

PRR M-1a MOUNTAIN 4-8-2

In 1930, 100 engines of class M-1a were developed. They were built by Juniata, Baldwin, and Lima. They were slightly heavier than the M-1's, and had Worthington feedwater heaters with the mixing chamber back of the stack. Two compressors were mounted on the left side. Ten M-1a's, along with twenty M-1's were used for passenger service.

In 1946, several M-1a locomotives were upgraded and re-classified M-1b. Some important changes made to the locomotive included a twenty pound increase in steam pressure to 270 pounds and installation of circulators in fireboxes, which increased heating surface by thirty-five square feet. These changes occurred after the locomotives were sixteen or more years old; consequently, their final years were spent hauling the heaviest loads of their lifetimes.

PROTOTYPE SPECIFICATIONS

Cylinders	27" x 30"
Firebox	79-7/8" x 125-15/16"
Steam pressure	250 lbs.
Tractive force	64,550 lbs.
Weight of engine in working order	390,000 lbs.
Weight of engine on drive wheels	271,000 lbs.
Weight of engine on front trucks	59,000 lbs.
Weight of engine on trailing trucks	60,000 lbs.
Weight of tender	378,360 lbs.

MODEL SPECIFICATIONS

Length with Tender	15-1/4"
Height	
Weight	2 lbs. 10 oz.
Minimum radius	22"
Power	Bowser DC-71
Drivers	72"
Color	Brunswick Green

To make Eight Wheel Tender:
buy #7006 Trucks and screw
onto tender.

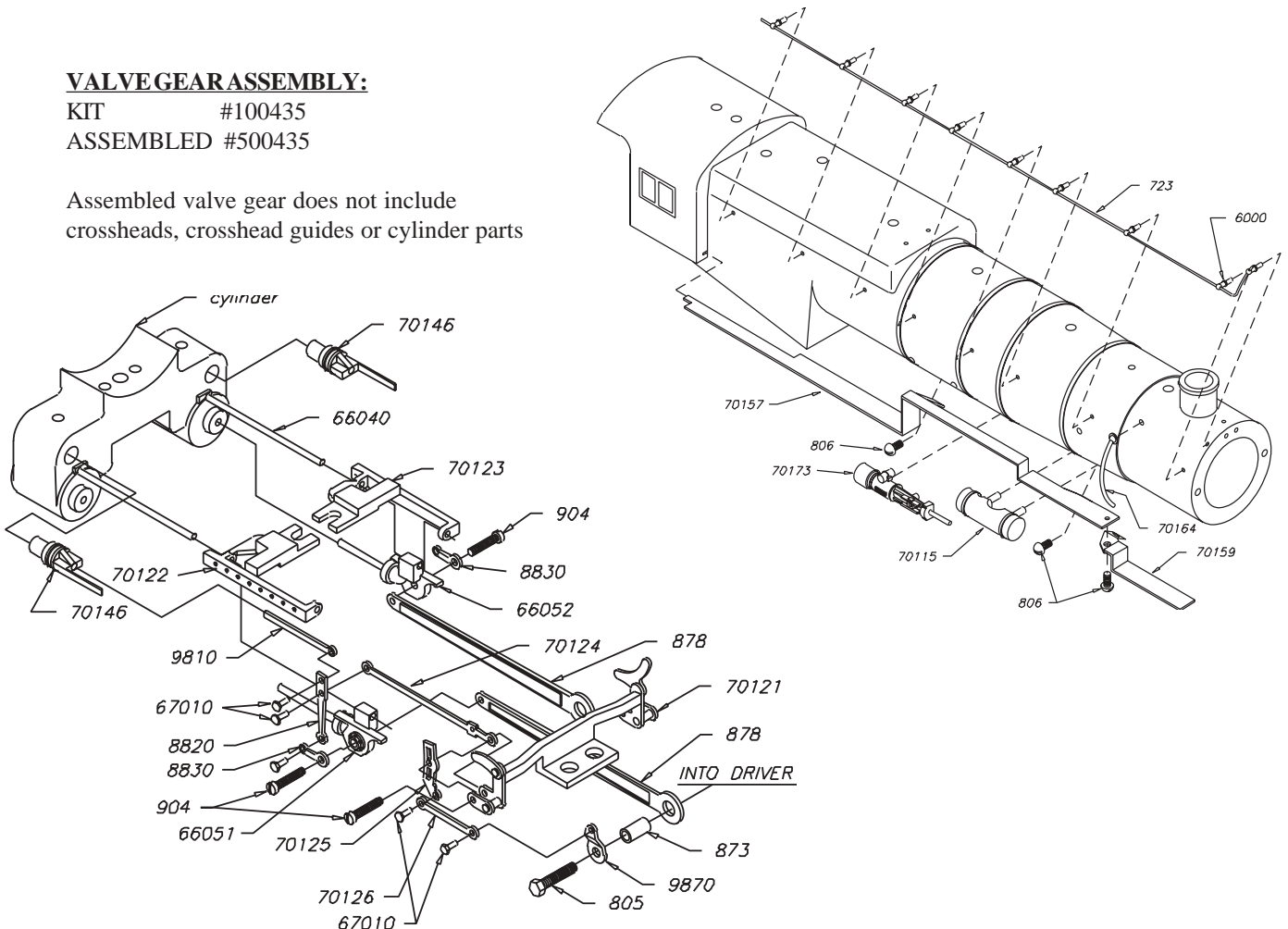
BOWSER M-1a MOUNTAIN 4-8-2 - KITS AND ACCESSORIES

- #100450 PRR M-1a Mountain
w/ Tender, Kit
- #100416 Smoke Unit Kit
- #100460 M-1a Superdetail Kit
- #100442 Painted Engineer & Fireman,
not in #100460
- #100443 Assembled Piping,
not in #100460
- #500435 Assembled valve gear,
not in #100460

VALVE GEAR ASSEMBLY:

KIT #100435
ASSEMBLED #500435

Assembled valve gear does not include
crossheads, crosshead guides or cylinder parts



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MOTOR WORMGEAR

WORM	51106
AXLEGEAR	51005
AXLESPACING	.875
GEARRATIO	31-1

Flanged Drivers for M-1a

#40114 & #40115. The flanges of the middle drivers will have to be filed down as they will touch the end driver's flanges.

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.

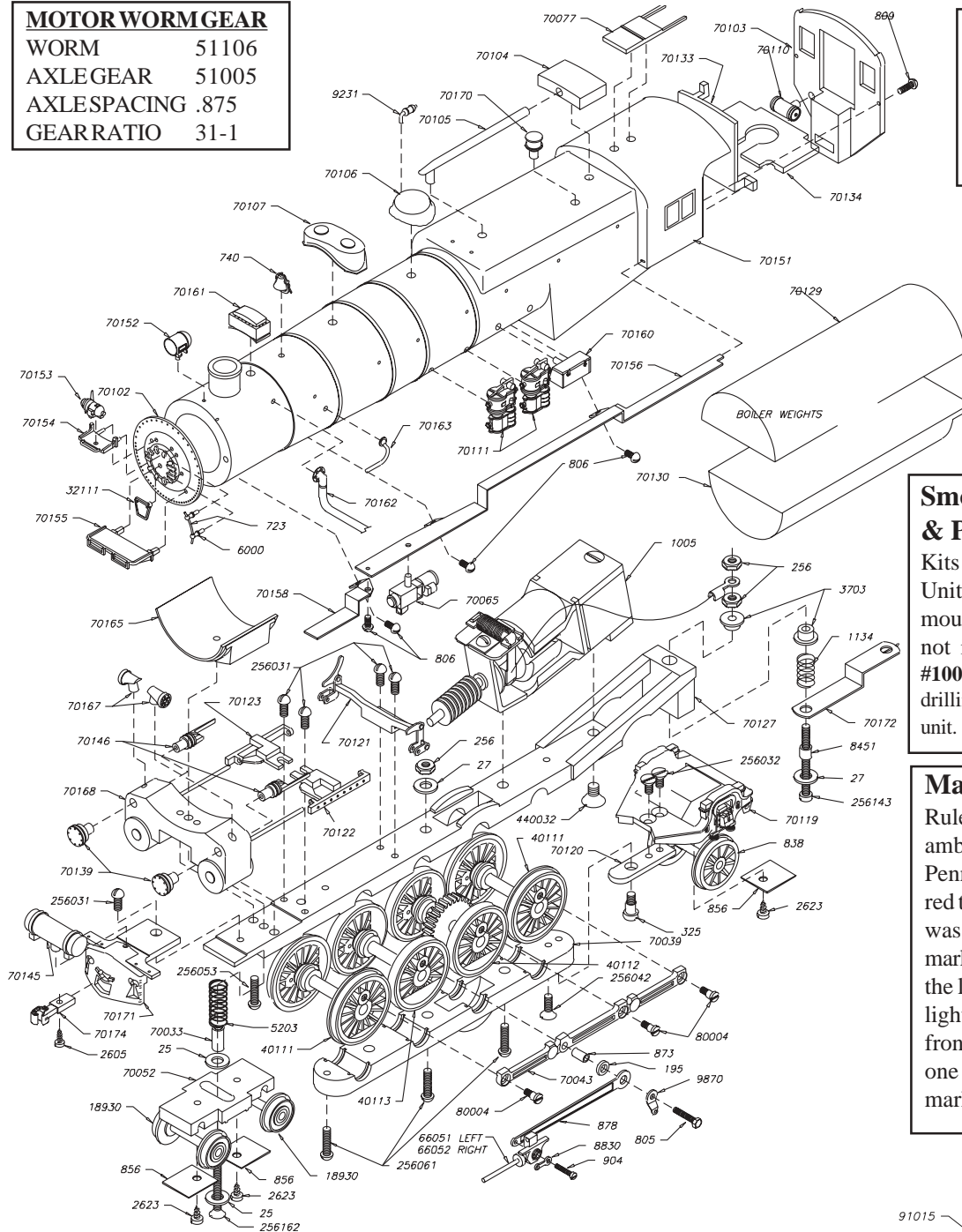
Smoke Unit Kit For Bowser & Penn Line Locos

Kits includes a Model Power Smoke Unit, Instructions and the necessary mounting hardware. Smoke fluid not included.

#100416 For PRR M-1a. Requires drilling smoke stack to accept the smoke unit.

Marker Light Jewels:

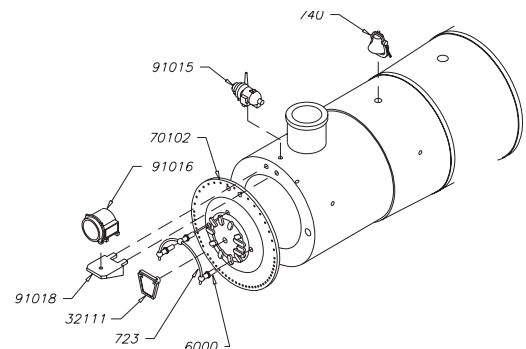
Rule of thumb: Green to front, amber to side and red to rear. The Penny had amber to the side and red to front and rear. When the loco was traveling forward the tender marker lights would show red. When the loco was backing up the marker lights on the pilot or smoke box front would show red. Sometimes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



Assembled piping #100443

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.

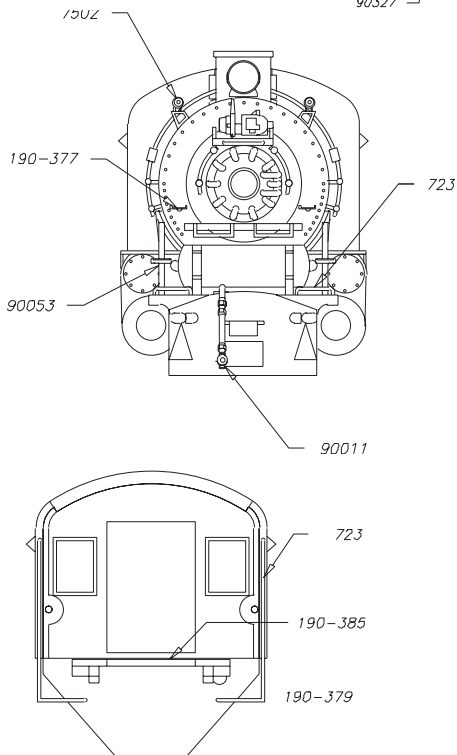
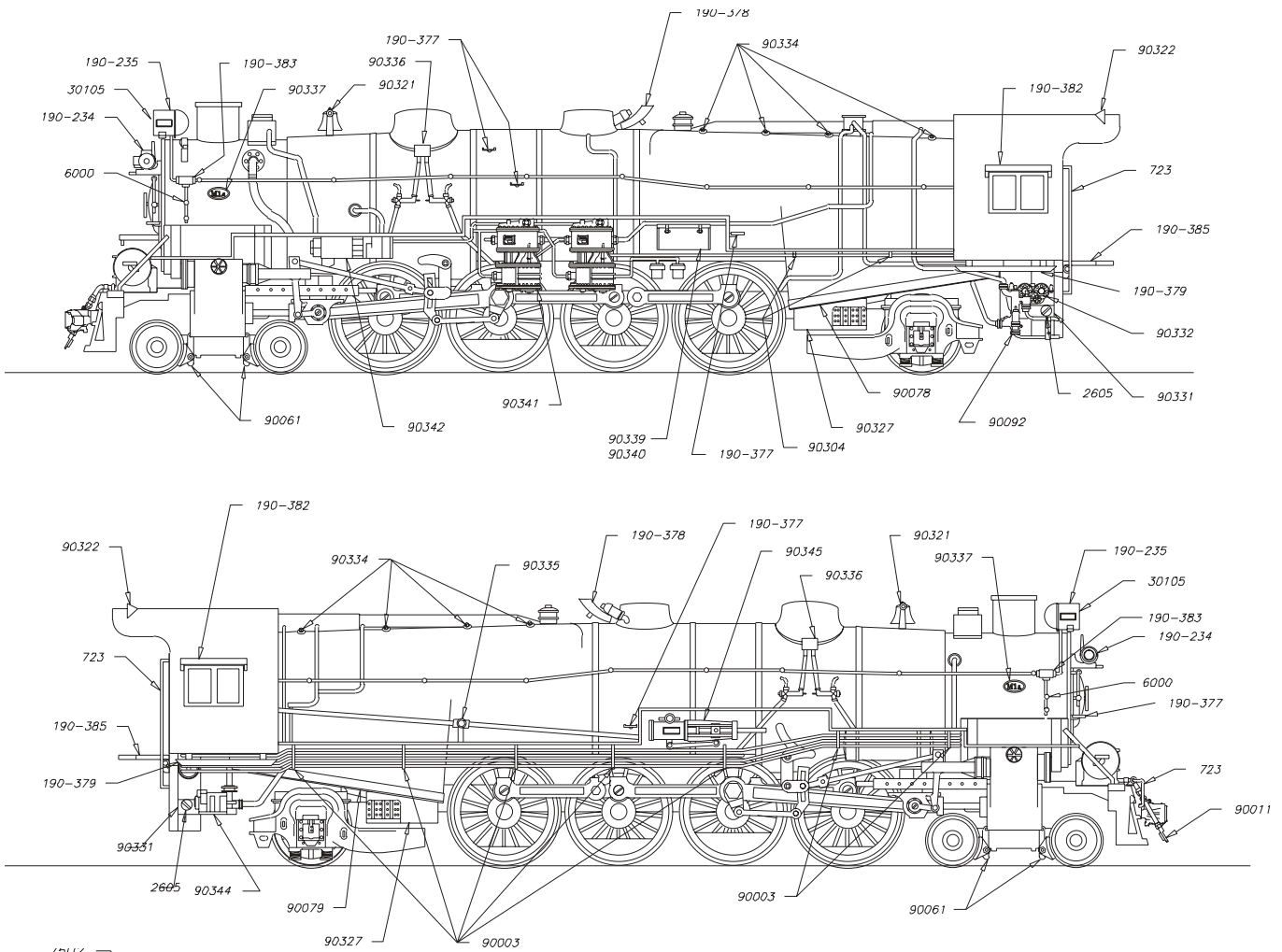


Original Style Smoke Box Front



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SUPER DETAIL KIT # 100460



PART #	QTY	DESCRIPTION
221	1	Ladder
723	6	.020 brass wire (8")
744	6	.034 brass wire (6")
2605	2	0 x 5/32 self tap screw
6000	4	Handrail stanchions
7502	1	ssification lights, pr.
7510	2	Jewel, Red
7520	6	Jewel, Amber
30105	1	Headlight jewel
90003	7	Piping brackets
90011	1	Air hose
90053	2	Pilot step and brace
90061	2	Brake shoes, pr.
90078	1	Ash pan
90079	1	Ash pan
90092	1	Injector
90304	2	Small piping bracket
90321	1	Bell
90322	1	Wind deflector
90327	1	Trailing truck plates, pr.
90328	2	Marker light straight
90330	2	Coupler lift stanchions
90331	2	Bracket
90332	1	Stoker motor
90334	8	Wash out plugs
90335	1	Reverse rod and pivot
90336	2	Sand pipes
90337	2	M-1a Builder's plates
90339	1	Train control box cover
90340	1	Train control box
90341	1	Dual air compressors
90342	1	Hot water pump
90343	1	Lubricator
90344	1	Cold water pump
90345	1	Power reverse
90346	1	Antenna support, doghouse
90347	2	Antenna stand
90348	2	Transmitter
90349	1	Antenna junction
90350	1	Transmitter junction
90351	1	Tender steam hose
90352	1	Tender air & signal hose
190-234	1	Generator
190-235	1	Headlight
190-377	3	Boiler step, pr.
190-378	1	Whistle shield
190-379	1	Cab walk, pr.
190-382	1	Window shades
190-383	1	Junction box, 3 way
190-385	1	Cab deck & hinges