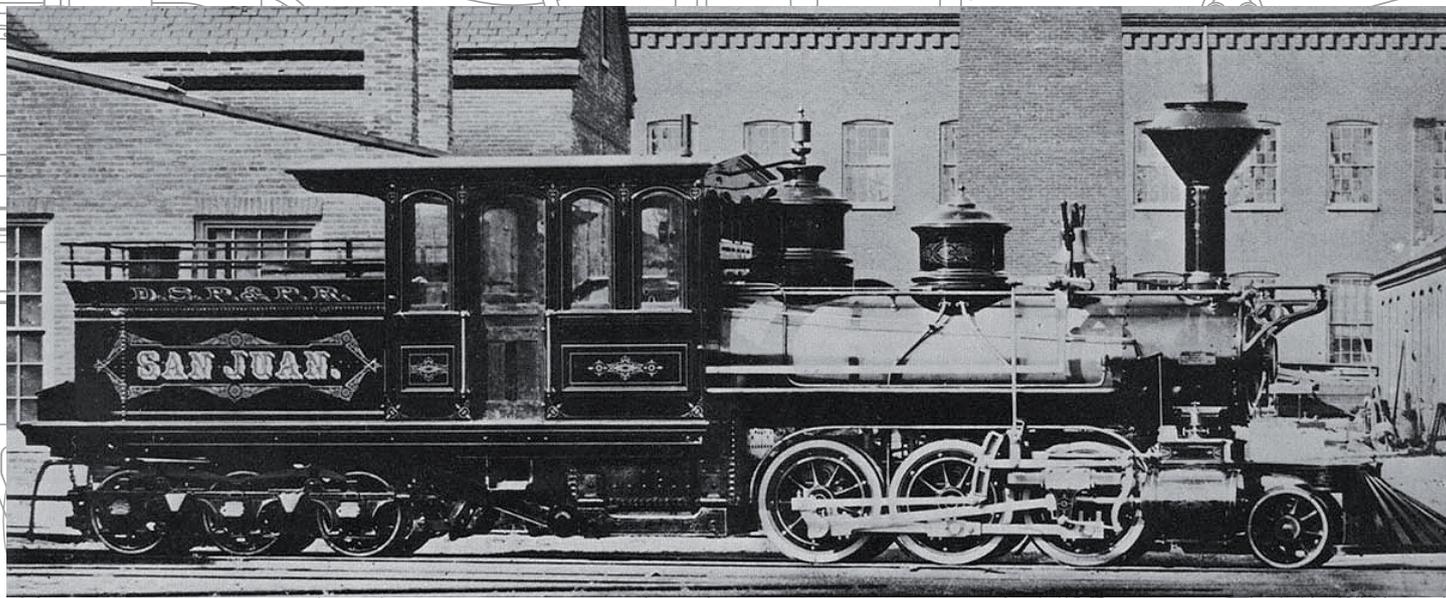


The South Park Bogies

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by David Fletcher



In the previous issue we reviewed the innovation and evolution of William Mason's bogie locomotives. These locomotives from the Mason Machine Works at Taunton Mass. were some of the most stunningly beautiful locomotives in the United States.

The largest fleet of Mason locomotives was managed by the Boston Revere, Beach & Lynn Railroad. However it's the Denver, South Park and Pacific Railroad that is best known for the Mason Bogie. The line would own the second largest fleet of Bogie locos.

The first South Park Bogie loco of 1878 was their #3, 'Oro City' and was an 0-6-6T of almost identical design to the North Pacific Coast's 'Bully Boy'. The grades and sharp curves of the South Park line were hard on the little engine, and flange wear to the lead driver was again of concern. Mason, having done all he could on the Bogie design to lift the cylinder weight off the lead axle, and reduce friction on the truck pivot, chose to add a pilot truck. This was designed to lead the drive wheels into the curves and reduce flange wear. The first 2-6-6T engine built was the South Park's #4, 'San Juan' of late 1878. With the shipment of San Juan came also an additional pilot truck for the 'Oro City'. The South Park then set about converting Oro City to a 2-6-6T. All of the remaining South Park Bogies built were of 2-6-6T and 2-8-6T configuration.

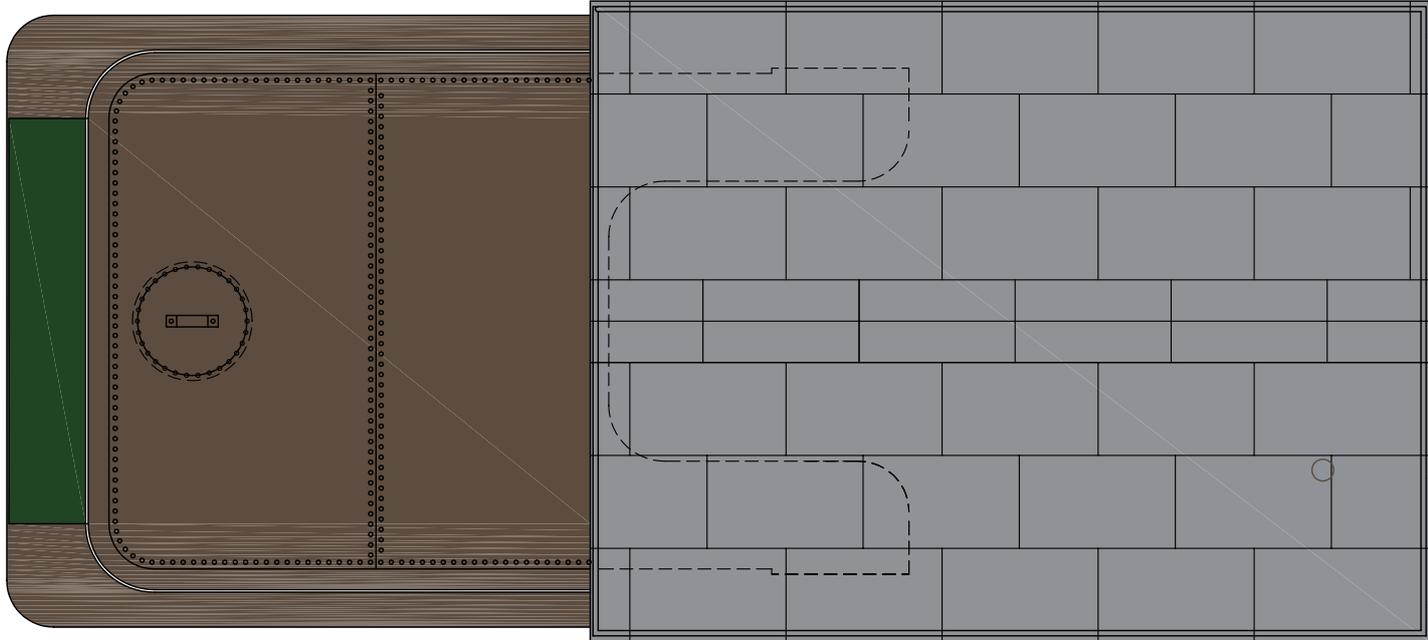
The model represented here is DSP&P #42 as it appeared in 1885. #42 was originally built as the DSP&P #6 'Tenmile' in 1879. The Tenmile was the most photographed Bogie on the line, mostly seen in this black #42 paint job. As built, the Tenmile was probably either dark green or dark chocolate brown, possibly with matching wheels. A later recollection of a crewman who ran the 1879 2-6-6T 'Gunnison' from new, described the engine as having been painted chocolate brown. It is not known whether all of the DSP&P Bogies were chocolate brown, or only some, or only the ones after 1879. But it does seem to indicate a change in Mason's colour choice from dark green to brown. Mason had remarked that his locomotives could be discerned from afar just from the paint colour alone. Notably, Baldwin had moved from dark brown (Lake) to dark olive green in 1878, so Mason may have been influenced by Baldwin's change in colour at this time.

In 1880 the ownership of the South Park transferred to the giant Union Pacific railroad. For the few years that followed, new locomotives were ordered from Baldwin, Brooks and Cooke with the engines supplied in builder's factory schemes. By 1885 however the UP having control of many and varied lines across the west, decided to standardize their schemes for efficiency. Locomotives at that point were repainted black to the company's new standard. This included removing locomotive names and using only numbers, and in the case of the UP standard, the same number stencil size was used on all locomotives regardless of location.

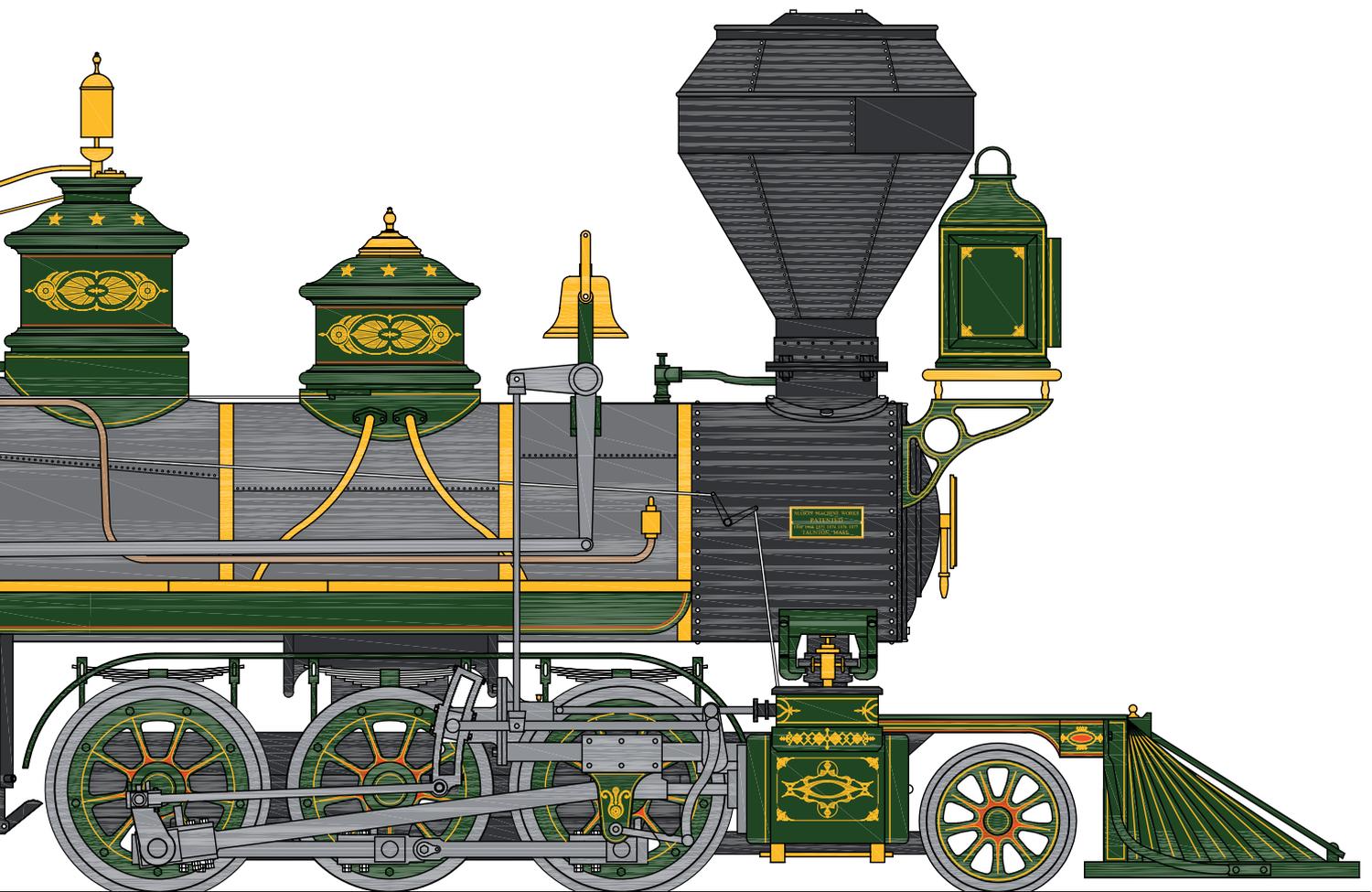
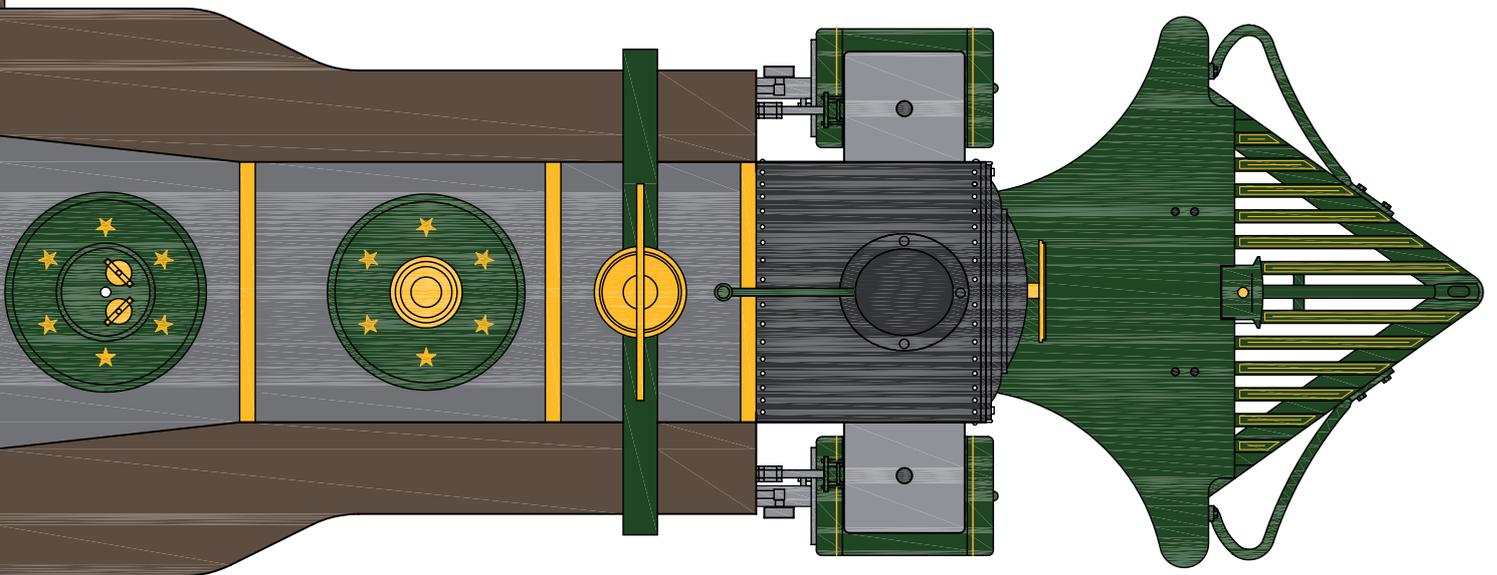
As such, smaller narrow gauge engines ended up with relatively huge numbers on their tenders, to the same general size as the numbers painted on the standard gauge counterparts. Surviving UP paint specs from January 1890 outlines typically how these engines would be painted, covering priming requirements, surface prep and finally the application of 'Ivory Black' standard colour 29 to all visible body work. Lettering to be Gold standard colours 30 and 32. Cab woodwork, window frames to be painted grained mahogany or Bey wood (artificial wood grain finish). Inside the cab to be painted green standard colour 34.

The UP specs also required a flat hardwearing and easily repainted mineral brown finishes on functional surfaces such as tender top and bottom, inside of water legs, running boards, under frame areas and cab roof. Described are two mineral systems to be employed for the different areas. Generally these are exposed surfaces away from the public view. The engine is finally given two coats of "engine finishing varnish" before it was sent out onto the road again. The UP used common varnish on the engine frames and lower parts, and three coats of varnish on the upper parts, rubbed to give a highly glossy coat. Varnish was necessary to protect all the black painted surfaces, but the best and most expensive varnish was only used for the parts visible to the public on the line side.

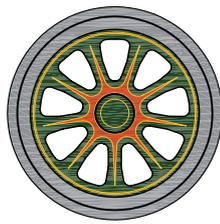
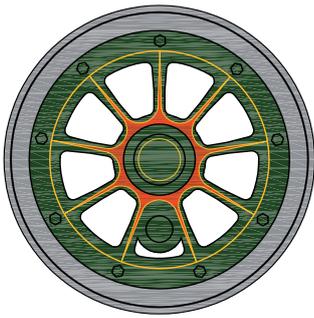
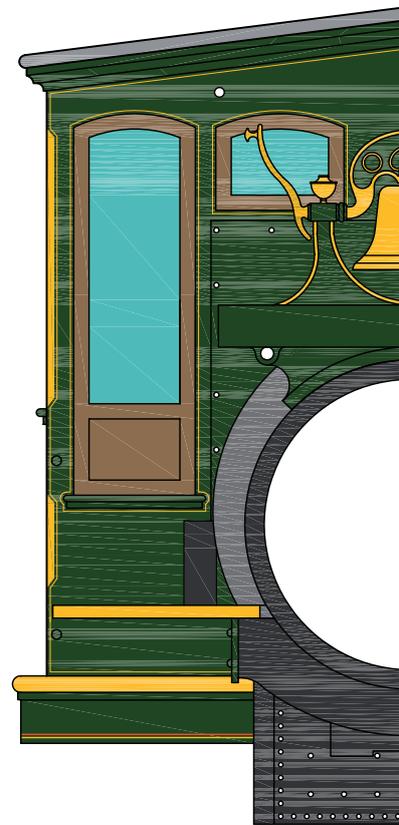
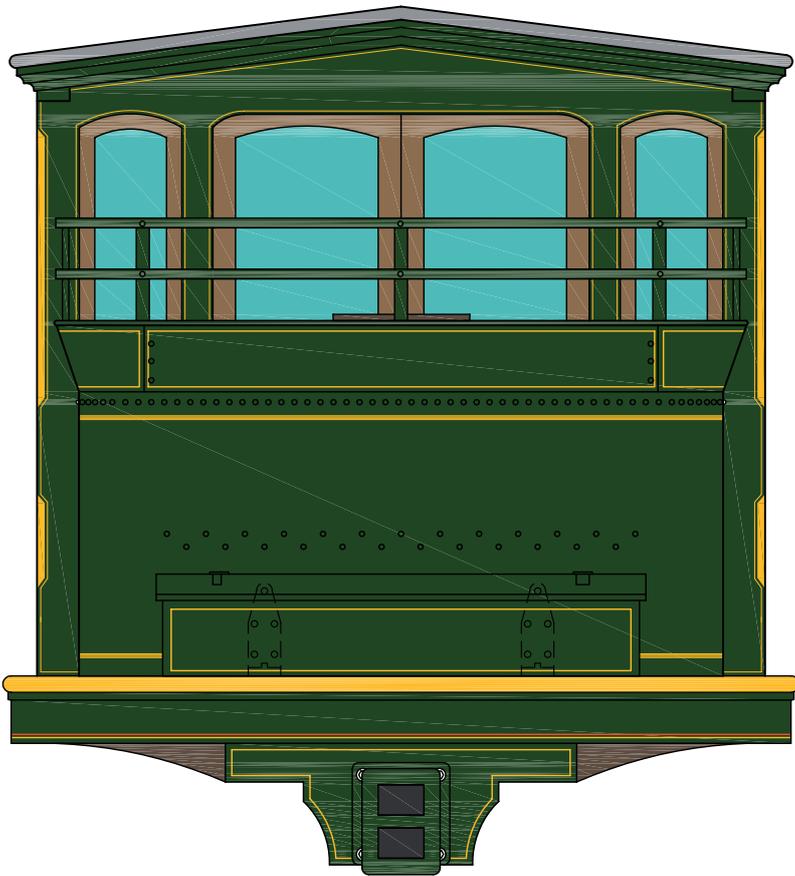
The model of the #42 shown here is built to a scale of 1:20.3, and is entirely scratch built using styrene and brass parts and castings. The finish represents the UP paint style and includes the application of the 1882 Westinghouse Air Brake system, which replaced the original South Park Eames Vacuum Brake system.



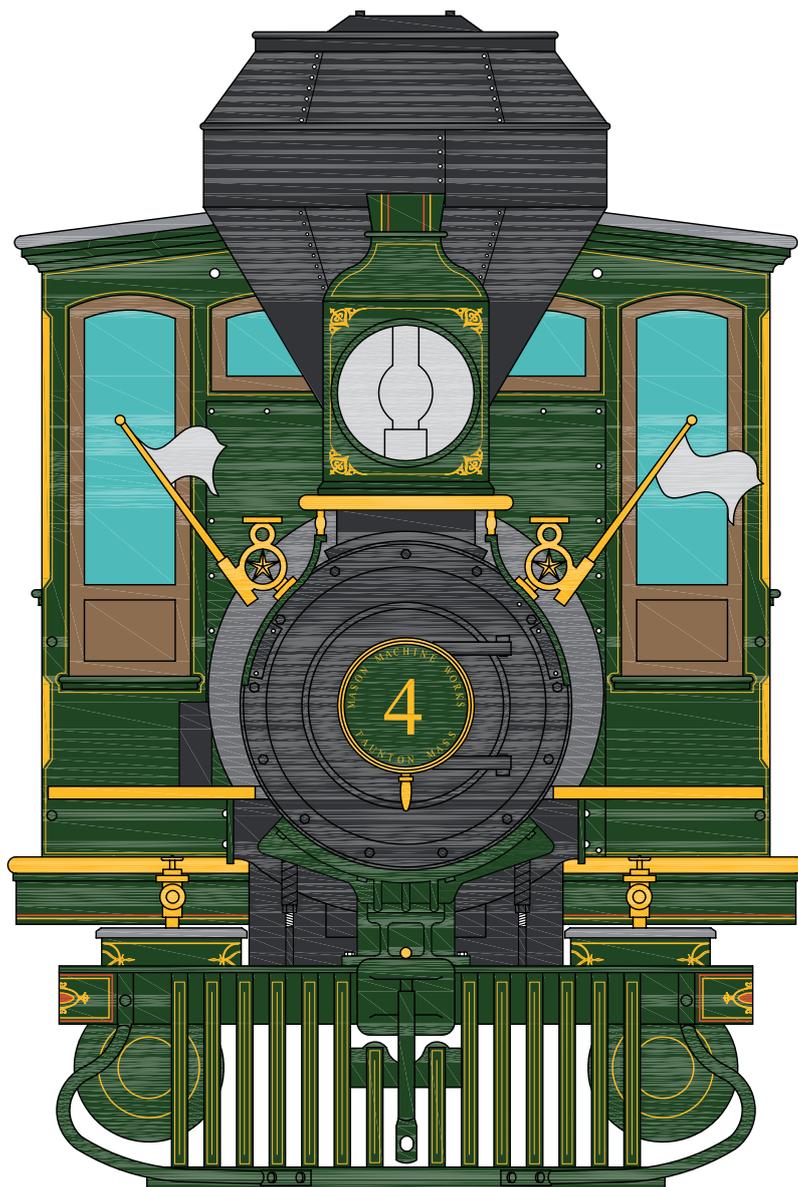
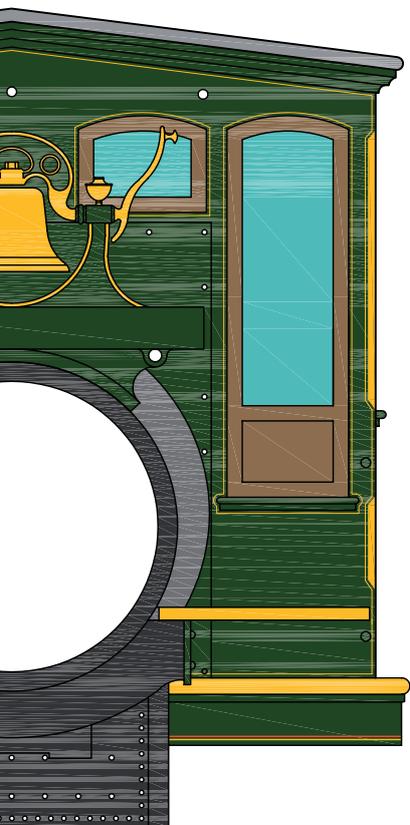
DENVER SOUTH PARK & PACIFIC RR
MASON BOGIE #4 - 'SAN JUAN'
'AS BUILT' CONFIGURATION 1878



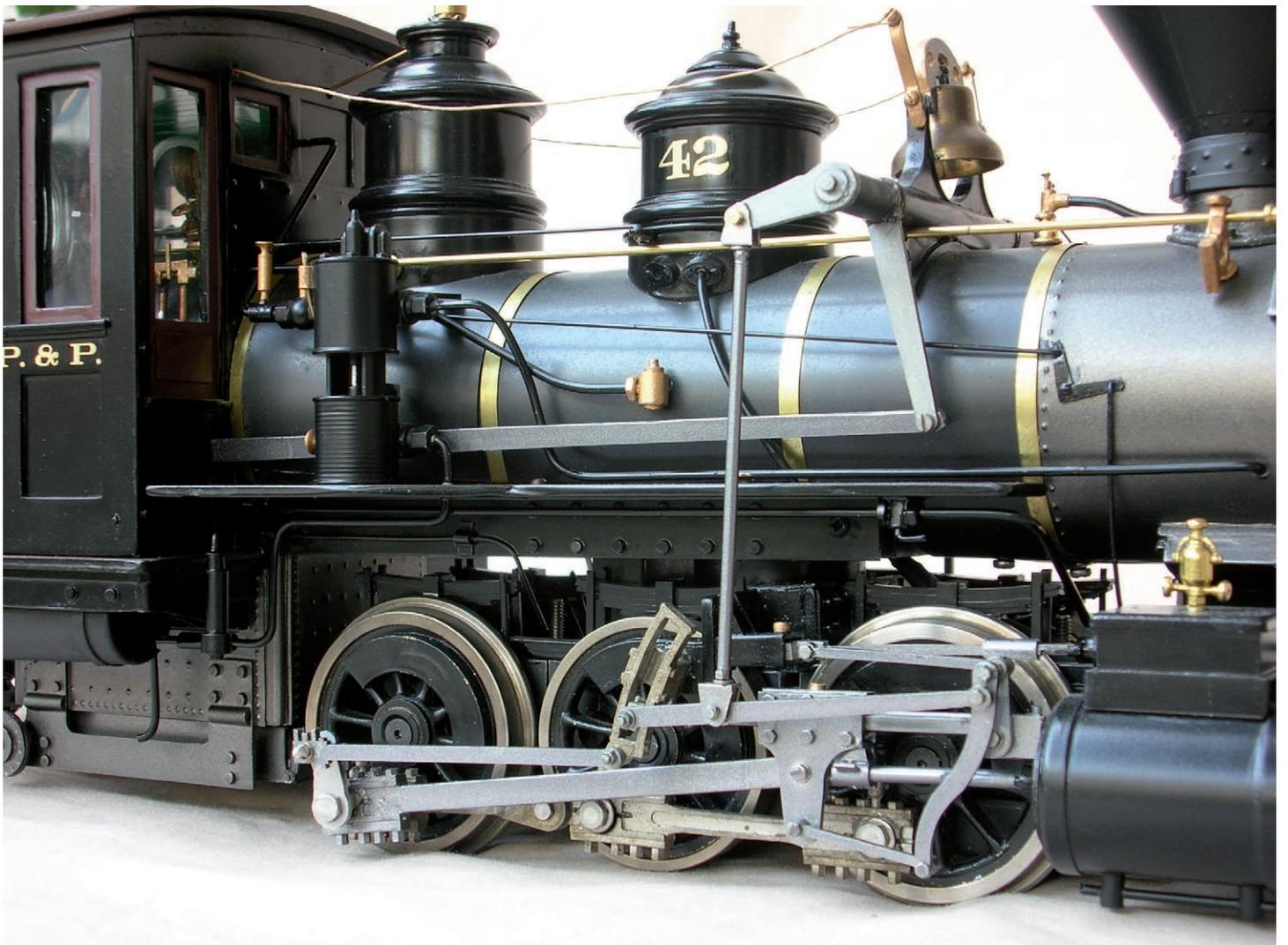
DRAWN BY DAVID FLETCHER 2007



DENVER SOUTH PARK & PACIFIC RR
MASON BOGIE #4 - 'SAN JUAN'
'AS BUILT' CONFIGURATION 1878



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The chassis was a custom designed effort via 'Barrys Big Trains' in Arizona, and features cast magnesium main rod and side rods, cast from CNC machined masters developed in 3D cad, and finally a laser cut stainless steel valve gear set, cut here in Melbourne.

This engine formed the prototype for an on-line model building class on the US web site www.mylargescale.com, where people from around the world came together to build Mason Bogies from my patterns. Some 20 models have been completed to date and are worth seeing on that web site. Finally, the patterns set up for this model will now form the basis for some electric and live steam, brass and stainless steel models to be made by Accucraft in 2009 at a scale of 1:20.3.

Special Thanks:

Jim Wilke – RR Historian, ever present in helping me sort out colours and to apply them to models as rolling small scale reconstructions. Also please see Jim's article in 'Bogies & Loop' journal - Denver, South Park & Pacific Locomotive Color schemes, 1873-1889.

Mylargescale.com and all the lads there who helped make the Bogie class possible.

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