

## Washington Metropolitan Area Transit Authority 7000 Series Rapid Transit Railcar



In 2010, Washington Metropolitan Area Transit Authority (WMATA) selected Kawasaki to be its partner to meet its responsibility to serve the riding public of metropolitan area.

Kawasaki will design and manufacture the WMATA 7000 Series Rapid Transit Rail cars that will be used to replace the agency's aging fleets and add capacity to the Metrorail service. The 7000 Series will also be used for the new service to the Dulles International Airport.

Some of the important features of the 7000 Series include:

- Stainless steel carbody, used for the first time by WMATA, with advanced crash worthiness systems;
- New “quad-unit configuration” allowing the accommodation of 40 more passengers per 8-car train than an older model railcar grouping;
- 64 vinyl padded seats, energy efficient LED lighting, privacy screens in the vestibule area and resilient nonslip flooring;
- Added handholds in the door area and vertical poles at each seat providing total of 25% more linear feet of bars than the most recently built cars;
- Aisle width increases from 32 inches to 34 inches to accommodate all passengers, added designation of priority seating area;
- Ethernet Train Network as backbone of sophisticated vehicle system integration;

- Improved automated public address systems with reduced noise and clearer communication;
- Closed circuit television cameras for added safety and security;
- Two dynamic LCD route maps and four video screens in each car to allow customers to easily track train locations and station names; and,
- Linear Door System to allow smoother passenger boarding and reduced equipment maintenance.

## **General Vehicle Data**

	<b>A-Car</b>	<b>B-Car</b>
Unit Configuration	Married Pair (A - B)	
Track Gauge	56.5 inches (1,435 mm)	
Nominal Line Voltage	700VDC - Third Rail	
Passenger Capacity (Seated)	62	68
Car Length (over couplers)	75 feet (22.86 m)	
Car Width	10 feet, 1-3/4 inches (3.09 m)	
Car Height (above TOR)	10 feet, 10 inches (3.30 m)	
Floor Height (above TOR)	40 inches (1.1 m)	
Maximum Speed	75 mph (125 km/h)	
Car Performance	Acceleration: 2.8 mph/s (1.25 m/s <sup>2</sup> ) Deceleration: 3.0 mph/s (1.34 m/s <sup>2</sup> )	
Carshell Material	Stainless Steel	
Truck Type	In-board Type, Fabricated Structure, Bolster with Air Spring	
Propulsion System	AC Traction Drives with VVVF-IGBT Inverters	
Brake System	Air brake with regeneration and dynamic brake, Holding brake	
Train Control System	Automatic Train Protection (ATP) Automatic Train Operation (ATO) Automatic Train Supervision (ATS)	
Air Conditioning System	Roof Mounted type x 2 units/car	



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