

PRR I-1 DECAPOD 2-10-0

Class 2-10-0 Decapods were not a favorite with most railroads; they were rough-riding, but the Pennsylvania Railroad was satisfied with what they saw. The Decapods were tough, had enormous strength, and could be depended on for carrying goods up large mountain slopes. It was said that wherever there were hills, there were usually decapods not far away.

The first Altoona-built 2-10-0 locomotive emerged from Juniata's erecting shop in December of 1916. It was designed by the genius of Alfred W Gibbs and Axel S Vogt. The I-1 engine could travel up the Allegheny Mountains of Pennsylvania faster than other engines in use built prior to this one. A total of 598 I-1s were built. 123 I-1s were built at the Juniata Shops and 475 at the Baldwin Shops. The order for 475 at the Baldwin Shops was the largest order ever for a single class of power!

By 1924, I1s were tearing up the railways. They were regarded as the standard heavy freight hauler of the railroad, achieving speeds of up to 50 miles per hour. They replaced three smaller types of engines: the Consolidations, Mikados, and USRA Santa Fe's.

Some specifications of the I-1 included a boiler that was the largest applied to any Pennsylvania Railroad class up to 1916. The boiler was fed by mechanical stokers and required 250 pounds of steam pressure in its 30 1/2" x 32" cylinders to operate. The total engine weight was 386,100 pounds and could haul up to 90,000 pounds.

The first I-1, Locomotive No. 790 displayed Juniata Shop badge plate No. 3165. It out-performed the L-1 class 2-8-2 by forty-one percent more horsepower, while utilizing twelve percent less steam. It could travel great distance, powered by only a small amount of steam.

Over a span of many years, the I-1 engines were broken down into subdivisions: the I-1sa and Class I-1s. The I-1sa class had 489 locomotives and the I-1s class had 109 locomotives.

The most notable feature of the decapods was the twin bulky air reservoir tanks riding up front on the pilot deck. They were not on the original locos, but were implemented later.

One of the last and most famous runs of the I-1s was the transporting of iron ore out of Northumberland, Pennsylvania. They carried nine thousand tons of ore over the Shamokin Branch to an interchange in the Lehigh Valley.

PROTOTYPE SPECIFICATIONS

Cylinders	30-1/2" x 32"
Firebox size	79-7/8" x 126"
Steam pressure	250 lbs.
Weight of engine in working order	386,100 lbs.
Weight of engine on pony truck	33,600 lbs.
Weight of engine on drivers	352,500 lbs.
Tractive force	90,024 lbs.
Weight of tender, empty	81,450 lbs
Weight of tender, full	204,700 lbs
Tender capacity, water	10,300 gal.

Tender capacity, coal	37,400 lbs.
Overall length w/ tender	81' 10-1/4"
Overall height	15 feet
Number Series	3701-3725, 4224-4699, 6329-6340 and many others

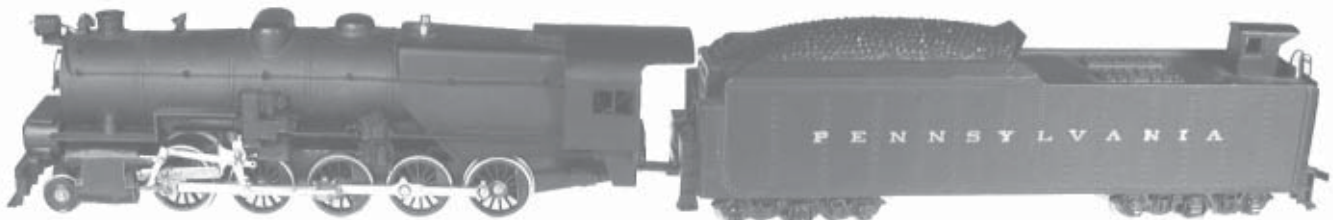
MODEL SPECIFICATIONS

Length w/ Long Haul Tender	14-5/8"
Height	2-1/8"
Weight	2 lbs. 2 oz.
Minimum radius	18"
Drivers	62"
Power	Bowser DC-71 motor
Paint Color	Brunswick Green

BOWSER PRR I-1 DECAPOD - KITS AND ACCESSORIES

- #100700 I-1 Decapod w/ Long Haul Tender, Kit
- #100710 Superdetail Kit
- #527 PRR I-1 Decapod Deluxe Kit
(includes body & tender drilled for superdetail parts)

- #91000 Painted Engineer and Fireman
(cut off their legs to fit into cab)
- #100718 PRR I-1 Decapod Boiler and Cylinder Kit
- #100416 Smoke Unit
- #500705 Assembled valve gear

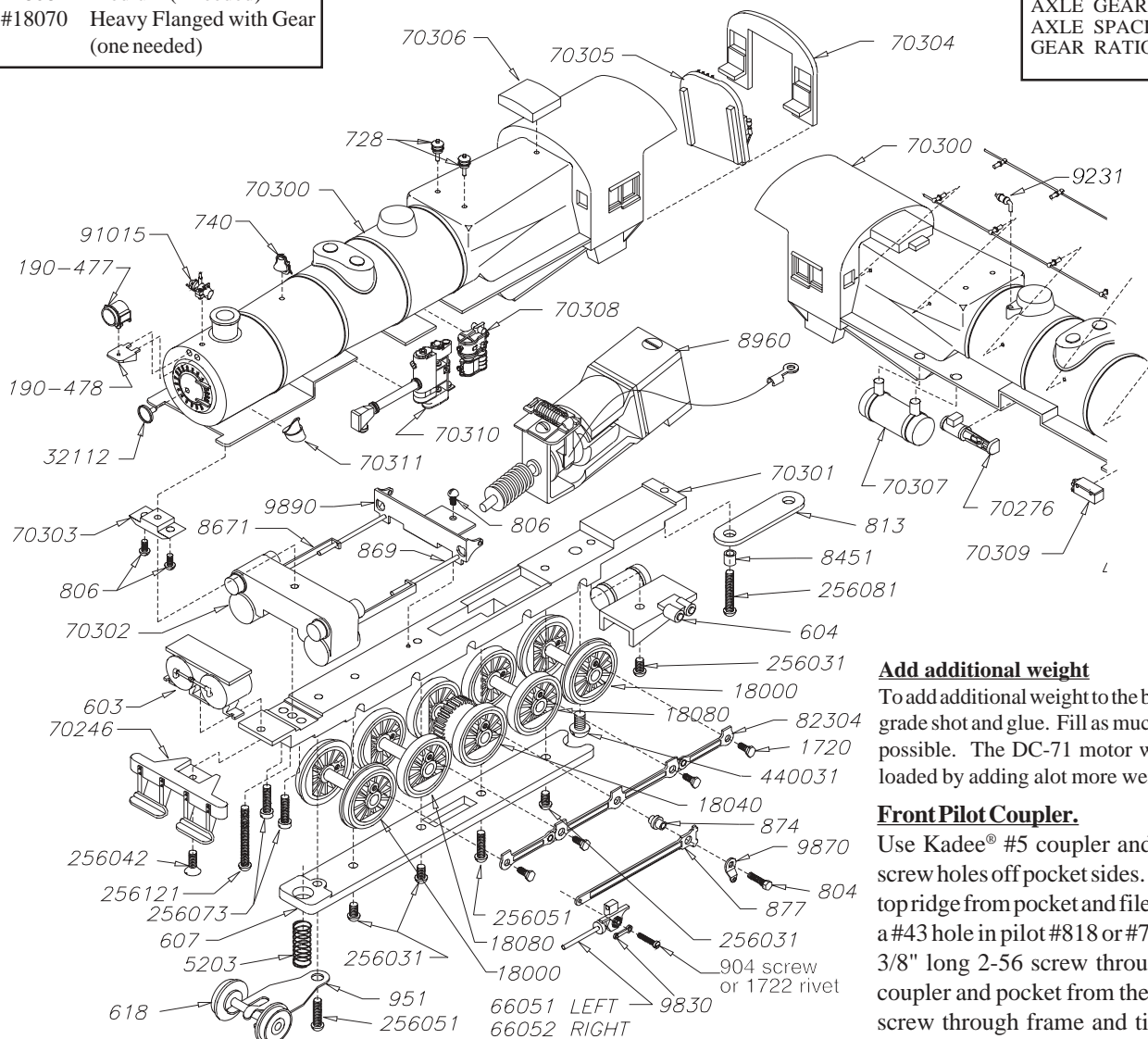


PRR I-1 DECAPOD 2-10-0

LATEST VERSION OF I-1 DECAPOD(as of 9-95)
WITH ZINC DIE CAST (CORRECT SIZE) BOILER

Flanged Middle Drivers for I-1
 #18082 Medium (2 needed)
 #18070 Heavy Flanged with Gear
 (one needed)

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



Add additional weight

To add additional weight to the boiler use a fine grade shot and glue. Fill as much of the body as possible. The DC-71 motor will not be over loaded by adding alot more weight.

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 or #70246. 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.

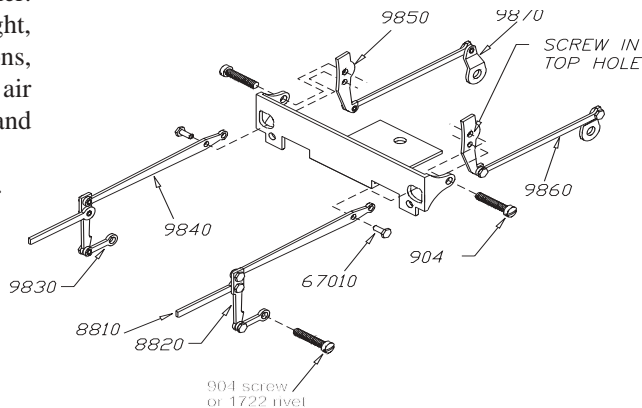
PRR I-1 Decapod Boiler and Cylinder Kit #100718

Change your old Penn Line or Bowser Decapods to the correct size boiler and cylinders.

This kit changes the Penn Line or old Bowser lead die cast boiler or the newer zinc die cast small diameter boiler to the new correct diameter boiler. Included in kit: bell, generator, whistle, pop valves, number plate, headlight, headlight bracket, crosshead guides, handrial wire, handrail stanchions, power reverse, cab back plate, cab back head, turret cover, air tank, air compressor, feedwater heater, steam pipe extensions, mounting screws and installation instructions.

The smoke stack is drilled to fit smoke unit #100416 (sold separately).

VALVE GEAR KIT #100705 ASSEMBLED #500705



Operating 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.

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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.

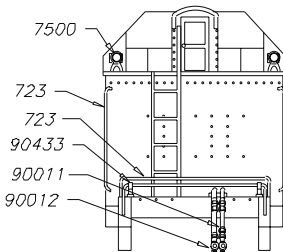
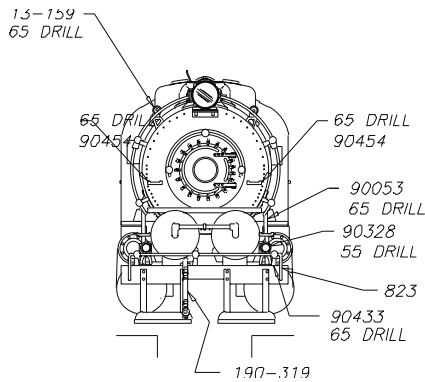
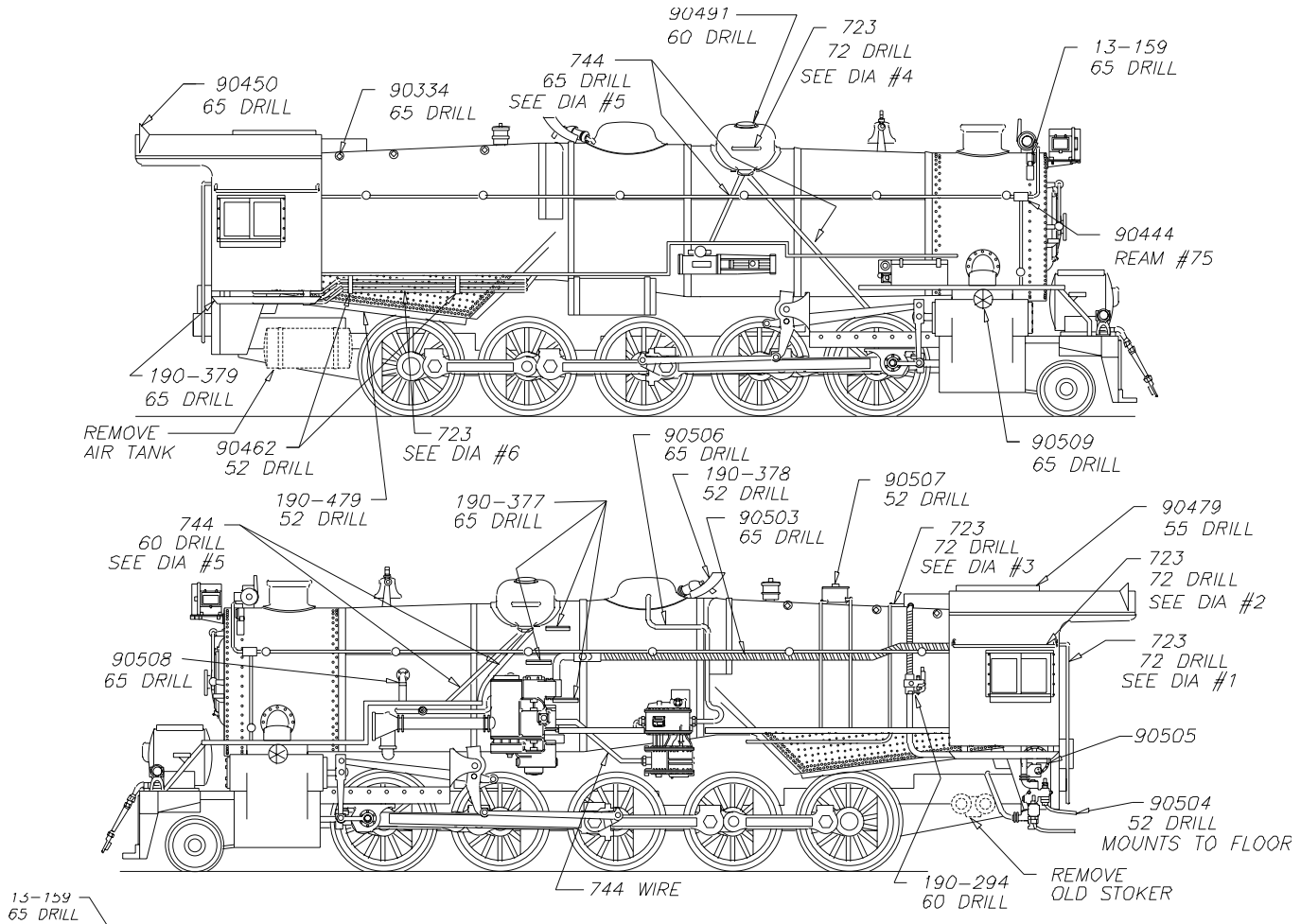
#100516 For PRR I-1 (old undersized body). Requires drilling smoke stack, filing underside of boiler & drilling mounting holes for bracket.

#100416 For PRR I-1 (new body). Requires drilling smoke stack to accept the smoke unit.

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.

SUPER DETAIL KIT #100710

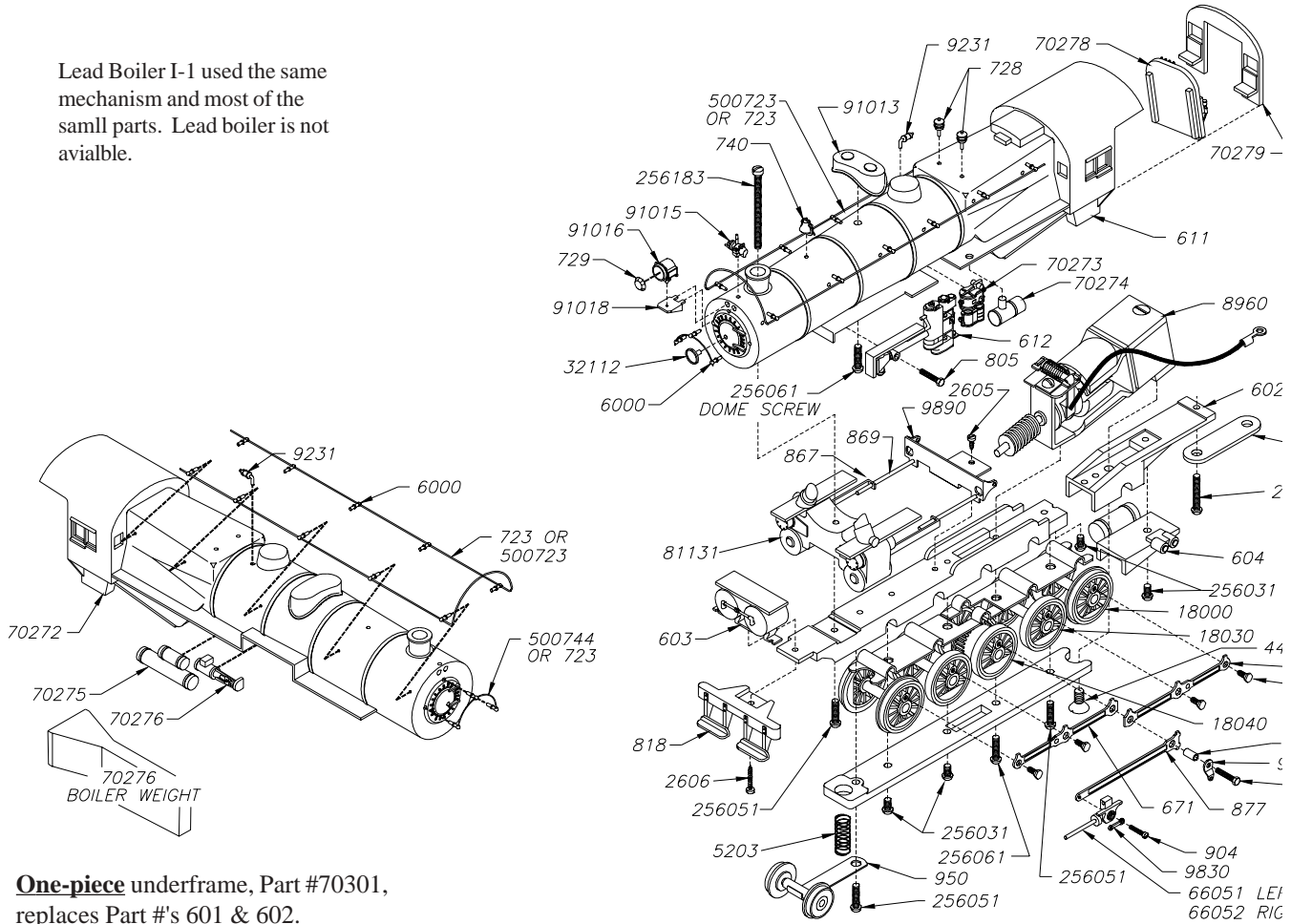


PART #	QTY	DISCRIPTION	PART #	QTY	DISCRIPTION
13-159	1	Pr. PRR Modern Marker Lights	7500	1	Stoker
190-294	2	Starter Valve	90505	1	Compressor Feed
190-319	1	Air Hose	90506	1	Muffler
190-377	3	Boiler Step	90507	1	Hot Water Pipe
190-379	1	Cab Walk	90508	1	Snifter Valve
190-479	1	Pr. PRR Ash Pans	90509	2	
190-477	1	PRR Headlight			
823	2	Coupler Lift Bar			
90018	1	Air & Signal Hoses (tender)			
90053	2	Pilot Brake Step			
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	2	Pipe Hanger (3 hole)			

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OLD STYLE BOWSER ENGINE w/ SMALL SIZE ZINC BOILER

Lead Boiler I-1 used the same mechanism and most of the small parts. Lead boiler is not available.



One-piece underframe, Part #70301, replaces Part #'s 601 & 602.

One-piece side rod, Part #82304, replaces Part #'s 671 & 672.

Early I-1's had a valve gear similar to the H-9 Consolidation. This installation requires a 2-56 x 1/2" screw in the 2nd coverplate hole and a 2-56 nut to hold the H-9 valve gear hanger in place.

During the 1920's, the I-1 had a pilot similar to those used on the K-4 Pacific. Installing this pilot requires some modification to the underframe.

A short tender (our High Side Tender with dog house) was used on most I-1's.

Flanged Drivers for I-1

- #18082 Medium (2 needed)
- #18070 Heavy Flanged with Gear (one needed)

PRR I-1 Decapod Boiler and Cylinder Kit #100718

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ASSEMBLED PIPING #100713

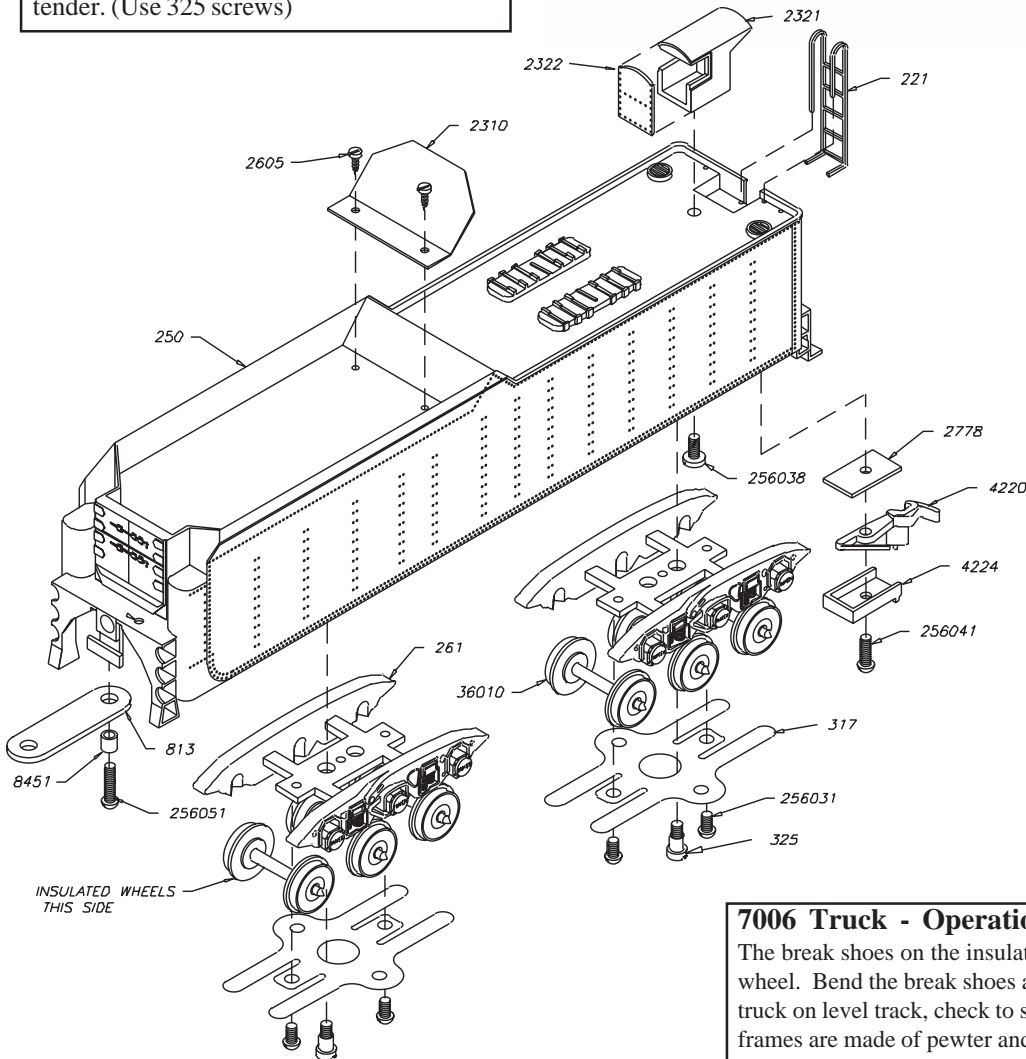
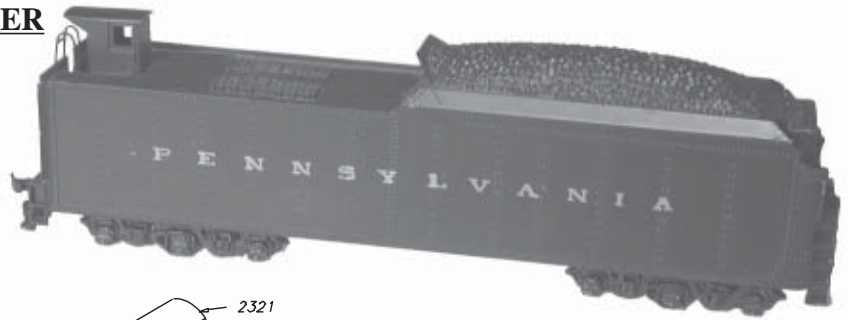
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#150650 LONG HAUL TENDER or #150660 8-WHEEL LONGHAUL TENDER

DIMENSIONS:

Length 7"
Height 1 15/16"
Width 2 15/64"

Our 7006 Eight Wheel Truck screws directly onto the mounting post in the long haul tender. (Use 325 screws)



7006 Truck - Operation Notes

The break shoes on the insulated side may touch the brass wheel. Bend the break shoes away from the wheel. Place truck on level track, check to see if all wheels touch. The frames are made of pewter and can be bent to get all wheels to rest level.

#35107 Buckeye

#7006 PRR Tender Trucks

