

# **Manual HSB Mallet**



**HSB Mallet 99 5902**  
**ZIMO - Digital/Sound**  
**(Artikel-Nr. 2011112)**

# Train Line Gartenbahnen – Made in Germany

## The role model

### **The Mallet steam locomotives NWE 11 to NWE 22 - class 99.59**

Between 1897 and 1901 the Nordhausen-Wernigeroder Eisenbahn-Gesellschaft (NWE) procured nine locomotives from the Arnold Jung machine works in Jungental and three Mallet locomotives from the Güstrow machine works. They were given the numbers NWE 11 to NWE 22.

These mallet locomotives (B'B n4vt) proved to be very suitable for the routes with many inclines and curves. Six locomotives confiscated from the Heeresfeldbahnen in 1914 did not return from service in France after World War I.

Since the mallet locomotives formed the backbone of locomotive operation, they received new boilers between 1924 and 1926. Since a locomotive was scrapped after an accident in 1927, the DR was able to take over five locomotives when it was nationalized. They were assigned to the 99 590 series as 99 5901 to 99 5905. From the mid-1950s, they were used on the Selke Valley Railway. Today there are still three of the locomotives (two operational) in the inventory of the Harzer Schmalspurbahnen GmbH (HSB).

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## The model

Thanks to the use of special plastics, the Train Line garden railroad model is robust and weatherproof and therefore suitable for use both indoors and outdoors.

### **This detailed model offers the following features:**

- two Bühler motors
- Stainless steel wheel tires
- Power consumption at six contacts per bogie
- Traction tires on the rear bogie
- four driven axles
- Wheel contacts for the pulsed vaporizer and sound
- Prototypical digital steam locomotive sound:
  - Whistle 5902
  - Bell jar
  - Announcement station
  - open cylinder taps
  - Cab lighting
  - Engine light
  - Shunting engine
  - Air pump quickly
  - Water jet pump
  - Shovel coal
  - Air pump slowly

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generator

Approach whistle

Braking noise

Noises after driving: air pump, coal shoveling, water jet pump

Hissing while standing

- • Steam output synchronous with the wheel rotation
- • Loudspeaker, volume adjustable via CV 266
- • Boiler fire
- • Multi-type switch 0-1-2
- • pulsed vaporizer
- • 3.1kg total weight for high pulling power
- • High quality LURAN S plastic, dyed through, primed and painted
- • many details and attachments
- • Robust and stable design for year-round operation on the garden railway system
- • Lighting that changes automatically in the direction of travel
- • Engine lighting
- • Real coal for the coal box
- • another tow hook

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## More information

### **Removal of the model**

Please carefully remove the model from the polystyrene packaging so that the attachments such as taps, handrails, compressed air lines, etc. are not damaged.

### **Power supply**

The model has two Bühler motors, seven lamps, eight LEDs and a pulsed evaporator. The locomotive works with all DCC-compliant digital centers.

### **Multi-type switch**

The multi-mode switch (positions 0 - 1 - 2) in the rear wall of the boiler in the driver's cab enables the locomotive to be parked in spite of driving.

Position 0: locomotive off

Position 1: all functions switched on

Position 2: like position 1

### **lighting**

There is lighting in the driver's cab that shines in both directions. The driving light is connected, changing in the direction of travel.

### **Engine lighting**

Four LEDs are installed on each side of the locomotive as engine lighting. In digital mode, the LEDs can be switched on by function.

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## Motors

Since the Bühler motors are installed horizontally, all four axes are driven directly. The gears are made of highly durable plastic.

**For excellent driving characteristics, it is important that you let the model run in for about 20 minutes (in both directions).**

## Pulsed vaporizer

The pulsed evaporator is installed under the chimney as standard. For this purpose, the chimney of a pipette is filled with up to 3ml of commercially available steam oil.

Avoid operation without steam liquid! This can damage the evaporator and / or the locomotive.

**Sufficient ventilation must be ensured indoors!**

## Radius

Thanks to the two movably suspended bogies, the model also drives through the narrowest radius of 600mm.

## Boiler fire

The boiler fire is connected and switched on and off separately in the delivery state.

The function can be coupled with the sound "shoveling coal". More on this in the CV table.

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## **IMPORTANT NOTE ABOUT THE MODEL WITH ZIMO DECODER:**

- the volume control is in the silencer. Master volume CV266. Value range 0..65. Values > 65 can overdrive the loudspeaker.
  - The built-in decoder corresponds to the MX 696. The complete manual can be downloaded from [www.zimo.at](http://www.zimo.at)
  - the decoder is set to 28 speed steps. For 14 speed steps, please set CV29 appropriately. CV29 = 0 / CV29 = 1 according to the desired direction of travel for 14 speed levels.
  - If the acceleration and braking delay are changed, the Dämpfen sound project may no longer produce the sound properly.
- 
- **No toy**
  - **This model is not suitable for children under 14 years of age**
  - **The abrasion on the mechanical parts caused by driving can leave dirt behind on the ground. Train Line Gartenbahnen GmbH assumes no liability for damage.**



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## Abbildungen:



Blue arrow: Fill in steam liquid (max. 3ml)

red arrow: volume control

The following applies to locomotives with sound: the volume is controlled by turning the silencer. Do not turn the screw in the muffler with a screwdriver.

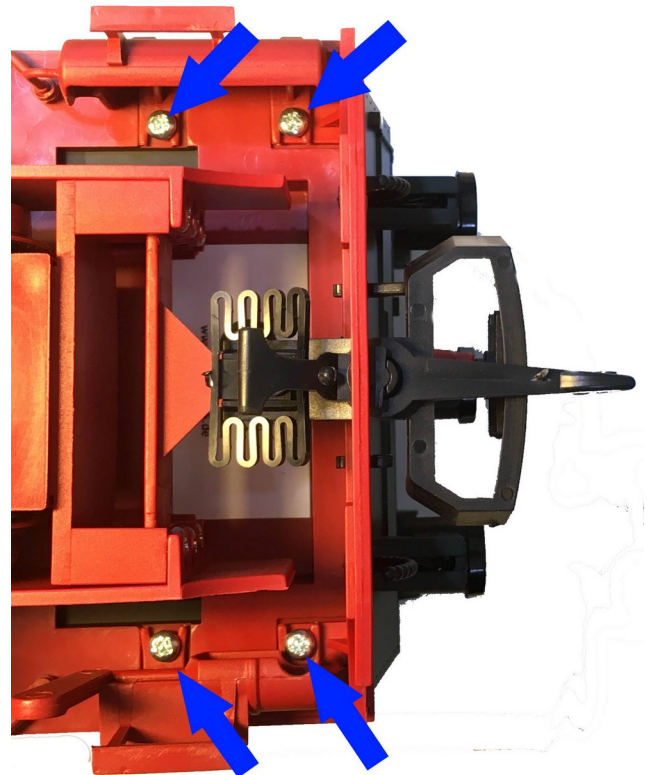
Steam liquid can be poured into the chimney using a pipette. (max. 3ml)  
Please note the information on the vaporizer above.

A multi-type switch is installed on the rear wall of the boiler in the driver's cab.



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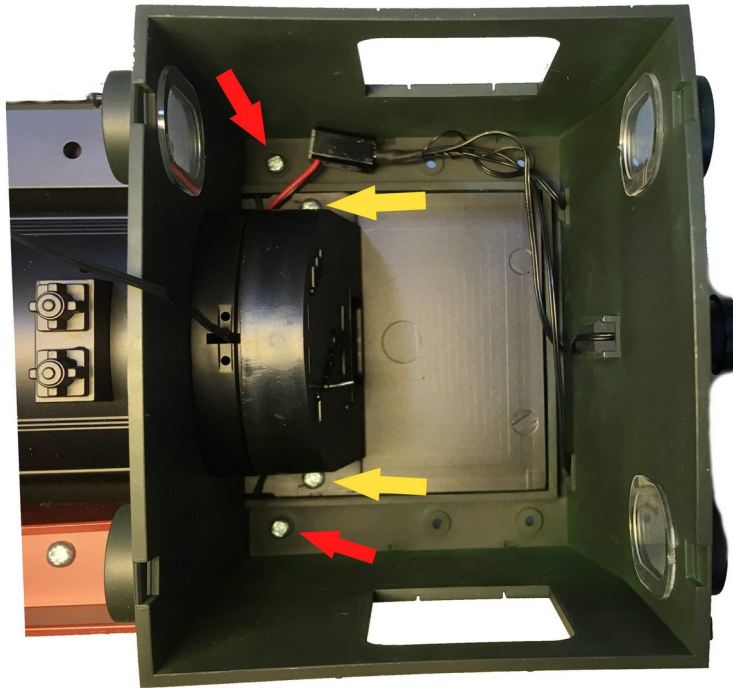
This is how the locomotive is opened:



Open the roof by carefully pressing the locking lugs inwards and removing the roof upwards.

Loosen the screws, two in the driver's cab, four from below behind the steps. Carefully lift the driver's cab up out of the guide on the steam boiler.

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Then the back wall of the boiler (yellow arrows) is loosened and the bell is pulled out. Now the steam boiler can be pulled back a little and then removed upwards. This enables access to the board. All connections are pluggable here.



## Train Line Gartenbahnen – Made in Germany

As a service, we keep the spare parts for our models available for you. Should a component actually suffer a defect during operation, you can reorder it from us.

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**Your Team Train Line Gartenbahnen GmbH**



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Taste	Funktion	Funktionsausgang	Sound
F0	Light on	FA 0v+0r	Lichtmaschine
F1	Light driver cabin	FA 1	
F2	Engine light	FA 3	
F3	Whistle short		Whistle
F4	Whistle long		Whistle long
F5	Bell		Bell
F6	Smoke generator heating on (load controlled)	Fan output - heating FA2	
F7	Cylinder drainage		zzzzzzz
F8	Sound on/off		
F9	Squeaking curves		
F10	Shoveling coal / boiler fire	FA 4	Shoveling coal
F11	Auxiliary blower switches on smoke valve		
F12	Uncoupling clutch waltz	FA5 + 6 / Servo 2 + 1 for electro cuppling	uncoupling
F13	coupling		coupling
F14	Pressure relief valve		Pressure relief valve
F15	Full load / part load		Full load / part load
F16	Tunnel fader (hide / show)		Mute sound
F17	Conductor whistle		Conductor whistle
F18	Train dispatch		Woman's voice on the railway radio
F19	talk of engine driver / stoker		talk
F20	Take water		Take water
F21	Pressure relief valve		Pressure relief valve
F22	Air pump quickly		
F23	Air pump slow		
F24	The jet pump feeds the boiler water		Injektor