

DIAGRAMS

BINGHAM & GARFIELD RY.

UTAH COPPER CO.

LOCOMOTIVES AND TENDERS

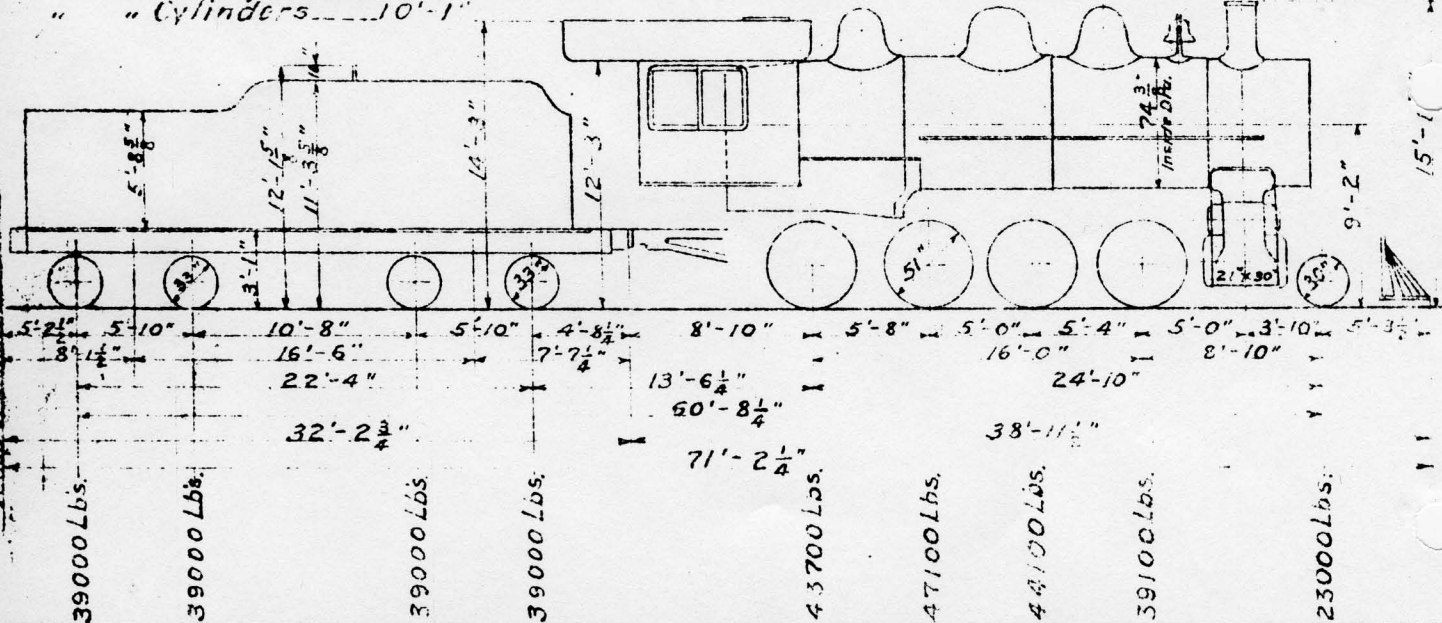
CARS

B. & G. RY. CO.

Width Over Cab 10'-0 $\frac{1}{4}$ "
 " " Running Boards 10'-1"
 " " Cylinders 10'-1"

ENGINE 200

Stack Hood



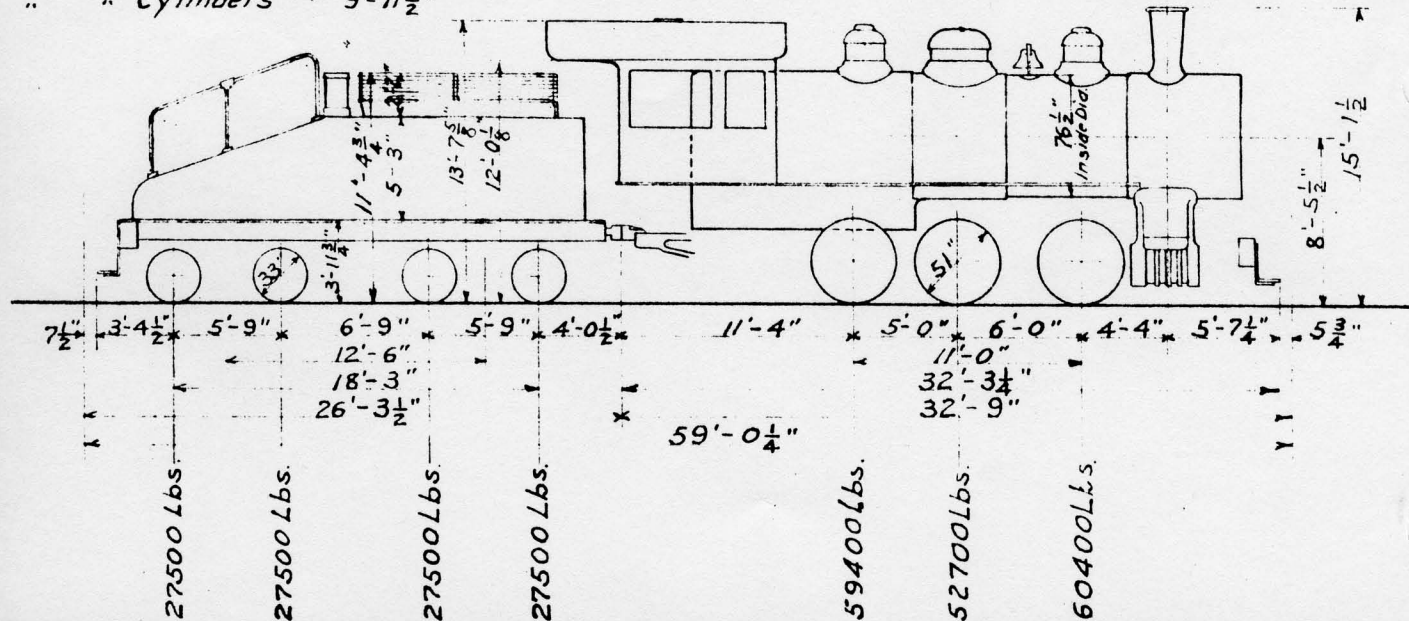
BINGHAM & GARFIELD RY. CONSOLIDATION ENGINE

200

Cylinders-----	21" x 30"	Capacity Of Tender Water-----	9000 Gall's.
Boiler Pressure-----	190 lbs.	Capacity Of Tender Coal-----	8 Tons.
Diameter Of Driving Wheels-----	51"	Total Weight Tender Loaded-----	156000 lbs.
Length Of Fire Box-----	108"	Total Weight Eng & Ten. Loaded-----	349000 lbs.
Width Of Fire Box-----	69"	Tractive Power-----	41900 lbs.
Brick Arch-----	4 - 3" Dia. Arch Tubes	Superheater-----	Schmidt Fire Tube
Boiler Tubes-----	199 - 2 Dia. & 28 - 5½" Dia.	Cab-----	Steel
Length Of Boiler Tubes-----	14' - 3"	Tank Frame-----	Steel
Heating Surface Tubes-----	2047 Sq. Ft.	Size Driving Axle Journal-----	9½" x 12"
Heating Surface Fire Box-----	168 Sq. Ft.	Size Eng. Truck Axle Journal-----	6" x 12"
Heating Surface Arch Tubes-----	30 Sq. Ft.	Size Tender Axle Journal-----	5½" x 10"
Heating Surface Total-----	2245 Sq. Ft.	Air Pumps 2-Westinghouse 8½" Cross Compound.	
Grate Area-----	51.7 Sq. Ft.		
Weight On Drivers-----	174000 lbs.		
Weight On Trucks-----	23000 lbs.		
Total Weight Of Engine-----	197000 lbs.		

Width over eaves of cab 10'-1"
 " " Running Board 10'-3"
 " " Cylinders 9'-11½"

ENGINES 306 & 307

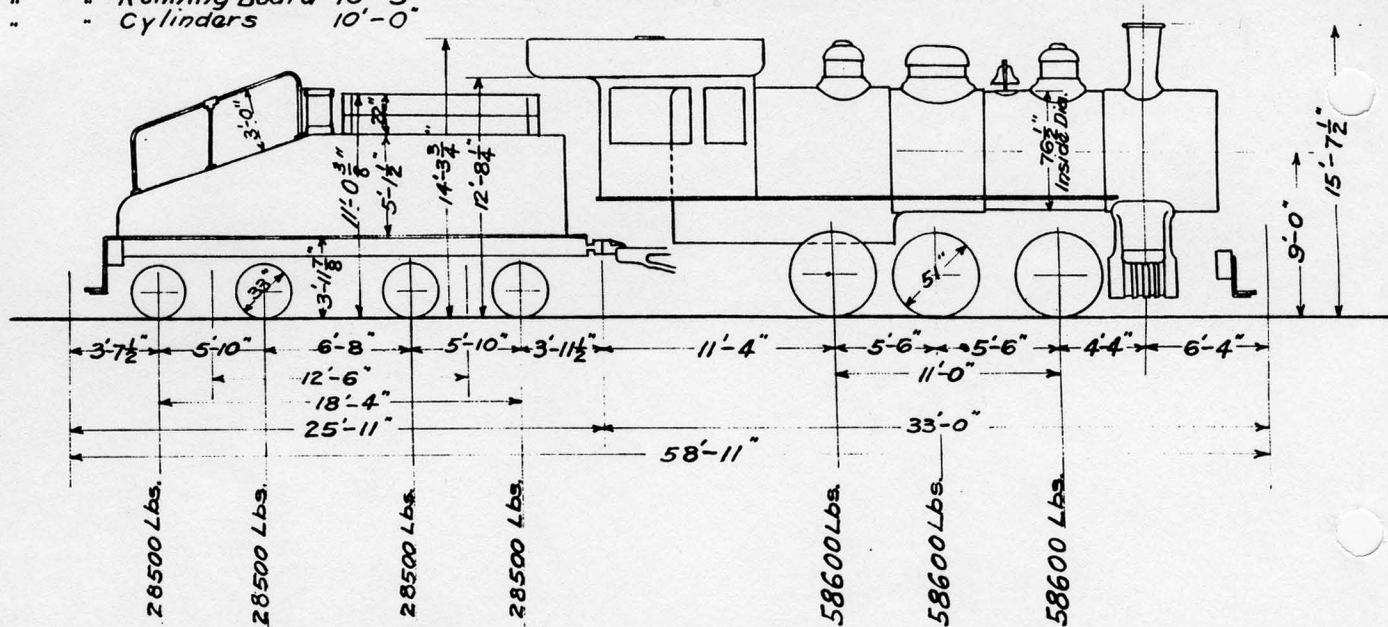


BINGHAM & GARFIELD RY. SWITCH ENGINES

306 & 307

Cylinders-----	22" x 26"	Capacity Of Tender Water-----	5000 Gall's.
Boiler Pressure-----	180 lbs.	Capacity Of Tender Coal-----	10 Tons
Diameter Of Driving Wheels-----	51"	Total Weight Tender Loaded-----	110000 lbs.
Length Of Fire Box-----	120 $\frac{3}{16}$ "	Total Weight Eng & Ten. Loaded-----	282500 lbs.
Width Of Fire Box-----	42 $\frac{1}{8}$ "	Tractive Power-----	37752 lbs.
Brick Arch-----	2- 3" Dia. Arch Tubes	Cab-----	Steel
Boiler Tubes-----	183 - 2" Dia. & 30- 5 $\frac{1}{2}$ " Dia.	Tank Frame-----	Structural Steel
Length Of Boiler Tubes-----	10'- 6"	Size Of Driving Axle Journal-----	9" x 12"
Heating Surface Tubes-----	1453 Sq.Ft.	Size Of Tender Axle Journal-----	5" x 9"
Heating Surface Fire Box-----	196 Sq.Ft.	Air Pump Westinghouse 8 $\frac{1}{2}$ " Cross Compound.	
Heating Surface Arch Tubes-----	17 Sq.Ft.	Superheater-----	Schmidt Fire Tube.
Heating Surface Total-----	1666 Sq.Ft.		
Grate Area-----	35.1 Sq.Ft.		
Weight On Drivers-----	172500 lbs.		
Total Weight Of Engine-----	172500 lbs.		

ENGINES 308 & 309



BINGHAM & GARFIELD RY. SWITCH ENGINES

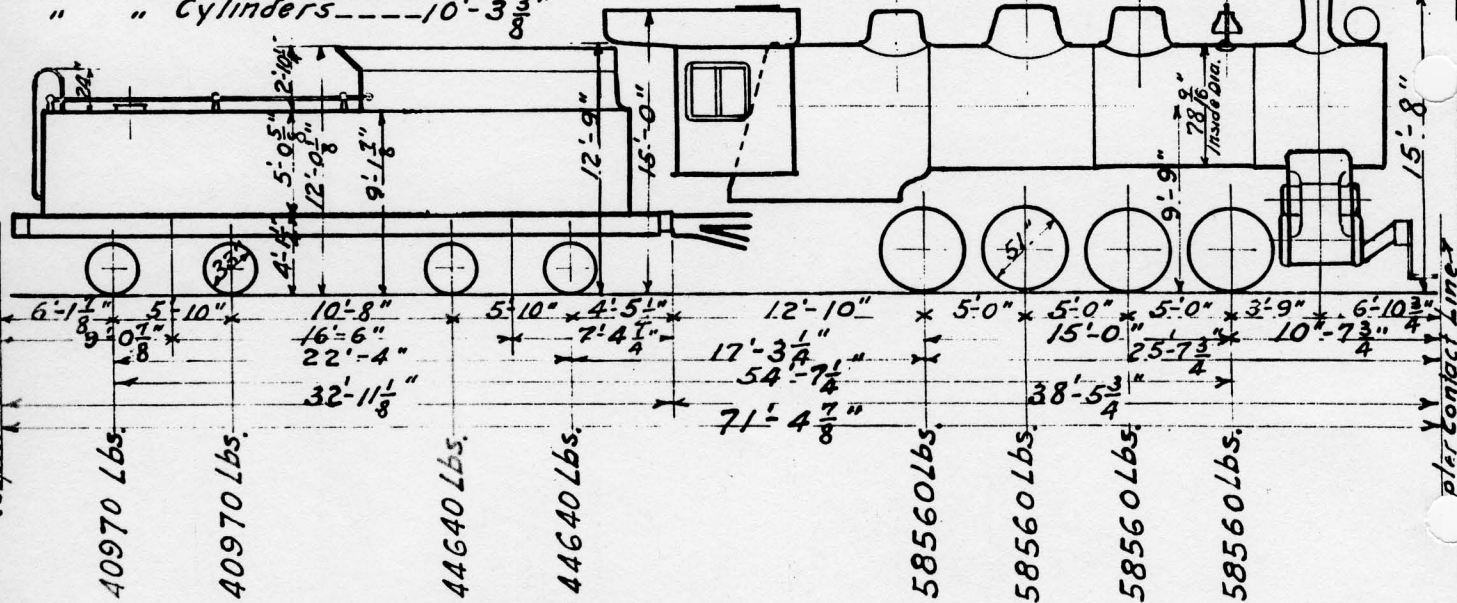
308 & 309

Cylinders-----	22" x 26"	Capacity Of Tender Water-----	5000 Gal
Boiler Pressure-----	185 lbs.	Capacity Of Tender Coal-----	10 Tons
Diameter Of Driving Wheels-----	51"	Total Weight Tender Loaded-----	114000 lbs.
Length Of Fire Box-----	120 $\frac{1}{8}$ "	Total Weight Eng. & Ten. Loaded-----	281000 lbs.
Width Of Fire Box-----	42"	Tractive Power-----	38800 lbs.
Brick Arch-----	2- 3" Dia. Arch Tubes	Superheater-----	Schmidt Fire Tube
Boiler Tubes-----	194- 2" Dia. & 28-5 $\frac{1}{2}$ " Dia.	Cab-----	Steel
Length Of Boiler Tubes-----	10'- 6"	Tank Frame-----	Structural Steel
Heating Surface Tubes-----	1478 Sq.Ft.	Size Driving Axle Journal-----	9" x 12"
Heating Surface Fire Box-----	196 Sq.Ft.	Size Tender Axle Journal-----	5" x 9"
Heating Surface Arch Tubes-----	17 Sq.Ft.	Air Pump Westinghouse 8 $\frac{1}{2}$ " Cross Compound	
Heating Surface Total-----	1691 Sq.Ft.		
Grate Area-----	35 Sq.Ft.		
Weight On Drivers-----	175800 lbs.		
Total Weight Of Engine-----	175800 lbs.		

Width Over Cab Handles--10'-2"
 " " Running Board--10'-0"
 " " Cylinders-----10'-3"
 00133"

ENGINE No. 500

Coupler Contact Line



SWITCH ENGINE

500

Cylinders----- $24\frac{1}{8} \times 28$ "
 Boiler Pressure-----200 lbs.
 Diameter Of Driving Wheels-----51"
 Length Of Fire Box----- $102\frac{1}{8}$ "
 Width Of Fire Box----- $66\frac{1}{4}$ "
 Brick Arch-----4-3" Dia. Arch Tubes.
 Boiler Tubes-----230-2" Dia. & 36- $5\frac{1}{2}$ " Dia.
 Length Of Boiler Tubes-----15'-0"
 Heating Surface Tubes-----2566 Sq.Ft.
 Heating Surface Fire Box-----187 Sq.Ft.
 Heating Surface Arch Tubes-----28 Sq.Ft.
 Heating Surface Total-----2781 Sq.Ft.
 Grate Area-----47 Sq.Ft.
 Weight On Drivers-----234240 lbs.
 Total Weight Of Engine-----234240 lbs.

Capacity Of Tender Water-----9000 Gall's.
 Capacity Of Tender Coal-----8 Tons.
 Total Weight Tender Loaded-----171000 lbs.
 Total Weight Eng. & Ten. Loaded-----405240 lbs.
 Tractive Power-----54320 lbs.
 Superheater-----Schmidt Fire Tube.
 Cab-----Steel.
 Tank Frame-----Structural Steel.
 Size Driving Axle Journal Main 10×12 Others 9×12 "
 Size Tender Axle Journal-----6" x 11"
 Air Pumps Westinghouse 2- $8\frac{1}{2}$ " Cross Compound.
 Feed Water Heater-----Elesco.

Technical drawing of a small boat, showing a side view and a front view. The side view includes dimensions for the hull, cabin, and overall length. The front view shows the width and height of the cabin and hull.

Side View Dimensions:

- Overall Length: 36'-6"
- Hull Length: 25'-2"
- Cabin Length: 17'-2"
- Hull Width: 5'-8"
- Cabin Width: 8'-0"
- Cabin Height: 10'-3 1/2"
- Operating Range: 9'-0"
- Height from Hull to Cabin Top: 13'-2"
- Height from Hull to Cabin Bottom: 22'-2"
- Height from Hull to Cabin Top (Side View): 2'-10 1/2"

Front View Dimensions:

- Overall Width: 11'-7" Overall
- Cabin Width: 10'-2"

Other Labels:

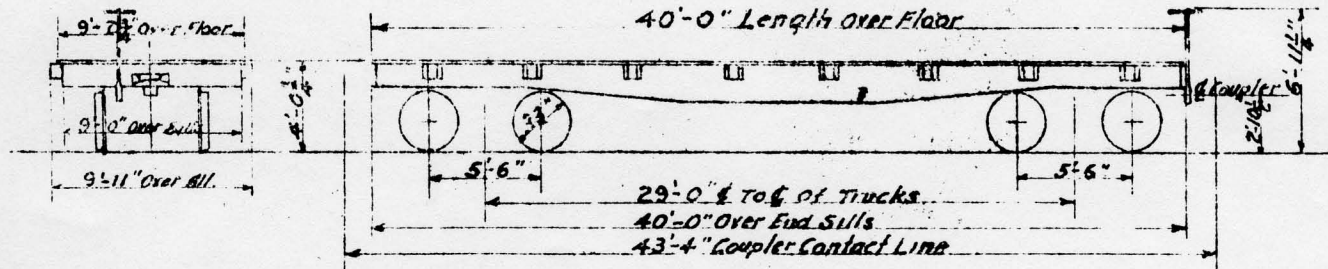
- 46345 (four locations)
- No 737

46345

46345

FLAT CARS

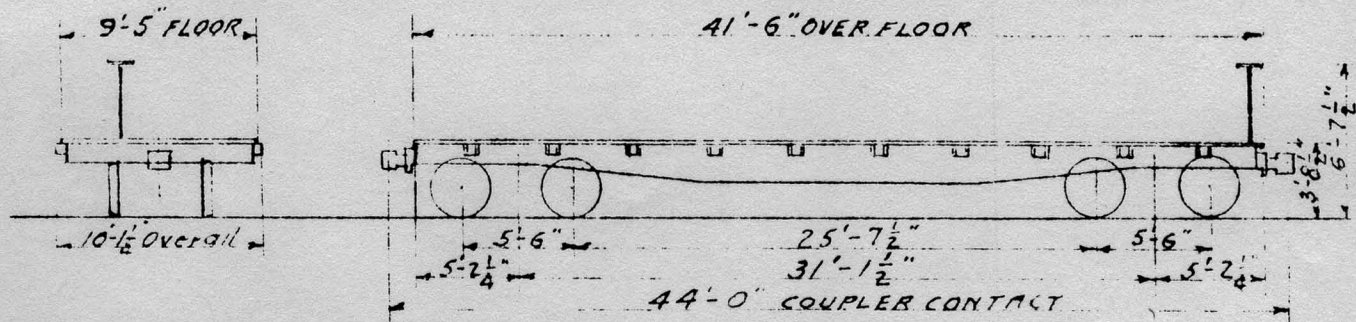
56 TO 58



Air Brakes - Westinghouse K.C. 1012
 Couplers - Gould 5' x 2 1/4" with 5' x 9 1/2" Butt Side Operated.
 Draft Rigging - Cardwell Friction
 Axles - A.R.A. 5 1/2" x 10" Journals.
 Journal Bearings A.R.A. 5 1/2" x 10".
 Trucks - Arch Bar Type 1 1/2" x 5" Top & Bottom Bars,
 with 5/8" x 5" Tie Bars.
 Truck Bolster - Built up Steel.
 Journal Boxes - A.R.A. Malleable Iron.

Brake Beams - Metal.
 Wheels - A.R.A. 725" Cast Iron.
 Marked Capacity of Car - 100000*.
 10% of Marked Capacity - 10000*.
 Weight of Car Empty - 37800*.
 Total Weight With Maximum Load - 147800*.
 Axle Load - 36950*.

STEEL FLAT No. 62



Rebuilt From Michigan Central Box Car No. 63596.
Rebuilt June 1929.

Air Brakes Westinghouse K 2 Triple
Couplers A.R.A 5" x 7" x 21 1/4" Shank.

Draft Gear Miner Tandem

Axles 5" x 9" Journals.

Trucks Bettendorf.

Bolster Cast Steel.

Journal Boxes Cast Integral With Frame.

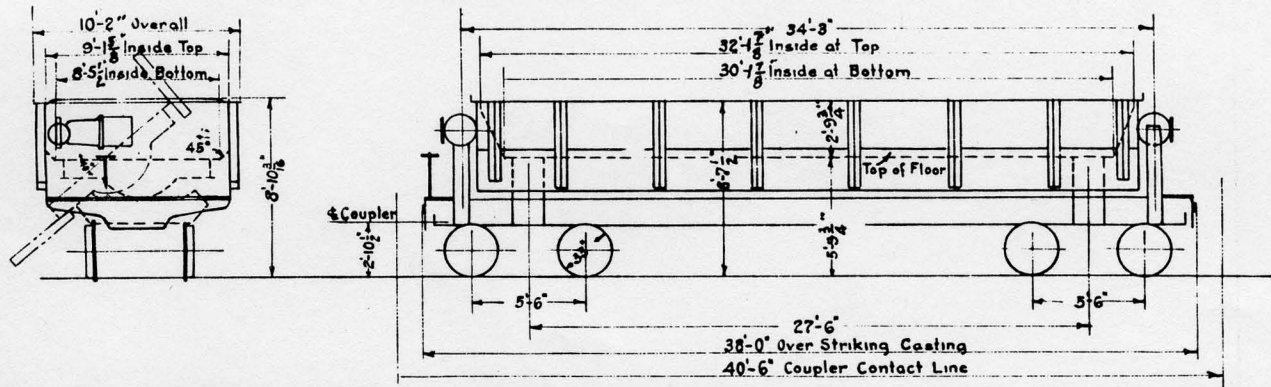
Brake Beams. A.R.A. No. 2

Wheels 33" Cast Iron.

Capacity 80000 lbs.

Light Weight 31600 lbs.

CLARK 30 YARD STEEL DUMP CAR
B.&G. 97 & 98.

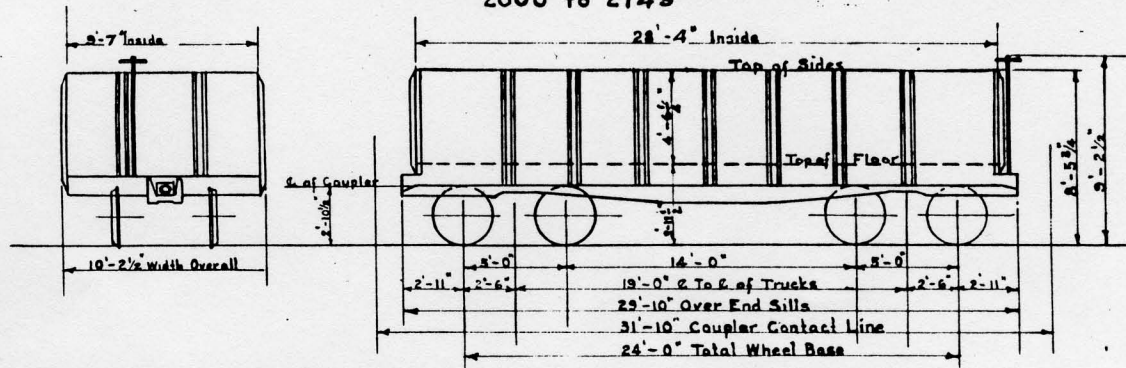


Air Brakes Westinghouse E. & L. Schedule K.C-1010
Couplers ----- A.R.A. Type D 6"x8" Shank
Draft Rigging ----- Cardwell Friction Type G-18
Axles ----- 6 1/2" x 10" Journals
Trucks ----- Vulcan Cast Steel Side Frame
Bolster ----- Simplex

Brake Beams ----- Creco E. & L.
Wheels ----- 33" Schoen Rolled Steel
Marked Capacity ----- 120000 lbs
Cubic Capacity 30 Cu.Yds. Level & 42 Cu.Yds. 30° Heap.
Weight of Car Empty ----- 67700 lbs.
Total Weight of Car With Max Load 192440 lbs.

CONCENTRATE CARS

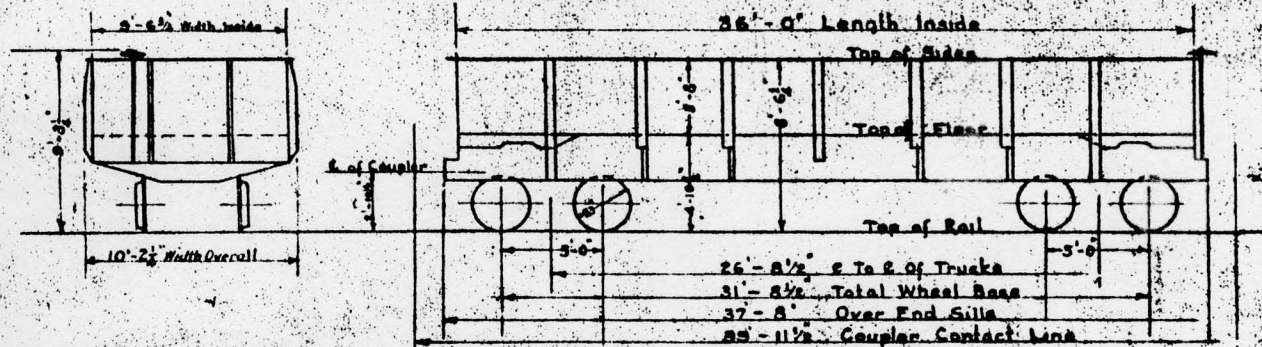
2000 TO 2149



Air Brakes - Westinghouse 10"x12" Cylinders K.C. 1012
 Couplers - Simplex 5"x7"x14 1/2" with 5"x9 1/8" Butt & M.C.B. Type D
 Draft Rigging - Cardwell Friction Type G Class 18 6"x8 Shank
 Axles - 6 1/2"x10" Journals
 Journal Bearings - 6 1/2"x10"
 Trucks - Arch Bar Type 1 1/2"x6" O.H. Steel Top and Bottom with
 3/4"x6" Tie Bar & Vulcan Cast Side Frame
 Bolster - Simplex
 Journal Boxes - M&Cord Malleable Iron
 Brake Beam - Creco

Wheels - 33" Griffin F.C.S.
 Cubic Capacity 1228 cu. ft. or 45.5 cu. yds.
 Marked Capacity of Car 120000 lbs.
 10% of Marked Capacity 12000 lbs.
 Weight of Car Empty 40000 lbs.
 Total Weight of Car with Maximum Load 172000 lbs.
 Axle Load 43000 lbs.

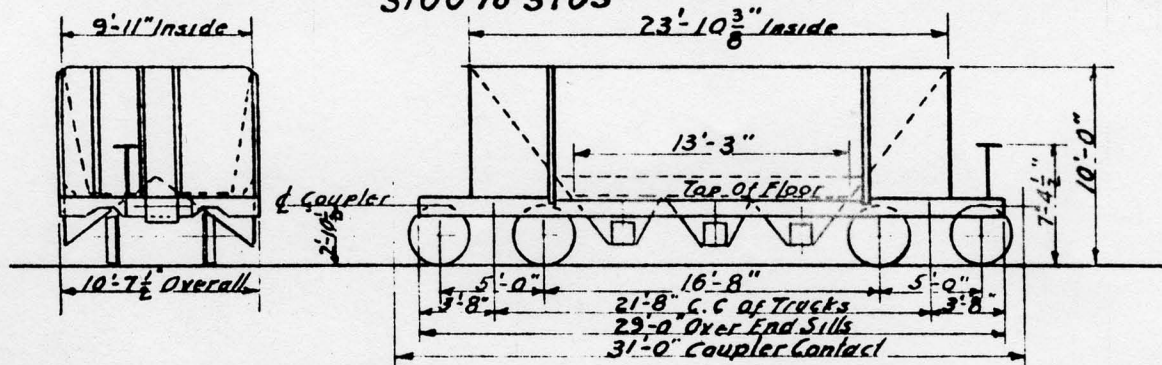
GEN. SERVICE GONDOLA CARS 3000 TO 3049



Air Brakes - Westinghouse E & L
 Couplers - Simplex $5' \times 7' \times 2\frac{1}{4}"$ with $5' \times 9\frac{1}{2}"$ Butt
 Doors - 16 - 8 on each side of Car
 Draft Rigging - Cardwell Type "G" Class 18 Friction
 Axles - $6\frac{1}{2}' \times 10'$ Journals
 Journal Bearings - $6\frac{1}{2}' \times 10"$
 Trucks - Arch Bar Type $1\frac{1}{2}' \times 6'$ O.H. Steel, Top and Bottom
 with $\frac{3}{4}' \times 4'$ Tie Bar
 Bolster - Reliance
 Journal Boxes - McCord Malleable Iron

Brake Beams - Creco E & L
 Wheels - 33" Rolled Steel
 Cubic Capacity - 1262 cu. ft. or 46.7 cu. yds.
 Marked Capacity of Car 12000 lbs.
 10% of Marked Capacity 1200 lbs.
 Weight of Car Empty 43900 lbs.
 Total Weight of Car with Maximum Load 177900 lbs.
 Axle Load 42975 lbs.

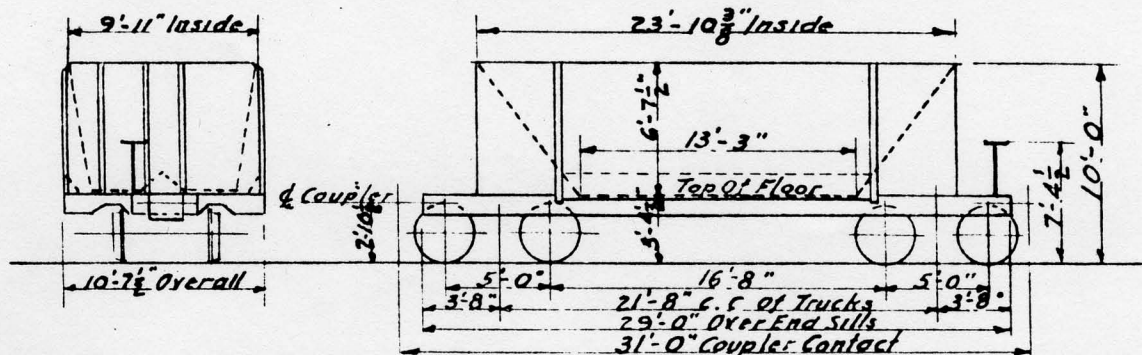
LIME CARS 3100 to 3103



Air Brakes-----Westinghouse E. & L.
Couplers-----Simplex 5x7"x14½" Shank
Hoppers-----6- 3 Each Side of Car
Draft Rigging-----Westinghouse Friction Type N
Axles-----6½"x10" Journals
Trucks Arch Bar Type 1½"x6" Bars Top & Bottom
With ¾"x6" Tie Bars.
Bolster-----Reliance

Journal Boxes-----McCord Malleable Iron
Brake Beams-----Greco E. & L.
Wheels-----33" Cast Iron F.C.S.
Cubic Capacity Of Cars-----1252 Cu. Ft. 46 Cu. Yds.
Marked Capacity-----120000 lbs.
10% Of Marked Capacity-----12000 lbs.
Weight Of Cars Empty-----41400 lbs.
Total Weight Car With Max. Load-----173400 lbs.

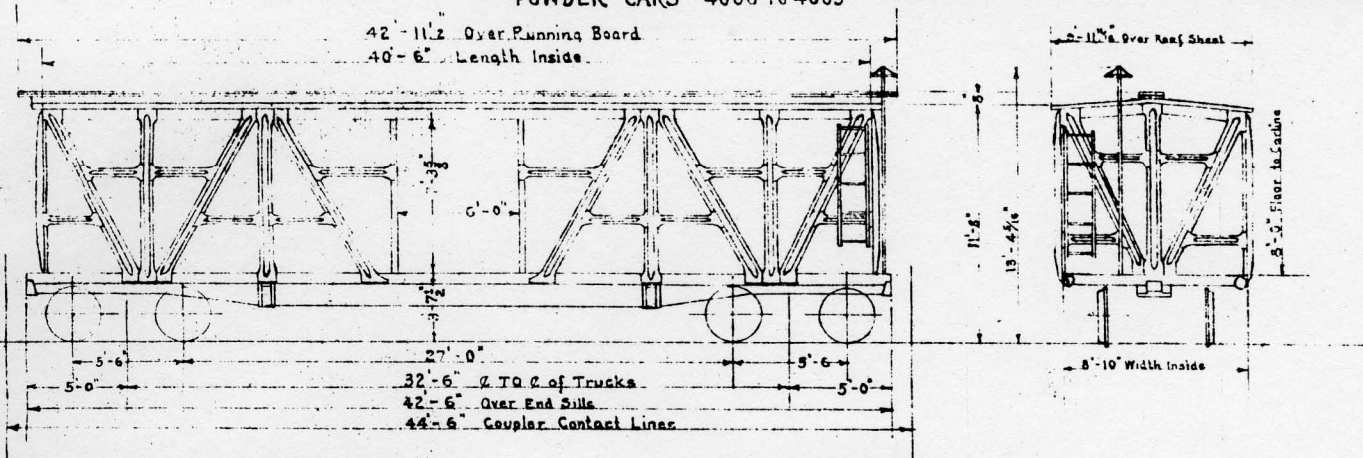
SAND CARS 3200 TO 3208



Air Brakes..... Westinghouse E.&L.
Couplers..... Simplex 5" x 7" x 14 1/2" Shank
Doors..... 6 - 3 On Each Side Of Car
Draft Rigging..... Westinghouse Friction Type "N"
Axles..... 6 1/2" x 10" Journals
Trucks..... Arch Bar Type 1 1/2" x 6" Bars Top & Bottom
With 3/4" x 6" Tie Bars
Bolster..... Reliance

Journal Boxes..... M. & C. Cord Malleable Iron
Brake Beams..... Creco E.&L.
Wheels..... 33" Cast Iron F.C.S.
Cubic Capacity Of Car..... 1221 Cu. Ft. 45.2 Cu. Yds.
Marked Capacity..... 120000 lbs.
10% Of Marked Capacity..... 12000 lbs.
Weight Of Car Empty..... 42900 lbs.
Total Weight Of Car With Max. Load..... 174900 lbs.

POWDER CARS 4000 TO 4003



Air Brakes - Westinghouse K-D 10-12
Couplers - Simplex 5"x7" with 5"x4 1/8" Butt
Doors - Steel

Draft Rigging - Westinghouse Friction

Axles - 5 1/2" x 10" Journals

Journals - M.C.B.

Trucks - Diamond Arch Bar Type. Top and Bottom 1 1/2" x 5"
with 5/8" x 5" Tie Bar.

Bolster - P.S.C.Co's. Bath Tub Type.

Journal Boxes - M^c Cord

Brake Beam - Creco E. & L.

Wheels - 33" Griffin F.C.S.

Cubic Capacity - 2862 cu. ft. or 106 cu. yds.

Marked Capacity - 100000 lbs.

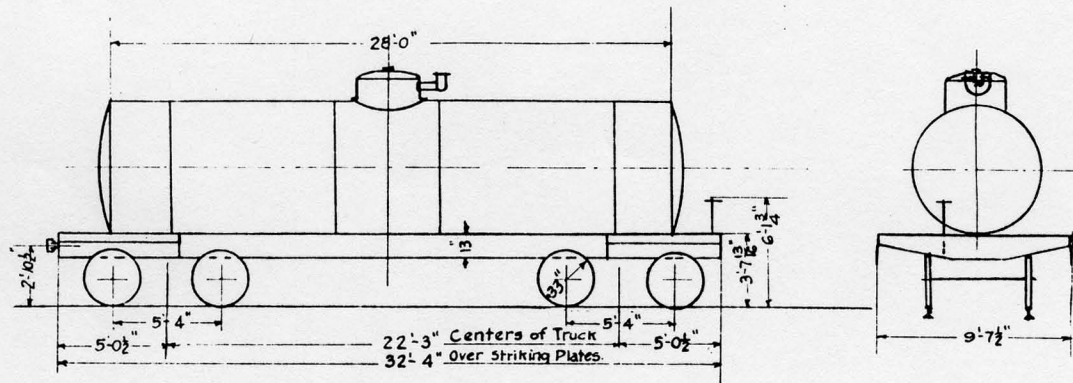
10% of Marked Capacity 10000 lbs.

Weight of Car Empty 49300 lbs.

Total Weight of Car With Maximum Load 159300 lbs.

Axle Load 39825 lbs.

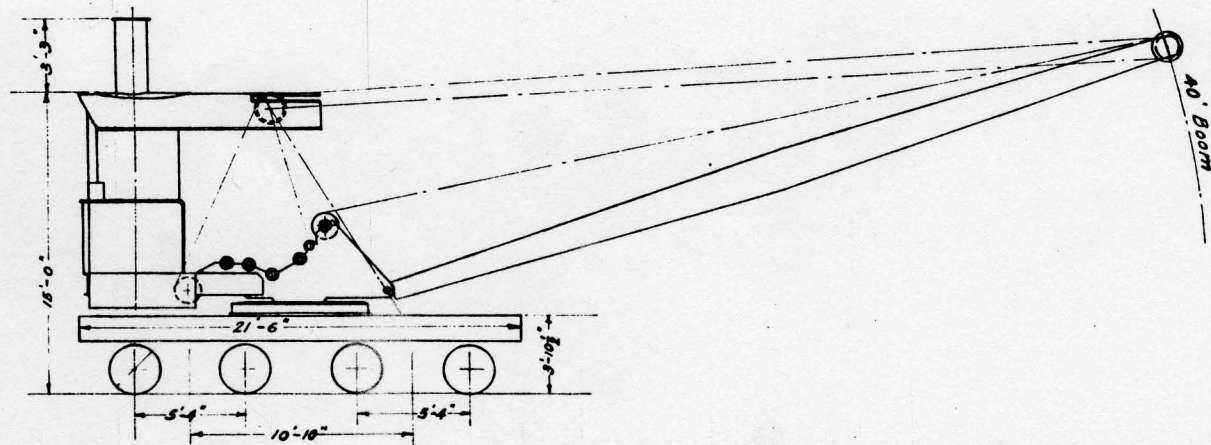
STEEL UNDERFRAME TANK CAR 6001



STEEL UNDERFRAME TANK CAR 6001

Weight	41200/lbs.	Capacity	100,000 lbs.	Journal Bearings	$5\frac{1}{2}" \times 10"$	M.C.B. Lead Lined
Capacity			7,000 Gals.	Journal Box Lids		M.C.B. Top Hung
Draft Gear		Cardwell Standard Friction Type	611	Truck Springs		M.C.B. Class D
Couplers	5" x 7" Shank	Penn. M.C.B. Automatic Cast Steel		Brake Beams		Waycott #2
Brakes		Westinghouse Type, Automatic		Brake Shoes		M.C.B. Cast Iron
Hand Brakes		Operates in Connection with Air.			Tank	
Trucks		Rigid Diamond Arch Bar		Inside Diameter		77 $\frac{3}{4}"$
Gauge			4'-8 $\frac{1}{2}"$	Shell		$\frac{3}{8}"$ Steel
Class of Truck		American Car & Fdry Co's. Type 3		Heads of Tank		$\frac{1}{2}"$ Steel, Dished to 10' Rad.
Arch Bars	Top & Bottom $1\frac{1}{2}" \times 5"$	Tie Bar $\frac{5}{8}" \times 5"$	Wrought Iron	Dome of tank		$\frac{3}{8}"$ Steel, 36" Dia. 19" High
Truck Bolster	American Car & Foundry Co.	Giant Type		Dome of Head		$\frac{3}{8}"$ Fl. Steel, Iron Manhole
Wheels	725# Cast Iron	M.C.B. 33" Chilled Tread		Discharge		2" Syphon Pipe
Axles	$5\frac{1}{2}" \times 10"$	Journals	M.C.B. Standard	Safety Valves		2-5" Valves for 6500 Cap. or Over
Journal Boxes	Cast Iron	M.C.B. Strd. for $5\frac{1}{2}" \times 10"$	Journals	Vents		2" Vent Valve.

LOCOMOTIVE CRANE N^o 07



*All Parts Above Canopy Are
Removable For Transportation*

LOCOMOTIVE CRANE No 07

Industrial Works	No. 3148
Weight of Crane	101400 Lbs.
Boiler	48" Diameter x 9'-0" High
124 Tubes	2" Dia.
Working Pressure	120 Lbs.
Water Tank	300 Gals.
Coal	
Journals	5" x 9"
Arch Bar Trucks	Top Arch Bar $1\frac{1}{2}" \times 5"$
	Bottom " " $1\frac{1}{4}" \times 5"$
	Tie " " $\frac{5}{8}" \times 5"$
Gauge	4'-8 $\frac{1}{2}"$

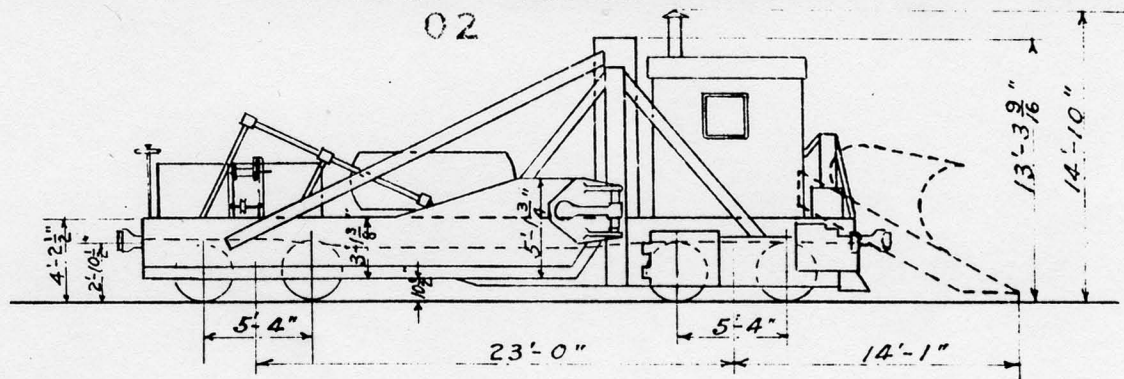
Capacity without Outrigger -	
30000 Lbs. at 11 ft. Radius	
22000 . . . 15 . . .	
15500 . . . 20 . . .	
11900 . . . 25 . . .	
9200 . . . 30 . . .	
7500 . . . 35 . . .	
6100 . . . 40 . . .	

Width over All	9'-8"
Maximum Working Radius	40'-0"
Minimum	11'-0"

*Brakes - Steam Jam and Train Line thru
for Air Brakes when Handled with
Train Brakes.*

JORDAN SPREADER

02



Capacity-----100000#
 Weight-----72000#
 " With Snow Plow-----80000#
 Air Brakes-----Westinghouse K.C. 1012
 Draft Rigging-----Cardwell Type "6" Friction
 Couplers-----Simplex 5"x7"x2 1/4" Shank

Trucks M.C.B. Arch Bar-Top Bar 1 1/4"x5", Bottom 1 1/4"x5", Tie 5/8"x5"
 Axles-----5 1/2"x10" Journals
 Journal Boxes-----McCord Malleable Iron
 Truck Bolsters-----Simplex
 Wheels-----Griffen F.C.S.-840#
 Brake Beams-----Creco E.&L.

36'-0" Wings Opened

10'-0" Wings Closed

6'-0"

23'-1 1/2" Lgth. Wings

35'-2" Over Striking Plates

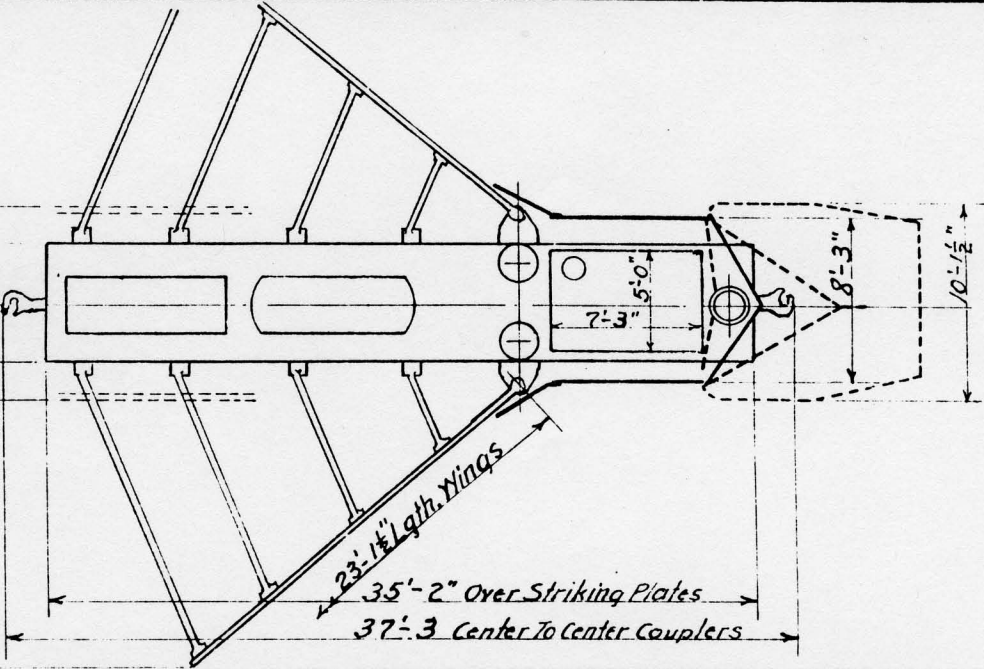
37'-3" Center To Center Couplers

7'-3"

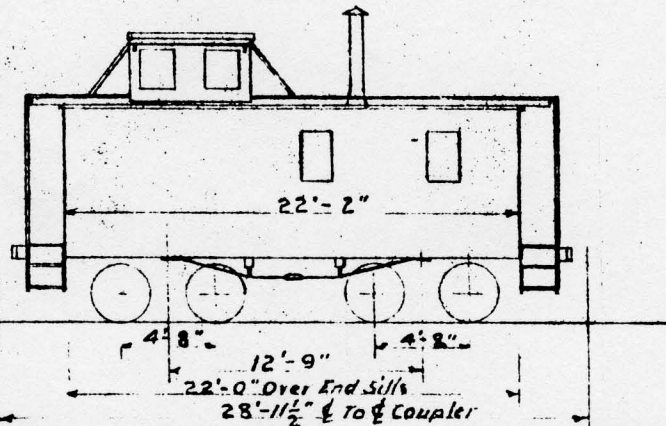
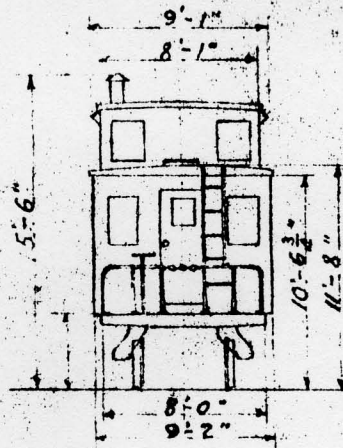
5'-0"

8'-3"

10'-1 1/2"

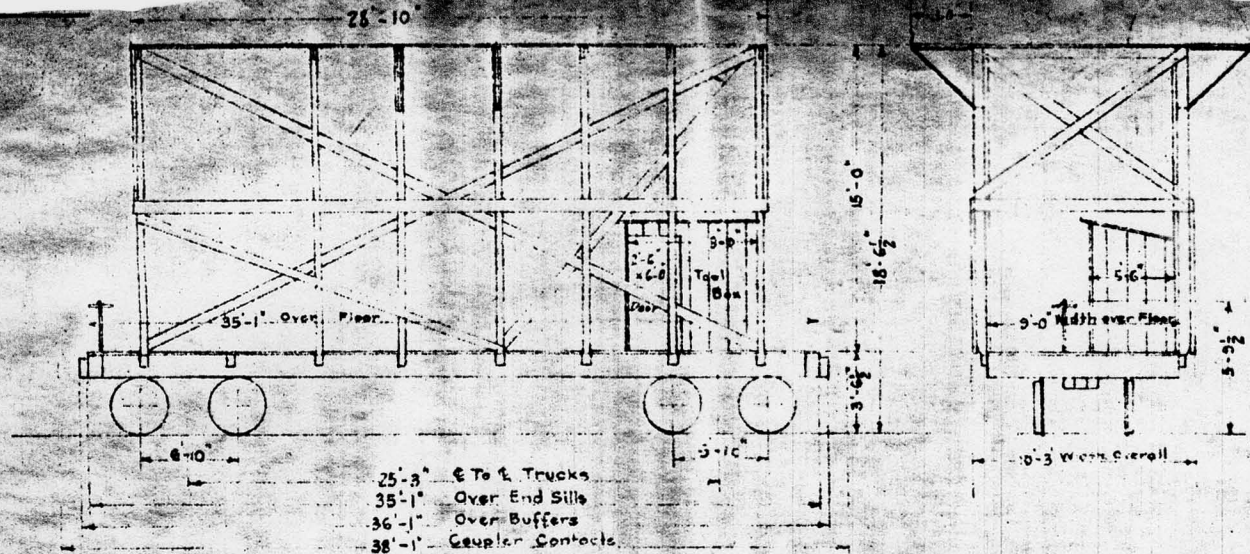


CABOOSE CARS No. 014 & 015



Air Brakes Westinghouse 8"x12" Cylinders
 Couplers Simplex 5"x5"x21 1/2" Shank
 Draft Rigging Miner Tandem
 Underframe Steel.
 Trucks Hrch Bar 1 1/4"x3 1/2" Top & Bottom Bars & 3/4"x3 1/2" Tie Bar
 Truck Bolsters Steel.

Truck Transoms 10 1/2" Channels
 " Springs Double Elliptic 5 leaf 3/8"x4 1/2" Steel.
 " Axles 4 1/4"x8 1/2" Journals
 " Columns Cast Iron
 " Wheels 33" Cast Iron
 Brak Beams Metal (5" I Beams)



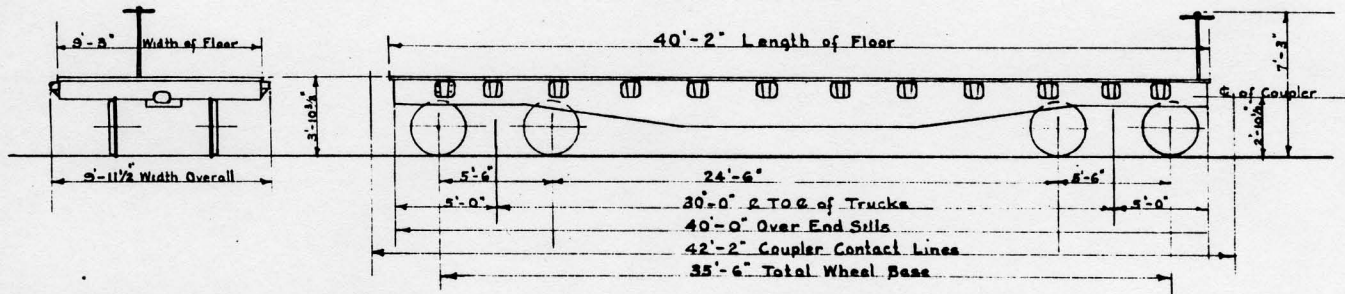
WORK EQUIPMENT CAR W-03

Brakes Westinghouse 8" x 12" Cylinder
 Couplers Tower 5" x 6" x 21 1/4" Shank
 Draft Rigging Miner Tandem
 Axles 3 1/4" x 7" Journals
 Transoms 10 1/2" Channels

Truck Bolster Oak 5" x 9"
 Journal Box Cast Iron
 Brake Beams Metal Outside Hung 5" I Beam
 Wheels 30" Cast Iron
 Capacity 60000 lbs.

FLAT CARS 51

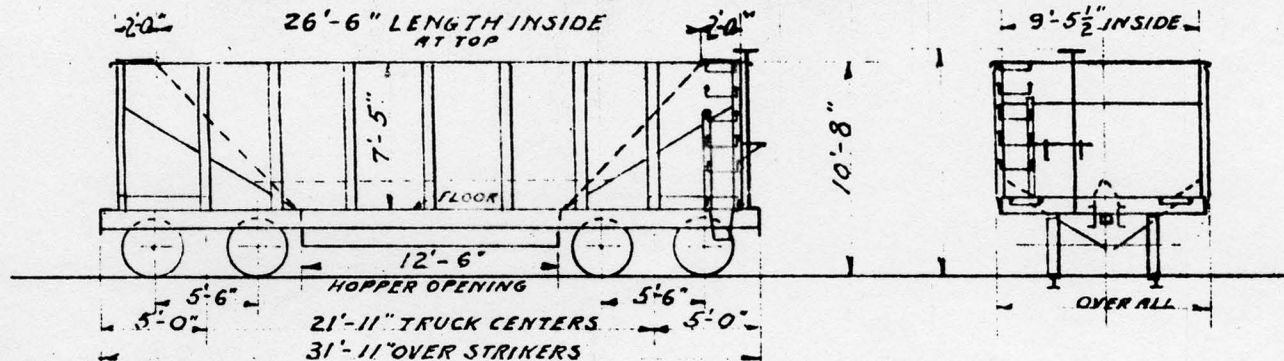
B. & G. Ry. Co.



Air Brakes - Westinghouse 10" Cylinder
 Couplers - Simplex 5'x7"x21 1/4" with 5"x9 1/2" Butt
 Draft Rigging - --- Cars 50 to 53 Westinghouse Friction
 Axles 5 1/2"x10" Journals (54 & 55 Cardwell "
 Journals Bearings - M.C.B.
 Trucks - Arch Bar Type 1 1/4"x5" Top and Bottom with
 5/8"x5" Tie Bar
 Bolster - Bath Tub Type Pressed Steel Car Co.
 Journal Boxes - McGord Malleable Iron

Brake Beam - Creco E & L
 Wheels - 33" Griffin F.C.S.
 Marked Capacity of Car - 100000 lbs.
 10% of Marked Capacity - 10000 lbs.
 Weight of Car Empty - 40400 lbs.
 Total Weight with Maximum Load - 150400 lbs.
 Axle Load - 37075 lbs.

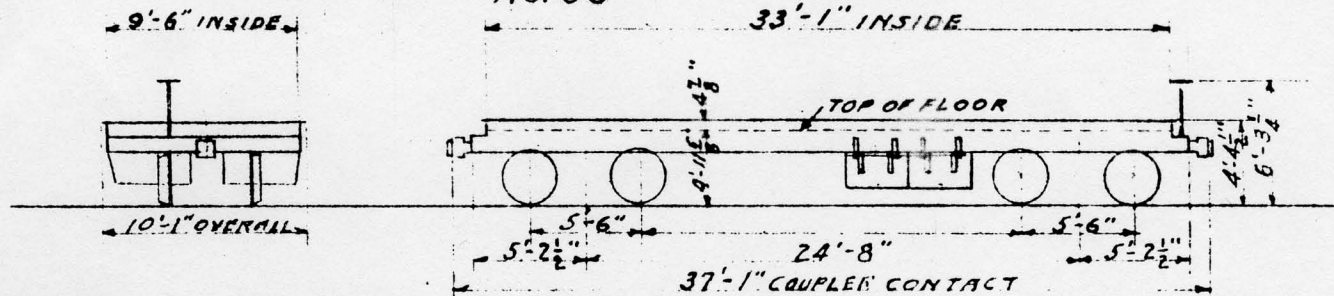
BALLAST CAR No. W-99



AIR BRAKES.....WESTINGHOUSE K 2 TRIPLE
 COUPLERS.....A. R. A. TYPE "D" 6"x8"x21 1/4" SHANK
 DRAFT RIGGING WESTINGHOUSE TYPE 3
 BRAKE BEAMS..A. R. A.
 WHEELS.....33" CAST IRON

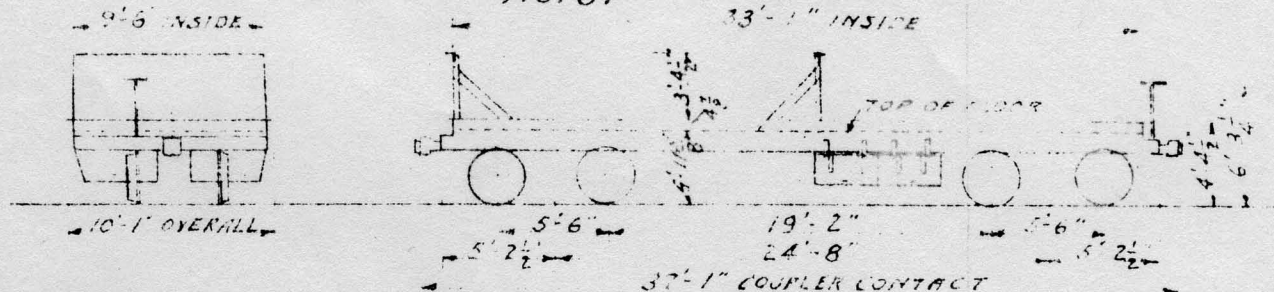
AXLES.....5 1/2" X 10" JOURNALS
 TRUCK.....VULCAN STEEL SIDE FRAME
 CAPACITY.....110000 LBS.
 CUBIC CAPACITY..1433 CU. FT. OR 53 CU. Yds.
 WEIGHT LIGHT...44100 LBS.

**ALL STEEL
WRECKING TRAIN TRUCK CAR
NO. 60**



Air Brakes	Westinghouse K Triple Valve	Wheels	A.R.A 33" Cast Iron
Couplers	A.R.A. 5" x 7" x 2 1/4" Shank	Capacity	100000 lbs.
Draft Rigging	Cardwell Friction Type G-II	Light Weight	34700 lbs.
Axles	5 1/2" x 10" Journals		
Journal Boxes	A.R.A. Malleable Iron		
Trucks	Diamond Arch Bar Type		
Bolsters	Cast Steel		
Brake Beams	Huntton Trussed Steel.		

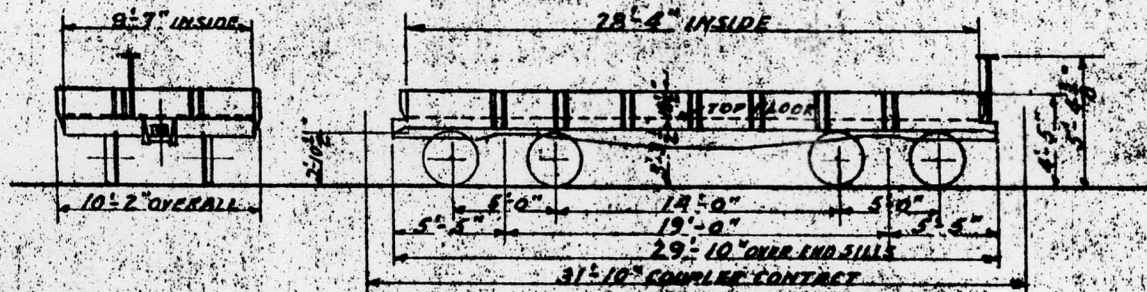
ALL STEEL
WRECKING TRAIN TIE & RAIL CAR
No. 61



Air Brakes..... Westinghouse K Triple Valve
Couplers..... A.R.A. 5x7"x21 1/2" Shank
Draft Rigging..... Cardwell Friction Type 6-11
Axles..... 5 1/2"x10" Journals
Journal Boxes..... A.R.A. Malleable Iron
Trucks..... Diamond Arch Bar Type
Bolsters..... Cast Steel
Brake Beams..... Huntoon Trussed Steel

Wheels..... A.R.A. 33" Cast Iron
Capacity..... 100000 lbs.
Light Weight..... 35600 lbs.

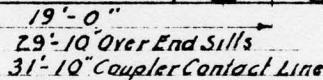
ALL STEEL SHOP CAR No. 08



Built From Concentrate Car No. 2108 Sept. 1929
 Air Brakes - Westinghouse 10x12" Cylinders K.C. 1012
 Couplers - Simplex 6"x8"x14 1/2" Shank Type "D"
 Draft Gear - Cardwell Friction Type "G" Class 18
 Axles - 6 1/2" x 10" Journals
 Trucks - Vulcan Cast Steel Side Frames
 Bolster - Simplex
 Journal Boxes - Malleable Iron
 Hand Brake - Universal Booster

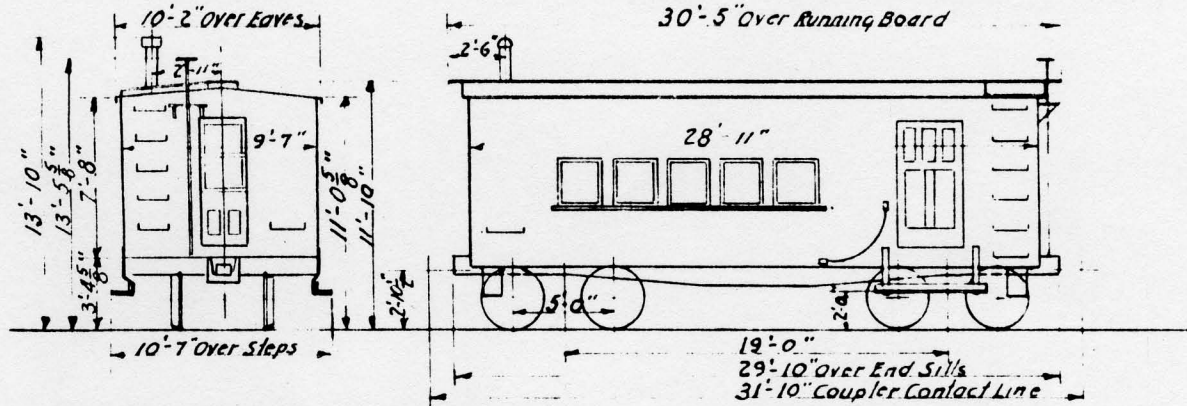
Brake Beams - Creco
 Wheels - 33" Griffin F.C.S. 840*
 Capacity of Car - 120000 Lbs.
 Weight of Car Empty - 33900 Lbs.

No. 527



Brake Beams - Creco.
Wheels - 33" Griffin F. C. S.
Underframe - Structural & Pressed Steel
Body - All Steel
Weight - Light 41700 lbs.

STEEL KITCHEN & BUNK CAR No. 528



Air Brakes - Westinghouse 10"x12" Cylinder K.C. 1012
 Couplers - Simplex 6"x8"x14 1/2" Shank Type "D"
 Draft Rigging - Cardwell Friction Type "G" Class 18
 Axles - 6 1/2"x10" Journals.
 Trucks - Vulcan Cast Steel Side Frame.
 Bolster - Simplex
 Journal Boxes M&Cord Malleable Iron
 Brake Beam - Creco.

Wheels - 33" Griffin F.C.S.
 Underframe - Structural & Pressed Steel.
 Body - All Steel / Wood Lined
 Weight - 42000 lbs.

UTAH COPPER CO.
ORE DELIVERY DEPT.

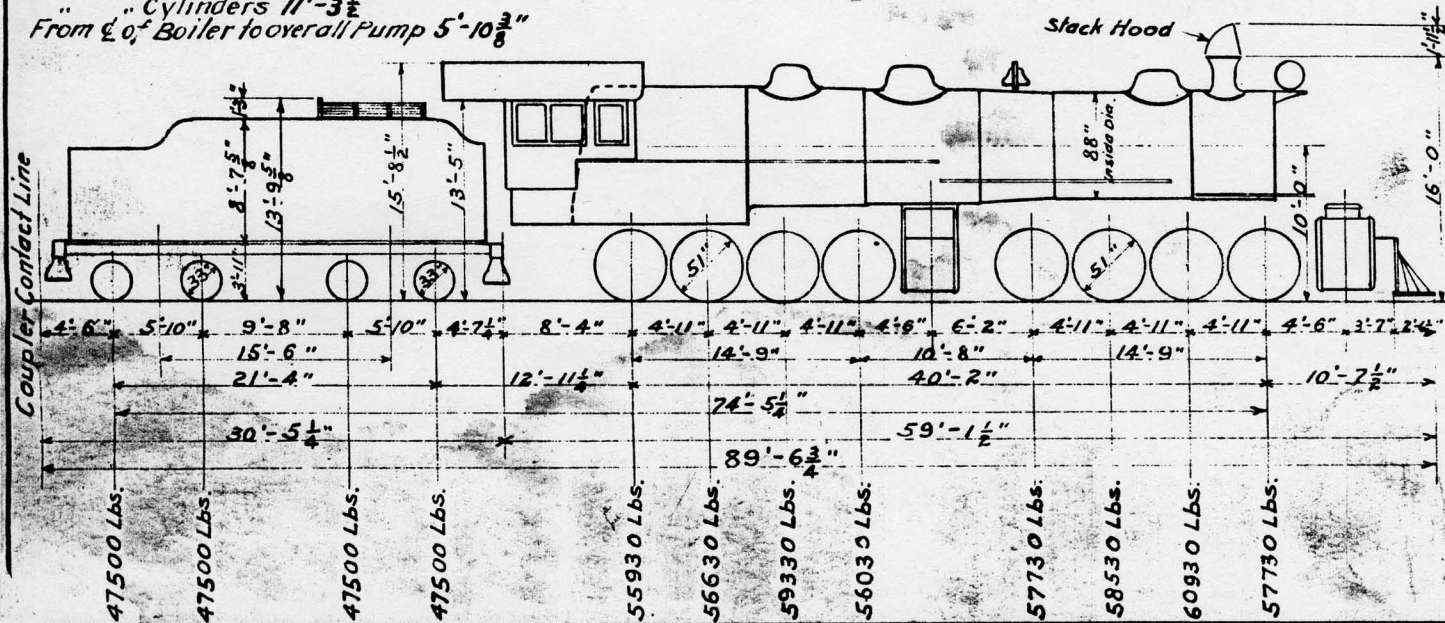
Width over Cab 11'-4"

" " Running Boards 11'-3"

" " Cylinders 11'-3½"

From & 0, Boiler to over all Pump 5'-10³/₈"

ENGINES 100 TO 106



UTAH COPPER CO. ORE DELIVERY DEPT. MALLET ARTICULATED COMPOUND ENGINES 100 TO 106

Cylinders-----	H.P. 26"x28"-LP 40"x 28"	Total weight of Engine-----	462840 Lbs.
Boiler Pressure-----	220 lbs.per sq. in.	Capacity of Tender, Water-----	11200 Gals.
Diameter of Driving Wheels-----	51"	Capacity of Tender, Coal-----	12 Tons
Length of Firebox-----	126"	Total weight of Tender, Loaded-----	190000 Lbs.
Width of Firebox-----	114"	Total weight of Eng. & Tender, Loaded-----	652840 Lbs.
Brick Arch - 5 3½" Arch tubes		Tractive Force, Compound, 102000*; Simple, 123000*	
Boiler tubes Engines 100, 101, 102, 103 and 106; 270-2¼" dia & 42-5½" dia.		Superheater-----	Schmidt Fire Tube
Boiler tubes, Eng. 104 & 5; 261-2¼" dia & 42-5½" dia.		Cab-----	Steel
Length of boiler tubes-----	24'-0"	Tank Frame-----	Str. Steel
Heating surface, tubes; Eng. 100, 101, 102, 103, 106 =	5245 sq. ft.	Driving axle journal-----	10" x 12"
Heating surface, tubes; Eng. 104 & 105 =	5218 sq. ft.	Tender axle journal Eng. 100 to 103 =	5½" x 10"
Heating surface, Fire box-----	353 sq. ft.	Tender axle journal Eng. 104 to 106 =	6" x 11"
Heating surface, Arch Tubes-----	60 sq. ft.	Air pumps; 2 Westinghouse 8½" cross compound	
Heating surface, Total; Eng. 100, 101, 102, 103, 106 =	5658 sq. ft.	Stoker; Eng. 100 to 105; Standard Modified Type D	
Heating surface, Total; Eng. 104 & 105 =	5631 sq. ft.	Stoker; Eng. 106, Street type D Duplex OUT-1939	
Grate area-----	100 Sq. Ft.	Feed Water heater-----	Elesco.
Weight on drivers-----	462840 Lbs.		

Width Over Cab

10'-1 1/2"

ENGINES 107 & 108

" " Running Boards

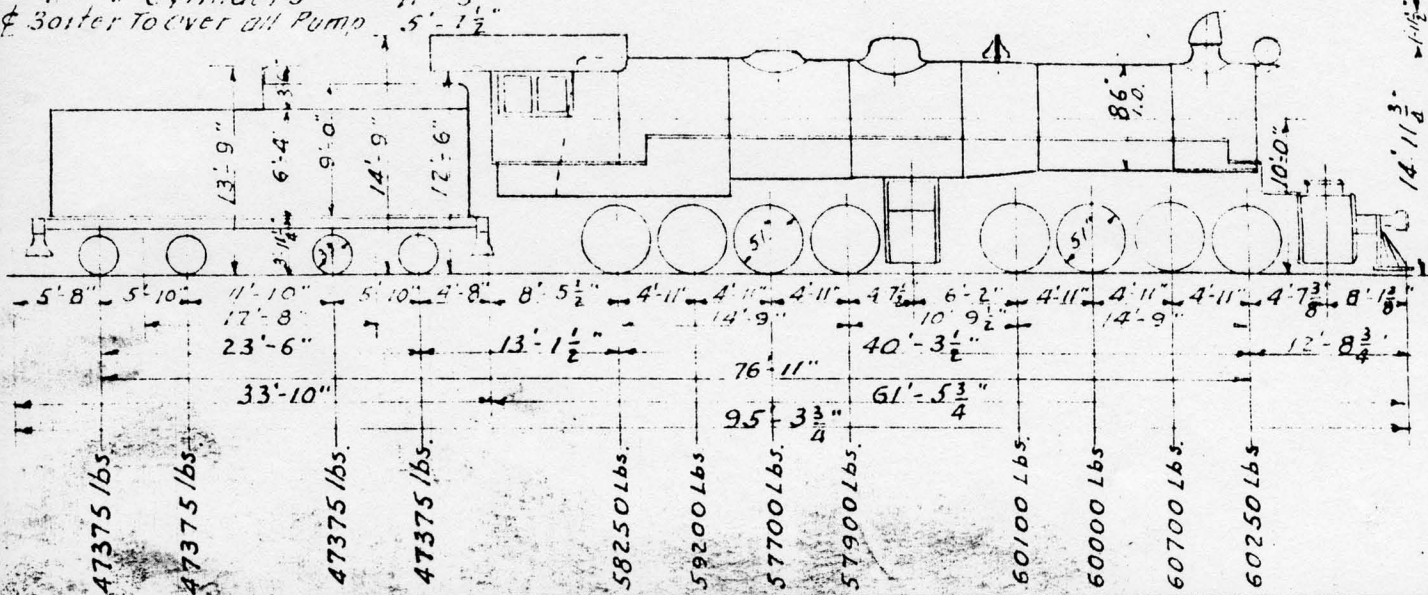
10' 10"

" " Cylinders

11'-3"

& Boister To cover all Pump

5'-1 1/2"



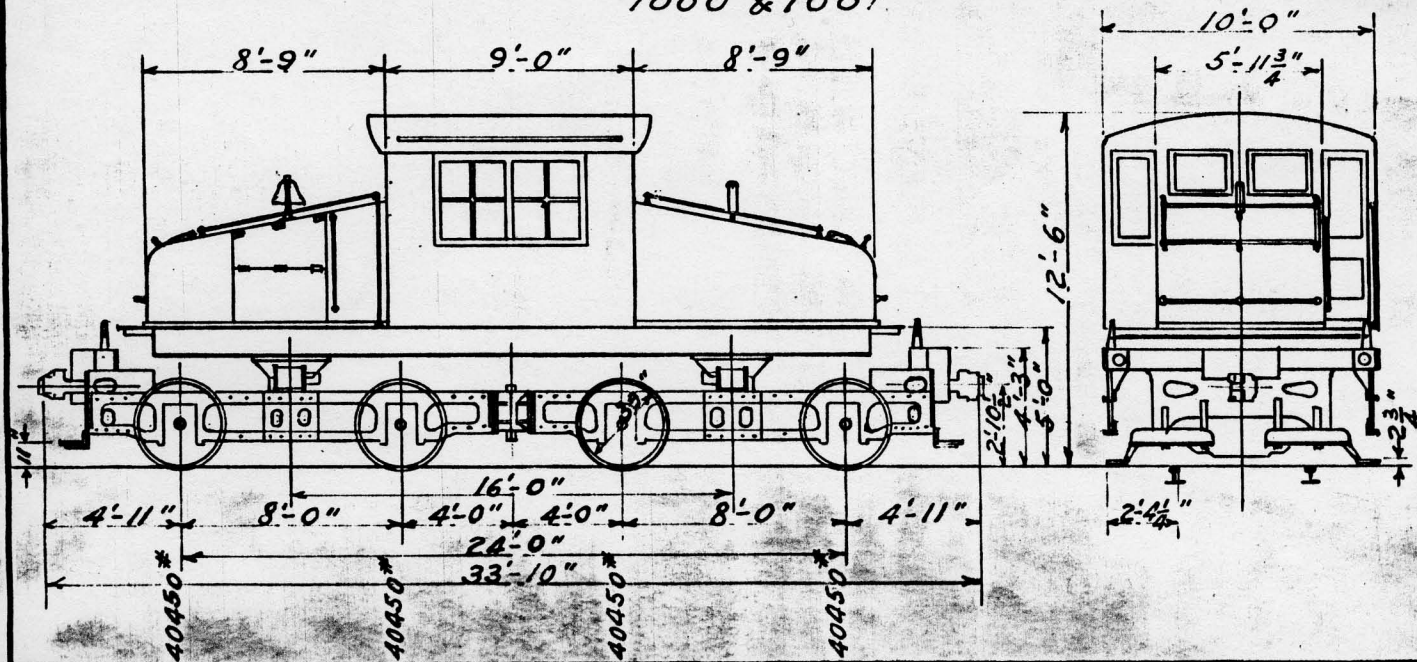
UTAH COPPER CO ORE DELIVERY DEPT. MALLET ARTICULATED COMPOUND ENGINES

— 107 & 108 —

Cylinders....H.P. 26"x28" L.P. 40"x28"	Capacity Tender Water...12000 Galls.
Boiler Pressure.....230 lbs.	Capacity Tender Coal.....13 Tons
Diameter Of Driving Wheels.....51"	Total Weight Tender Loaded...189500 lbs.
Length Of Fire Box.....150 $\frac{1}{8}$ "	Total Weight Eng & Tender Loaded...663600 lbs.
Width Of Fire Box.....96 $\frac{1}{4}$ "	Tractive Power Compound 107000 lbs. Simple 128000 lbs.
Brick Arch.....5-3 $\frac{1}{2}$ " Arch Tubes	Super heater...Locomotive Superheater Co. Fire Tube Type
Boiler Tubes...243-2 $\frac{1}{4}$ " Dia. 50-5 $\frac{1}{2}$ " Dia.	Cab.....Steel.
Length Of Boiler Tubes.....23'-0"	Tank Frame...Commonwealth Cast Steel.
Heating Surface Tubes.....4948 Sq.Ft.	Size Driving Axles Journal.....10 $\frac{1}{2}$ "x13"
Heating Surface Arch Tubes.....54 Sq.Ft.	Size Tender Axle Journal.....6"x11"
Heating Surface Fire Box.....311 Sq.Ft.	Air Pumps 2-Westinghouse 8 $\frac{1}{2}$ " Cross Compounds.
Heating Surface Total.....5313 Sq.Ft.	Stoker...Standard Modified Type "B"
Grate Area.....81 Sq.Ft.	Feed Water Heater.....Elesco.
Weight On Drivers.....476350 lbs.	
Total Weight Of Engine...476350 lbs.	

238175

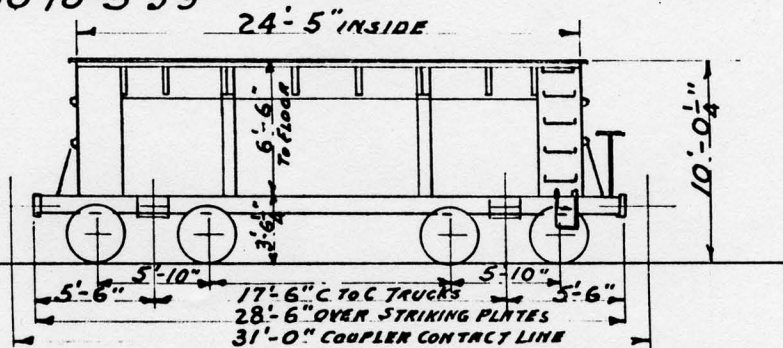
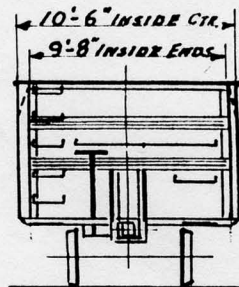
1000 & 1001



ELECTRIC LOCOMOTIVES 1000 & 1001

Type	0440-E-160-4 GE-69C-600	Motors	4-Type 6E-69-C-600 Volt DC
Diameter of Driving Wheels	39"	Maximum Safe Operating Speed	35 M.P.H.
Weight of Electrical Equipment	39900 lbs.	Maximum Emergency Speed	40 M.P.H.
Weight of Air Brake & Compressor	5900 lbs.	Motor Rating	280 Amperes 600 Volts,
Weight of Mechanical Equipment	116000 lbs.	per Motor	1-Hour continuously with a
Weight Total	161800 lbs.	rise in temperature of	75°C.
Weight on Drivers	161800 lbs.	Tractive Effort with 280 Amperes per	
Axles	O.H. Hammered Steel With 6"x13" Journals.	Motor	22200 lbs.
Draft Gear	Twin Springs M.C.B. 5"x7" Coupler.	Tractive Effort with 450 Amperes per	
Air Brakes	G.E.Co. Schedule LT with 1-CP-26	Motor	40000 lbs. (25% Weight on Drivers)
Compressor and	2-24"x46" Reservoirs.		
Gear Ratio	3.78 68 Gear & 17 Pinion Teeth.		
Control	2-Type M. Multiple Unit Controllers.		
Collecting Device	1-Pantograph with a		
	15'-0" To 21'-0" Height Variation.		
Headlights	2-Sunbeam Incandescent Type.		

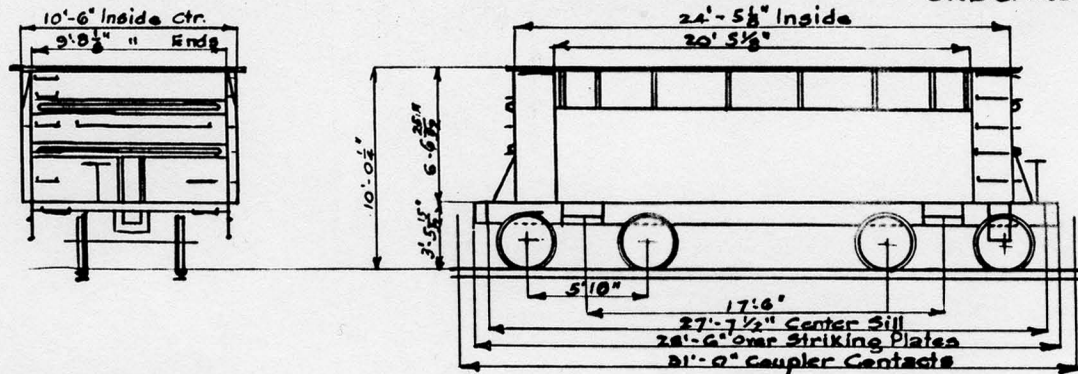
ORE CARS 500 TO 599



Air Brakes...Westinghouse KDE 10-12
Couplers...A.R.A. Type D 6"x8" Shank
Draft Rigging...Westinghouse Friction N-11-A
Axles...A.R.A. 6 1/2"x12" Journals
Journal Boxes...Symington
Trucks...Dalman-Vulcan Type
Bolster...Cast Steel
Brakes...Simplex Clasp Brakes

Wheels...Schoen Rolled Steel
Marked Capacity Of Car...195000 lbs.
Cubic Capacity Level Full...1625 Cu.Ft.
Cubic Capacity With 30° Heap...1825 Cu.Ft.
Average Light Weight...54800 lbs.
Weight Of 30° Heap Load...200,750 lbs.
Total Weight With 30° Heap Load...255,550 lbs.
Axle Load " " " " 63890 lbs.

ORE CARS 600-849

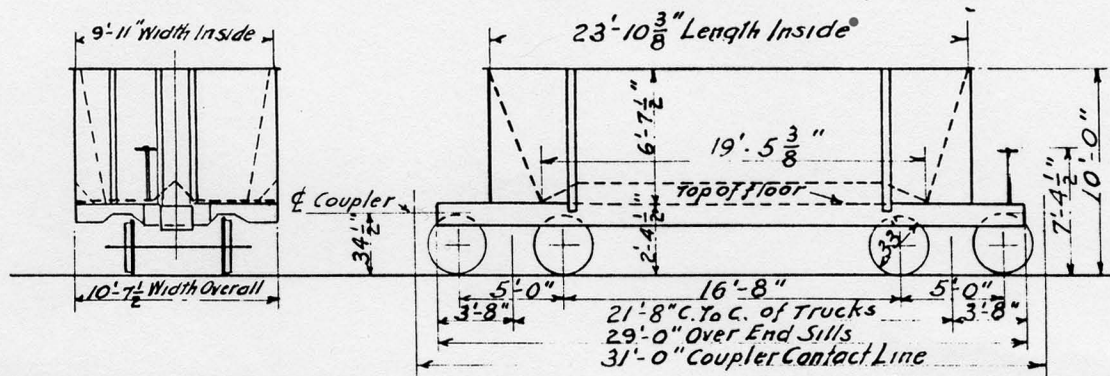


Body - Cumoloy Steel
 Air Brakes, Westinghouse AB 8-10
 Couplers, A.A.R. Type E
 Draft Rigging, Westinghouse NY-11E, Miner A-22XB, Edgewater B-32KA
 Axles, A.A.R. 6 1/2 x 12 Journals
 Journal Boxes, National
 Trucks, Double Truss, Alloy Cast Steel
 Bolster, Alloy Cast Steel
 Brakes, Simplex Clasp

Wheels, 33" Rolled Steel
 Center Sill, A.A.R. 12 1/2" L, 31.3 lb.
 Pipe, Copper.
 Hand Brake Booster, Universal
 Cubic Capacity, Level Full,
 Light Weight
 Load
 Total
 Axle Load

1625 Cu. Ft.
 45,770 Lb.
 190,000 Lb.
 235,770 Lb.
 58,940 Lb

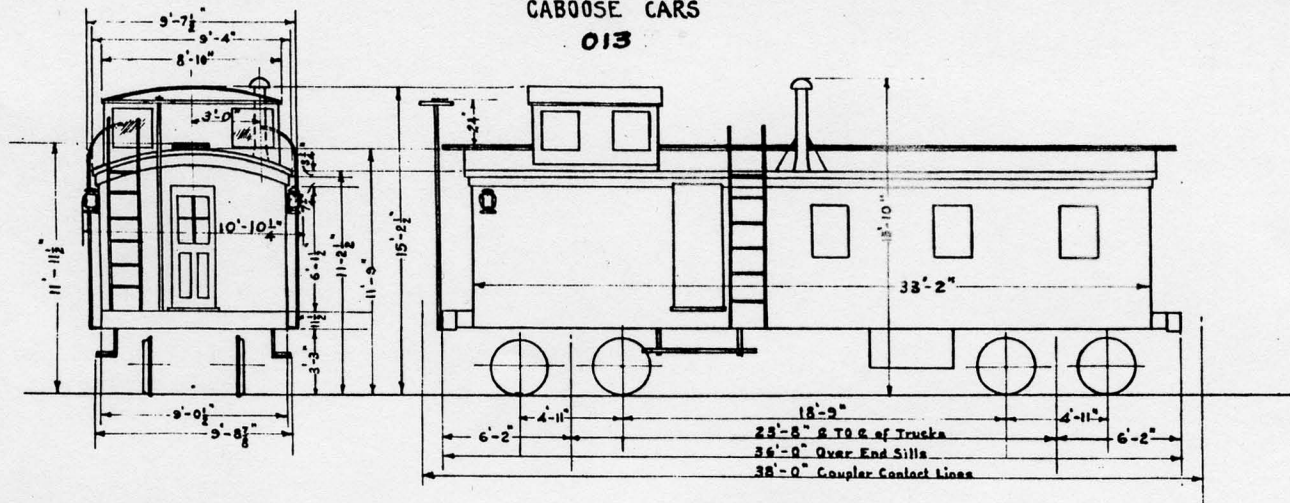
ORE CARS 1000 TO 1649



Air Brakes - Westinghouse E & L K-D-E 1010
Couplers - A.R.A. Type "D" - 6" x 8" x 14 1/2" Shank
Draft Rigging - Westinghouse Type N-1
Axles - 6 1/2" x 10" Journals
Journal Boxes - M^c Cord Malleable Iron
Trucks - Arch Bar Type Also Vulcan C.S. Frames.
Bolster - Reliance
Brake Beams - Creco E. & L.
Wheels - Schoen Rolled Steel & Davis C.S.

Capacity Of Car 80 Tons or 160000 lbs.
Cubic Capacity 1418 Cu. Ft. or 53.6 Cu. Yds.
Cubic Capacity With 30° Heap 1520 Cu. Ft.
Average Light Weight 42500 lbs.
Total Weight With 30° Heap Load 202,500 lbs.
Axle Load 50,625 lbs.

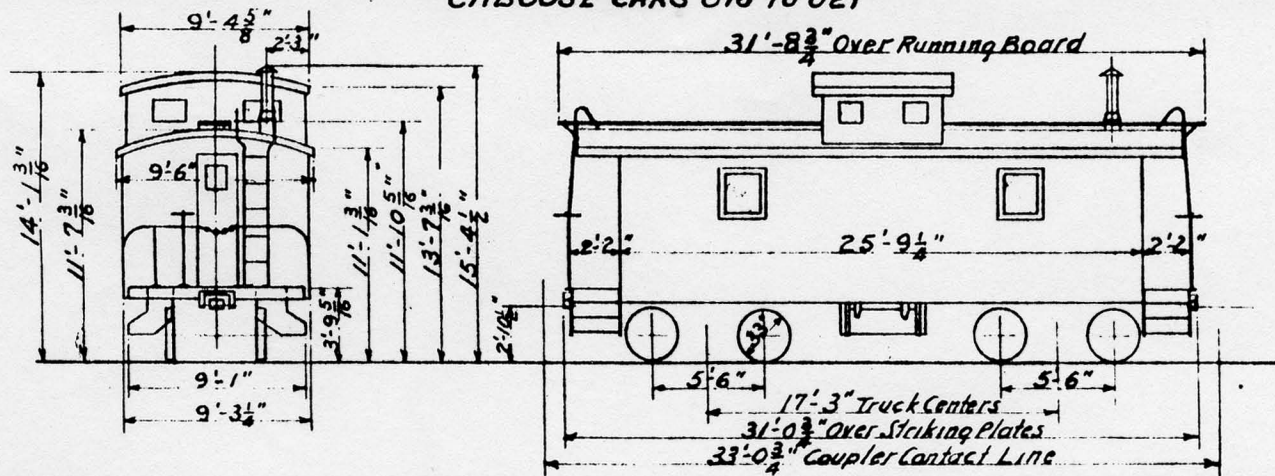
CABOOSE CARS 013



Air Brakes - Westinghouse HC-812. 8" Cylinder
Couplers
Draft Rigging
Journals Bearings - M.C.B.
Bolster - Wooden
Weight of Car 31300 lbs.

Brake Beam - Wooden
Wheels - 33" Cast Iron
Axles - 4"x7" Journals
Trucks - Arch Bar Type. 1 1/4"x3" Top and 1 1/8"x3" Bottom
with 3/4"x3" Tie Bar.

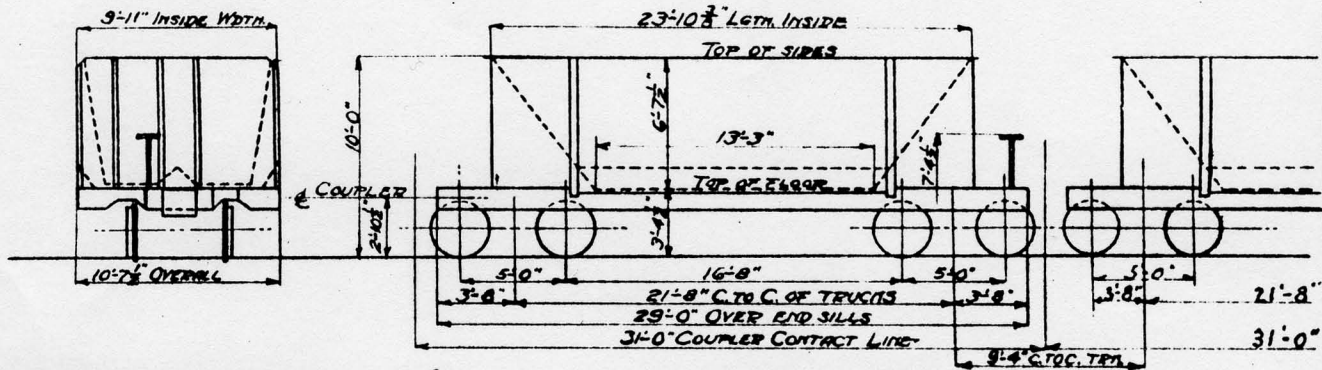
CABOOSE CARS 016 TO 021



Underframe	--- All Steel Construction.	Truck Side Frames	--- Vulcan Cast Steel.
Body Frame	--- Steel Construction.	Bolster	--- Cast Steel.
Couplers	--- A.R.A. Type "D" 6"x8" Shank.	Wheels	--- 33" Cast Iron A.R.A. Std. 650 lbs.
Coupler Yokes	--- Cast Steel.	Axles	--- A.R.A. Std. 4 1/4"x8" Journals.
Draft Rigging	--- Cardwell Type G-11-A.	Journal Boxes	--- A.R.A. Standard.
Air Brakes	--- Westinghouse K-D-812 With K-1 Triple.	Weight Of Car	-----

UTAH COPPER CO.
DEPT. OF MILLS

BALL CARS
1109 & 1114



AIR BRAKES - WESTINGHOUSE - C. & L.
COUPLERS - SIMPLEX 5"x7"x14½" & M.C.B. 6"x8"x14½"
DOORS - 6-3 ON EACH SIDE OF CAR.
DRAFT RIGGING - WESTINGHOUSE FRACTION TYPE "N".
AXLES - 6½" x 10" JOURNALS
JOURNAL BEARINGS - M.C.B. TYPE FOR 6½" x 10" JOURNAL.
TRUCKS - ARCH BAR TYPE 1½" x 6" O.N. STL. TOP AND BOTTOM
WITH ½" x 6" TIE BAR

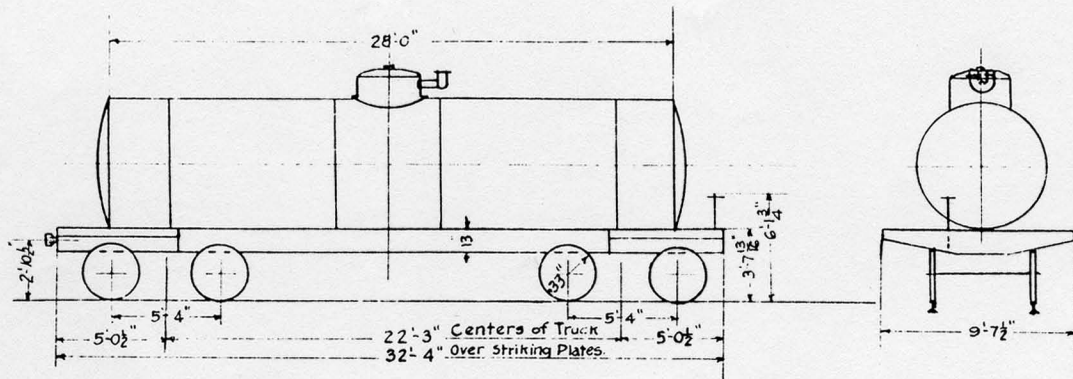
BOLSTERED-RELIANCE.

JOURNAL BOXES - 17" CORD MALLEABLE IRON.
BRASS BEAMS - GREGO E. & L.
WHEELS - - - - - 33" CAST IRON F.C.S.

CUBIC CAPACITY-1221 CU. FT. OR 45.2 CU. YDS.
MARKED CAPACITY OF CAR-120000 LBS.
10% OF MARKED CAPACITY-12000 LBS.
WT. OF CAR EMPTY- 42900 LBS.
TOT. WT. OF CAR WITH MAX. LOAD-174,900 LBS.
AXLE LOAD-43725 LBS.

STEEL UNDERFRAME TANK CAR

6000 6002



STEEL UNDERFRAME TANK CAR

6000

6002 (Car No 6002 has Tank Removed)

Weight 41200/lbs. Capacity 100,000 lbs.
 Capacity 7000 Gals.
 Draft Gear Cardwell Standard Friction Type 611
 Couplers 5"x7" Shank Penn. M.C.B. Automatic Cast Steel
 Brakes Westinghouse Type, Automatic
 Hand Brakes Operates in Connection with Air.
 Trucks Rigid Diamond Arch Bar
 Gauge 4'-8½"
 Class of Truck American Car & Fdry Co's. Type 3
 Arch Bars Top & Bottom 1½"x5 Tie Bar 5"x5 Wrought Iron
 Truck Bolster American Car & Foundry Co. Giant Type
 Wheels 725# Cast Iron M.C.B. 33" Chilled Tread
 Axles 5½"x10" Journals M.C.B. Standard
 Journal Boxes Cast Iron M.C.B. Strd. for 5½"x10" Journals

Journal Bearings 5½" x 10" M.C.B. Lead Lined
 Journal Box Lids M.C.B. Top Hung
 Truck Springs M.C.B. Class D
 Brake Beams Waycott #2
 Brake Shoes M.C.B. Cast Iron

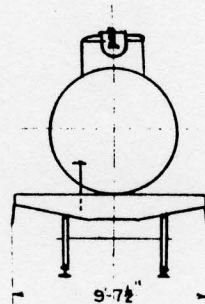
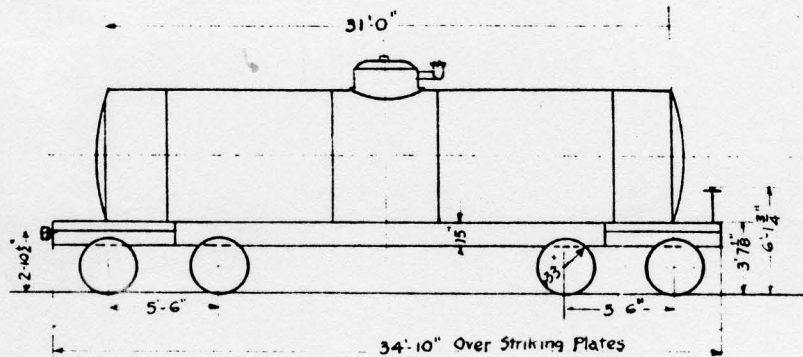
Tank

Inside Diameter 77¾"
 Shell ¾" Steel
 Heads of Tank ½" Steel, Dished to 10' Rad.
 Dome of tank ¾" Steel, 36" Dia. 19" High
 Dome of Head ¾" Fl Steel, Iron Manhole
 Discharge 2" Syphon Pipe
 Safty Valves 2-5" Valves for 6500 Cap. or Over
 Vents 2" Vent Valve.

SULPHURIC ACID TANK CAR

6003-6004

6007-6008



SULPHURIC ACID TANK CAR

6003-6004

6007-6008

CAR No's 6005 & 6006
CONVERTED

Capacity
Draft Gear
Couplers
Air Brakes
Striking Plates

Trucks

Design
Type
Gauge
Wheel Base
Wheels
Axles

50 Ton
Cardwell Friction Type G-11
M.C.B. Automatic Cast Steel
Westinghouse, K. Triple Valve
Cast Steel

M.C.B. Limit weight 161,000 lbs.
Rigid Diamond Arch Bar
4'-8½"
5'-6"
M.C.B. Standard
M.C.B. Standard

Journal Boxes

Journal Bearings
Brake Beams
Truck Springs

Type

Diameter
Shell
Bottom Sheet
Head
Dome
Unloading

Tank

Malleable Iron, M.C.B. Standard
For 5½" x 10" Journal
M.C.B. Standard
Huntoon, Trussed Steel
M.C.B. Class "D"

Sulphuric Acid
74"

⅜" O.H. Steel
½" O.H. Steel
½" O.H. Steel
⅜" O.H. Steel
Compressed Air