#### **Equipment details**

**Bodies:** Aluminium extrusions welded and huckbolted (FICAS Technology).

Bogies: BTUK Flexible frame.

Wedgelock with pneumatic connections only on the A and A1 cars, swing bolt bar coupler Couplers:

between D and D1 cars, bolted bar coupler flange at all other positions.

Bombardier 3 phase AC, 75% motored. 24 motors, each rated at 75KW with Regenerative Traction System:

and Rheostatic braking.

Knorr-Bremse VVI20T oil free reciprocating – 3 Phase AC Motor. Compressors:

Knorr-Bremse EP2002 with PEC7 actuators. Brakes:

ATO: Westinghouse DTG-R (Distance to go - radio).

Radio transmission based system, Westinghouse, DTG-R. ATP:

Bombardier static converter, one per four car unit, on the B cars. Auxiliary power 110V dc control system with 102V 200Ah DC battery on the B cars. Supplies:

19 (A cars) or 22 (B/C/D cars) (including emergency lighting) fluorescent T5 Tubes via Saloon lighting:

individual inverters per car.

Emergency lighting: 7 (A cars) or 9 (B/C/D cars) battery-fed fluorescent T5 Tubes via individual inverters per car

normally forming part of the main saloon lighting.

Ventilation: Saloon forced ventilation system that consists of six side mounted ducting systems to take

the exterior air to air grilles mounted at head height. Dedicated cab air conditioning.

Passenger

An LED external facing front destination display with separate train number display per train

Information:

One external platform facing destination LED display per vehicle side.

Six internal side facing Saloon LED displays per car.

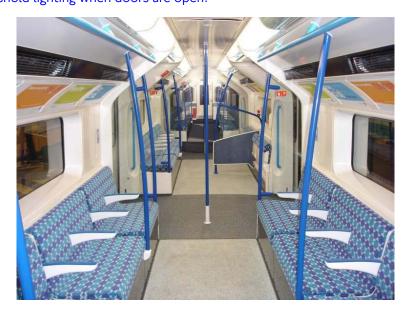
CCTV: OPO TTCCTV displayed on 2 monitors in cab via UHF leaky feeder.

Saloon CCTV system viewable in cab when stationary and recorded digitally.

Six electrically operated sliding doors per side, externally hung and configured as two double Doors:

doorways and two single door ways. Fitted with obstacle detection and sensitive edge plus

threshold lighting when doors are open.



# 2009 Tube Stock

# Victoria line



Built by Bombardier Transportation UK, Derby 2007-2011 Due to enter service in 2009 - 2012

Maintained by: LUL Nominee Company BCV

## **Principal characteristics**

1435mm Track gauge:

630v dc 3rd and 4th rail, shoe gear fitted to A and D cars Current system:

Types of vehicle: : Driving Motor car (DM)

: Trailer car (T)

: Non Driving Motor car (NDM)

: Uncoupling Non Driving Motor car (UNDM)

A(1) car - B car - C car - D(1) car Formation per unit:

A-B-C-D+DI-C-B-AIFormation per train (8):

Number of trains: 47 eight car.

One Person Operated (OPO) Operation:

Automatic Train Operation (ATO)

Manual Driving (Protected Manual or Restricted Manual)



Information sheet date: January 2011

Vehicle details and st	atistics			
	DM 'A'	Trailer 'B'	NDM 'C'	UNDM 'D'
Length over body ends:	16595mm	16345mm	16345mm	16345mm
Width of body:	2616mm	2616mm	2616mm	2616mm
Car height:	2883mm	2883mm	2883mm	2883mm
Tare weight	27.1 tonnes	21.6 tonnes	23.8 tonnes	25.8 tonnes
Tare weight of 8-car train:	197.3 tonnes			
Passenger door open width	1600mm	1600mm	1600mm	1600mm
(double)				
Passenger door open width	800mm	800mm	800mm	800mm
(single)				
Car number series:	11001-11094	12001-12094	13001-13094	14001-14094
		Odd nos. are South End facing (A-B-C-D)		
	Even nos. are North Facing (A1-B-C-D1)			
Vehicles in stock:	94	94	94	94
Grand total in stock	376			

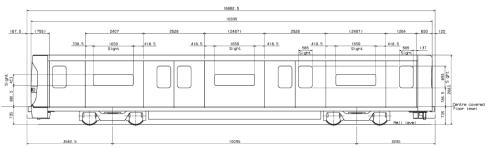
## Passenger accommodation:

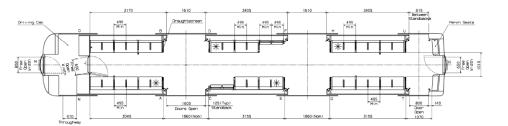
Please note that standing capacity figures exclude seating capacity Seating capacity: (Number of full seats per train) 252 Seating capacity: (Number of tip up seats, excluding wheelchair spaces) 24 4/12 Wheelchair spaces/ additional tip up seats 130.0 Standing capacities: Doorway Throughway (m<sup>2</sup>)<sup>a</sup> 23.2 Maximum observed standing capacity (5 customers per m²) 734 Maximum full load standing capacity (6 customers per m²)b 876 Theoretical crush standing capacity (7 customers per m²)c 1028 Theoretical design crush standing (E6325 A2) 1174

## **NOTES:**

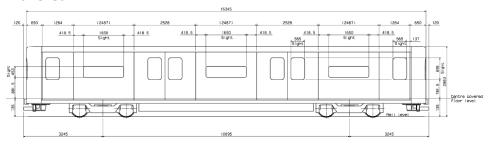
- a) Capacities here are figures **calculated** from floor area for design purposes
- b) For propulsion performance rating
- c) For structural and braking capacity (and JTC)

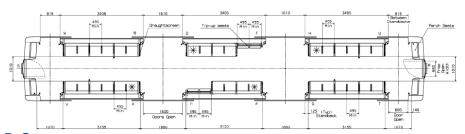
#### A Car





#### B & C Car





# D Car

