#### **EQUIPMENT NEEDED FOR PURCHASE**

# OF	DOT /				
<b>CARS</b>	CLASS	<b>CAPACITY</b>	COMMENTS	PRODUCT	REF#
2	111A100W2	16,000- 20,000	Non-Coiled, Non-Insulated, Top Unloading Only	Phosphoric Acid	11342
2-3	111A100W1	20,000+	Must Have Coils, Top & Bottom Unloading	Liquid Sulfur	11998
2-3	111A100W1	20,000- 27,000	Storage Only, Must Be Coiled	Wax	11878
20	112A500W	20,000- 34,000	Non-Coiled, Insulated, Storage Only	Anhydrous Ammonia	12051
ANY	112J340W 33,500		Insulated, Top Unload Only	LPG	10734,
1	FLAT 60'		Maximum of 53' Between Truck Centers		11143′ <b>12036</b>
56	FLAT	60'	60' Between Couplers, 100 Ton Trucks, 50 Year Cars		11905
60	GONDOLA 2,200- 2,600		100 Ton Trucks, 1980 or Newer		11983
100	GONDOLA	2,200- 4,000	Flat Bottom, 50 Year Cars	Scrap	12013
10-80	GONDOLA	7,000+	Flat Bottom, With or Without End Gates	Woodchips	11882
30-40	LO	2,850- 3,200	Round Hatches, Gravity Gates, 2 Compartment	Sand	11938
200+	LO	3,000	Round Hatches, Gravity Gates, 286,000 Capacity	Sand	11975
10	LO 3,000		Round Hatches, Gravity Gates	Sodium Sulfate	11939
15	LO	4,750	3 Compartment, Gravity Gates or Airslides		12042
30	LO	5,150	Trough Hatches, 286,000 Capacity	Meat / Bone Meal	11963
20	LO 5,250		Gravity Gates	Calcium Chloride	11942
10-12	PD	2,600- 3,000	Round Hatches, 15 PSI, Must be Interchangeable		11915
1-3	PD	3,200+	Round Hatches, 15 PSI		12062

## THE MARRIAGE OF DIESEL AND ELECTRIC

Once Diesel patented his engine in 1892 it took a long while to refine it to the point it could be useful for rail. The overall power to weight ratio was initially much too high and supplying power to multiple drive wheels on bogeys proved difficult. Though the value of this design was immediately recognized, it was not until after the expiration of Diesel's patent, in 1912, that the refinements of the engine would allow widespread use. In 1906 Diesel, Adolf Klose and existing diesel manufacturer Gebrüder Sulzer formed a new company to produce diesel powered locomotives. After the first locomotive was delivered in late 1912, test runs proved problematic. The beginning of World War I ended further testing of this particular design.

Thomas Edison demonstrated the use of an electrified rail to power an electric rail transport system as early as 1880. In order to reduce the smoke and noise of steam, many cities turned to, and to this day incorporate a system similar to Edison's to run their subways or elevated transit. In 1890 Edison founded General Electric and patented an all electric locomotive in 1891. GE's first prototype electric locomotive was built in 1895. The advantages of electric traction motors in locomotives are that they are more effecient, quieter, smoke free and can be mounted to drive individual axles. Unfortunately the cost to electrify entire rail systems is prohibitive and an alternative had to be found for larger freight systems.

A solution was created by using an onboard diesel engine to drive a generator which in turn provides electricity to power electric traction motors. The first known diesel electric locomotive was built by GE in 1917. Electro-Motive was founded in 1922 and started developing their diesel electric products. The American Locomotive Company (ALCO) along with GE and Ingersoll Rand produced a commercially successful diesel electric locomotive in 1924.

http://en.wikipedia.org/wiki/Diesel\_locomotive
http://www.hesston.edu/academics/faculty/nelsonk/PhysicsResearch/electricloco/eleclocop.html
http://www.essortment.com/all/locomotiveengin\_rwoc.htm
http://en.wikipedia.org/wiki/Electro-Motive\_Diesel

http://en.wikipedia.org/wiki/American\_Locomotive\_Company

## RAILWAY EQUIPMENT LISTING Published By: TRANSMATRIX, INC.

570 East Higgins Road, Suite 200 Elk Grove Village, IL 60007-1442

PHONE: (847) 228-6022 FAX: (847) 228-6029

**December 1, 2010** 

### **EQUIPMENT AVAILABLE FOR LEASE**

# OF CARS	DOT / CLASS	CAPACITY	COMMENTS	LAST CONTENTS	RFF#	
<u>OAILO</u>	<u>OLAGO</u>	OAI AOII I	COMMENTO	<u>LAGI GOMILIMO</u>	IXEI #	
6	111A100W2	13,300	Non-Coiled, Non-Insulated, Top Unloading Only, 5 Year Minimum Lease	Sulfuric Acid	11627	
7	111A100W3	17,500	Exterior Coils, Insulated, New Phenolic Epoxy Linings, Top & Bottom Unloading		11881	
7	111A100W1	20,000	Non-Coiled, Non-Insulated, 2 Compartments	Lube Oil	11955	
20+	111A10W6	20,800	Non-Coiled, Insulated, Top Unloading Only, Stainless Steel	Food Grade	11836	
6	111A100W3	21,000	Exterior Coils, Insulated, Top & Bottom Unloading	Various	12040	
100+	111A100W3	23,500	Exterior Coils, Insulated, Return Well Drained, Winter Months Only	Asphalt	12059	
8-10	111A100W3	23,500	Exterior Coils, Insulated, Plasite 3070 Lined, Top & Bottom Unloading	Cyclohexanol	11978	
100	111A100W3	29,000	Exterior Coils, Insulated	Biodiesel	12008	
3	111A100W1	30,000	Non-Coiled, Non-Insulated, 2-3 Year Term	Fuel Oil	11956	
12	FLAT	66'	Bulkheads, Cushioned Underframe, 100 TonTrucks	3	11628	
30	GONDOLA	65'	Flat Bottom, 5' Interior Height		12049	
42	GONDOLA	2,000	100 Ton Trucks, Single Cradle, Covers	Steel Coils	12030	
17	GONDOLA	2,244	100 Ton Trucks, 4'6" Sides	Aggregate	11755	
24	GONDOLA	2,800	Flat Bottom, 6' Interior Height	Aggregate	12047	
19	GONDOLA	4,240	Single Tub, Rotary Unload		11987	
2	HOPPER	3,600	4 Compartment, Gravity Gates	Coal	12048	
38	HOPPER	3,850	50 Year Cars, Rapid Discharge	Coal	11550	
10	LO	2,931	Round Hatches, Gravity Gates, 100 Ton Trucks	Sand	11549	
130+	LO	4,750	Trough Hatches, Gravity Gates	Grain	11959 / 1198	
100+	LO	5,701	Round Hatches, Pneumatic Gates	Plastic Pellets	11925	
10-20	PD	2,785	Round Hatches, 14.7 PSI, 5 Year Minimum	Cement	12000	
30	PD	3,000	North American Built, 15 PSI	Cement	11920	
50	PD	5,150	Round Hatches, 14.7 PSI		11988	

# **EQUIPMENT NEEDED FOR LEASE**

<b>EQUIPMENT</b>	NEEDED	<b>FOR</b>	LEASE
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<b>" 0 -</b>	DOT /	EQUITIENT NEEDED FON LEAGE				<b>" 0</b> 5	DOT!				
# OF CARS	DOT / CLASS	CAPACITY	COMMENTS	PRODUCT	REF#	# OF <u>CARS</u>	DOT / CLASS	CAPACITY	COMMENTS	PRODUCT	REF#
4	111A100W2	13,500	Exterior Coils, Insulated, Top Unload Only	Oleum	11923	20	PD	5,100+	Round Hatches, 15 P.S.I	None Food Grade	11662
2	111A100W2	16,000- 20,000	Non-Coiled, Non-Insulated, Top Unloading Only, Lined	Phosphoric Acid	11341	27	PD	5,500- 6,000	Round Hatches, 15 PSI, 286,000 Capacity	Limestone	11979
3	105A200W2	17,300	Non-Coiled, Insulated Top Unloading Only	Sulfur Dioxide	12068						
4-5	111A100W3	17,500	Exterior Coils, Insulated, Top & Bottom Unloading, Plasite 4100 or Equivalent Lining	Sodium Bisulfite	11922			FOI	JIPMENT <i>AVAILABLE</i> FOR	SAIF	
10-20	111A60W7	20,000	Non-Coiled, Non-Insulated, Top Unloading Only	Nitric Acid	11999	# OF	DOT/				
2-3	111A100W3	20,000	Exterior Coils, Insulated, Top & Bottom Unload	Lignin Liquor	12012	CARS	<u>CLASS</u>	<u>CAPACITY</u>	COMMENTS	LAST CONTENTS	REF#
2-4	111A100W3	20,000	Exterior Coils, Insulated, Top & Bottom Unloading, Plasite 4100 or Equivalent Lining	Sodium Bisulfite	11854	80	111A60W2	13,600	Non-Coiled, Non-Insulated, No Lining, Top Unloading Only	Virgin Sulfuric Acid	11961
100+	111A100W3	20,000	Exterior Coils, Insulated, 3-7 Year Term	Molasses	11776	10-15	111A100W3	20,500	Exterior Coils, Insulated, Top & Bottom Unloading, 100 Ton Trucks	Vegetable Oil	12058
6+	111A100W3 111A60ALW3	20,000	Exterior Coils, Insulated, Lined or Aluminum Cars, 3-5 Years	Ammonium Thiosulfate	11906	200	115A60W6	20,800	Non-Coiled, Insulated, Bottom Load Only, Stainless Steel Inner Tank	Beer	11835
10+	111A100W5	20,000	Non-Coiled, Non-Insulated, Rubber Lined, Top & Bottom Unloading	Hydrofluorosilicic Acid	11980	1	111A100W3	23,500	Exterior Coils, Insulated, Top & Bottom Unloading, Storage Only	Lube Oil	12001
ANY	111A100W5	20,000	Non-Coiled, Non-Insulated, Rubber Lined, Top Unloading Only	Hydrochloric Acid	11932	30+	111A100W3	23,500	Exterior Coils, Insulated, Lined, Stainless Steel Valves	Various Chemicals	11885
5-10	111A100W3	20,000-	Exterior Coils, Insulated, Top & Bottom Unloading, Plasite 3070 Lined	Ethylene Glycol	11928	12	111A100W1	28,000	Non-Coiled, Non-Insulated		12056
		24,000				21	111A100W1	30,000	Non-Coiled, Non-Insulated, Top & Bottom Unloading		12003
ANY	111A100W1/3	26,000	Coiled or Non-Coiled, 3-4 Compartment Cars, Top & Bottom Unloading	Lube Oil	11940	19	112A400W	33,000	Non-Coiled, Non-Insulated, Top Unloading Only, In-Plant Use	Amines	12064
10	111A100W1	20,000- 25,000	Non-Coiled, Non-Insulated, Must be 3 Compartment Cars	Motor Oil	11828	20-30	105J300W	34,000	Non-Coiled, Insulated, Top Unloading	LPG	12020
1	111A100W1	23,500-	Non-Coiled, Non-Insulated, Top & Bottom	Methanol	11990	400+	BOX	50'	70 Ton Trucks, Plate C, Sliding Doors		12050
		23,500- 25,500	Unloading, 1 Year Term, Storage Only			12	FLAT	60'	52' 8" Between Bulkheads, 100 Ton Trucks		11763
60-75	111A100W3	23,500	Exterior Coils, Insulated, Top & Bottom Unload	Carbon Black	12052	1	FLAT	66'	21' Depressed Center, 150 Ton Trucks		11822
2-3	111A100W3	23,500	Exterior Coils, Insulated, Top & Bottom Unloading	Fatty Acids	12025	7	FLAT	70'	100 Ton Trucks, Bulkheads		12019
4	44444000044	05 500		O 40 Laured Alaahal	44070	34	FLAT	<i>89'</i>	286,000 Lb. Capacity		12061
1	111A100W1	25,500	Exterior Coils, Cars Must Be Lined, Top & Bottom Unloading, Short Term	C-12 Lauryl Alcohol	11870	165	FLAT	89'	70 Ton Trucks, Steel Decks		11971
1-2	112J340W	33,500	Insulated, 3-5 Year Term	Anhydrous Ammonia	11631	35	FLAT	92'	Straight Steel Decks, 100 Ton Trucks, 286,000 Capacity		11802
30	112J340W	33,500	Insulated, Top Unloading Only, 3-5 Year Term	Anhydrous Ammonia	11572	11		65'	Flat Bottom, 5' Inside Height, 100 Ton Trucks		11883
40-45	GONDOLA	4,000+	Rotary Dump, Aluminum, 286,000 Capacity	Coal	12024	18	GONDOLA	2,494	Flat Bottom, 100 Ton Trucks		11935
5-10	HOPPER	2,300+	100 Ton Trucks, Gravity Gates	Glass Cullet	12055	30	GONDOLA	2,950	Flat Bottom, 70 Ton Trucks		12015
50	HOPPER	3,800	Rapid Discharge, 3 Year Term	Limestone / Coal	12053	400+	GONDOLA	<i>4,000</i>	Flat Bottom, Rotary Dump		12028
50	LO	2,900	Round Hatches, Sparger System	Sodium Chlorate	11941	100	GONDOLA GONDOLA	4,000	Flat Bottom, 100 Ton Trucks		11991
			, , ,			100	GONDOLA	4,170- 4,240	100 Ton Trucks, Single Tub, Rotary Dump		11745
50	LO	3,000	Round Hatches, Gravity Gates, 286,000 Capacity, 2 Compartments	Sand	11657	100+	GONDOLA	4,300	Single Tub, Rotary Dump, ACF Built	Scrap Metal	11952
20	LO	4,600+	Trough Hatches, Gravity Gates	Soybeans	12031	50	HOPPER	3,290	3 Pocket, 6 Gravity Gates	Aggregate	12039
4-5	LO	4,750		Urea	12027	13	HOPPER	3,600	100 Ton Trucks, Rapid Discharge	Coal	12057
50	LO	<i>5,750</i> +	Round Hatches, Gravity Gates	Coke	12067	13	LO	4,750	Trough Hatches, Gravity Gates	Ammonium Nitrate	12043
			•	Plastic Pellets	11816	47	LO	5,250	Round Hatches, Pneumatic Gates	Plastic Pellets	11902
1-2	LO	6,000- 7,000	Round Hatches, Pneumatic Gates, 3-5 Year Term	riasiic reliets	11010	9-13	PD	2,785	3 Compartments, 15 PSI	Cement	11918
						3	PD	3,300	Round Hatches, 14.7 P.S.I.	Cement	11626