Silverton Railbus

Photo Heinz Däppen

Information about the prototype

The Silverton Standard Newspaper of July 10, 1915, contains the first report of the Casey Jones rail bus, reporting that it had jumped the tracks. It was rebuilt in 1918 for $1,000 with the current Series 51 Cadillac chassis, engine, transmission, driveshaft, and differential. The rationale for building the Casey Jones was to be used as an ambulance, so it would be used to get injured employees to town faster.

In 1915, Cadillac was the first automobile company to mass produce a V8 engine. The Cadillac engine is a flat-head V8 with 314 cubic inches of displacement that produces 70 horsepower. The transmission is an unsynchronized 3-speed manual connected to a differential via a driveshaft. Another Cadillac first was the electric starter. A Cadillac engineer was watching a man crank an engine by hand when it kicked back and broke the man's arm. The electric starter was designed to momentarily overload the engine so it could do enough work to turn the engine until it started.

The rear differential had the drum brakes and wheel heads removed and replaced with sprockets driving the rear wheel. This technique was common on trucks at the time. Current braking is by a driveshaft brake and a track brake.

In the summer of 1929, the Casey Jones was again rebuilt to its present configuration. The Stover rail bus body was removed and replaced with the present bus body, which had seating for 12 passengers including the driver/engine operator.

The only known plans for the Casey Jones were drawn by Ken Pruitt in the book "The Rainbow Route" by Robert Sloan and Carl Skowronski.

Source: Wikipedia

Sound Project Information

The function outputs are all disabled except FA0 for a headlight and Fa5 for an interior light. Both are dimmed to 75% with CV60

The diesel mechanics sound project is based on the Zimo Advanced Standard.

The MX decoder requires software version 40.5 or higher.

The sound project is designed for modern Zimo MX decoders, and is not suitable for old MX690. The sound project is according to current knowledge explicitly not suitable for MS decoders.

CVs 3, 4, 5, 154 and 158 are very important for the sound project. If CVs 3 and 4 are changed, the number of audible gear changes! Lower values in CV5 would suppress the whine of the gearbox and the chain noise would not work anymore. The maximum speed is only set with CV57, and not in CV5! Please change the values only very carefully!

Please note that there are other motors like RGS Galloping Goose Sound projects, for geese 1, 2, 5, 6 and 7.

By factory default the function number is the same as the function key number. With Zimo function key assignment, the functions can be assigned to a different key.
Program the desired function key number as value into CV 400+function number. The complete function is now assigned to another key. Attention, it is possible to assign several functions to the same key this way!
Please read the instructions on https://www.zimo-sound.ch/Eingangsmapping_EN.html

Function	Installation	Function output	Sound effect
F0	Headlight on	FA 0v+0r	
F1	Bell		Bell
F2	Horn long-long-short-long		Horn Before level crossing
F3	Horn long		Horn sounds as long as the function is active
F4	Horn short		Horn sounds briefly
F5	Light cab	FA 5	
F6	Light	FA 6	
F7	Close door		Door slams shut
F8	Sound on / off		Starting noises and idling
F9	Curves squeak		Curves squeak
F10			
F11			
F12			
F13			
F14			
F15			
F16	Volume down in tunnel (mute)		volume down or up in 2.5 seconds
F17			
F18			
F19			
F20			
F27	Vol -		quieter
F28	Vol +		louder

Zufallsgeräusch	Geräusch	
Z1		
Z2		
Z3		

Eingang	Geräusch	
1		
2		
3		

Changed CVs Values used by the reset

CV# 3 = 20 Acceleration rate
CV# 4 = 16 Deceleration rate
CV# 5 = 252 Top speed
CV# 6 = 120 Medium speed
CV# 9 = 55 Motor control frequency
CV# 17 = ---
CV# 18 = ---
CV# 29 = ---
CV# 33 = 3 Function mapp. F0f
CV# 34 = 3 Function mapp. F0r
CV# 35 = 0 Function mapp. F1
CV# 36 = 0 Function mapp. F2
CV# 37 = 0 Function mapp. F3
CV# 38 = 0 Function mapp. F4
CV# 41 = 0 Function mapp. F7
CV# 42 = 0 Function mapp. F8
CV# 43 = 0 Function mapp. F9
CV# 44 = 0 Function mapp. F10
CV# 45 = 0 Function mapp. F11
CV# 46 = 0 Function mapp. F12
CV# 56 = 11 Motor regulation: PID
CV# 57 = 150 Motor regulation: voltage reference
CV# 60 = 8 Dimming general
CV# 114 = 60 Dim Mask FO0-FO6
CV# 115 = 66 Uncoupler control
CV# 116 = 145 Automatic uncouple
CV# 121 = 1 Exponential acceleration
CV# 122 = 1 Exponential deceleration
CV# 124 = 0 Shunting keys configuration (binary)
CV# 125 = 88 Effects F0 front
CV# 126 = 52 Effects F0 rear
CV# 131 = 52 Effects F5
CV# 136 = 24 RailCom mph factor
CV# 147 = 100 Motor regulation: minimum timeout
CV# 148 = 10 Motor regulation: D-Value
CV# 149 = 100 Motor regulation: fixed P-Value
CV# 152 = 3 Dim mask FO7-FO12, RiBi
CV# 153 = 20 Continue without signal
CV# 158 = 2 Several sound bits + RailCom variants
CV# 190 = 2 Up-dimming time for FO
CV# 191 = 2 Down-dimming time for FO
CV# 265 = 101 Selection of the locomotive type
CV# 266 = 65 Total volume
CV# 275 = 181 Volume with no load slow travel
CV# 276 = 181 Volume with no load speed run
CV# 283 = 181 volume at full acceleration
CV# 286 = 181 Volume reduced driving noise during deceleration
CV# 289 = 2 Thyristor Stepping effect
CV# 290 = 50 Thyristor pitch at medium speed
CV# 291 = 100 Thyristor pitch at maximum speed
CV# 292 = 126 Thyristor gear for medium speed

CV# 293 = 100 Thyristor volume at constant speed
CV# 295 = 100 Thyristor Volume at delay trip
CV# 296 = 170 Electromotor largest volume
CV# 297 = 40 Electromotor: begin of audible noise
CV# 298 = 7 Electromotor: begin of full volume
CV# 299 = 60 Electromotor noise depending on the speed of the pitch
CV# 307 = 128 cornering squeal inputs
CV# 308 = 9 cornering squeal key
CV# 311 = 0 General on/off button for functional noise
CV# 312 = 0 Drainage button
CV# 313 = 116 Mute button
CV# 314 = 25 Mute fade time
CV# 315 = 1 Random Z1 min interval
CV# 316 = 10 Random Z1 max interval
CV# 317 = 8 Random generator Z1 playback time
CV# 318 = 180 Random Z2 min interval
CV# 319 = 255 Random Z2 max interval
CV# 320 = 5 Random generator Z2 playback time
CV# 321 = 200 Random Z3 min interval
CV# 322 = 255 Random Z3 max interval
CV# 323 = 11 Random generator Z3 playback time
CV# 344 = 200 Follow-up time for fan noise
CV# 351 = 204 Smoke fan pwm at constant speed
CV# 353 = 32 Smoke heater max. operating time
CV# 357 = 100 Thyristor control/volume reduction
CV# 359 = 0 Tap changer hight limit/loop time
CV# 361 = 0 Tap changer wainig time [0.1s]
CV# 362 = 100 Thyristor threshold 2nd sample
CV# 363 = 0 Tap changer number of steps
CV# 376 = 181 Driving sound volume
CV# 394 = 32 ZIMO configuration 4 (binary)
CV# 395 = 120 maximal volume
CV# 396 = 27 Volume decrease key
CV# 397 = 28 Volume increase key
CV# 443 = 64 ZIMO Mapping 3 M-key
CV# 461 = 64 ZIMO Mapping 6 M-key
CV# 513 = 13 F1 Soundnumber
CV# 515 = 8 F1 information on loop
CV# 516 = 10 F2 soundnumber
CV# 519 = 11 F3 soundnumber
CV# 521 = 8 F3 information on loop
CV# 522 = 12 F4 soundnumber
CV# 531 = 19 F7 soundnumber
CV# 577 = 14 soundnumber squeal
CV# 579 = 17 Thyristor Sound number
CV# 585 = 18 Soundnumber electromotor
CV# 591 = 16 soundnumber 2nd thyristor
CV# 603 = 15 cornering squeal sound number
CV# 604 = 128 cornering squeal volume