

# FREIGHT CARS

• HISTORY • MODELING • NEWS

JOURNAL



Editors

David G. Casdorph  
Eric A. Neubauer

Associate Editors

Jim Eager  
Pat Holden  
Al Tuner  
Richard Yaremko

Copyright © 1987 SFCH  
ISSN 0742-9355  
All Rights Reserved

\$15.00 USA/Canada  
\$22.00 All Others (Airmail)  
U.S. Dollar Funds Only

Above rates are for the calendar year 1987 only. Includes quarterly Freight Cars Journal and The Freightcarologist. Please make all checks payable to the "Society of Freight Car Historians" or "Freight Cars Journal."

Send Dues/Subscriptions to:

David G. Casdorph  
P.O. BOX 1458  
Monrovia, CA 91016

Published by:  
Society of Freight Car Historians

C O N T E N T S

Features

Reading Co. Freight Equipment  
Numerical List 1885-1901  
Eric A Neubauer.....4

Columns and Series

Freight Car News  
The latest purchases and  
transactions.....2

The Paper Train:1  
Papermaking processes, Ontario  
Northland boxcars and OMYA  
limestone slurry tankcars.....14

RACKS:1  
North America's newest built  
auto racks and conversions  
reviewed.....2

STACKS & FLATS:1  
Production lists for "Front  
Runner" and Thrall double-stack  
intermodal cars (H.O. scale  
models by Front Range and  
A-Line resp).....3

- COVER PHOTO -

P & R 14499 as built by Pressed Steel Car Co. in 1900 or 1901. Class XMc. Series 14000-14499 (500 cars). This is one of the cars listed in our feature article "Reading Co. Freight Equipment Numerical List 1885-1901 beginning on page 4 of this issue. Copyright 1987 Craig T. Bossler Collection.

RACKS: 1

by David G. Casdorph

First off you'll probably note that we've decided to split the "RACKS" portion of the column off from the "Stacks" portion. We felt this was best for subject continuity.

Quite a few things have happened in the "world of racks" since the July issue of FCJ. Generally speaking, there seems to be a trend of converting older open-top or open end enclosed-side racks into fully enclosed auto racks.

Let's review some of the highlights of the past year. [1] Santa Fe placed in service 100 new tri-level fully-enclosed racks built by Thrall Car, Winder, GA in late 1986. This is the first equipment for sometime to actually receive "ATSF" reporting marks. Numbers are ATSF 700200-700299. The flatcars were rebuilt by Santa Fe also in late 1986. Santa Fe class for this new series is TL-12. [2] Conrail placed two new classes of racks in service. The ML2F's were built by Greenville in 6-7-86 with "clamshell" doors and placed on TTGX initialed flats. The ML3E's were built by Thrall Car, Winder, GA in 7-8-86 and placed on ETTX initialed flats. Both of these are fully enclosed and are bi- and tri-level racks respectively. [3] CP Rail has been quite active with new built racks from Thrall Car mounted on Trailer Train flatcars (first time I've seen a Canadian company do this). So far we've seen ETTX, TTBX and TTGX initialed flatcars with their respective type of rack. First dates we've seen were 10-86, with the latest being 1-87. CP Rail also acquired a small number of nee-Milwaukee racks from the Soo Line in late '86 as well. [4] Florida East Coast acquired a small number of new-built bi-level racks from Thrall Car's Cartersville plant in December 1985. [5] Grand Trunk Western converted their 1984 TTNX initialed open-end (no doors) bi-levels to TTGX initialed bi-levels by adding doors. This was done by Greenville in 9-86 by adding their new design R.A.V.E. doors. [6] Norfolk & Western converted their class FT-54 TTVX initialed tri-levels to fully enclosed ETTX type racks in 12-86. N&W also acquired their FB-101 class TTGX type bi-levels built by Greenville in 3-4-86. [7] Southern also added another class, the FT-604's built by Thrall Car Chicago Heights (job 891) mounted on ETTX initialed cars. Southern also has been refurbishing the SOU 159000-159200 series tri-levels in 8-11-86. New class these are FT-66. [8] Southern Pacific had the SSW's Pine Bluff shops replace the chain doors on the SP 516313-516412 series with new "clamshell" doors in 9-11-86. A few of this series have had the inside second level removed and new equipment installed for saddleback style transport of large straight trucks and tractors. These also have roll-up doors on the ends of the racks. In addition -the logo on the side reads "Southern Pacific Unilevel" (SP 516396 as the example). [9] Finally, a new railroad entering

the auto rack business is the Waterloo Railway Co. In mid-1986 they acquired nearly a hundred new built racks (built by Thrall Car Cartersville). They are mounted on Trailer Train TTGX initialed flats. Waterloo's racks are painted a cream yellow with a large black WLO "logo" on the rack superstructure. They are bi-levels and WLO numbers them in the 1700's.

I thank Hal Brown Jr. and Ed Flaucher for their invaluable first-hand sightings that made this column possible!

FREIGHT CAR NEWS

Trinity Industries has just acquired Greenville Steel Car and Ortner Freight Car. This adds to their previously acquired Pullman-Standard and General American Transportation plants and new building rights and designs.

CLASS I & II RAILROADS

Chicago & North Western acquired a number of second-hand Pullman-Standard built 50'6" boxcars (PS lot 9988) from the Vermont Rwy., VTR 11000-11299 series. New numbers are in the CNW 640000 series.(CWS) Denver & Rio Grande Western acquired 200 new built 45' 102" insulated piggyback trailers built in October 1986 by Stoughton. Series is RGTZ 730000-730199. Illinois Central Gulf is renumbering their former Rex Railways cars (CLP, VTR, LVRC etc.) from the ICG 531000's to the 31000's (CWS). Kansas City Southern acquired 100 ex-Railgon 52'6" gondolas in 1986. New numbers are KCS 803006-803995 (HAL). Seaboard System (at that time) early last year acquired 100 Pacific Car & Foundry built boxcars second-hand from the St. Marys RR series 9001-9100. New series for these are SBD 142260-142359 (CWS). Union Pacific. Thrall Car Clinton shops rebuilt 67 cars into A-frame bulkhead flats in 5-6-86. Numbers are UP 217075-217141. These are 61'0" cars originally built in 1970 (CWS).

SHORTLINES

Atlanta & St. Andrews Bay Rwy acquired 49 used 1977 FMC built boxcars from the Lake Erie, Franklin & Clarion RR LEF 1000-1049 series. New numbers are ASAB 7400-7448 (CWS). Copper Basin Rwy picked up 25 used 52'6" gondolas formerly lettered MNS 6100-6124 from the Transportation Corp. of America. These 100-ton Thrall built gons retain the same numbers-thus the new series is CBRY 6100-6124 (CWS). Corinth & Counce RR received 25 used 50'6" boxcars from the New Orleans Public Belt. New series is CCR 6806-6830 (CWS). Escanaba & Lake Superior RR has acquired nearly 300 used St. Lawrence RR 50'6" boxcars. The ELS numbers remain unchanged from the NSL 101600-101899 series (built as Pullman-Standard lot 9962) (CWS). Hollis & Eastern RR placed in service 60 brand-new purple and white 60'8" 100-ton bulkhead flatcars built by Pullman-Standard (Trinity) as lot 2013 in 12-86-1-87. Series is HE 16001-16060 (HAL). CWS=Carl W. Shaver. HAL= Hal Brown Jr.

# STACKS & FLATS: 1 INTERMODAL FREIGHT CARS

## FRONT RUNNER® PRODUCTION LIST-DECEMBER 1986 (H.O. SCALE MODEL: FRONT RANGE)

INIT	SERIES NUMBER	QUANTITY	DATES BUILT	BUILDER	CLASS	TRUCKS	NOTES
GNAX	999	1	9-84	Thrall Car-Chicago Heights	None	?	
PLWX	90	1	9-83	?	None	?	Demonstrator
TTUX	110013	1	2-83	Pullman Leasing	PLF 10	?	
TTUX	110016	1	?	?	?	?	
TTUX	120000-120017	18	9=10-83	Pullman Leasing	PLF 100	?	
TTUX	121000-121049	50	5-84	Thrall Car-Chicago Heights	TLF 10A	Unitruck	
TTUX	121050-121499	450	6=8-84	Thrall Car-Chicago Heights	TLF 10	Leaf	
TTUX	121500-121649	150	8=9-86	Thrall Car-Cartersville	TLF 10A	Unitruck	
TTUX	130000-130249	250	6=8-84	United American Car-CRTS	ULF 10	Leaf	
TTUX	130250-130349	100	11=12-86	Hyundai-Korea	YLF 10	Unitruck	Assembled by Gunderson
TTUX	135000-135199	200	9=12-84	Midwest Freight Car-Clinton	OLF 10A	Unitruck	(Portec)
TTUX	135500-135749	250	10=11-85	Bethlehem Steel Corp.	BLF 10	Leaf	
TTUX	140000-140379	380	8=10-84	Pacific Car & Foundry	CLF 10	Leaf	
TTUX	145000-145294	295	9-84=1-85	PSM-Bessemer (Trinity)	RLF 10	Leaf	
TTUX	145295-145594	300	6=8,10-86	PSM-Bessemer (Trinity)	RLF 10A	Leaf	

2447

About 16% of the cars have the Unitrucks and 84% have the Leaf Springs (see photos page 12, Freight Cars Journal #11, August 1985) For Modelers, Front Range Products has produced an HO scale kit (4140-4141) of this car design. The kit, fortunately, is good for the more common leaf spring trucked cars.

## THRALL DOUBLE STACK CONTAINER CAR PRODUCTION- NOVEMBER 1986 (H.O. SCALE MODEL: A-LINE/PROTO POWER WEST)

INIT	SERIES NUMBER	QUANTITY	JOB NO.	OPERATOR	DATES BUILT	CLASS	END WELLS	INTER. WELLS	NOTES
APLX	2000-2064	65	828	APL	2=4-84	None	40' x 8'	40' x 8'	1,2,3
APLX	2065-2085	21	844	APL	10=84=1-85	None	40' x 8'	40' x 8'	1,2,3
APLX	2086-2139	54	847	APL	1=3-85	None	40' x 8'	40' x 8'	1,2,3
APLX	2140-2160	21	853	APL	3=4-85	None	40' x 8'	40' x 8'	1,3
APLX	2161-2166	6	862	APL	4=5-85	None	40' x 8'	40' x 8'	1,3
APLX	4500-4541	42	863	APL	7=8-85	None	40' x 8'	45' x 8'	4
APLX	4542-4562	21	865	APL	8=9-85	None	40' x 8'	45' x 8'	4
APLX	4563-4585	23	866	APL	9=10-85	None	40' x 8'	45' x 8'	4
DTTX	62000-62019	20	857		4=5-85	TWG 50	40' x 8½'	40' x 8½'	1,3
DTTX	62020-62039	20	859		5=6-85	TWG 50	40' x 8½'	40' x 8½'	1,3
DTTX	62040-62059	20	861	U.S. Lines	5=6-85	TWG 50	40' x 8½'	40' x 8½'	1,3
DTTX	62060-62079	20	861		5=6-85	TWG 50	40' x 8½'	40' x 8½'	1,3
DTTX	62080-62119	40	864		6=7-85	TWG 50	40' x 8½'	40' x 8½'	1,3
DTTX	62120-62139	20	872	K-Line	12-85	TWG 50A	40' x 8½'	40' x 8½'	1,3
DTTX	62140-62159	20	879	K-Line	1=2-86	TWG 50B	40' x 8½'	40' x 8½'	1,3
DTTX	62160-62169	10	893	Santa Fe	5=6-86	TWG 50B	40' x 8½'	40' x 8½'	1,3
DTTX	62170-62179	10	400	Santa Fe	5=6-86	TWG 50B	40' x 8½'	40' x 8½'	1,3
DTTX	62180-62199	20	896	APL	4=5-86	TWG 50D	45' x 8'	45' x 8'	5
DTTX	62200-62239	40	898	APL	6=7-86	TWG 50E	48' x 8½'	48' x 8½'	5
DTTX	62240-62244	5	893		5=6-86	TWG 50C	40' x 8½'	40' x 8½'	1,6
DTTX	62245-62249	5	893	U.S. Lines	5=6-86	TWG 50C	40' x 8½'	40' x 8½'	1,6
DTTX	62250-62259	10	400	U.S. Lines	5=6-86	TWG 50B	40' x 8½'	40' x 8½'	1,3
DTTX	62260-62262	3	893		5=6-86	TWG 50C	40' x 8½'	40' x 8½'	1,6
DTTX	62263-62287	25	410	APL	7=8-86	TWG 50F	40' x 8'	45' x 8'	3
DTTX	62288-62383	96	411	APL	8=10-86	TWG 50G	40' x 8½'	48' x 8½'	3
DTTX	62384-62399	16	421	K-Line	10-86	TWG 50B	40' x 8½'	40' x 8½'	1,3
DTTX	62400-62443	44	418	APL	10=11-86	TWG 50G	40' x 8½'	48' x 8½'	3
DTTX	110020	1	846		5-85	TWG 50P			7

698

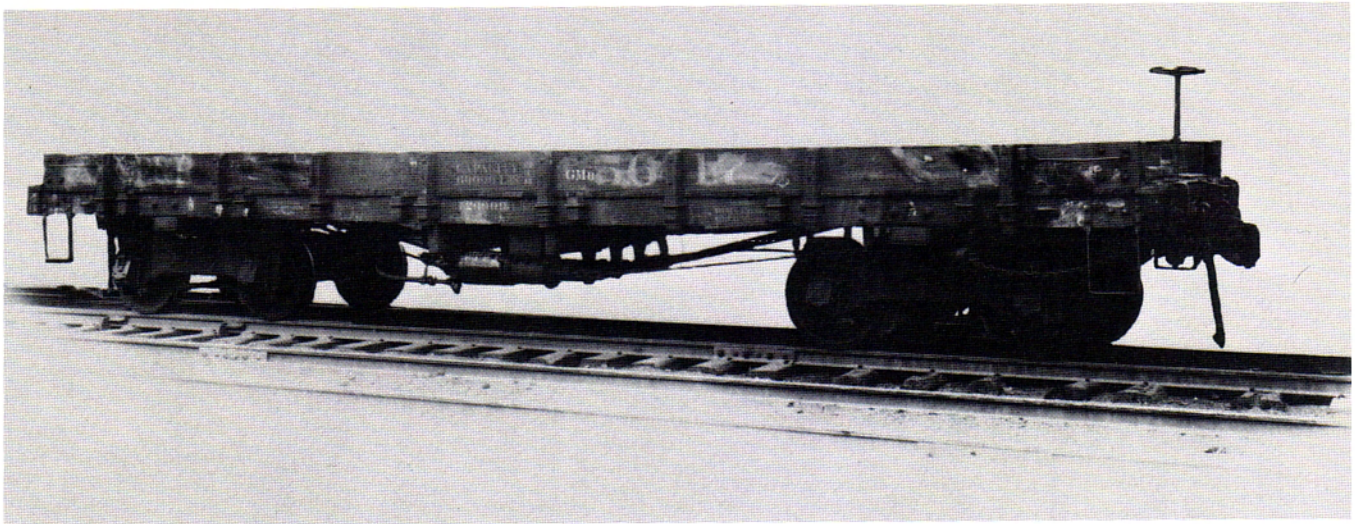
### NOTES -

- These series are good for the A-Line (Proto Power West) Thrall Container Car H.O. Scale kits (the 5-unit set is stock # 26103). Other series may be made by kitbashing and modifications
- Six cars from these series (nos. 2002, 2083-2085 and two others) were built with generator sets (and painted red) for transporting refrigerated containers. These were later renumbered to 5000,5002,5004,5006,5008 and 5010. In addition six other cars from these series were converted (and painted red and blue) and renumbered 5001,5003,5005,5007,5009 and 5011 as "companion" cars to the generator equipped sets. These later "companion" cars have only the electrical harness running from the generator cars. These sets are considered "semi-permanently" coupled.
- 20' container capability in end wells only.
- 20' container capability in "A" well only.
- No 20' container capability.
- All wells capable of carrying 20' containers
- A demonstrator/test car with the center well being 48' x 8½'. There are trailer hitches on the B,C,E and A wells. Length is 282'0".

# READING CO. FREIGHT EQUIPMENT-NUMERICAL LIST 1885-1901 TEXT, LIST & SCALE DRAWINGS © 1987 ERIC A. NEUBAUER PHOTOGRAPHS & CAR DIAGRAMS © 1987 CRAIG T. BOSSLER

The following is a "numerical list" (as opposed to roster) of the Reading Co. from 1885-1901. A couple notes of explanation: "Numbers" column represents the car numbers and/or series. "Class" is the lettered class system used by the Reading Co. "Source" is where the car came from; the builder, unknown or renumbered (reno) from another car series. "Date" means the date the car was built new or the date renumbered ("BEF" in this column indicates "before"). "Previous Series" will indicate either the ex- number (series) or if it was new. The following is a list of builders:

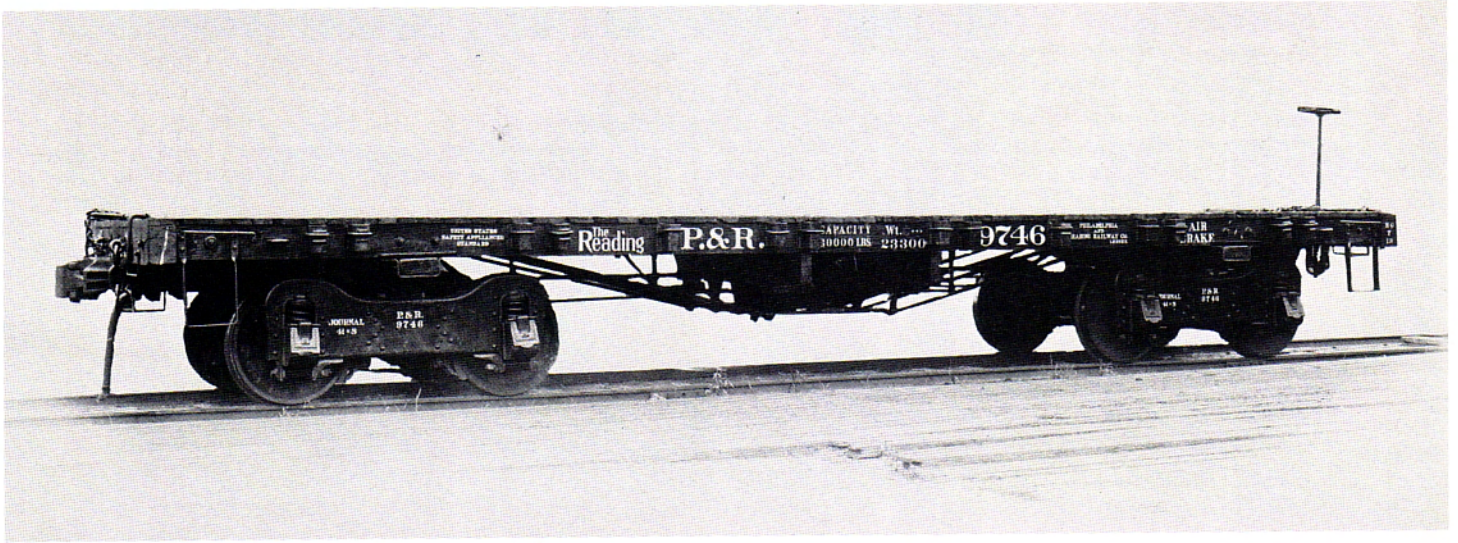
ACF BUF	American Car & Foundry-Buffalo	MD MILT	Murray Dougal-Milton
ACF CHI	" " " -Chicago	MID MID	Middleton-Middleton
ACF DET	" " " -Detroit	MP DET	Michigan Penninsular-Detroit
ACF MILT	" " " -Milton	P&R RDG	Pennsylvania & Reading- Reading
CARL CARL	Carlisle Co.-Carlisle	PSC PGH	Pressed Steel Car Co.-Pittsburgh
HCC HBG	Harrisburg Car Co.-Harrisburg	PULL PULL	Pullman Car Works-Pullman
J&W BER	Jackson & Woodin-Berwick	UCC DPW	Union Car Co.-Depew
LEB LEB	Lebanon-Lebanon		



*P&R 5617, a class GMB gondola car. This car was originally built in 1897 by Michigan Penninsular.  
Craig T. Bossler Collection*

READING CO. FREIGHT EQUIPMENT-NUMERICAL LIST 1885-1901

NUMBERS	CLASS	QUAN	SOURCE	DATE	PREVIOUS SERIES	NOTE
01-0251	TM*	?	UNKNOWN	BEF1885		1
01-0251	GM*	153+	REBLT	1887-89	FROM 01-0251(TM*)	
1-1300	XM*	1192+	UNKNOWN	BEF1882		
1301-1312	R**	12	BUILT P&R RDG	1881	NEW	2
1313-1500	XM*	180+	BUILT P&R RDG	1881	NEW	
A1100-A1199	XM*	?	UNKNOWN	BEF1885		3
1501-4764	GM*	2920+	UNKNOWN	BEF1887		
2119	FG*	1	UNKNOWN	1865		4
3902	GM*	1	BUILT P&R RDG	1884	NEW	5
4090	GM*	1	UNKNOWN	1887		6
4765-5264	GMA	500	BUILT PULL	1892	NEW	
4901-4965	H**	59+	UNKNOWN	BEF1885		7
4966+6654	H**	?	UNKNOWN	BEF1885		8
5000-5074	XM*	?	UNKNOWN	BEF1885		9
5265-5514	GMB	250	BUILT CARL CARL	1896	NEW	
5515-5714	GMB	200	BUILT MP DET	1897	NEW	
5301-5707	H**	110+	UNKNOWN	BEF1887		10
5715	FG*	1	RENO	1900	FROM 2119	4
5716	GM*	1	RENO	1900	FROM 3902	5
5717-6050	GM*	321+	RENO	1901	FROM W&N 233+900?	
6000-6024	XM*	24+	UNKNOWN	BEF1885		9
6100-6199	XM*	0?	UNKNOWN	BEF1885		11
6200-6250	XM*	51	UNKNOWN	BEF1890		11
6251-6349	XM*	99	UNKNOWN	BEF1890		11
7001-7466	XM*	466	BUILT P&R RDG	1882-84	NEW	
7467-7478	R**	12	BUILT P&R RDG	1884	NEW	2
7479-7482	XM*	2+	UNKNOWN	BEF1890		
7483-7490	XM*	6+	UNKNOWN	BEF1895		
7500-7999	GMC	500	BUILT MP DET	1899	NEW	
7890-8000	H**	10+	RENO	1890/94	FROM 5301+5707	10
8001-8222	HS*	213+	RENO	1885/89	FROM 4966+6654	12
8223-8499	H**	0?	RENO	1890/94	FROM 5301+5707	10
8300-8399	XM*	?	UNKNOWN	BEF1885		13
8500-8699	XM*	?	UNKNOWN	BEF1885		14
8501-8550	XH*	50	BUILT	1889	NEW	15
8701-8750	RM*	50	BUILT	1889	NEW	16
8751-8775	RMA	25	BUILT UCC DPW	1896	NEW	
9001-9195	H**	111+	RENO	1885/89	FROM 4966+6654	17
9118-9175	HM*	39+	RENO	1890/94	FROM 4901-4965	18
9301-9375	XM*	?	UNKNOWN	BEF1885		19
9350+9599	GMD	228	BUILT PSC PGH	1899-00	NEW	
9350+9599	GME	22	BUILT PSC PGH	1899-00	NEW	
9601-9625	XM*	25	UNKNOWN	BEF1885		19
9699	GM*	1	RENO	1900	FROM 4090	6
9700-9799	FM*	100	BUILT MP DET	1898	NEW	
9800-9924	XM*	125	UNKNOWN	1890/94		9
10001-10700	XMA	700	BUILT PULL PULL	1891	NEW	
10701-10800	XMA	100	BUILT PULL PULL	1892	NEW	
10801-11200	XMA	400	BUILT PULL PULL	1892	NEW	
10164&10778	XMB	2	REBLT	BEF1912	FROM XMA	



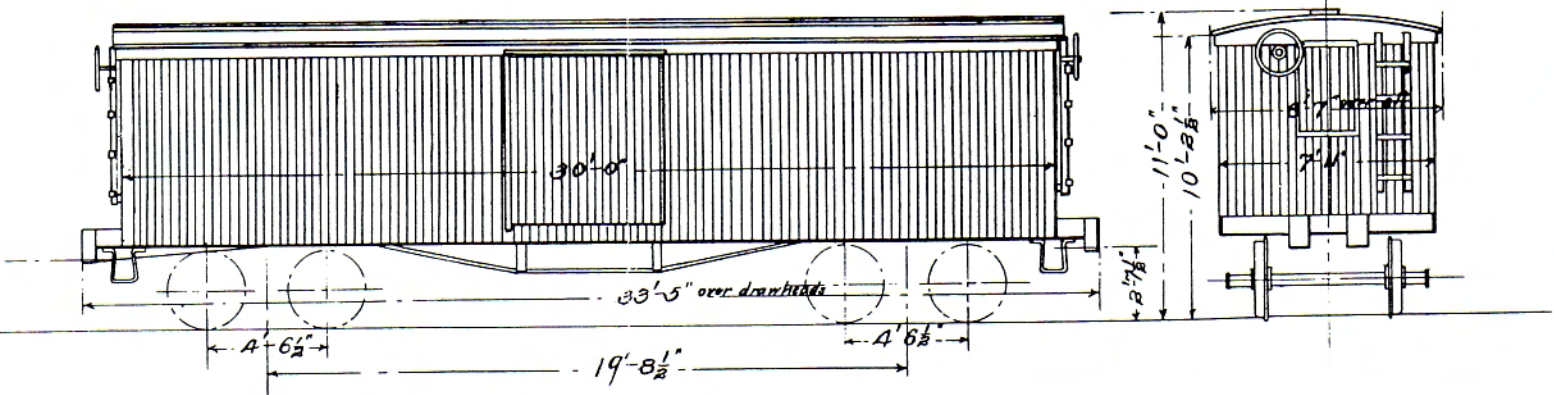
P & R 9746, part of the series 9700-9799 flat cars. Craig T. Bossler Collection

**REFRIGERATOR CAR**  
RIGWAY PATENT

*Inside dimensions*  
Length --- 29'-0"  
Width --- 6'-11 1/2"  
Height --- 6'-1"

**30 FT BOX CAR**

*Inside dimensions*  
Length --- 29'-4 1/2"  
Width --- 7'-3 1/2"  
Height --- 6'-6 1/2"

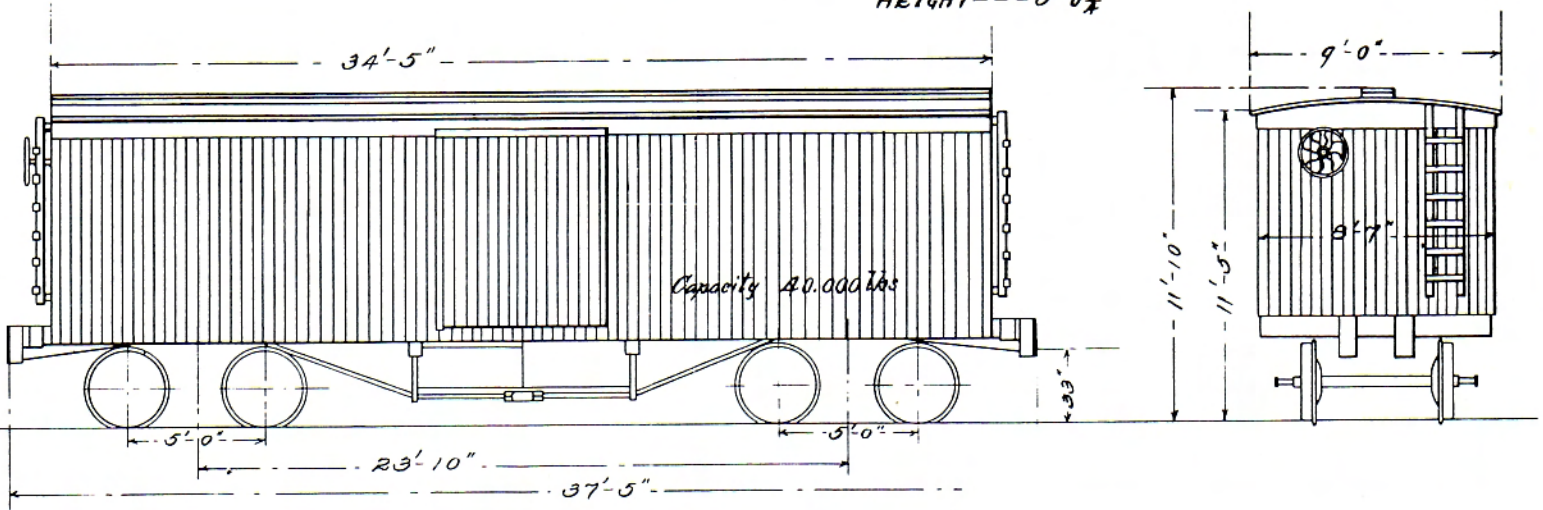


1301-1312  
Also similar to 7467-7478  
Craig T. Bossler Collection

11201-11450	XMB	250	BUILT	1896	NEW	
11451-11550	XMB	100	BUILT	1897	NEW	
12000-12049	XM*	50	UNKNOWN	1885/89		19
12050-12124	XM*	75	UNKNOWN	1890/95		19
14000-14499	XMC	500	BUILT PSC PGH	1900-01	NEW	
14001-14200	XM*	?	UNKNOWN	BEF1885		20
14501-14799	SM*	276+	UNKNOWN	BEF1883		
14501-14506	SMB	6	BUILT P&R RDG	1896	NEW	21
14800-14849	SM*	50	BUILT PULL PULL	1891	NEW	
15001-26085	HS*		UNKNOWN	BEF1890		22
19725-19884	RMB	160	BUILT ACF CHI	1900	NEW	
19885-19924	XVA	40	BUILT PSC PGH	1901	NEW	
20000-20099	XM*	?	UNKNOWN	BEF1885		23
22000-22442	GH*	386	RENO	1898-01	FROM PP&B 2101+2700	
22443-23442	GAB	1000	BUILT PSC PGH	1900	NEW	
24001-24050	XM*	50	UNKNOWN	BEF1885		24
24051-24153	XM*	103	UNKNOWN	BEF1890		24
28001-28099	XM*	?	UNKNOWN	BEF1885		25
30001-37200	H**	6534+	UNKNOWN	BEF1885		26
30249-30448	HKA	200	BUILT MID MID	1900-01	NEW	
30449-30648	HKA	200	BUILT P&R RDG	1900	NEW	
30649-31648	HKA	1000	BUILT ACF BUF	1900	NEW	
31649-31848	HKA	200	BUILT LEB LEB	1900	NEW	
31849-32848	HKA	1000	BUILT ACF MILT	1899-00	NEW	
32849-33148	HKA	300	BUILT MID MID	1900	NEW	
33149-33348	HKA	200	BUILT P&R RDG	1900	NEW	
33349-33698	HKA	350	BUILT P&R RDG	1899-00	NEW	
33699-33998	HKA	300	BUILT ACF DET	1899	NEW	
33999-34298	HKA	300	BUILT UCC DPW	1899	NEW	
34299-34498	HKA	200	BUILT ACF MILT	1899	NEW	
34499-34598	HKA	100	BUILT MID MID	1899	NEW	
34599-34698	HKA	100	BUILT LEB LEB	1899	NEW	
34699-34948	HKA	250	BUILT P&R RDG	1899	NEW	
34949-35148	HKA	200	BUILT LEB LEB	1898	NEW	
35149-35348	HKA	200	BUILT J&W BER	1898	NEW	
35349-35848	HKA	500	BUILT UCC DPW	1898	NEW	
35849-35948	HKA	100	BUILT MID MID	1898	NEW	
35949-36748	HKA	800	BUILT P&R RDG	1898	NEW	
36749-37348	HKA	600	BUILT P&R RDG	1897	NEW	
37349-37848	HKA	500	BUILT UCC DPW	1896	NEW	
37849-38348	HKA	500	BUILT LEB LEB	1896	NEW	
38349-38848	HKA	500	BUILT UCC DPW	1896	NEW	
38849-38999	HKA	151	BUILT P&R RDG	1896	NEW	
39000-39999	HKA	1000	BUILT PULL	1895	NEW	
35000-35099	XM*	?	UNKNOWN	BEF1885		27
39000-39099	XM*	?	UNKNOWN	BEF1885		28
40000	H**	1	UNKNOWN	1885/89		
40001-40100	HS*	100	BUILT P&R RDG	1883	NEW	
40101-41620	HSA	1520	BUILT HCC HBG	1887-88	NEW	
40532&40862	HPA	2	BUILT P&R RDG	1887	NEW	
40171+41532	HPA	6	RENO	BEF1911	FROM VARIOUS HPA	
41621-41716	HS*	93+	RENO	1899	FROM PP&B 2001-2100	
42001-44000	HPA	2000	BUILT PULL PULL	1891	NEW	
44001-44750	HPA	750	BUILT VARIOUS	1889	NEW	
44751-47750	HPA	3000	BUILT PULL PULL	1890	NEW	

# EASTMAN HEATER CAR

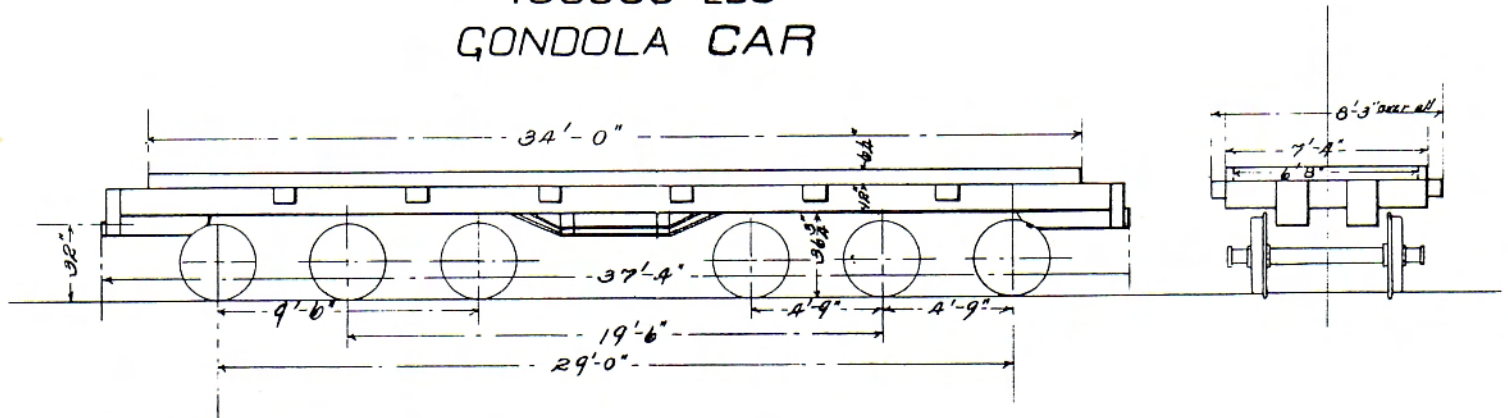
Inside dimensions  
 LENGTH --- 31'-4"  
 WIDTH --- 7'-2"  
 HEIGHT --- 3'-0"



8501-8550

Craig T. Bossler Collection

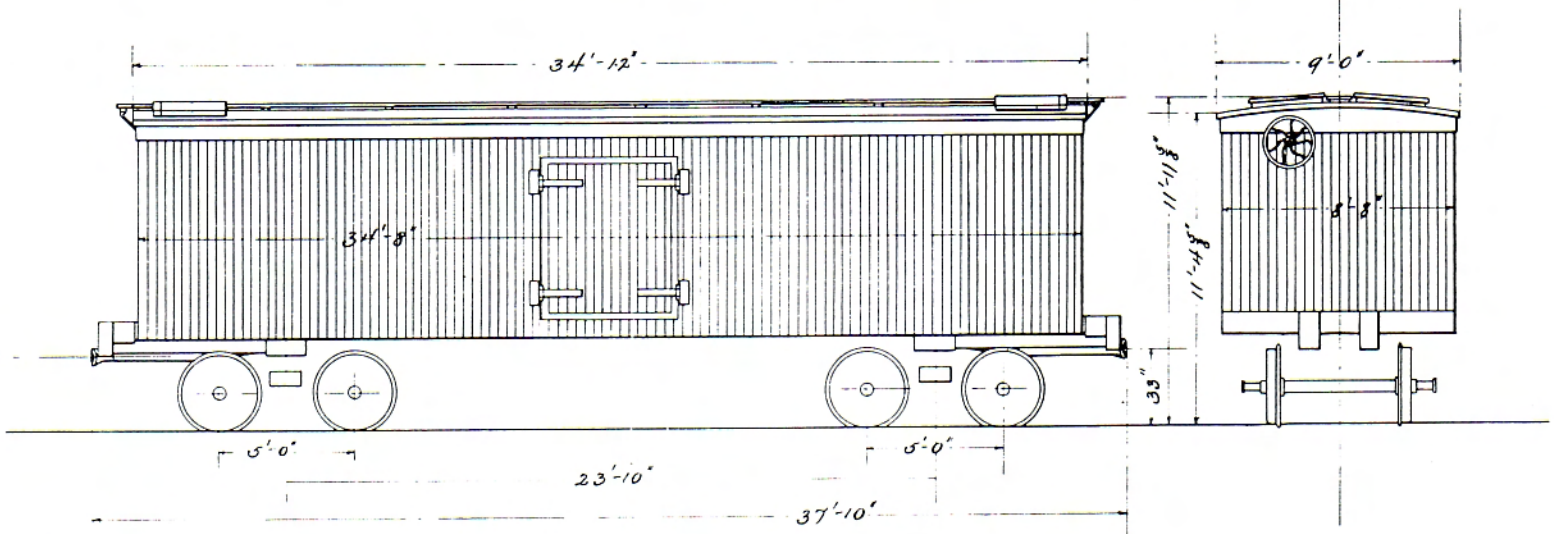
# 100000 LBS GONDOLA CAR



P&R #4090

Craig T. Bossler Collection

# WICKES REFRIGERATOR CAR



8701-8775

Craig T. Bossler Collection



47751-48750	HPA	1000	BUILT	PULL	PULL	1890-91	NEW	
48751-48950	HPA	200	BUILT	MD	MILT	1891	NEW	
48951-49999	HPA	1049	BUILT	PULL	PULL	1891	NEW	
50001-50100	XM*	100	UNKNOWN			1885/89		29
50101-50400	XMA	300	BUILT	PULL	PULL	1891	NEW	29
50401-50900	XMA	500	BUILT	PULL	PULL	1892	NEW	29
57000-57450	HPA	451	BUILT	PULL	PULL	1891	NEW	
57451-59950	HPA	2500	BUILT	PULL	PULL	1892	NEW	
60001-61000	GM*	640+	BUILT			1887-89	NEW	30
61001-62000	GA*	888+	BUILT			1887-89	NEW	30
62001-62015	HM*	13+	BUILT			1889	NEW	30
70001-71000	GHA	1000	BUILT	PULL	PULL	1890	NEW	
71001-72000	GHA	1000	BUILT	MD	MILT	1891	NEW	

NOTES:

1. OIL TANKS
  2. RIDGEWAY REFRIGERATOR
  3. GREAT WESTERN DESPATCH
  4. 16 WHEEL GUN
  5. 50 FT GONDOLA
  6. 12 WHEEL GONDOLA
  7. ORE
  8. ORE LIME STONE ETC.
  9. RED LINE
  10. 4 WHEEL LIME
  11. BLUE LINE
  12. 8 WHEEL LIME
  13. ERIE & NORTH SHORE DESPATCH
  14. LACKAWANNA LINE
  15. EASTMAN HEATER
  16. WICKES REFRIGERATOR
  17. 4 WHEEL ORE/9118-9195 NOT USED?
  18. 8 WHEEL ORE
  19. WHITE LINE
  20. CANADA SOUTHERN LINE
  21. CLINE PATENT HORSE
  22. 8 WHEEL COAL
  23. GREAT EASTERN LINE
  24. NICKEL PLATE LINE
  25. SOUTH SHORE LINE
  26. 4 WHEEL COAL
  27. TRADERS DESPATCH
  28. COMMERCIAL EXPRESS LINE
  29. P&R DESPATCH/50001-50100 PROBABLY RENO
  30. LEASED FROM IRON CAR COMPANY
- EAN 8-10-84

## P&R 13914- Pullman Built Boxcar Class XMB

In 1978, I discovered that a retired boxcar serving as the freight house at Rushland, Pa. was still in existence. I made rough drawings at the time and noticed that the original lettering was visible underneath the peeling paint. The car was still there in April, 1986, and I decided to do a thorough study.

The approximately 20-year life of this boxcar spanned a period of great progress in freight car design. It was one of the last all wooden freight cars without air brakes or MCB automatic couplers built for the P&R. Each change and improvement left a trace to be studied.

History: P&R 13914 was built by Pullman at Pullman, IL, in 1891 or 1892. It was dedicated to P&R Fast Freight Line service and originally numbered in series 50101 to 50900. The capacity was increased from 50000 to 60000 lbs. sometime before 1901. All cars numbered 50101 to 50900 were renumbered 13204 to 13969 during 1901. Those cars which had been upgraded to 60000 lbs. capacity were numbered 13911 to 13969. Classes were assigned in 1912. XMA applies to all 50000 lbs. capacity cars: XMB applies to all 60000 lbs. capacity cars. The last two cars in this group were retired during 1913. About this time, 13914 became the freight house at Rushland.

There were 1200 more identical cars, originally numbered 10001 to 11200, and 350 generally similar cars, numbered 11201 to 11550, built in 1896 and 1897. The last cars of both series were retired in 1915.

Drawings: Two sheets of drawings show the current state of the car in detail. The third sheet is a reconstruction of the car as it probably appeared just prior to retirement. The trucks, brakes and roof had to be based on general practice and details from similar cars.

Trucks and couplers: The original trucks were probably an arch bar design. A change to Fox pressed steel trucks may have been made with the increase in capacity. When built, 13914 had Van Dorston automatic couplers and Butler attachments. The Van Dorston automatic coupler was probably not MCB compatible, and would have been replaced. The draft sill and portions of the body bolster may have been changed to accommodate the new trucks and couplers.

Brakes: There is a provision in the end sill for a second hand brake at the "A" end, but one does not appear to ever have been present. Air brakes were a later addition. There are some slots in the needle beams which may have been from the original brake foundation.

Sheathing and roof: The original sheathing was 5-1/4 in. tongue and groove with a cosmetic vee groove down the center. This cosmetic groove is shown on the general arrangement drawing,

but not on the detail drawing. The replacement sheathing is 3-1/4 in. tongue and groove, or as required.

The roof is a double board type, most likely with 5-1/2 in. boards. The running boards are no longer present. Two 9 in. boards may have been used when built.

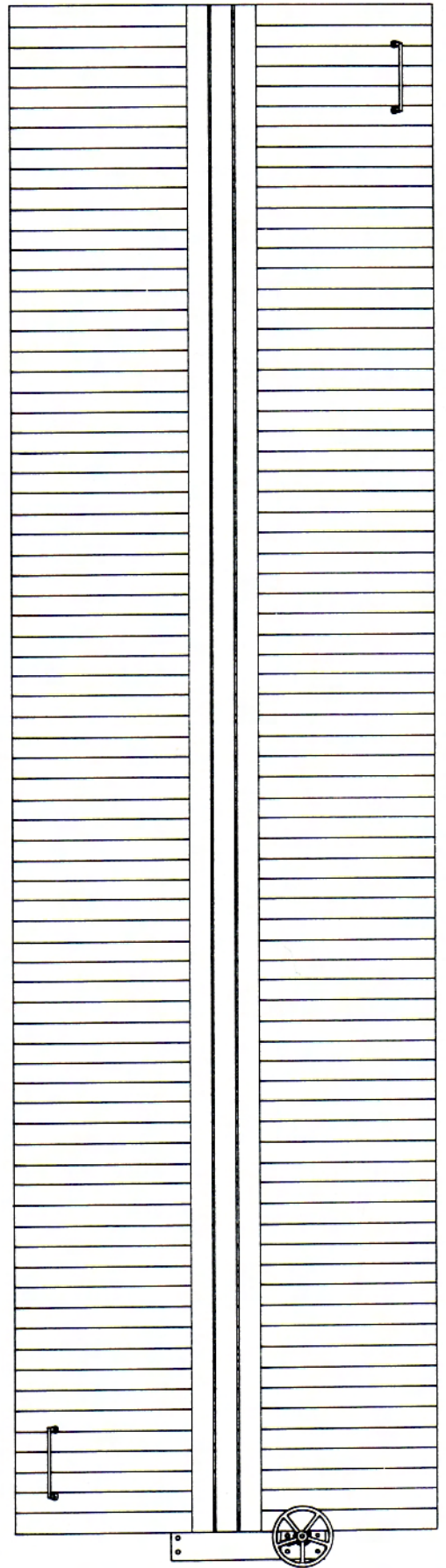
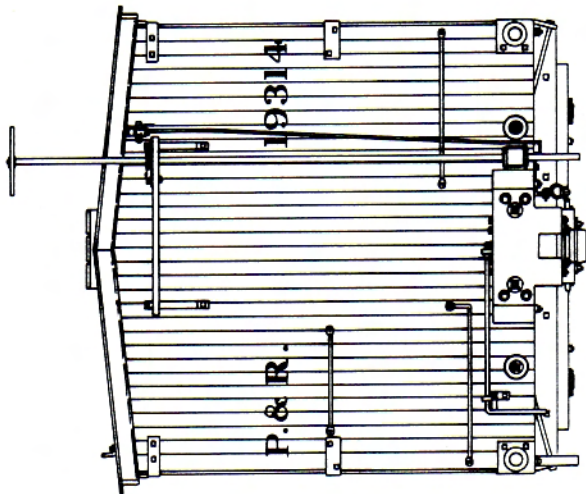
Safety appliances: The only safety appliances remaining are the sill steps and the brake platform brackets. The location of the hand holds is easily seen. The side ladders consist of 5 hand holds on 17 in. centers. In one place where the original sheathing remains, 4 earlier hand holds on 21 in. centers are seen. This change may have taken place when air brakes were added.

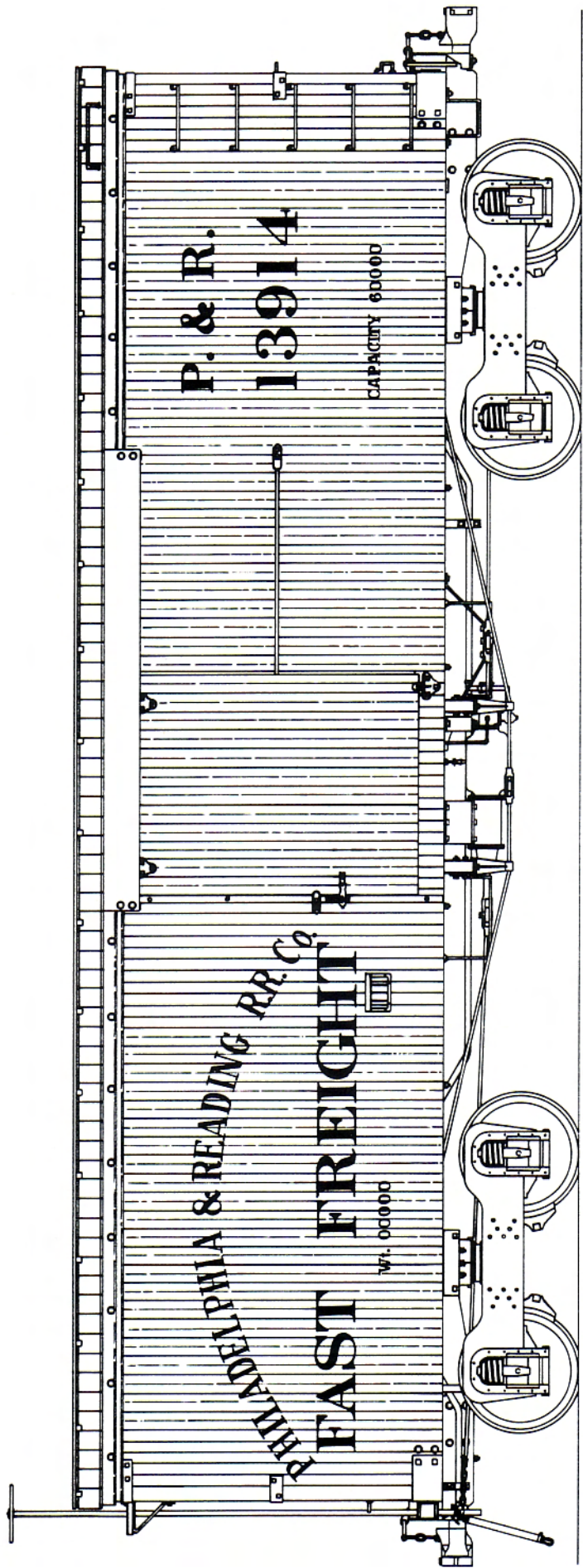
Paint: The car was painted iron oxide red with black hardware and white lettering. The lettering which is still discernable is shown in the superstructure detail drawings. The general arrangement drawing includes a reconstruction of the complete lettering arrangement. In this drawing, the car weight is located according to standard practice. No trace of it can be found on the actual car.

"PHILADELPHIA & READING R.R. Co." and "P.& R." are 9 in. high, "FAST FREIGHT" is 11 in. high, "13914" is 12 in. high, "CAPACITY 60000" is 3-1/2 in. high, and "P.& R. 13914" on the car end is 6 in. high. This car has been repainted and renumbered, but the only evidence is seen in the "P.& R.". An old PSR drawing also shows an alternate arrangement of "PHILADELPHIA & READING R.R. Co." on two horizontal lines. This may not be relevant to 13914.

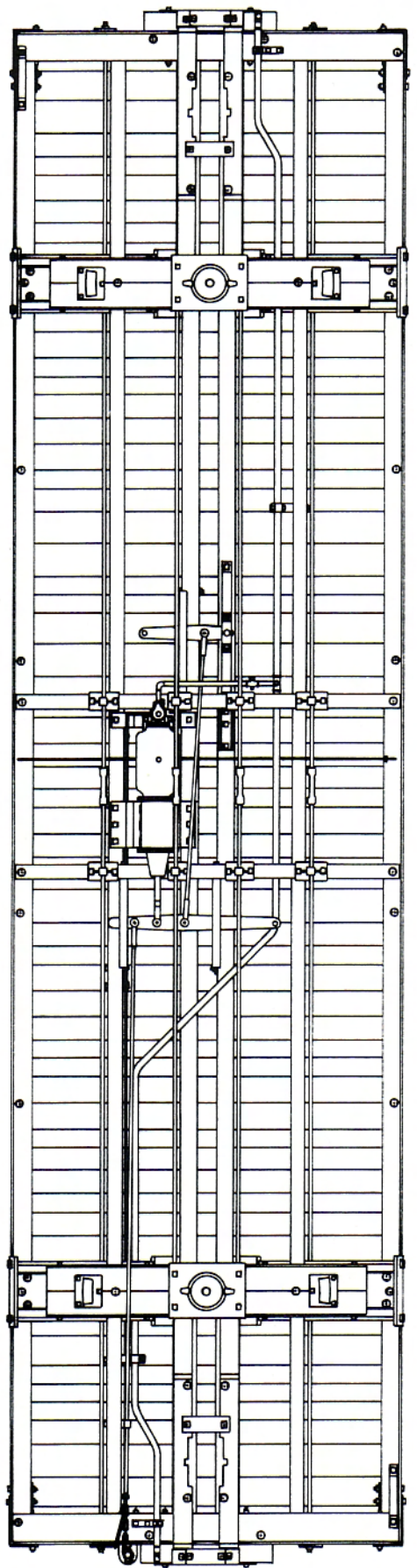
Dimensions:

Length	5' 0"	truck wheelbase
	5' 2"	truck wheelbase (Fox)
	22' 9"	truck centers
	33' 5-1/4"	inside
	34' 0"	over end sills
	34' 1-1/2"	over body
Width	8' 2-1/4"	inside
	8' 9"	over side sills
	8' 10-1/2"	over body
	9' 7-1/2"	over roof
Height	6' 9-1/4"	inside
	11' 5-1/2"	over eaves
	12' 1-1/8"	over running boards
	13' 5-3/4"	extreme
Door	5' 0"	wide
	6' 4-1/4"	high
Capacity	50000 or 60000 lbs.	
	1854 cubic feet	





E. A. NEUBAUER 4-86



# THE PAPER TRAIN: 1

by TONY HODUN

As I begin this inaugural series on pulp and paper industry freight cars and traffic, it's only right to explain the title. My first exposure to railroading was the Delaware and Hudson mainline in Northeastern Pennsylvania as I commuted to and from high school back in 1967. I never failed to be impressed by the sight of a southbound manifest dropping down-grade, dynamic brakes roaring, locomotives and cars coated with snow that we hadn't had yet. The big trains often had many Canadian road boxcars in the consist, and to me this hinted at faraway places I'd never seen. Eventually I learned that the hottest train on the line was D&H southbound RW-6, "The PaperTrain," from Montreal with connections to Potomac Yard in Washington D.C. As time passed I got to travel to some of those far off places, and my interest grew from locomotives and trains to include traffic and freight cars. I found that much more of the D&H's traffic was paper industry related than I would have guessed, and also found this true on other roads throughout the Northeast. Many of you, whether you realize it or not, have your own "paper train." It may be a manifest hauling pulp, paper and other raw materials, or a local serving a nearby paper or paperboard plant. The title of the column speaks to my interest and also points out my objective. I plan to discuss the pulp and paper industry and develop different facets of the processes involved, the raw materials used, and the way rail traffic supports the business. I will illustrate primarily with examples of traffic and freight cars I've observed in the Northeast and other areas. The intent is to enable you to investigate and better understand your own "paper trains." I'll be glad to include your contributions in the future issues, for this is intended to be a series about North American pulp and paper railroads and freight cars.

Let's first look at the North American paper and paperboard industry. It is as diverse as a major industry could be, so I will make generalizations for simplicity and risk offending the purists; after all the focus is the rolling stock. The industry is also going through a phase of buyouts and consolidations, so references to specific locations can become outdated, and I'll be specifying dates at times, to keep history accurate.

The overall paper product process is typically divided into three major areas; pulpmaking, papermaking, and paper converting. One of the valuable properties of cellulose fiber found in various plants is that it can bond itself without the use of glue or adhesive. Although other sources of fiber are used, the predominant source of paper fiber on a world-wide basis is trees. Pulpmaking involves separating the hollow cellulose fibers in wood from hemicelluloses (sugars) and lignin (the natural glue holding everything together). Different processes are used to extract the fiber, either chemical, mechanical, or a combination. Added stages like bleaching may be involved depending on the end use of the pulp. The papermaking phase involves taking the fiber, usually a blend of several types, adding water to form a slurry and then removing the water from a fastmoving layer of slurry to form a web or continuous sheet of randomly oriented fibers. The wet web is further dried and made ready for other operations. Chemical additives may be used to aid in manufacturing or to produce desirable properties in the paper. Minerals or other materials may be used as fillers or coaters to obtain desirable properties such as opacity, brightness, or ink retention. The paper converting phase is a very diverse range of businesses. In the final phase, the continuous web off the papermachine or rolls of finished paper or paperboard are converted into a finished product form ranging from copier paper to toilet tissue to corrugated cardboard boxes to construction board. Any one or more of these operations can be found at a given paper industry location. Add to this the wide variety of paper and board products used by consumers, for communication, for packaging, and so on, and we're talking incredible diversity! As you will see though, we can make sense of this diversity and better understand the rail traffic and freight cars used to support the paper industry.

From this point on things will be more specific. I'll be talking about aspects of the business in a random order, so you might find yourself referring to older issues from time to time. My research includes extensive use of reference material, and many freight car field observations, and I'm still building on my own learning with field work. Let's first look at the Canadian Connection. A tremendous amount of the wood pulp and paper that is produced in Canada is shipped to the U.S. 1980 figures show that 80% of the newsprint exported by Canada and 54% of the woodpulp went to the United States.

A sizeable amount of other paper products also went south (1982 Post's Pulp & Paper Directory, Miller Freeman Publications, Inc. p.539). More recently, figures for July 1986 show that the U.S. imported 801,000 tons of newsprint from Canada; this equates to over 320 80-ton boxcars a day! (Pulp & Paper, November 1986, p.9). The U.S. is still Canada's biggest customer for market woodpulp and still gets a lot of Canadian paper products, even though the paper industry is now a worldwide market situation. One of the more interesting small fleets of Canadian paper boxcars is owned by the Ontario Northland Railway. ON has two blocks of boxcars assigned to newsprint and paper products service:

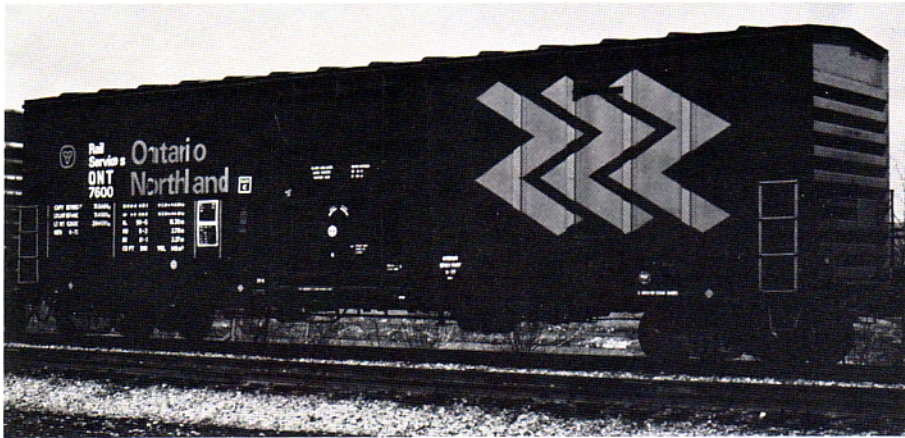
ONT 7600-7629. Built 11-77 NSC. Plate C 5111 cuft. Cushioned. 9' x 10'4" Doors. Most 157000 capy. AAR:XP

ONT 7700-7799. Built NSC 9-80. Plate C 5204 cuft. Cushioned 9' x 10'4" doors. Most 157000 capy. Originally AAR XM now restencilled XP.

Both groups of cars are similar though not identical and are equipped with 9' plug doors, a common size on Canadian newsprint/paper boxcars. Both are painted dark blue with yellow ends, and white and yellow side lettering/name/logos. Each class has its own variation of side lettering.

ON also still rosters 76 40'6" boxcars, and 187 newer 50'6" boxcars that are assigned to haul metal refinery products. In future issues I'll cover some of the other fleets of Canadian papercars in service.

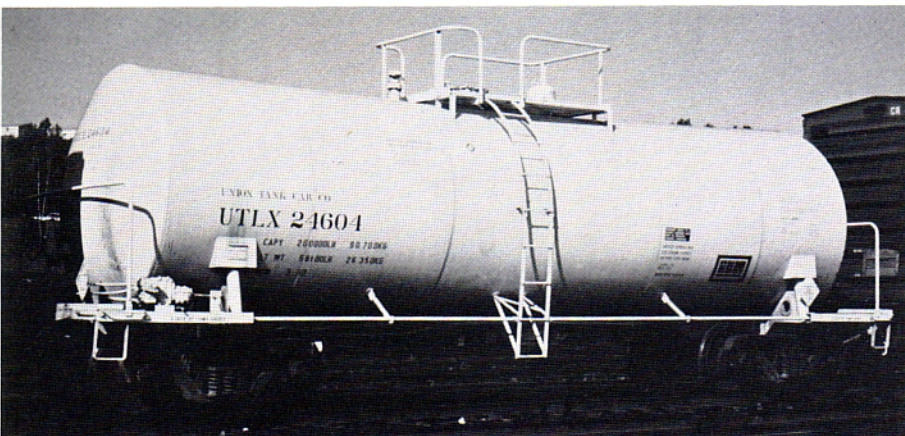
The final topic for this column is related to papermaking. Industrial minerals used as fillers and coaters represent a significant amount of raw material traffic, virtually all of which moves by rail. The top three minerals used in these applications are kaolin (a crystalline form of clay), calcium carbonate, and titanium dioxide. As fillers these minerals improve the opacity and brightness of paper. As coaters they improve the printability of paper or paperboard, often improve the gloss, and may also improve opacity and brightness. Kaolin is the most widely used mineral pigment, but calcium carbonate is the fastest growing, and will soon move into the number two slot ahead of titanium dioxide. The North American paper industry is expected to use 240,000 tons of calcium carbonate in 1986. (Pulp & Paper, November 1986, p.51). Calcium carbonate is produced either mechanically by grinding white limestone, or by chemical precipitation. Calcium carbonate is not compatible with acidic paper forming methods, but does work well with alkaline forming. Since use of alkaline paper forming methods is on the upswing, and since calcium carbonate can be used to achieve better brightness than most grades of kaolin, its use by papermakers is on the upswing. Calcium carbonate is produced in several areas of the country. One supplier that I am familiar with is OMYA, Inc. in Florence, VT on the Clarendon and Pittsford. OMYA produces ground limestone slurry in a plant that was built and started shipping product in 1978. The majority of OMYA's production is used by the paper industry, and OMYA leases a fleet of about 300 tank cars to handle the product as a 70% by weight slurry in water. Most paper plants prefer the slurry as fillers are blended in with the fiber-water mixture, and coatings are usually applied mixed with water and a small amount of adhesive (starch, protein or latex adhesives). Through my field observations, notes and photography over several years I've been able to



(above) ONT 7600, a 50'6" box car assigned to newsprint and paper products service. Built in 1977 by National Steel Car, Canada. Tony Hodun photo



(above) ONT 7795, one of 100 cars delivered to the Ontario Northland as general service boxcars (AAR: XM) but later restencilled 'XP' for specially assigned paper products service. Note the difference in the placement of the reporting marks, number and data on this series from the 7600 series. (below) UTLX 24604, a 100 ton limestone slurry tank car leased by OMYA, Inc. from Union Tank Car. Built in 1982 by Union Tank Car. This car is overall white with black lettering and only stencilled lessee identification. Tony Hodun photos



determine that the following tank cars are in OMYA limestone slurry service. All cars are AAR class T104 100-ton capacity nominal 14000 gallon insulated carbon steel tank cars of each builder's standard current design for mineral slurry service. All are white with black reporting marks and data. All groups have "OMYA, INC. LESSEE" stencils; only the classes noted have logos and striping in two-tone blue.

**OMYA Limestone Slurry Tank Cars**

GATX 55250-55259	GATX SHN 6-80	Note 1
RTMX 1843-1863	RTC HO 2=3-82	2
UTLX 24598/24647	UTC ECH 3=4-82	4
UTLX 24775-24786	UTC ECH 5-81	5
UTLX 24852-24863	UTC ECH 12-80=1-81	6
UTLX 24925-24951	UTC ECH 12-79	7,3
UTLX 25843	UTC ECH 9-79	8,3
UTLX 25878-25879	UTC ECH 9-79	8,3
UTLX 25873	UTC ECH 9-78	9,3
UTLX 25875-25876	UTC ECH 9-78	9,3

**Notes-**

1. 10 cars; sighted 55258, 55259 so far, probable group listed.
2. 21 cars; Good range of sightings 1846-1859.
3. Two-tone blue striping and OMYA logos.
4. 44 cars; Probable group UTLX 24598-602, 604-618, 620, 621, 623, 624, and 24628-647. Sighted to date 24599-24642.
5. 12 cars; Probable group based on sightings 24777, 24784.
6. 12 cars; Definite group based on sighting 6 of 12 cars.
7. 26 cars; probable group based on sighting 5 cars 24945-24951.
- 8 & 9. These individual cars are mixed in with several other groups of clay slurry tank cars used by other lessees: unable to determine size of group.

As you can see, I've accounted for 131 out of the fleet of 300 cars, so I'm continuing my field research.

In a future article on UTLX clay slurry tank cars I'll explain how I deduced what I could using ORER's and sightings. OMYA also ships calcium carbonate to other industries, including plastics, pipemaking plants and pigment firms. This usually is in 50lb bags shipped in CLP 50' boxcars, or in bulk shipped in gravity or pressure unloading covered hoppers supplied by the railroad's traffic department.

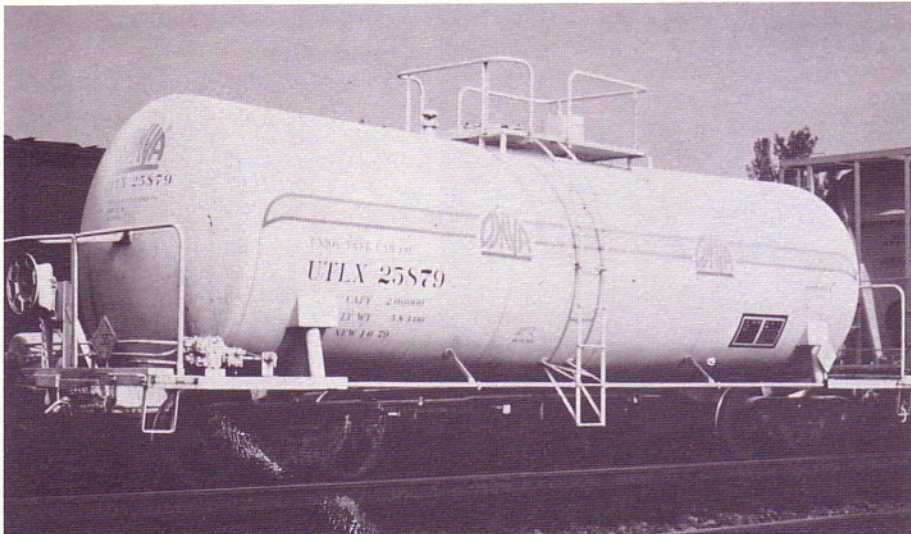
That wraps up my first column. Your comments and input are welcome. I'm particularly interested in OMYA tank car sightings, if you can expand on or confirm the information I've presented. Please enclose an SSAFE if you would like to discuss contributing to the "The Paper Train" series. Send any information to:

Tony Hodun  
34 Harford Ave.  
Shavertown, PA 18708

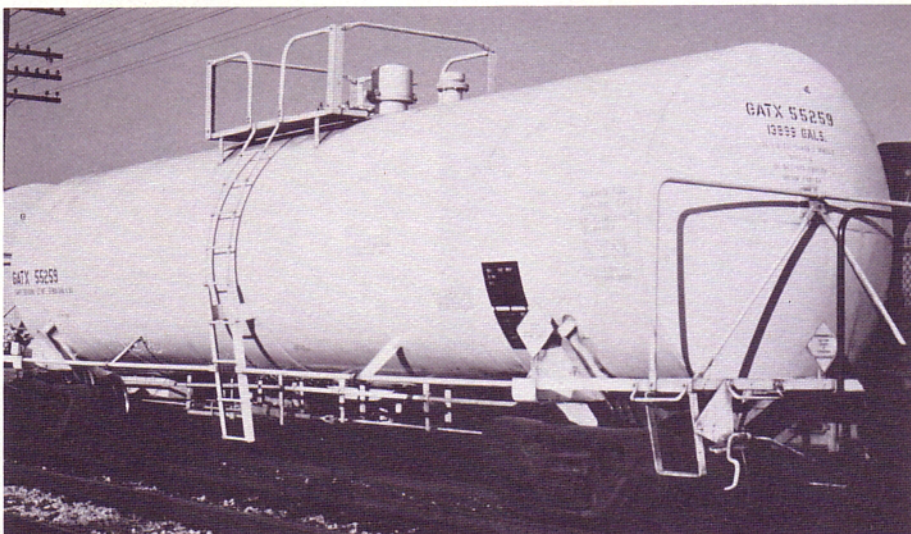
(On the following page are photos of three more OMYA limestone slurry tankers.....)



RTMX 1851, 100-ton tank car with 13,646 gallon capacity. Built by Richmond Tank Car, Houston, TX and leased by Richmond Leasing to OMYA, Inc. for limestone slurry transportation. Light weight 59700. Built 2-82. White tank with black lettering and data. Tony Hodun photo



UTLX 25879. 100-ton limestone slurry tank car built in 10-79 by Union Tank Car. Owned by Union Tank Car and leased to OMYA, Inc. Light weight 58300. This car displays the attractive two-tone blue striping and logos of OMYA. Tank is white with black data. Also note the application of the OMYA logo on the end of the tank, a practice not common on today's tankcars. Tony Hodun photo



GATX 55259. 13,999 gallon 100-ton limestone slurry tank car. This car is also leased to OMYA, Inc. In this case General American Transportation is the owner, lessor and builder. The car was built in 6-80, but lined by Lithcote with Plasite 7122 in 7-80. Tank is white with black data. Tony Hodun photo