

# PRR E-6 ATLANTIC 4-4-2

The class 4-4-2 Atlantics was the pace-setter for high-speed passenger service, which resulted in competition for the development of the fastest train. The E6, or "Hercules of Atlantics", second only to the K-4 in fame, was created by Alfred W. Gibbs. No. 5075 (later renumbered 1067 in 1912) was first developed in 1910 as an experimental model. Four years later, after intensive testing, several changes in cylinder diameters, the installation of superheaters, and the building of two other samples, eighty E6 locomotives were built by Juniata in 1914. This locomotive was produced amidst the development of the reknown K4 and the Pacific locomotives. It turned out to be a great investment into locomotive future; they led directly to other popular engines on the Pennsylvania Railroad, and E6 Atlantics could pull trains that would require six-drivered Pacifics.

An interesting feature of the E6 is that it contained a KW style trailing truck. The heavy frame of the KW balanced the rear of the locomotive, and the underframe of the locomotive was supported directly upon it. Steel castings were used on these locomotives; this was used on all railroad-designed classes until 1930.

E6s engines quickly became prime movers of main line limiteds. They worked closely with E3sd and K2 classes, dealing with World War I traffic. One locomotive, number 13, ran for many years on the Williamsport Division of Pennsylvania, and was considered good luck by many of its engine crews. This locomotive held the division mileage record for its time period, but was later to be replaced by K4s.

E6s worked their way down into Baltimore and changed from steam power into oil-powered locomotives shortly after World War II. In 1947 there were a total of 74 E6s engines. In contrast to all other Atlantics, the E6s never had a stoker, a feedwater heater, or power reverse. Their distinguishing characteristic was the two basic boilers that gave the trains the ability to run fast, carrying a heavy load. The locomotives also utilized a 26-inch cylinder stroke, 80-inch drivers, and 205 pounds of steam pressure.

## PROTOTYPE SPECIFICATIONS

Cylinders	23-1/2" x 26"
Firebox size	72" x 110-3/8"
Steam Pressure	205 lbs.
Weight of engine in working order	243,600 lbs.
Weight of engine on pony truck	55,200 lbs.
Weight of engine on drivers	136,000 lbs.
Weight of tender, empty	76,450 lbs.
Weight of tender, loaded	167,650 lbs.
Tender capacity, water	7,150 gal.
Tender capacity, coal	31,600 lbs.
Overall length with tender	71' 11-1/4"
Overall height	15'
Weight of engine on trailing truck	52,400 lbs.

## MODEL SPECIFICATIONS

Length with tender	10-1/8"
Height	2-1/8"
Weight	1 lb. 13 oz.
Minimum radius	18"
Power	Bowser DC-71 motor
Drivers	80"
Color	Brunswick Green

## BOWSER E-6 ATLANTIC - KITS AND ACCESSORIES

#100600 PRR E-6 Atlantic w/ Tender, Kit  
#100610 Super detail Kit

#100514 Operating Headlight Kit, not in #100610  
#100516 Smoke Unit Kit  
#100611 Cab back plate Kit, not in #100610  
#100612 Painted Engineer and Fireman w/  
Back Plate, not in #100610  
#100613 Assembled piping Kit, not in #500605  
#500605 Assembled valve gear



PRR E-6 ATLANTIC 4-4-2, PHOTO OF BOWSER MODEL

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LATEST VERSION WITH ZINC UNDERFRAME (2/91)

## MOTOR WORM GEARS

WORM	1010
AXLE GEAR	1011
AXLE SPACING	1.005
GEAR RATIO	32-1

### Pilot Coupler

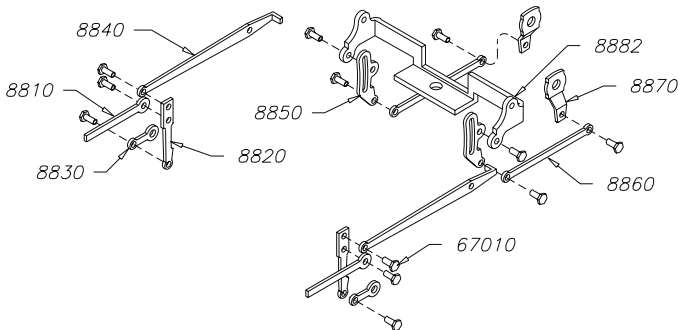
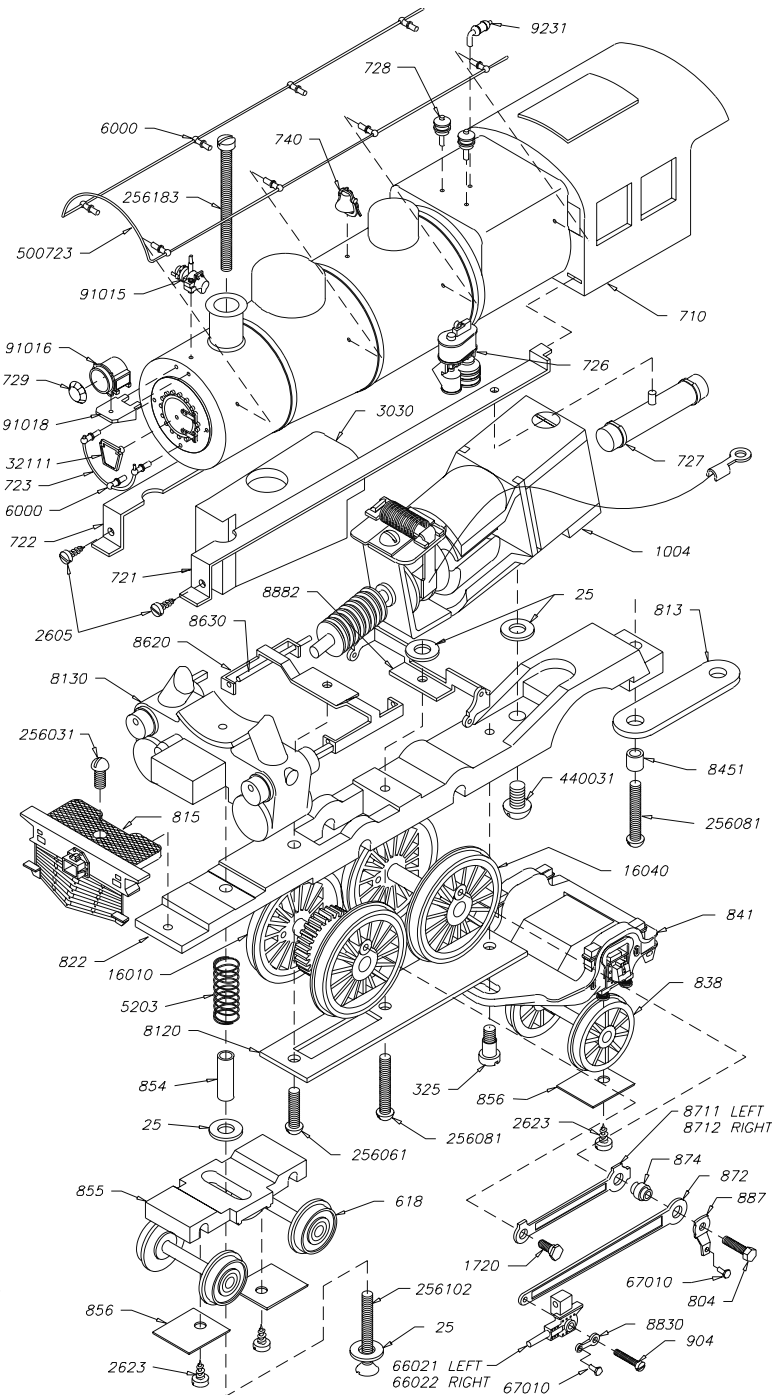
Use Kadee #4 coupler only (no pocket). File side lugs off coupler shank. Clean out cast on coupler pocket to fit the coupler shank. Use a 2-56 x 5/16" screw to mount pilot to frame. Carefully enlarge rear half of rectangle opening to clear a 2-56 screw. Back screw out of pilot until it is flush with 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.

### Assembled piping #100613

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.

### VALVE GEAR ASSEMBLY KIT #100605 ASSEMBLED VALVE GEAR #500605



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## 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

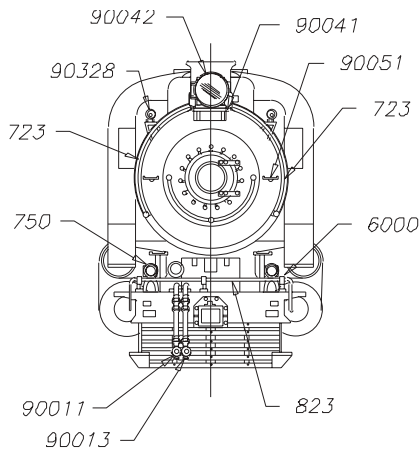
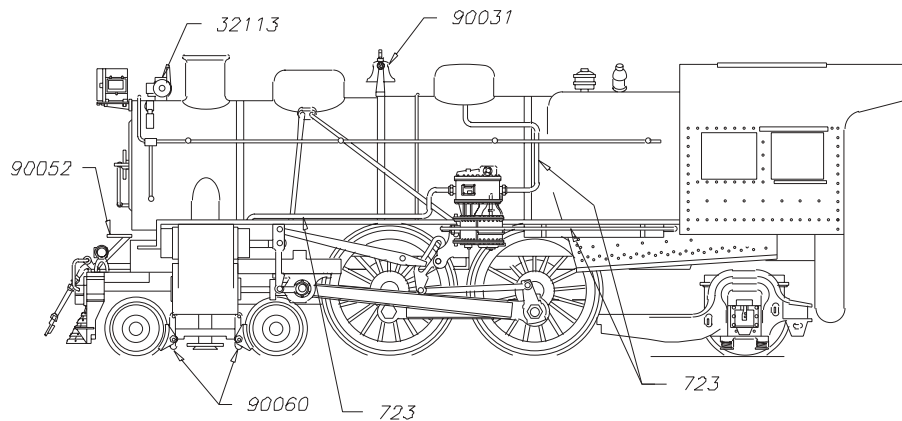
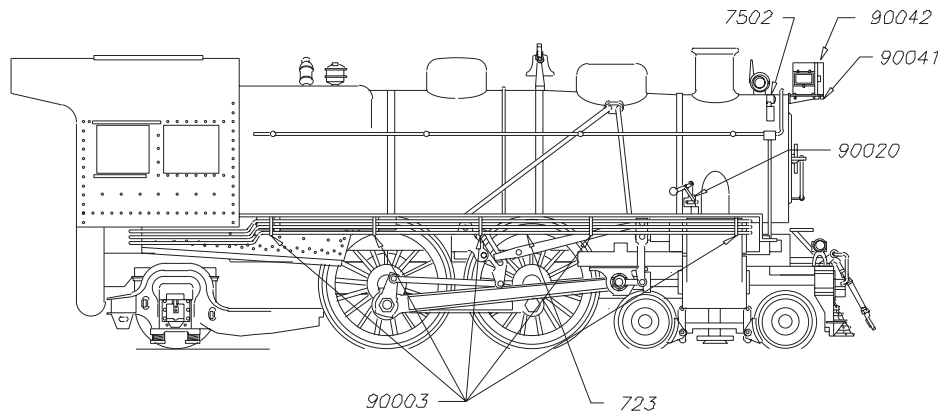
If you already have a headlight. Use a #91039 Grain of Rice bulb for headlight. Drill out headlight and drill a hole in front of generator to run wire to motor brushes. Solder one wire to each brush.

## SMOKE UNIT KIT

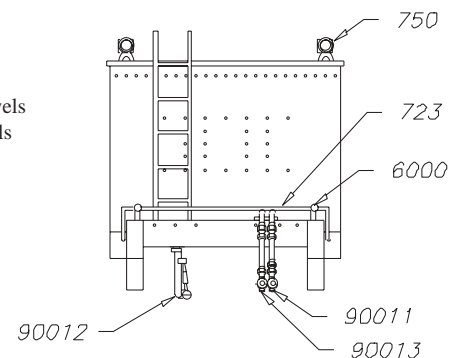
### FOR BOWSER AND PENN LINE LOCOS:

#100516 For PRR E-6 Atlantic. Requires drilling smoke stack, filing underside of boiler & drilling mounting holes for bracket.

## SUPER DETAIL KIT #100610



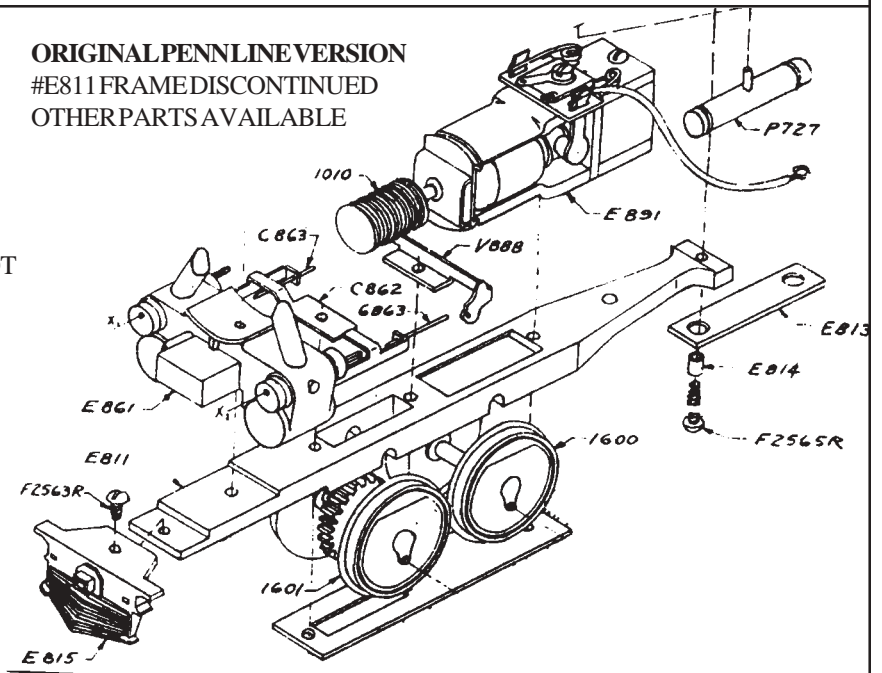
PART#	QTY	DISCRIPTION
6000	7	Pk. 10 Handrail Stantions
7500	2	Pr. Marker Lights
7502	1	Pr. Classification Lights
7510	4	Pk. 10 Red Marker Light Jewels
7520	8	Pk. 10 Amber Marker Light Jewels
7530	4	Pk. 10 Green Marker Light Jewels
30104	1	Headlight Jewels, 3/16 dia.
32113	1	Generator
90003	7	Pk. 10 Piping Brackets
90010	1	Hose Set
90020	1	Damper Valve
90030	1	Bell & Bracker (rope pull)
90041	1	Headlight Bracket
90042	1	Headlight
90051	1	Pr. Steps,Smoke Box Front
90052	1	Pr. Pilot Braces & Steps
90060	1	Brake Kit



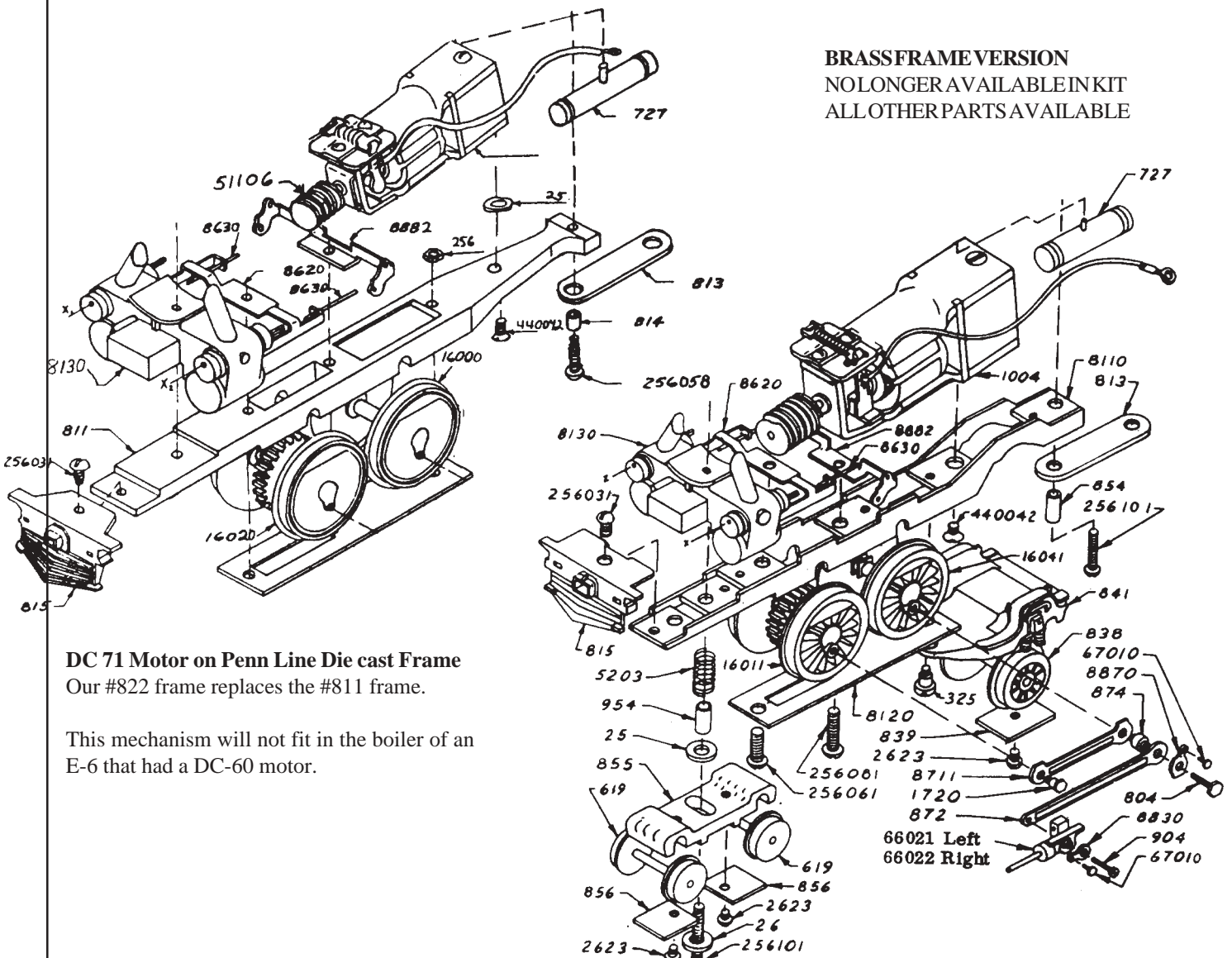
# PRR E-6 ATLANTIC 4-4-2

ORIGINAL PENNLINE VERSION  
 #E811 FRAME DISCONTINUED  
 OTHER PARTS AVAILABLE

#811 CAST FRAME HAS BEEN REPLACED BY  
 #822 CAST FRAME. OUR NEW #822 FRAME  
 WILL WORK WITH OUR DC-71 MOTOR BUT NOT  
 WITH OUR DC-60 MOTOR.



BRASS FRAME VERSION  
 NO LONGER AVAILABLE IN KIT  
 ALL OTHER PARTS AVAILABLE



**DC 71 Motor on Penn Line Die cast Frame**  
 Our #822 frame replaces the #811 frame.

This mechanism will not fit in the boiler of an  
 E-6 that had a DC-60 motor.