

# PRR K-4 PACIFIC 4-6-2

The K-4 has come to be known as "America's most famous Pacific". The first K-4 engine developed was locomotive 1737, produced in Juniata Shops in May of 1914; it's original design remained basically unchanged. This model was so popular it was mass-produced in 1917, and would be copied 424 times in the next 18 years.

The first K-4s produced utilized the common boiler design. They came equipped with screw reverses, were superheated, and hand fired. They came with 80" drivers, used 205 pounds of pressure, weighed 308,890 pounds, held 7,000 gallons water, and carried 12 1/2 tons of coal. The last engines were built in 1928. Motive power chief J.T. Wallis and his assistants, Alfred Gibbs and Axel Vogt, would be the first men to evolve the K-4. In 1919 a small group of engines were built containing power reverses and Street underfeed stokers. These stokers were deemed unreliable, and removed until the mid- 1930's, when the revolution of the K-4s began. At this time, the K-4s were fitted with dependable standard stokers. This move was considered to be the largest single operational improvement of the K-4. Stokers greatly increased the performance of the K-4 engine. Originally the K-4 was designed to haul 11 cars and could achieve an average speed of 60-75 miles an hour. With the implementation of the stokers, engines could now pull up to 16 or more cars, still achieving high rates of speed. A test train even reached a maximum speed of 92 miles an hour in 1938! They were also fitted with larger tenders, known as Kiesel tenders, (sometimes referred to as Baldwin tenders) named after its developer W.F. Kiesel, Jr. Superheaters were also introduced, and would come to be known as the best overall improvement made to the K-4, as its efficiency was increased by 20% after their installation. The superheaters collected the engine's steam in a series of boiler tubes, and then re-routed and dried the steam.

By 1956, only 72 K-4 locomotives were left in existence. Only 20 were in use, all of which were located in New Jersey. The Pennsylvania Railroad has preserved some of the K-4 engines. The K-4 was one of the most successful and widely recognized locomotives ever developed.

## PROTOTYPE SPECIFICATIONS

Cylinders	27" x 28"
Firebox size	79-7/8" x 126"
Steam pressure	205 lbs.
Starting tractive force	44,460 lbs.
Weight of engine in working order	308,890 lbs.
Weight of engine on pony truck	53,640
Weight of engine on trailing truck	53,420
Weight of tender, loaded	198,400 lbs.
Weight of tender, empty	82,300 lbs.

## MODEL SPECIFICATIONS

Length with Tender	11-7/16"
Height	2-1/8"
Weight	2 lb. 7 oz
Minimum Radius	18"
Recommended Radius	22"
Power	DC-71 Motor
Drivers	80" with RP-25 flanges
Color	Brunswick Green

## BOWSER PRR K-4 PACIFIC KITS AND ACCESSORIES

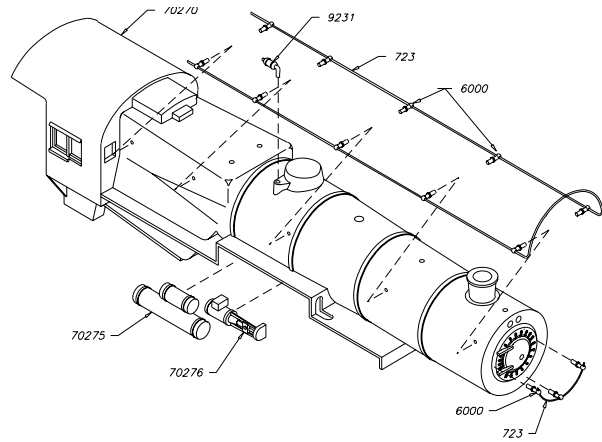
#525	PRR K-4 Pacific Deluxe Kit (includes body & tender drilled for superdetailing and all parts)	#100500	PRR K-4 Pacific w/High Side Tender, Kit Basic Kit
		#100515	K-4 Superdetail Kit
		#100516	Smoke Unit Kit
		#91000	Painted Engineer and Fireman (cut off their legs)
		#500505	Assembled Valve Gear



PRR K-4 PACIFIC 4-6-2, PHOTO OF BOWSER MODEL

# PRR K-4 PACIFIC 4-6-2

LATEST VERSION OF K-4 PACIFIC (AS OF 7-93)  
WITH ZINC DIE CAST BOILER

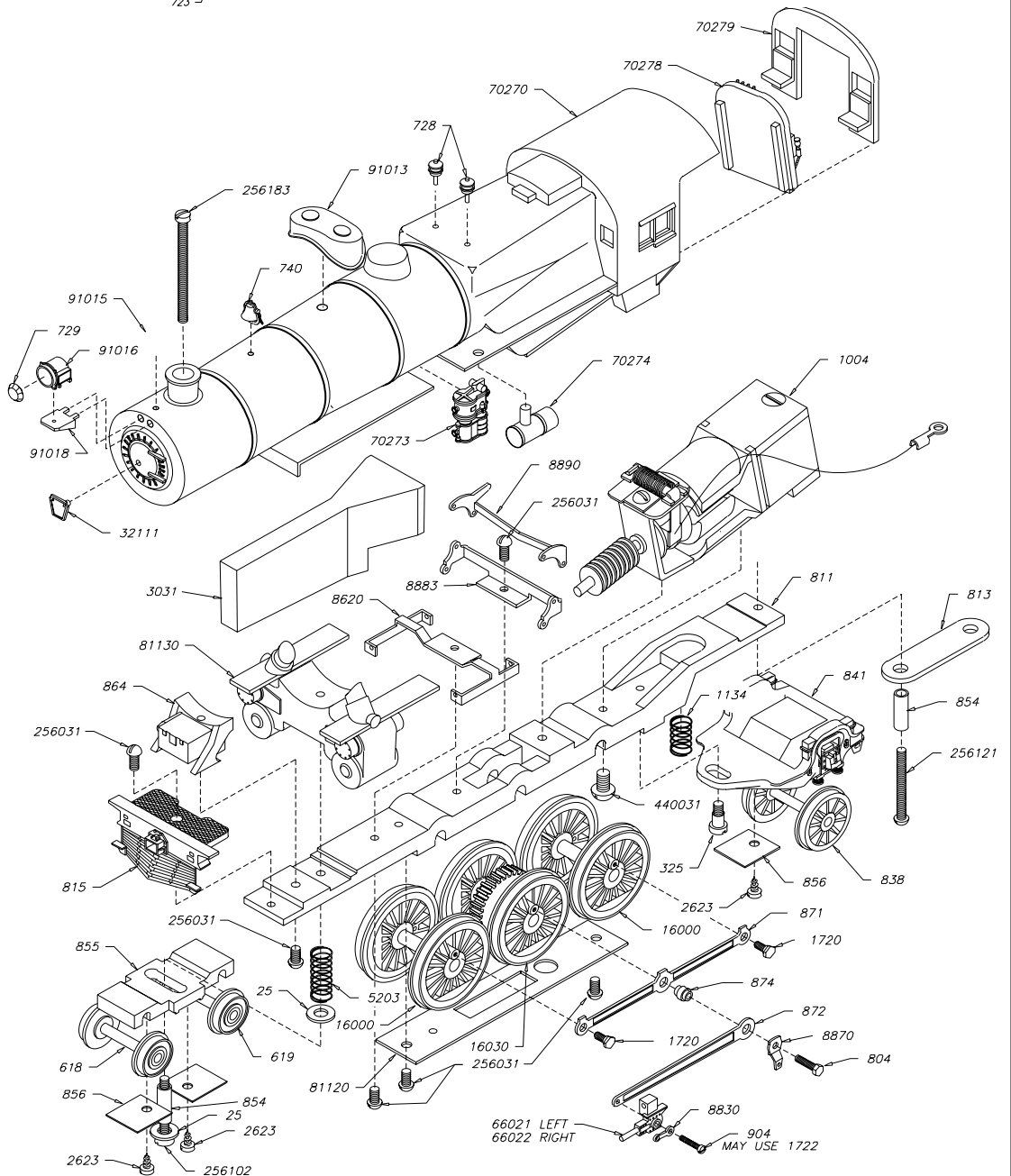


### Pilot Coupler

Use KD® #4 coupler only (no pocket). File side lugs off coupler shank. Clean out cast on coupler pocket to fit the coupler shank. Use a 2-56 x 5/16" screw to mount pilot to frame. Carefully enlarge rear half of rectangle opening to clear a 2-56 screw. Back screw out of pilot until it is flush with the bottom of the frame. Insert #4 coupler into pocket and tighten pilot screw through coupler's enlarged hole. Hold in place with a 2-56 nut and tighten only until nut touches bottom of coupler.

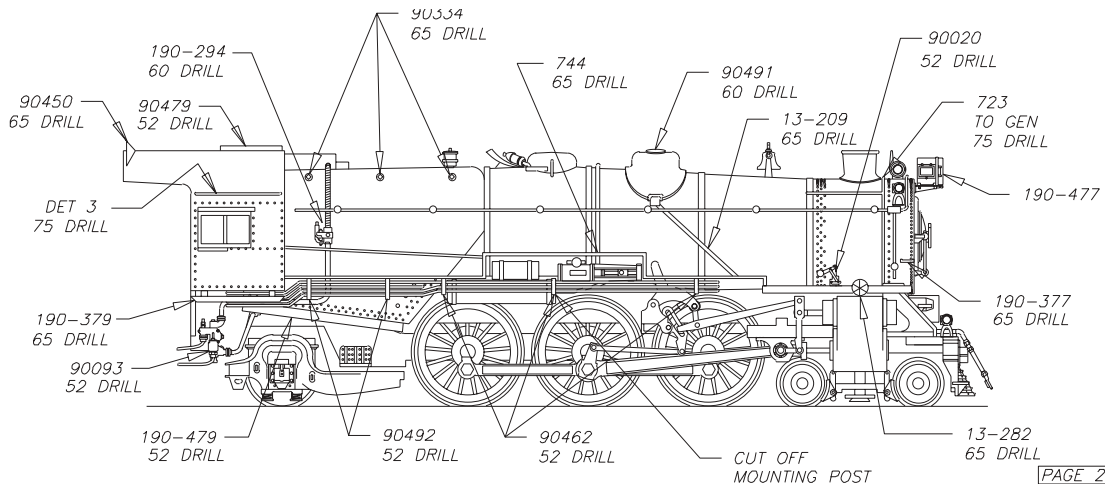
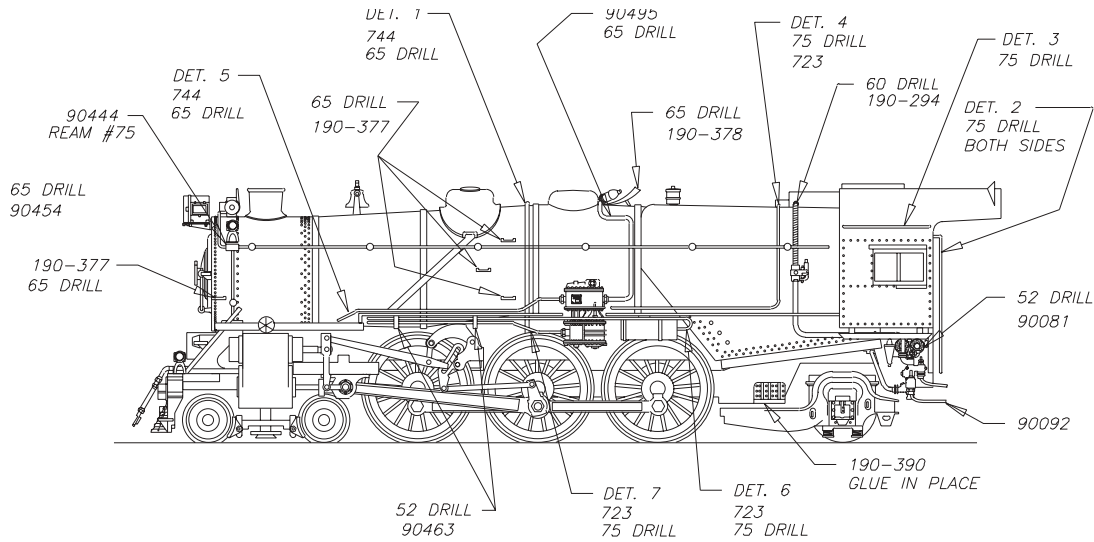
MOTOR WORM GEARS	
WORM	1010
AXLE	1011
GEAR RATIO	32-1

**Assembled piping #100513**  
The piping is preformed 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.

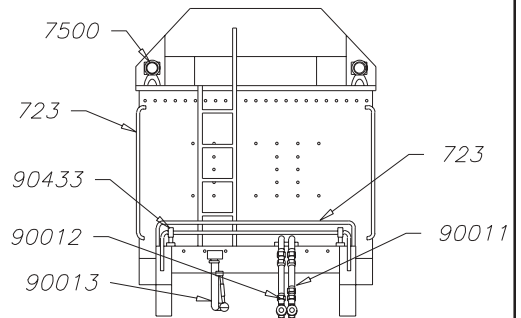
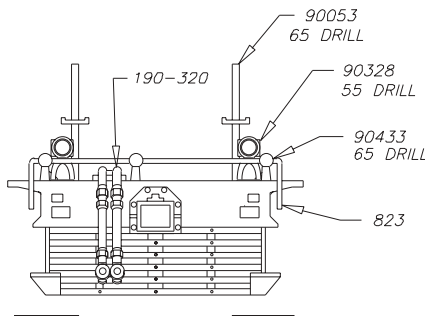
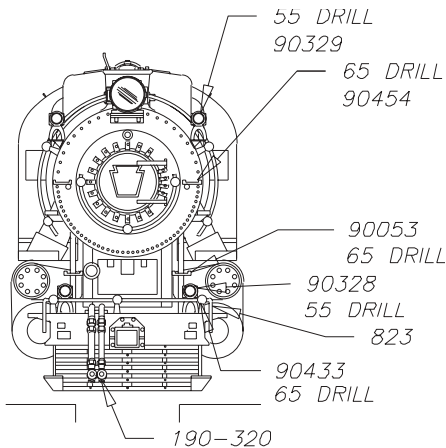


# PRR K-4 PACIFIC 4-6-2

## SUPER DETAIL KIT #100515



PAGE 2



PART#	QTY	DESCRIPTION
823	2	Coupler Bar
90018	1	Air signal Hose
90019	1	Steam Hose
90020	1	Damper Valve
90053	2	Pilot Bracket Steps
90061	2	Pr. Brake Shoes
90081	1	Stroker Motor
90092	1	Injector (left)
90093	1	Injector (right)

PART#	QTY	DESCRIPTION
90328	2	Pr. Marker Light (straight)
90329	1	Pr. Marker Light (angle)
90334	6	Stay Bolts
90444	2	Junction Box
90450	1	Wind Deflector
90454	2	Smokebox Front Steps
90462	3	Pipe Hanger (3 hole)
90463	2	Pipe Hanger (2 hole)
90479	1	Cab Hatch
90491	2	Dome Hatch
90492	2	Pipe Hanger (4 hole)
90495	1	Steam Pipe
13-209	2	Sander Pipes w/valves
13-282	1	Pr. Snifter valve

PART#	QTY	DESCRIPTION
190-294	2	Starter Valve
190-320	1	Air & Signal Hose
190-377	3	Pr. Boiler Steps
190-378	1	Whistle Sheild
190-379	1	Cab Walk
190-390	1	Trg. Truck Bearing Plate
190-477	1	PRR Head:right
190-479	1	Pr. ash Pans

# PRR K-4 PACIFIC 4-6-2

For many years, the K-4 was the most popular engine built for standard passenger service. Its design was incorporated from the E-6, and from 1914 -1928, 425 engines were built simultaneously with the L-1, having similar boiler design and interchangeable parts.

## Smoke Unit Kit For Bowser & Penn Line Locos

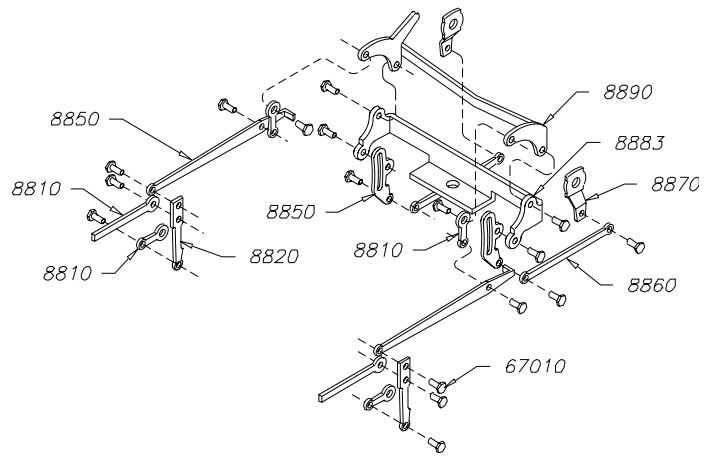
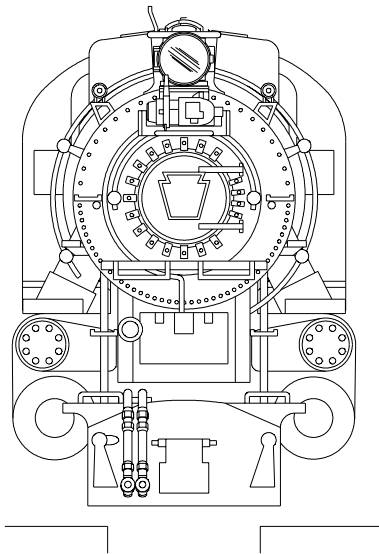
Kits includes a Model Power Smoke Unit, Instructions and the necessary mounting hardware. Smoke fluid not included.  
**#100516** For PRR K-4. Requires drilling smoke stack, filing underside of boiler & drilling mounting holes for bracket.

## 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.



## Valve Gear Assembly:

KIT #100505  
 ASSEMBLED #500505

## Drawing Of K-4 w/ Modern Front

PARTS NEEDED:

- #810 White metal pilot or
- #190-387 brass pilot
- #70145 TANK

CALSCALE#2001 Modern front detail kit

## Boiler and Tender Bodies - Drilled for Superdetail parts

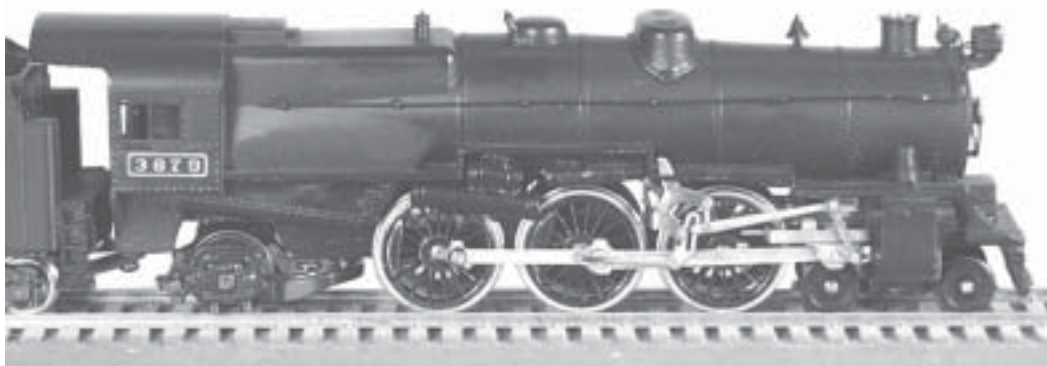
Retail Customers: **TRADE IN** your old K-4 PACIFIC BOILERS for a new zinc die cast boiler drilled for our new superdetail kit. **Over 40 holes drilled. Superdetail kits sold separately.**

Trade in - No boiler detail parts included - K-4 #71002

Trade in - includes all boiler detail parts from basic kit - K-4 #71003

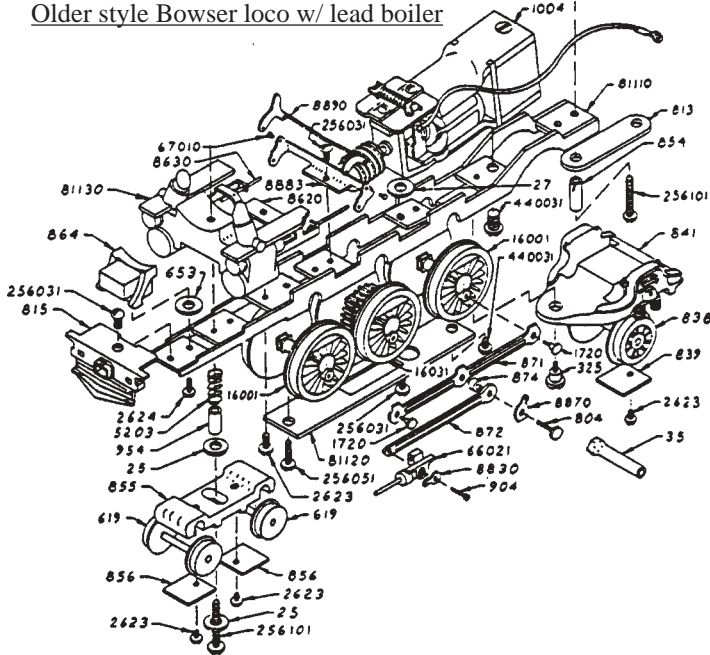
**HIGH SIDE TENDERS** the tender bdy mold has been damaged beyond repair. Our only PRR is the 13,000 gallon tender.

This tender is included with most Bowser PRR Loco Kits.



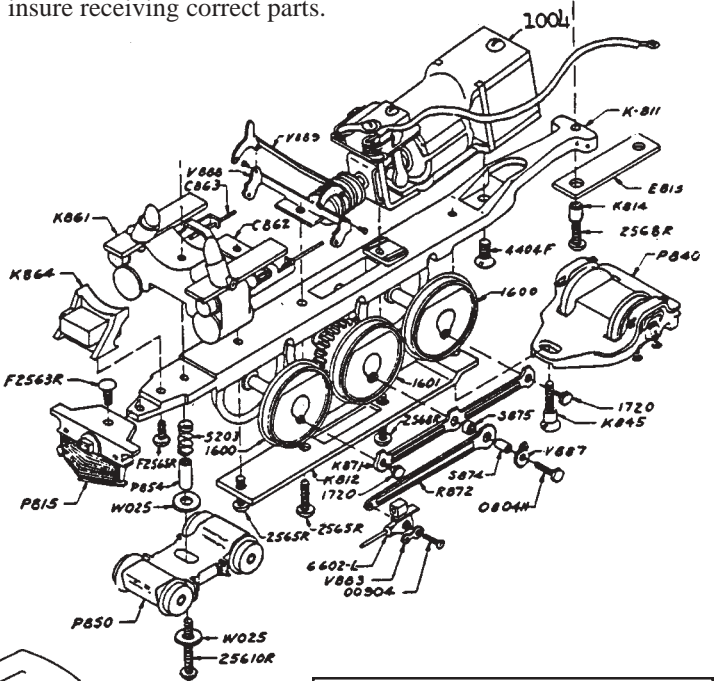
# PRR K-4 PACIFIC 4-6-2

Older style Bowser loco w/ lead boiler

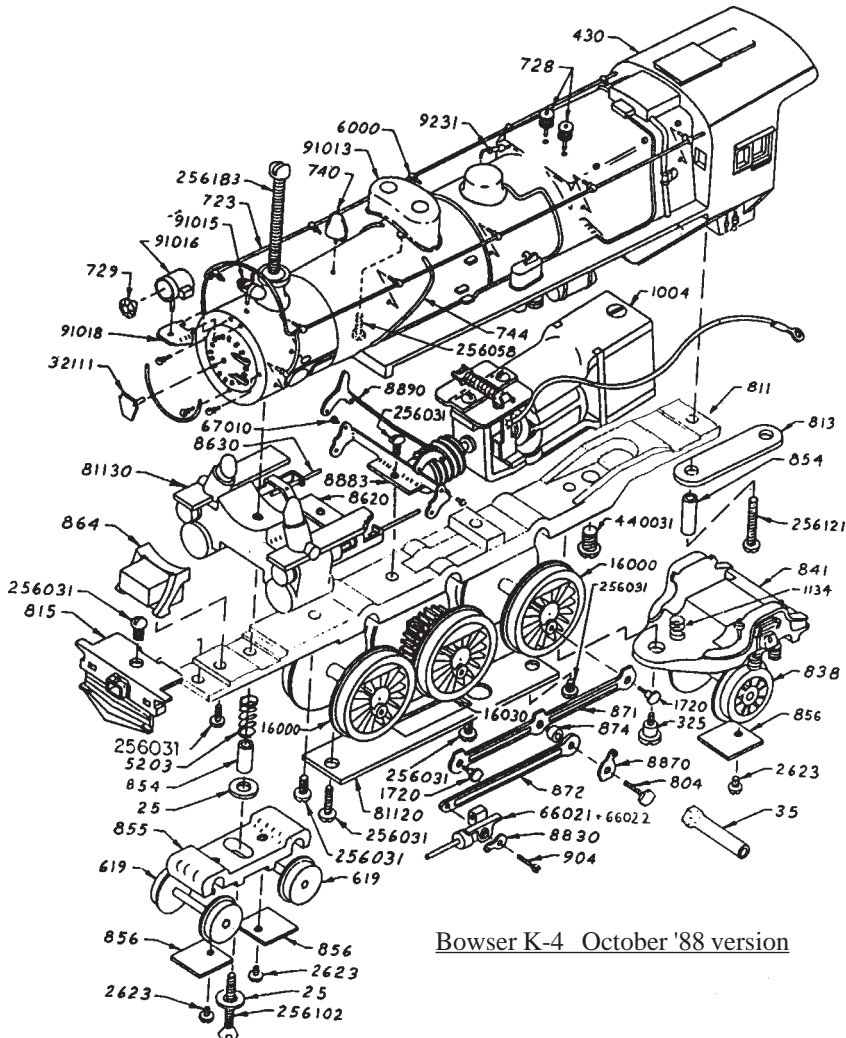


Old style Penn Line with lead boiler

When ordering replacement parts for older style Bowser and Penn Line locos, use the Part Number Conversion Chart to insure receiving correct parts.



#66021 Left Crosshead  
 #66022 Right Crosshead  
 #1672 Cylinder Bushing (To repair old cylinders when crosshead falls out of cylinder. Bushings are already installed in new cylinders)



Bowser K-4 October '88 version

FOR #430 BOILER SEE NEW VERSION (7-93)  
 (lead boiler no longer available)  
 The K-4 boiler has been changed to a zinc die casting.