Wickness Models Soundscape Class 45

Manufacturer: -
Wickness Models **Project number: -**   WM045-1S
Project version: -   SSV1-London

Class 45

Power type   Diesel-electric

Builder   British Railways' Derby Works and Crewe Works

Build date   1960–1962

Total produced 127

The Class 45s became the main traction on the Midland Main Line from 1962, and their introduction allowed considerable acceleration of the previous steam-powered service. The Class 45s remained the main source of power on the Midland Main Line up to 1982, when they were relegated to secondary services following introduction of HSTs on the route. From 1986 Class 45s virtually disappeared from the line. From the early 1980s until their withdrawal c.1988, the class were regular performers on the North Trans-Pennine line working services from Liverpool Lime Street to York, Scarborough or Newcastle via Manchester Victoria, Huddersfield and Leeds. These trains were usually formed of early British Railways Mark 2 carriages, of up to seven in a typical train.

The engine of the Class 45 was a marine-type, slow-revving diesel, a Sulzer 12LDA28B with a bore of 280 mm (11.024 in) and a stroke of 360 mm (14.173 in). This gave 22 litres (1,300 cu in) per cylinder, or 264 litres (16,100 cu in) for the whole engine. The unit was turbocharged and intercooled and gave 2,500 hp (1,900 kW) at 750 rpm. The engine was of the double bank type with two parallel banks of 6 cylinders, geared together to a single output shaft. Six-cylinder versions of the engine were fitted in the Class 25 locos (amongst others) and eight-cylinder versions in Class 33s. Class 45s were the updated versions of the Class 44 locomotives, the latter having a 2,300 hp (1,700 kW) non-intercooled version of the same engine; i.e. the 12LDA28A. The later Class 47 had a modified version of the same engine, a 12LDA28C.

The great majority of Class 45s were withdrawn between 1981 and 1988, and the last was withdrawn from service by 1989

Decoder Type: - V4, V4 Micro, V4XL Speed Steps: 128

CV63 Main Volume: - 128(Max 192) Speaker: (4-8 Ohm)

Volume CV's Column: - Relevant CV's to adjust individual sound volumes

Volume Values Column: - Default volume setting for relevant sound CV's

Diesel locomotive (diesel-electric)
Diesel-electric locomotives are in principle electric locomotives with electrical generators that are powered by diesel engines. The diesel locomotive is generally driven at constant Driving notches subject to the speed of the locomotive. Therefore the noise generated changes (driving) step by (driving) step. The quiet electric motor can hardly be heard over the noise of the diesel powered plant. Most diesel-electric locomotives have 4 to 8 throttle notches.

Key	Function		Volume CVs	Volume values
F0	Directional Headlight			
F1	Startup/Shutdown		259	128
F2	Air Horn 1		275	128
F3	AUX1			
F4	AUX2			
F5	Acceleration			128
F6	Curve Squeal		371	128
F7	Main Soundscape		331	128
F8	Station Announcement		355	128
F9	Shunting Mode			
F10	Volume Control			128
F11	Coupler		315	128
F12	Notch Up			128
F13	Notch Down			128
F14	Air Horn 2		323	128
F15	Rail Clank		395	128
F16	Open Close Door		307	128
F17	Spare		331	128
F18	Disable Brake Sound			128
F19	Air Horn 3		347	128
F20	Conductors Signal		387	128
F21	Shift Mode			
F22	Fade Out Sound			

Shunting mode – this option halves speed, useful in yard operations

Acceleration - assigning this option disables momentum effects

Fade out sound – when enabled fades the sound to the volume setting for "Fade sound" (CV133) in the "sound settings" section; allows simulating going into tunnels, buildings, etc.

Diesel notch up - allows notching up of one notch per key press (~ 1 sec cycle), or engage for multiple notch points. Notches up regardless of speed.

Diesel notch down – notch down as above. Note: once engaged manual notching remains in effect until locomotive is stopped and notch point is at idle.

Disable brake sound – when engaged turns off automatic brake sound (CV459 (CV32=1))

Volume control – when set, allows setting volume in 6 steps by toggling the function key on and off, once per step. Changes the master volume in 6 steps (CV 62)