



Deltic Prototype

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1 Background

1.1 Deltic Prototype History

The English Electric company, which had absorbed the engine-maker Napier & Son into its group at the instruction of the Ministry of Aircraft Production in 1942, was a major builder of Diesel and electric locomotives. English Electric saw the potential of Napier's Deltic engine for rail traction and in 1954-1955 built a demonstrator at its Dick, Kerr works in Preston. Officially numbered DP1 (Diesel Prototype number 1, although this was never carried by the locomotive), it carried the word DELTIC in large cream letters on its powder-blue sides. Plans to name the locomotive "Enterprise" never came to fruition and it was to be known to all as "Deltic".

Long aluminium beadings on the sides were painted cream, a visual device to make the locomotive's high sides appear more slender and speedier; three curved chevrons in the same cream on the noses gave it the impression of speed. The locomotive's styling was reminiscent of American locomotives (partly because English Electric initially planned to offer the type for export) with high noses and small, somewhat swept-back cab windows set back behind them; to add to the American look of the locomotive to British eyes, a large headlight was to be fitted to each nose (these lights were never installed but would have been of the rotating 'Mars Light' type as fitted to North American locomotives of the era). Two 18-cylinder Deltic engines were fitted, de-rated from the 1,750 horsepower (1.3 MW) of the marine engines in minesweepers to 1,650 horsepower (1.2 MW) each, 3,300 horsepower (2.5 MW) total. This de-rating reduced the stress on the engines, thereby increasing the service life and length of time between overhauls.

1.2 Deltic Prototype Operation

The locomotive first saw service on the London Midland Region of British Railways but the intention soon became to electrify the major routes on that Region. It also underwent extensive testing on the Settle - Carlisle route in 1956, with test trains, two mobile testing units and a dynamometer car, and the results of this are contained in British Transport Commission Test Bulletin No.19. On the Eastern Region, however, no diesel replacement of conventional design seemed to be available for Gresley's Pacifics, particularly the A4. Only the Deltic appeared to offer the power and speed required within the constraints of a 20-ton axle load, and it was soon running on that Region.

In March 1961 "DELTIC" was withdrawn after a serious powerplant failure. By that time the production Class 55 locomotives were coming into service and plans to test it in Canada fell through. The locomotive was donated to the Science Museum, London. It is now in the National Railway Museum site *Locomotion* in Shildon, County Durham, England.

1.3 Technical Specification

Number	DP1
Wheel Arrangement	Co-Co
Weight	106 tonnes
Height	12ft 10in (3.91m)
Length	69ft 6in (21.18m)
Width	8ft 9½in (2.68m)
Diesel Engine	Napier Deltic D18-25 x 2
Power Output	1,650hp (1,230kW) x 2
Maximum Tractive Effort	50,000lb (222kN)
Brake Type	Dual
Top Speed	90mph (140km/h)

2 Rolling Stock

2.1 DP1 'Deltic'

In the browser list the locomotive is named "Deltic Prototype".



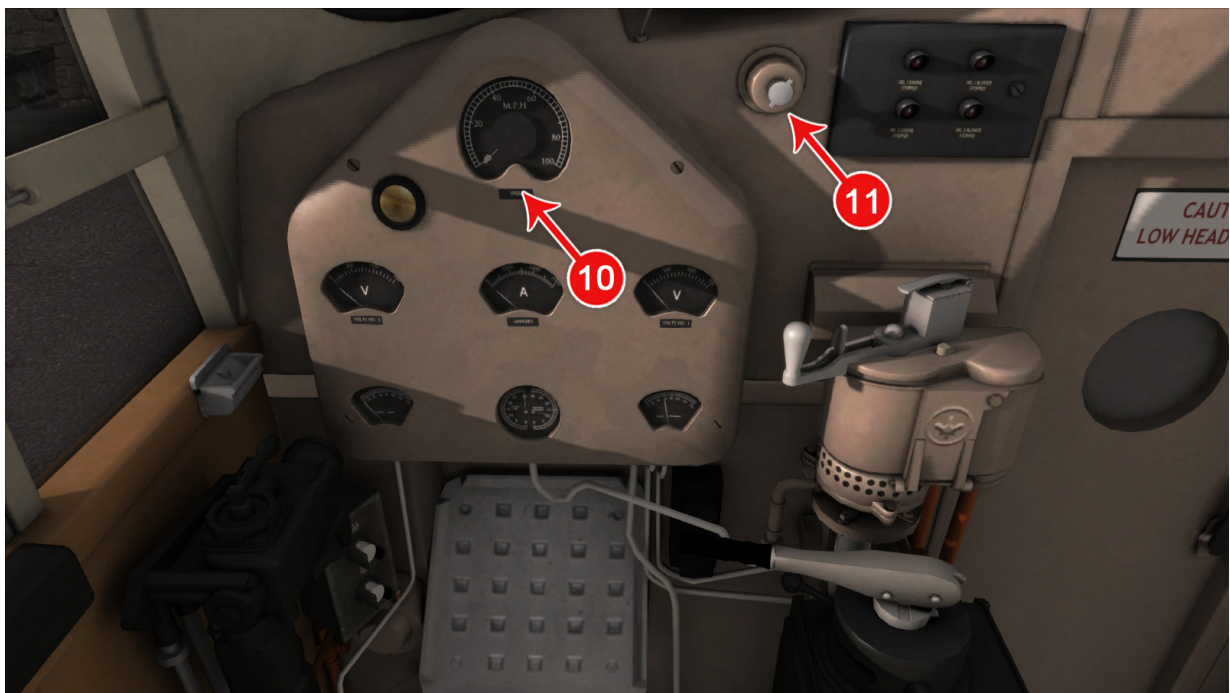
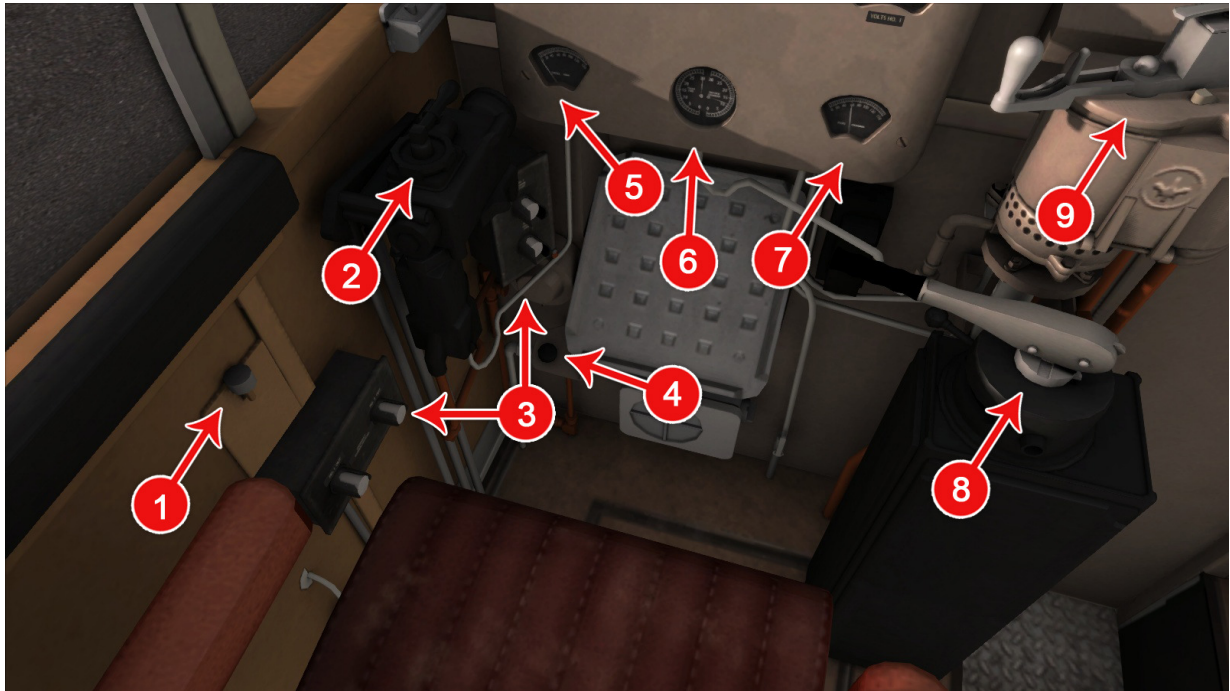
British Railways DP1 – Deltic Prototype

2.2 Mk1 Coach Set

There is a set of BR Maroon liveried first (FK), second (SK), Restaurant Mini Buffet (RMB), brake second (BSK) and brake guard (BG) coaches supplied in this add-on. In the browser list they are listed as "DP1 Mk1 First BR Maroon", "DP1 Mk1 Second BR Maroon", "DP1 Mk1 RMB Mini Buffet BR Maroon", "DP1 Mk1 BSK Brake Second BR Maroon" and "DP1 Mk1 BG Guard BR Maroon".



3 Cab Controls





1	Sander	7	Brake Gauge
2	Train Brake	8	Power Handle
3	Start Up/Shutdown	9	Loco Brake
4	Horn	10	Speedometer
5	Brake Gauge	11	Wipers
6	Brake Gauge	12	Handbrake

4 Scenarios

The following scenarios for our Settle to Carlisle route have been included:

4.1 Breathing New Life

Pioneer Deltic DP1 is being pressed back into service. Before any scheduled services can begin, she must be taken for a trial run. Take it easy though.

Duration: 25 mins
Difficulty: Easy
Type: Standard

4.2 Prelude to a Pioneer

We're here at Ribbleshead, giving tourists the lucky opportunity to ride behind DP1 back to Settle..

Duration: 25 mins
Difficulty: Medium
Type: Standard

4.3 Deltic Highlander

Railtour season is in full swing and the Deltic Prototype is running north on a fully booked trip to Glasgow. You have won the chance to drive this famous locomotive over the section between Settle and Carlisle.

Duration: 80 mins
Difficulty: Hard
Type: Standard and Career

5 Credits

The team at RailSimulator.com would like to thank all our dedicated Beta Testers.