

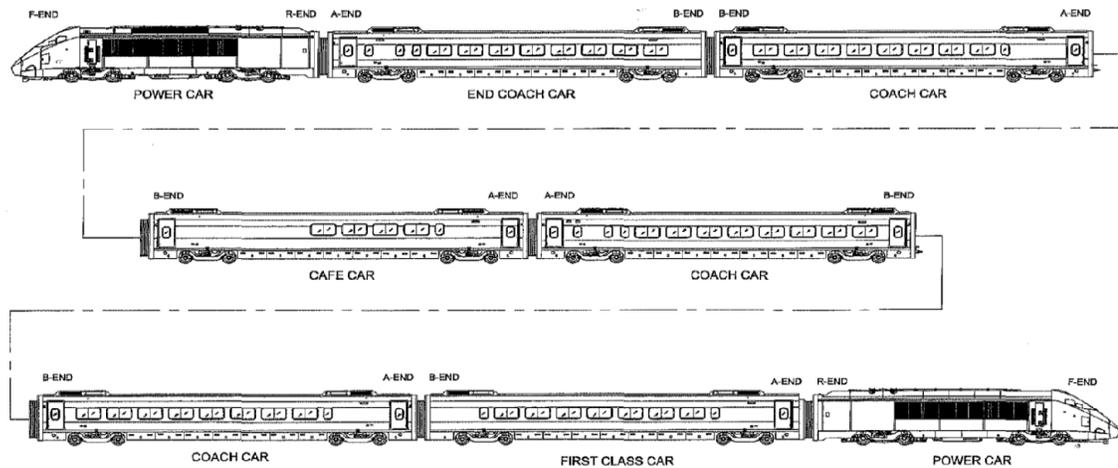
**Amtrak
Acela High Speed Trainset
Mechanical Department**



Acela Trainset Typical Configuration

Equipment Characteristics

The typical configuration of the trainset is 1-6-1. One power car, six passenger cars, and another power car coupled in the following order: leading power car, one end coach car, one coach car, one café car, two coach cars, one first class car, trailing power car.



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Figure 1-1
High-Speed Trainset - Typical 1-6-1 Configuration

Acela Data

Trainset Schedule

Weekdays - Operate 16 trainsets on 32 frequencies

Saturday - Operate 7 trainsets on 9 frequencies

Sunday - Operate 13 trainsets on 19 frequencies

Mileage

Under the present trainset schedule, the trainsets operate 11,320 miles each weekday, 2,712 miles on Saturday, and 6,332 miles on Sunday. Since the beginning of revenue service, the trainsets have averaged over 1.68 million miles each for a total of 33.6 million miles to date.

Trainset Data

Type:.....High Speed Electric Trainset
Train Consist:.....2 Power Cars and 6 Passenger Cars
Operating Speed:.....150 MPH
Braking Distance at Service Rate:.....10,400 ft
Number of Passengers per Trainset:.....304
Trainset Total Weight:.....1,171,000 lb
Trainset Length Over Pulling Faces:.....663 ft 8-3/4 in

Power Car Data

HP Equivalent:.....6,169 HP
Driving Wheels (4 Pairs)
Diameter (New).....40 in
Weight on Drivers
Maximum:.....200,000 lb
Major Dimensions
Length Over Pulling Faces.....69 ft 7-3/8 in
Rail to Roof Height:.....14 ft 2 in
Width (Over Side Sheets):.....10 ft 5 in
Height Over Fully Extended Pantograph:.....(Greater Than) > 24 ft 6 in up to 25 ft 2 in
HVAC
Air Conditioning Capacity:.....1.5 Tons

Passenger Cars Data

Model Designation
Length Over Pulling Faces:.....87 ft 5 in
Width Over Side Sheets:.....10 ft 4-1/2 in
Rail to Roof Height:.....13 ft 10-5/8 in
Floor Height Above Rail:.....4 ft 3 in (51 in)

Acela Data (Cont'd)

Width (Interior, Floor Level):.....	8 ft 11 in (107 in)
High Ceiling Height:.....	7 ft 1 in (85 in)
Aisle Width:.....	2 ft (24 in)
Wheel Diameter (4 Pairs):.....	36 in
Max Tilting Angle:.....	3 ft 2 in

NOTE: The maximum tilting angle is based on clearance considerations associated to the carbody geometry. The tilting system compensates the lateral accelerations induced by cant deficiency in curves.

Seats

End Coach Car:.....	65
Coach Car:.....	65
Café Car:.....	0
First Class Car:.....	44

Weight

End Coach Car:.....	129,000 lb
Coach Car:.....	127,000 lb
Café Car:.....	132,000 lb
First Class Car:.....	129,000 lb
Maximum Weight per Axle:.....	35,750 lb
Side Door Width:.....	3 ft (36 in)
Body End Door Width:.....	2 ft 8-1/2 in (32-1/2 in)
Collision Post Door Width:.....	3 ft 7 in (43 in)
HVAC: Air Conditioning Capacity.....	14 Tons

Periodic Maintenance

Traditionally periodic maintenance would be performed by shopping a trainset for a prescribed interval whereupon all required periodic maintenance would be performed. In order to achieve greater trainset availability, Amtrak utilizes a Continuous Maintenance approach to perform the periodic maintenance. The periodic maintenance requirements were broken up into 12 weekly packages that are performed each week during daily trainset inspection.

Major Work Program (MWP)

This program will involve overhaul of major systems including mandated COT&S and other age expiration requirements. The initiative represents the first comprehensive rebuild of Acela trainsets.

Amtrak shops in Wilmington and Bear will administer this activity which began during Q1 FY12. Expected program duration is approximately 3½ years.

Facilities Description

Washington DC High Speed Rail Facility

Location: 1401 W Street NE, Washington, DC 20018

Located in the Northeast section of Washington, DC this is the largest of the three facilities that were designed and built to maintain the High Speed Trains. Built within Amtrak's Ivy City Yard adjacent to an existing facility, this building has over 95,616 SF of shop floor space with three working tracks along with a release track for drop table operations. A run through track is also provided with a tandem wheel truing machine. In addition there is a mezzanine level with 11,430 SF of administration offices, employee break room, and large training/conference room.

In addition to performing daily Service and Inspections on the High Speed Trains, this facility is equipped with a 75 ton drop table to enable truck change outs, a 30 ton bridge crane, and a tandem wheel truing machine. This equipment is utilized to perform heavy maintenance and repairs.



New York High Speed Rail Facility

Location: 39-29 Honeywell Street, Long Island City, NY 11101

Located in Amtrak's Sunny Side Yard this facility was designed and built as a stand alone facility with 50,126 SF of shop floor space and a second level with 7,565 SF of administration offices including Yard Masters Suite. This facility is designed with two tracks to support daily Service and Inspection on the High Speed Trains.

This facility provides Turn-around Service for High Speed Trains being dispatched, north, and south from NYC Penn Station.

Boston High Speed Rail Facility

Location: 2 Frontage Road, Boston, MA 02118

Located in Amtrak's South Hampton Yard consists of 54,773 SF of shop floor area and 6,275 administrative office levels. This facility was designed to perform daily Service and Inspections, and Turn-around Service for the High Speed Trains being dispatch from Boston's South Station. Last year a 6400 SF expansion was completed to accommodate drop table and overhead crane equipment providing heavy repair capability for the facility.

