



EMD SD45 for Train Simulator 2013 Owner's Manual





A little bit of history

The EMD SD45 is a six-axle diesel-electric locomotive built by General Motors Electro-Motive Division between December, 1965, and December, 1971. Power was provided by an EMD 645E3 twenty-cylinder engine which generated 3,600 HP. This locomotive shared the same common frame with the EMD SD38, EMD SD39, EMD SD40, and EMD SDP40.

A total of 1,260 units were built for American railroads. Following this, the SD45-2 was released as its upgraded replacement. Additional models, like the SD45T-2, featuring the Tunnel Motor design, were released.

SD45s had several teething problems. Reliability was not as high as anticipated, due to the twenty-cylinder prime mover's propensity to break its own crankshaft. Even though it created an extra 600 horsepower (450 kW) from the 16-645 in the SD40, some railroads felt it just wasn't worth it, even after EMD redesigned the block to reduce crankshaft flexing.

Buyers included the Southern Pacific, Santa Fe, the Great Northern Railway and the Northern Pacific Railway. (Contrary to what many believe, the SD45 was not a "gas guzzler." It produced more power per unit of fuel than its 3,000 hp (2,240 kW) counterpart, the SD40. However, it did consume much more fuel at idle than the 16 cylinder prime mover in the SD40, and at the time, standard operating practice amongst US railroads was to leave a diesel locomotive idling when not in use.) Many SD45s can still be found, some rebuilt with sixteen-cylinder 645s, operating for lease companies. SD45s and SD45-2s owned by Montana Rail Link have maintained their 20 cylinder prime movers. Wisconsin Central used to roster a large fleet of SD45s, but its sale to CN has recently retired the entire fleet, with mass scrappings. Montana Rail Link is now also starting to sell some engines for scrap.

Source: http://en.wikipedia.org/wiki/EMD_SD45





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Cab Controls

Cab Controls are identical to the default locomotives with some extra ones.

L: Cab Lights

I: Selector shift up

K: Selector shift down

M: Toggle front mirrors

Shift + M: Toggle rear mirrors

N: Strobe

U: Classlight Colour

Shift + U: Classlight Colour

Cab doors and windows can be opened with the mouse.



- 1) Engine Start / Shut down
- 2) Numberboards lights
- 3) Class lights
- 4) Platform lights
- 5) Train brake
- 6) Loco brake
- 7) Horn
- 8) Air gauges
- 9) Ammeter
- 10) Speed recorder
- 11) Warning lights
- 12) Sander
- 13) Selector indicator
- 14) Throttle indicator
- 15) Selector
- 16) Throttle
- 17) Reverser
- 18) Indicator lights
- 19) Cab lights
- 20) Front Dim lights
- 21) Rear Dim lights
- 22) Bell

Note: To use dynamic brakes within the cab you should place the selector lever in DYN position, then move the Throttle lever to apply brakes.



Included Scenarios

1) NAP TIME

You are at Johnstown waiting to leave South Fork. You are to take a freight train with two SD45 locomotives. Once in South Fork you will need to sort wagons in to different sidings and then leave your engines in Siding 1.

Tasks:

- Drop off wagons at South Fork 7.
- Drop off wagons at South Fork 6.
- Drop off wagons at South Fork 5.
- Couple wagons at South Fork 7.
- Drop off wagons at South Fork 2.
- Stop at South Fork 1.

2) TURN IN SLOPE

You are working at Slope this morning and after turning the engine on the turntable you will need to move some wagons to different sidings. The weather is bad but it shouldn't interfere with your work.

Tasks:

- Turn the engine in the turntable.
- Couple wagons at Slope Yard 2.
- Couple wagons at Slope Yard 4.
- Drop off wagons at Slope Yard 6.
- Couple wagons at Slope Yard 3.
- Drop off wagons at Slope Yard 6.
- Stop at Slope Yard 1.

3) LOST AMONG WAGONS

You need to assemble a consist according to each wagon type tonight and then put the completed train in a siding ready to depart. You must finish before 8am.

Tasks:

- Couple wagons at Cresson Yard 3.
- Couple wagons at Cresson Yard 2.
- Drop off wagons at Cresson Yard 6.
- Couple wagons at Cresson Yard 2.
- Couple wagons at Cresson Yard 7.
- Drop off wagons at Cresson Yard 6.
- Stop at Cresson Yard 4.



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4) TOO MUCH RAIN AND VERY FEW WAGONS

Take this train consisting of an SD45 and an SD40-2 with a few wagons that must be delivered as soon as possible. You will need to make a detour to Lilly to pick up some more cars along the way. It's raining, so you may find the sander helpful.

Tasks:

- Couple wagons at Cresson Engine 1.
- Couple wagons at Lilly Siding 2.
- Stop at C Wwd Receiving Yard 1.





How to use this in your own scenario



- 1) Open your desired route.
- 2) Press Esc key.
- 3) Click on World editor from the pop up menu.



- 4) Go to the Tool Box panel.
- 5) Click on the Scenario icon.
- 6) Click yes from the warning pop up.



- 7) Go to the Browser panel.
- 8) Click on the Object Set Filter icon.



- 9) Go to the Browser Panel at the right of the screen.
- 10) Click the roll out menu.
- 11) From the roll out menu click on DTM.



- 12) Click the SD 45 NS, NW or SOU checkbox.



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- 13) Return to the Browser panel.
- 14) Click on Engines & Tenders icon.
- 15) Click the EMD SD45 N&W, NS or SOU.
- 16) Click on the track to place it.



- 17) Return to the Tool Box panel.
- 18) Click the Driver icon.
- 19) Click on the engine.



- 20) Click the Play icon.
- 21) Save the changes in your scenario.
- 22) Drive your SD 45.



EMD SD45

Included rolling stock



Airslide Hopper NS.



Boxcar 50ft NS.



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Gondola 52 ft SOU with three loads: Lumbre, mt, and pipes.



Boxcar 50ft SOU.



Caboose NW.

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