

# Locomotives/Rolling Stock

**REVIEW** Large Scale

## Steam Up in the Garden

Piko's New G Gauge Prairie

Review and Photos by David Otte

Piko America G-scale  
BR64 DB Era III Steam Locomotive  
#37210; MSRP: \$729.99

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**P**IKO has certainly livened up the Large Scale market since issuing its first G gauge locomotive back in 2006. The company has proven it can produce good-looking equipment for a relatively reasonable price and continues in its endeavor towards building the best operating drive train in the business. This was quite evident in my recent reviews of the affordably priced 2-6-0/0-6-0 steam locomotive series. While these releases were fun to operate and were designed for use on compact

G gauge pikes, their lack of following a specific prototype and sparse separately applied details left some garden steam enthusiasts asking for more in the area of scale realism.

Piko has already shown they can deliver well-detailed prototypical diesels and electric locomotives, as has been shown here on the pages of Model Railroad News over the past few years, but steam locomotives, with all their contrasting shapes, plumbing, and appliances, require a lot more work. Nonetheless, the



Germany based manufacturer has gone all out to meet this new challenge with its latest release, the Deutsche Reichsbahn Gesellschaft Baureihe (Class) 64 1'CI'h2t – better known to Americans as the 2-6-2 Prairie type.

### The Legendary Bubikopf

The first steam locomotive displaying a 2-6-2 wheel arrangement appears to have been a narrow gauge side tank engine constructed for the South African Cape Government Railways in the late 1870s. Here in the States, the Prairie type, an adaptation of the 2-6-0, did not arrive on the scene until about 1901 and remained a Western locomotive with Santa Fe, The Milwaukee Road, Northern Pacific, Burlington, and Wabash owning the lion's share of the 1000 examples built for the nation's railroads plus another 700 or so that were erected for standard and narrow gauge logging and industrial railroads. Usually operated as a tender locomotive, the American 2-6-2s proved to have insufficient riding stability, especially when the main rods were connected to the second drive axle, and, except for use on branchlines, never earned the popularity that other six-coupled engines experienced in this country, such as the 4-6-2 Pacific type.

In contrast, 2-6-2s gained a wider acceptance in Europe and its colonies where they were usually built as tank locomotives for mixed service. In particular, the DRG (the state owned railway of Germany) had great success with its BR 64 class of 2-6-2Ts. Starting back in 1926, the DRG's engineering department set out to design several low axle load engines that could be operated on the country's numerous standard



The BR 64's smokebox door opens to reveal controls for the smoke unit and lighting system. Note also all the fantastic add-on detail parts, the cylindrical shaped feedwater heater atop the smokebox, and the authentic builders plate on the cylinder.

gauge branchlines. Three locomotives resulted from these studies: the BR 86 2-8-2T for goods trains, the BR 24 2-6-0 tender engine for the lines across flat lands, and the BR64 for passenger and mixed train duty – the last two of which shared the same boiler and frame. This family of branchline lokks all featured 15 ton axle loads and would become a common sight on German rails for the next 50 years. Constructed at 15 different locomotive factories throughout Germany, the first BR 64 was delivered in January 1928 and by the end of production in 1940, 520 (64 001 – 64 520) of the 2-6-2Ts were hard at work. The new class of steamer performed so well that more were on order, but the outbreak of World War II quickly put an end to those plans. The public also grew fond of the little tank engines and it was not long before the class had earned the nickname of “Bubikopf”, which referred to the popular bobbed hairdo ladies were wearing at the time.

Stretching a mere 40 feet 8 inches over their buffers, the BR 64s were equipped with many modern appliances including air brakes and superheaters. When its 1200 gallon side tanks were filled with water and 6000 pounds of coal was loaded in the fuel bunker, the 2-6-2 weighed 150,000 pounds with 91,000 pounds directly on the drivers for adhesion. The two 20 inch by 26 inch cylinders, 200 pound boiler pressure,

and six 59 inch diameter drivers combined to carry the engine and its consist along at speeds up to 56 miles per hour – quite adequate for meeting branchline passenger schedules of the day.

Kept out of harms way for the most part, the majority of the class survived the war with 393 of the lokks still in service in Germany by the summer of 1945. Another 100 or so were spread out in former German occupied countries including Czechoslovakia, Poland, the Soviet Union, and Austria. With the subsequent division of Germany, 278 BR 64s entered service under West Germany’s Deutsche Bundesbahn and 115 fell into the hands of East Germany’s Deutsche Reichsbahn. As a testament to their longevity, 82 of the class were still on the DB’s roster in 1968 with its last BR 64 taken out of service in 1974, where as the DR continued operating one of its 2-6-2Ts until 1975. Today, about 20 BR 64s are known to exist worldwide, five of which are currently operational on various tourist or museum lines in Germany, the Netherlands, Belgium, and Switzerland and another two engines are in the process of being rebuilt for a return to operation in the next year.

### Steam Up in the Garden

The BR 64 marks the ninth completely new locomotive model in only 8 years for this manufacturer and, in my book, is its finest offering to date. The

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## By-The-Numbers

**BR64 2-6-2T**

**Piko**

**G 1:26 • Type: Steam Locomotive**

**Traction Tires? Yes**

### Pull Power (Ozs @ Full Slip)

Pull	÷ Loco Wt	= Efficiency
32.1	114.0	28.2%
Volts	Amps	
20	1.53	

### Analog DC

**Start Volts = 1.8**

Volts	Amps	Scale MPH
1.8	0.28	1.4
5.0	0.36	12.3
10.0	0.80	27.8
15.0	0.72	43.6
20.0	0.68	61.5

G gauge rendering certainly captures the muscular and well-balanced appearance of these steam lokks. Compared to published drawings of the prototype, the 18.75 inch long 2-6-2T model scales out perfectly to 1:26, which is right in line with the previous European prototypes the company has produced, and still looks good with the widely accepted 1:29 scale models popular here in the US.

Made almost entirely of UV resistant plastic safe for outdoor use, the Large Scale model is the poster child for every garden railroader out there demanding more separately applied details. Other than a multitude of delicately molded-in



Large Scalers will be totally delighted with Piko’s new Prairie tank engine. Built to scale proportions, the BR 64 displays a plethora of separately applied details, is equipped with a very smooth operating drive train, features directional LED headlights and running gear lights, and is DCC and sound ready to boot. The customary German steam paint scheme of black boiler and cab with red chassis is not only eye catching, but will certainly set this model apart from the other motive power on typical US G gauge rosters.



Similar to the articulation used with the previously reviewed Piko Crocodile electric locomotive, the 2-6-2T's gearbox has been divided into two segments with the motor housed along with the first two axles in the forward sealed compartment and the rear axle driven via a drive shaft in the rear section. Note also the stainless steel rims mounted on the plastic spoked drivers as well as on the Bissel style bogie (pony trucks) wheels and the truck mounted hook and loop couplers.

rivets and some boiler bands, all the appliances, signal devices, and valve wheels; sand, air, and steam lines; handholds, ladders, and steps; and domes, buffers, and cylinders have been added on at the factory or, in a few cases, left for the modeler to apply after unpacking. Although not as densely populated with details, the cab also features add-on backhead controls, window glazing, windcreens, and the familiar "Mr. Piko" serving as the Lokführer.

Of special note is the fully functioning drive gear. One of the criticisms of

the previously released Piko 2-6-0/0-6-0 series was the fact that the Walschaerts valve gear on these cost-conscious models was simply molded in one piece and did not actually move; this is not the case with the BR 64. While still modeled in durable plastic, the valve gear along with the side rods and pistons are fully articulated and their action only adds to the lure of the red faced, see-through spoked drivers when in motion.

Piko has decorated its initial release of the BR 64 for the prototype from which the model was rendered, number 64 491.

Built by Orenstein & Koppel in Berlin under serial number 13298, it was one of the last of the class to be delivered to the DRG in 1940. Initially serving out of the city of Ulm, Baden-Württemberg, Germany, just an hour southeast of Stuttgart, 64 491 would join the DB roster after the war and serve faithfully until retirement in 1973. Currently, the 74 year old steam lok still looks spry on her occasional Sunday outings on the Dampfbahn Fränkische Schweiz (Franconian Switzerland Steam Railway) in Embermannstadt, Bavaria, Germany. Piko's 1:26 scale replica looks smashing in its traditional black and red scheme. All the authentic locomotive data is present and readable on its tank and fuel bunker sides and accurate O&K builder's plates are depicted on the outer sides of both cylinders - including the correct serial number and shop date. Fantastic!

While this model is certainly good enough to set in the display case, she is no shelf queen and the garden railroader will find the G gauge Prairie just as enjoyable on the rails. The Piko BR 64 is outfitted with a 7 pole Bühler motor, which is sealed from the elements in the forward section of the gearbox. In turn, all three drive axles are gear driven and equipped with ball bearings. All six drive wheels also act as electrical pickups with internal contacts plus there are two traditional spring-loaded pickup shoes that slide on the rails. The approximately 7 pound model features both a heavy metal weight in the boiler and traction tires on its center drive wheels to insure excellent adhesion. Perhaps the most interesting aspect of the BR 64's drive train however, is the articulated gearbox. We have seen this design used before on the big German BR 194 Crocodile electric locomotive (September 2012 issue), but since this six coupled engine is also a scale model, Piko



The prototype 2-6-2Ts were fitted with two 1200 gallon side water tanks and a rear fuel bunker that could carry up to 3 tons of coal. The Piko model emulates these features nicely as well as the Prairie's running gear and 59 inch diameter spoked drivers, which are fully functional on the scale rendering.



The new BR 64 at the head of a string of Piko's three-axle Umbauwagens, previously reviewed in the April 2011 issue of Model Railroad News, makes for an authentic branchline consist that is perfect for either a small indoor layout or a large garden pike.

wanted to insure its ability to operate on standard R1 600 millimeter (23.6 inch) radius curves, which are typically found in G gauge starter sets. As such, the two forward drive axles are contained with the motor in a separately enclosed gear box section with a drive shaft extending out to the rear gearbox compartment and its single drive axle.

This entire arrangement worked quite well on our sample, which exhibited the quietest drive train yet of any Piko model I have tested. Low speed operation was especially impressive at less than 2 scale miles per hour while at 20 volts, the maximum speed was pretty much in line with the prototype. Note that this locomotive will require a power supply with an output of 2 – 5 amps and a maximum 24 volts. Furthermore, with a whopping two pound drawbar rating, this tank engine will easily earn its keep hauling a sizeable passenger consist of Piko's Umbauwagens (reviewed in the

April 2001 issue) or a string of ordinary Güterwagens when freight duty calls. The model is also equipped with directional LED lighting – three forward facing lamps and three on the rear. The LEDs were nice and bright, but did not illuminate until a voltage of about 5 volts was applied. As an added bonus, Piko has included LED running gear lights to further illuminate the BR 64s drive train. As a final enhancement, a factory installed Seuthe smoke generator adds some additional animation to the German Prairie (smoke fluid included).

Last but not least, the 2-6-2T comes DCC ready for mounting a Piko 36122 motor decoder along with a 36222 sound module. While not true plug and play, a color-coded wiring diagram is included for installing the decoder, which is housed in a compartment beneath the cab. On the other hand, the sound unit is plug and play, but the cab/boiler shell must be removed to access the built-in

speaker mount. Keep in mind however, once installed, the Piko sound system will work in DCC mode only and cannot be heard when powered under analog operation.

### Meeting the Challenge

Garden railroaders threw down the gauntlet challenging Piko to produce a more detailed steam locomotive and I believe the company has met those demands with its new BR 64 and then some. Despite its scale proportions, the 2-6-2T's clever articulated gearbox design is an added bonus allowing even those modelers with small layouts the chance to experience the smooth performance of this offering. While not a US prototype, the 1:26 scale Bubikopf is nonetheless a stand out in a crowd and will easily become a focal point of any Large Scale collection. Hats off to Piko for another fantastic contribution to the G gauge roster!