

HSB Mallet 9959xx – Set version Train Line 45



These Series II mallet locomotives were built for the Nordhausen-Wernigeröder Eisenbahn-Gesellschaft (NWE), shortly after the railway was founded, by Arnold Jung in Jungenthal. Their numbering started from 11. The inventory quickly grew to twelve locomotives, nine built by Jung and three built by the Mecklenburgische Maschinen- und Waggonbau AG in Güstrow. The locomotives proved to be very reliable. However during the First World War, six locomotives (among them all the locomotives built in Güstrow) were requisitioned for military railway duty and they were never returned.

The new locomotives joined the Harzquerbahn in the 1950's (99.23-24). This meant that the mallet locomotives were no longer needed, and they were moved to the Selketal valley railway. Two mallet locomotives were scrapped, 99 5905 in the year 1975 and 99 5904 in 1990. The three other locos remain on the roster.

The NWE railway designated locomotive 99 5902 as NWE 12III (up till 1927 it was number 14). In 2007 it was repainted green. Maintenance on locomotive 99 5903 was deferred in the year 2000 after all its permits expired.

The current roster of the Harz Narrow Gauge Railways includes:

- 99 5901: operational
- 99 5902: operational
- 99 5903: permits expired, stored in Wernigerode-Westerntor.

A similar locomotive exists, number 99 5906 built by Maschinenbau-Gesellschaft Karlsruhe. The Swiss heritage railway of Blonay-Chamby has the locomotive 105, also part of this series.

Source: Wikipedia

The prototype locomotive can be very noisy, or just clatter along, according to its load. The sound project takes this into consideration. The locomotive can be switched to partial-load mode with function key 15, as often heard on the Selketal valley line.

The sound project is configured for the prototypical 4 chuffs per wheel rotation. A reduction to 2 chuffs is not recommended at all. Half of the 65 chuff recordings would never be played, and when the loco is running at top speed, the typical banging sound would be lost.

The sound project is available in the one tone whistle version (ETP) and the multi-tone whistle version (MTP)

The sound project is based on the Zimo Advanced Standard, but it is tuned to the special settings of the Zimo PluG replacement circuit board.

The decoder must at least have the software version 33.14

MX 690 decoders are not suitable for this complex project, as they are not powerful enough. The sound would have interruptions if run on a MX 690.

Function key 7 activates electrical decouplers during uncoupling.

The CVs 3,4 and 57 are relevant for this sound project. Changing these can cause sound malfunctions!

Steam chuff impuls generator selection: CV 268, value 0 if using the Zimo internal chuff generator / value 1 if using a steam chuff impulse generator fitted on the locomotive, and connected to In3.

Function	Feature	Fuction output	Sound
F0	Lights on	FA 0v+0r	lighting dynamo
F1	Cab light	FA 1	
F2	Running gear lighting	FA 3	
F3	Short whistle		Whistle
F4	Long whistle		Playable whistle
F5	Bell		Playable bell
F6	Smoke generator heating on (load controlled)	Ventilator output – heating FA2	
F7	Cylinder purge		Hissing
F8	Sound on/off		
F9	Screeching on curves		Wheel on rail screeching
F10	Shovelling coal	FA 4 flickers	Shovelling coal
F11	auxiliary blower switches smoke valve on	Ventilator on	Slight hissing
F12	Uncoupling movements	FA5 + 6 / Servo 2 + 1 for electric decouplers	Uncoupling
F13	Coupling		Coupling and pumping air
F14	Safety relief valve		3 loud steam blasts
F15	Full load / partial load mode		Switches between two steam chuff options
F16	Tunnel fade out (fade in /fade out)		Slow fade to mute
F17	Guard's whistle		Whistle
F18	Train dispatching		Women's voice on a two-way radio
F19	Conversation of driver and fireman		Conversation
F20	Taking on water		Splashing water
F21	Overpressure valve		Continuous steam blast while function is active
F22	Fast air pump		Increasing air pressure
F23	Slow air pump		Maintaining air pressure
F24	Injector pump filling the boiler		Injector pump

Random sound effects	Sound	
Z1	Intensive air pump	Always after a stop
Z2	Maintaining air pressure	
Z3	Shovelling coal	FA4 flickers
Z4	Blower	Ventilator on
Z5	Injector (filling boiler)	
Z6	Overpressure, 3 loud blasts	
Z7	Overpressure, long blast	

Input	Sound	Activity
In1	Long whistle	
In2	Bell	
In3		Steam chuff impulse generator (CV 268 value 1)

The air pump, the injector valve, the overpressure valve and shovelling coal are all sounds one hears from time to time on the prototype. For this reason they are mean more as random sound effects and less for activating by hand.

Modified CVs

CV# 3 = 23

CV# 4 = 23

CV# 9 = 17

CV# 29 = ---

CV# 36 = 16

CV# 37 = 0

CV# 38 = 0

CV# 39 = 0

CV# 40 = 1

CV# 41 = 0

CV# 42 = 0

CV# 43 = 0

CV# 44 = 0

CV# 45 = 0

CV# 46 = 3

CV# 56 = 31

CV# 57 = 80

CV# 62 = 9

CV# 114 = 232

CV# 115 = 90

CV# 116 = 75

CV# 117 = 75

CV# 128 = 72

CV# 130 = 8

CV# 131 = 49

CV# 132 = 50

CV# 133 = 20

CV# 137 = 255

CV# 138 = 255

CV# 139 = 255

CV# 152 = 63

CV# 154 = 18

CV# 181 = 12

CV# 182 = 12

CV# 268 = 1

CV# 275 = 200

CV# 276 = 200

CV# 286 = 80

CV# 287 = 40

CV# 296 = 255

CV# 297 = 150

CV# 298 = 4

CV# 299 = 0

CV# 312 = 7

CV# 313 = 116

CV# 314 = 25

CV# 345 = 15

CV# 346 = 2

CV# 347 = 15

CV# 352 = 181

CV# 353 = 32

CV# 373 = 150

CV# 376 = 255

CV# 390 = 20