



# Class 66 Diesel Locomotive Pack 03 Add-on



<b>1 BACKGROUND .....</b>	<b>2</b>
1.1 Class 66 .....	2
1.2 Technical Specification .....	2
<b>2 LOCOMOTIVE AND ROLLING STOCK .....</b>	<b>3</b>
2.1 EWS Class 66 Locomotive.....	3
2.2 JGA Aggregate Hopper Wagon .....	4
2.3 OTA Timber Wagon .....	5
<b>3 CLASS 66 CAB .....</b>	<b>6</b>
3.1 Brake Levers.....	7
3.2 Additional Keyboard Controls.....	7
<b>4 SCENARIOS.....</b>	<b>8</b>
4.1 Leaving Law (Easy) .....	8
4.2 Timber Treatment (Medium) .....	8
4.3 Hoppers for Hunterston (Hard) .....	8
<b>5 ACKNOWLEDGEMENTS.....</b>	<b>9</b>

# 1 Background

## 1.1 Class 66

When British Rail's freight operations were privatised in 1996, "English, Welsh and Scottish Railway" (EWS) bought a large proportion of British Rail's freight operations. Many of the locomotives that EWS inherited were at the end of their useful life and EWS approached General Motors Electro-Motive Division (EMD), to supply a replacement. EMD offered their JT42CWR model which incorporated General Motors' version of (self-steering) bogies that reduce flange wear, improve adhesion and reduce track load. The locomotive design uses standard EMD components of its era including D43 traction motors. The new JT42CWR locomotives were finally given the Class 66 designation in the British classification system (TOPS). Two hundred and fifty were initially ordered and built in London, Ontario, Canada.

In 1998, Freightliner placed an order for locomotives. They were followed by GB Railfreight, and then Direct Rail Services. More recent orders for additional locomotives have seen the introduction of low-emission variants and other operators such as Colas Rail now utilise a number of locomotives.

The Class 66 design has also been introduced to Continental Europe where it is currently certified for operations in Germany, the Netherlands, Belgium, Luxembourg, Sweden, Norway, Denmark, France, and Poland. They currently operate on routes between Sweden and Denmark and between Germany, Belgium, The Netherlands and Poland.

## 1.2 Technical Specification

<b>TOPS Number</b>	Class 66
<b>Wheel Arrangement</b>	Co-Co
<b>Weight</b>	126 tonnes
<b>Height</b>	12ft 10in (3.91m)
<b>Length</b>	70ft ½in (21.34m)
<b>Width</b>	8ft 8¼in (2.65m)
<b>Bogie Wheel Base</b>	13ft 7in (4.14m)
<b>Bogie Pivot Centres</b>	43ft 6in (13.26m)
<b>Wheel Diameter</b>	3ft 6in (1.06m)
<b>Minimum Curvature</b>	4 chains (80.46m)
<b>Engine Type</b>	GM 12N-710G3B-EC
<b>Engine Output</b>	3,300 hp (2,460 kW)
<b>Power at Rails</b>	3,000 hp (2,238 kW)
<b>Maximum Tractive Effort</b>	92,000 lb (409 kN)
<b>Continuous Tractive Effort</b>	58,390 lb (260 kN)
<b>Design Speed</b>	87.5 Mph (141 km/h)
<b>Maximum Permitted Speed</b>	75 Mph (121 km/h)
<b>Brake Type</b>	Air, Westinghouse PBL3
<b>Braking Force</b>	68 tonnes
<b>Traction Alternator</b>	GM EMD AR8
<b>Traction Motors</b>	GM EMD D43TR
<b>Number of Traction Motors</b>	6

## 2 Locomotive and Rolling Stock

The following items are included in this DLC pack.

### 2.1 EWS Class 66 Locomotive



## 2.2 JGA Aggregate Hopper Wagon



This modern 90 Tonne hopper wagon utilises closing top doors to minimise loss of load and dust during transport. The main cargo for these wagons is stone aggregate which is discharged from three sets of lower doors beneath the wagon.

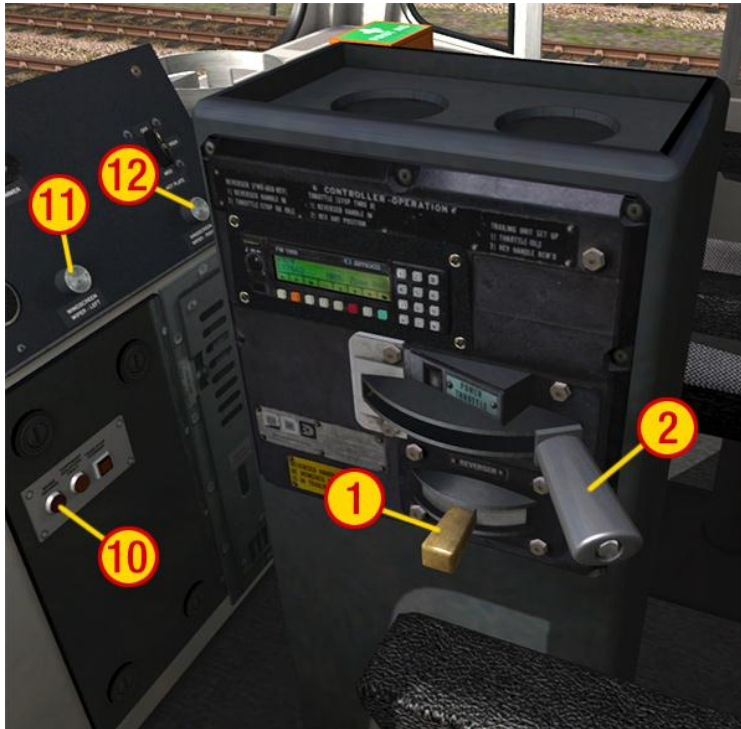


## OTA Timber Wagon



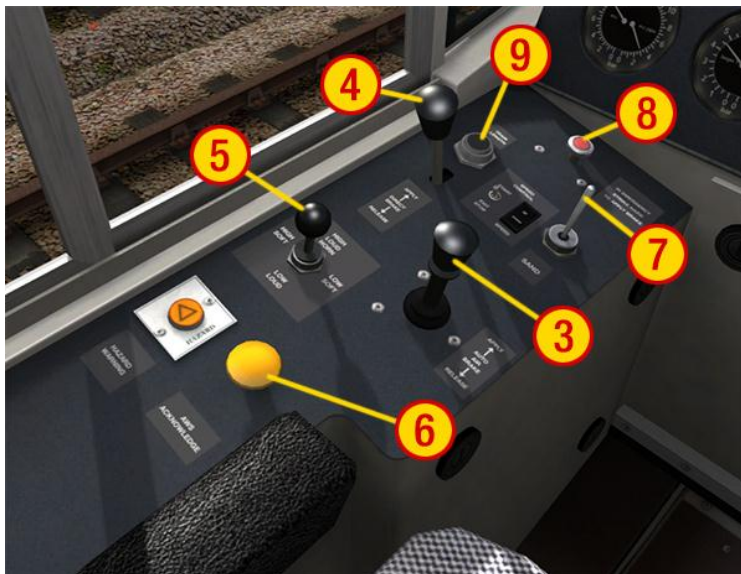
The OTA wagons were modified from surplus air-braked wagons into timber carriers. This particular model is based on a re-built VDA van (retaining the van ends). Prior to this, timber was carried in open wagons, or in converted vacuum-braked wagons.

### 3 Class 66 Cab



- 1 – Reverser
- 2 – Throttle
- 3 – Train Air Brake Lever
- 4 – Loco Air Brake Lever
- 5 – Horn Lever
- 6 – AWS Reset
- 7 – Sand Lever
- 8 – Emergency Brake Plunger
- 9 – Train Length Button
- 10 – AWS/TPWS Brake Lamp
- 11 – Left Wiper Switch
- 12 – Right Wiper Switch

Note: The Train and Loco Brake levers (3&4) are not used when Train Simulator Driving Model is configured for "Simple Mode" under Game Settings. Under this setting the throttle and brakes are controlled together from the Throttle Lever (2)



- 13 – Passenger/Goods Brake Timing Switch and Indicators
- 14 – Parking Brake Buttons
- 15 – Engine Start/Stop Buttons
- 16 – Main Reservoir Gauge
- 17 – Bogie Brake Cylinder Gauge
- 18 – Air Flow Indicator
- 19 – Brake Pipe Pressure Gauge
- 20 – Speedometer
- 21 – Alternator Output Gauge
- 22 – AWS Indicator





- 23 – Cab Light Switch
- 24 – Instrumentation Light Switch
- 25 – Headlight/Taillight Switch
- 26 – Headlight/Taillight Proving Panel

### 3.1 Brake Levers

Both the Train Air Brake and Loco Air Brake levers have three functional positions:

- In the upright position they “Hold” the current brake pressure
- When pulled fully back they gradually “Release” the brakes
- When pushed fully forwards they gradually “Apply” the brakes

The Train Brake lever is centre sprung both in the cabin and on the game HUD and the Loco Brake lever is only sprung forwards for brake application and can be left resting in the “Release” position when required.

When using the Train Brake lever a target brake pressure can be selected as indicated by the outer needle on the Brake Pipe Pressure Gauge. The actual brake pressure will then gradually change to match the selected target as shown by the larger inner needle.

The rate that the brake pressure changes is dictated by the brake timing selection (“Passenger” or “Goods”) as selected and indicated on the main console (item 13 shown on the previous page). When in “Goods” brake timing mode the brake pressure changes more slowly.

### 3.2 Additional Keyboard Controls

L – Toggle Cab Light	SPACE – Horn High
CTRL+L – Toggle Instrument Lights	CTRL+SPACE – Horn High Soft
U – Toggle Train Length Button	B – Horn Low
Y – Toggle Pass/Goods Brake Timing	CTRL+B – Horn Low Soft
V – Toggle Left Wipers Switch	
CTRL+V – Toggle Right Wipers Switch	

## 4 Scenarios

The following scenarios for our West Coast Main Line North route have been included:

### 4.1 Leaving Law (Easy)

There are currently six JGA wagons stabled undercover at Law Sidings and are awaiting transfer to Mossend Yard. Having arrived at Law, you will now be conveying these wagons to Mossend Yard.

### 4.2 Timber Treatment (Medium)

After a selection of OTA wagons were found to have minor defects, they were sent to Earnock Wagon Repair in order to be looked at. With the work now complete, you will be taking the repaired wagons from the loop at Earnock and delivering them to Carstairs.

### 4.3 Hoppers for Hunterston (Hard)

Work is currently underway at Hunterston to re-ballast the entire terminal. Several trains have been taking materials to and from the site via the West Coast Main Line. In charge of a working from Tyne Yard to Hunterston, you will be driving the leg from Carlisle to Polmadie where another driver will take over.



## 5 Acknowledgements

RailSimulator.com gratefully acknowledges the assistance Oovee Ltd. in creating sounds and simulation for this locomotive.