

# APPLICATION FOR APPROVAL AND CERTIFICATE OF CONSTRUCTION

1 APPROVAL REQUESTED OF:  PRECEDENT  NON-PRECEDENT

2 TYPE:  CONSTRUCTION  WELDED REPAIRS  ALTERATION  OTHER  CONVERSION

3 AAR NO. L116022A

4 DATE: JUNE 17, 2011

5 APPLICANT'S NO. T11020

6 APPLICANT: TRINITY TANK CAR, INC.  
P.O. BOX 568887 DALLAS, TEXAS 75356-8887

7 TANK SPECIFICATION: DOT 111A100W1

8 STENCILED SPEC.: DOT 111A100W1

9 REPORTING MARKS & CAR NUMBERS GATX 286000 thru GATX 286357

10 NUMBER OF CARS 358

11 Initial commodity	SEE NOTES	12 Density, lb. per gallon	6.63
13 Full water capacity, gal.	31,808	14 Dome capacity or outage, gal.	per DOT 173.24b(a)(1)
15 Material type & grade - heads	AAR TC128 Gr. B NORM	16 Material type & grade - shell	AAR TC128 Gr. B NORM
17 Material thickness - heads, in.	1/2	18 Material thickness - shell, in.	1/2
19 Lining type	NONE	20 Inside diameter - center, in.	122-1/2
21 Inside diameter - end rings, in.	122-1/2	22 Head radius, main, in. (if not 2:1)	2:1 ELLIPSOIDAL
23 Test pressure, psig	165	24 Insulation type	NONE
25 Insulation thickness, in.	NONE	26 Thermal conductivity, Btu-in/hr-ft <sup>2</sup> -°F	N.A.
27 Type and number of safety relief devices	ONE VALVE	28 Safety device start-to-discharge, psig	165
29 Safety device flow cap'y., scfm req'd.	26,879	30 Safety device flow capacity, scfm, actual	35,608
31 Tank surface area, sq. ft.	1,806	32 Underframe or stub sill type	STUB SILL---TRN 024
33 Center of gravity, loaded, in.	88.7	34 Est. light weight, lb.	75,300
35 AAR clearance diagram	C	36 Rail load limit, lb.	286,000
37 Truck capacity, tons	100	38 Head shields	<b>1/2" thk A572-50</b>

**NOTES:** Petroleum Crude Oil (PG I or II) and products authorized in DOT Part 173 for which there are no special commodity requirements and nonregulated commodities compatible with this class of car.

Orig. Cert. \_\_\_\_\_  
 Builder \_\_\_\_\_  
 Date \_\_\_\_\_  
 Former lading \_\_\_\_\_

\* Safety Valve sized using equation 8.1.1.1a of Appendix A

The Following Drawings Apply	Drawing Number	The following prior approvals apply:	
		Drawing Number	Application/Certificate No.
39 General Arrangement	M-042-T11020		
40 Arrangement, Tank	T-025-T11020 SH. 1 thru 5		
41 Reinforced Openings	T-030-T11020 SH. 1 & 2		
42 Draft Sill Arrgt.	<b>U-075-80002 SH. 1A &amp; 2A</b>		
43 Fittings Arrangement	F-020-T11020 SH. 1 & 2		
44 Manway Assembly	T-032-80004		
45 Protective Housing	F-050-80001		
46 Venting, Loading and Discharge Valves	SEE PAGE 2		
47 Safety Relief Devices	MIDLAND A-2165		SRD 002012
48 Heater Systems (Int. <input type="checkbox"/> Ext. <input type="checkbox"/> )	NONE		
49 Gaging Device (Visual Scale)	T-030-T11020 SH. 2		
50 Bottom Outlet Valve	JAMESBURY 4" 9RET3-22HBXT		E079011
51 Bottom Outlet Arrangement	V-014-80002		
52 Manway cover	F-021-80002		
53 Calculations	D-744014		
54 Tank Qualification Drawing	T-023-80001		

REVISIONS:

**Rev. A, June 30, 2011: Revised lines 38, 42 & note on page 2.**

APPLICATION BY: SANDY L. MCQUEEN

I certify that the foregoing conforms to all applicable DOT and AAR requirements including Specifications, Regulations, Rules of Interchange and the DOT Railroad Safety Appliance Standards.

SIGNATURE \_\_\_\_\_  
 TITLE ENGINEERING MANAGER

APPROVAL - AAR Tank Car Committee

Date Approved AUG 16 2011

Signature on behalf of Tank Car Committee \_\_\_\_\_

**CERTIFICATION:** The cars enumerated below conform to the above approved description and to all applicable DOT and AAR requirements including Specifications, Regulations, Rules of Interchange and the DOT Railroad Safety Appliance Standards. Copy of this Certificate of Construction will be furnished to the owner and others as required by 49 CFR Part 179.5 before these cars are placed in service.

Initials and Car Numbers:

GATX 286000 - 286357

Name \_\_\_\_\_ Date 8-22-11

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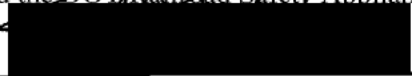
<u>THE FOLLOWING DRAWINGS APPLY</u>	<u>DRAWING NUMBER</u>	<u>PRECEDENT APPLICATION NO.</u>
55. 20" NOZZLE ASSEMBLY	T-032-80006	
56. FITTINGS COVER PLATE	F-300-80002	
57. TANK HEAD SHIELD ASSY - A END	T-034-80000	
58. TANK HEAD SHIELD ASSY - B END	T-034-80001	

LINE 46 --- VENTING, LOADING AND DISCHARGE VALVES  
 THESE ARE THE VALVES REFERENCED ON FITTINGS ARRANGEMENT F-020-T11020

2" FLANGED BALL VALVE  
 JAMESBURY 9150 ----- AAR E089013

MIDLAND A-220-W VACUUM RELIEF VALVE ----- AAR E002010

The tank cars of this application are constructed in accordance with all applicable DOT/TC and AAR requirements, including AAR Standard S-286-2006 and MSRP C-III, Section 2.5.

**APPLICATION BY** Sandy L. McQueen  
 I certify that the foregoing conforms to all applicable DOT and AAR requirements, including Specifications, Regulations, Rules of Interchange and the DOT Railroad Safety Appliance Standards.  
**SIGNATURE**   
**TITLE** Engineering Manager

APPROVAL AAR Tank Car Committee Date Approved AUG 16 2011

  
 (Signature) on behalf of Tank Car Committee