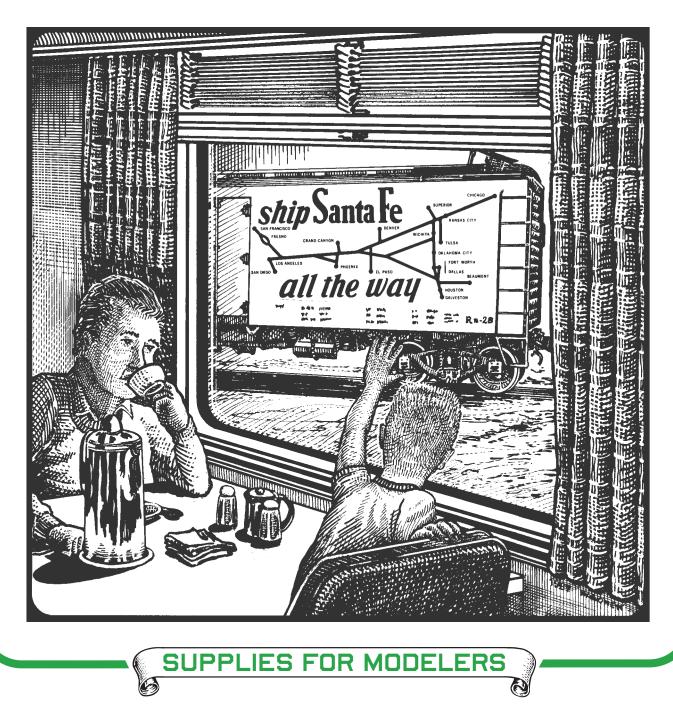


SINCE 1975

CATALOG THIRTEEN-A





Dear friends and customers:

Jane and I wish to announce that after 36 years, Clover House has been sold to Tom and Kathy Dempsey of Spokane Valley, Washington as of April 12, 2011. Tom has a real passion for this business and plans to continue it in the same manner we have while adding new products and expanding its reach.

Thank you all for the immense support we have enjoyed over the years. This has been a labor of love and we are so pleased to be able to pass it on to the capable hands of Tom and Kathy. Please extend them the same support you have shown us.

Sincerely,

Russ Clover

Welcome to Catalog 13.A and Greetings from Spokane Valley.....

As my wife, Kathy, and I assume ownership of Clover House we want to assure all of you that we intend to maintain the high standards of goods and services established by Russ and Jane over the years.

Our plans are to expand the product line over time by introducing complimentary products, to attend more shows and to expand our presence on the internet.

Please be patient while we are getting our feet wet.

Sincerely,

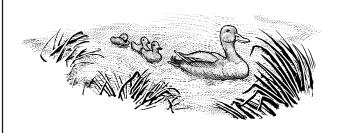
Tom Dempsey

<section-header><section-header><section-header><image>

Window glass is designed to be used where the utmost in realism is desired in buildings, cars, locomotives, trucks, ships and military models. It gives the proper light reflection of glass and does not warp like thin plastic. However, it is recommended for the advanced modeler.

Glass can readily be cut with our scriber, following the instructions included in each package. The scriber is carbide tipped for sharpness and long life and should only be used for cutting glass. A wheel-type glass cutter will break this very thin glass.

In places where larger panes of "glass" are needed, we recommend using ultra clear polycarbonate (Lexan) sheets, found on page 11 of this catalog. It is thicker than the glass, but it is less expensive and easier to handle for large panes. It will not warp.

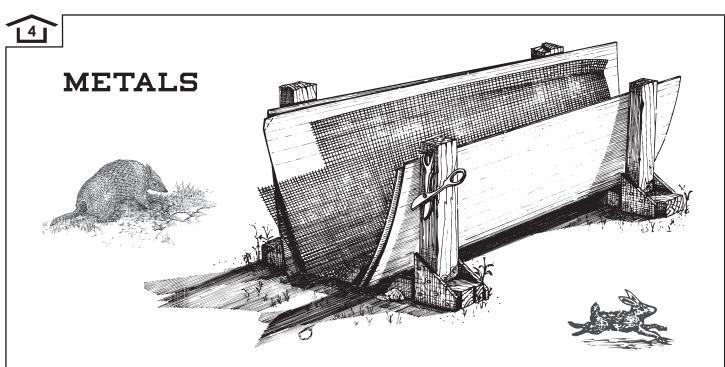


Product Number	Quantity	Description	Price
230 231 234 232 232P 233	10 25 50 1 1 1	2.3" x 0.9" x 0.006" 2.3" x 0.9" x 0.006" 2.3" x 0.9" x 0.006" Glass Scriber Scriber Replacement Point Glass and Scriber Pack (one - 230 and one - 232)	\$6.50 13.00 22.00 4.50 2.25 10.00

A SPECIAL NOTE TO ALL MODELERS

You will notice that Clover House products are slanted primarily toward model railroaders. However, many of the items can be used in other craft-type hobbies. As an example: chain, cable, barrels and wood poles are naturals for ship modeling while cable and chain can be used for trucks and military models.

Dry transfer alphabets and stripes may be used in all areas of modeling. You will find a conversion table inside the back cover that should be of help in choosing the size you need for your project.



BRASS has been a favorite metal of model builders for many years. Usually it is used in sheet form for construction of locomotives and cars, in wire form for piping and rods, and, in tube form for smoke stacks, air tanks and car loads.

PHOSPHOR BRONZE is generally used where electrical contacts are required. Natural springiness and conductivity make it a better contact material than brass. It is used in wire form for traction overhead and auxiliary pickups on wheels and axles. The sheet stock is handy for leaf contacts and electrical pickup shoes for cars and locomotives.

NICKEL SILVER is used primarily for rail but can be used for general metal work. The advantages are that it doesn't turn green like brass and the oxidation that does form will conduct electricity. Also, it works and forms about the same as brass. This is not surprising since nickel silver is really a type of brass. Some of the zinc has been replaced with nickel to change the color and improve resistance to corrosion.

COPPER is the standard metal used to conduct electricity. It is also used on printed circuit (PC) board ties and in sheets for roofs of buildings.

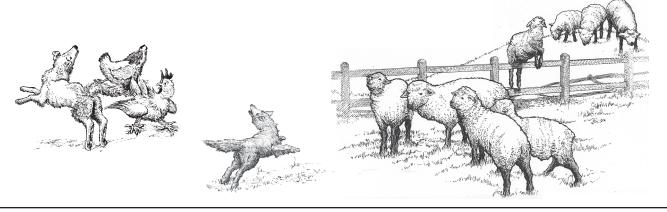
HARDNESS - Copper-based metals such as brass, nickel silver, phosphor bronze, and plain copper increase in hardness, or stiffness as they are formed or bent. With soft metal, the piece can be bent or formed to a shape, and it will not try to return to its original shape. It can also be bent out of shape easily.

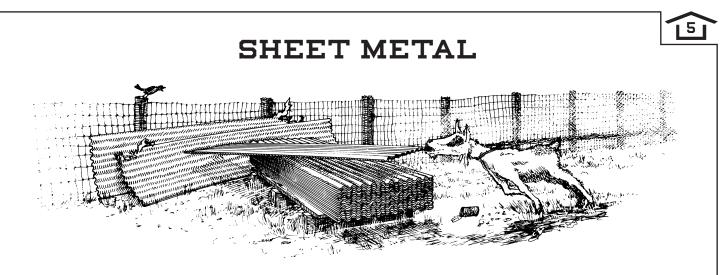
Work hardening happens when these metals are formed or bent a few times at the same point. The metal becomes harder until it breaks. This will happen sooner with the harder varieties of metal.

The copper based metals all anneal (soften) when heated. If you bend it too much, try using a torch or a candle to return the metal to the soft state.

Hard or spring-tempered metal is stronger, but it is harder to form because it wants to return to its original shape. It doesn't bend or "give" as easily as soft metal. Half-hard, as its name implies, is half as hard as spring tempered. It has many of the advantages of spring tempered, but is easier to form.

ASSEMBLY - All of these metals can be joined together using solder, epoxy, or ACC cement. Follow the instructions for the adhesive used.





Sheet metal has long been a favorite model building material. It is available in brass, nickel silver, copper and phosphor bronze for use in fabrication of locomotives, cars, bridges, structures, ships, military models, electrical contacts, etc.

Product	Material	Hardness	Actual		Thickne	ss in Scal	e Inches		Price
Number	Material	Haruness	Thickness	Ν	НО	S	0	G	Flice
971	Brass	Half-Hard	.005	0.80	0.44	0.32	0.24	0.12	\$3.75
972	Brass	Half-Hard	.010	1.60	0.87	0.64	0.48	0.24	4.25
973	Brass	Half-Hard	.020	3.20	1.74	1.28	0.96	0.48	4.50
974	Brass	Half-Hard	.032	5.12	2.78	2.05	1.54	0.77	5.50
979	Nickel Silver	Hard	.006	0.96	0.52	0.38	0.29	0.15	4.00
982	Nickel Silver	Half-Hard	.020	3.20	1.74	1.28	0.96	0.48	5.50
983	Nickel Silver	Soft	.032	5.12	2.78	2.05	1.54	0.77	6.50
990	Phosphor Bronze	Hard	.003	0.48	0.26	0.19	0.14	0.07	4.00
991	Phosphor Bronze	Hard	.008	1.28	0.70	0.51	0.38	0.19	4.00
996	Copper	Soft	.002	0.32	0.17	0.13	0.10	0.05	4.00
997	Copper	Half-Hard	.003	0.48	0.26	0.19	0.14	0.07	4.00
998	Copper	Half-Hard	.020	3.20	1.74	1.28	0.96	0.48	4.25

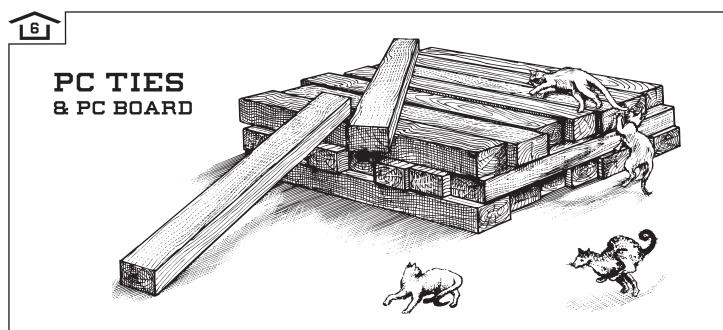
One 4" x 6" Sheet per Package

SCREEN

Woven square mesh screen is available in both nylon and brass. We carry sizes which cover the range from security mesh over windows in some scales to ventilator screen for diesels. Additional uses for the screen are sawdust burners, smoke stacks for wood burning locomotives, fencing, etc.

One 4"	x 6"	Sheet	per	Package	-	\$5.00
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Product	Number	Meeh	Wire	Open	Actual Mesh		Mesh Si	ze In Scale	e Inches	
Brass	Nylon	Mesh	Diameter	Area	Size	Ν	НО	S	0	G
785	885	100	.005	30.0%	.010	1.60	0.87	0.64	0.48	0.24
786	886	80	.006	31.4%	.0125	2.00	1.09	0.80	0.60	0.30
787	887	60	.007	37.5%	.0167	2.67	1.45	1.07	0.80	0.40
788	888	40	.010	36.0%	.025	4.00	2.18	1.60	1.20	0.60
789	889	20	.016	46.2%	.050	8.00	4.35	3.20	2.40	1.20



Printed circuit board ties (PC ties) are made from the same copper clad material used in fabricating electronic circuits. PC ties simplify crossing and turnout construction since stock rails, guard rails and frogs can be soldered in place to hold gauge. Ties are cut to length by the modeler using a razor saw, rail nippers, diagonal cutters or a cutting disc on a motor tool.

PC ties can be used to replace every fifth wood tie in track work and thus eliminate hand spiking. Once everything is soldered into place, the copper can be cut between the rails, insuring that the rails are insulated from each other. The substrate, or base material, holds everything in place after the copper coating is cut.

PC tie material comes in 12" lengths to minimize waste as the ties are cut to match the various

lengths needed. Our PC ties are copper clad on both sides.

Turnout throw bars can be drilled, tapped and soldered. In N and HO scale, throw bars are wider than standard ties to allow enough room for drilling holes, since ties that are less than .110 inch wide tend to break when they are drilled.

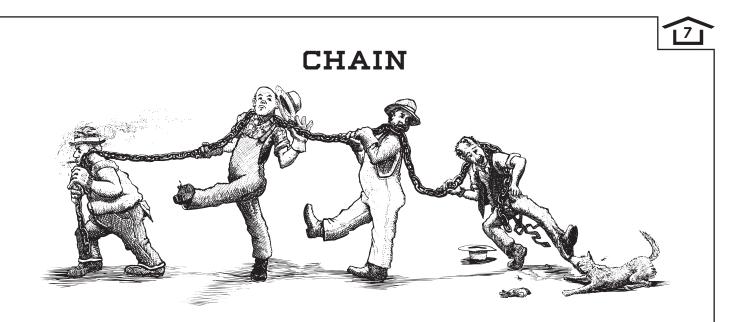
S and O scale PC ties will need spacers to match the height of regular wood ties.

Module Interface ties are .375 inch wide strips of .062 inch thick printed circuit board. These ties provide a firm anchor for the rails at the edge of modules where rails often get damaged.

Sheet PC board can be used for electrical tie points cut to fit by the modeler or for other special uses.

Product Number	Scale	Tie Width	Quantity	Actual Thickness	Use With Corresponding Wood Ties	Price
260	N	9" (.056")	10	.031"	6" x 8" and 7" x 9"	\$7.50
261	N	Throw Bar (.110")	10	.031"	6" x 8" and 7" x 9"	5.50
262	HO - Low Contour	8" (.092")	10	.031"	4" x 8"	5.50
263	HO - Low Contour	9" (.103")	10	.031"	4" x 9"	5.50
264	HO - Low Contour	Throw Bar (.125")	10	.031"	4" x 8" and 4" x 9"	5.50
265	HO	8" (.092")	10	.062"	6" x 8"	5.50
266	HO	9" (.103")	10	.062"	7" x 9"	5.50
267	HO	Throw Bar (.125")	10	.062"	6" x 8" and 7" x 9"	5.50
272	S	8" (.125")	10	.062"	6" x 8"	5.50
273	S	9" (.141")	10	.062"	7" x 9"	5.50
274	0	8" (.167")	10	.062"	6" x 8"	6.00
275	0	9" (.188")	10	.062"	7" x 9"	6.00
276	Module Interface	.375"	6	.062"	N/A	6.00
277	Sheet PC Board	5.75" x 3.875"	1	.031"	N/A	2.50

PC Tie Strips 12" Long



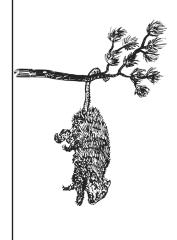
Chain is made of round blackened brass wire formed into individual links. The chain comes in two styles with either flat or oval links. Both have rounded ends just like the prototype. Flat links are used for safety chain on railroad cars and locomotives. Oval link chain can be used for brake chain on cars, locomotives, water tanks and for tying down logs on cars. It is also used on ships, trucks, military vehicles and lifting equipment.

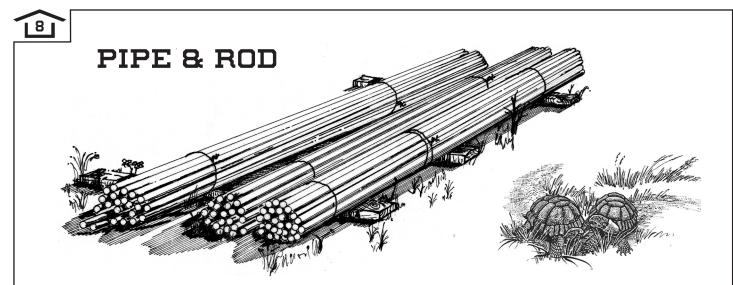
		Links	Ac	tual	Wire Diameter and Link Length in Scale Inches									
Product Number	Link Style	per	Wire	Link	1	2	Н	0	Ş	S	C	C	(9
		Inch	Dia.	Length	Wire	Link	Wire	Link	Wire	Link	Wire	Link	Wire	Link
383 384	Oval Flat	25 21	.012 .012	.060 .075	1.92 1.92	9.60 12.00	1.04 1.04	5.22 6.52	.08 .08	3.84 4.80	.58 .58	2.88 3.60	.29 .29	1.44 1.80
385 386	Oval Flat	20 17 1/2	.014 .014	.070 .085	2.24 2.24	11.20 13.60	1.22 1.22	6.09 7.40	.09 .09	4.48 5.44	.67 .67	3.36 4.08	.34 .34	1.68 2.04
387 388	Oval Oval	201/2 12	.018 .023	.060 .125	2.88 3.68	9.60 20.00	1.56 2.00	5.22 10.88	1.15 1.47	3.84 8.00	.86 1.10	2.88 6.00	.43 .55	1.44 3.00
389	Flat	101/2	.023	.135	3.68	21.60	2.00	11.75	1.47	8.64	1.10	6.48	.55	3.24

20" per Package - All Sizes \$4.25

SCALE COMPARISONS BY PERCENTAGE

Scale	Ratio	z	N	тт	но	S	0	G	Scale
Z	1:220	100.00	137.50	183.33	252.87	343.75	458.33	916.67	Z
N	1:160	42.73	100.00	133.33	183.91	250.00	333.33	666.67	N
ТТ	1:120	54.55	75.00	100.00	137.93	187.50	250.00	500.00	тт
НО	1:87	39.55	54.38	72.50	100.00	135.94	181.25	362.50	но
S	1:64	29.09	40.00	53.33	73.56	100.00	133.33	266.67	S
O	1:48	21.82	30.00	40.00	55.17	75.00	100.00	200.00	O
G	1:24	10.91	15.00	20.00	27.59	37.50	50.00	100.00	G

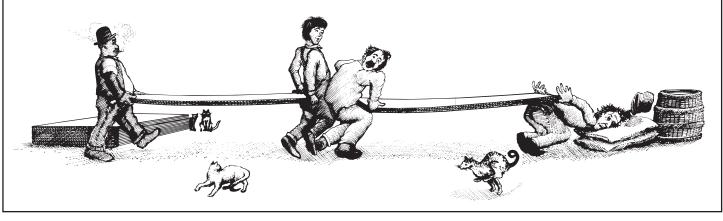


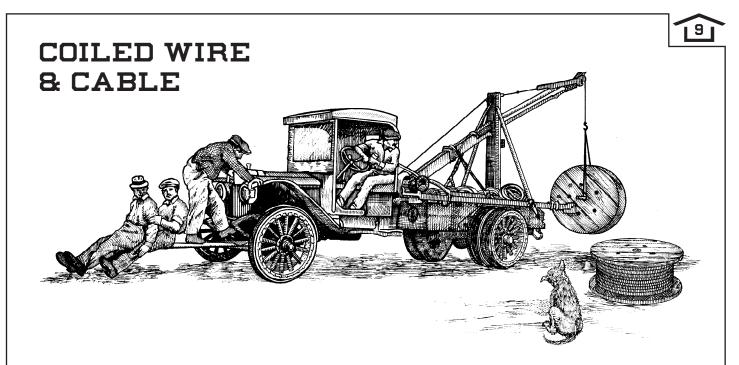


Straight wire comes in spring brass for piping and rods. The wire may be used for piping on locomotives, cars and structures. Prototype pipe is measured by inside dimension. However, for modeling purposes, the outside dimension is used. Rods may be used for truss rods on cars, bridges, water tanks and on other structures. They also can be used for bands on water tanks, throw rods for turnouts, railings, masts and standing rigging on ships. See tables inside of rear cover.

Product	Actual	Wire	Drill	1	١	Н	0	5	6	C	C	C	3
Number	Diameter	Gauge	Size	Rod	Pipe	Rod	Pipe	Rod	Pipe	Rod	Pipe	Rod	Pipe
240 241 242 243	.010 .011 .013 .014	30 29 28 27	80 80 80 79	1 1/2" 1 3/4" 2" 2 1/4"	1 1/2" 1 3/4"	1" 1 1/4"	1/2" 3/4"	3/4"	1/2"	1/2"		1/4"	
244 245 246 247	.016 .018 .020 .023	26 25 24 23	78 77 75 74	2 1/2" 3" 3 1/4"	2" 2 1/4" 2 1/2" 3"	1 1/2" 1 3/4" 2"	1" 1 1/2"	1" 1 1/4" 1 1/2"	3/4" 1"	3/4" 1"	1/2" 3/4"	1/2"	
248 249 250 251	.025 .028 .032 .036	22 21 20 19	71 69 67 64	4" 5" 6"	4" 5"	2 1/2" 3"	2" 2 1/2"	1 ³ /4" 2"	1 1/2" 2"	1 1/4" 1 1/2"	1"		1/2"
252 253 254 255	.040 .045 .051 .057	18 17 16 15	59 56 55 53	7" 8" 9"	6" 7" 8" 9"	4" 5"	3" 4"	2 1/2" 3"	2 1/2" 3"	2" 2 1/2"	1 1/2" 2" 2 1/2"	1" 1 1/4"	3/4" 1" 1 1/4"

Ten Pieces 12" Long per Package) -	All Sizes 4.25
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STRANDED CABLE

Stranded cable is soft multi-strand copper wire that has been blackened to simulate wire rope. It can be used for logging, ship, military, industrial, truck and railroad models.

> One 20' Coil per Package All Sizes \$5.00

Product	Actual	Number	Drill	Diameter in Scale Inches					
Number	Diameter	of Strands	Size	Ν	HO	S	0	G	
282 283 284 285	.015 .015 .019 .025	19 7 7 7	78 78 76 72	2 1/2 2 1/2 3 4	1 1/4 1 1/4 1 1/2 2 1/4	1 1 1 ¹ /4 1 ¹ /2	1/2 1/2 1 1 1/4	1/2	

Product	Actual	Wire	Drill	rill Diameter in Scale Inche				
Number	Diameter	Gauge	Size	Ν	НО	S	0	G
0275 0276 0277	.010 .013 .016	30 28 26	80 80 78	1 ¹ /2 2 2 ¹ /2	3/4	1	1/2 3/4	1/4

PHOSPHOR BRONZE WIRE

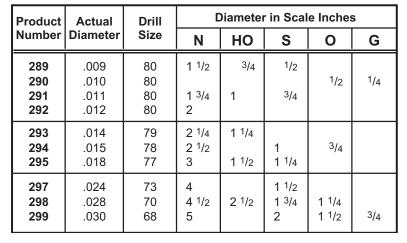
Phosphor bronze wire is used primarily for overhead electrical systems on traction layouts, but it may also be used in other applications such as spring contacts.

One 100' Coil per Package All Sizes \$8.00

NYLON FILAMENT

Black nylon filament can be used for truss rods on bridges, water tanks, cars and for bands on wooden tanks. It can also be used for telephone lines, electric power lines and cables.

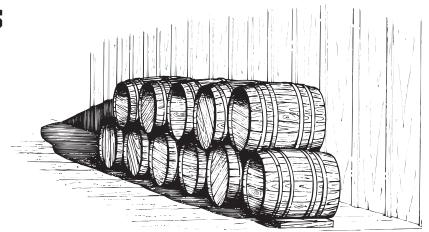




BARRELS

Barrels have been used for shipping and storing almost everything. They belong on station platforms, cars, wharves and wherever things are to be shipped or stored as well as on bridges and trestles for fire protection. Our barrels are turned from hardwood and have raised bands.

Barrels are not made in standard sizes like metal drums. We offer four sizes which are 42" high by 30" diameter barrels in each scale. However, a barrel that is a good height for a fire barrel in one scale could be used as a nail keg in another scale. As an example, an N scale barrel would be a good sized nail keg in O scale. Also an HO barrel could be used as a hogshead in N scale.



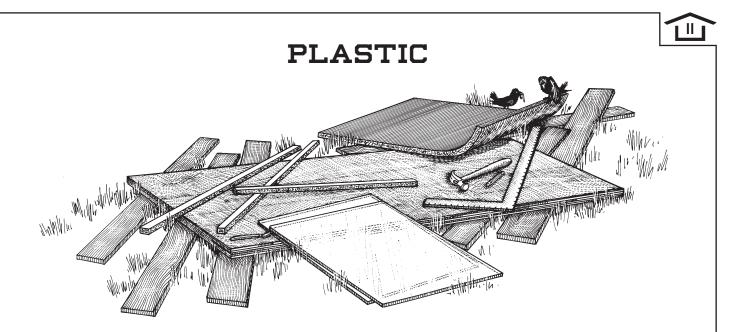
Ten Barrels per Package

Product					Price			
Number	Dia.	Height	Ν	НО	S	0	G	Flice
209	.188	.263	42	23	16	13	6	\$3.75
210	.340	.483	77	42	30	23	12	3.75
211	.460	.656	108	58	42	32	16	4.25
212	.615	.875	141	77	55	42	21	4.25

Poles are used in various diameters for piers, trestles or for traction, telegraph and utility line poles. (Fourteen inches is a common diameter for prototype trestles). Poles may also be used for loads in gondolas and on flat cars. They are milled from white birch with non-tapering sides.

Ten Poles per Package

Product	Actual	Actual		Diamete	r in Scal	e Inches		Price
Number	Dia.	Length	Ν	НО	S	0	G	Flice
203	.085	12	14	7	5	4	2	\$2.50
204	.125	12	20	11	8	6	3	2.50
200	.156	12	25	14	10	7	4	2.50
201	.219	24	35	19	14	11	6	4.75
202	.281	24	45	24	18	14	7	4.75



Often plastics are not seriously considered for construction in models because builders want to use the same materials used to build the prototype, however plastics are valuable modeling aids.

Plastic can easily substitute for prototype material because it has a hard, smooth, easily-painted surface. Plastic may be substituted even where weathered, rough timbers or siding are needed. The plastic surface can be roughened to simulate the various textures of wood by using different grades of sand papers or with a razor saw.

As a substitute for metal, plastic does not conduct electricity, can be handled more easily and is lighter. The heat generated by high speed power tools can cause some plastics such as styrene and acrylic to melt slightly and become gummy, therefore, it is better to use hand tools for sawing, sanding or drilling these materials.

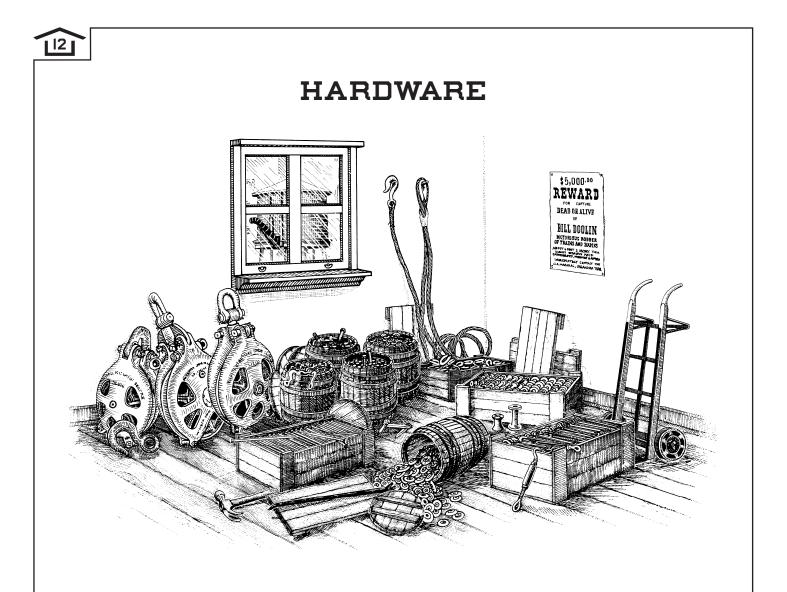
Plastics can be assembled with either cements or solvents. For plastic to plastic, use MEK (methyl ethyl ketone) or other solvent welds; for plastic to metal, use ACC (cyanoacrylate); for plastic to wood, use aliphatic resin glue.

STYRENE is a smooth, white plastic and is typically used to represent lumber, siding and metal.

POLYCARBONATE (LEXAN) is an ultraclear plastic used for windows. It is thicker than our window glass, but it is safer to use in models that will be handled or for models with very large windows.

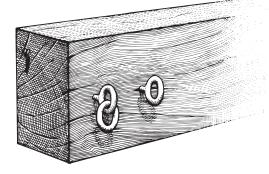
Product	Material	Color	Actual	Sheets		Thicknes	ss in Scal	e Inches		Price
Number	Wateria	00101	Thickness	per Package	Ν	HO	S	0	G	FILCE
471	Polycarbonate	Clear	.005	1	0.80	0.44	0.32	0.24	0.12	4.00
472	Polycarbonate	Clear	.010	1	1.60	0.87	0.64	0.48	0.24	4.00
474	Polycarbonate	Clear	.020	1	3.20	1.74	1.28	0.96	0.48	4.00
475	Polycarbonate	Clear	.031	1	4.96	2.70	1.98	1.49	0.75	4.00
476	Polycarbonate	Clear	.025	1	4.00	2.18	1.60	1.20	0.60	4.00
481	Styrene	White	.010	4	1.60	0.87	0.64	0.48	0.24	3.25
482	Styrene	White	.015	3	2.40	1.31	0.96	0.72	0.36	3.25
483	Styrene	White	.020	3	3.20	1.74	1.28	0.96	0.48	3.25
484	Styrene	White	.030	2	4.80	2.61	1.92	1.44	0.72	3.25
485	Styrene	White	.040	2	6.40	3.48	2.56	1.92	0.96	3.50
486	Styrene	White	.060	1	9.60	5.22	3.84	2.88	1.44	3.25

5-1/2" x 12" Sheets



EYE BOLTS & RINGS

Eye bolts are used in heavy timbers, poles, stone, concrete, steel, etc. to anchor cables, rope and chain. They can be used as lifting rings for motors and large pieces of equipment. The eye bolts have a straight shank so that they can be pushed into pre-drilled holes. The rings are separate so that they may be attached to chain, rope, or cable and then attached to the eye bolt. Both are made of blackened brass.



Ten Eye Bolts and Rings per Package – All Sizes \$4.25

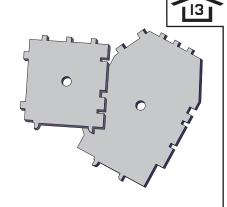
	Dian	neter	Drill for			Wire	and Rir	ng Diam	eter in S	Scale Ind	ches		
Product Number	Wire	Outside	Eyebolt	1	۲ ا	Н	0	<i>v,</i>	6	C)	C	9
	wire	of Ring	Shank	Wire	Ring	Wire	Ring	Wire	Ring	Wire	Ring	Wire	Ring
226 227	.021 .032	.092 .092	75 67	3.33 5.08	14.72 14.72	1.83 2.78	8.00 8.00	1.35 2.05	5.89 5.89	1.01 1.54	4.42 4.42	.51 .77	2.21 2.21

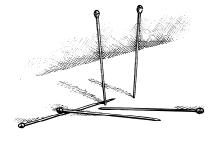
Product Number	Scale Track	Gauge	Price
791	Ν	Standard	\$12.00
792	НО	Standard	12.00
793	НО	3 Foot Narrow	12.00
795	S	3 Foot Narrow	12.00
796	0	Standard	20.00
797	0	3 Foot Narrow	12.00

NMRA STANDARDS GAUGES

Use these standards gauges to verify track and wheel dimensions and clearances. They are helpful when laying track and turnouts on PC ties. Instructions included.



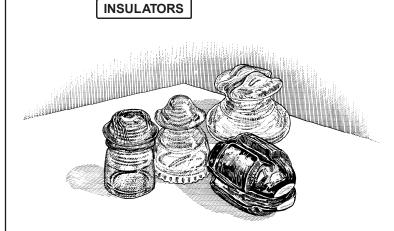




Model Makers pins are very thin, sharp, stainless steel pins topped with round plastic balls. They are great for holding parts in place during gluing operations.

MODEL MAKERS PINS

No. 1250 - 200 Pins per Package - \$2.75



Oval and cylindrical glass beads provide modelers with the first approximations of the many shapes used on pole lines over the years. Stack several on a pin for high voltage standoffs or use singly on telegraph arms or traction overhead. Bead size varies slightly in any lot. Sizes are an average of measured samples

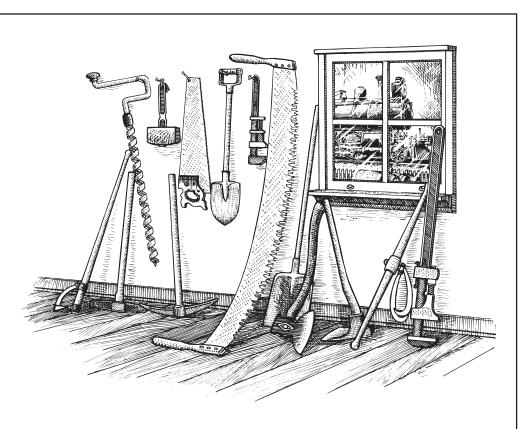


500 Beads per Package - All Sizes \$4.25

	Insu-		Ac	tual	Cap	acity	W	ire Diar	neter a	nd Link	Length	ı in Sca	le Inche	es
Product Number	lator	Color	Dia-	Uniorht	One	Two	Ν	1	Н	0	5	5	C)
	Туре		meter	Height	Wire	Wires	Dia.	Ht.	Dia.	Ht.	Dia.	Ht.	Dia.	Ht.
391 392 393 394	Pin Pin Pin Pin	White Black Dark Red Dark Green	.048 .048 .060 .050	.025 .030 .040 .050	28 ga 26 ga 26 ga 26 ga	36 ga 32 ga 32 ga 30 ga	7.68 7.68 9.60 8.00	4.00 4.80 6.40 8.00	4.18 4.18 5.22 4.35	2.18 2.61 3.48 4.35	3.07 3.07 3.84 4.35	1.60 1.92 2.56 3.20	2.30 2.30 2.88 2.40	1.20 1.44 1.92 2.40
395 397 398	Pin Strain Strain	Dark Red Red Brown Dark Blue	.092 .055 .065	.050 .050 .060	22 ga 22 ga 22 ga	28 ga 28 ga 28 ga	14.72 8.80 10.40	8.00 8.00 9.60	8.00 4.79 5.66	4.35 4.35 5.22	5.89 3.52 4.16	3.20 3.20 3.84	4.42 2.64 3.12	2.40 2.40 2.88

HAND TOOLS

Having the right tools makes any modeling project easier and more enjoyable. All our tools have been selected for their usefulness in model construction. While many of our tools are old favorites, some may be new to you.



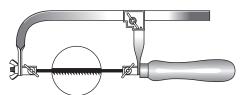




2001 No. 1 KNIFE (X-ACTO No. X3001) with No. 11 blade and safety cap. \$3.25



2031 No. 11 BLADE (X-ACTO No. X111) use in No.1 knife handle; five blade package. \$2.25



2130 JEWELER'S SAW (X-acto No. X7043) Adjustable frame. Clamping device holds blade firmly. Fits blade lengths from 2 inches to 71/2 inches. Throat 21/2 inches deep. Comes with two blades. Blade position may be adjusted to cut in any direction. Cuts metal, wood and plastic. **\$32.00**

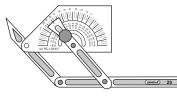
2135JEWELER'S SAW BLADES, EXTRA FINE (X-acto No. X746).Seventy teeth per inch. Packaged 12 per card. Use with X-acto No. 7043jeweler's saw.\$6.75

2139JEWELER'S SAW BLADES, COARSE (X-acto No.X759).Sixteen teeth per inch. Packaged 12 per card. Use with X-acto No.7043jeweler's saw.\$6.75



2145 PARTPICKER (X-acto No. X73800). Use to hold small parts during assembly and to start small screws and nuts in hard-to-reach places.

\$7.75



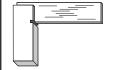
2197 Protractor (General No.29). Use to measure degrees in inside and outside sloped angles. Made of special plastic with brass lock nut. **\$3.75**



2208 MAGNETIZER/DEMAGNETIZER (General No. 360). For steel screwdrivers, tweezers, screws, nails and other small objects. Magnetize by sliding tool through .3 inch diameter hole in block and demagnetize by sliding tool in slot on outside of block. Tools not included. **\$2.00**

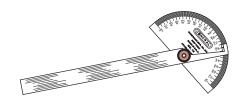


2235 NEEDLE FILE SET (General No. 707476). Six assorted patternfiles with a really neat handle and carrying case.\$9.75



2240 SQUARE (General No. 270-2). This twoinch square is helpful in aligning and squaringsmall parts.\$10.50

2214 REAMER (General No. 131). Use this small reamer for enlarging holes in sheet metal, plastic and similar thin materials. Capacity is from 1/8 to 3/8 inch diameter holes. \$10.25



2195 PROTRACTOR (General No. 18). Graduated from 0° to 180° in opposite directions. 3-3/8 x 2 inch round head with 6 inch adjustable arm. It is excellent for checking angles from grades in model railroads to establishing rake when stepping mast in ship models. \$17.25

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2203 DRILL GAGE (General No.13). Drill sizes 61 to 80. \$12.50 2202 DRILL GAGE (General No. 15). Drill sizes 1 to 60. \$10.50

32 64	GENERAL 4 32 40 48 1	MADE IN U.S.A.	No. 310	STAINLESS STEE	L	
28 30	25	21 22 23 24	14 15 18	12 10 98	NO.	

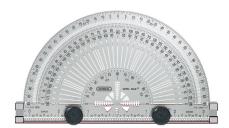
2190 SIX INCH RULE (General No.310). A good model maker's rule with graduations in 1/64 inch and 1/32 inch. Also, has a slot for measuring wire from 8 gage to 20 gage. \$3.50

PT 6T 2T TT OT 6 8 4 8 5 43 44 45 48 47 48 49 50 51 52 53 54 55

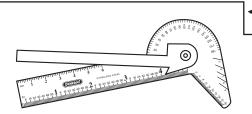
2192 TWELVE INCH MODEL RAILROADER'S RULE (General No. 1251). This 12 inch rule has been the standard in model railroading since the early 1950s. It has scales for N, HO, S and O \$6.50

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2194 TWELVE INCH MARKING RULE (General No. 1241). Stainless steel, graduations in 32nds and millimeters. Micro-fine guide holes locate your mark at the exact place. Special fine point pencil is included. 12.50



2196 SIX INCH MARKING PROTRACTOR (General No. 30). Stainless steel, graduations in degrees, 1/2 degrees and 32nds. Micro-fine guide holes locate your mark at the exact place. Special fine point pencil is included. 25.75



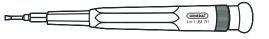
2198 PROTRACTOR RULE (General No.16ME). Combined Square, Protractor, Center Finder, Drill Point Gage & Circle Divider. \$9.00



2188 EYE LOUPE (General No. 527). This is the same style eye loupe used by jewelers and watchmakers for viewing fine parts and detail. Magnification 5 x. Distance to work 2 inches. The one inch diameter lens is made of ground and polished optical glass. \$5.50

2199 TRAMMEL POINTS (General No. 523). Use for accurately measuring or marking radii greater than the range of an ordinary compass. The individual points clamp to a yard stick or board so that large arcs or circles may be scribed such as full size radii on a model railroad layout. \$30.75





2211 FOUR IN ONE SCREWDRIVER (General No.741). Two double ended blades, one for slotted and the other for Philips head screws. Blades magnetically held in reversible carrier which fits in handle. Swivel head for greater control. Because of magnetism, do not use on computers. \$7.25



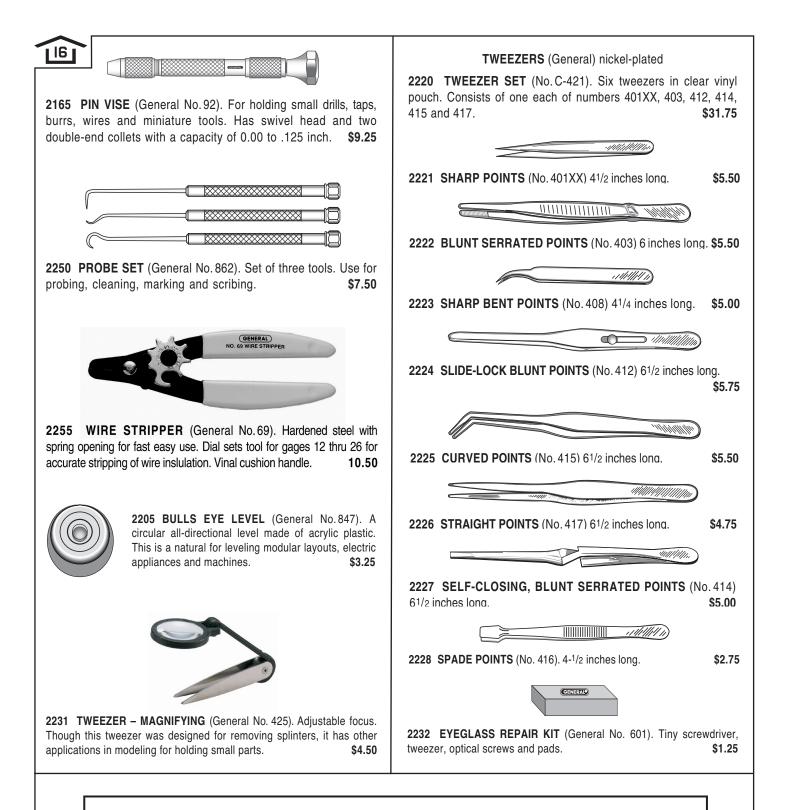
2210 JEWELER'S SCREWDRIVER (General No.S-605). This set has a swivel head screwdriver with four straight blades and one number '0' crosspoint blade. A necessity for model building. \$5.00



\$4.50 metals.

232P SCRIBER REPLACEMENT POINT Carbide. (General No. 88P). For scriber 232. \$2.25

| 15



WHY NOT COMPUTER PRINTED DRY TRANSFERS AND DECALS?

As of November 2010, the quality of computer printed dry transfers and decals is still inferior to the traditional screen process. The line definition and color rendering are not as good as that obtained from the mechanical printing process.

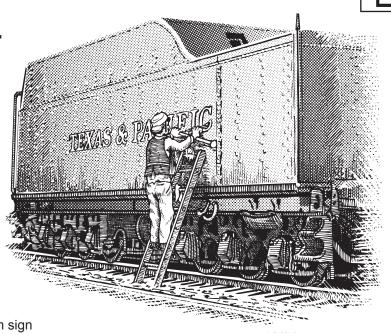
One computer printer overlays the primary colors (magenta, cyan, yellow) to obtain other colors. For example, stripes or dots of magenta

are printed over a base of yellow to obtain orange, which looks fine at a distance but not close up. On other printers serious fading is a problem. More traditional screen printing uses pre-mixed colors in one layer so the line definition is more exact and continuous.

Until the technology improves, which we expect it will, we will continue to supply our dry transfers by the traditional screen process.

DRY TRANSFER LETTERING





Our lettering has been faithfully copied from sign painters' styles used by the railroads. Though some lettering is quite similar to printers' type, the difference is significant.

In most applications for lettering, dry transfers are preferred over decals. Since this is a dry process, there is no need for water or chemicals to soften a carrier film. Lettering and heralds come printed on a sheet and are then rubbed onto the model.

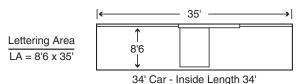
Dry transfer ink is opaque, so light colored letters do not appear darker when applied over dark backgrounds. When more than one color is used, each is transferred separately and then applied as an overlay. This gives the modeler full control and avoids the problem of registration errors in printing. After the lettering and heralds are transferred, they are sealed with a clear flat finish for protection and should last indefinitely.

Each lettering set contains enough material for the sides and ends of one car with extra numbers to customize the car. Alphabet sheets can be used to create custom names. We also offer sets containing chalk marks, building signs, refrigerator car doors, numbers, passenger car names, stripes, etc.

CUSTOM DRY TRANSFER LETTERING SETS

Clover House is not equipped to do custom art work for dry transfers, decal lettering, special heralds, etc. Currently we know of no one who is offering custom dry transfer service.

LETTERING AREA "LA"



Railroads usually measured cars by inside dimensions since they move cubic feet of freight. A 34 foot long car has 34 feet of space inside for cargo. End walls, braces and ice bunkers add to the overall length.

The lettering area "LA" on wood sheathed cars is measured on the outside of the car from end to end and bottom of facia to bottom of siding. For lettering purposes the facia, the long board on wood cars at the top of the siding below the roof, is not included in this measurement.

On steel cars the length is measured from end to end, or between the edges of wrap around end panels. The height is measured from the bottom of the steel flange at the top of the side to the bottom of the side.

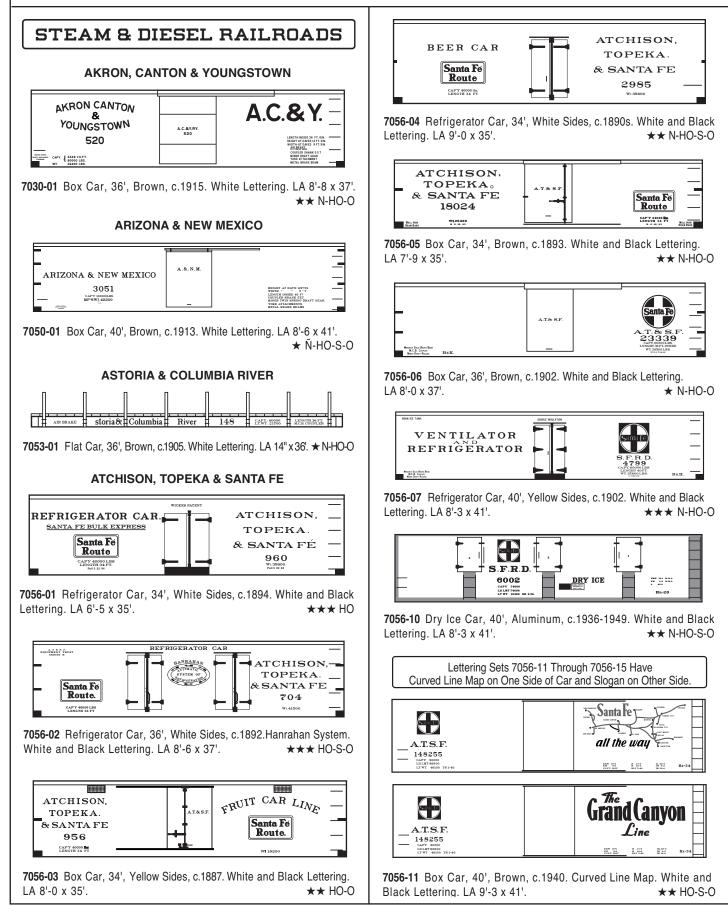
For drawing and lettering purposes we add one foot to the length of the car side. This compensates for the end walls, line thickness, etc. The height is established by ratios. Thus the open area inside the lines of our drawings is equal to the full side of the car.

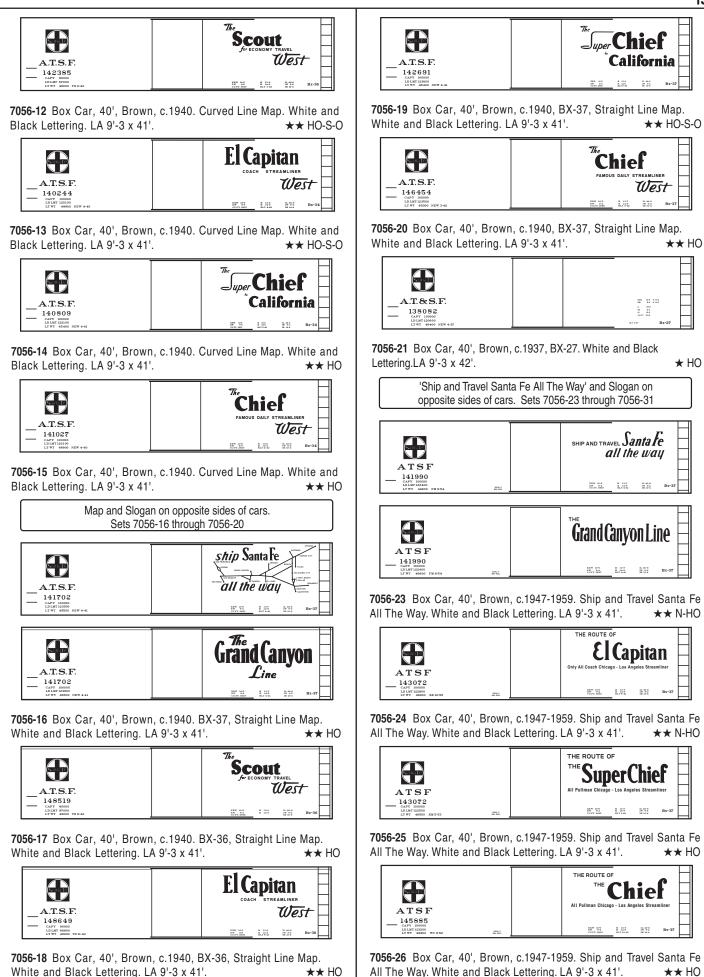
Lettering Area is not shown for passenger cars and locomotives. "LA" for gondolas and hopper cars includes only the area where the lettering is to be applied

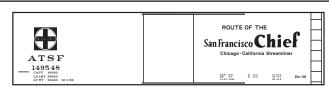
CARS & LOCOMOTIVES

DRY TRANSFER LETTERING

Each set contains enough material for one car or locomotive ★★★★ STARS INDICATE PRICE GROUP - See Page 65



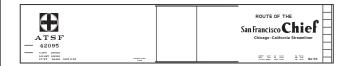




7056-27 Box Car, 40', Brown, c.1947-1959. Ship and Travel Santa Fe All The Way. White and Black Lettering. LA 9'-3 x 41'. $\star \star$ HO



7056-28 Box Car, 40', Brown, c.1947-1959. Ship and Travel Santa Fe All The Way. White and Black Lettering. LA 9'-3 x 41'. ★ HO-S-O



7056-30 Box Car, 50', Brown, c.1957, BX-72 / PS-1. Ship and Travel Santa Fe All The Way. White and Black Lettering. LA 9'-6 x 51'. ★★ HO-O



7056-31 Box Car, 50', Brown, c.1957, BX-72 / PS-1. Ship and Travel Santa Fe All The Way. White and Black Lettering. LA 9'-6 x 51'. ★★ HO

All available evidence indicates the Chief slogan was never applied on refrigerator cars with the Curved Line Map on the other side.

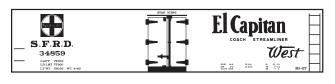
Lettering Sets 7056-34 Through 7056-37 have Curved Line Map on one side of car and a Slogan on the other side



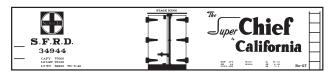
7056-34 Refrigerator Car, 40', Orange Sides, c.1940, RR-27, Curved Line Map. White and Black Lettering. LA 8'-8 x 41'. ★★ HO



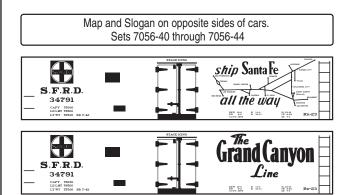
7056-35 Refrigerator Car, 40', Orange Sides, c.1940, RR-27, Curved Line Map. White and Black Lettering. LA 8'-8 x 41'. ★★ HO-S-O



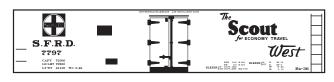
7056-36 Refrigerator Car, 40', Orange Sides, c.1940, RR-27, Curved Line Map. White and Black Lettering. LA 8'-8 x 41'. ★★ HO



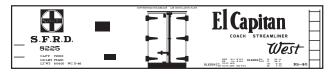
7056-37 Refrigerator Car, 40', Orange Sides, c.1940, RR-27, Curved Line Map. White and Black Lettering. LA 8'-8 x 41'. ★★ HO



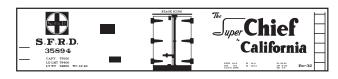
7056-40 Refrigerator Car, 40', Orange Sides, 1940-1947. RR-23. Straight Line Map. White and Black Lettering. LA 8'-3 x 41'.



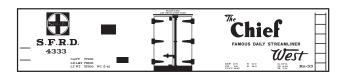
7056-41 Refrigerator Car, 40', Orange Sides, 1940-1947. RR-36. Straight Line Map. White and Black Lettering. LA 8'-3 x 41'. ★★ HO



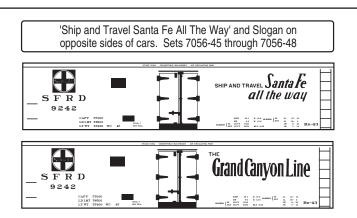
7056-42 Refrigerator Car, 40', Orange Sides, 1940-1947. RR 40. Straight Line Map. White and Black Lettering. LA 8'-3 x 41'. ★★ HO



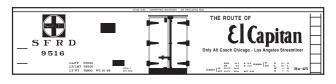
7056-43 Refrigerator Car, 40', Orange Sides, 1940-1947. RR-32. Straight Line Map. White and Black Lettering. LA 8'-3 x 41'. $\star \star$ HO



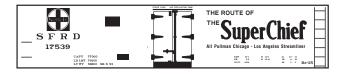
7056-44 Refrigerator Car, 40', Orange Sides, 1940-1947. RR-33. Straight Line Map. White and Black Lettering. LA 8'-3 x 41'. ★ HO-S-O



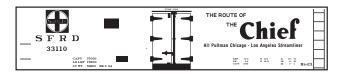
7056-45 Refrigerator Car, 40', Orange Sides, Steel c.1947-1959. RR-43. White and Black Lettering. LA 8'-3 x 41'. $\star \star$ HO



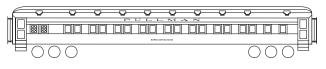
7056-46 Refrigerator Car, 40', Orange Sides, Steel c.1947-1959. RR-45. White and Black Lettering. LA 8'-3 x 41'. ★★ HO-S-O



7056-47 Refrigerator Car, 40', Orange Sides, Steel c.1947-1959. RR-25. White and Black Lettering. LA 8'-3 x 41'. ★★ HO

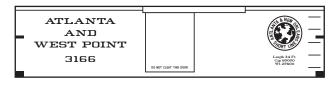


7056-48 Refrigerator Car, 40', Orange Sides, Steel c.1947-1959. RR-23. White and Black Lettering. LA 8'-3 x 41'. $\star \star$ HO



7056-49 Passenger Car, Pullman Green. Gold Lettering. * N-HO-S-O

ATLANTA & WEST POINT

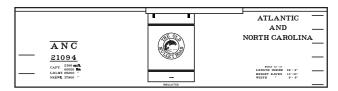


7068-01 Box Car, 34', Brown, c.1890. White and Black Lettering. LA 7'-6 x 35'. ★★ N-HO-S-O

ATLANTA, BIRMINGHAM & ATLANTIC

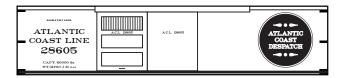


ATLANTIC & NORTH CAROLINA



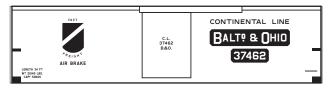
7070-01 Box Car, 36', Brown, c.1935. White Lettering. LA 9'-4 x 37'. * N-HO-S-O

ATLANTIC COAST LINE

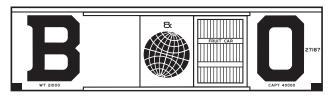


7072-01 Ventilated Box Car, 36', Yellow Sides, c.1906. White, Black and Red Lettering. LA 7'-9 x 37'. ★★★ HO-S-O

BALTIMORE & OHIO



7112-02 Box Car, 34', Brown, c.1880s. White and Black Lettering. LA 7'-6 x 35'. ★★ HO-S-O



7112-03 Box Car, 28', Brown, c.1880s. White Lettering. LA 7'-4 x 29'. ★★ HO-S-O

BALTIMORE & OHIO SOUTH-WESTERN

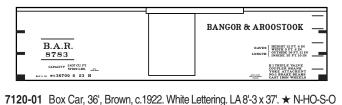


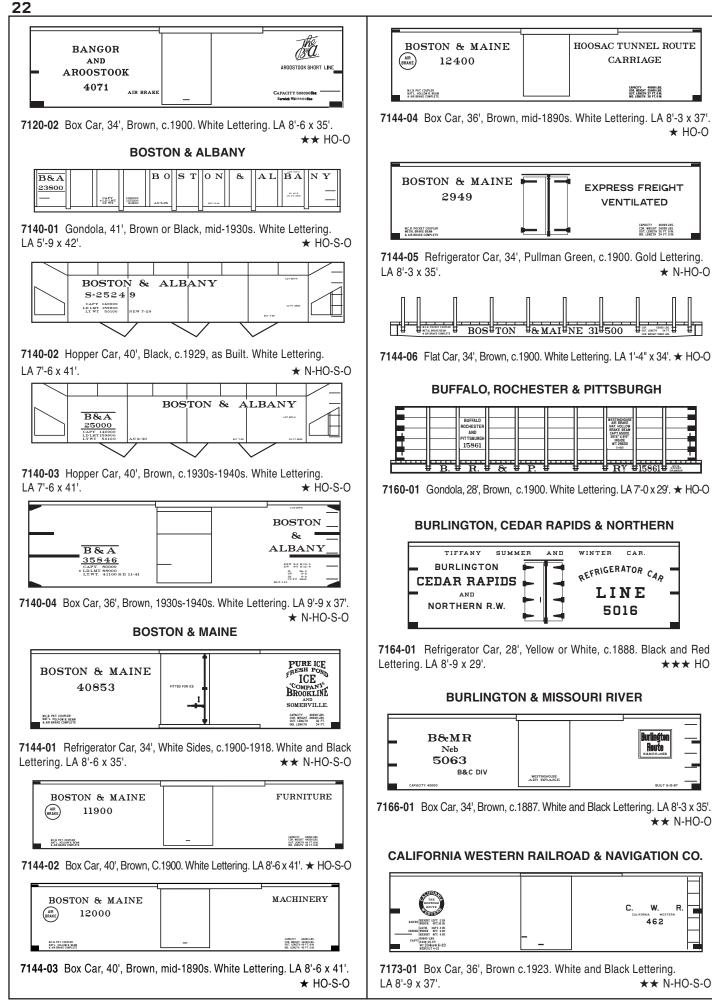
7113-01 Box Car, 36', Brown, c.1899. White and Black Lettering. LA 7'-9 x 37'. ★★ HO-O

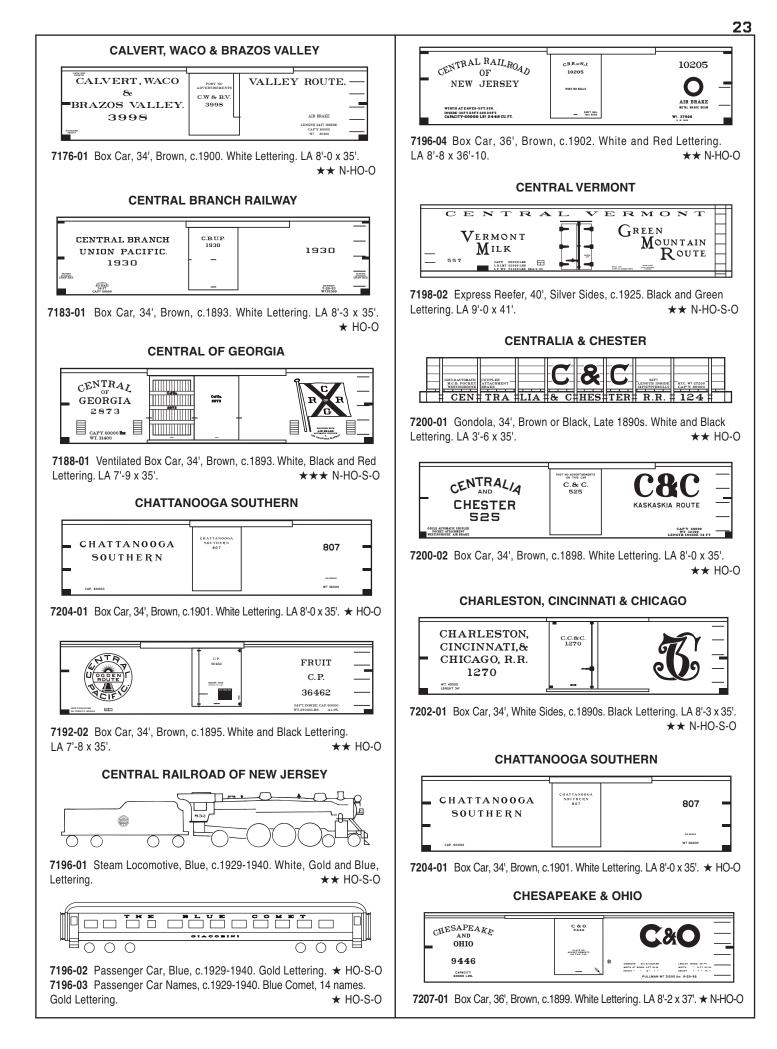


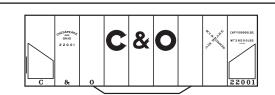
7113-02 Refrigerator Car, 36', Yellow Sides, c.1899. Black Lettering. LA 8'-3 x 37'. ★★ HO-O

BANGOR & AROOSTOOK







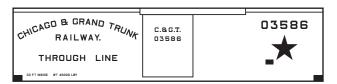


7207-02 Hopper Car, 28', Black, c.1901. White Lettering. LA 8'-0 x 29'. ★ HO-O

CHICAGO & GRAND TRUNK

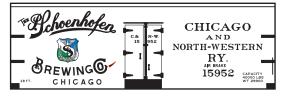
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7210-01 Stock Car, 36', Yellow or White Sides, c.1900. White and Black Lettering. LA 7'-6 x 37'. ★ N-HO-S-O



7210-02 Box Car, 33', Yellow, c.1893. Black Lettering. LA 7'-6 x 34'. ★★ N-HO-O

CHICAGO & NORTH-WESTERN



7212-01 Refrigerator Car, 28', Yellow Sides, c.1890s. White, Black, Red, Blue, and Green Lettering. LA 9'-0 x 29'. ★★★ HO-S-O

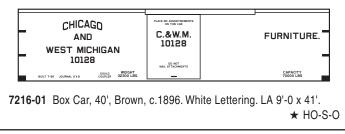


7212-02 Box Car, 36', Brown c.1908. White Lettering. LA 8'-6 x 37'. ★★ HO-O



7212-03 Refrigerator Car, 40', Yellow Sides, c.1925. White, Black and Red Lettering. LA 8'-4 x 41'. ★★★ HO-O

CHICAGO & WEST MICHIGAN

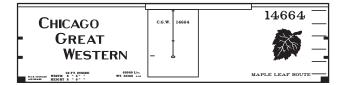


CHICAGO, BURLINGTON & QUINCY



7218-01 Box Car, 40', Brown, c.1892. White and Black Lettering. LA 8'-6 x 41'. ★ HO-S-O

CHICAGO GREAT WESTERN



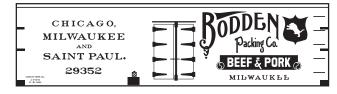
7222-01 Box Car, 36', Brown, c.1900. White and Black Lettering. LA9'-0 x 36'-7. ★★ N-HO-O

CHICAGO, LAKE SHORE & EASTERN

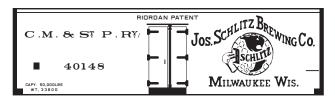


7223-01 Box Car, 34', Brown, c.1897. White Lettering. LA 8'-0 x 35'. ★★ N-HO-O

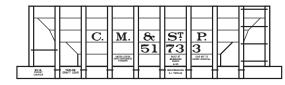
CHICAGO, MILWAUKEE & ST. PAUL



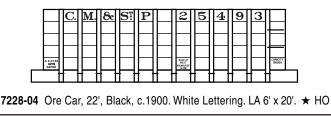
7228-01 Refrigerator Car, 36', Orange Sides, c.1903. White, Black, Red and Yellow Lettering. LA 9'-4 x 37'. ★★★ N-HO-O

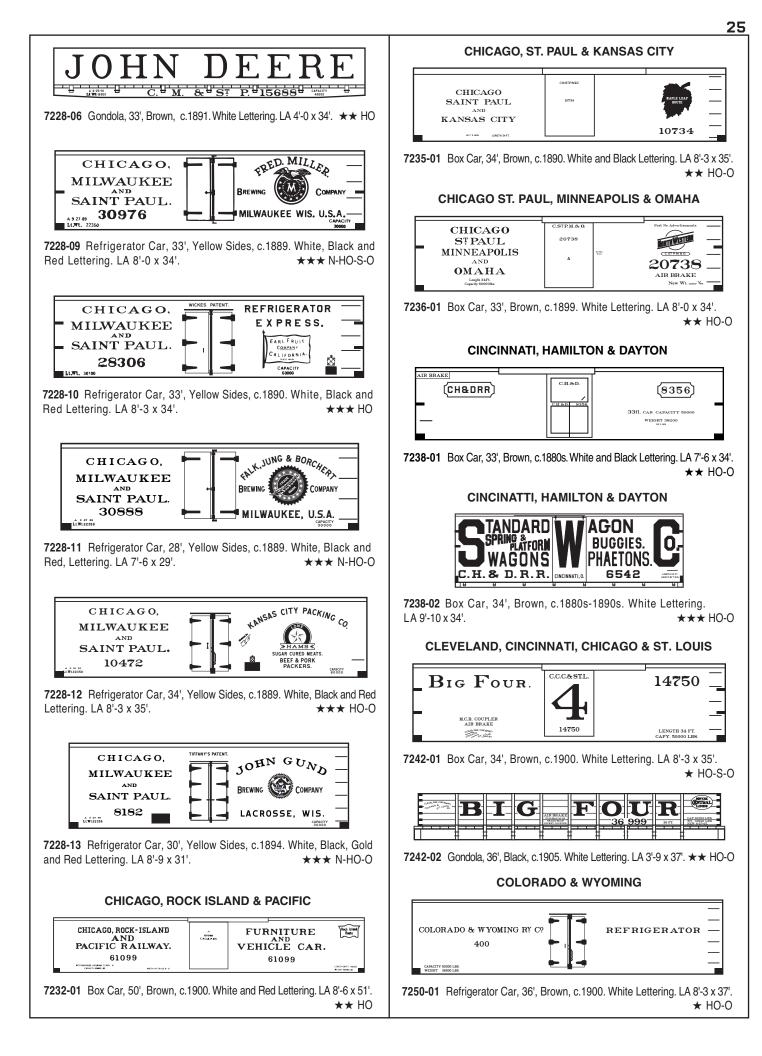


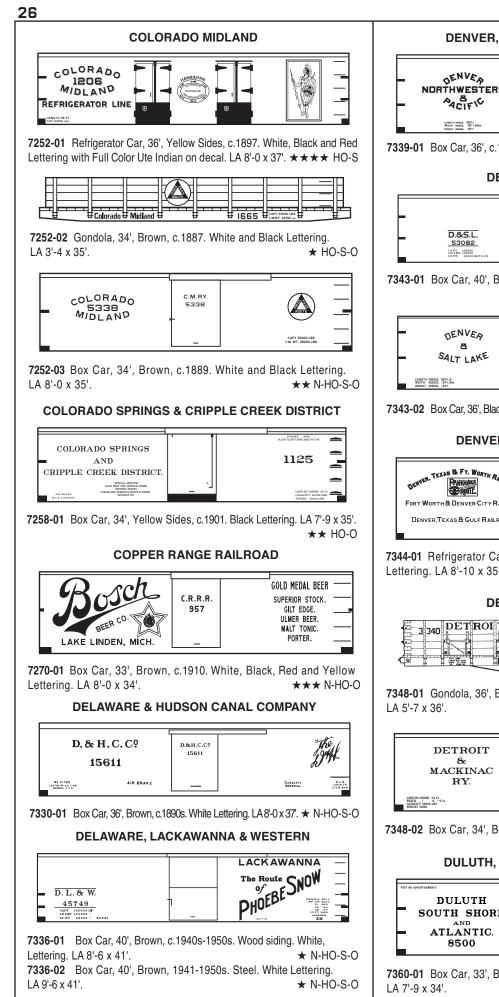
7228-02 Refrigerator Car, 28', Orange Sides, c.1880s. White, Black, Red and Blue Lettering. LA 8'-9 x 33'. ★★★ N-HO-S-O



7228-03 Ore Car, 22', Black, c.1913. White Lettering. LA 6' x 20'. * HO







DENVER, NORHWESTERN & PACIFIC



7339-01 Box Car, 36', c.1904. White Lettering. LA 8'-9 x 37'. * N-HO-S-O

DENVER & SALT LAKE



7343-01 Box Car, 40', Black, 1920s-1940s. White Lettering. LA 8'-6 x 41'. ★ N-HO-S-O



7343-02 Box Car, 36', Black, c.1913. White Lettering. LA 8'-8 x 37'. ★★ N-HO-O

DENVER, TEXAS & FORT WORTH

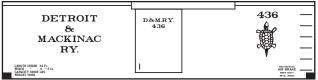


7344-01 Refrigerator Car, 34', Yellow Sides, c.1889. White and Black. Lettering. LA 8'-10 x 35'. ★★★ N-HO-O

DETROIT & MACKINAC



7348-01 Gondola, 36', Brown, c.1910. White and Gold Lettering. LA 5'-7 x 36'. ★ HO-S-O

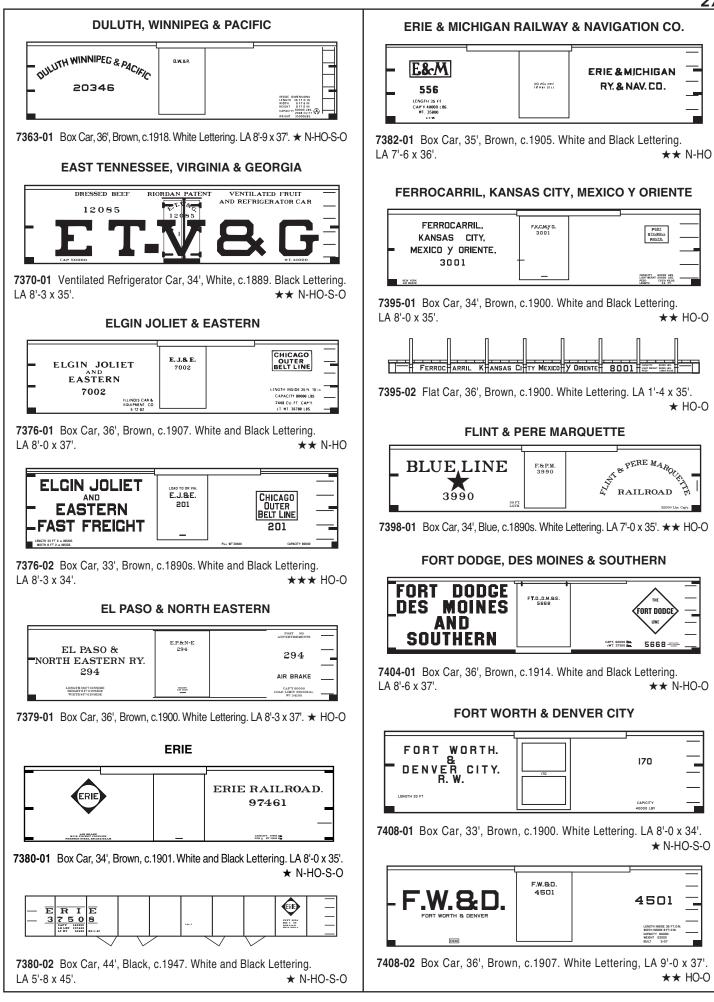


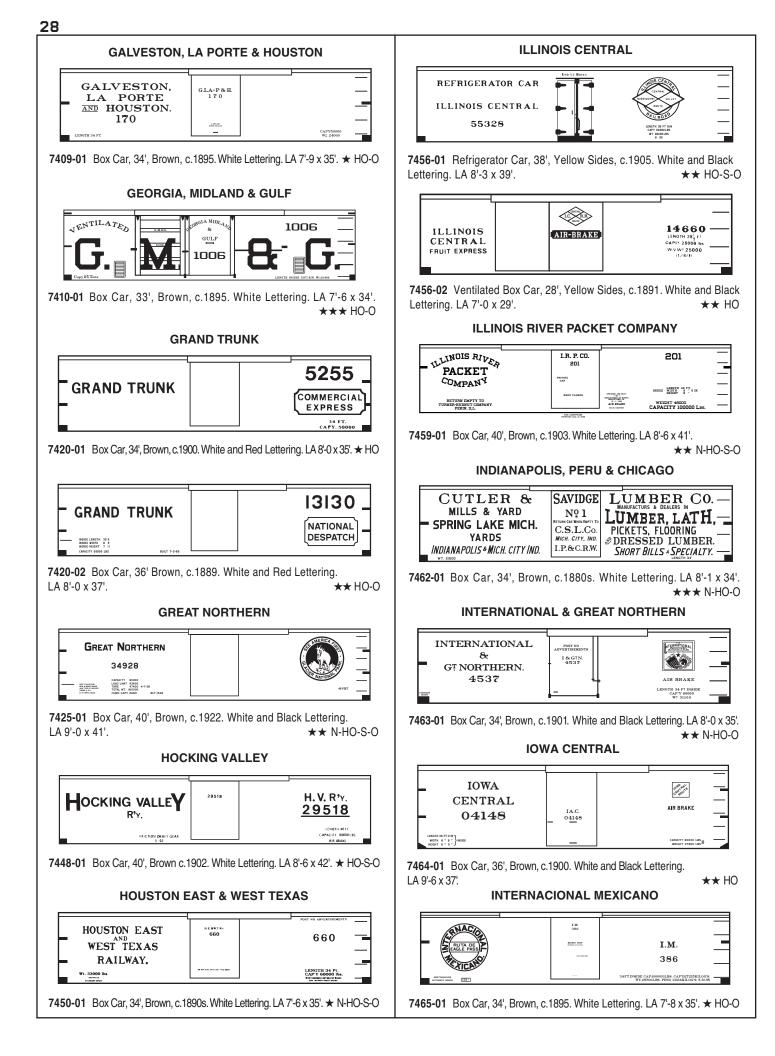
7348-02 Box Car, 34', Brown, mid-1890s. White Lettering. LA 8'-3 x 35'. ★ HO-O

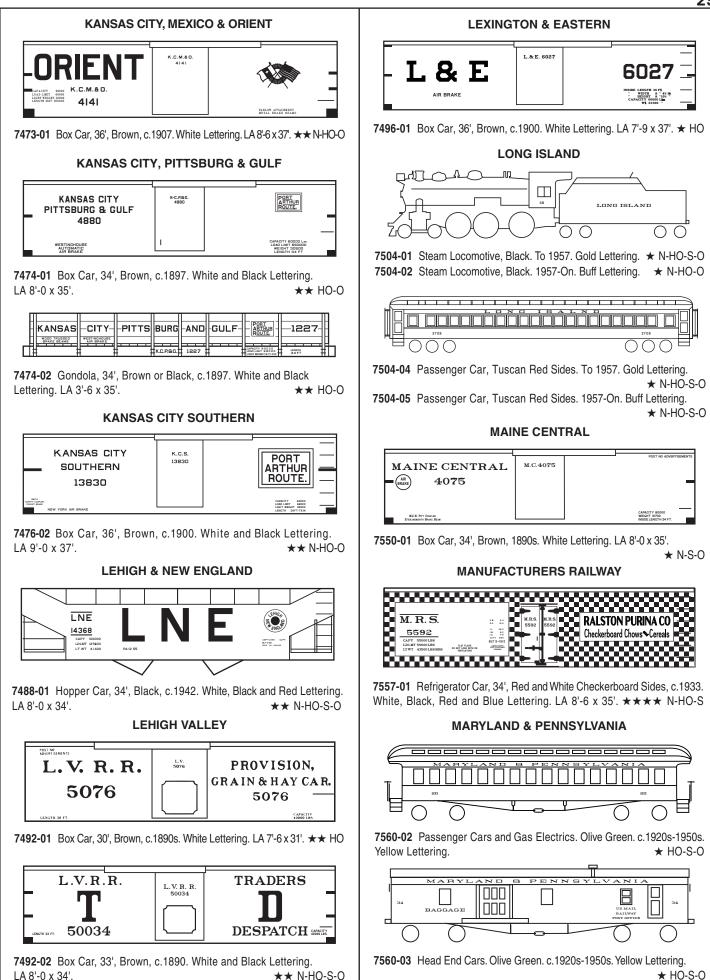
DULUTH, SOUTH SHORE & ATLANTIC

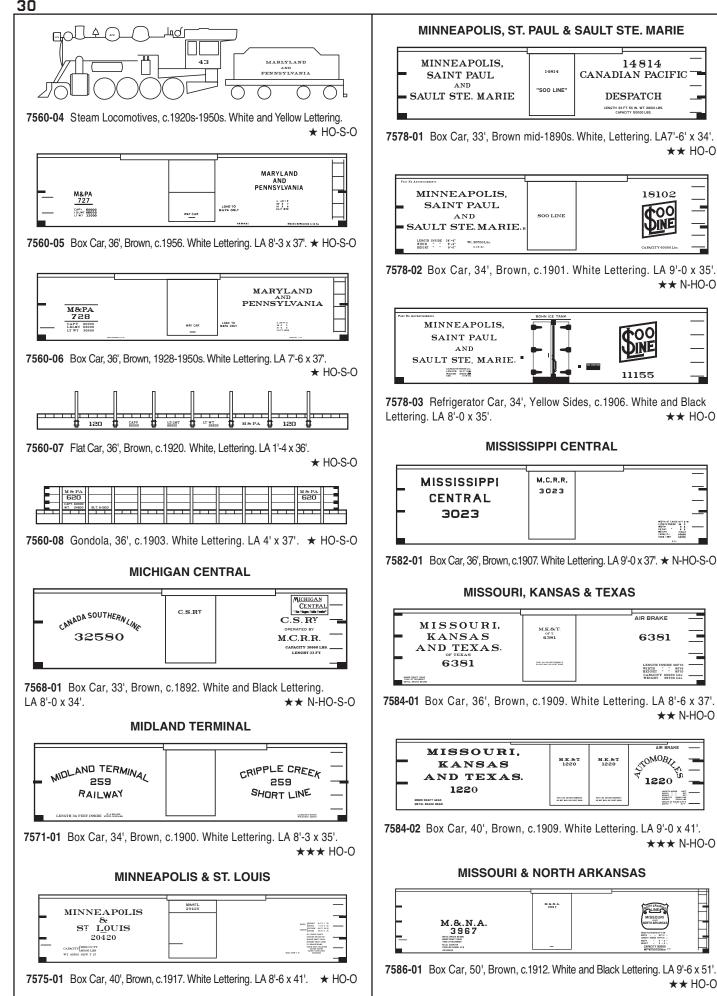
POST NO ADVERTISEMENTS	D.S.S.&A.	POST NO ADVERTISEMENTS
DULUTH		
SOUTH SHORE	POST NO ADVERTISEMENTS	SHORE _
ATLANTIC.	8500	AIR BRAKE LENGTH 33 FT
8500		CAPACITY 60000 LBS

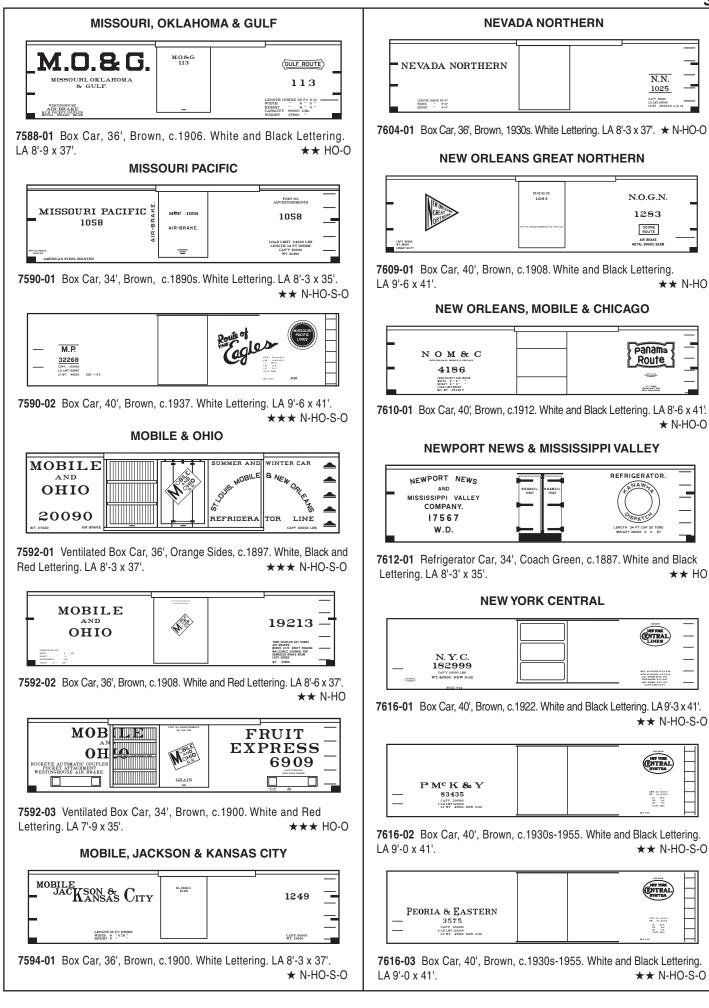
7360-01 Box Car, 33', Brown, c.1904. White and Black Lettering. LA 7'-9 x 34'. ★★ HO





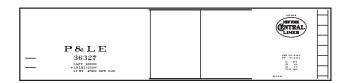




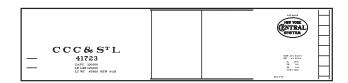




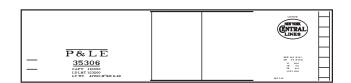
7616-05 Box Car, 40', Brown, c.1930s-1955. White and Black Lettering. LA 9'-0 x 41'. ★★ N-HO-S-O



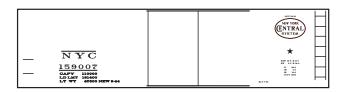
7616-06 Box Car, 40', Brown, c.1930s-1955. White and Black Lettering. LA 9'-0 x 41'. ★★ N-HO-S-O



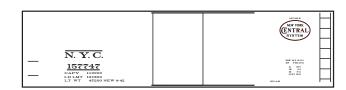
7616-07 Box Car, 40', Brown, c.1930s-1955. White and Black Lettering. LA 9'-0 x 41'. ★★ N-HO-S-O



7616-08 Box Car, 40', Brown, Early 1940s. Lot 697B. White and Black Lettering. LA 10'-0 x 41'. ★★ N-HO-S-O

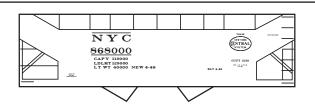


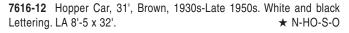
7616-09 Box Car, 40', Brown, c.1945-1955. Lot 734-B. White and Black Lettering. LA 10'-4 x 41'. ★★ HO-O



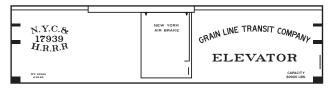
7616-10 Box Car, 40', Brown, Early 1940s. Lot 697-B. White and Black Lettering. LA 10'-0 x 41'. ★★ HO-O

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	$\supset$	c.o	VIEN GLIEN		00	
7616-11 Passer	nger Car,	Pullman Gi	reen. Gol	d Letterin	g.	★ N-HO-S-O

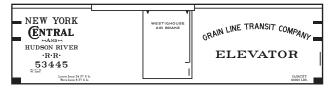








**7619-01** Box Car, 33', Yellow or Gray Sides, c.1890. Black Lettering. LA 8'-0 x 34'. ★ N-HO-S-O

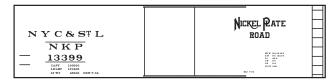


**7619-02** Box Car, 34', Yellow or Gray Sides, c.1895. Black Lettering. LA 8'-6 x 35'. ★★ HO-O

NEW YORK ENTRAL HUDSON RIVER					M.C.B. POCKET COUPLER WESTINGHOUSE AIR BRAKE CARACITY 60000 WT 25900	
47463			1	1	47463	

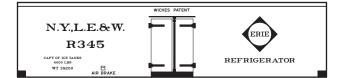
7619-04 Gondola, 33', Black, c.1896. White Lettering. LA 3'-6 x 33'. ★ HO-O

# **NEW YORK, CHICAGO & ST. LOUIS**



7630-01 Box Car, 40', Brown, c.1934. White Lettering. LA 9'-6 x 41'. ★ HO-O

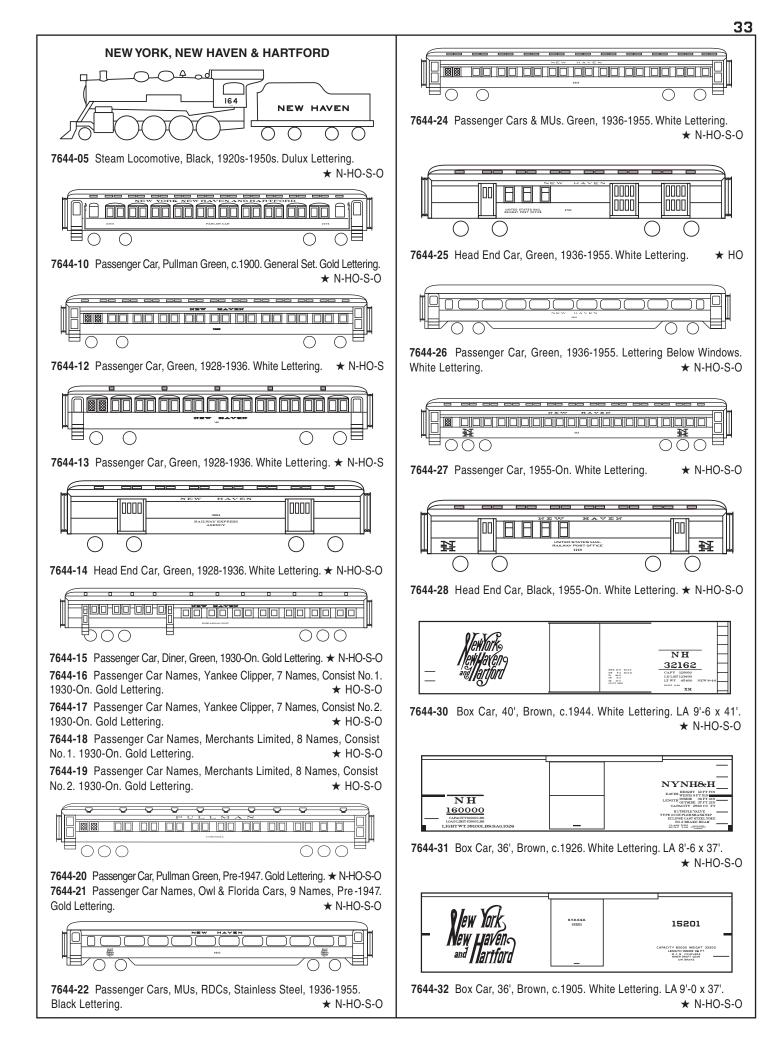
# **NEW YORK, LAKE ERIE & WESTERN**

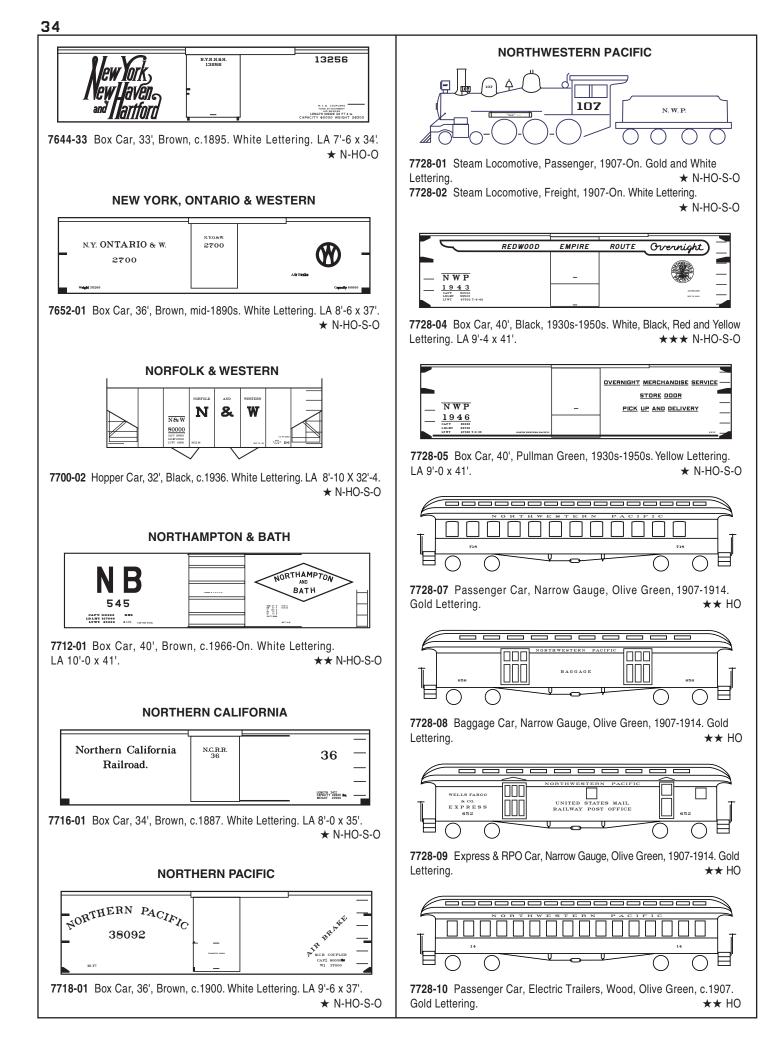


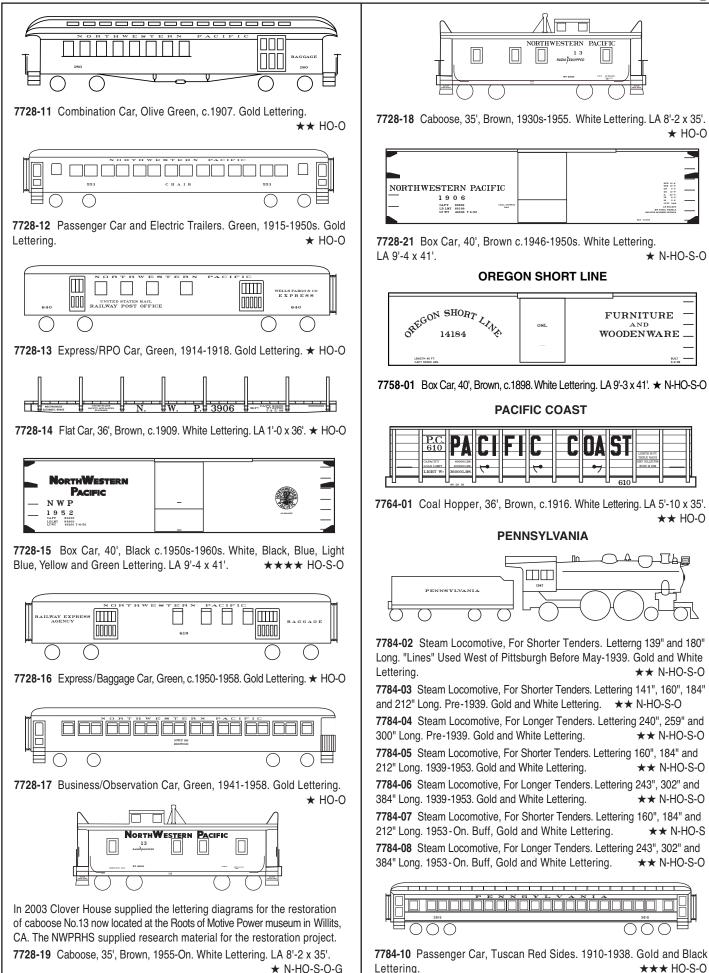
**7642-01** Refrigerator Car, 34', Yellow Sides, c.1895. White and Black Lettering. LA 8'-0 x 35'. ★ HO-O

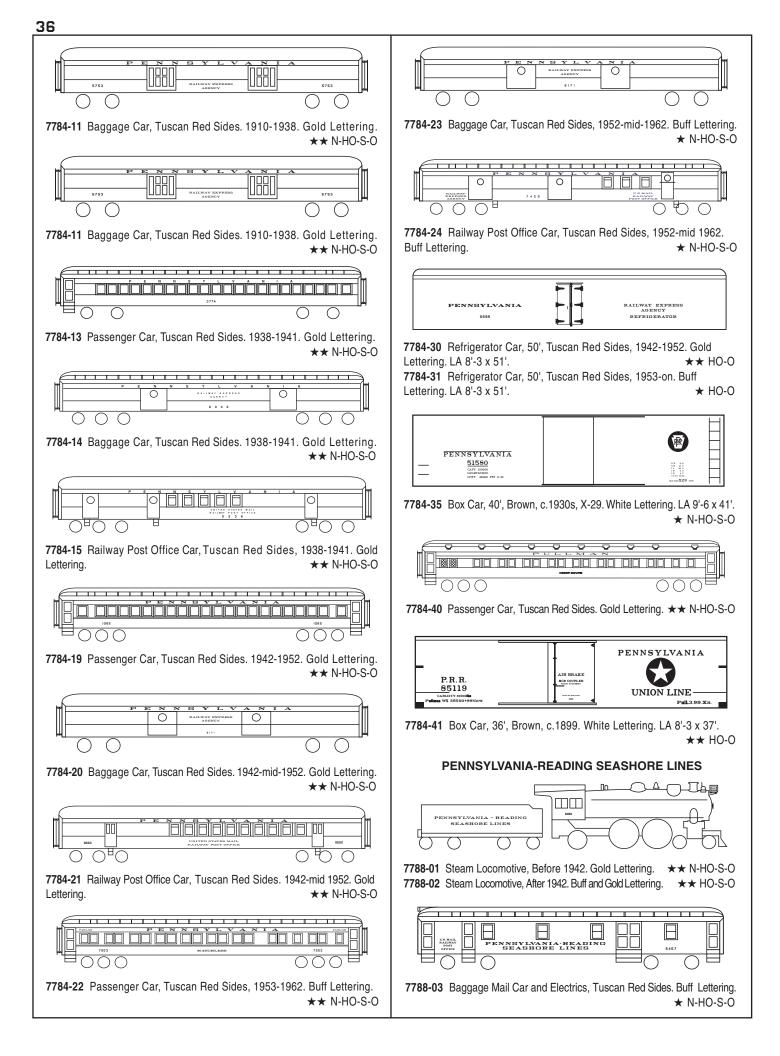
ERIE RAILROAD 6098	GRAIN LINE
	LENGTH INSIDE 33 FT 0 IN WIDTH 8 6 6 HEIGHT 8 0 0 CARACITY 60000 LBS. LI.W. 37000 "

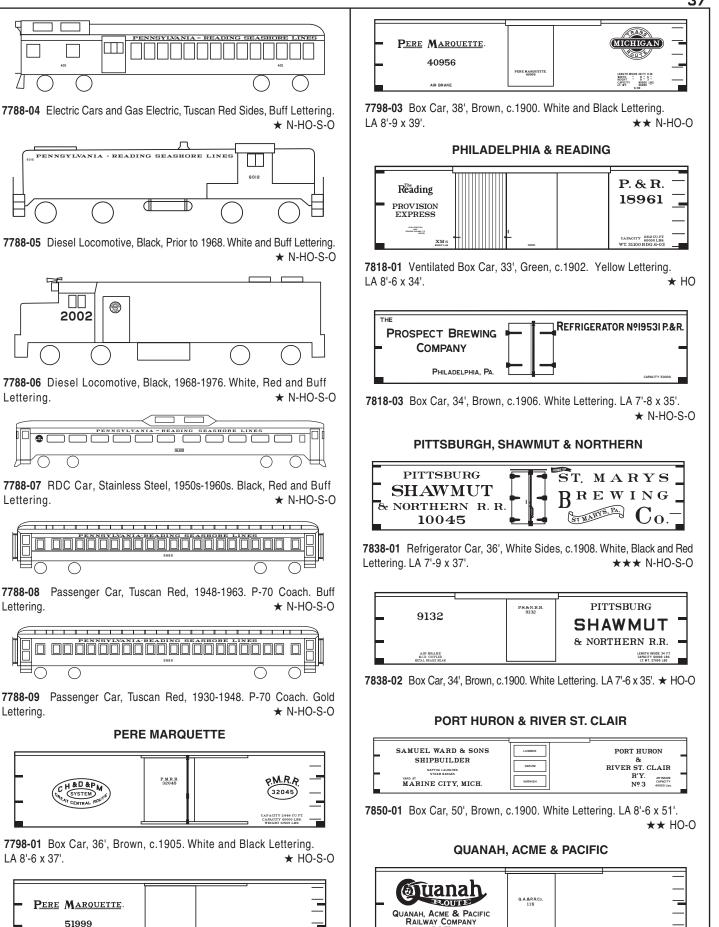
**7642-02** Box Car, 33', Gray Sides, c.1892. Black and White Lettering. LA 8'-0 x 34'. ★ HO-S-O











115

LA 8'-6 x 37'.

7885-01 Box Car, 36', Brown, c.1910. White, Black and Red Lettering.

★★ N-HO-S-O

7798-02 Box Car, 36', Brown, c.1908. White Lettering. LA 8'-9 x 37'. * HO

PERE MARQU

WIDTH HEICHT CAPICITY

ПΠ

Lettering.

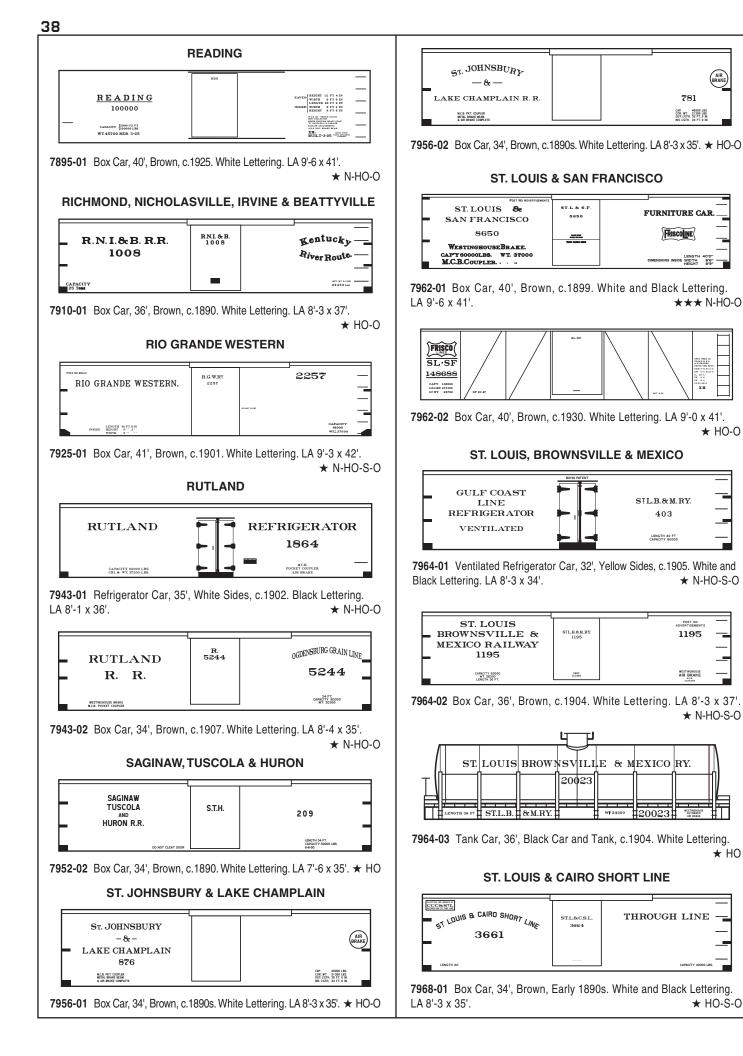
Lettering.

Lettering.

Lettering.

LA 8'-6 x 37'.

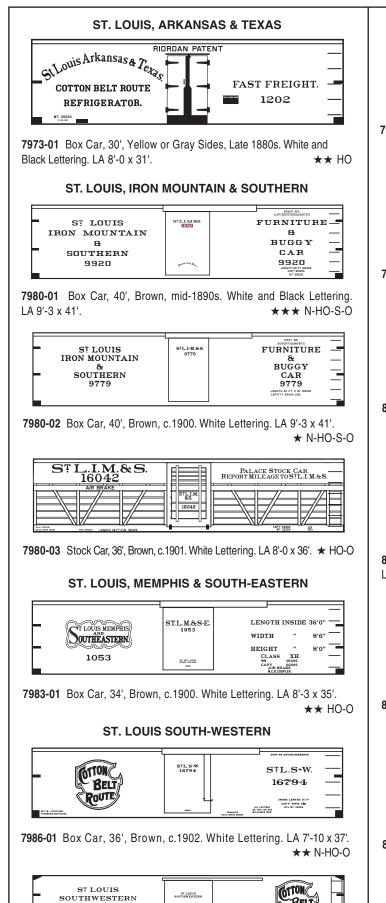
 $\square$ 

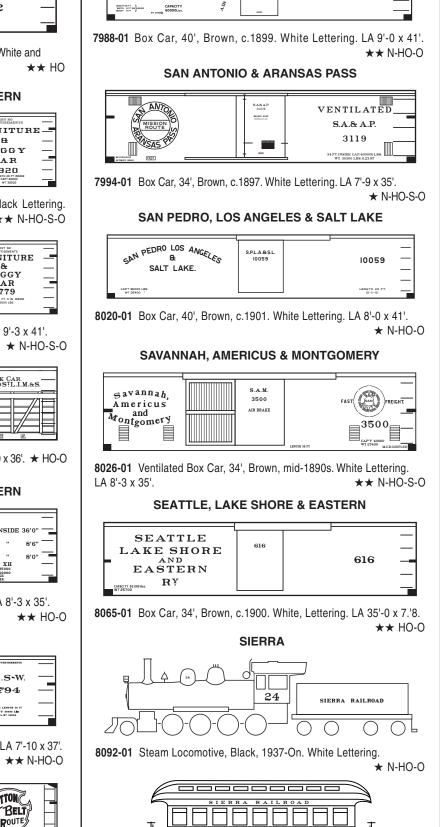


BRAKE

★ HO-0

★ HO





8092-02 Passenger Car, Green Sides, 1937-On. White Lettering. * N-HO-O

ST. PAUL & DULUTH

STP.&D

æ

SAINT PAUL

AND

DULUTH.

**7986-02** Box Car, 40', Brown, c.1923. White Lettering. LA 8'-6 x 41'. ★★★ HO-0

SSW

31926

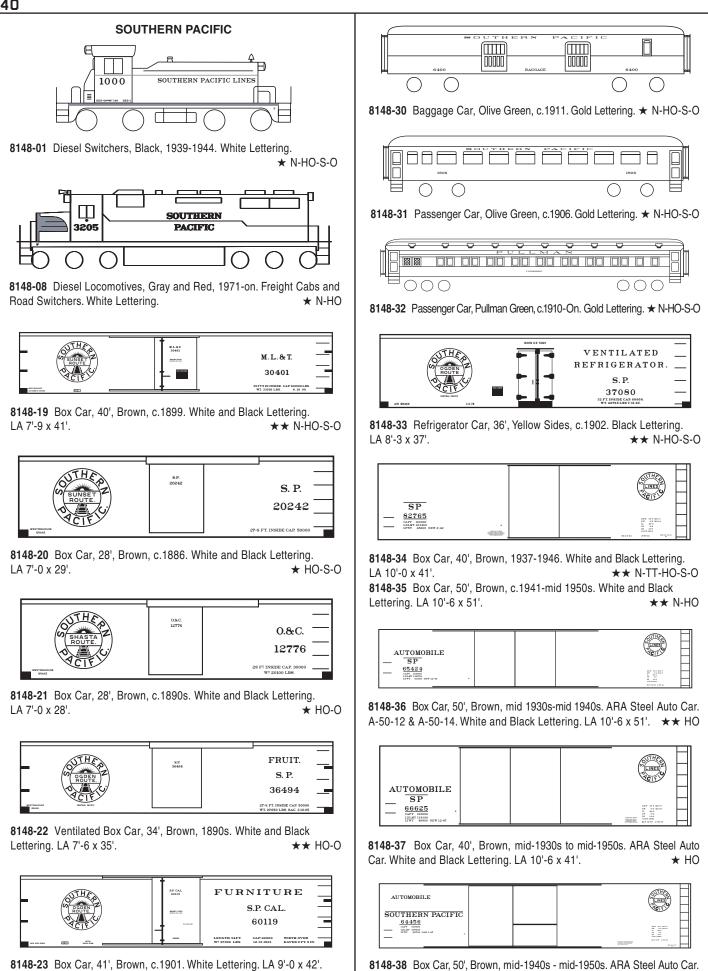
EAVES NEEDENT 12 PT 15 H.

<u>3</u>9

ST P.& D.

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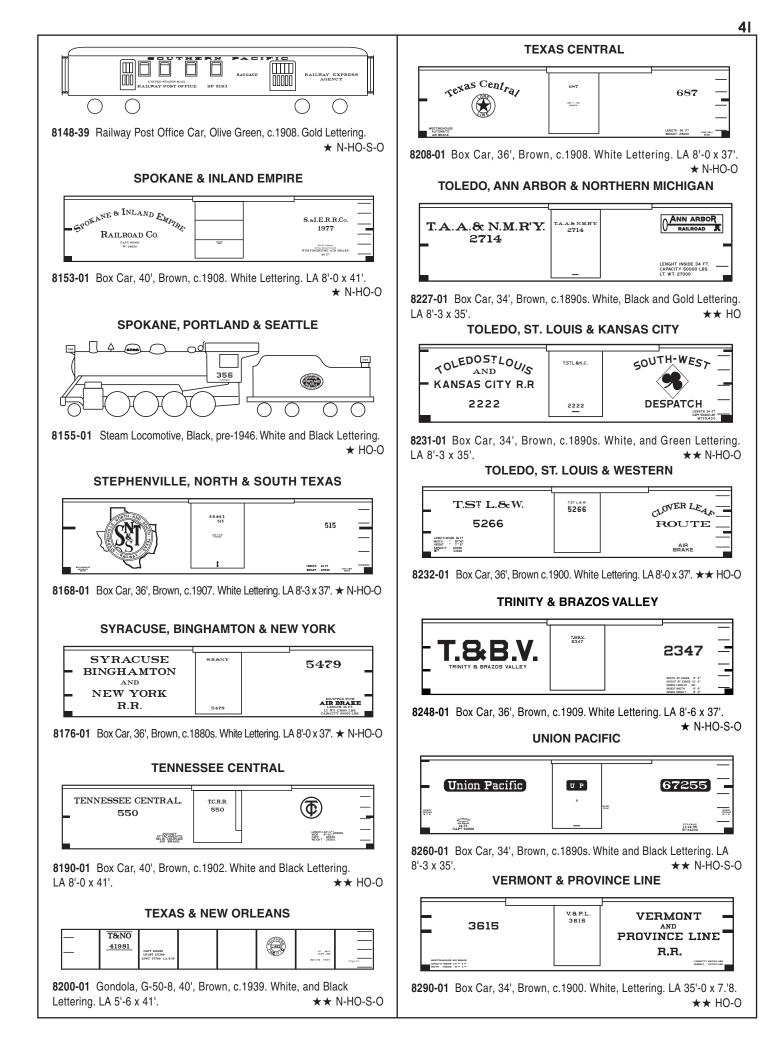
FLOUR LINE

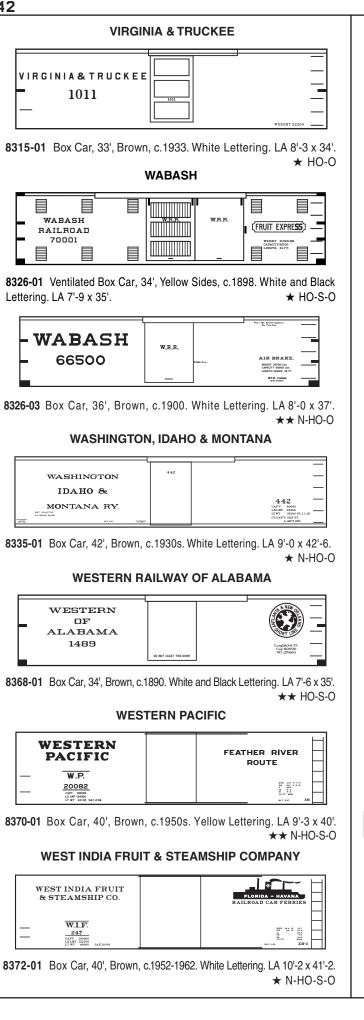


★ HO-S-0

A-50-12, 14, 15. White and Black Lettering. LA 10'-6 x 51'-10.

★ HO-S-0



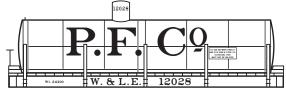


#### WHEELING & LAKE ERIE

Θ	43357	WHEE.	LING	&	LAKE		_R.R	43357.	$\oplus$
Ŀ		THE THE WHEE	MASSILLION LING AND	COAL LAKE ERIE	MINING COAL MIN	CO. ING CO.	- LESSEES -	4-09 LT WT 34800 CAPK 80000 LBE	

8376-01 Gondola, 37', Black, c.1909. White Lettering. LA 5'-3 x 36'.





8376-02 Tank Car, 30', Brown Car with Black Tank, c.1888. White and Black Lettering. ★★ HO-C



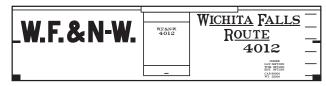
8376-03 Box Car, 36', Brown, c.1902. White Lettering. LA 9'-6 x 37' ★ N-HO-O

#### WICHITA FALLS & NORTH-WESTERN



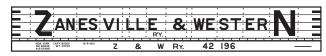
8377-01 Box Car, 40', Yellow Sides, c.1910. White and Black Lettering. LA 8'-6 x 41'. ★★ HO-0

#### WICHITA FALLS & NORTH-WESTERN



8377-02 Box Car, 36', Brown, c.1910. White Lettering. LA 8'-6 x 37'. ★★★ HO-0

#### **ZANESVILLE & WESTERN**



8396-01 Gondola, 38', Brown, c.1901. White Lettering. LA 5'-6 x 38'.★ HO

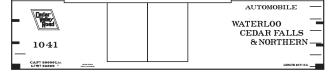
#### ELECTRIC LINES

#### **COEUR D'ALENE & SPOKANE**

COEUR D'ALENE & SPOKANE RY. 409	C.D.A.&S. 409	409	-
eran norman		CAPACITY 80000 LBS. LIGHT WEIGHT 33700 LBS. LENGTH INSIDE 36 FT.	

7248-01 Box Car, 36', Brown, c.1904. White Lettering. LA 8'-3 x 37'. ★ N-HO-S-O

WATERLOO, CEDAR FALLS & NORTHERN



**8785-01** Box Car, 40', Brown, c.1916-1924. White and Black Lettering. LA 9'-0 x 1". ★★ N-HO-O



FORT DODGE, DES MOINES & SOUTHERN

Ft.D.,D.M.& S. 5668

7404-01 Box Car, 36', Brown, c.1914. White and Black Lettering.

THE

FORT DODC

LINE

5668-

★★ N-HO-O

CAPY. 60000 Ibe.

FORT DODGE

DES MOINES

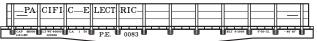
AND

SOUTHERN

LA 8'-6 x 37'.

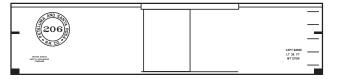




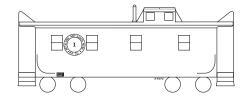


**8710-01** Gondola / Flat Car, 40', Brown, c.1956. White Lettering. LA 40'-10 x 1'.10. ★ N-HO-S- O

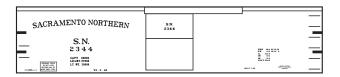
**PETALUMA & SANTA ROSA** 



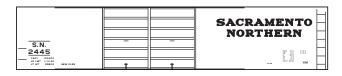
8712-01 Box Car, 36', Brown, 1907-1950S. White Lettering. LA 8'-0 x 37'. ★ N-HO-S-O



**8712-02** Caboose, 32', Brown, c.1934. White and Black Lettering. LA 8'-2 x 32'. ★ HO-S-O-G



8725-02 Box Car, 40', Brown, c.1920-on. White Lettering. LA 8'-3 x 41'. ★ N-HO-S-O-G



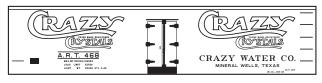
8725-03 Box Car, 50', Brown, c.1955-On. Yellow Lettering. LA 10'-6 x 51'-10. ★ N-HO-S-O-G

## PRIVATE OWNERS

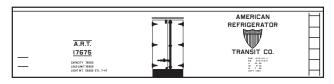
#### AMERICAN REFRIGERATOR TRANSIT



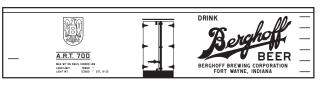
**8818-01** Refrigerator Car, 36', Yellow Sides, c.1890s. White, Black, Red and Blue Lettering. LA 8'-3 x 37'. ★★★ N-HO-S-O



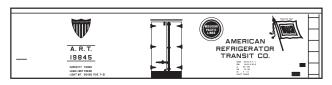
**8818-02** Refrigerator Car, 40', Yellow Sides, c.1930s. White, Black, Red and Blue Lettering. LA 8'-9 x 41' ★★★ N-HO-S-O



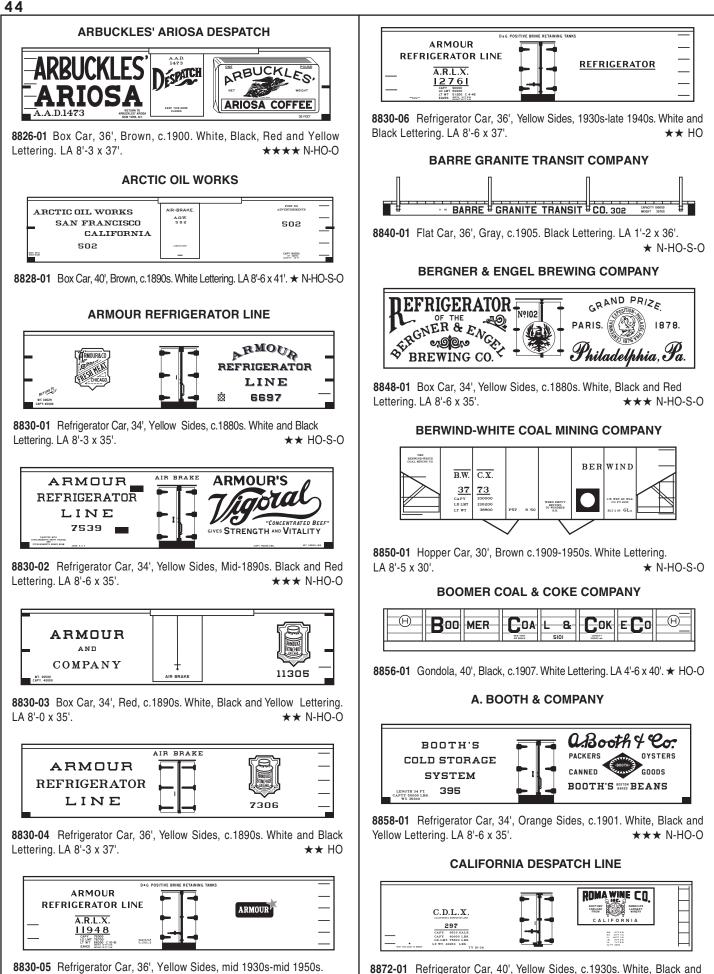
**8818-03** Refrigerator Car, 40', Yellow Sides, Wood Sheathed. 1930-1950. White, Black, Red and Blue Lettering. LA 8'-9 x 41'. ★★ N-HO-S-O **8818-04** Refrigerator Car, 40', Yellow Sides, Steel Sheathed. 1936-1950. White, Black, Red and Blue Lettering. LA 8'-9 x 41'. ★★ N-HO-S-O



8818-05 Refrigerator Car, 40', Yellow Sides, c.1933. White, Black and Red, Lettering. LA 8'-6 x 41'. ★★★ N-HO-S-O



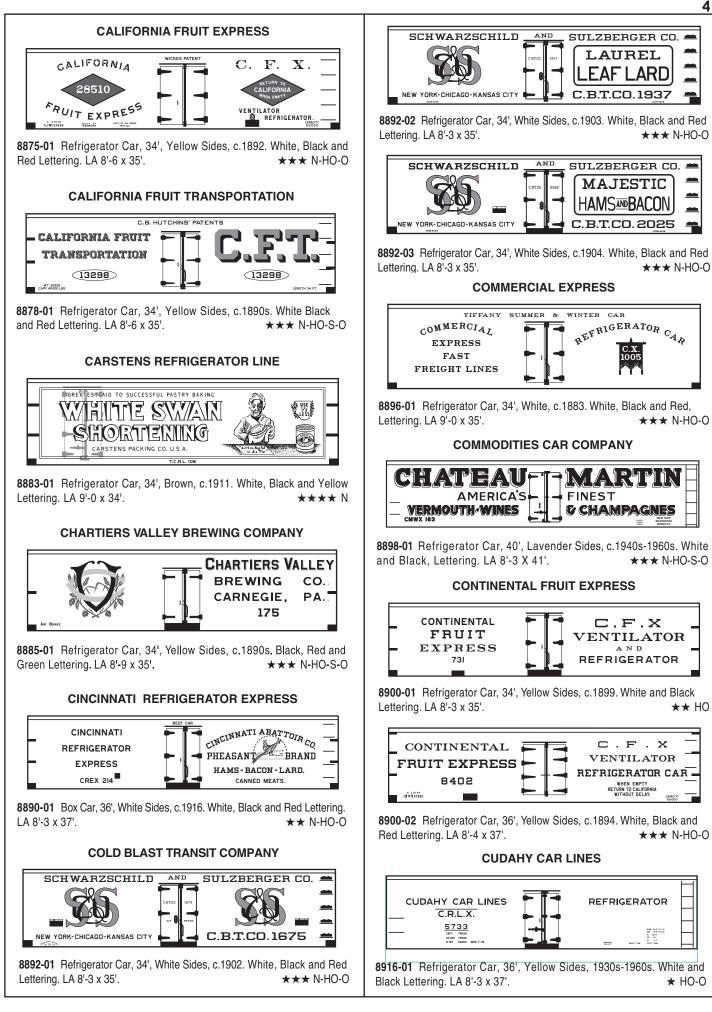
**8818-06** Refrigerator Car, 40', Yellow Sides, Wood Sheathed, c.1950s. White, Black, Red and Blue Lettering. LA 8'-6 x 41'. ★★★ HO **8818-07** Refrigerator Car, 40', Yellow Sides, Steel, c.1950s. White, Black, Red and Blue Lettering. LA 8'-6 x 41'. ★★★ N-HO-O

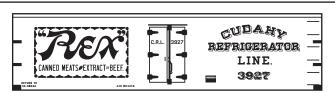


★★ HO-S-0 Green Lettering. LA 8'-8 x 41'.

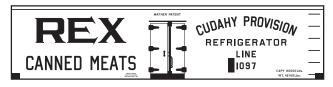
★★★ N-HO-S-O

White, Black and Red Lettering. LA 8'-4 x 37'.



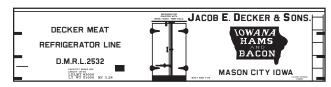


**8916-02** Refrigerator Car, 34', Brown, c.1900. White and Red Lettering. LA 8'-3 x 35'. ★★★ N-HO-O



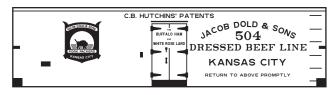
8916-03 Refrigerator Car, 36', Yellow Sides, c.1912. White and Black Lettering. LA 8'-3 x 37'. ★★★ N-HO-O

#### DECKER MEAT REFRIGERATOR LINE



8922-01 Refrigerator Car, 36', Yellow Sides, c.1925. White and Black Lettering. LA8'-3 x 37'. ★★★ N-HO-S-O

#### JACOB DOLD & SONS



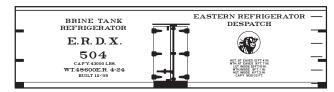
**8925-01** Refrigerator Car, 34', Yellow Sides, c.1890. White and Black Lettering. LA 8'-6 x 35'. ★★ N-HO-O

#### P. DUFF & SONS



8926-01 Tank Car, 37', Orange Car and Tank c.1904. Black Lettering.  $\bigstar$  HO

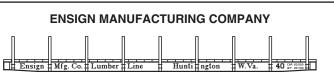
#### EASTERN REFRIGERATOR DESPATCH



**8930-01** Refrigerator Car, 36', Red, c.1924. White and Black Lettering. LA 9'-2 x 37'.  $\star \star$  HO

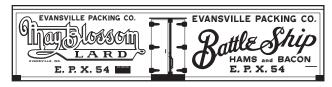


**8930-02** Insulated Box Car, 40', Dark Green, 1950s-1960s. White Lettering. LA 8'-4 x 42'. ★★ N-TT-HO-S-O



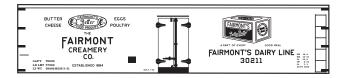
8950-01 Flat Car, 40', Brown, c.1890. White Lettering. LA 1'-2 x 40'. ★ N-HO-S-O

#### **EVANSVILLE PACKING COMPANY**



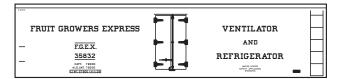
8958-01 Refrigerator Car, 36', Yellow Sides, c.1908. White and Black Lettering. LA 8'-6 x 37'. ★★★★ N-HO-S-O

#### FAIRMONT'S DAIRY LINE



8964-01 Box Car, 40', Yellow Sides, c.1928. White, Black and Yellow Lettering. LA 8'-6 x 41'. ★★★ N-HO-S-O

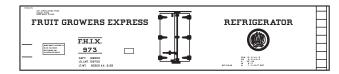
#### FRUIT GROWERS EXPRESS



8972-03 Refrigerator Car, 40', Yellow Sides, c.1920-1959. White and Black Lettering. LA 9'-2 x 41' ★★ N-HO-S-O

AN COCALTING THAT STORE CINC				
FRUIT	GROWERS EXPRESS	2000 (PERMI)	REFRIGERATOR	
_	FGEX			
	56316 CAPY 8306085 LOLWT 83700000011168	<u>⊨_</u>	100 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-

8972-04 Refrigerator Car, 40', Yellow Sides, c.1960s-1970s. White and Black Lettering. LA 9'-4" x 41'. ★ N-HO-S-O



**8972-05** Refrigerator Car, 40', Yellow Sides, c.1949-1959. White and Black Lettering. LA 8'-9 x 41'-11. ★★ N-HO-S-O

#### **GENERAL AMERICAN-PFAUDLER CORPORATION**



8978-01 Express Refrigerator Car, 42', Green, c.1932. White and Yellow Lettering. LA 8'-6 x 44'. ★ N-HO-S-O

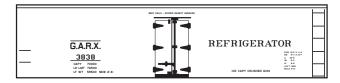




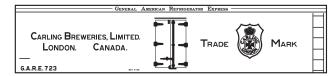
8980-01 Refrigerator Car, 36', Yellow Sides, 1930s-1960s. White and Black Lettering. LA 8'-3 x 37'. ★ N-HO-S-O



8980-02 Refrigerator Car, 36', Yellow Sides, 1930s-1960s. White and Black Lettering. LA 8'-3 x 37'. ★ HO



8980-03 Refrigerator Car, 36', Yellow Sides, 1930s-1960s. White and Black Lettering. LA 8'-3 x 37'.  $\bigstar$  HO

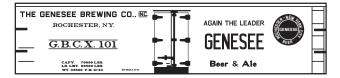


8980-04 Express Refrigerator Car, 40', Green, c.1933. White Lettering. LA 8'-0 x 41'. ★★ N-HO-S-O



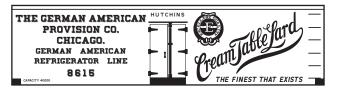
**8980-05** Box Car, 36', White Sides, c.1926. White, Black and Red Lettering. LA 8'-3 x 37'. ★★★ N-HO-O





8984-01 Refrigerator Car, 36', Yellow Sides, c.1933. White, Black and Red Lettering. LA 8'-0 x 37'. ★★★ N-HO-S-O

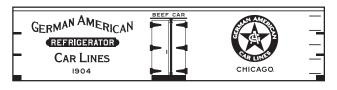
**GERMAN AMERICAN CAR LINE** 



**8989-01** Box Car, 34', Yellow Sides, c.1900. White, Black and Red Lettering. LA 8'-6 x 35'. ★★ N-HO-S-O

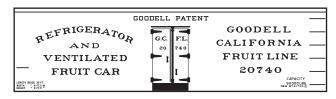


8989-02 Tank Refrigerator Car, 36', Yellow Sides, c.1900. White, Black and Red Lettering. LA 9'-0 x 37'. ★★★ HO



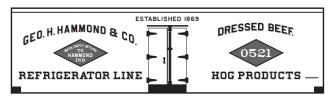
**8989-03** Refrigerator Car, 36', Yellow Sides, Late 1890s. White, Black and Red Lettering. LA 8'-4 x 37'. ★★★ N-HO-S-O

#### **GOODELL CALIFORNIA FRUIT LINE**



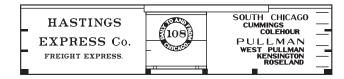
**8995-01** Refrigerator Car, 34', Yellow Sides, c.1892. Black Lettering. LA 8'-10 x 35'. ★★ HO-O

#### **GEORGE H. HAMMOND & COMPANY**



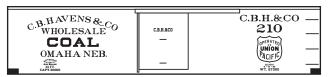
**9012-01** Refrigerator Car, 32', Yellow Sides, c.1889. White, Black and Red Lettering. LA 8'-6 x 33'. ★★★ HO-O

#### HASTINGS EXPRESS COMPANY

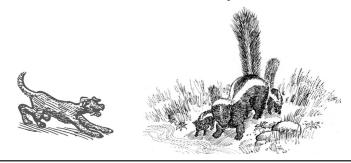


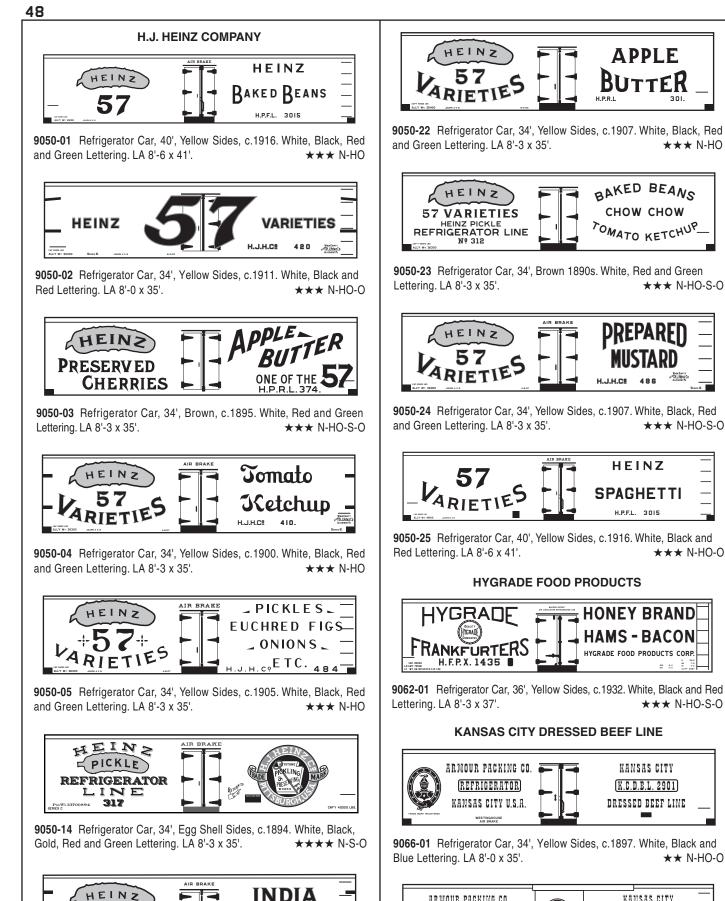
**9020-01** Box Car, 40', Yellow Sides, c.1900. White and Black Lettering. LA 8'-9 x 41'. ★★ N-HO-S-O

#### **C.B. HAVENS & COMPANY**



9025-01 Box Car, 34', Brown, c.1889. White Lettering. LA 7'-2 x 35'. ★★ N-HO-O





H.J.H.C9

9050-21 Refrigerator Car, 34', Yellow Sides, c.1907. White, Black, Red

440.

★★★ N-HO-S-O

HEIN2

and Green Lettering. LA 8'-3 x 35'.

KANSAS CITY (K.C.D.B.L. 2901) DRESSED BEEF LINE

APPLE

BAKED BEANS

сном сном

POMATO KETCHUP

HEINZ

SPAGHETTI

H.P.F.L. 3015

HONEY BRAND

HAMS - BACON

HYGRADE FOOD PRODUCTS CORP.

★ ★ ★ N-HO

★★★ N-HO-S-O

★★★ N-HO-S-O

★★★ N-HO-O

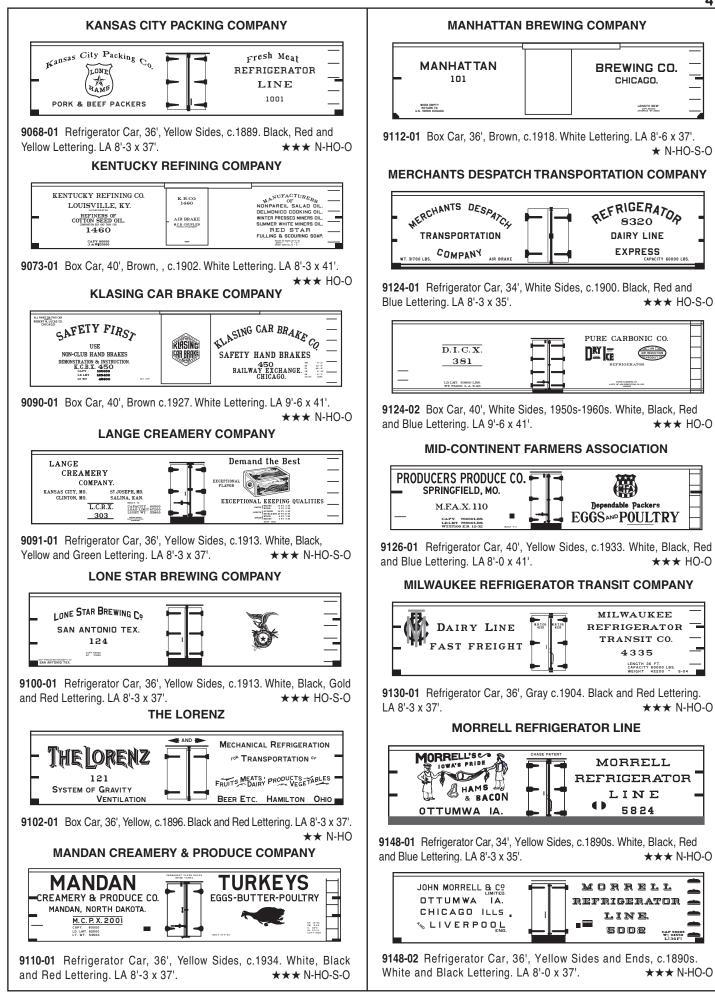
★★★ N-HO-S-O

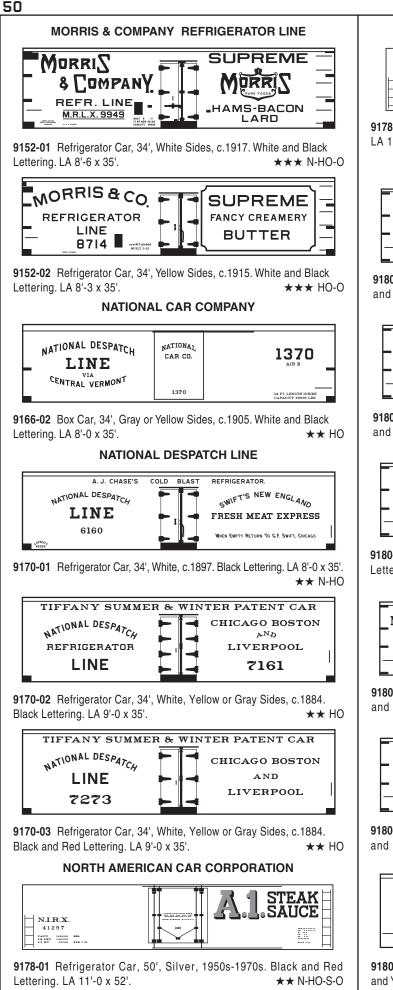
BUTTE

9066-01 Refrigerator Car, 34', Yellow Sides, c.1897. White, Black and ★★ N-HO-O



9066-02 Box Car, 36', Yellow Sides, Late 1890s. White, Black and Blue Lettering. LA 7'-9 x 37'. ★★★ N-HO-O





#### **RAILROAD OR PRIVATE OWNER**

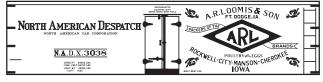


9178-02 Refrigerator Car, 50', Yellow, 1960s - 1970s. Black Lettering. LA 11' x 52'. ★★ N-HO-S-O

#### NORTH AMERICAN DESPATCH



9180-01 Refrigerator Car, 36', Yellow Sides, c.1925. White, Black and Yellow Lettering. LA 8'-3 x 37'. ★★★ N-HO-O



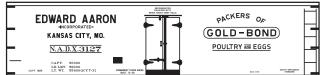
9180-02 Refrigerator Car, 36', Yellow Sides, c.1925. White, Black and Red Lettering. LA 8'-3 x 37'. ★★★ N-HO-O



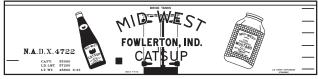
9180-03 Refrigerator Car, 36', Yellow Sides, c.1925. White and Black Lettering. LA 8'-3 x 37'. ★★★ N-HO-O



9180-04 Refrigerator Car, 36', Yellow Sides, c.1925. White, Black ★★★ N-HO-O and Red Lettering. LA 8'-3 x 37'.

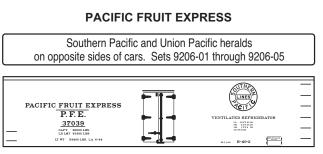


9180-05 Refrigerator Car, 36', Yellow Sides, c.1925. White, Black and Red Lettering. LA 8'-3 x 37'. ★★★ N-HO-O

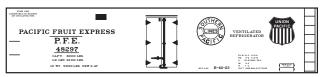


9180-06 Refrigerator Car, 36', Yellow Sides, c.1933. White, Black, Red and Yellow Lettering. LA 8'-3 x 37'. ★★★ N-HO-O





9206-01Refrigerator Car, 40', Orange Sides, 1930-1945. Class R-40-2.White, Black, Red and Blue Lettering. LA 8'-9 x 41'. $\star \star \star$  N-S-O9206-02Refrigerator Car, 40', Orange Sides, 1930-1945. Class R-30-13.White, Black, Red and Blue Lettering. LA 8'-9 x 41' $\star \star \star$  HO-S-O9206-03Refrigerator Car, 40', Orange Sides, 1930-1945. Class R-30-11.White, Black, Red and Blue Lettering. LA 8'-9 x 41'. $\star \star \star$  HO-S-O9206-04Refrigerator Car, 40', Orange Sides, 1930-1945. Class R-30-12-9.White, Black, Red and Blue Lettering. LA 8'-9 x 41'. $\star \star \star$  HO-S-O9206-05Refrigerator Car, 40', Orange Sides, 1930-1945. Class R-30-12-9.White, Black, Red and Blue Lettering. LA 8'-9 x 41'. $\star \star \star$  HO-S-O9206-05Refrigerator Car, 40', Orange Sides, 1930-1945. Class R-40-10.White, Black, Red and Blue Lettering. LA 8'-9 x 41'. $\star \star \star$  HO-S-O9206-05Refrigerator Car, 40', Orange Sides, 1930-1945. Class R-40-10.White, Black, Red and Blue Lettering. LA 8'-9 x 41'. $\star \star \star$  HO-S-O



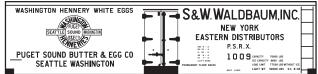
9206-06Refrigerator Car, 40', Orange Sides, c.1947-1950. Class R-40-23and -25. White, Black, Red and Blue Lettering. LA 8'-6 x 41'. $\star \star \star$  N-S-O9206-08Refrigerator Car, 40', Orange Sides, c.1947-1950. Class R-40-10and -14. White, Black, Red and Blue Lettering. LA 8'-0 x 41'. $\star \star \star$  HO

#### **ROBERT PORTNER BREWING COMPANY**

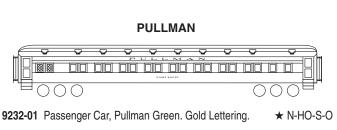


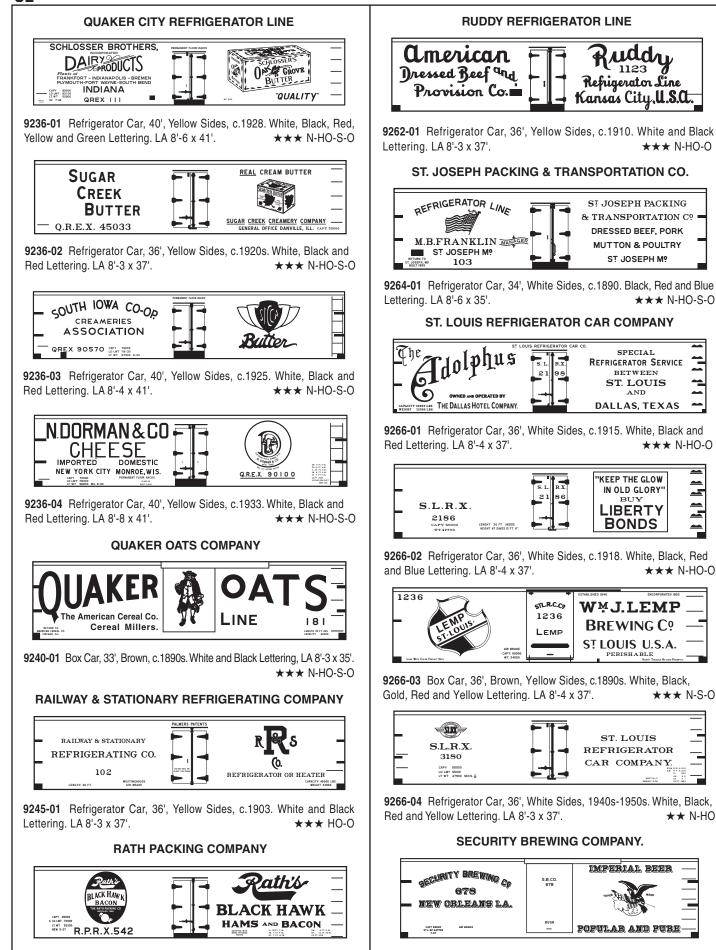
9229-01 Refrigerator Car, 36', White Sides, c.1910. White, Black and Red Lettering. LA 8'-3 x 37'. ★★★ N-HO-O

#### PUGET SOUND REFRIGERATOR EXPRESS



9234-01 Refrigerator Car, 36', Yellow Sides, c.1930. White and Black Lettering. LA 8'-3 x 37'. ★★★ N-HO-S-O





★★★ N-HO-O

★★★ N-HO-O

★★★ N-HO-O

★★★ N-S-0

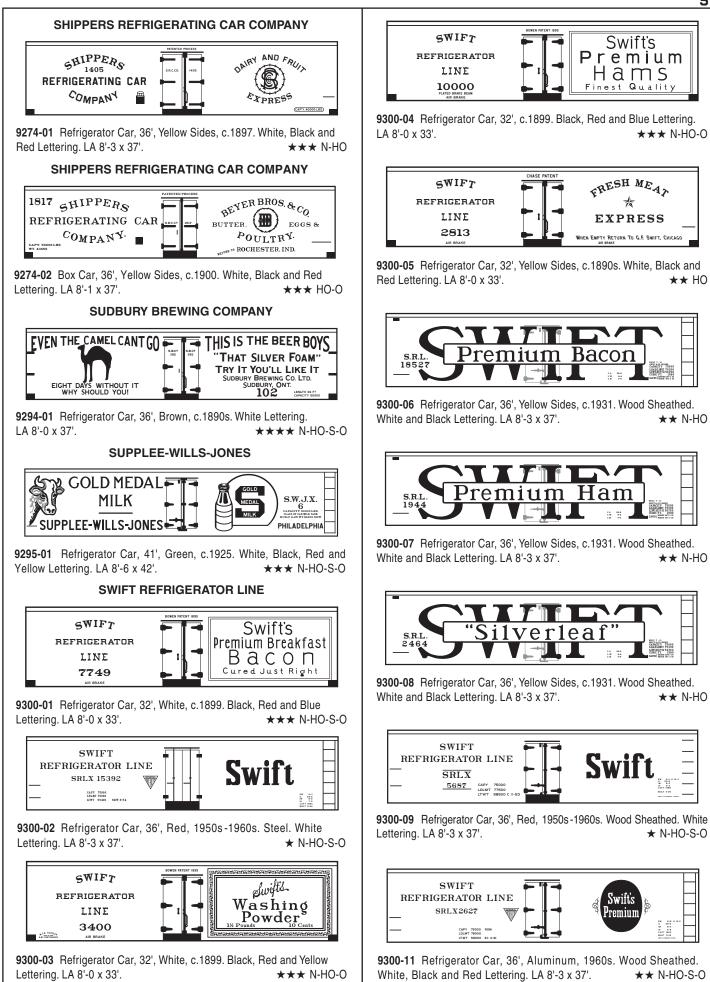
★★ N-HO

*** HO-0

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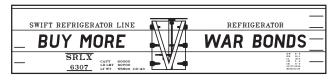
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9254-01 Refrigerator Car, 36', Yellow Sides, c.1927. White, Black and 9272-01 Box Car, 40', Brown, c.1907. White, Black, Red, Blue, Red Lettering. LA 8'-0 x 37'. ★★★ N-HO-S-O Yellow and Green Lettering. LA 10'-6 x 41'.



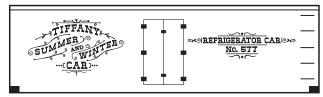


**9300-12** Refrigerator Car, 36', Yellow Sides, 1948-early 1950s. Wood Sheathed. White, Black and Red Lettering. LA 8'-3 x 37'. ★★ HO-O



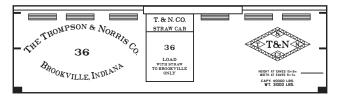
**9300-13** Refrigerator Car, 36', Red, White and Blue Sides, c.1940s. White, Black and Red Lettering. LA 7'-9 x 37'-5'. ★★★ N-HO-S-O





**9320-01** Refrigerator Car, 30', White, c.1880s. Black and Red Lettering. LA 8'-4 x 31'. ★★ N-HO-O

#### THE THOMPSON & NORRIS CO.



9328-01 Box Car, 33', Brown, c.1907. White Lettering. LA 9'-0 x 34'. ★★★ N-HO-O

#### UNION REFRIGERATOR TRANSIT COMPANY



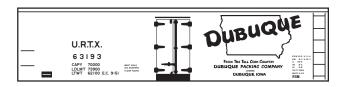
**9344-02** Refrigerator Car, 40', Yellow Sides, c.1934. White, Black, Red and Blue Lettering. LA 8'-10 x 41'. ★★★ N-HO-S-O



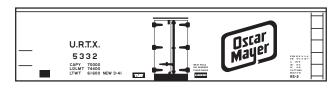
**9344-03** Refrigerator Car, 34', Yellow Sides, c.1891. White, Black, Red and Blue Lettering. LA 8'-0 x 35'. ★★ N-HO-S-O



**9344-05** Refrigerator Car, 40', Yellow Sides, c.1927. White, Black, Red and Green Lettering. LA 8'-6 x 41'. ★★★★ N-HO-S-O



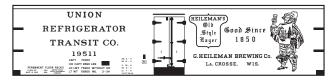
**9344-06** Refrigerator Car, 36', Yellow Sides, 1950s-1960s. White, Black and Red Lettering. LA 8'-3 x 37'. ★★ N-HO-S-O



**9344-07** Refrigerator Car, 36', Yellow Sides, 1940s-1950s. White, Black and Red Lettering. LA 8'-3 x 37'. ★★ N-HO-S-O



**9344-08** Refrigerator Car, 40', Yellow Sides, c.1933. White, Black and Red Lettering. LA 8'-6 x 41'. ★★★ N-HO-S-O



**9344-09** Refrigerator Car, 40', Yellow Sides, c.1934. White, Black, Red, and Yellow Lettering. LA 8'-10 x 41'. ★★★ N-HO-S-O



9344-10 Refrigerator Car, 40', Yellow Sides, c.1933. White, Black and Red Lettering. LA 8'-6 x 41'. ★★★ N-HO



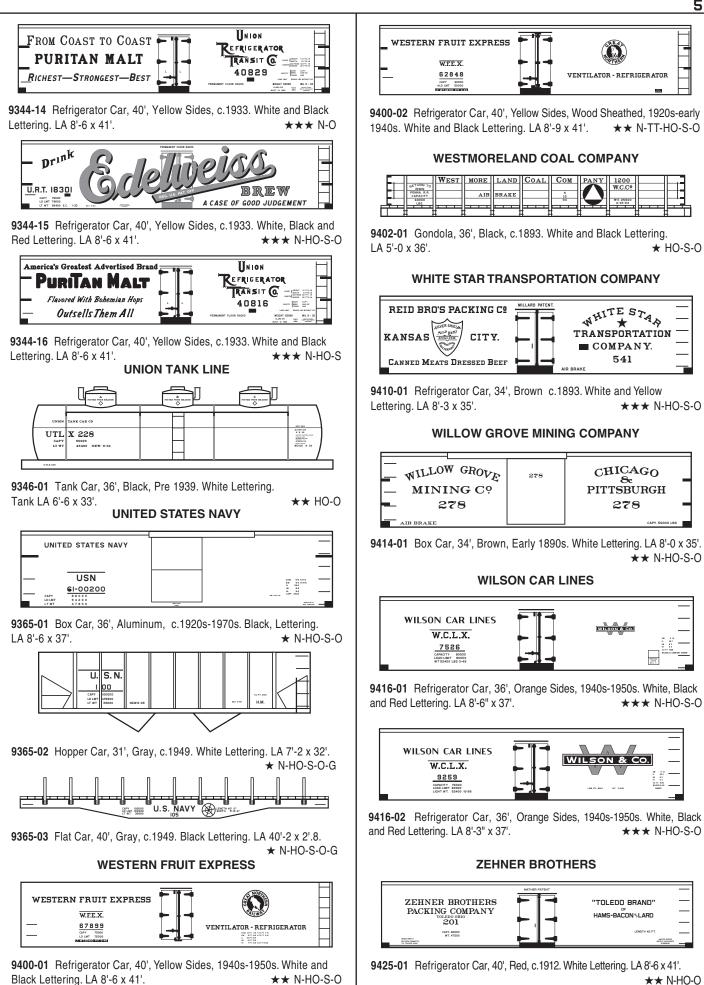
**9344-11** Refrigerator Car, 40', Yellow Sides, c.1933. White, Black and Red Lettering. LA 8'-6 x 41'. ★★★ N-HO-S-O



**9344-12** Refrigerator Car, 40', Yellow Sides, c.1933. White, Black and Red Lettering. LA 8'-6 x 41'. ★★★ N-HO-S-O



**9344-13** Refrigerator Car, 40', Yellow Sides, c.1933. White, Black, Red and Blue Lettering. LA 8'-6 x 41'. ★★★ N-HO-S-O



★★ N-HO-S-O

★★ N-HO-O

## **NEW CREATIONS**

Nitpickers, rivet counters and scale rule Richards, check your writing materials, faxes and word processors at the front desk. You are entering un-chartered waters. Like its companion Fly By Night Industries, New Creations is the fun part of Clover House. Though the lettering has a sound basis in actual historic car lettering, the heralds, logos and graphics give the flavor of what might have been, or possibly should have been, had more enlightened spirits cut the stencils and wielded the paint brushes.

Most of the graphics were used by the railroads to enhance their images, but alas, were generally used in printed form. Rather than let great artwork go to waste, it has been incorporated where it will be most appreciated. Most of the original layouts were done by Allen Tacy in the early 1990s for his Brandywine Station dry transfer lettering business. We purchased Brandywine Station in 1997 and have added it to our line of model railroad supplies. Even if you don't intend, or can't bring yourself, to purchase New Creation lettering sets...take time to read Allen's prose. He has a way with words that will bring smiles and enlightenment. Most New Creations offerings are designed to accommodate 30' cars but can be used on larger cars.



## STANDARD GAUGE RAILROADS

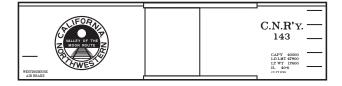
#### ATCHISON, TOPEKA & SANTA FE



A variant on the Navajo inspired lettering "Santa Fe" used in some advertising and on the Super Chief's pilot. Santa Fe advertising long stressed an Indian theme. This logo embodies that theme together with a Navajo style treatment of the traditional Santa Fe cross in colors direct from the high desert.

5010-01 Box Car, Brown. White , Black, Red and Yellow Lettering. LA 7'-2" x 30'. ★★★ HO-O-G

#### CALIFORNIA NORTHWESTERN

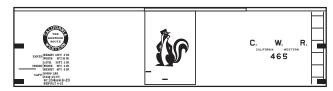


Northern California's wine country was served at the turn of the 20th century by this Southern Pacific subsidiary. Its route included a short line, now long gone, through the Valley of the Moon celebrated by Jack London. Free lance logo very similar to parent Espee, features black and blue field in contrast to SP's famous sunset. Very nice moonlight effect.

5040-01 Box Car, Brown. White, Black and Blue Lettering. LA 7'-2" x 30'.

★★★ HO-O-G

#### CALIFORNIA WESTERN RAILROAD & NAVIGATION CO.



The redwood coast draws thousands each year to ride its famous "Skunk" train. When CWR&N built boxcars in the Twenties, they also bought the first "Skunk", so named by the lumberjacks because of the gasoline smell wafted in its wake. No longer do the Skunks smell, but the redwoods remain for all to enjoy. Authentic yesteryear lettering coupled with the famous herald born by today's Skunks.

**5042-01** Box Car, 36', Brown, 1920s-On, White and Black Lettering. LA 8'-9 x 37'. ★★★ HO-O-G

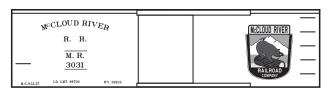
#### **DELAWARE, LACKAWANNA & WESTERN**



America's railroad sweetheart, Phoebe's likeness and the rhymes about her, never appeared on Lackawanna equipment. Why forever not? Official DL&W portrait of their Gibson Girl.

5045-01 Box Car, Brown. White and Black Lettering. LA 7'-2" x 30'.

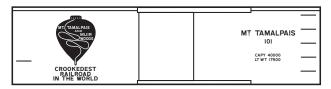
#### McCLOUD RIVER RAILROAD



The Shasta Wonderland boasts one of the longest lumber lines, the McCloud River, 130 miles. Ice cold snowmelt from Mt. Shasta fills its river, majestic pines crowd its tracks, and the mountain lends a towering omnipresence. Small wonder that one of the most beautiful railroad heralds originates here. Faithfully reproduced in all five prototype colors.

**5150-01** Box Car, Brown. White, Black, Blue and Yellow Lettering. LA 7'-2" x 30'. ★★★ HO-O-G

#### **MT. TAMALPAIS & MUIR WOODS**



The sleeping maiden, Mt. Tamalpais, guards the Golden Gate. For generations this mountain has provided rest and relaxation to the people of the Bay Area, and for 34 years it was climbed by Shays of "the crookedest railroad in the world". The white line in the logo represents its tracks. The trip back down to Mill Valley was by popular gravity cars, hence the spinning top. Authentic colors.

5160-01 Box Car, Brown. White, Black, and Red Lettering. LA 7'-2" x 30'. ★★★ HO-O-G

#### **NEW YORK, NEW HAVEN & HARTFORD**



Railroad advertising promotes rail travel, but during World War Two you could not travel due to wartime restrictions. The railroads naturally wanted to stress what they were doing for the war effort. It was a mighty doing, too. So in 1942 remarkable ads appeared telling this story. Told by the roads individually, not by some concerted effort. But the war was a concerted effort and this is the best of those ads for dramatic handling of a patriotic appeal. Its universal quality strikes you instantly. Believe me, this will bring proud tears to your eyes. Thanks, New Haven.

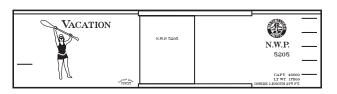
**5175-01** Box Car, Brown. White and Black Lettering. LA 7'-2" x 30'.



★★★ HO-O-G

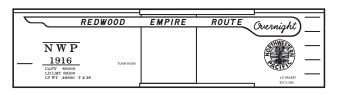
This express reefer carries the full color prototype herald of the NWP, perhaps the most beautiful of all railroad heralds, as it was applied to NWP locomotive tenders. Herald and reporting mark lettering faithfully traced from prototype originals. **5185-01** Refrigerator Car, Green. Black, Gold, Blue, Yellow and Green. Lettering. LA 7'-2" x 30'.  $\star \star \star \star$  HO-O-G





Between wine country and the Pacific Ocean lies the Russian River vacationland, magnet for double headed NWP second sections on both narrow and broad gauges. The NWP promo booklet "Vacation" once carried this bathing beauty holding high a canoe oar, her smile radiating come on in the river.

5185-02 Box Car, Brown. White and Black Lettering. LA 7'-2" x 30'. ★★★ HO-O-G

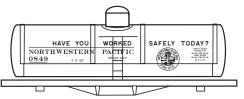


Twenty two of these express boxcars were in LCL merchandise service on NWP. This set reproduces all of the prototype lettering entirely, including the full color NWP herald applied by the railroad to these cars. Truly, this was a real billboard boxcar!

**5185-03** Box Car, Black. Black, Red, Blue, Light Blue, Yellow and Green Lettering.

 (See: 7728-04 for N-HO-S-O Scales)

 LA 7'-2" x 30'. ★★★★ G



A fuel service car reproduced entirely from prototype. Black logo and lettering except red "Have you worked safely today?

5185-04 Tank Car, Aluminum. Black and Red Lettering. LA 7'-2" x 30'.

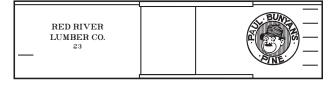




In 2003 Clover House supplied the lettering diagrams for the restoration of caboose No.13 now located at the Roots of Motive Power museum in Willits, CA. The NWPRHS supplied research material for the restoration project.

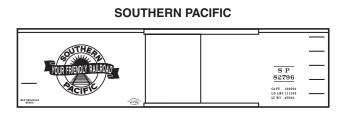
7728-19 Caboose, 35', Brown, 1955-On. White Lettering. LA 8'-2 x 35'. ★ N-HO-S-O-G

#### **RED RIVER LUMBER COMPANY**



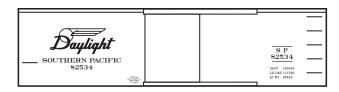
To Red River Lumber, of Westwood, California, and Akely, Minnesota, belongs much credit for popularizing the legend of Paul Bunyan and his blue ox Babe. Ads in trade publications featured cartoons and stories; coloring books for school children circulated across the nation from Red River. Here is the logo from those ads as it might have been applied to a Red River car.

5210-01 Box Car, Brown. White, Black, Red and Yellow Lettering. LA 7'-2" x 30'. ★★★ HO-O-G



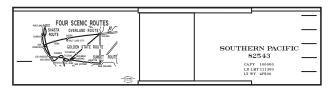
In 1885 the Southern Pacific built the first billboard boxcars with large sunset heralds. To this herald has been added the banner "Your Friendly Railroad" that was used in early advertising.

5235-01 Box Car, Brown. White and Black Lettering. LA 7'-2" x 30'. ★★ HO-O-G



The Southern Pacific did not follow the lead of others promoting pasenger travel on boxcars. Had they done so, this set assumes an all-white lettering scheme like that of competitors and standard practice.

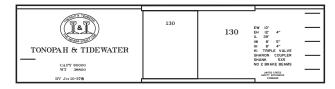
5235-02 Box Car, Brown. White Lettering. LA 7'-2" x 30'. ★★ HO-O-G



Southern Pacific advertising maps were distinctive and attractive. Here one published in 1924 is translated into a billboard boxcar.

5235-03 Box Car, Brown. White Lettering. LA 7'-2" x 30'. ★★ HO-O-G

**TONOPAH & TIDEWATER** 

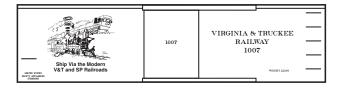


Last of the bonanza railroads, the T&T ran until 1940 carrying whatever it could scrape out of the alkali desert: borax, gold and silver, and the private cars of millionare miners. This boxcar is nearly a replica of an actual T&T car, the only difference being the fancy outline of the T's. Prototype cars had a simpler "T&T". The version shown appeared in advertising for the road. Authentic colors.

 $\textbf{5250-01} \quad \text{Box Car}, \text{Brown}. \text{ White}, \text{ Black and Red Lettering}. \text{ LA 7'-2" x 30'}.$ 

★★★ HO-O-G

#### **VIRGINIA & TRUCKEE**



The V&T proudly maintained a spirit of humor from its Comstock heritage. The ghost of Mark Twain still chuckles on the boardwalks of Virginia City. So when Ward Kimball, on the occasion of a railfan excursion, drew this cartoon comparing the bonanza road's ancient engines to those of its neighbor, the short line bought the rights. And proceeded to plackard shippers with little stickers like the one above.

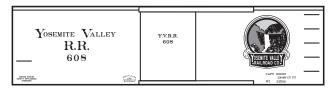
5270-01 Box Car, Brown. White Lettering. LA 7'-2" x 30'. ★★★ HO-O-G



To the loggers they were 'skunks'. 'Bus' was the moniker on some roads. To the RGS they were 'geese'. V&T's motor No. 23 was the Washoe Canary. Its capricious temperament, and raucous call, reminded the Comstock of the miner's partner, long enshrined and honored as the Washoe Canary. "Verily I say of ye Washoe Canary — lay thine hand upon hym, remember hys heeles, do no more." Yellow, green, black color logo per today's V&T. Freelance canary. Includes Carson Shops builder's plate.

**5270-02** Box Car, Brown. White, Black, Yellow and Green Lettering. LA 7'-2" x 30'. ★★★ HO-O-G

#### **YOSEMITE VALLEY**



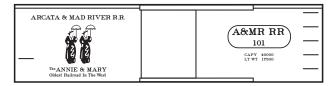
The short line to paradise! Its Vernal Falls on the Merced River logo from actual YV ads has been translated into green, black, white and sky blue. Large capitals in the left side reporting marks are in stencil format as they came from the builder, Seattle Car and Foundry. Builder's markings included. **5290-01** Box Car, Brown. White, Black, Blue and Green Lettering.

★★★ HO-O-G

## NARROW GAUGE RAILROADS

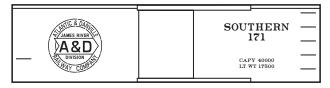
LA 7'-2" x 30'.

#### **ARCATA & MAD RIVER**



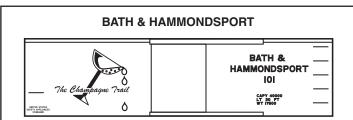
The Arcata & Mad River began service in 1854 on Humboldt Bay, California. Its gauge: 42-1/*z*". Motive Power: "Spanking Fury", one horsepower exactly. By the 1890's steam powered and still narrow gauge, it had evolved into a logging and lumber road owned by the champagne-making Korbel family. Two Korbel nieces, Annie and Mary, became favorites of the railroaders. Hence the nickname: Annie & Mary. The road's logo enshrines their memory. **5310-01** Box Car, Brown. White and Black Lettering, LA 7'-2 x 30'. ★ HO-O-G

#### **ATLANTIC & DANVILLE**



From Virginia's Tidewater to timber, Southern Railway subsidiary A&D's James River Division was a 54 mile narrow gauge branch. It operated until 1938. The A&D derived this herald by a modern variation of the weathervane used by SR in the 19th century. Here it is augmented by a bit of Southern green for the family touch as it might have been applied to a narrow gauge car.

5320-01 Box Car. Brown. White, Blue and Green Lettering. LA 7'-2" x 30'. ★★★ HO-O-G

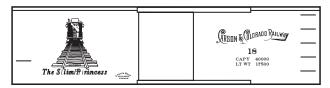


Built narrow gauge to serve New York's Finger Lakes resorts, the now standard gauged B&H survives serving the region's wine makers. This elegant all-prototype design is a strikingly attractive wine red car with yellow letters and white logo.

5330-01 Box Car, Wine Red. White and Yellow Lettering. LA 7'-2" x 30'.

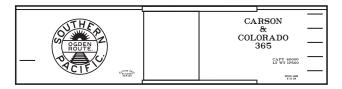
★★ HO-O-G

**CARSON & COLORADO** 



Eccentric, a ribald joke, road of 1000 impossible dreams. Yet it endured in a land of sand and ruin and gold for nearly 80 years. Here a bit of Carl Fallberg's superb art captures the spirit of the C&C. The fancy lettering comes from an 1894 pass. It exemplifies the improbable aspiration of "the Slim Princess". Yet few roads were as romantic, few so well loved, and somehow it did endure. **5340-01** Box Car, Brown. White and Black Lettering. LA 7'-2" x 30'.

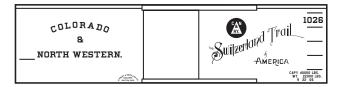
★★★ HO-O-G



After acquiring the Carson & Colorado, Southern Pacific kept the C&C name until 1905. During the Tonopah mining boom, over 200 boxcars were rushed to Nevada from subsidiary South Pacific Coast. This Carter Bros. built ex-SPC car retains its prototype billboard herald after having been relettered for Carson & Colorado.

5340-02 Box Car, Brown. White and Black Lettering. LA 7'-2" x 30'. ★★ HO-O-G

#### **COLORADO & NORTHWESTERN**



It was only a tiny narrow gauge, and it did not last very long, but for sheer grandeur of scenery, stirring train operations, and colorful life, it can lift its head proudly. Climbing the Rockies out of Boulder, the C&N got its "Switzerland Trail" nickname the hard way: it earned it! The distinctive lettering of its reporting marks and the blue and white logo were both actually applied to its cars. Can you resist adding the fancy and appealing "Switzerland Trail" slogan too? **5350-01** Box Car, Brown. White and Blue Lettering. LA 7'-2" x 30'.

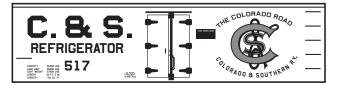
★★★ ★ HO-O-G

#### **COLORADO & SOUTHERN**



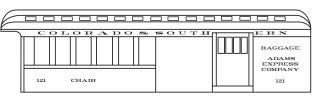
Pride in home ownership distinguished the first 10 years for C&S. A special Roman lettering style and "Colorado Road" slogan decorated its boxcars. To this add the two-color twined letter logo from company stationery and advertising. Result: a very distinctive, handsomely lettered railcar.

5355-01 Box Car, Brown. White, Black and Yellow Lettering. LA 7'-2" x 30'. ★★★ HO-O-G



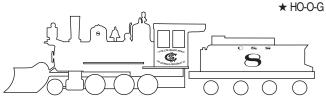
After purchase by the Burlington in 1908, C&S adopted a new proprietary lettering, the block style, which was standard from 1910 to 1928. This reefer reflects that standard faithfully, with the addition of another version of the twined letter two color logo. This version is based on that applied to some engine cabs.

**5355-02** Refrigerator Car, Yellow Sides. White, Black and Gold Lettering. LA 7'-2" x 30'. ★★★ HO-O-G



The original 1898 C&S passenger Roman lettering is reproduced in this set. The illustration also shows how combination #121 (later #20) looked at this time. Lettering based on actual prototype originals.

5355-03 Combination Car, Pullman Green, c.1898. Gold Lettering.



Several Colorado & Southern moguls received this fully prototype lettering treatment. 5355-05 Locomotive. White Lettering.



The "bullseye" logo was adopted in 1928. At the same time, C&S retreated to Roman lettering, abandoning the block style. The illustration shows bobber caboose #1002, which had a center style cupola. Other bobbers featured the unique C&S end mounted cupola, single windowed crummy. All lettering according to prototype.

5355-06 Caboose, Brown. White and Black Lettering.







Here is a 'coal car' partially relettered with the new bullseye herald adopted in 1928, but still retaining its old block style C&S monogram from the 1910 era. C&S 1930's cars were notorious for mixed lettering styles.

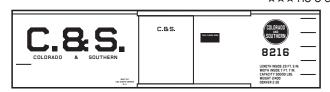
5355-07 Gondola, Brown. White and Black Lettering. LA 5'-0" x 30'.





Colorado & Southern modified several steel underframe cars for molybdenum concentrate service at Climax by adding four corner roof hatches and special assigned service lettering. We supply the lettering. You supply the hatches. **5355-08** Box Car, Brown. White and Black Lettering. LA 7'-2" x 30'.

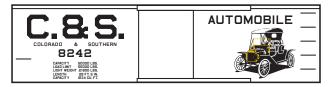
★★★ HO-O-G



The block style lettering was standard from about 1910 until 1928, when the bullseye logo and 'Roman' lettering were adopted. In actual practice many cars never lost the older style lettering. This car represents one such only partially relettered by the addition of the new logo.

5355-09 Box Car, Brown. White and Black Lettering. LA 7'-2" x 30'.

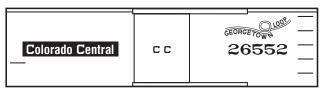
★★★ HO-O-G



Colorado & Southern kitbashed Box Car 8242 by removing the entire "A" end, splitting it down the middle, and rehanging the halves as end doors. Result: an Automobile Car. They forgot to reletter the car. But you can! "Automobile" and auto graphic freelanced. Includes transfers representing end door hinges and door latch.

**5355-10** Box Car, Brown. White, Black and Gold Lettering. LA 7'-2" x 30'. ★★★ HO-O-G

#### COLORADO CENTRAL



In a land of railroad spectaculars the Georgetown Loop stands head and shoulders above all the rest. It commands the hearts of men. Name another bridge rebuilt by volunteer labor. First built by Colorado Central between 1871 and 1884. Tonnages of gold and silver ores come down from the Snowy Mountains. Waves of passengers rode steam cars up and over the Loop. Tiny Moguls chuffed and spun drivers on the 3.5% grade in twisting Clear Creek Canyon. Here is the authentic lettering carried in black and white on CC cars. Free lance loop logo.

5360-01 Box Car, Brown. White and Black Lettering. LA 7'-2" x 30'.

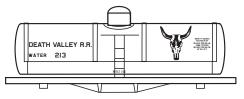
★★ HO-O-G

#### **DEATH VALLEY**



Borax Smith built it. Death Valley Scotty rode it. 20 mule teams vanished because of it. Three foot gauge with a two foot extension. The two footer hauled tourists until 1950. Freelance logo.

5370-01 Box Car, Brown. White Lettering. LA 7'-2" x 30'. ★ HO-O-G

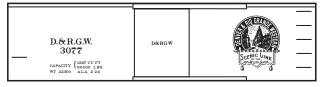


Except for the skull logo, this car is based on a prototype water car. Set includes extensive and complete end lettering. Freelance Logo.

5370-02 Tank Car, Silver Tank on Brown Flat. Black Lettering.

LA 7'-2" x 30'. ★ HO-O-G

#### **DENVER & RIO GRANDE WESTERN**



Curecanti Needle in the Black Canyon of the Gunnison for many years adorned the advertising herald of the Rio Grande. The banner underneath was pointed to suggest a locomotive pilot. Reproduced here in magnificent detail.

**5380-01** Box Car, Brown. White and Black Lettering. LA 7'-2" x 30'.

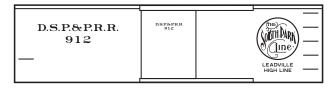




In 1934 the new Moffat Tunnel required a new, simplified logo. Its center read "Royal Gorge/Moffat Tunnel". Some locos wore it painted in red, white and blue. Here it is as adopted to a gondola.

5380-02 Gondola, Brown. White, Red and Blue Lettering. LA 5'-0" x 30'. ★★ HO-O-G

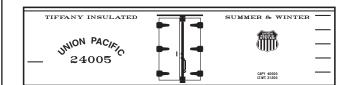
#### **DENVER, SOUTH PARK & PACIFIC**



Lucius Beebe wrote, "It is difficult to discover a vanished institution that still lays as compulsive a hold on the imagination as the Denver, South Park & Pacific." It is therefore downright criminal the the South Park should have possessed the plainest of drab brown boxcars-particularly when it owned one of the most delightful railroad logos.

5385-01 Box Car, Brown. White Lettering. LA 7'-2" x 30'. ★ HO-O-G





The shield of the Union Pacific arrived on the South Park when UP acquired the narrow gauge in 1879, and UP energy created its Leadville Highline over Boreas Pass, plumbed its Alpine Tunnel to the Gunnison country, and spiraled the Georgetown Loop up Clear Creek. So when "Colorado Cool-Aid" (Coors) traveled to the mining camps of the Shining Mountains, it did so in reefers looking like this. 5385-02 Refrigerator Car, Yellow Sides. White, Black, Red and Blue Lettering. LA 7'-2" x 30'. ★★★ HO-O-G

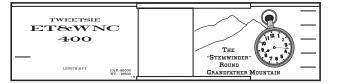
**EDAVILLE** 

EDAVILLE R.R.	<b>()</b> –
L CAP 2000 LD. LHT. 24000 LT. HT. 16000	EX. WD. 7' 2" EA. WD. 7' 0" LL. 27' 0" LW. 6' 2" LH. 6' 2" LU. 7' 9 2 0 SEP 34

Linnwood Moody designed this entire scheme for Ellis D. Atwood, who repainted and lettered a number of 2 foot gauge boxcars accordingly. Car color: Cranberry juice red, of course.

5390-01 Box Car, Red. White Lettering. LA 7'-2" x 30'. ★ HO-O-G

E.T.& W.N.C. - TWEETSIE

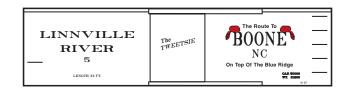


Tweetsie had class, Tweetsie had style, and more down home country friendliness! Engines and coaches spic and span and elegant. Freight cars on the plain side, though. Start, then, with Roman lettering for reporting marks and dimensional data per the prototype. Squeeze in a "Tweetsie" in a way that fits an un-billboard-like approach, because that name is so beloved. ETWNC is a jaw breaker anyhow. Now just the outline of Grandfather coupled with an old-fashioned stemwinder watch, because that was her other nickname-"Comin' Round the Mountain". 5395-01 Box Car, Brown. White, Black and Gold Lettering. LA 7'-2" x 30'. ★★★ HO-O-G



The Tweetsie logo, which appeared on a number of engines, has been added to otherwise standard ETWNC hopper and gondola lettering practice. Black or red car color.

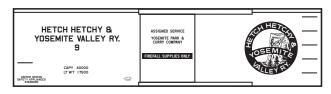
5395-02 Gondola, Black. White Lettering. LA 2'-8" x 24'.



Subsidiary Linnville River had a number of yellow boxcars. In summer it hauled most of Tweetsie's passenger fares—summer vacationers bound for the cool heights atop the Blue Ridge Mountains. Largest station stop was Boone, which was accessible only by rail. Children hearing the high pitched 'tweet' whistles of the engines hit on the nickname "Tweetsie". Crews balked, but the name stuck to become the beloved handle remembered today. Free lance logo. 5395-03 Box Car, Yellow. Black and Red Lettering. LA 7'-2" x 30'.

★★★ HO-O-G

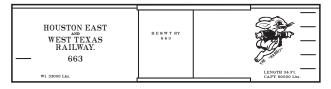
#### **HETCH HETCHY & YOSEMITE VALLEY**



Suppose that the West Side actually reached The Valley as the name of its railroad implied. HH&YV Ry. cars might have carried an El Capitan herald. He stands boldy in white and black with a blue background. The block style lettering is yellow on green-the same style as on West Side Shays. Car is lettered for assigned service to Firefall Supplies for the Curry Co. 5400-01 Box Car, Brown. White, Black, Blue, Yellow and Green Lettering. LA 7'-2" x 30'.

*** G

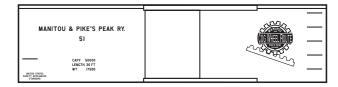
#### **HOUSTON EAST & WEST TEXAS**



From Houston to Shreveport the land lies wrinkled like a washboard. The railroad traversing it seems to be constantly hopping up and down. Hence its nickname: The Rabbit. Built narrow gauge, it has long been integrated into Southern Pacific, but the nickname persists. Free lance logo.

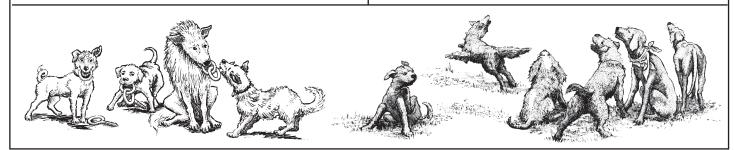
5405-01 Box Car, Brown. White and Black Lettering. LA 7'-2" x 30'. ★★ HO-O-G

#### **MANITOU & PIKE'S PEAK**

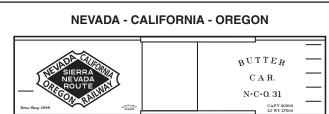


The herald is pure fiction. The cog wheel tells a story we could not ignoreit honors the climbing route through the clouds.

5410-01 Box Car, Brown. White, Black, Red and Yellow Lettering. LA 7'-2" x 30'. ★★★ HO-O-G



★ HO-O-G



At 275 miles the N-C-O was one of the largest narrow gauges. Broad gauged in 1927. Butter from the Sierra Valley dairies required passenger service handling so as not to be delayed making the transfer at Reno to the Virginia & Truckee for the run to Virginia City. The N-C-O ran these green boxcars on passenger car trucks. Authentic N-C-O herald makes an even handsomer car.

**5430-01** Box Car, Pullman Green. Black and Gold Lettering. LA 7'-2" x 30'. ★★★ H

★★★ HO-O-G

#### NEVADA COUNTY NARROW GAUGE

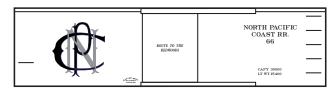


Perhaps no railroad so small (20 miles) enjoys so much affection. Affection during its lifetime — the nickname "Never Come Never Go" was both joking and affectionate, not otherwise — and since then. Equipment was very plain. Freight cars lettered with only road initials and car number. It is therefore appropriate that the herald and nickname be added to a boxcar as distinguishing marks for a road so well remembered.

5435-01 Box Car, Brown. White, Black and Green Lettering. LA 7'-2" x 30'.

★★★ HO-O-G

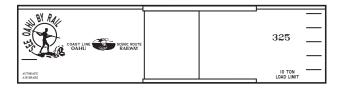
#### NORTH PACIFIC COAST



Although its paddle wheel ferries were marvels of ornamentation, and it boasted locomotives chased in silver, NPC freight cars were just "drab brown boxcars" of the plainest sort. Yet the NPC herald painted on some locomotives was pure art. Very coloful too. Here is that herald, done in authentic green, red and yellow colors, to emblazon a boxcar for you. A special design makes application easy. Use a maroon like red as the car color to set off the logo magnificently.

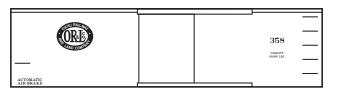
**5440-01** Box Car, Maroon. White, Red, Yellow and Green Lettering. LA 7'-2" x 30'. ★★★ HO-O-G

#### OAHU RAILWAY & LAND CO.



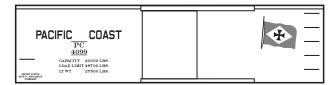
This very handsome car of the Oahu Railway & Land Company features yellow lettering in a faithful and complete rendering of the prototype. The graphics display a spear fisherman standing in the surf and a seagull winging over the sea. Now just imagine that these cars could have come stateside on a Matson roll on-roll-off vessel...yes you can interchange.

5445-01 Box Car, Brown. Yellow Lettering. LA 7'-2" x 30'. ★ HO-O-G



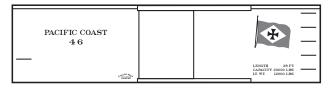
This is how OR&L decorated its cars at the turn of the 20th century. 5445-02 Box Car, Brown. White and Black Lettering. LA 7'-2" x 30'. ★HO-O-G

#### PACIFIC COAST COMPANY



Pacific Coast Railway was a unique narrow gauge composed of three separate segments, connected by ships of the Pacific Coast Steamship Co. The Seattle lines adopted this very bold lettering style. Pacific Steamship's flag is added as a herald using authentic colors. The Seattle lines were broadgauged and are now a part of Burlington Northern.

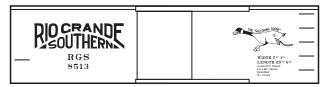
5450-01 Box Car, Brown. White, Black and Blue Lettering. LA 7'-2" x 30'. ★★ HO-O-G



First narrow gauge part of the Pacific Coast system was the San Luis Obispo segment opened in 1873. It ran from Port Harford on San Luis Bay through San Luis Obispo to Los Alamos. Abandoned 1941. Olives, sugar beets and oil filled its cars. The steamer wharf, Southern Pacific interlocking, and San Luis yards were truly modelgenic. There was a fleet of 25 box cars. This lettering reproduces them with the blue, white and black steamer line flag added as herald.

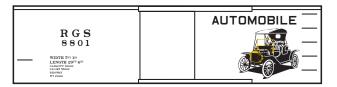
5450-02 Box Car, Brown. White, Black and Blue Lettering. LA 7'-2" x 30'. ★★ HO-O-G

#### **RIO GRANDE SOUTHERN**



The Sunrise herald appeared on locos, geese and cabeese. The goose on both geese and advertising. Both have been traced from the prototypes and added to RGS boxcar lettering.

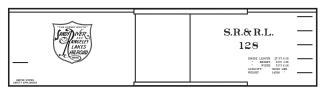
5460-01 Box Car, Brown. White and Black Lettering. LA 7'-2" x 30'. ★★★ HO-O-G



Box car 8801, acquired from C&S, was a special service car for Automobile loading. It featured center opening end doors. Freel ance "Automobile" lettering, auto graphic, and transfers for the end door hinges and door latch ("A" end only) are included.

5460-02 Box Car, Brown. White, Black and Gold Lettering. LA 7'-2" x 30'.

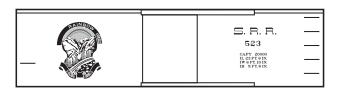
#### SANDY RIVER & RANGELY LAKES



Spelling out its name seemed to be verboten on the SR&RL freight cars, so that tradition is faithfully observed. To which an accurate tracing of the SR&RL herald is added with appropriate red, white and blue.

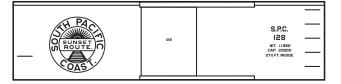
5465-01 Box Car, Brown. White, Red and Blue Lettering. LA 7'-2" x 30'.

★★★ HO-O-G



Fabulous as the Silverton Railroad was in its own right, the Mears Passes exceeded it. Here is a Mears Pass herald to adorn a Silverton boxcar. Seven colors! Blue field behind the lettering. Red, yellow and green rainbow in a light blue sky. Set on a black car to accentuate the colors. Lettering is á la Silverton. **5470-01** Box Car, Black. White, Black, Red, Green, Yellow, Blue and Light Blue Lettering. LA 7'-2" x 30'. ★★★ HO-O-G

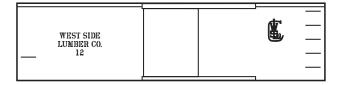
#### SOUTH PACIFIC COAST



Here's a 28 foot box car that makes an out-standing model. A marvellous marriage of car design and prototype billboard lettering. The Carter Brothers car was the original narrow gauge billboard box car. The herald's sun differs from that of the parent Southern Pacific along with the prototypical block lettering for reporting marks and gothic for dimensional data.

5475-01 Box Car, Brown. White and Black Lettering. LA 7'-2" x 30'. ★★ HO-O-G

#### WEST SIDE LUMBER COMPANY

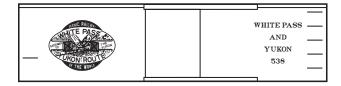


The last three-foot logger endures in the hearts of men. Couple West Side stencil lettering with a rendering of the company logo from its stationery. The logo is black and white.

5485-01 Box Car, Brown. White and Black Lettering. LA 7'-2" x 30'. ★★ HO-O-G

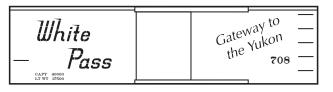


#### WHITE PASS & YUKON



Combine a faithful rendering of the original 1900 WP&Y herald with the dramatic colors of its modern day descendant. Wow! The herald has a yellow sky for the Klondike's promise, ice blue for the mountain peaks and a snow-white foreground. The train is yellow too.

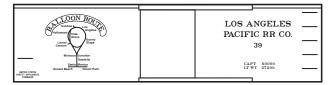
**5490-01** Box Car, Brown. White, Black, Blue and Yellow Lettering. LA 7'-2" x 30'. ★★★ HO-O-G



This speed lettered car is not as dramatic as the 1900 herald, but it is still very arresting. Fully prototypical per WP&Y modern era. Stencil format letters in yellow as actually appeared on car 708.

5490-02 Box Car, Green. Yellow Lettering. LA 7'-2" x 30'. ★★ HO-O-G

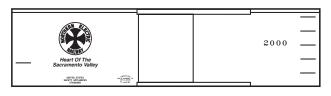
# ELECTRIC LINES



"The Famous Balloon Route! A Pleasant Diversion!" So sang the spieler on the narrow gauge trolley cars. A \$1.00 ticket on Sundays let you ride to the beach one way and return another route on the same ticket. Using the same ticket passengers could visit different beaches and travel Sunset Boulevard through Hollywood as a bonus. Passengers had lots of great reasons to ride the cars! The graphic is from LAP ads. Broad-gauged by Pacific Electric in 1914, the excursions continued.

5500-01 Box Car, Brown. White, Black and Yellow Lettering. LA 7'-2" x 30'. ★★★ HO-O-G

#### NORTHERN ELECTRIC

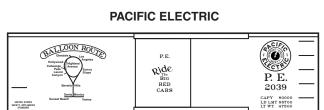


This predecessor of the Sacramento Northern decorated its boxcars with a Maltese cross logo, which is faithfully rendered here. The road used an outside third rail between Sacramento and Chico, California.

5515-01 Box Car, Brown. White Lettering. LA 7'-2" x 30'.

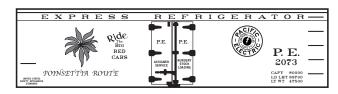
★ HO-O-G





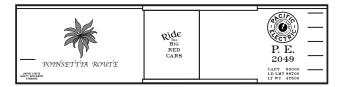
The Pacific Electric purchased and broadgauged the Los Angeles Pacific "Balloon Route" in 1914. The excursions continued although some community names had been changed. Graphic follows PE advertisement with colors complimenting the red, white and black PE bullseye logo.

5525-01 Box Car, Brown. White, Black and Red Lettering. LA 7'-2" x 30'. ★★★ HO-O-G



PE's lines around San Bernadino followed the "Poinsettia Route", so named both for the many orchards and nurseries and for the way Red Car lines radiated out from San Bernadino, like the petals of a flower. The authentic red flower logo was taken from PE advertising. Door lettering reads: "assigned service...nursery stock loading". The car is designed to carry a yellow band above the traditional express green car color. Very handsome.

5525-02 Refrigerator Car, Green. White, Black and Red Lettering. LA 7'-2" x 30'. ★★★ HO-O-G

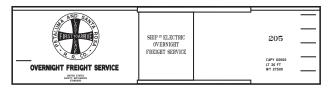


"Day for a Dollar" excursions on PE's lines around San Bernardino followed the "Poinsettia Route" so named both for the many nursery products grown and for the way Red Car lines radiated out from San Bernadino like the petals of a flower. Logo taken from PE advertising.

5525-03 Box Car, Brown. White, Black and Red Lettering. LA 7'-2" x 30'.

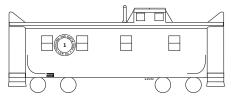
**★★★** HO-O-G

#### PETALUMA & SANTA ROSA



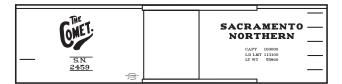
The Petaluma & Santa Rosa was Sonoma County's own unique electric railway and steamer line. To compete with bigger Northwestern Pacific it developed "Overnight" service, an innovation later copied by NWP and Southern Pacific. P&SR controlled the LCL freight business in its territory because it was "Last to Leave, First to Arrive". All lettering per prototype except the cross within the logo, which appeared on company stationery and structures.

5530-01 Box Car, Brown. White and Black Lettering. LA 7'-2" x 30'. ★★ HO-O-G



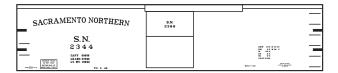
8712-02 Caboose, 32', Brown, c.1934. White and Black Lettering. LA 8'-2 x 32'. ★ HO-S-O-G

#### SACRAMENTO NORTHERN



The name passenger train on the longest interurban railway, the Sacramento Northern was called the "The Comet". The logo from its drum head is reproduced here on an SN boxcar.

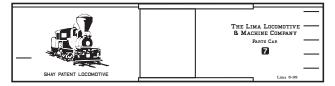
5540-01 Box Car, Brown. White Lettering. LA 7'-2" x 30'.



8725-02 Box Car, 40', Brown, c.1920-on. White Lettering. LA 8'-3 x 41'. ★ N-HO-S-O-G

#### PRIVATE OWNERS

#### LIMA LOCOMOTIVE & MACHINE

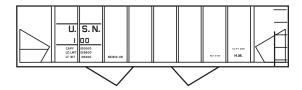


Whether Lima had a prototype is not known, but it could have. This version can be either standard or narrow gauge with added Shay.

5650-01 Box Car, Brown. White and Black Lettering. LA 7'-2" x 30'.

★★★ HO-O-G

★★ HO-O-G



9365-02 Hopper Car, 31', Gray, c.1949. White Lettering. LA 7'-2 x 32'. ★ N-HO-S-O-G



9365-03 Flat Car, 40', Gray, c.1949. Black Lettering. LA 40'-2 x 2'.8. ★ N-HO-S-O-G

#### FICTITIOUS RAILROADS

#### CALIFORNIA MIDLAND



From out of the fog-shouded redwood forests of California's North Coast comes inspiration for this car. The California Midland was a branch line of the Northwestern Pacific, which serviced a number of lumber companies. Any similarity to the famed Colorado Midland is strictly coincidental.

5565-01 Box Car, 36', Brown, c.1900. White Lettering. LA 8'-3 x 36'.

### PRICES FOR NAME SETS

#### Stars Indicate Price Group



Stars	Ν	ТТ	НО	S	0	G
*	3.75	4.25	4.25	4.75	5.50	9.75
**	4.00	4.50	4.50	5.25	6.00	11.25
***	4.25	4.75	4.75	5.75	6.75	12.25
****	4.50	5.25	5.25	6.75	7.75	13.75



#### DECAL PAPER (Perish the thought)

Though thin film decal paper seems to lend a touch of heresy to our line of dry transfers, there are a few situations where water slide decals may be useful. Apply the dry transfer to the decal paper, seal it with a clear coat, let it dry and then apply the decal to your model. Instructions Included.

1251 Decal Paper, Two Sheets 5-1/2" x 8-1/2". \$2.00

#### PRIVACY & SECURITY

We do not share your information with other organizations. All credit card slips are shredded after they are no longer needed. However, we do archive a photocopy of all orders so that we can verify what was shipped if there is a question later on.

#### CLOSE OUTS

#### Last of our inventory of wood ties

Clover House wood ties are milled from clear kiln dried California Pine or redwood for easy spiking and good holding quality. Pine ties are stained in five subtile colors to simulate naturally weathered track and are sold premixed in packages. Redwood ties are natural color.

Low contour ties are milled to a scale four inches thick to reduce the amount of ballast needed. Bridge and

trestle ties are packaged 500 in a plastic bag.

Turnout and crossover ties (27 scale feet in length) are packaged 250 in a plastic bag and are enough for about five or six average turnouts.

Each railroad seemed to have its own idea of tie size and spacing. Representative sizes have been used rather than following one particular railroad.

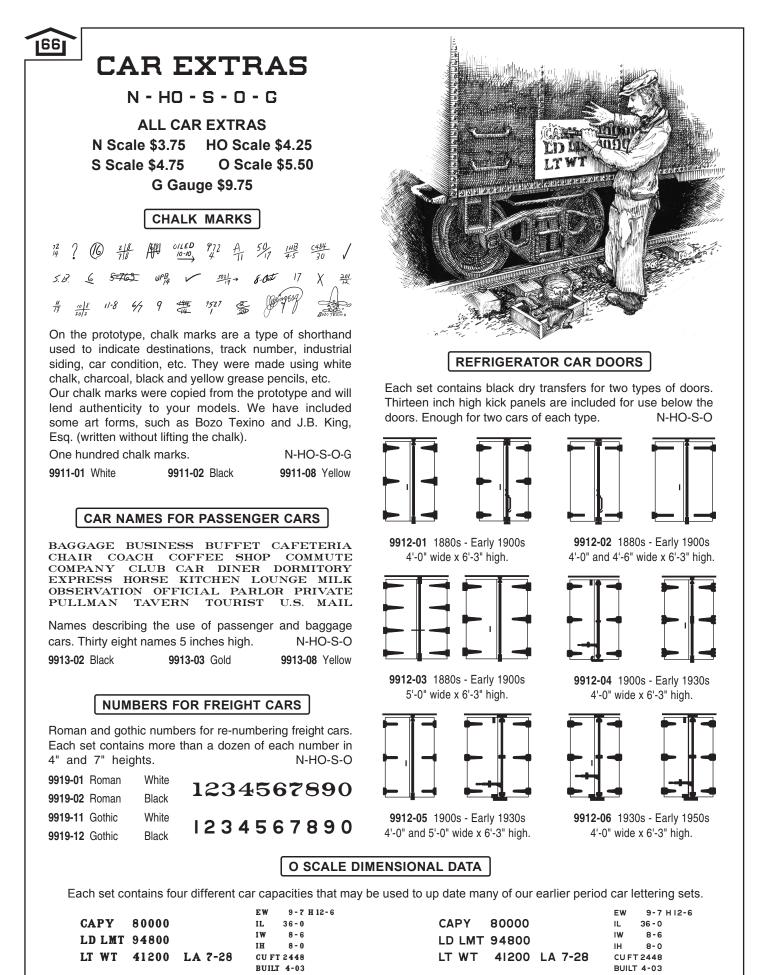
HO Scale \$10.00

N Scale \$8.00

S Scale \$12.00

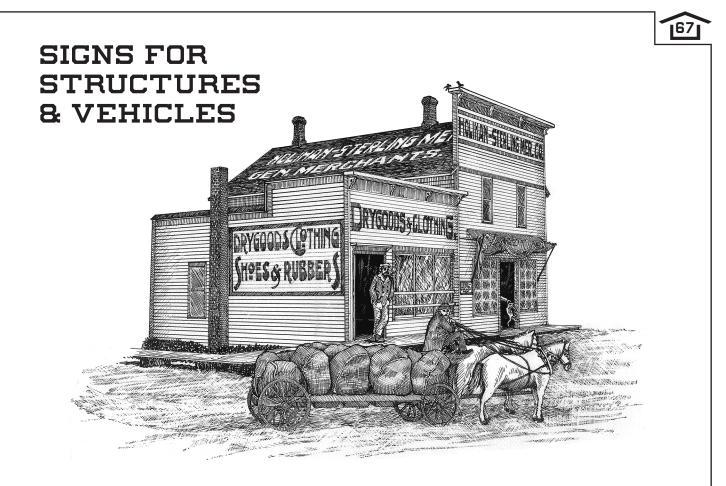
12.00 O Scale \$14.00

Descrip-					1	N	Н	0	Ş	S	(	C
tion	Period	Size	Gauge	Quantity	Red- wood	Stained Pine	Red- wood	Stained Pine	Red- wood	Stained Pine	Red- wood	Stained Pine
Full Size	Old Time	6" x 8" x 8'	Standard	1000	1030	1060	-	_	730	_	-	860
Full Size	Modern	7" x 9" x 9'	Standard	1000	-	1061	-	-	731	-	-	-
Low Contour	Modern	4" x 9" x 9'	Standard	1000	-	-	633	_	-	-	-	-
Full Size	Old Time	6" x 8" x 6'	Narrow	1000	1040	1070	-	-	740	-	-	-
Bridge	Modern	8" x 8" x 10'	Standard	500	1045	1075	645	675	-	-	845	875
Full Size	Old Time	6" x 8" x 27'	Standard	250	1050	1080	-	-	-	-	-	-



9916-01 Box Car, 1926-1950s. Four Sets, Roman Lettering, White.

9916-51 Box Car, 1926-1950s. Four Sets, Gothic Lettering, White.



You will find a large variety of signs copied from original and other sources. The signs are suitable for vehicles and structures of all types.

Business and building signs tended to be plainer than product signs. Typically, backgrounds on business signs were either black or dark colors. Lettering was white because it was easier to read and maintain. Product signs on the other hand, usually had several colors, and many were painted on brick and stone structures rather than wood because the upkeep was easier. Signs were painted on any available space: building sides and fronts, pillars, fences, vehicles, etc.

Modelers are advised to use photographs in books and magazines as a guide in placing

signs. Remember, a well maintained sign can last for many years without significant changes.

Our signs are suitable for use in all scales, although in N scale most of our signs would be used on sides of buildings. Those modeling in larger scales may use some of the smaller signs on windows or fences.

If you want to modify our signs or design your own signs to make your model unique, the assorted words, alphabets and stripes in various colors can be used. Shaded lettering can be achieved by offsetting two colors of the same alphabet. Use your own imagination to create other effects.

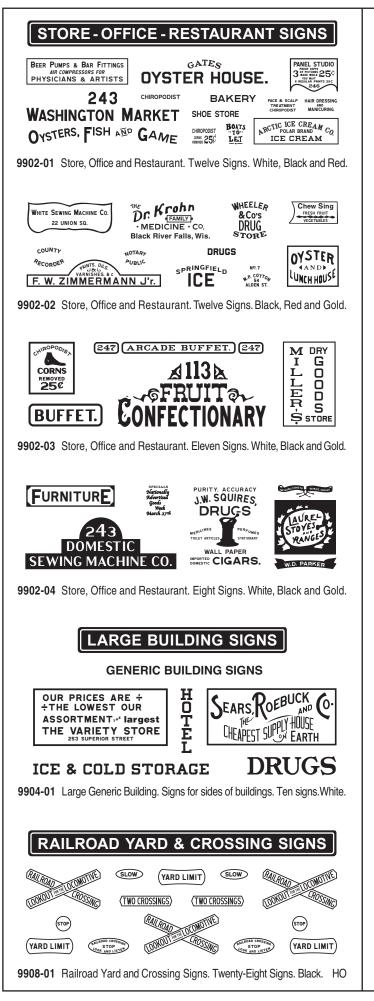
#### SCALE VS. GAUGE...AND THEN THERE IS G

Throughout the catalog we refer to N, TT, HO, S, and O scale rather than gauge. This is intentional. Scale refers to model size vs. prototype size. Thus, HO scale is in a ratio of 1:87 of the prototype. Gauge refers to the distance between the inside of the rails and is the same in all scales. Standard gauge is 4 feet 8-1/2 inches between the rails. Narrow gauge varied with the individual railroads, but

the most popular gauge was 3 feet between the rails.

G is not a scale, but a gauge - 45 mm between the inside of the rails. However, there are some variations in scale so that the models will match G gauge track. Clover House G gauge products (our New Creation Line) are made in 1:24 scale (half inch to the foot).





SPECIALTY BUSINESS SIGNS
COAL       DFFICE       ALL GRADES OF COAL         BRANCH YARD       BRANCH YARD       The P. Hoenig Coal Co.         CODD CDAL       PROMPT SERVICE       The P. Hoenig Coal Co.         Image: Solvay Coke       YARD Image: Solvay Coke       Lehigh Valley ANTHRACITE
9905-01 Coal Yard. Nineteen Signs. White.
MC CORMICK HARVESTING MACHINES BLACKSMITH HINGE WAGON & CARRIAGE SHOP UNERCARE MAY GLINGS BLACKSMITH SHOP
9905-02 Blacksmith and Implement Shop. Eleven Signs. Black and Red.
WORDS FOR BUSINESS SIGNS

ROMAN STYLE LETTERING AGENCY AUCTION AUTOMOBILES BAIT BEER BILLIARDS BLACK BLASTING BRICKS CARS CREAM CEMENTS CLEANERS CLOTHING

GOTHIC STYLE LETTERING AGENCY AUCTION AUTOMOBILES BAIT BEER BILLIARDS BLACK BLASTING BRICKS CARS CREAM CEMENTS CLEANERS CLOTHING

69

Over 100 generic words and names in Roman or Gothic style lettering to make your own signs.

Color	ROM	MAN	GOTHIC		
COIDI	¹ /16"	1/8"	¹ /16"	1/8"	
White Black Red Yellow	9701-11 9701-12 9701-16 9701-18	9701-21 9701-22 9701-26 9701-28	9701-61 9701-62 9701-66 9701-68	9701-71 9701-72 9701-76 9701-78	

#### WORDS FOR INDUSTRY SIGNS

#### ROMAN STYLE LETTERING

#### GOTHIC STYLE LETTERING

BAG BARRELS BEARINGS BOAT BOX CAR CANNERY CARRIAGE CHROME DYNAMITE ELECTRICAL EQUIPMENT LUMBER MACHINERY MEAT MOTORS

BAG BARRELS BEARINGS BOAT BOX CAR CANNERY CARRIAGE CHROME DYNAMITE ELECTRICAL EQUIPMENT LUMBER MACHINERY MEAT MOTORS

Over 100 generic words and names in Roman or Gothic style lettering to make your own signs.

Color	RON	MAN	GOTHIC		
Color	1/ ₁₆ "	1/8"	1/ ₁₆ "	1/8"	
White	9702-11	9702-21	9702-61	9702-71	
Black	9702-12	9702-22	9702-62	9702-72	
Red	9702-16	9702-26	9702-66	9702-76	
Yellow	9702-18	9702-28	9702-68	9702-78	









All Sizes per Package \$4.25

RUDY'

Alphabet (capitals only) and number sets. Combined Set: 1/32", 3/64", 1/16" & 3/32" high. All sets include letters and numbers. Quantity depends on the height and width of characters. Typically, an

#### **RAILROAD ROMAN Condensed Bold**

White 9600-11 9600-21 9600-31	Color	Combined Set	1/8"	3/16"
Black         9600-12         9600-22         9600-32           Gold         9600-13         9600-23         9600-33           Red         9600-16         9600-26         9600-36           Yellow         9600-18         9600-28         9600-38	Black	9600-12	9600-22	9600-32
	Gold	9600-13	9600-23	9600-33
	Red	9600-16	9600-26	9600-36

## **BLOCK CONDENSED BOLD**

Color Set 1/8" 3/	/16"
White 9650-11 9650-21 965	50-31
Black 9650-12 9650-22 965	50-32
Gold 9650-13 9650-23 965	50-33
Red 9650-16 9650-26 965	50-36
Blue 9650-17 9650-27 965	50-37
Yellow 9650-18 9650-28 965	50-38

## **BLOCK MEDIUM**

Color Combined Set		1/8"	3/16"	1/4"
White	9652-11	9652-21	9652-31	9652-41
Black	9652-12	9652-22	9652-32	9652-42
Gold	9652-13	9652-23	9652-33	9652-43
Red	9652-16	9652-26	9652-36	9652-46
Yellow	9652-18	9652-28	9652-38	9652-48
Geen	9652-19	9652-29	9652-39	9652-49

#### **HELVETICA BOLD**

Color Combined Set		1/8"	3/16"	1/4"
White	9654-11	9654-21	9654-31	9654-41
Black	9654-12	9654-22	9654-32	9654-42
Gold	9654-13	9654-23	9654-33	9654-43
Red	9654-16	9654-26	9654-36	9654-46
Blue	9654-17	9654-27	9654-37	9654-47
Yellow	9654-18	9654-28	9654-38	9654-48
Geen	9654-19	9654-29	9654-39	9654-49

#### RAILROAD ROMAN Medium

alphabet containing letters 3/16" high will have approxi-

mately 160 characters, condensed will have more, and

extended will have fewer.

Color	Combined Set	1/8"	3/16"	1/4"
White	9601-11	_	9601-31	9601-41
Black	9601-12	9601-22	9601-32	9601-42
Gold	9601-13	9601-23	9601-33	9601-43
Red	9601-16	9601-26	9601-36	9601-46
Yellow	9601-18	9601-28	9601-38	9601-48
Geen	9601-19	9601-29	9601-39	9601-49

#### RAILROAD ROMAN Extended

Color	Combined Set	1/8"	3/16"	1/4"
White	9602-11	9602-21	9602-31	9602-41
Black	9602-12	9602-22	9602-32	9602-42
Gold	9602-13	9602-23	9602-33	9602-43
Red	9602-16	9602-26	9602-36	9602-46
Yellow	9602-18	9602-28	9602-38	9602-48
Geen	9602-19	9602-29	9602-39	9602-49

## **CRAW MEDIUM**

	Color	Combined Set	1/8"	3/16"
A.M	White	9603-11	9603-21	9603-31
	Black	9603-12	9603-22	9603-32
	Gold	9603-13	9603-23	9603-33
	Yellow	9603-18	9603-28	9603-38

## OCTIC MEDIUM

Color	Combined Set	1/8"	3/16"	1/4"
White	9651-11	9651-21	9651-31	9651-41
Black	9651-12	9651-22	9651-32	9651-42
Gold	9651-13	9651-23	9651-33	9651-43
Red	9651-16	9651-26	9651-36	9651-46
Blue	9651-17	9651-27	9651-37	9651-47
Yellow	9651-18	9651-28	9651-38	9651-48
Geen	9651-19	9651-29	9651-39	9651-49

Color Combined 1/8" 3/16"			$\sim$	Actual	Height	Let	ter Heig	jht in So	cale Inch	es	
		0005.04	0005.04	A S	Fract.	Dec.	N	НО	S	0	G
White Black	9665-11 9665-12	9665-21 9665-22	9665-31 9665-32		1/32"	024	50	0.7	2.0	4.5	10
Gold	9665-12	9665-22 9665-23	9665-32 9665-33	ST Ro	^{1/32} 3/64"	.031 .047	5.0 7.5	2.7 4.1	2.0 3.0	1.5 2.3	1.3 1.1
Red	9665-16	9665-26	9665-36	5 30	^{0/64} 1/16"	.047	10.0	4.1 5.4	4.0	3.0	1.1
Yellow	9665-18	9665-28	9665-38		3/32"	.000	15.0	8.2	6.0	4.5	2.3
	11				1/8"	.125	20.0	10.9	8.0	6.0	3.0
ZEF	PHYR	MED	IUM		3/16"	.188	30.0	16.3	12.0	9.0	4.5
	Combined				1/4" *3/8"	.250 .375	40.0 60.0	21.7 32.6	16.0 24.0	12.0 18.0	6.0 9.0
Color	Set	1/8"	3/16"	A THE STATE	*1/2"	.500	80.0	43.5	32.0	24.0	12.0
White	9604-11	9604-21	9604-31		* -	These si	zes not a	vailable	from C	lover Ho	use.
Black	9604-12	9604-22	9604-32			Tr	y a local	graphic	s arts st	ore.	
Gold	9604-13	9604-23	9604-33								
Silver	9604-15	9604-25	9604-35	_		Г					
							See 'C Passen	ar Extr			
	AU 01			Frith up			& Freigh				
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	SSE	L'NG	ER	<b>I</b>						5E	
		ed Style						are Styl			
Color	Five In	ich High Le	tering	A STATE OF THE STA	6	lor	Five	Inch Hi	gh Lette	ering	
	НО	S	0				HO		S	0	
	9622-22	9622-32	9622-42				9605-22		5-32	9605-42	
Black	9622-23	9622-33	9622-43 9622-48	weight	-		9605-23		5-33	9605-43 9605-48	
Black Gold Yellow	9622-28	9622-38					9605-28	960		0005 40	



100" Per Package - All Sets \$4.25

Stripes can be used for sign borders, locomotive running boards and tenders, passenger cars,

freight cars, track diagrams on control panels, trucks, airplanes, ships, military models, etc.

White	Black Gold		Gold Red Blue	Yellow Green	Width of Stripes		Width of Stripes in Scale Inches						
white	DIACK	Gold	Red	Diue	Tenow		Fractions	Decimals	Ν	НО	S	0	G
9800-11 9800-21 9800-31	9800-22	9800-13 9800-23 9800-33	9800-26	9800-27	9800-28	9800-29	-	.006" .011" .016"	1" 1 3/4" 2 1/2"	1/2" 1" 1 1/2"	3/8" 3/4" 1"	1/4" 1/2" 3/4"	1/8" 1/4" 3/8"
9800-41 9800-51 9800-61	9800-42 9800-52 9800-62		9800-46 9800-56 9800-66	9800-57	9800-48 9800-58 9800-68	9800-59	1/32"	.023" .031" .044"	3 3/4" 5" 7"	2" 2 3/4" 3 3/4"	1 1/2" 2" 2 3/4"	1" 1 1/2" 2"	1/2" 3/4" 1"



A SPECIAL NOTE ABOUT FLY BY NIGHT INDUSTRIES "If It's Not Right It's Fly By Night"

Fly By Night (as you probably guessed) is the fun side of the business. These are the rejects or seconds from our manufacturing operation such as misprints, incorrect colors, wrong sizes, and anything else that does not measure up to top quality. Also included are close-outs and miscellaneous odds and ends. There are some very usable items, and we feel that they are priced right. In case you are wondering, Fly By Night is a legally registered name.



DRY TRANSFER PRACTICE PACKAGE Misprints – Mistakes – Wrong Colors – Obsolete – Whatever Our Selection – 36 Square Inches FBN 01 – #2.00 Each



These items were manufactured from the 1950's to early 1970's. They are similar to, or may be, Silver Streak, Model Die Casting, Central Valley, Varney and other familiar model railroad products of the period. Some of the castings are seconds and are sold 'as is', but we believe the price is right. Sale is limited to stock on hand which is in short supply for some items.

Screws	Screws - Pins - Staples - \$1.25 per Package									
Product Number	Quantity	Screws – Pins – Staples								
CL-71	10	#2 x ¹ /4" R.H Wood								
CL-72	10	#2 x ³ /8" R.H Wood								
CL-73	10	#3 x ¹ /2" R.H Wood								
CL-74	10	#2 x ¹ /2" F.H Wood								
CL-75	10	#2 x 1/2" R.H Machine								
CL-76	10	#20 x ³ /8" Brass Escutcheon Pins								
CL-77	90	Small Coated Steel Staples For HO Grab Irons 22" Wide								

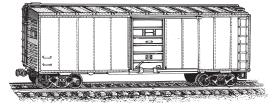
#### HO SCALE PARTS - \$2.50 per Package

Product Number	Quantity	HO Scale Miscellaneous Parts
CL-02	15	A-B Brake Valves
CL-03	3	Ajax Brake Housing and Wheel Set
CL-04	3	Two Piece K-Brake Set for Hopper Cars
CL-08	4	Freight Car Door, Small With Guides
CL-13 12		Smoke Jack with China Cap
CL-14	16	Caboose Windows, Tall Non-barred
CL-15	16	Caboose Windows, Tall Barred
CL-16	10	Caboose Windows, Short non-barred
CL-19	2	Caboose Cupola, Steel Type
CL-20	10	Caboose Roof Platforms
CL-27	50	Roof Ribs, Stamped Metal
CL-28	2	Corrugated Aluminum, 4" x 6" x .006" x .045" o/c
CL-29	8	Brake Platform, Die Cast
CL-31	4	One Piece K-Brake Casting
CL-495	10	Caboose Crescent Grab Irons

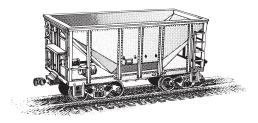
# ROUNDHOUSE CAR KITS FROM MODEL DIE CASTING, INC.

kits have trucks and horn hook couplers. You may custom paint and then letter them with Clover House dry transfer lettering sets. See page 17 for information on lettering Area "LA.....". Supply is limited since the kits are no longer being manufactured.

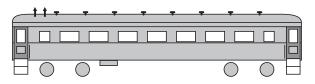
HO Scale



40' BOX CAR This Classic Era all steel box may be used on layouts from the 1930s through the 1950s. It has A-B brakes and cast steel trucks. LA 9'-8 x 40'-4. 1004 HO Scale (MDC 1040) \$13.50

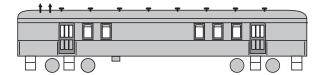


20' ORE CAR This car with all steel construction, was used from 1920s through 1960s. A-B brakes and cast steel trucks. LA 5'-0 x 20'-0. 1011 HO Scale (MDC 1401) \$10.00

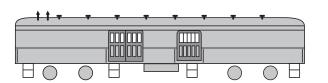


60' COACH Harriman style had all steel construction. It was used from the early 1900s through 1950s.

1020 HO Scale (MDC 6010) \$16.00

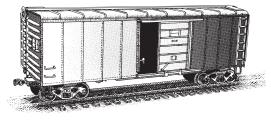


60' RAILWAY POST OFFICE CAR Harriman style had all steel con-struction. It was used from the early 1900s through 1950s. 1022 HO Scale (MDC 5980) \$16.00

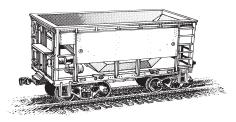


60' BAGGAGE CAR Harriman style had all steel construction. It was used from the early 1900s through 1950s.

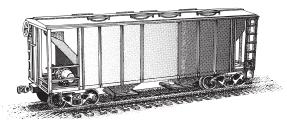
1021 HO Scale (MDC 6020) \$16.00



40' STEEL BOX CAR This car was used between the 1940s and 1970s. It has an A-B brake system and cast steel trucks. LA 9'-9 x 40'. 1005 HO Scale (MDC 1080) \$13.50

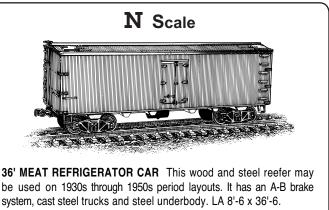


20' ORE CAR Used from the 1930s through 1960s this car has all steel construction, A-B brakes and cast steel trucks. LA 4'-0 x 20'-0. 1012 HO Scale (MDC 1402) \$10.00



34' COVERED HOPPER Pullman PS-2 series was used from 1950s through the 1980s. It has all steel construction with A-B brakes and cast steel roller bearing style trucks. LA 7'-9 x 29'-0.

1009 HO Scale (MDC 1430) \$14.00



1014 N Scale (MDC 8680) \$14.00

# HO SEARCHLIGHT SIGNAL KITS

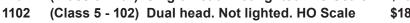
#### **UNION SWITCH & SIGNAL COMPANY H-2 SEARCHLIGHT SIGNAL** Manufactured by "Class 5" models.

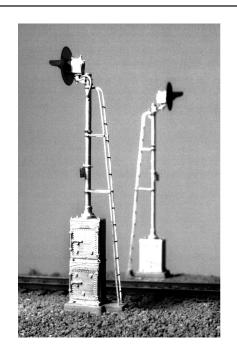
These highly detailed non-lighted signal kits will give you a foreground model that will impress the most discriminating modelers. We believe these kits will make some of the finest signals available. The detailed plastic castings and photo etchings are of the highest guality and contain enough parts to configure the signals in ten variations.

Though based upon Southern Pacific prototypes, they can be modified to fit some other railroad designs.

If you carefully follow the instructions, you will be well pleased with the results.

1101 (Class 5 - 101) Single Head. Not lighted. HO Scale \$15.75 \$18.75





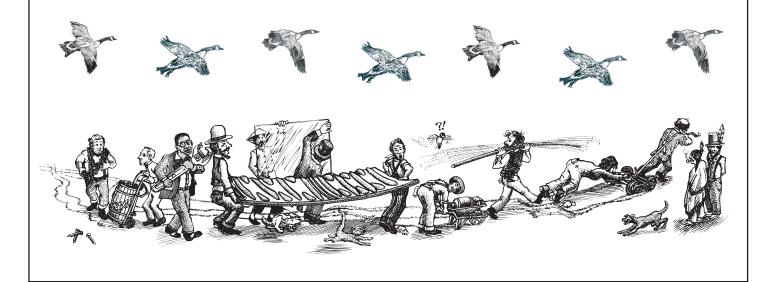
## ORDERING INSTRUCTIONS

- 1. Minimum order is \$20.00. Delivery guaranteed.
- 2. Send payment by check drawn on a U.S. bank, money order, Master Card or Visa credit cards. U.S. Dollars only.
- 3. Orders within the U.S. & Canada: Uniform shipping charge is \$5.00.
- 4. Orders outside the U.S. & Canada: A. Send payment by Master Card or Visa Credit card. U.S. Dollars only.
  - B. All orders shipped by air. The U.S. Postal Service does not ship outside the U.S. by surface.

C. Estimated shipping cost is 20%. D. Actual shipping charges will be added to order.

- 5. We are not prepared to accept telephone orders.
- 6. We refund excess money with the order rather than issuing credit slips.
- 7. The order form will be returned to you. Please retain it, since it must be returned to us with any claim for adjustment or for merchandise not received.
- 8. Your satisfaction is guaranteed. 509-999-6247.

#### PLEASE FEEL FREE TO COPY THE ORDER FORM IF YOU DO NOT WANT TO CUT UP THE CATALOG



Clover House	PLEASE DO NOT WRITE IN THIS SPACE
Post Office Box 215 Veradale, Washington 99037-0215 U.S.A.	Order Number
Please type or print plainly using a ball point pen. This will be your shipping label.	Received
	Shipped
Name	Shipped Via
	Shipping Charge
Address	Checked By
City-State-Zip+4	

L i n e	Quantity	Product Number	Description		Color / Material	Scale	Unit Price	Price
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
Tele	ephone Nu	mber		Merchandise		or Mercha imum Ord	andise er \$20.00	
			ut your order – Information not shared)	ordered from Catalog		n <b>gton Re</b> Sales Ta		
		arge \$20.00	Master Card Visa	No		<b>n Shippin</b> & Canada	a <b>g Charge</b>	\$5.00
	edit Card			Is this your first Order □ Yes □ No			Total	
								L

## MISCELLANEOUS EXTRA THINGS

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#### WIRE CONVERSION TABLES

#### Wire Size vs. Gage for Scale Rods

Prototype Rod Size	Brass & Copper Wire Gage						
in Inches	Ν	НО	S	0	G		
1/2 3/4 1 1 1/2 2 2 1/2 3 4 5 6 7 8 9 10 11 12	38 36/37 34 30/31 28 26 25 22 20 18/19 17 16 15 14 13/14 12/13	35 31 29 25 23 21 19 17 15 13 12 11 10 9 8 7	32 29 26 23 20 18 17 14 12 11 9 8 7 6 5/6 5	30 26 24 20 18 16 14 12 10 8 7 6 5 4 3	24 20 18 14 11/12 9/10 8 6 4 2 1		

## Wire Size vs. Gage for Scale Pipe

Prototype pipe is measured by inside dimension. However, for modeling purposes the outside dimension is used.

Prototype Pipe Size	E	Brass & Copper Wire Gage						
in Inches	Ν	НО	S	0	G			
1/2 3/4 1 1 1/2 2 2 1/2 3 4 5 6 7 8 9 10 11 12	36 34 32 28 27 25 23 21 19 18 17 16 15 14 13 12	30 28 26 23 21 20 18 16 14 13 11 10 9 8 8 7	28 26 24 21 19 17 15 13 11 10 9 8 7 6 5 4	25 23 21 18 16 15 13 11 9 7 6 5 4 3	19 17 15 12 10 8/9 6/7 5 3 1/2			

#### PRICES, UPDATES AND A TOUCH OF LEGALITY

Due to inflation, prices are subject to change without notice. We plan and will try to keep prices in this catalog constant until January 1, 2013. After that date, write, watch ads in magazines or visit our web site: cloverhouse.com.

Updates of new products and changes are issued as needed and are included with orders

and catalogs. If you would like one, please write or visit our web site.

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# **CONVERSION TABLES**

Decimal figures below are given in actual inches per scale measure, except that 1/4 mile and above are in actual feet.



Prototype Dimenson	N (RR) 1:160	TT/SHIP 1:120	HO (RR) 1:87	AIRCRAFT 1:72	S (RR) 1:64	O (RR) 1:48	MILITARY 1:35	SHIP 1:32	G (RR) 1:24	Prototype Dimenso
1"	.006"	.008"	.011"	.014"	.016"	.021"	.029"	.031"	.042"	1"
2"	.013	.017	.023	.028	.031	.042	.057	.063	.083	2"
3"	.019	.025	.035	.042	.047	.063	.086	.094	.125	3"
4"	.025	.033	.046	.056	.063	.083	.114	.125	.167	4"
5"	.031	.042	.057	.070	.078	.104	.143	.156	.208	5"
6"	.038	.050	.069	.083	.094	.125	.172	.188	.250	6"
7"	.044	.058	.080	.097	.109	.146	.200	.219	.292	7"
8"	.050	.067	.092	.111	.125	.167	.229	.250	.333	8"
9"	.056	.075	.103	.125	.141	.188	.257	.281	.375	9"
10"	.063	.083	.115	.139	.156	.208	.286	.313	.417	10"
11"	.069	.092	.126	.153	.172	.229	.314	.344	.458	11"
12" (1')	.075	.100	.138	.167	.188	.250	.343	.375	.500	12" (1
2'	.150	.200	.276	.333	.375	.500	.686	.750	1.00	2'
3'	.225	.300	.414	.500	.563	.750	1.03	1.13	1.50	3'
4'	.300	.400	.552	.667	.750	1.00	1.37	1.50	2.00	4'
5'	.375	.500	.690	.833	.938	1.25	1.71	1.88	2.50	5'
6'	.450	.600	.828	1.00	1.13	1.50	2.06	2.25	3.00	6'
7'	.525	.700	.966	1.17	1.31	1.75	2.40	2.63	3.50	7'
8'	.600	.800	1.10	1.33	1.50	2.00	2.74	3.00	4.00	8'
9'	.675	.900	1.24	1.50	1.69	2.25	3.09	3.38	4.50	9'
10'	.750	1.00	1.38	1.67	1.88	2.50	3.43	3.75	5.00	10'
20'	1.50	2.00	2.76	3.33	3.75	5.00	6.86	7.50	10.00	20'
30'	2.25	3.00	4.14	5.00	5.63	7.50	10.29	11.25	15.00	30'
40'	3.00	4.00	5.52	6.67	7.50	10.00	13.71	15.00	20.00	40'
50'	3.75	5.00	6.90	8.33	9.38	12.50	17.14	18.75	25.00	50'
60'	4.50	6.00	8.28	10.00	11.25	15.00	20.57	22.50	30.00	60'
70'	5.25	7.00	9.66	11.67	13.13	17.50	24.00	26.25	35.00	70'
80'	6.00	8.00	11.03	13.33	15.00	20.00	27.43	30.00	40.00	80'
90'	6.75	9.00	12.41	15.00	16.88	22.50	30.86	33.75	45.00	90'
100'	7.50	10.00	13.79	16.67	18.75	25.00	34.29	37.50	50.00	100'
125'	9.38	12.50	17.24	20.83	23.44	31.25	42.86	46.88	62.50	125'
150'	11.25	15.00	20.69	25.00	28.13	37.50	51.43	56.25	75.00	150'
175' 200'	13.13 15.00	17.50 20.00	24.14 27.59	29.17 33.33	32.81 37.50	43.75 50.00	60.00 68.57	65.63 75.00	87.50 100.00	175' 200'
1/4 mi	8.25'	11.00'	15.17'	18.33'	20.63'	27.50'	37.71'	41.25'	55.00'	1/4 mi
1/2 mi 2/4 mi	16.50	22.00	30.34	36.67	41.25	55.00	75.43	82.50	110.00	1/2 mi
3/4 mi 1 mi	24.75 33.00	33.00 44.00	45.52 60.69	55.00 73.33	61.88 82.50	82.50 110.00	113.14 150.86	123.75 165.00	165.00 220.00	3/4 mi 1 mi
2 mi	66.00	88.00	121.38	146.67	165.00	220.00	301.71	330.00	440.00	2 mi
3 mi	99.00	132.00	182.07	220.00	247.50	330.00	452.57	495.00	660.00	3 mi
4 mi 5 mi	132.00	176.00	242.76	293.33	330.00	440.00	603.43 754.20	660.00 825.00	880.00	4 mi 5 mi
5 mi	165.00	220.00	303.45	366.67	412.50	550.00	754.29	825.00	1100.00	5 mi

