

PRR L-1 MIKADO 2-8-2

L1s were the freight counterparts to the famous K-4s because of their identical boilers. They were originally built to replace 2-8-0's in main line freight work. They were later to be known as "heroes" of World Wars I and II. The L1s gained their popularity during World War I, with the delivery of much-needed goods to U.S. soldiers.

J.T. Wallis, Superintendent of Motive Power for Lines East, along with his assistants, Alfred Gibbs and Axel Vogt, planned for the identical boilers, along with other similar parts, to be in both the L1 and K-4 models, so that the parts could be interchangeable.

Some characteristics of the L1 are: a 27" x 30" cylinder, boiler pressure of 205 pounds, and a weight of 314,600 pounds. The L1 would later be improved, with more horsepower, by stoker-firing the engine.

Between the years of 1914 and 1919, shops at Baldwin, Juniata, and Lima produced 574 locomotives identical to the original developed in 1913. Modernization of the L1s began in the 1920's. Air tanks were shoved up front after the implementation of a power reverse gear on boiler-side, and stokers were introduced very slowly, with some locos never receiving them at all. The stokers replaced hand firing of the trains. Steel pilot beams and footboards were also added in later years.

By the mid 1920's the L1s were spreading nationwide. They could be found throughout the Central and Eastern United States, and some were starting to spread into the West. With the onslaught of the depression in the 1930's, and electricification of the east, L1 engines were now made in surplus, and pushed onto storage tracks. Two of the large storage yards were located in Hollidaysburg and Marysville, both towns in Pennsylvania. With the start of World War II came the implementation of even more stokers. Engines that had been hand fired were having stokers attached as quickly as possible.

On October 20th of 1957, L1s 520 pulled one of the last steam-powered passenger trains; the era of the steam powered engines was coming to a close.

PROTOTYPE SPECIFICATIONS

Cylinders	27" x 30"
Firebox size	79-7/8" x 126"
Steam pressure	205 lbs.
Weight of engine in working order	324,700 lbs.
Weight of engine on pony truck	31,000 lbs.
Weight of engine on drivers	232,500 lbs.
Weight of engine on trailing truck	61,200 lbs.
Tractive force	61,465 lbs.
Weight of tender, empty	77,300 lbs.
Weight of tender, loaded	189,850 lbs.
Tender capacity, water	8,835 gals.
Tender capacity, coal	38,935 lbs.
Overall length w/ tender	82' 0-1/4"
Overall height	15 feet

MODEL SPECIFICATIONS

Length w/ tender	11-1/2"
Height	2-1/8"
Weight	2 lb. 2 oz.
Minimum radius	18"
Drivers	62"
Power	Bowser DC-71 motor
Color	Brunswick Green

BOWSER L-1 MIKADO 2-8-2 - KITS AND ACCESSORIES

#100800	PRR L-1 Mikado w/ Tender, Kit	# 91000	Painted Engineer and Fireman
#100810	Superdetail Kit	#500805	Assembled valve gear
#526	PRR L-1 Mikado Deluxe Kit (includes body & tender drilled for superdetail, parts included)	#100516	Smoke Unit



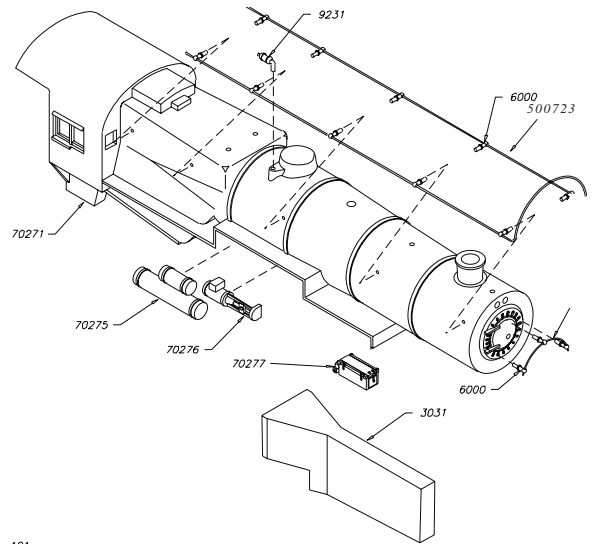
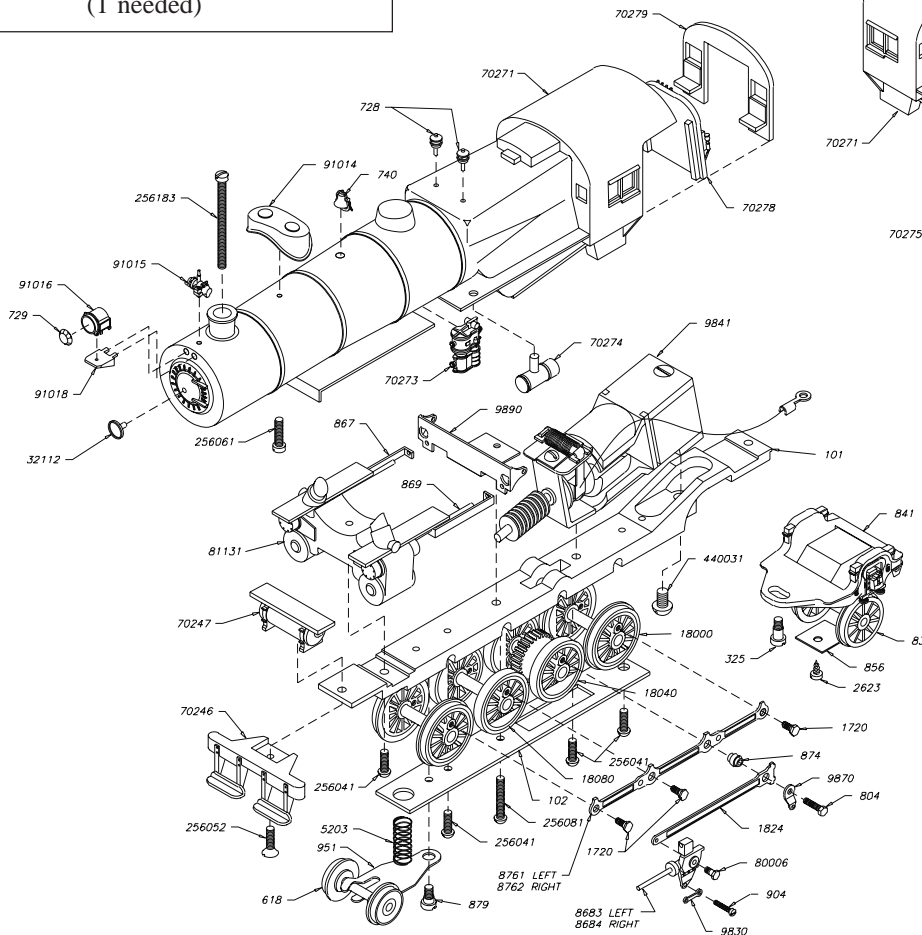
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LATEST VERSION OF L-1 MIKADO (AS OF 8-93)

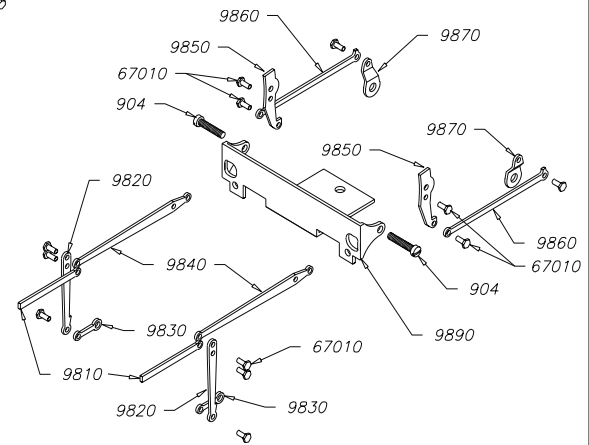
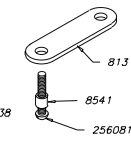
WITH ZINC DIE CAST BOILER

Flanged Middle Drivers for L-1

- 18082 Medium (1 needed)
- 18070 Heavy Flanged with Gear (1 needed)



MOTOR WORM GEARS	
WORM	1030
AXLE GEAR	1021
AXLE SPACING	.820
GEAR RATIO	29-1



VALVE GEAR
KIT #100805
ASSEMBLED #500805

Smoke Unit Kit For Bowser & Penn Line Locos

Kits include a Model Power Smoke Unit, Instructions and the necessary mounting hardware. Smoke fluid not included.
#100516 For PRR L-1. Requires drilling smoke stack, filing underside of boiler & drilling mounting holes for bracket.



Assembled piping #100813

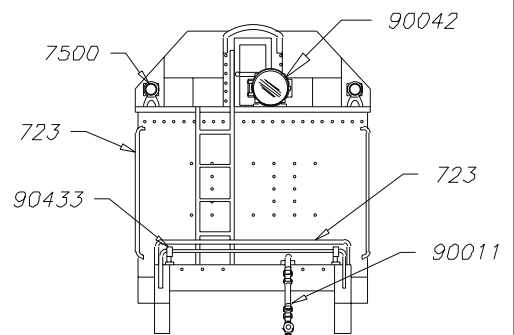
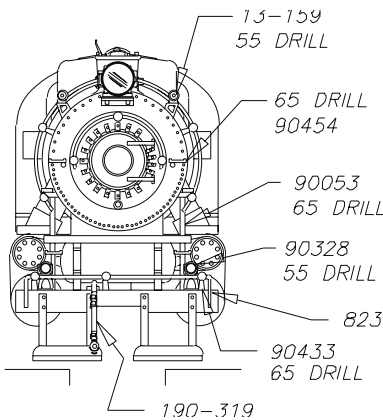
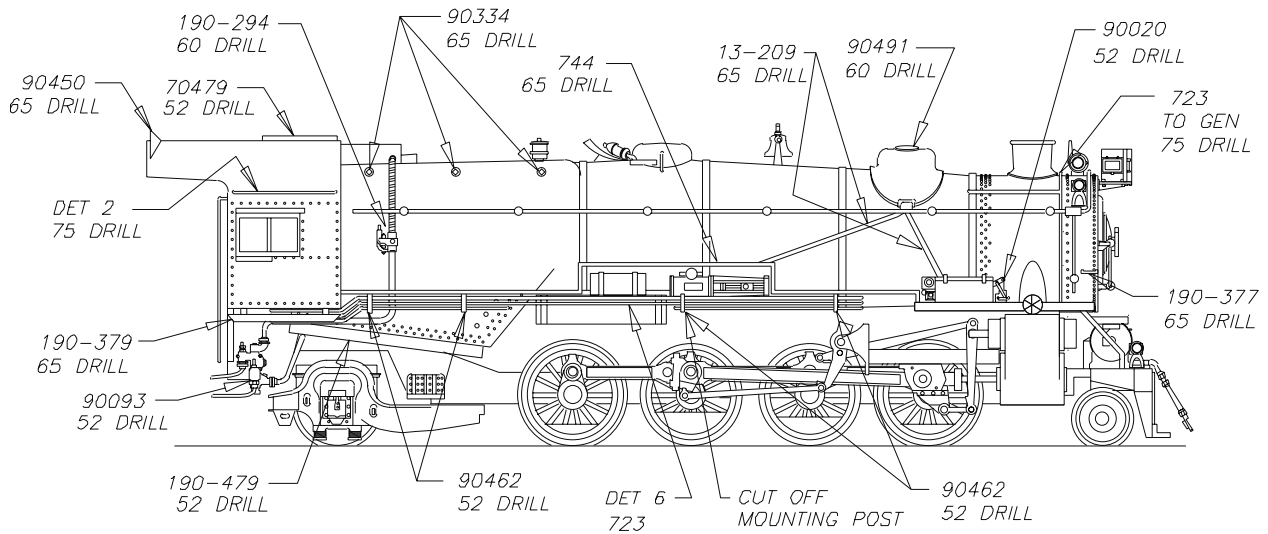
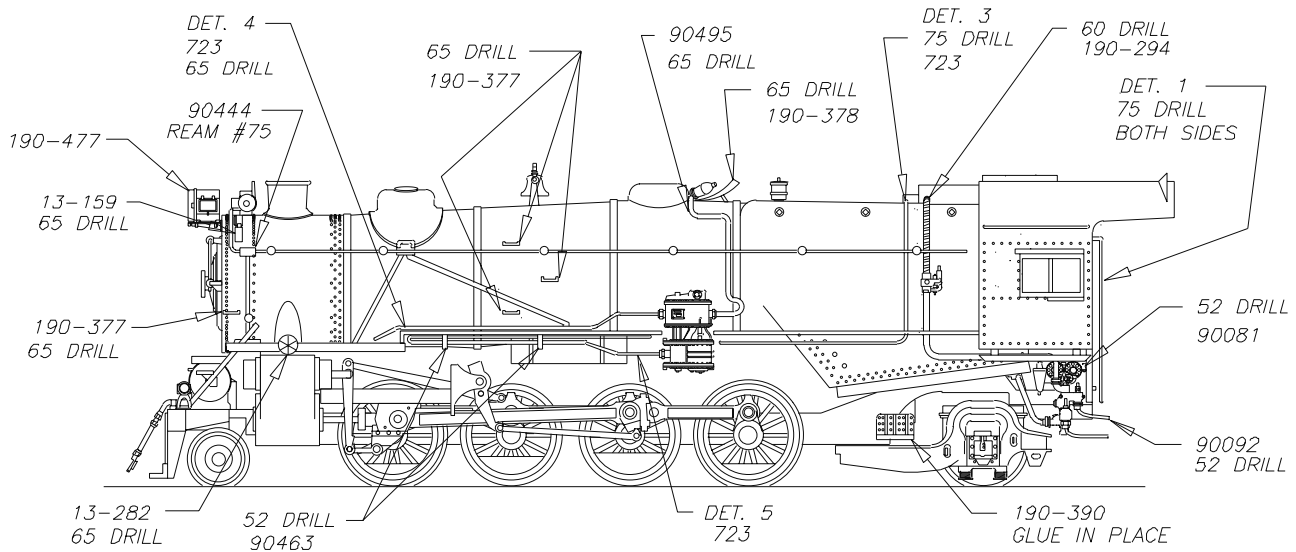
The piping is performed and soldered together for you. Simply attach as follows: Using a razor saw position piping (starting at rear). Cut a slot in the walk for the bracket, press in place and go on to the next slots. **ALTERNATE METHOD:** Bend bracket close to wire and glue to the underside of walk.

Front Pilot Coupler.

Use Kadee® #5 coupler and pocket. Cut screw holes off pocket sides. Remove front top ridge from pocket and file smooth. Drill a #43 hole in pilot #818. Insert a 3/8" long 2-56 screw through assembled coupler and pocket from the bottom. Pass screw through frame and tighten into air tank. Pilot may have to be filed for correct coupler height.

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SUPER DETAIL KIT #100815



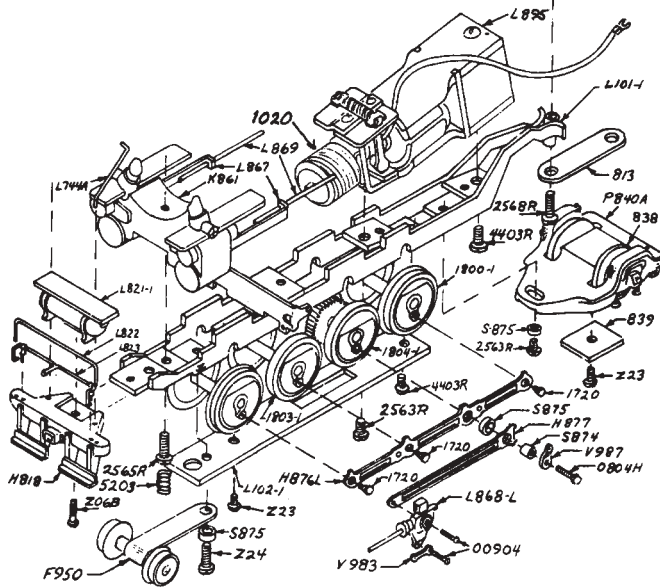
PART#	QTY	DISCRIPTION
90495	1	Steam Pipe
13-159	1	PRR Mod. Mkr. Lt.
13-209	4	Sander Pipe w/valve
13-282	2	Snifter Valves

PART#	QTY	DISCRIPTION
823	2	Coupler Bar
90018	1	Air & Signal Hose
90019	1	Steam Hose (tender)
90020	1	Damper Valve
90053	2	Pilot Brace Step.
90081	1	Stoker Motor
90092	1	Injector (left)
90093	1	Injector (right)
90328	2	Pr. Marker Lights (straight)
90334	6	Stay Bolts
90433	6	Coupler Lift Bar Stantions
90444	2	Junction Box
90450	1	Wind Deflector
90454	2	Smokebox Front Step
90462	4	Pipe Hanger (3 hole)
90463	2	Pipe Hanger (2 hole)

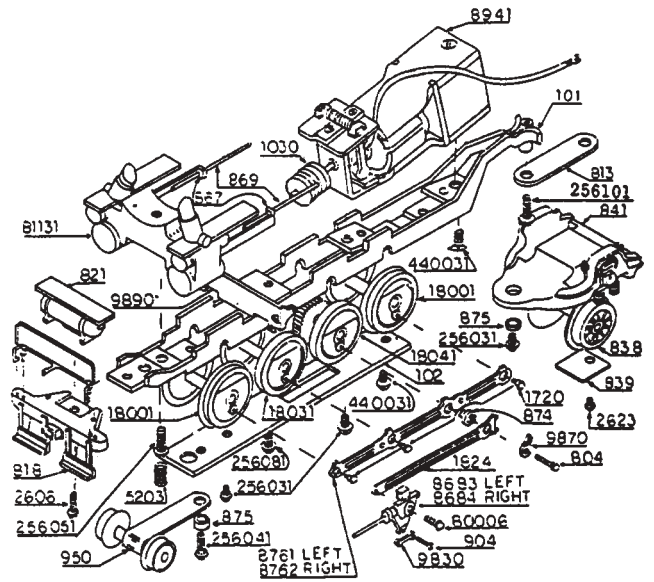
PART#	QTY	DISCRIPTION
190-294	2	Starter Valves
190-319	1	Air Hose
190-377	3	Pr. Boiler Steps
190-378	1	Whsistle Sheild
190-379	1	Pr. Cab Walks
190-390	1	Pr. Trlg. Trk. Brg. Plates
190-477	1	PRR Headlight
190-479	1	Pr. Ash Pans

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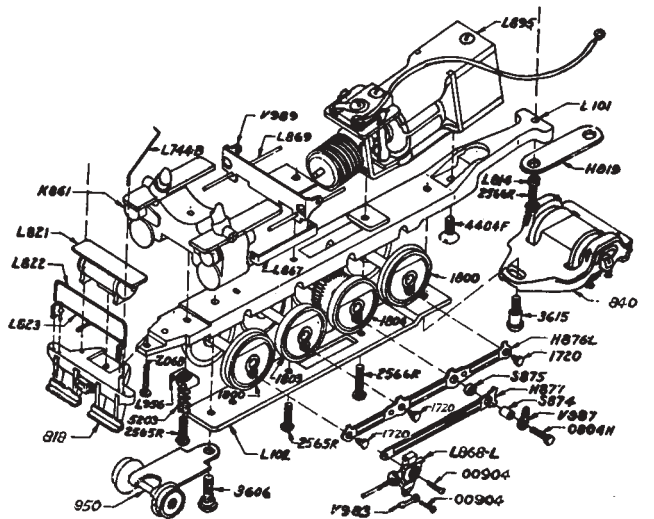
First brass underframe -
NO LONGER AVAILABLE #'S 1020, & 101-1



Second brass underframe-
NO LONGER AVAILABLE



Lead Boiler For L-1 MIKADO
Has Been Discontinued - See The
Current Drawing For Replacement
Parts.



Old style underframe -
#L-101 Underframe - NO LONGER AVAILABLE
#1020 Worm - NO LONGER AVAILABLE

FOR #713 BOILER SEE NEW
VERSION (8-93)
(lead boiler no longer available)

The plastic crossheads formerly used by the Penn Line and Bowser companies have been replaced by metal crossheads having a steel piston rod.

Marker Light Jewels:

Rule of thumb: Green to front, amber to side and red to rear. The Pennsy had amber to the side and red to front and rear. When the loco was traveling forward the tender marker lights would show red. When the loco was backing up the marker lights on the pilot or smoke box front would show red. Sometimes one of the crew would change the markers to the color desired.

Operating Headlight

If you already have a headlight. Use a #91039 Grain of Rice bulb for headlight. Drill out headlight and drill a hole in front of generator to run wire to motor brushes. Solder one wire to each brush.

When Ordering Parts For Older Style Bowser And Penn Line Loco's, Use Part Number Conversion List To Insure Receiving The Correct Parts.