



dovetail
GAMES

Class 20



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1 Background

1.1 Loco

The British Rail Class 20 diesel locomotives, also known as the English Electric Type 1 and were built by English Electric at Vulcan Foundry and Robert Stephenson and Hawthorns. In total, 228 locomotives in the class were built between 1957 and 1968. The large number being in part because of the failure of other early designs in the same power range to provide reliable locomotives.

The locomotives were originally numbered D8000–D8199 and D8300–D8327, before they were re-numbered in the BR TOPS scheme. They are also known by their nickname as "Choppers", a name derived from the distinctive beat that the engine produces under load which resembles the sound of a helicopter.

A total of 26 Class 20 locomotives are preserved, including the first of the class built, D8000, which is part of the National Railway Collection at the National Railway Museum in York.

1.2 Design & Specification

| | |
|--------------------------|---|
| Builder | English Electric at Vulcan Foundry and Robert Stephenson and Hawthorns |
| Locomotive Weight | 73.2 tonnes |
| Vehicle Length | 46 ft 9 1/2 in (14.262 m) |
| Vehicle Width | 8 ft 9 in (2.67 m) |
| Fuel Capacity | 460 US Gal |
| Vehicle Power | 1,000 hp (746 kW) |
| Top Speed | 60 MPH (96 km/h) |
| Brake Types | Vacuum/Air |
| Tractive Effort | 42,000 lbf (186.8 kN) |

2 Rolling Stock

2.1 Class 20

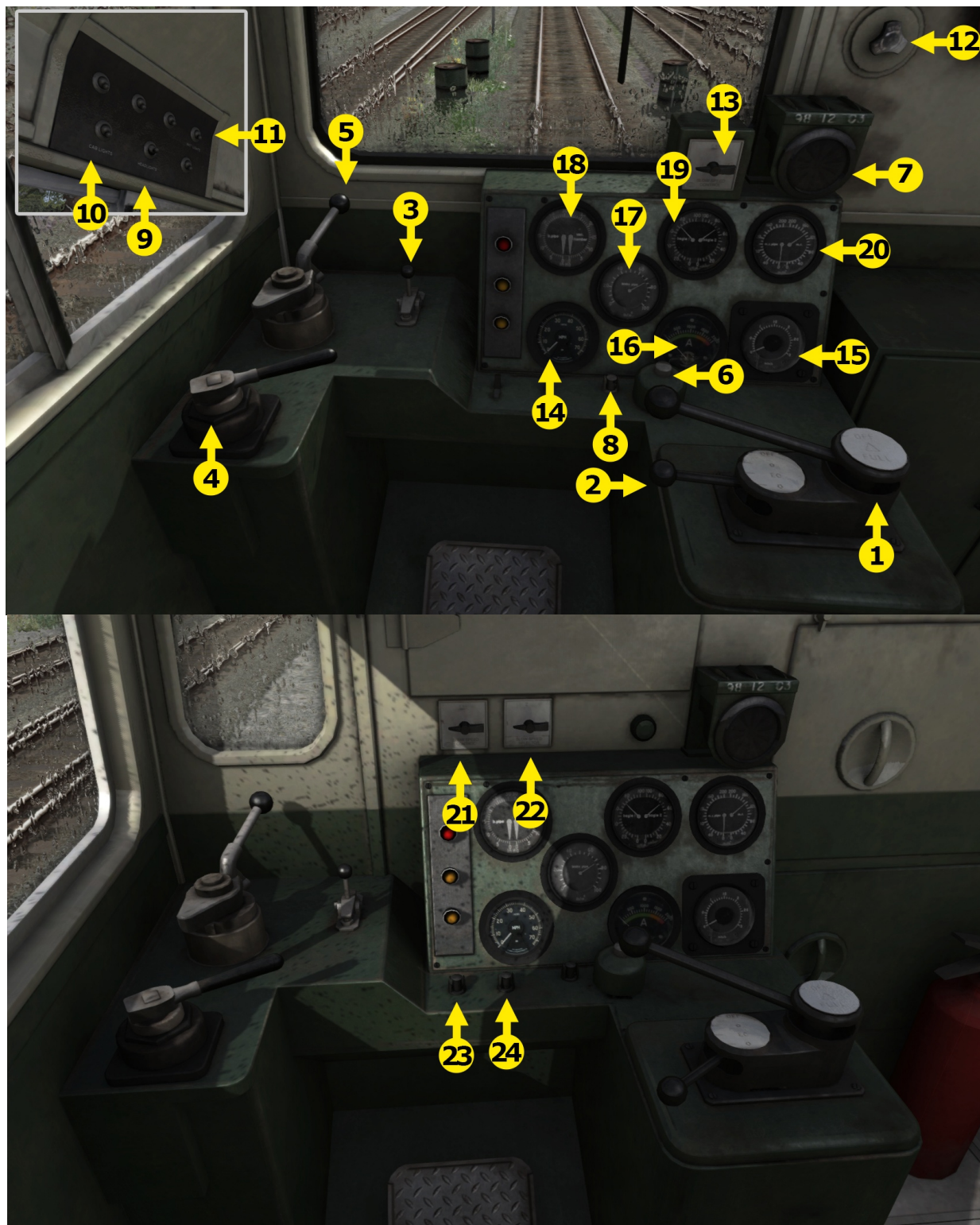


2.2 Wagons



3 Driving the Class 20

3.1 Cab Controls



| | | | |
|----|--------------------------|----|-------------------------------------|
| 1 | Throttle | 13 | Slow Speed Control On/Off |
| 2 | Reverser | 14 | Speedometer (MPH) |
| 3 | Horn | 15 | Slow Speedometer |
| 4 | Loco Brake | 16 | Ammeter |
| 5 | Train Brake | 17 | Air Brake Pipe Pressure |
| 6 | AWS Reset | 18 | Vacuum Pipe/Chamber Pressure |
| 7 | AWS Sun Flower | 19 | Air Bogie Brake Pressures |
| 8 | Sander | 20 | Air Reservoir/ Brake Pipe Pressures |
| 9 | Headlights Switch | 21 | Slow Speed Control On/Off |
| 10 | Cab Light Switch | 22 | Slow Speed Control Set 1 / 2 / 3 |
| 11 | Instrument Lights Switch | 23 | Engine On/Off |
| 12 | Wiper Switch | 24 | Engine On/Off |

3.2 Headcode Disks

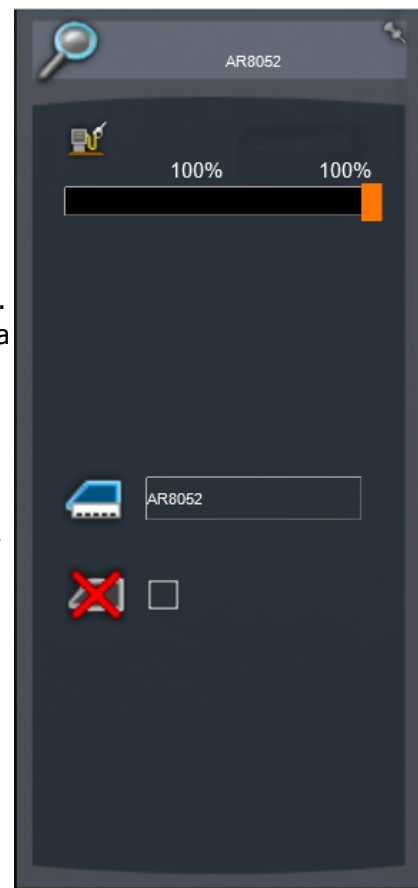


The Class 20 locomotive in this product contain lamps on the front of the locomotive that can be toggled on and off by using the key combinations **CTRL+SHIFT+1** thru **CTRL+SHIFT+4**. The number corresponds to the lamp position as shown in the image on the above.

For those creating their own scenarios, it is also possible to set the head code formation by prefixing the locomotive number with the appropriate letter within the scenario editor. For example, if the locomotive is to be numbered 8045, it is a class H train and is facing forward, then the value to set in the loco number is HF8045. Another example, if the locomotive is rear facing and it was a class A train then the loco number would be AR8045.

Note: if you do not set the class, then the loco number will not appear as six characters must be specified in the number field.

These codes can be set up for both AI (computer controlled) trains and for the player train. The player will still be able to change their lamp configuration using the above key combinations during the scenario if they wish, the setting in the loco number only affects the initial lamp configuration.



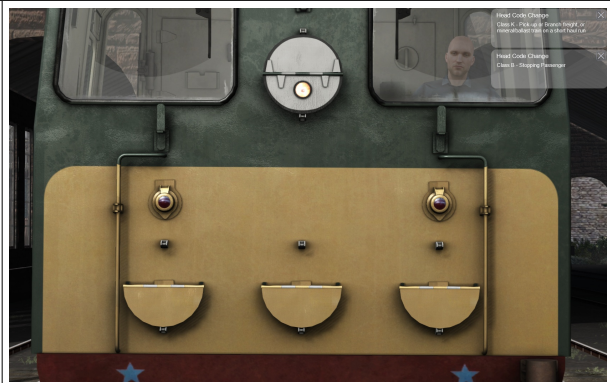
Class A

Express Passenger, Breakdown Train or Snow Plough en-route to a job.



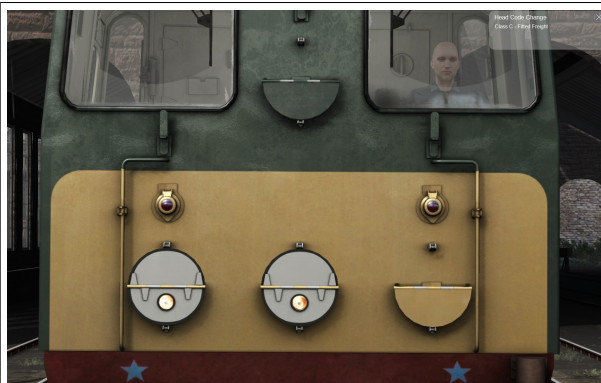
Class B

Stopping Passenger, Rail Motor or a Breakdown Train returning from a job.



Class C

Parcels, fish, Livestock, Milk, Fruit or perishables, all fitted stock.

**Class D**

Express freight or livestock with at least 30% fitted stock connected to the loco.

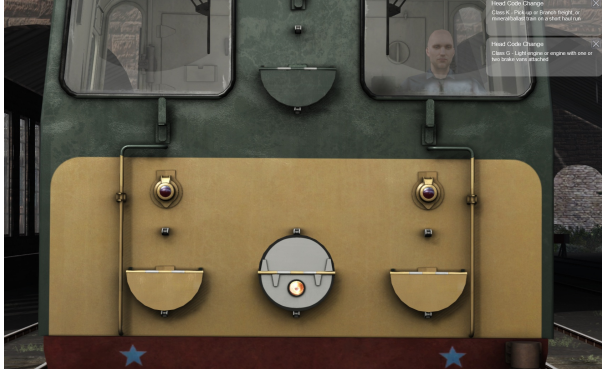
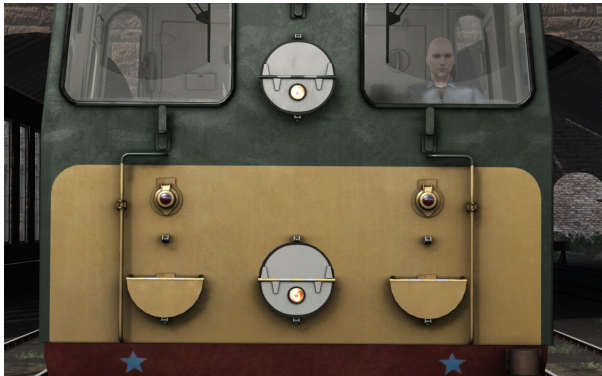
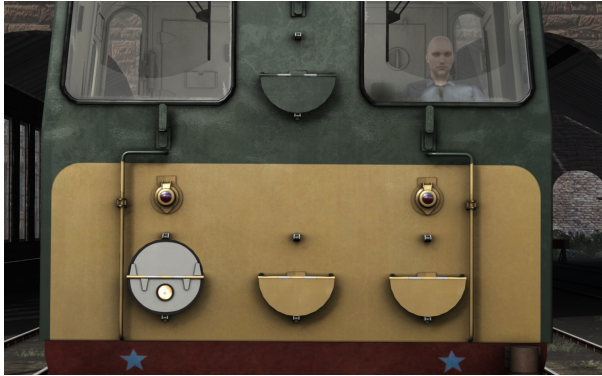

**Class E**

Express freight with at least four fitted vehicles connected to the loco, or a short unfitted express freight.

**Class F**

Express freight all unfitted stock.



| | |
|---|--|
| <p>Class G Light engine, or engine with one or two brake vans attached.</p> |  |
| <p>Class H Through Freight or Ballast train.</p> |  |
| <p>Class I NOT USED</p> | |
| <p>Class J Through mineral or empty wagon train.</p> |  |
| <p>Class K Pick-up or Branch freight, or mineral or ballast train on a short haul run.</p> |  |

3.3 Slow Speed Control (Merry Go Around Train)

A merry-go-round train, often abbreviated to MGR, is a block train of hopper wagons which both loads and unloads its cargo while moving. In the United Kingdom, they are most commonly coal trains delivering to power stations. These trains were introduced in the 1960s, and were one of the few innovations of the Beeching axe, along with investment from the CEGB (Central Electricity Generating Board) and the N.C.B. (National Coal Board) into new power stations and loading facilities.

To enable or disable the Slow Speed Control press **Shift+B**, or press the in cab switch marked 13 or 21 on the control key image shown above.

To switch in between speeds press **CRTL+B** and **CRTL+SHIFT+B**, or press the in cab switch marked 22.

There are three speed settings.

Speed Set 1 = 0.7 mph

Speed Set 2 = 1.7 mph

Speed Set 3 = 2.7 mph

4 Scenarios

4.1 Simple Controls Tutorial: Class 20

Learn to drive the Class 20 using simple controls.

4.2 Expert Controls Tutorial: Class 20

Learn to drive the Class 20 using expert controls.

4.3 Stranraer Struggle

A Black 5 locomotive scheduled to haul the 0800 Stranraer Town to Newton Stewart service has failed. No other locomotives are currently ready and you will be required to use your EE Type 1 to haul this passenger service.

- **Duration** **45 minutes**

4.4 Tanker Train

Diesel haulage is starting to take over various workings on 'The Port Road' using newly built EE Type 1 locomotives. Today you will be conveying a rake of 14 ton tanks on a service between Kirkcudbright and Dumfries.

- **Duration** **35 minutes**

5 Acknowledgements

RailSimulator.com would like to thank the following people for their contribution to the development of the Class 20.

Beta Testing Team

