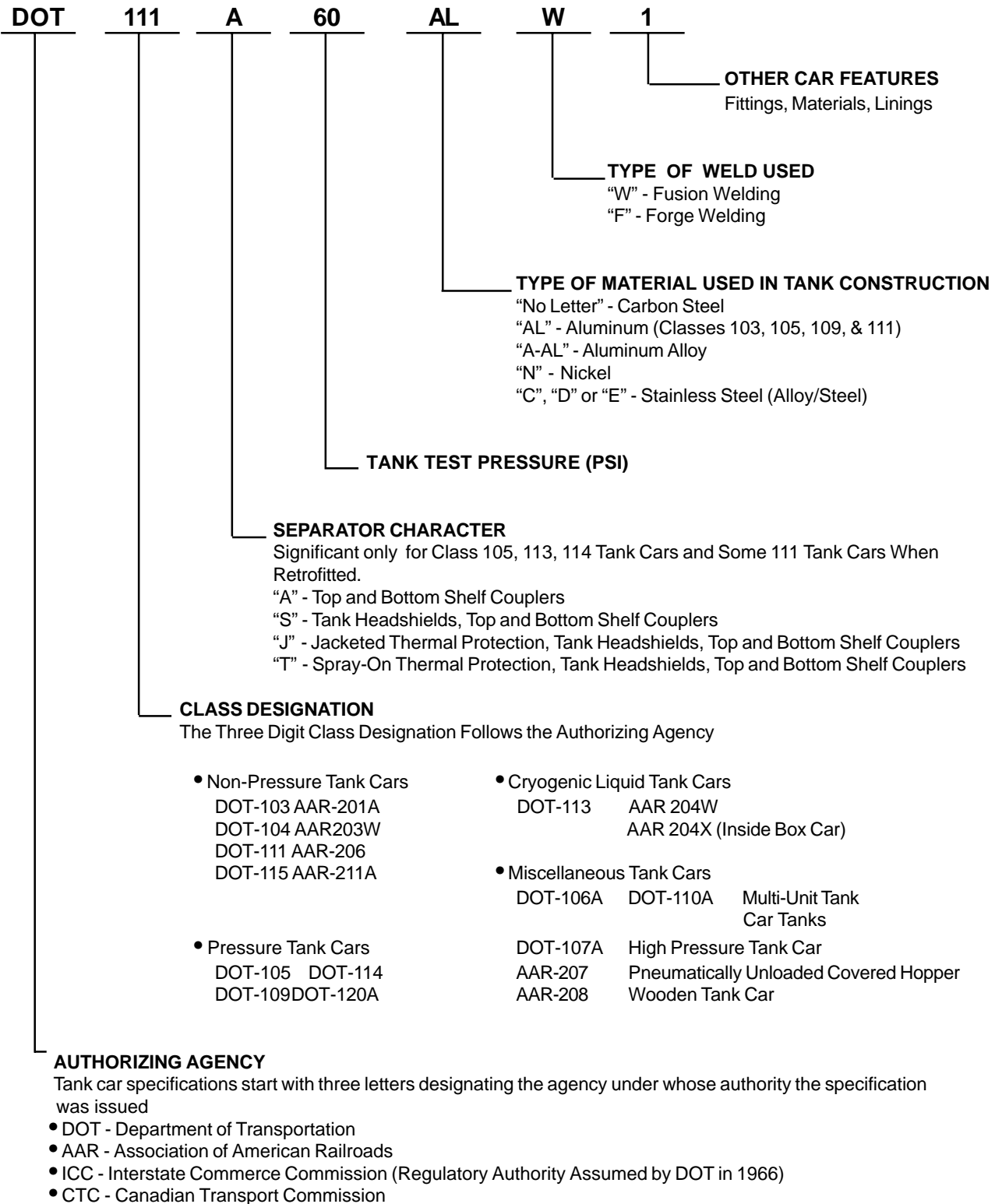




Silhouettes of Rail Cars, Tank Trucks and Chemical Tanks

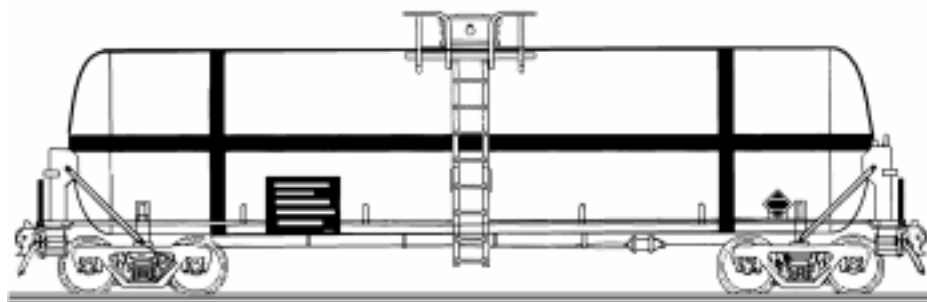
Railroad Tank Car Marking System



Pressure Cars

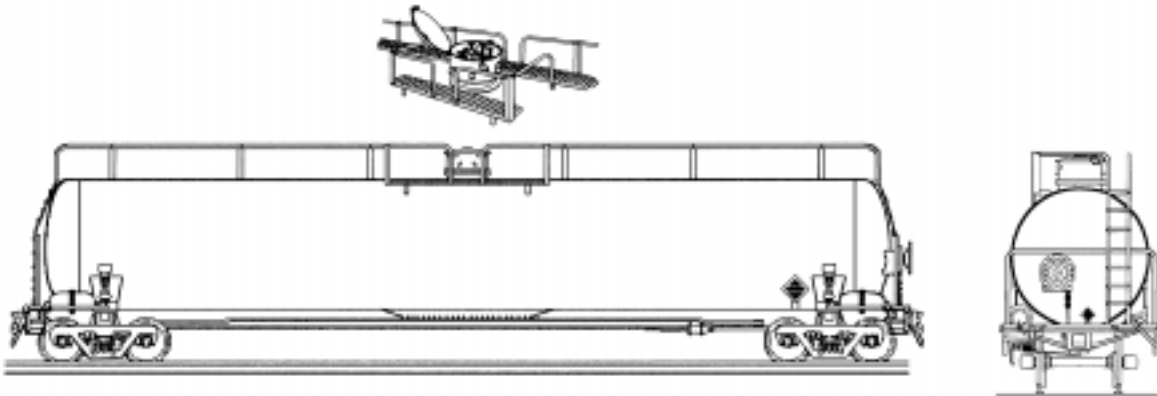
Pressure cars are used to transport hazardous materials under pressure or hazardous materials which the DOT or the shipper feel require the additional protection of a stronger car. The most common types of pressurized cars used in rail transportation are the DOT 105, 112 and 114. Drawings of 105's and 112's can be found in this Appendix. The DOT 114 is the same as the DOT 112 except that the 112 has bottom outlets and washouts. DOT Car Types 107 And 109 are also pressurized cars. DOT Types 106 and 110 pressurized, multi-unit tank cars are one-ton cylinders which can also be transported by highway. As a general rule, safety valves are set at a pressure to match vapor pressure of product at 105° F.

TANK DESCRIPTION	TYPICAL COMMODITIES TRANSPORTED (typical commodities only listed, there may be others)
A-3 — Class 105	
DOT 105J100W Thermal Protection. Head Protection. Safety Valves (75 psi).	Ethylene Oxide Liquefied Petroleum Gas Liquefied Hydrocarbon Gas
DOT 105J200W Thermal Protection. Head Protection. Safety Valve (150 psi).	Sulfur Dioxide Vinyl Chloride Liquefied Petroleum Gas
DOT 105J300W Thermal Protection. Head Protection. Safety Valve (225 psi).	Anhydrous Hydrofluoric Acid Anhydrous Ammonia Metallic Sodium Chlorine Liquefied Petroleum Gas Liquefied Hydrocarbon Gas Motor Fuel Anti-Knock Compound Vinyl Chloride
DOT 105J400W Thermal Protection. Head Protection. Safety Valve (300 psi).	Liquefied Petroleum Gas Liquefied Hydrocarbon Gas
DOT 105A500W - Hydrogen Cyanide (Hydrocyanic Acid), HCN	



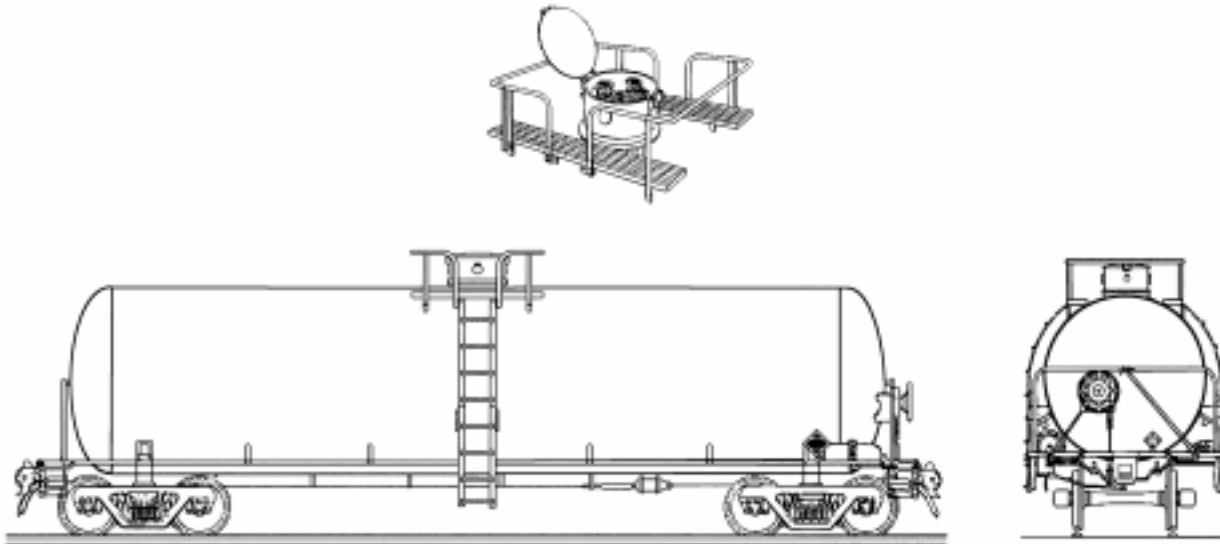
B-END

Hydrogen Cyanide is shipped in specially built cars. Pictured is a 105A500W 20,500-gallon capacity. Other cars used are the 105A600W and the 105J600W. For safety purposes, the cars may be stenciled as 300W, but have the higher-pressure safety valves. These cars have a 1-1/8" thick inner shell, 4" of cork insulation and a 1/4" outer shell. **Some HCN cars will be painted white with the red bands or "candystripes."**

TANK DESCRIPTION**TYPICAL COMMODITIES TRANSPORTED**
(typical commodities only listed, there may be others)**DOT 105A500W Insulated — Carbon Dioxide Service**

20,000 GALLON CAPACITY - INSULATED
DOT 105A500W
FOR CARBON DIOXIDE SERVICE
(PRE 1983)

B-END

DOT 105A500W Insulated — Chlorine Service

90 TON CAPACITY - INSULATED
DOT 105A500W
FOR CHLORINE SERVICE
(POST 1982)

B-END

Insulated.

Safety Valve (375 psi) (350 psi on Carbon Dioxide Cars)

Chlorine

Carbon Dioxide

Anhydrous Hydrofluoric Acid

DOT 105J500W

Thermal Protection.

Head Protection

Safety Valve (375 psi)

Liquefied Petroleum Gas

Liquefied Hydrocarbon Gas

DOT 105A600W

Insulated.

Safety Valve (450 psi) (400 psi on Carbon Dioxide Cars).

Carbon Dioxide

DOT 105J600W

Thermal Protection.

Head Protection.

Safety Valve (450 psi)

Liquefied Petroleum Gas

Liquefied Hydrocarbon Gas

DOT 105A100ALW

Insulated.

Safety Valve (75 psi).

Fertilizer Ammoniating Solution

(Ammonium Nitrate Solution)

TANK DESCRIPTION	TYPICAL COMMODITIES TRANSPORTED (typical commodities only listed, there may be others)
DOT 105A200ALW Insulated. Safety Valve (150 psi).	Fertilizer Ammoniating Solution (Ammonium Nitrate Solution)
DOT 105A300ALW Insulated. Safety Valve (225 psi).	Fertilizer Ammoniating Solution (Ammonium Nitrate Solution)
A-4 — Class 106A (Similar to 110A Tanks)	
DOT 106A500X Multiple Unit with Removable Steel Uninsulated Tanks. Each Tank equipped with Loading and Discharge Valve & Safety Valve or Vent Set for Pressure not Exceeding 375 psi. Popular Name is “Ton Container”.	Chlorine Anhydrous Ammonia Sulfur Dioxide Butadiene Refrigerant or Dispersant Gases
DOT 106A800X Multiple Unit with Removable Steel, Uninsulated Tanks Mounted on Underframe. Popular name is “Ton Container”. Each Tank equipped with Loading and Discharge Valves & Safety Vent Set for Pressure not Exceeding 600 psi.	Nitrosyl Chloride
A-5 — Class DOT 107A	
DOT 107A***** Multiple Unit Uninsulated High Pressure Seamless Forged & Drawn Steel Tanks. About 30 Permanently Mounted on Underframe	Helium Hydrogen Oxygen
A-6 — Class DOT 109A	
DOT 109A300W Non-Insulated or Insulated. Safety Valve (225 psi).	Nitrogen Fertilizer Solution (Ammonium Nitrate Solution) or 115° F [non-insulated])
DOT 109A100ALW Non-Insulated or Insulated. .Safety Valve (75 psi).	Nitrogen Fertilizer Solution (Ammonium Nitrate Solution)
DOT 109A200ALW Non-Insulated or Insulated Safety Valve (150 psi).	Nitrogen Fertilizer Solution (Ammonium Nitrate Solution)
DOT 109A300ALW Non-Insulated or Insulated. Safety Valve (225 psi).	Nitrogen Fertilizer Solution Ammonium Nitrate Solution)
A-7 — Class DOT110A (Similar to 106A Tanks)	
DOT 110A500W Multiple Unit with Removable Steel Tanks Mounted on Underframe. Popular name is “Ton Container”. Each Tank equipped with Loading & Discharge Valves & Safety Valve or Vent Not Exceeding 375 psi	Sulfur Dioxide Refrigerants
DOT 110A800W Multiple Unit with Removable Steel Tanks Mounted on Underframe. Popular name is “Ton Container”. Each Tank equipped with Loading & Discharge Valves & Safety Valve or Vent Not Exceeding 600 psi	Monobromotrifluoromethane
A-9 — Class DOT 111A 112A, 112S, 112J, 112T	
DOT 112A200W Non-Insulated (Upper 2/3 of Tank Must be painted with Light-Reflective Paint). Safety Valve (150 psi).	Ethyl Chloride
DOT 112A340W Non-Insulated (Upper 2/3 of Tank Must be painted with Light-Reflective Paint). Safety Valve (225 psi); Alternate setting 280.5 psi for Certain Commodities	
DOT 112S340W Same as DOT 112A340W Except Equipped with Head Protection	Anhydrous Ammonia
DOT 112J340W Same as DOT 112A340W Except Equipped with Head Protection and a Thermal Protection Enclosed in a Metal Jacket. No Reflective Paint Required	Liquefied Petroleum Gas

TANK DESCRIPTION**TYPICAL COMMODITIES TRANSPORTED**
(typical commodities only listed, there may be others)**DOT 112T340W**

Same as DOT 112A340W Except Equipped with Head Protection and a Non-Jacket Thermal Protection System. No Reflective Paint Required.

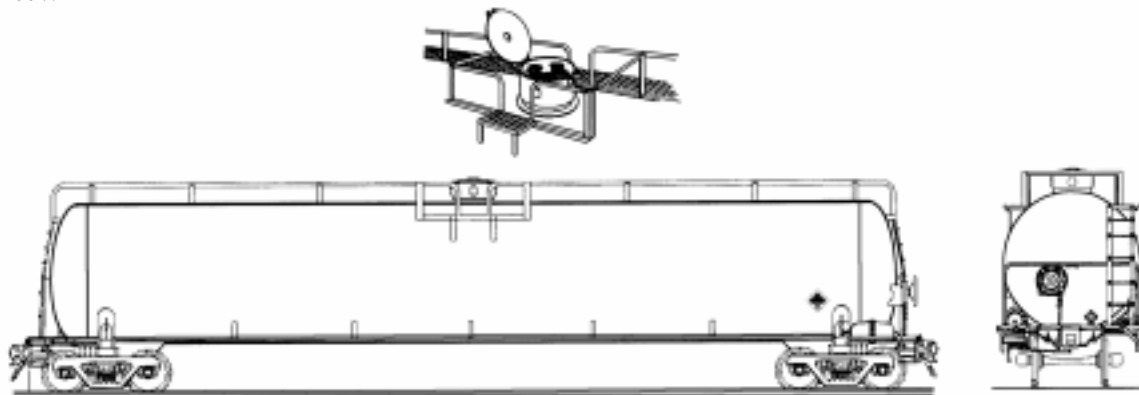
DOT 112A400W

Non-Insulated (Upper 2/3 of Tank Must be painted with Light-Reflective Paint). Safety Valve (300 psi). Alternate setting 330 psi for Certain Commodities

DOT 112S440W

Same as DOT 112T400W Except Equipped with Head Protection.

Anhydrous Ammonia

DOT 112J400W

33,500 GALLON CAPACITY - NON INSULATED
DOT 112J400W
FOR PROPYLENE, LIQUEFIED PETROLEUM GAS
AND ANHYDROUS AMMONIA SERVICE

Same as DOT 112T400W Except Equipped with Head Protection and a Thermal Protection System. Enclosed in a Metal Jacket. No Reflective Paint Required.

Liquefied Petroleum Gas
(V.P.) Not Exceeding 300 psi @ 115° F)
Vinyl Chloride

DOT 112T400W

Same as DOT 112T400W Except Equipped with Head Protection and a Non-Jacket Thermal Protection System. No Reflective Paint Required.

DOT 112A500W

Non-Insulated (Upper 2/3 of Tank Must be painted with Light-Reflective Paint). Safety Valve (375 psi).

DOT 112S500W

Same as DOT 112A500W Except Equipped with Head Protection.

Anhydrous Ammonia

DOT 112J500W

Same as DOT 112A500W Except Equipped with Head Protection and a Thermal Protection System. Enclosed in A Metal Jacket No Reflective Paint Required.

Liquefied Petroleum Gas
Vinyl Chloride

DOT 112T500W

Same as DOT 112A500W Except Equipped with Head Protection and a Non-Jacketed Thermal Protection System. No Reflective Paint Required.

A-10 — Class 113 (Similar to AAR204W)**DOT 113A60W**

Insulated.
Safety Valve (30 psi) (On Tank).
Safety Vent (60 psi) (On Tank).
Safety Vent (16 psi) (On Outer Shell).

Hydrogen

DOT 113A175W (Obsolete for New Construction, 10-1-84)

Insulated.
Gauging Device.
Safety Valve (115 psi) (On Tank).
Safety Vent (175 psi) (On Tank).
Safety Vent (16 psi) (On Outer Shell).

TANK DESCRIPTION	TYPICAL COMMODITIES TRANSPORTED (typical commodities only listed, there may be others)
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A-11 — Class 114A, 114S, 114J and 114T

DOT 114A340W

Non-Insulated (Upper 2/3 of Tank Must be painted with Light-Reflective Paint).
 Manway and Cover May Not be Located at Top of Tank.
 Safety Valve (225 psi). Alternate Setting 280.5 psi for Certain Commodities.
 Bottom Outlet or Washout Optional.

DOT 114S340W

Same as DOT 114A340W Except Equipped with Head Protection.	Anhydrous Ammonia
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DOT 114J340W

Same as DOT 114A340W Except Equipped with Head Protection and a Thermal Protection System. Enclosed in a Metal Jacket. No Reflective Paint Required.	Liquefied Petroleum Gas
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DOT 114T340W

Same as DOT 114A340W Except Equipped with Head Protection and a Non-Jacketed Thermal Protection System. No Reflective Paint Required.

DOT 114A400W

Non-Insulated (Upper 2/3 of Tank Must be painted with Light-Reflective Paint).
 Manway and Cover May Not be Located at Top of Tank.
 Valve and Fittings on Top of Tank.
 Safety Valve (300 psi). Alternate Setting 330 psi for Certain Commodities.

DOT 114S400W

Same as DOT 114A400W Except Equipped with Head Protection.	Anhydrous Ammonia
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DOT 114J00W

Same as DOT 114A400W Except Equipped with Head Protection and a Thermal Protection System Enclosed in a Metal Jacket. No Reflective Paint Required.	Liquefied Petroleum Gas
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DOT 114T400W

Same as DOT 114A400W Except Equipped with Head Protection and a Non-Jacketed Thermal Protection System. No Reflective Paint Required.

AAR TANK CARS: AAR tank cars are for non-regulated commodity services. Most AAR tank cars have DOT counter parts.

B-1 — Class AAR 203

AAR 203W (Obsolete for New Construction)

Non-Insulated or Insulated. Safety Valve (35 ⁺ psi) or Safety Vent (45 psi). These Cars Conform, with Certain Exceptions, to Class DOT 103W.	Vegetable Oils Fish Oils Wine Clay Latex
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B-2 — Class AAR 204 (Similar to DOT 113A)

AAR 204W

Insulated. Safety Valve (38 psi) (On Tank). Safety Vent (45 psi) (On Tank). Safety Vent (17 psi) (On Outer Shell)	Liquid Argon Liquid Nitrogen Liquid Oxygen
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B-3 — Class AAR 206 (Similar to DOT 115A)

AAR 206W

Tank Cars are Insulated Non-Pressure having an Inner Container. These cars conform, with Certain Exceptions, to Class DOT 115A.

AAR207AAW— AAR207A**ALW**

Non Insulated or Insulated. Special Granular Non-Regulatory Commodities. Designed for 15 PSIG Minimum Internal Pressure.	Cement Granular Commodities
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ICC TANK CARS

Beginning in 1968, the currently effective ICC tank car classes were redesigned DOT. However, the marking on existing cars of the affected classes is optional and the majority are still marked ICE. (Tank cars of classes no longer effective for new construction, such as riveted and forge welded, remain with ICC markings. For characteristics and typical commodities, see the corresponding DOT classes)

THE PRECEDING MATERIAL WAS MEANT TO PROVIDE A GENERAL DESCRIPTION ONLY, NOT COMPLETE SPECIFICATIONS.

* Cars built prior to January 1, 1959, may be equipped with (2) 25 psi safety valves.

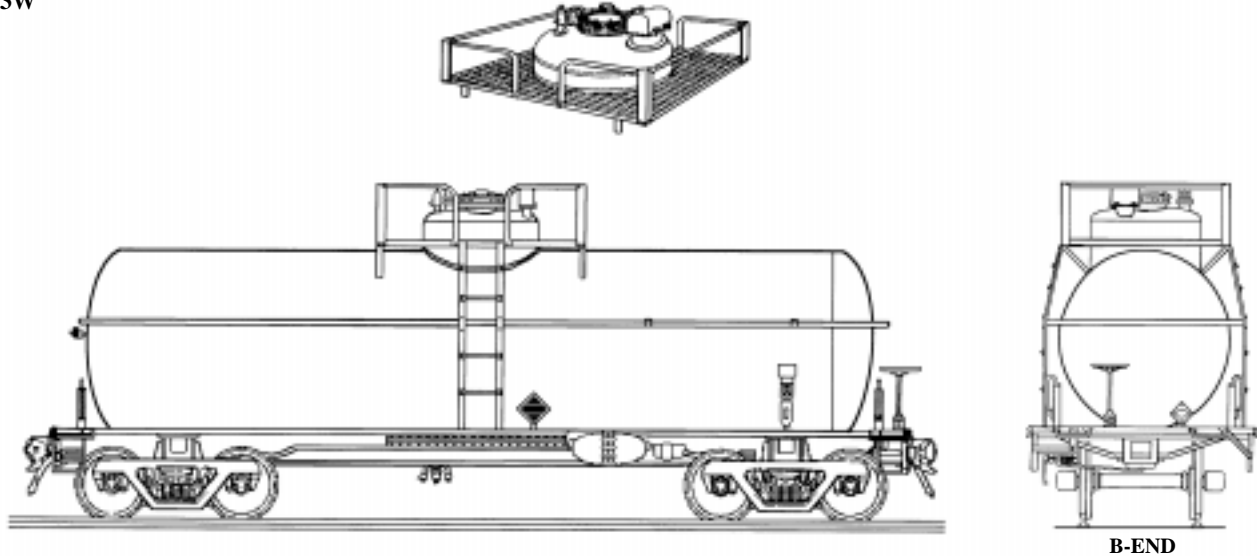
Non-Pressure Cars

DOT Car Types 103, 104, 111, 115 And AAR Car Types 204, 206 And 211 Are Non-Pressure Cars. These Cars Are Used To Transport Commodities Such As Corn Syrup, Edible Oils And Other General Commodities As Well As A Variety Of Hazardous Materials. **The Most Commonly Used Non Pressure Cars Are Types 103 And 111. Drawings Of Several (Not All) Of These Two Types Are Found In This Appendix.**

TANK DESCRIPTION	TYPICAL COMMODITIES TRANSPORTED (typical commodities only listed, there may be others)
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A-1 — Class 103

DOT 103W



**10,000 GALLON CAPACITY - INSULATED
FOR GENERAL SERVICE COMMODITIES**

Non-Insulated or Insulated.
General Service.
Safety valves (35* psi) or Safety Vent (60 psi)

Phosphorus, Benzene, Gasoline, Vegetable Oil, Caustic Soda,
Fuel Oil, Alcohol

DOT 103AW

Non-Insulated or Insulated.
Acid Service.
Safety valves (35* psi) or Safety Vent (60 psi).

Sulfuric Acid
Oleum
Aqueous Hydrofluoric Acid 60% to 80%
Titanium Tetrachloride

DOT 103ANW

Non-Insulated or Insulated.
Safety Valve (35* psi) or Safety Vent (60 psi).

Phosphorous Oxychloride
Phosphorus Trichloride
Benzyl Chloride
Chloroacetyl Chloride

DOT 103ALW

Non-Insulated or Insulated.
Safety Valves (35* psi) or Safety Vent (60 psi).

Acetic Acid, Acetic Anhydride,
Acrylonitrile, Ethylene Glycol,
Glycerine, Butraldehyde,
Hydrogen Peroxide (Under 52% by weight), Fatty Acids

DOT 103A-ALW

Non-Insulated or Insulated.
Safety Valves (35* psi) or Safety Vent (60 psi).

Hydrogen Peroxide
Hydrazine
Nitric Acid (80% or more)

DOT 103BW

Non-Insulated or Insulated.
Rubber Lined Tank.
Safety Vent (60 psi).

Hydrochloric Acid not over 38% by weight
Zinc Chloride
Phosphoric Acid
Ferric Chloride
Aluminum Sulfate

* Cars built prior to January 1, 1959, may be equipped with (2) 25 psi safety valves.

** Cars built prior to January 1, 1959, may be equipped with 45 psi safety valve.

TANK DESCRIPTION	TYPICAL COMMODITIES TRANSPORTED (typical commodities only listed, there may be others)
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DOT 103CW Non-Insulated or Insulated. Safety Valve (35 ** psi)	Nitric Acid Hydrazine Chlorosulfonic Acid Formic Acid
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DOT 103DW Non-Insulated Or Insulated. Safety Valve (35+psi).Or Safety Vent (60 psi)	Acetic Acid, Whiskey Ethyl Alcohol, Caramel Fruit Juices, Vegetable Juices
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DOT 103EW Non-Insulated or Insulated. Safety Valve (35* psi) or Safety Vent (60 psi).	Phosphoric Acid Chlorosulfonic Acid Diisooctyl Acid Phosphate
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A-2 — Class 104

DOT 104W Insulated. Safety Valves (35* psi) or Safety Vent (60 psi)	Ethyl Ether Casinghead Gasoline Refined Vegetable Oils
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A-8 — Class DOT111A

DOT 111A60W1 (DOT 111A60F1) * Non-Insulated or Insulated. Safety Valve (35 psi) or Safety Vent (60 psi).	Benzene Gasoline Alcohol Caustic Soda Fuel Oil
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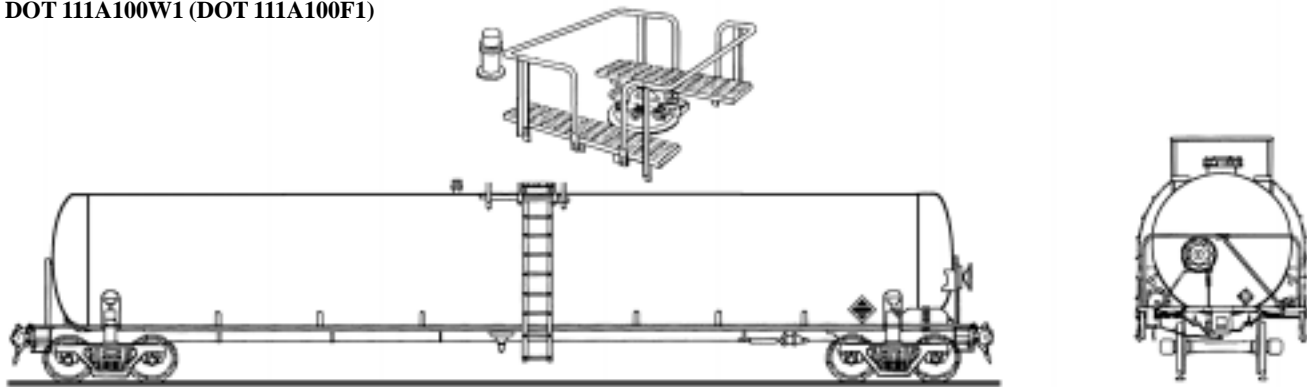
DOT 111A60W2 Non-Insulated or Insulated. Safety Valve (35 psi) (Required on Certain Commodities) or Safety Vent (60 psi).	Aqueous Hydrofluoric Acid, 60% to 80% Mixed Acid Sulfuric Acid Titanium Tetrachloride
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DOT 111A60W5 Non-Insulated or Insulated. Rubber Lined Tank. Safety Vent (60 psi).	Hydrochloric Acid not over 38% by weight Phosphoric Acid Aluminum Sulfate
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DOT 111A60W7 Non-Insulated or Insulated. Safety Valve (35 psi) or Safety Vent (60 psi)	Oleum
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DOT 111A60ALW1 Non-Insulated or Insulated. Safety Valve (35 psi) or Safety Vent (60 psi)	Acetic Acid, Acetic Anhydride, Acrylonitrile, Fatty Acids Ethylene Glycol, Glycerine, Butraldehyde, Hydrogen Peroxide (under 52% by Weight)
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DOT 111A100W1 (DOT 111A100F1)



26,000 GALLON CAPACITY - NON INSULATED
DOT - 111A100W1
FOR GENERAL SERVICE COMMODITIES
.2181"/FT TOP & BOTTOM SLOPE

Non-Insulated or Insulated. Safety Valve (75 psi) or Safety Vent (100 psi)	Kerosene, Gasoline, Fuel Oil, Vegetable Oils, Phosphorus
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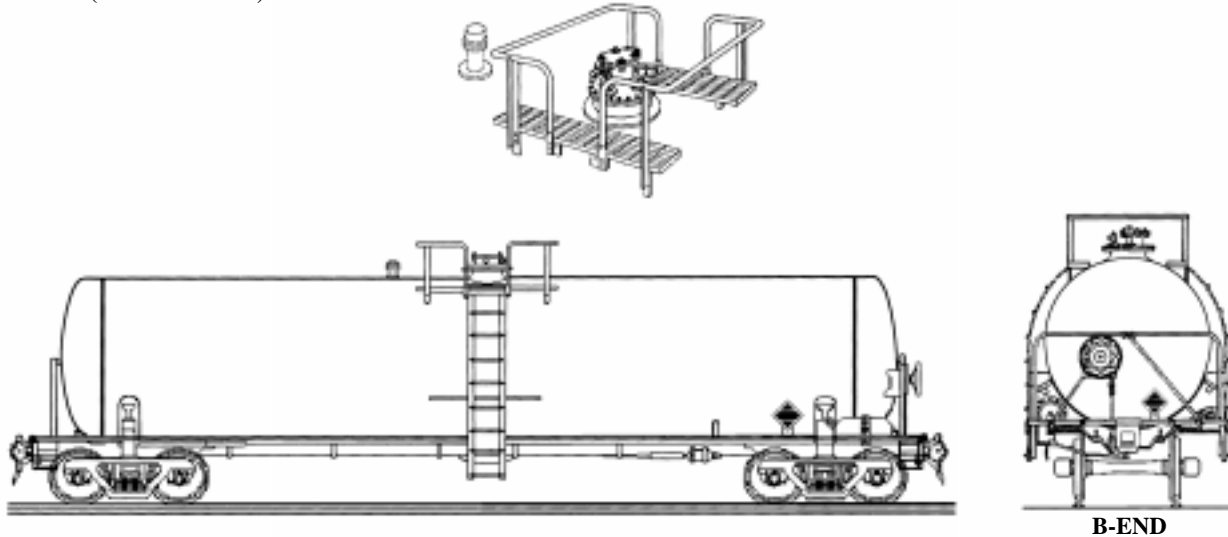
* Cars built prior to January 1, 1959, may be equipped with (2) 25 psi safety valves.

** Cars built prior to January 1, 1959, may be equipped with 45 psi safety valve.

TANK DESCRIPTION

TYPICAL COMMODITIES TRANSPORTED
(typical commodities only listed, there may be others)

DOT 111A100W2 (DOT 11A100F2)*



13,600 GALLON CAPACITY - NON INSULATED
DOT - 111A100W2
FOR SULFURIC ACID SERVICE
(POST 1982)

Safety Valve (75 psi) or Safety Vent (100 psi)
Non-Insulated or Insulated.
Safety Valve (75 psi) (Required on Certain
Commodities) or Safety Vent (100 psi)

Vegetable Oils, Phosphorus, Aqueous Hydrofluoric
Acid (60% to 80%), Mixed Acid, Sulfuric Acid

DOT 111A100W3

Insulated.
Safety Valve (75 psi) or Safety Vent (100 psi)

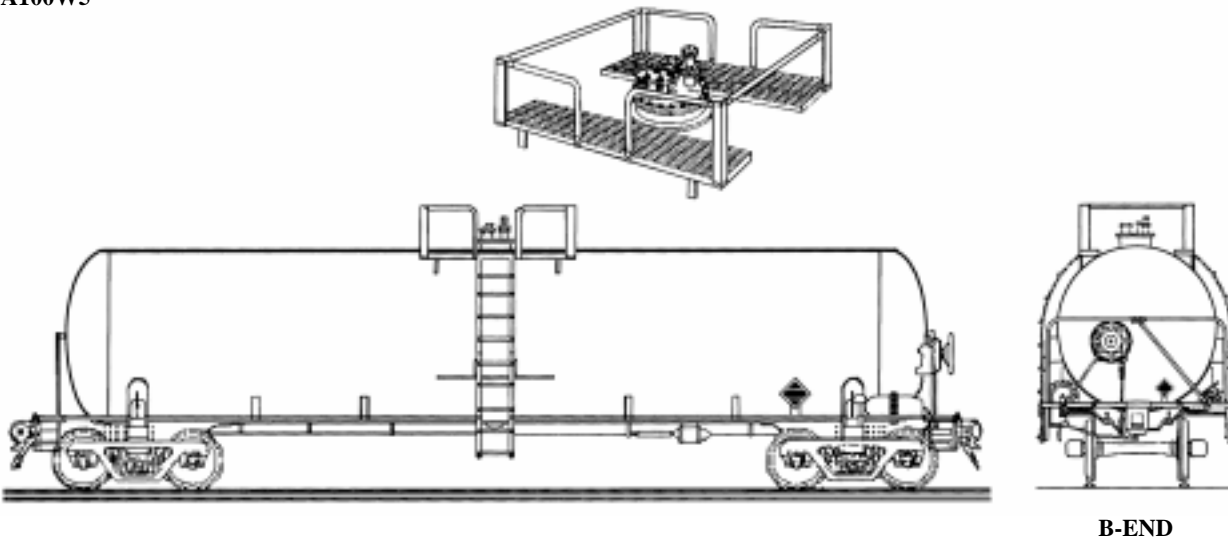
Casinghead Gasoline, Ethyl Ether

DOT 111A100W4

Insulated.
Safety valve (75 psi).

Aqua Ammonia Solution containing Anhydrous Ammonia

DOT 111A100W5



20,000 GALLON CAPACITY - NON INSULATED
DOT - 111A100W5
FOR HYDROCHLORIC ACID SERVICE
(PRE 1983)

Non-Insulated or Insulated.
Rubber-Lined Tank.
Safety Vent (100 psi).

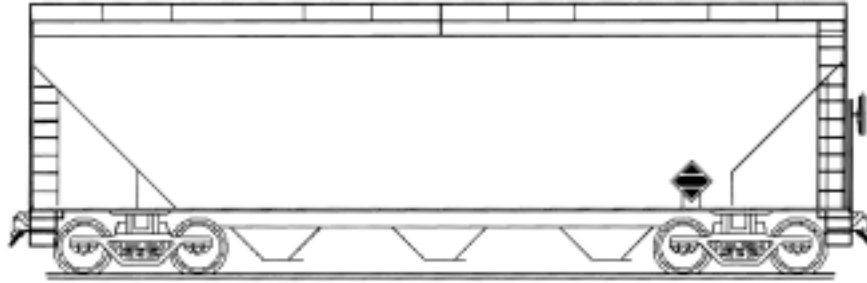
Hydrochloric Acid not over 38% by weight,
Phosphoric Acid, Aluminum Sulfate

TANK DESCRIPTION	TYPICAL COMMODITIES TRANSPORTED (typical commodities only listed, there may be others)
DOT 111A100W6 Non-Insulated or Insulated. Safety valve (75 psi) or Safety Vent (100 psi).	Acetic Acid, Caprolactam, Hydrazine, Fruit Juices, Vegetable Juices, Whiskey
A-12— DOT115A (Similar to AAR206W)	
DOT 115A60W1 Insulated (Tank-Within-A-Tank) Safety Valve (35 psi) or Safety Vent (45 psi).	Latex, Methyl Methacrylate (Proposed)
DOT 115A60W6 Insulated (Tank-Within-A-Tank). Safety Valve (35 psi) or Safety Vent (45 psi).	Caramel Coloring, Corn Syrup
DOT 115A60ALW Insulated (Tank-Within-A-Tank). Safety Valve (35 psi) or Safety Vent (45 psi).	
AAR TANK CARS: AAR tank cars are for non-regulated commodity services. Most AAR tank cars have DOT counter parts.	
B-1 — Class AAR 203	
B-2 — Class AAR 204 (Similar to DOT 113A)	
AAR 204W Insulated. Safety Valve (38 psi) (On Tank). Safety Vent (45 psi) (On Tank). Safety Vent (17 psi) (On Outer Shell)	Liquid Argon, Liquid Nitrogen, Liquid Oxygen
B-3 — Class AAR 206 (Similar to DOT 115A)	
AAR 206W Tank Cars are Insulated Non-Pressure having an Inner Container. These cars conform, with Certain Exceptions, to Class DOT 115A.	
AAR207A**AW— AAR207A**ALW Non Insulated or Insulated. Special Granular Non-Regulatory Commodities. Designed for 15 PSIG Minimum Internal Pressure.	Cement Granular Commodities
B-5 — Class AAR 208	
AAR208 Non-Pressure Cars having Wood Staved Metal Hooped Tanks for the Transportation of Certain Food Stuffs or Other Acidic Products. Safety Relief Devices are Not Required	Vinegar Pickle Liquor
B-6 — Class AAR 221A	
AAR 211A60W1— AAR211A100W1 Non-Insulated or Insulated.	Corn Syrup, Molten Sulfur, Edible & Inedible Oils Latex, Wine, Glycerol
AAR 211A60W2— AAR 211A100W2 Non-Insulated or Insulated.	Phosphoric Acid, Liquid Alum
AAR 211A100W6 Non-Insulated or Insulated.	Caprolactam
AAR 211A60W7 Non-Insulated or Insulated.	Lactic Acid
AR 211A60ALW1— AAR 211A100ALW1 Non-Insulated or Insulated.	Glycerine, Glycol, Nitrogen Fertilizer Solution
ICC TANK CARS Beginning in 1968, the currently effective ICC tank car classes were redesigned DOT. However, the marking on existing cars of the affected classes is optional and the majority are still marked ICE. (Tank cars of classes no longer effective for new construction, such as riveted and forge welded, remain with ICC markings. For characteristics and typical commodities, see the corresponding DOT classes)	

THE PRECEDING MATERIAL WAS MEANT TO PROVIDE A GENERAL DESCRIPTION ONLY, NOT COMPLETE SPECIFICATIONS.

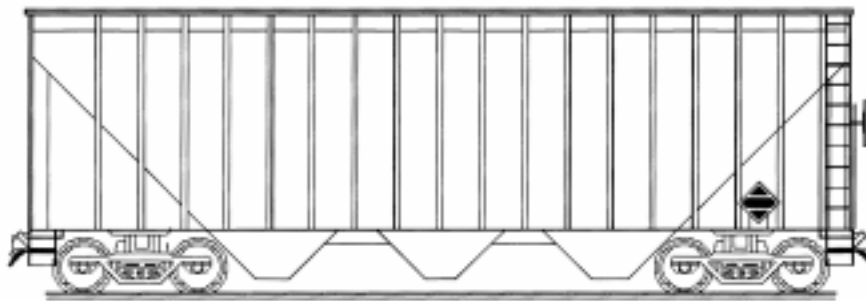
Other Rail Cars

COVERED HOPPER



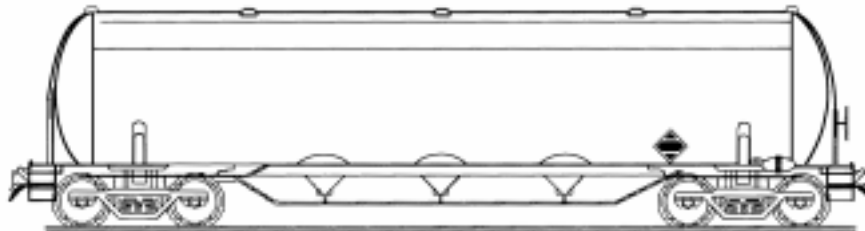
COVERED HOPPER
CARRIES CALCIUM CARBIDE, CEMENT, GRAIN

OPEN TOP HOPPER



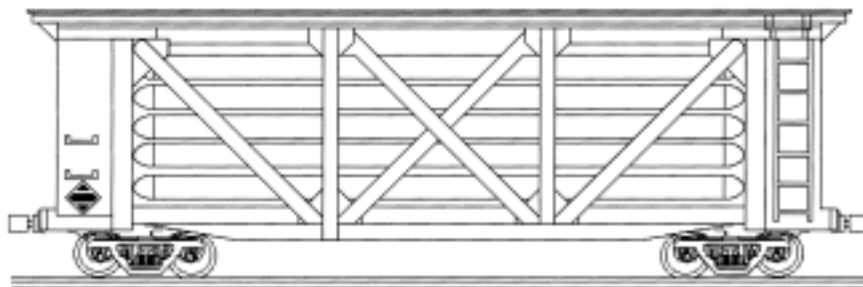
OPEN TOP HOPPER
CARRIES COAL, ROCK, SAND

PNEUMATIC HOPPER



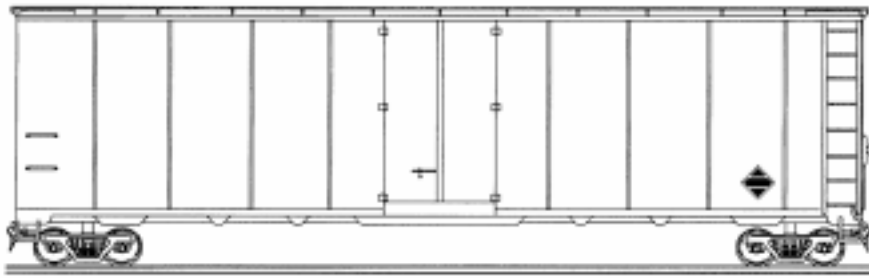
PNEUMATIC HOPPER
CARRIES PLASTIC PELLETS, FLOUR, OTHER FINE-POWDERED MATERIALS

TUBE CAR



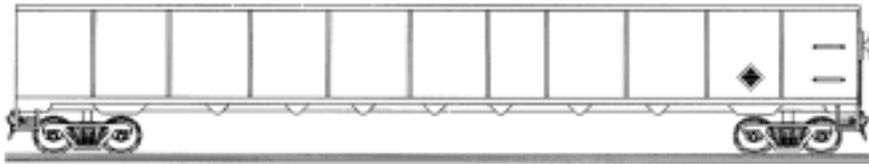
TUBE CAR
CARRIES HELIUM, HYDROGEN, METHANE, OXYGEN, OTHER GASES

BOX CAR



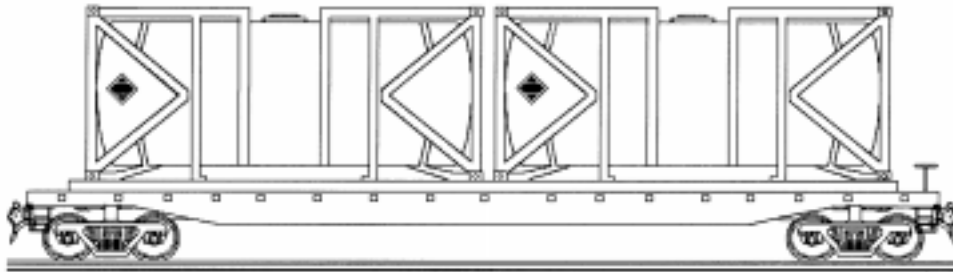
BOX CAR
CARRIES ALL TYPES OF MATERIAL AND FINISHED GOODS

GONDOLA



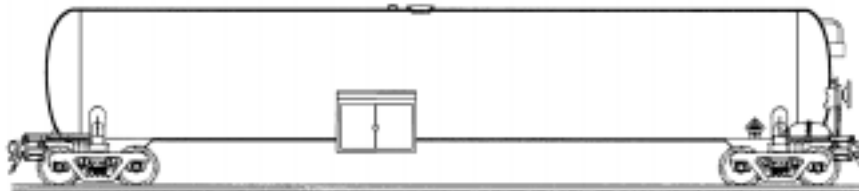
GONDOLA
CARRIES SAND, ROLLED STEEL AND OTHER PRODUCTS AND MATERIALS
THAT DO NOT REQUIRE PROTECTION FROM THE WEATHER

FLAT BED CAR WITH INTERMODAL TANKS



FLAT BED CAR WITH INTERMODAL TANKS
CARRIES VARIOUS PRODUCTS IN CONTAINERS, I.E., ONE-TON CHLORINE CYLINDERS,
INTERMODAL CONTAINERS (SHOWN), LARGE VEHICLES, OTHER COMMODITIES
THAT DO NOT REQUIRE PROTECTION FROM THE WEATHER

CRYOGENIC CAR



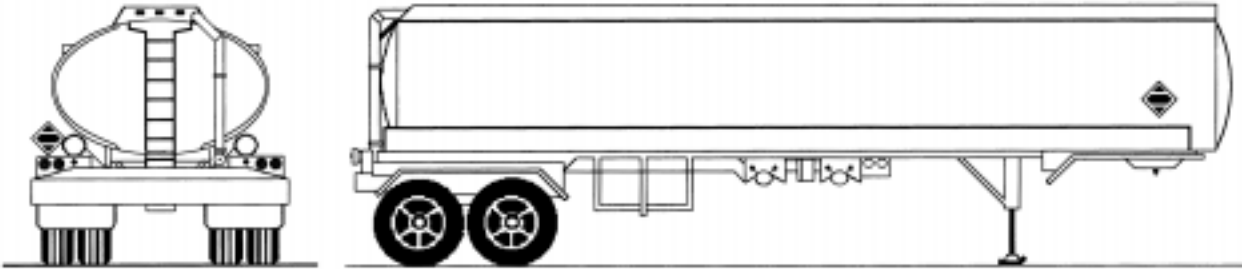
CRYOGENIC CAR
CARRIES LIQUID OXYGEN, LIQUID NITROGEN, LIQUID CARBON DIOXIDE, LIQUID HYDROGEN,
OTHER GASES THAT HAVE BEEN LIQUEFIED BY LOWERING THEIR TEMPERATURE

CARGO TANK TRUCKS

There are many variations and modifications to trailers and tankers. This material is provided as general information on the listed classifications.

TANK SPECIFICATION\DESCRIPTION	TYPICAL COMMODITIES TRANSPORTED
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DOT 406/MC 306 Non Pressure Liquid Tank

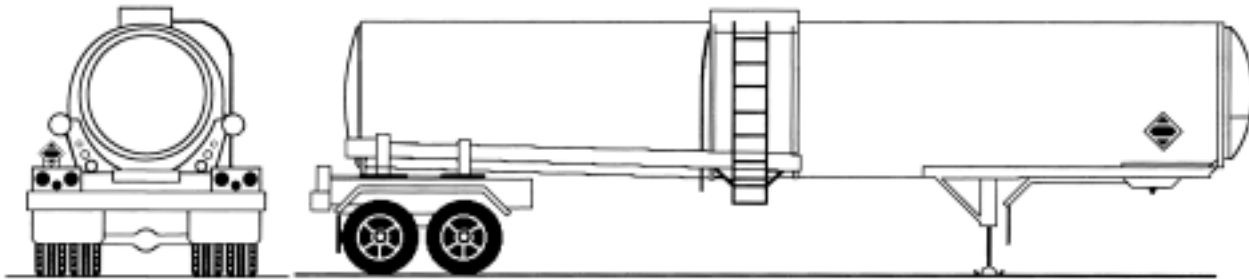


DOT 406/MC-306 ATMOSPHERIC PRESSURE TANK TRUCK 9,000 GALLONS CAPACITY GENERAL PURPOSE CARGO

OPS Pressure Less Than 3 PSI
Typical Maximum Capacity 9,000 Gallons
New Tanks Aluminum
Older Tanks Steel
Oval Shape/Multiple Compartments
Recessed Manholes/Rollover Protection
Bottom Valves
Will Likely Have Vapor Recovery

Gasoline,
Fuel Oil
Alcohol
Other Flammable/Combustible Liquids
Liquids
Liquid Fuel Products
(In Non-Coded Tankers)

DOT 407/MC 307 Low Pressure Chemical Tank

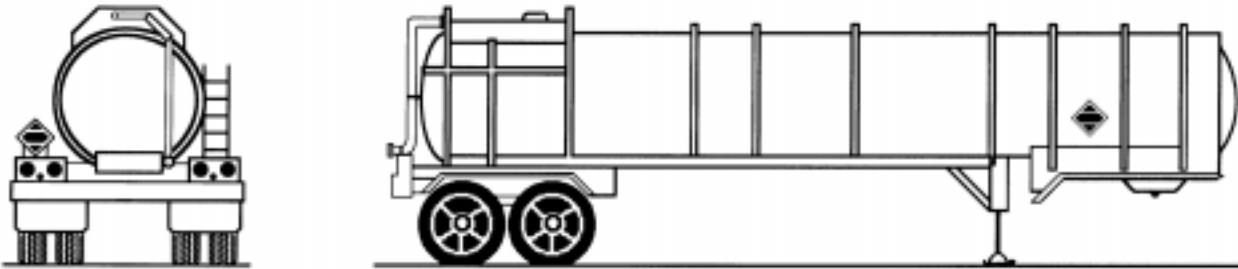


DOT 407/MC-307 LOW PRESSURE TANK TRUCK 6,000-7,000 GALLONS CAPACITY TRANSPORTS CHEMICALS, FLAMMABLE AND COMBUSTIBLE LIQUIDS

OPS @ 25-40 PSI
Typical Maximum Capacity 6,000 Gallons
May Be Rubber Lined/Steel
Single Or Double Top Manhole
Single Outlet Discharge For Each
Compartment At Bottom (Midship Or Rear)
Typically Double Shell
Stiffening Rings
Rollover Protection
May Be Multiple Compartments
Horseshoe Or Round Shaped
Unit Pictured Is Insulated And Covered With Smooth Metal Skin.
Tank Has Several Stiffing Rings

Flammable Liquids
Combustible Liquids
Acids
Caustics
Poisons

MC-312 Corrosive Liquid Tank

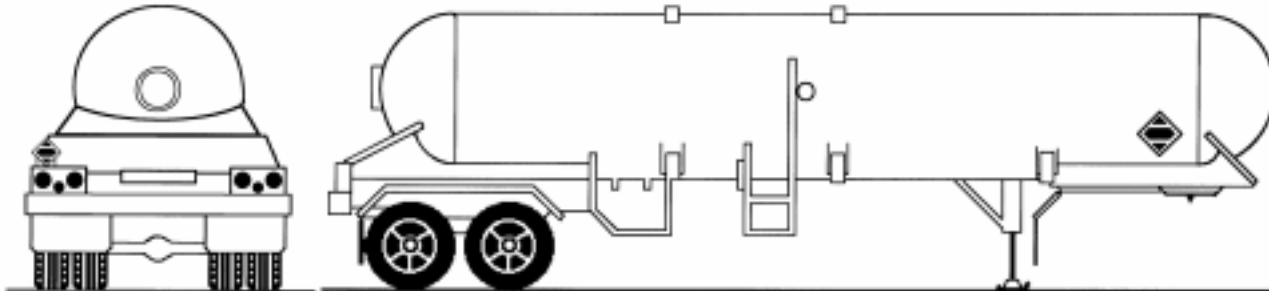


MC-312 CORROSIVE LIQUID TANK

OPS Pressure Less Than 75 PSI
 Typical Maximum Capacity 6,000 Gallons
 May Be Rubber Lined/Steel
 Stiffening Rings And Rollover Protection
 Splash Guard Provides Rollover Protection
 Top Loading At Rear Or Center
 Loading Area Typically Coated With Corrosive Resistant Material
 Small Diameter For Length (Tube Shaped)
 Typical Single Compartment

Corrosive Liquids
 Typically Acids

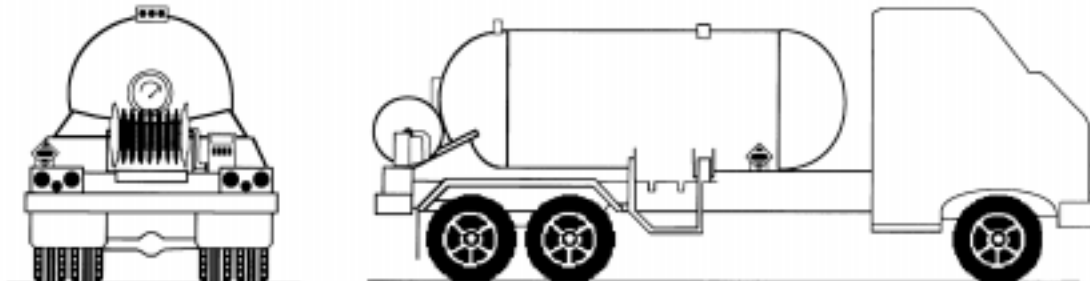
MC 331 High Pressure Tank



MC-331 HIGH PRESSURE TANK TRUCK
11,500 GALLONS CAPACITY
TRANSPORTS LP GAS AND ANHYDROUS AMMONIA

OPS Pressure Up To 300 PSI
 Typical Maximum Capacity 11,500 Gallons
 Steel Single Compartment/Non Insulated
 Bolted Manhole At Front or Rear
 Internal and Rear-Outlet Valves
 Typically Painted White Or Other Reflective Color
 May Be Marked Flammable Gas and Compressed Gas
 Round/Dome Shaped Ends

Pressurized Gases & Liquids
 Anhydrous Ammonia
 Propane
 Butane
 Other Gases That Have Been
 Liquefied Under Pressure

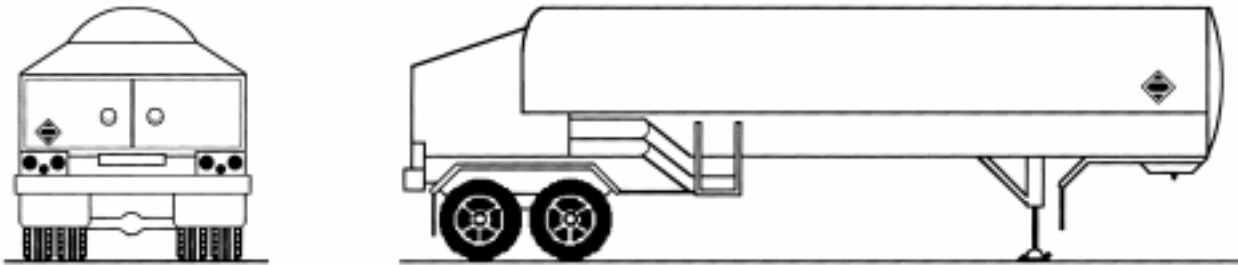


BOBTAIL TANK — LOCAL DELIVERY OF LP GAS AND ANHYDROUS AMMONIA

TANK SPECIFICATION\DESCRIPTION

TYPICAL COMMODITIES TRANSPORTED

MC338 CRYOGENIC LIQUID TANK

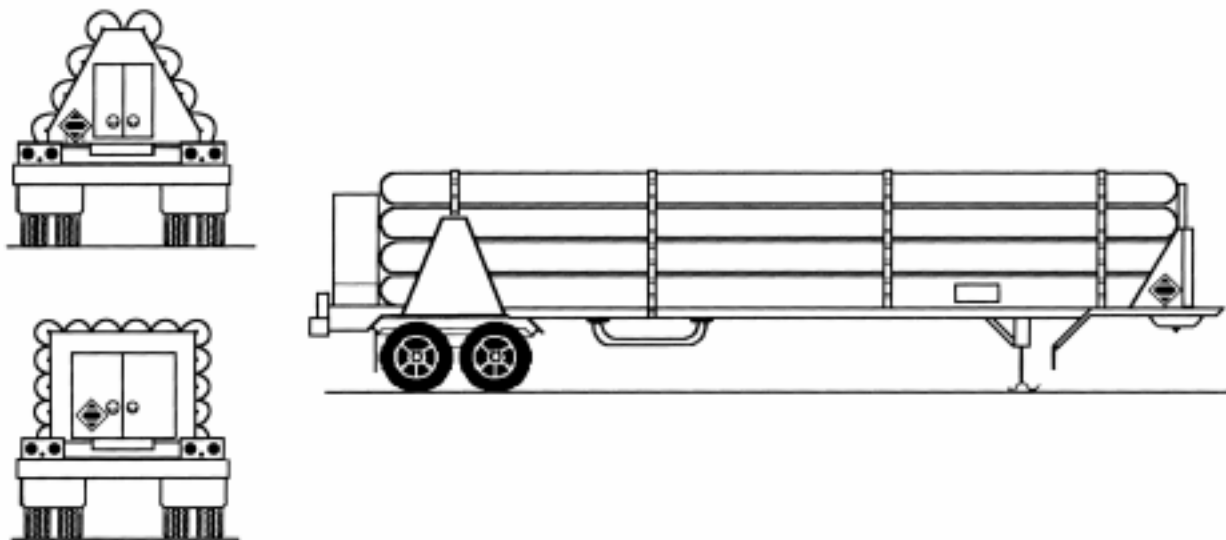


MC-338 CRYOGENIC LIQUID TANK TRUCK
WELL-INSULATED 'THERMOS BOTTLE' DESIGN
TRANSPORTS LIQUID NITROGEN, OXYGEN, CARBON DIOXIDE, ETC.

OPS AT Less THAN 22 PSI
 Well Insulated Thermos Bottle Like Steel Tank
 May Have Vapor Discharging from Relief Valves
 Loading/Unloading Valves Enclosed at Rear
 May Be Marked "Refrigerated Liquid"
 Round Tank with Same Type of Cabinet at Rear

Liquid Oxygen
 Liquid Nitrogen
 Liquid Carbon Dioxide
 Liquid Hydrogen
 Other Gases That Have Been Liquefied
 by Lowering Their Temperature

COMPRESSED GAS/TUBE TRAILER

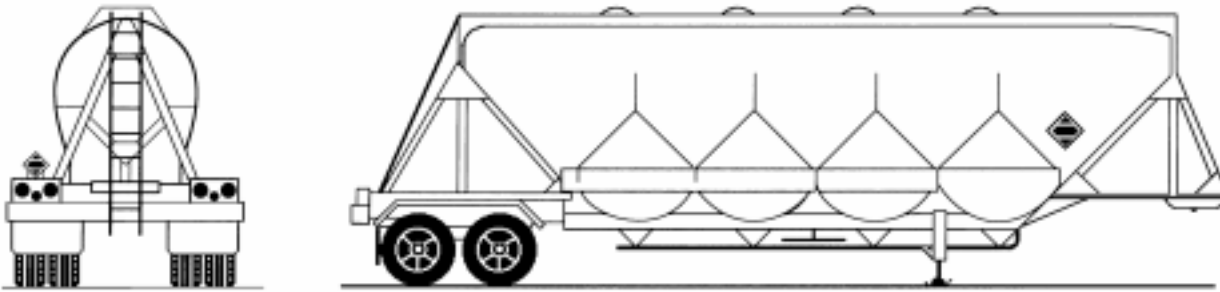


COMPRESSED GAS TRAILER
3,000-5,000 PSI
TRANSPORTS COMPRESSED GAS

OPS at 3,000-5,000 PSI (Gas Only)
 Individual Steel Cylinders Stacked and Banded Together
 Typically will have Over Pressure Device for each cylinder
 Valving at Rear (Protected)
 Manufacturer Name May Be on cylinders, i.e. AIRCO, Liquid
 Air, Liquid Carbonic, etc)
 Flat Truck with Multiple Cylinder Stacked in Modular or Nested Shape

Helium
 Hydrogen
 Methane
 Oxygen
 Other Gases

DRY BULK CARGO TANKER

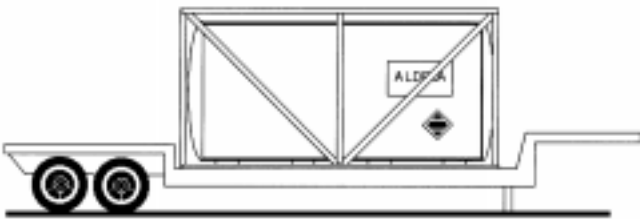


DRY BULK CARGO TANKER

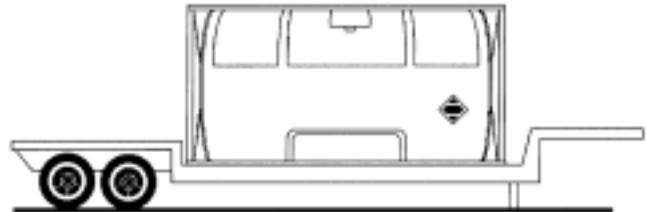
Typically Not Under Pressure
 Over the Road
 Top Side Manholes
 Bottom Valves/Air Assisted Loading/
 Unloading
 Shapes Vary, But Will Have Hoppers

Calcium Carbide
 Oxidizers
 Corrosive Solids
 Cement
 Plastic Pellets
 Fertilizers

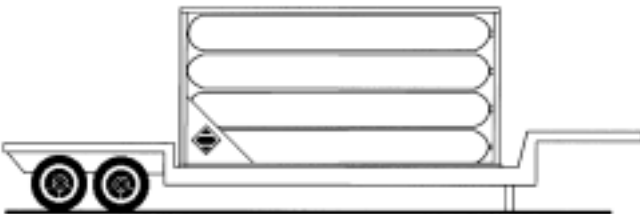
INTERMODAL CONTAINERS**



NON-PRESSURE OR PRESSURE TANK



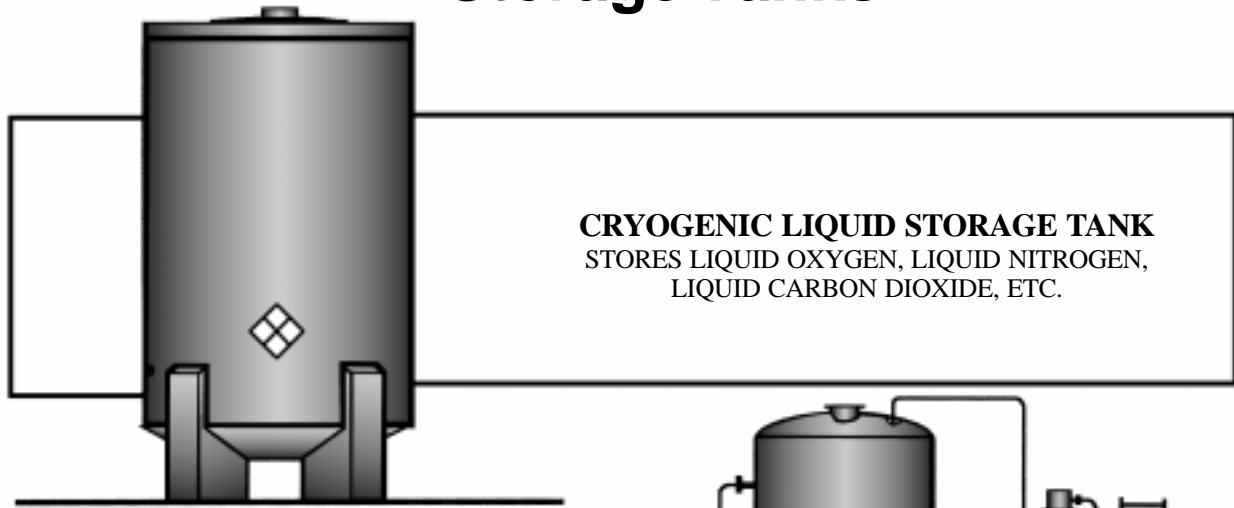
CRYOGENIC TANK



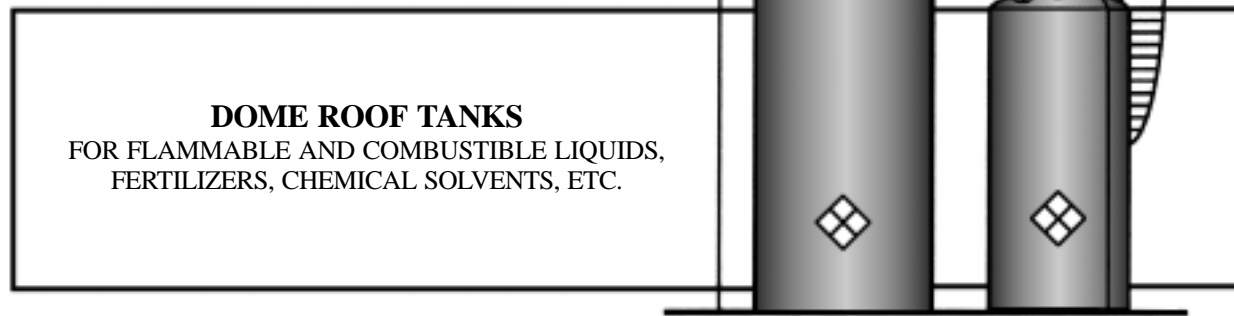
TUBE MODULES

** ALL THREE TYPES MAY ALSO BE FOUND ON RAIL CARS OR ABOARD SHIPS

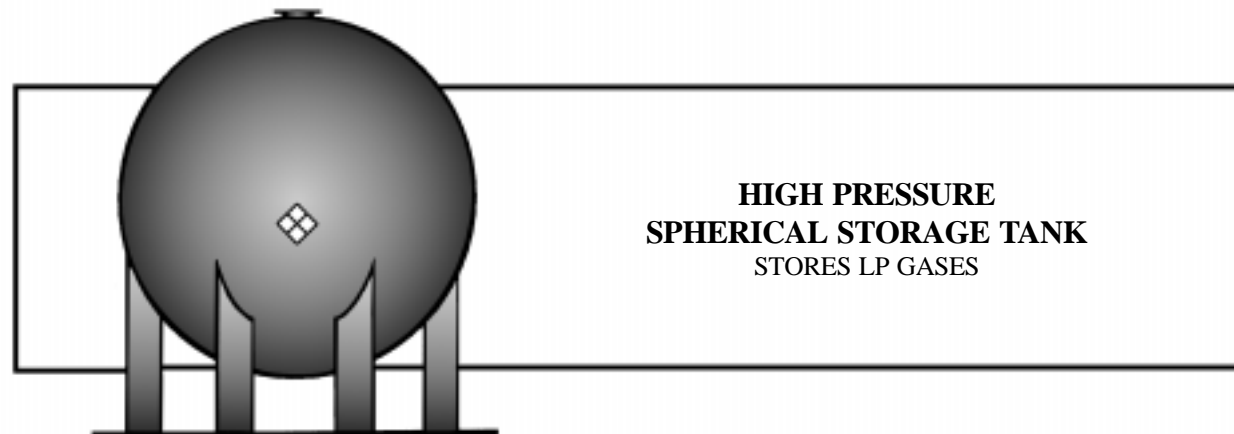
Storage Tanks



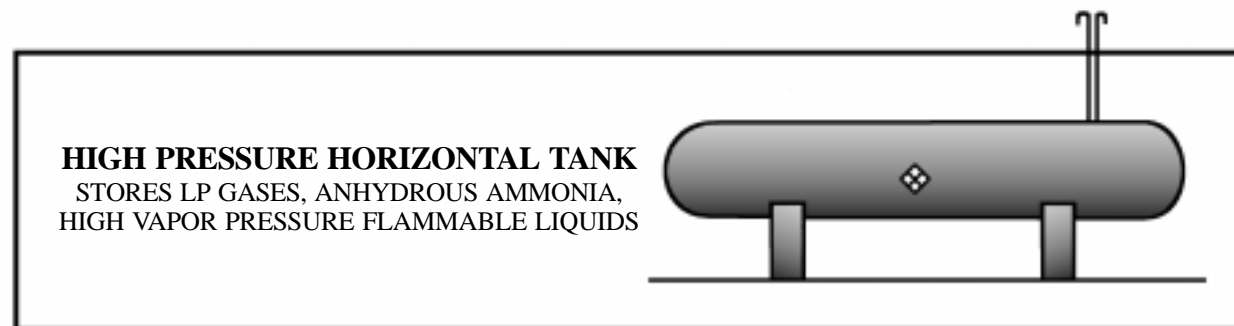
CRYOGENIC LIQUID STORAGE TANK
STORES LIQUID OXYGEN, LIQUID NITROGEN,
LIQUID CARBON DIOXIDE, ETC.



DOME ROOF TANKS
FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS,
FERTILIZERS, CHEMICAL SOLVENTS, ETC.



**HIGH PRESSURE
SPHERICAL STORAGE TANK**
STORES LP GASES



HIGH PRESSURE HORIZONTAL TANK
STORES LP GASES, ANHYDROUS AMMONIA,
HIGH VAPOR PRESSURE FLAMMABLE LIQUIDS

