames. Side frames shall be alternate standard pedestal type, with limiting dimensions in accordance with AAR Section D - Trucks and Truck Details, plate S-325, cast steel.

3.8.2.6 Bolsters. Bolsters shall be AAR approved of cast steel. Tolerance on cast end construction shall accommodate the 100-ton trucks in accordance with plate S-316 of AAR's Section D, Truck and Truck Details.

3.8.2.7 Springs. Springs shall conform to AAR M-114, as applicable for a 100-ton truck with 3-11/16-inch travel springs. The solid spring group capacity shall be 1.4 times the sprung weight of the loaded car.

3.8.3 Brakes. Airbrake installation and performance shall be in accordance with AAR, Section E, Brakes and Brake Equipment, and Specification No. 2518, Freight Car Brake Equipment, Installation Specifications, S-400, contained therein, and other AAR requirements as applicable. Empty-load airbrake equipment shall be included in the design. Pipe and fittings shall conform to



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the AAR Manual of Standards and Recommended Practices. Brakeshoes shall be high friction composition type. Cars shall pass testing as specified in AAR Instruction Pamphlet 5039-4, Supplement 1, Single Car Testing Device - Code of Tests for Freight Car Equipment S-486 or latest revision. Brake valves and breathers shall be protected from damaging effect of road splash.

3.8.3.1 Braking force. Net air brake and handbrake force, as determined by a static brake test shall agree with AAR requirements. Number of cars to be tested shall be the same as specified by AAR for this type equipment.

3.8.3.2 Pipe and fittings. Brake pipe shall be 1-1/4-inch diameter, extra strong, black, conforming to ASTM A53. All fittings shall conform to AAR requirements. Unions shall have brass-to-iron seats.

3.8.3.3 Airbrake hose. Brake hose shall conform to AAR M-601.

3.8.3.4 Handbrake. Handbrake shall be vertical wheel nonspin type with long, quick release handle that meets AAR requirements for ratio and usage. Installation, construction, and arrangement of the handbrake shall be as specified in AAR Section E, Brakes and Brake Equipment, except where superseded by AAR Specification M-1001.

3.8.3.5 Badge plate. A metal badge plate, cast, etched, or stamped, showing brake rigging and dimensions as specified in AAR Section E, Brake and Brake Equipment shall be attached in an accessible location, preferably near the airbrake cylinder and on the same side of the car.

3.8.4 Tank. Steel plate thickness shall be in accordance with DOT-111A100-W-2, except that plate thickness shall not be less than 9/16 inch. The plate material shall be in accordance with ASTM A285, Grade C or ASTM A515, Grade 70. The tank shall be designed with a bottom washout. The tank shall have tank head shields capable of providing a tank head puncture resistance system as defined by the DOT, Materials Transportation Bureau, under HM-144.

3.8.4.1 Manway arrangement. All components shall meet the most current AAR and DOT requirements.

3.8.4.1.1 Liquid level indicator. A magnetic-ball-type liquid level indicating device similar to Midland B-612Y shall be provided. The indicating device shall not contaminate sulphuric acid and shall not corrode or erode when exposed to sulphuric acid. A separate "tell-tale" pipe of carbon steel and equipped with control valve shall be provided.

3.8.4.1.2 Manway cover plates. The manway flue shall accommodate a cover plate equipped with acid-resistant devices. It shall be of hinged and bolted design and equipped with a seal slot and safety retaining device per DOT 179.201-6(a).

3.8.4.1.3 Manway platform. A DOT-approved manway work platform and safety rail shall be provided around the manway top unloading nozzle and magnetic gauge nozzle.

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3.8.4.2 Loading and unloading devices. Loading and unloading devices shall be in accordance with AAR.

3.8.4.2.1 Eduction pipe. An eduction pipe of ASTM A53 steel pipe shall be provided suitable for operation in sulphuric acid. The pipe and valve shall provide for loading or unloading operations. The pipe shall be 3 inches in diameter. A 3-inch ball valve or equivalent shall be provided with flange for eduction pipe connection and flange for external connection. The external connection shall be sealed with a bolted blind flange. The ball shall be solid stainless steel.

3.8.4.2.2 Air pressure connection. An air pressure connection shall be provided with a 1-inch ball-type valve or equivalent flanged for connection to the tank car and external connection. The external connection of the air valve shall be sealed with a bolted blind flange. The ball shall be solid stainless steel.

3.8.4.2.3 Bottom washout connection. A bottom washout connection with skid protection in accordance with AAR specification shall be provided. Design of the wash-out connection shall provide for the future application of a 4-inch ball valve for conversion to a bottom outlet. Proposed design shall be submitted to the contracting officer for approval prior to starting production.

3.8.4.3 Ladders and running boards. DOT-approved ladders to the manway platform shall be provided at each side of the car in accordance with DOT Railway Safety Appliances Standards. Running boards and handrails shall be provided on both ends of the car.

3.9 Safety appliances. Safety appliances shall conform to DOT Railway Safety Appliances Standards, (Code of Federal Regulations, Title 49, Part 231.)

3.9.1 Safety vent. The tank car shall be equipped with a safety vent and rupture disc to burst at 100 psi. The safety vent shall comply with AAR specifications.

3.9.2 Valves. Wherever possible, all valves shall be labeled open-close with double headed arrows to indicate direction of action.

3.9.3 Pipe caps. All pipe caps shall be permanently attached to the tank car with durable cable or chains.

3.10 Card holders. Placard holders and defect cardholders conforming to applicable AAR specifications shall be installed on the car.

3.11 Identification plates. An identification plate conforming to MIL-P-3558, Type II, shall be attached to the car in a visible location.



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3.12 Painting and marking. Surface preparation, painting and marking shall conform to MIL-P-3320. Type of paint shall be as specified in MIL-P-3320. Color shall be aluminum. Reporting marks shall be as specified (see 6.2). Additional markings shall be in accordance with AAR Section C, Part III, Specification for Tank Cars, M-1002, Appendix C and applicable DOT and DoD requirements. Car numbers conforming to MIL-P-3320 shall be applied (see 6.8).

3.12.1 Spill saddle. A spill saddle of acid-resistant coating material shall be applied circumferentially and shall completely encircle the tank. The spill saddle shall be 8 feet wide, extending 4 feet on each side of the vertical centerline of the manway, and shall include the manway, work platform drip angle, and all fittings in the path of the saddle. The coating material shall bond firmly to the tank. Coal tar, coal tar epoxies, or high-build asphaltic mastics shall not be used.

3.13 Drip angle. Drip angles 8 feet long, centered on the manway, shall be provided on each side of the tank. The drip angles shall be attached approximately two-thirds of the distance down the sides of the tank.

3.14 Design calculations. The following data and calculations shall be submitted to the contracting officer prior to delivery of cars:

- a. Location of center of gravity (fully loaded).
- b. Approved certificate of construction (DOT, AAR).
- c. Cooper rating.
- d. Outage table.
- e. AAR design approval.
- f. Mechanical characteristics required for UMLER Card and Document Input.

3.15 Workmanship. Workmanship for fabrication and construction shall be in accordance with AAR Section C, Part II, Specifications for Design, Fabrication, and Construction of Freight Cars, M-1001 and Section C, Part III, Specifications for Tank Cars, M-1002, as applicable.

3.15.1 Welding. The surface of all parts to be welded shall be free from rust, scale, paint, grease, and other foreign matter. Unless otherwise specified, welds shall develop the strength required for the parts connected. All welding shall be in accordance with the Welding Handbook, Section One of the American Welding Society and applicable AAR requirements. Welders shall be qualified in accordance with the Qualification Procedure of AWS D1.1, Section 5 or with the Qualification Tests for Welding Operators as contained in Appendix W of the AAR Section C, Part III, Specification for Tank cars, M-1002. Any welder shall be required to retake and satisfactorily pass this test when in the opinion of the contracting officer there is a reasonable doubt of his proficiency.

3.15.2 Assembled car. The assembled tank car shall be free from any defects that could cause malfunctioning of components or in any way jeopardize or interfere with its safe operation. Construction of the car and appearance of

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the applied coatings shall be compatible with standard quality workmanship for this type of equipment.

#### 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 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 Acceptability criteria. Cars which conform to all requirements in Sections 3 and 5 of this specification and pass all applicable examinations and tests in Section 4 of this specification and meet requirements of the AAR Rules of Interchange will be considered acceptable by the Government.

4.1.2 Component and material inspection. The contractor is responsible for insuring that components and materials used are manufactured, examined, and tested in accordance with referenced specifications and standards or for providing evidence that components have been previously approved by AAR.

4.2 Classification of inspection. Inspection shall be classified as follows:

- a. First-produced car inspection (see 4.3).
- b. Quality conformance inspection (see 4.4).
- c. Inspection of packaging (see 4.6).

4.3 First-produced car inspection. The first-produced car which shall have been produced from production tooling shall be examined and tested to determine conformance to the requirements of this specification.

4.3.1 Examination. The first-produced car shall be examined as specified in 4.5.1.

4.3.1.1 Presence of one or more defects shall be cause for rejection.

4.3.2 Tests. The first-produced car shall be tested as specified in 4.5.2.

4.3.2.1 Failure of any test shall be cause for rejection.

#### 4.4 Quality conformance inspection.

4.4.1 Examination. Each car shall be examined as specified in 4.5.1.

4.4.1.1 Presence of one or more defects shall be cause for rejection.

4.4.2 Tests. Each car shall be tested as specified in 4.5.2 through 4.5.2.8.

4.4.2.1 Failure of any test shall be cause for rejection.

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4.5 Inspection procedure.4.5.1 Examination. Each car shall be examined for the following defects:

- 101. Material not as specified.
- 102. Parts and components not interchangeable.
- 103. Threaded parts not as specified.
- 104. Car dimensions exceed dimensions shown on AAR Plate B and B1.
- 105. Dimensions not as specified.
- 106. Loading and unloading devices not as specified.
- 107. Safety appliances not as specified.
- 108. Lubrication not as specified.
- 109. Identification plate not as specified.
- 110. Painting and marking not as specified.
- 111. Design calculations not furnished contracting officer (first-produced car only).
- 112. Certification of construction not furnished in accordance with DOT regulations and AAR Manual of Standards and Recommended Practices.
- 113. Workmanship not as specified.
- 114. Welding not as specified.
- 115. Car shows evidence of defects that could cause malfunctioning of components or interfere with its safe operation.
- 116. Components missing or not as specified.

4.5.2 Tests.

4.5.2.1 Test conditions. Tests shall be in accordance with AAR Section C, Part III, Specifications for Tank Cars, M-1002, Type DOT-111A100-W-2 and as specified herein.

4.5.2.2 Weight. An original certified scale weight ticket shall be furnished for each car. Nonconformance to 3.6.2 shall constitute failure of this test.

4.5.2.3 Side bearing clearance. Clearance shall be verified by means of a side bearing gage as specified in AAR Manual of Standards and Recommended Practices. Nonconformance to 3.8.2.4 shall constitute failure of this test.

4.5.2.4 Airbrake. The entire airbrake system shall be tested to insure correct functioning of all components. Cars shall pass testing as specified in AAR Instruction Pamphlet 5039-4, Supplement 1, Single Car Testing Device - Code of Tests for Freight Car Equipment S-486 or latest revision. The brake cylinder piston travel shall be as specified in Air Brake Specification No. 2518 and shall be tested for interference and correct travel. Nonconformance to 3.8.3 shall constitute failure of this test.

4.5.2.5 Braking force. With 50 psi brake cylinder pressure, determine brakeshoe pressure at shoe. Nonconformance to 3.8.3.1 shall constitute failure of this test.

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4.5.2.6 Handbrake. The AAR specified braking force shall result from application of 125 pounds at the handbrake. The brakeshoe pressure shall be determined at each wheel. Nonconformance to 3.8.3.4 shall constitute failure of this test.

4.5.2.7 Tank. The tank and its appurtenances shall be tested as specified in DOT-111A100-W-2 and Appendix W of the AAR Section C - Part III, Specifications for Tank Cars, M-1002. Nonconformance to requirements of DOT-111A100-W-2 and Appendix W or failure to obtain DOT Certificate of Construction shall constitute failure of this test.

4.5.2.8 Capacity. Tank capacity, outage, gaging scale, liquid level indicator, and telltale pipe shall be verified for accuracy. Nonconformance to 3.8.4 shall constitute failure of this test.

4.5.2.9 Curvature. Proof of compliance to AAR requirements shall be provided. Nonconformance to 3.7 shall constitute failure of this test.

4.5.2.10 Impact test. The ability of the car to withstand impact shall be proven as required by the AAR in Section C, Part II and Part III of the Manual of Standards and Recommended Practices, as applicable. If car is not of new or untried design, the car builder shall furnish certification to support this fact from AAR. Nonconformance to 3.8 shall constitute failure of this test.

4.6 Inspection of packaging. The packaging and marking shall be inspected to determine conformance to Section 5 of this specification.

## 5. PACKAGING

5.1 Tank car. Each tank car shall be prepared for delivery in accordance with AAR requirements for Interchange Service (see 6.6).

5.2 Marking. Marking for shipment shall be in accordance with MIL-STD-129. Additional marking shall be as required by applicable AAR Rules and Regulations.

## 6. NOTES

6.1 Intended use. The tank car is intended for transporting sulphuric acid in Continental United States.

6.2 Ordering data. Procurement documents should specify the following:

- a. Title, number, and date of this specification.
- b. Date of issue of DoDISS applicable to this contract and exceptions thereto (see 2.1.1).
- c. Time frame required for submission of first-produced car (see 3.2).
- d. Reporting marks required (see 3.12).

6.3 First-produced cars. Any changes or deviations of production cars from the approved first-produced car during production will be subject to the

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approval of the contracting officer. Approval of the first-produced car will not relieve the contractor of his obligation to furnish cars conforming to this specification.

6.4 Data requirements. The contracting officer should include requirements for such data as instructional materials, illustrated parts lists, Universal Machine Language Equipment Register (UMLER) Card and Docuent Input, and contractor's maintenance and operational manual to be furnished with each car.

6.5 Drawings. Drawings shall be made available to the contracting officer prior to submission of first produced car. A complete set of blue line prints and black line reproducible drawings on 3 mil mylar shall be furnished to the contracting officer.

6.6 Provisioning. The contracting officer should include provisioning requirements for repair parts and maintenance tools as necessary (including any special tools), and instructions on shipment of cars. A suggested paragraph is as follows:

"Shipment of cars shall include repair parts, maintenance tools, operational instructions, and accessories unless exceptions are provided elsewhere in the contract."

6.7 Packaging. Degrees of packaging have not been included as the cars are for domestic service and will be delivered over the rails. Storage periods exceeding normal domestic limitations are not anticipated.

6.8 Car numbers. The contracting officer should arrange to furnish car numbers to the contractor to be applied to each car (see 3.12).

6.9 Recycled material. It is encouraged that recycled material be used when practical as long as it meets the requirements of the specification (see 3.3).

6.10 Material deterioration and prevention control (MADPAC). The material and processes as specified in paragraph 3.3 and its subparagraphs shall reflect the requirements of DARCOM Reg 702-24 (MADPAC). Assurance shall be provided by the contractor or vendor that the material or protective finishes used in the tank shall provide maximum protection against various forms of material deterioration in the applicable operating and storage environments to which the tank may be exposed.

Custodians:  
Army ME

Preparing activity:  
Army - ME

User activity:  
Army - MT

Project 2220-A190

**STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL**

**INSTRUCTIONS:** This form is provided to solicit beneficial comments which may improve this document and enhance its use. DoD contractors, government activities, manufacturers, vendors, or other prospective users of the document are invited to submit comments to the government. Fold on lines on reverse side, staple in corner, and send to preparing activity. Attach any pertinent data which may be of use in improving this document. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity. A response will be provided to the submitter, when name and address is provided, within 30 days indicating that the 1426 was received and when any appropriate action on it will be completed.

**NOTE:** This form shall not be used to submit requests for waivers, deviations or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

**DOCUMENT IDENTIFIER (Number) AND TITLE** MIL-R-52507C(ME) Railway Car. Tank:  
Sulfuric Acid, DOT-111A100-W-2 13,350-Gallon, 8-Wheel, Domestic Service

**NAME OF ORGANIZATION AND ADDRESS OF SUBMITTER**

☐ **VENDOR**      ☐ **USER**      ☐ **MANUFACTURER**

1. ☐ **HAS ANY PART OF THE DOCUMENT CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?**      ☐ **IS ANY PART OF IT TOO RIGID, RESTRICTIVE, LOOSE OR AMBIGUOUS? PLEASE EXPLAIN BELOW.**

**A. GIVE PARAGRAPH NUMBER AND WORDING**

**B. RECOMMENDED WORDING CHANGE**

**C. REASON FOR RECOMMENDED CHANGE(S)**

**2. REMARKS**

**SUBMITTED BY** (Printed or typed name and address — Optional)

**TELEPHONE NO.**

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