

Kawasaki Rail Car, Inc.

ABOUT US



Dynamic, is one word to describe the 405 passenger cars being delivered to the Metro-North Railroad and Connecticut Department of Transportation.

MNR M8

The M-8 cars consist of three types of propulsion systems which allow it to operate from Grand Central Terminals third rail, to New Havens' 12kV catenary and beyond to Shorline East's route 25kV catenary.

Although the complex electrical system goes mostly unnoticed the comfort level of the cars does not with roomier, contoured seats, larger windows and better lighting.

SPECIFICATIONS

CAR LENGTH	85' - 0"
CAR WIDTH	10' - 6"
CAR HEIGHT	14' - 3"
WEIGHT	N/A
MAXIMUM SPEED	100 mph
SEATED PASSENGER	CAR A - 111 CAR B - 101

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M8 (railcar)

From Wikipedia, the free encyclopedia

The M8 is an electric multiple unit railroad car built by Kawasaki for use on the New Haven Line of the Metro-North Railroad. It will replace the current fleet of 240 M2s which are nearly 43 years old, as well as 54 M4s and 48 M6s which entered service in 1987 and 1993 respectively. [5] On May 17, 2013, several cars were damaged in a train accident in Fairfield, Connecticut. [6]

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Design [edit]



Bike hook test in Fall 2011.

The M8 is similar in design to the M7 car used on the Harlem Line and the Hudson Line. Like the M7, the M8 is able to pick up 750 Volt DC direct current power from underruning third rail for operation along the New Haven Line from Grand Central Terminal to Pelham, where the traction power source is transferred to the overhead catenary wire, the overhead wire is at a nomimal 12.5 kV AC power from overhead lines via Pantographs for operation from Pelham, New York to New Haven, Connecticut (as well as along the New Canaan Branch), and 25 kV AC power from catenary for operation along the Shore Line East route east of New Haven to New London, Conn. Unlike in earlier classes, changeover between the two AC voltages can be made by the engineer while on

the move.[7]

In response to rising number of people seeking to use their bicycle to solve the "last mile" problem between Metro-North stations and destinations, ConnDOT has pledged to provide hooks for storage of two bicycles in the disabled riders area of each rail car. In the event that a disabled rider boards a car, all cyclists must move their bicycles to the entry vestibule. In spite of the hook installation, during peak travel periods only folding bicycles are permitted aboard most Metro North trains.

Exterior design [edit]

The exterior design of the new M8 rail car is red, in keeping with the traditional exterior color of the New Haven Line rail cars. The body shape is similar to the M7 rail cars that are in operation on the Hudson and Harlem lines.

The Connecticut Department of Transportation order consists of 300 cars, with an 80 car option order. This option was approved on August 11, 2010. [8][9] Full production of the M8's was scheduled to begin in early 2010 but has since been delayed. [10] Kawasaki has cited problems with steel suppliers and sub-contractors (which is responsible for 60% of the cars). Once production is at full output

In December 2010 the first 24 cars were received and began to undergo testing. [11]



Metro-North M8 train at Port Chester, NY along the New Haven Line

In service March 2011-present[1] Kawasaki Heavy Industries Manufacturer

M-Series Family name

Number built 391 out of 405 car order, [2]

with an option for 25 more[3]

Formation 190 Married pairs, 25

Singles

Seated passengers: Capacity

110 (A car); 101 (B car)[4]

Operator Metro-North Railroad Connecticut Department of

Transportation

Specifications

Car length 85 ft 0 in (25,908 mm)[4] Width 10 ft 6 in (3,200 mm)[4]

100 mph (161 km/h) Maximum speed

(Design)

80 mph (129 km/h)

(Service)

Weight 144,850 pounds

(65,700 kg) (A car), 143,780 pounds (65,220 kg) (B car)[4]

Power supply Third rail, Catenary Electric system 750 VDC (Third rail) 12.5 kV 60 Hz AC (s)

(Catenary)

25 kV 60 Hz AC (Catenary)

Current Contact shoe collection Pantograph method

Braking system

Regenerative / Pneumatic

Coupling system Budd Pin and Cup coupler

4 ft 8½ in (1,435 mm) Track gauge

Delivery schedule [edit]

the cars will be delivered at a rate of ten per month.

The cars were originally supposed to go into revenue service in December 2010, however, because of technical problems, revenue

service was deferred until March 1, 2011.^{[1][12][13]} The first run of the initial 8 car set (consisting of cars 9114, 9115, 9116, 9117, 9112, 9113, 9108, and 9109) originated in Stamford at 10:30am, arriving in Grand Central Terminal at 11:28am. A total of ten 8-car train sets were slated to enter service by the end of the year.^[14]

On May 7, 2011, Kawasaki announced that deliveries of 20 cars of the 80 scheduled to enter service by the end of the year would be delayed due to supply problems; Kawasaki said it would build the cars at a later date and absorb the costs incurred.^[15] At the time of the announcement, 16 cars had entered service, with an additional ten delivered but not yet in service. ^[15]

Two months later, an investigative report by WABC-TV's news operation examined correspondence between Kawasaki and Metro-North over the delays in introducing the cars. At the time it had been claimed the cars merely had software problems, but the documents reporters obtained under New York's Freedom of Information Law showed Kawasaki repeatedly asking for deadline extensions over issues such as bad weather and financial difficulties at the company that supplied the onboard toilets. Railroad officials complained in emails reviewed by the channel that some of the requests "defie[d] logic" and were a waste of time. Kawasaki said such multiple delays were "not unusual given the complexity of the cars and suppliers" and were often beyond their control. [16]

On July 20, 2011, the Connecticut Department of Transportation announced the order of 25 unpowered M8 railcars, with options for up to 25 more, at a cost of US\$93 million to replace the 48 car M6 fleet.^[17]

On October 16, 2012, Metro-North announced that they would be installing 15 weekday and 30 weekend M8 trains to their schedule to accommodate increased ridership.^[18]

On January 29, 2014, the MTA board approved a miscellaneous procurement to purchase three additional M8 cars (one pair and one additional B car; to replace cars lost in the Fairfield Crash), twelve car trucks, spare parts, additional bench test equipment and repairs to four additional M8's. Of the total cost of \$36 million, \$8.4 million will be funded by a credit from Kawasaki in the original contract. The remainder will be funded by Metro-North and ConnDOT.

Current Information [edit]

According to Metro-North, as of December 17, 2014, 391 cars have been delivered to state property; 376 cars have been accepted into regular revenue service rotations. 15 cars (including 11 single car units) are currently being tested or inspected by Kawasaki. As of November 9, 2014, M8s provide 94% of service on weekdays, and all service on weekends. The order is expected to be completed during the first quarter of 2015.^[19]

Technical data [edit]

- Builder: Kawasaki Rail Car, Inc.
- Car Numbers (Ownership / Type):
 - 9100-9199 (CDOT / Married Pair)
 100 cars
 - 9200-9299 (MTA / Married Pair)
 100 cars
 - 9300-9399 (CDOT / Married Pair)
 100 cars
 - 9400-9421 (MTA / Married Pair)
 22 cars
 - 9460-9476 (MTA / Single Car; Even # Only)
 9 cars
 - 9500-9519 (CDOT / Married Pair)
 - 9560-9590 (CDOT / Single Car; Even # Only)
 16 cars
 - 9600-9623 (CDOT / Married Pair)
 24 cars
 - 9530/9631 9542/9643 (CDOT / Potential Cafe Married Pairs; 95xx Even # Only, 96xx Odd # Only)
 14 cars
- Starting Tractive Effort (per car): 135 kN (30,000 lb_f), Limited to 67 kN (15,000 lb_f)

Cars damaged in Fairfield train crash [edit]

Main article: Fairfield train crash

At approximately 6:10 PM Eastern time on May 17, 2013, an M8 passenger train was heading east from New York City on Metro-North's New Haven line when it partially derailed, colliding with an oncoming train coming from the New Haven line's east end. The accident occurred between the Bridgeport and Fairfield Metro stations. The cause of the accident is suspected to be a fractured rail joint, though it is still unclear whether the fracture was the



cause of the accident, or if the track was damaged as a result of it. 72 people were injured in the accident, 5 of those being serious injuries.

Though the event was disastrous, no lives were lost. Senator Richard Blumenthal of Connecticut credited the M8 railcars' design with potentially saving lives.^[20]



Gallery [edit]











Lead Car 9109 being tested in New Haven. This 8 car set was the first in service on the New Haven Line.



The interior of a Metro North M8 car.

M8 Control Cab

New M8 cars are on display at Grand Central during the Parade of Trains in honor of GCT's centennial



Metro Norths being shipped by CSX in Deshler, Ohio, United States

See also [edit]

- M1/M3 (railcar)
- M7 (railcar)
- M9 (railcar)
- Metro-North Railroad
- New Haven Line

Wikimedia Commons has media related to M8 (railcar).

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