

UMTA-DC-06-0121-80-1

RHINE  
METRO RAIL

# ROSTER OF NORTH AMERICAN RAPID TRANSIT CARS 1945 TO 1980

July 1980  
Second Edition

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*Prepared by*  
**AMERICAN PUBLIC TRANSIT ASSOCIATION**  
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16. Abstract This document is a compilation of data on rapid transit cars built or currently on order between 1945 and 1980, and in service as of July 1980. It includes cars in the United States, Canada and Mexico. Data includes cost, performance, dimensions, weights, electrical equipment, heating and ventilating systems, traction motors, propulsion equipment, lighting systems, and trucks and suspensions. The Roster is organized by alphabetical order. Within each section, the cars are listed in chronological order and includes cars of the following transit systems:			
<ul style="list-style-type: none"> <li>● BART (San Francisco Bay Area Rapid Transit Authority)</li> <li>● BRRTS (Baltimore Regional Rapid Transit Authority)</li> <li>● CTA (Chicago Transit Authority)</li> <li>● GCRTA (Greater Cleveland Regional Transit Authority)</li> <li>● MARTA (Metropolitan Atlanta Rapid Transit Authority)</li> <li>● MBTA (Massachusetts Bay Transportation Authority)</li> <li>● WMATA (Washington Metropolitan Area Transit Authority)</li> <li>● MDCTA (Metropolitan Dade County Transportation Administration)</li> <li>● MUCTC (Montreal Urban Community Transit Commission)</li> <li>● NYCTA (New York City Transit Authority)</li> <li>● PATCO (Port Authority Transit Corporation)</li> <li>● PATH (Port Authority Trans-Hudson Corp.)</li> <li>● SEPTA (Southeastern Pennsylvania Transportation Authority)</li> <li>● STC (Sistema de Transporte Colectivo Organismo Publico Descentralizado)</li> <li>● TTC (Toronto Transit Commission)</li> </ul>			
The first edition contains information on cars in service in 1976, and is available from NTIS (PB266-620).			
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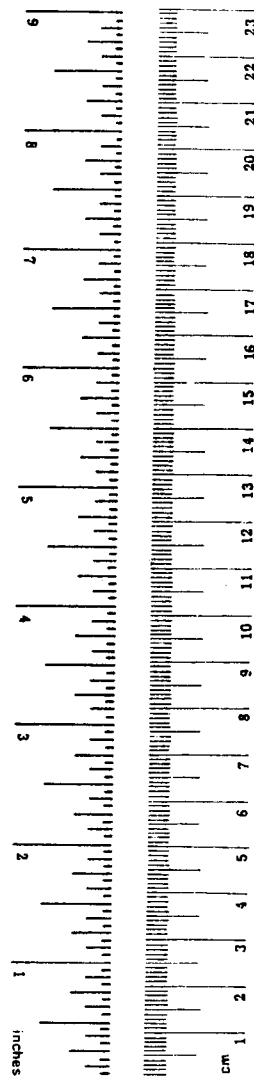
MAY 13 '83

## METRIC CONVERSION FACTORS

### Approximate Conversions to Metric Measures

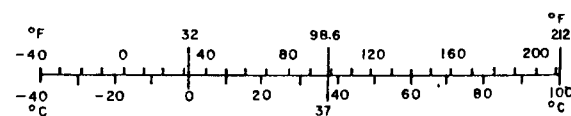
Symbol	When You Know	Multiply by	To Find	Symbol
<b>LENGTH</b>				
in	inches	*2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
<b>AREA</b>				
in <sup>2</sup>	square inches	6.5	square centimeters	cm <sup>2</sup>
ft <sup>2</sup>	square feet	0.09	square meters	m <sup>2</sup>
yd <sup>2</sup>	square yards	0.8	square meters	m <sup>2</sup>
mi <sup>2</sup>	square miles	2.6	square kilometers	km <sup>2</sup>
	acres	0.4	hectares	ha
<b>MASS (weight)</b>				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
<b>VOLUME</b>				
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft <sup>3</sup>	cubic feet	0.03	cubic meters	m <sup>3</sup>
yd <sup>3</sup>	cubic yards	0.76	cubic meters	m <sup>3</sup>
<b>TEMPERATURE (exact)</b>				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

\* 1 in = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price \$2.25, SD Catalog No. C13.10:286.



### Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
<b>LENGTH</b>				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
<b>AREA</b>				
cm <sup>2</sup>	square centimeters	0.16	square inches	in <sup>2</sup>
m <sup>2</sup>	square meters	1.2	square yards	yd <sup>2</sup>
km <sup>2</sup>	square kilometers	0.4	square miles	mi <sup>2</sup>
ha	hectares (10,000 m <sup>2</sup> )	2.5	acres	
<b>MASS (weight)</b>				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
<b>VOLUME</b>				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m <sup>3</sup>	cubic meters	35	cubic feet	ft <sup>3</sup>
m <sup>3</sup>	cubic meters	1.3	cubic yards	yd <sup>3</sup>
<b>TEMPERATURE (exact)</b>				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F





# TABLE OF CONTENTS

	<u>Page No.</u>
INTRODUCTION . . . . .	xvii
BART (San Francisco Bay Area Rapid Transit District) . . . . .	.1
General Data. . . . .	.1
Dimensions. . . . .	.2
Weights . . . . .	.6
Car Body. . . . .	.7
Coupler & Draft Gear. . . . .	12
Miscellaneous Car Body Items. . . . .	13
Door Operation and Control. . . . .	13
Heating, Cooling & Ventilation Systems. . . . .	14
Lighting. . . . .	17
Miscellaneous Electrical Equipment. . . . .	19
Traction Motor. . . . .	20
Trucks & Suspensions. . . . .	23
Performance . . . . .	24
Braking . . . . .	25
Communications. . . . .	28
Automatic Train Control ATO/ATC . . . . .	28
BRRTS (Baltimore Regional Rapid Transit Authority) . . . . .	.1
General Data. . . . .	.1
Dimensions. . . . .	.2
Weights . . . . .	.6
Car Body. . . . .	.7
Coupler & Draft Gear. . . . .	12
Miscellaneous Car Body Items. . . . .	13
Door Operation and Control. . . . .	13
Heating, Cooling & Ventilation Systems. . . . .	14
Lighting. . . . .	17
Miscellaneous Electrical Equipment. . . . .	19
Traction Motor. . . . .	20
Trucks & Suspensions. . . . .	23
Performance . . . . .	24
Braking . . . . .	25
Communications. . . . .	28
Automatic Train Control ATO/ATC . . . . .	28
CTA (Chicago Transit Authority). . . . .	.1
General Data. . . . .	.1
Dimensions. . . . .	.2
Weights . . . . .	.6
Car Body. . . . .	.7
Coupler & Draft Gear. . . . .	12
Miscellaneous Car Body Items. . . . .	13
Door Operation and Control. . . . .	13
Heating, Cooling & Ventilation Systems. . . . .	14
Lighting. . . . .	17

Table of Contents (Cont'd.)

	<u>Page No.</u>
Miscellaneous Electrical Equipment. . . . .	19
Traction Motor. . . . .	20
Trucks & Suspensions. . . . .	23
Performance . . . . .	24
Braking . . . . .	25
Communications. . . . .	28
Automatic Train Control ATO/ATC . . . . .	28
GCRTA (Greater Cleveland Regional Transit Authority)	29
General Data. . . . .	29
Dimensions. . . . .	30
Weights . . . . .	34
Car Body. . . . .	35
Coupler & Draft Gear. . . . .	40
Miscellaneous Car Body Items. . . . .	41
Door Operation and Control. . . . .	41
Heating, Cooling & Ventilation Systems. . . . .	42
Lighting. . . . .	45
Miscellaneous Electrical Equipment. . . . .	47
Traction Motor. . . . .	48
Trucks & Suspensions. . . . .	51
Performance . . . . .	52
Braking . . . . .	53
Communications. . . . .	56
Automatic Train Control ATO/ATC . . . . .	56
MARTA (Metropolitan Atlanta Rapid Transit Authority)	29
General Data. . . . .	29
Dimensions. . . . .	30
Weights . . . . .	34
Car Body. . . . .	35
Coupler & Draft Gear. . . . .	40
Miscellaneous Car Body Items. . . . .	41
Door Operation and Control. . . . .	41
Heating, Cooling & Ventilation Systems. . . . .	42
Lighting. . . . .	45
Miscellaneous Electrical Equipment. . . . .	47
Traction Motor. . . . .	48
Trucks & Suspensions. . . . .	51
Performance . . . . .	52
Braking . . . . .	53
Communications. . . . .	56
Automatic Train Control ATO/ATC . . . . .	56
MBTA (Massachusetts Bay Transportation Authority)	
(01100-01199)(01400-01491)(01500-01523)(01600-01651)	29
General Data. . . . .	29
Dimensions. . . . .	30
Weights . . . . .	34



Table of Contents (Cont'd.)

	<u>Page No.</u>
Car Body. . . . .	.35
Coupler & Draft Gear. . . . .	.40
Miscellaneous Car Body Items. . . . .	.41
Door Operation and Control. . . . .	.41
Heating, Cooling & Ventilation Systems. . . . .	.42
Lighting. . . . .	.45
Miscellaneous Electrical Equipment. . . . .	.47
Traction Motor. . . . .	.48
Trucks & Suspensions. . . . .	.51
Performance . . . . .	.52
Braking . . . . .	.53
Communications. . . . .	.56
Automatic Train Control ATO/ATC . . . . .	.56
 MBTA (Massachusetts Bay Transportation Authority) (0600-0669 and 01200-01319) . . . . .	           .57
General Data. . . . .	.57
Dimensions. . . . .	.58
Weights . . . . .	.62
Car Body. . . . .	.63
Coupler & Draft Gear. . . . .	.68
Miscellaneous Car Body Items. . . . .	.69
Door Operation and Control. . . . .	.69
Heating, Cooling & Ventilation Systems. . . . .	.70
Lighting. . . . .	.73
Miscellaneous Electrical Equipment. . . . .	.75
Traction Motor. . . . .	.76
Trucks & Suspensions. . . . .	.79
Performance . . . . .	.80
Braking . . . . .	.81
Communications. . . . .	.84
Automatic Train Control ATO/ATC . . . . .	.84
 MDCTA (Metropolitan Dade County Transportation Administration). . . . .	           .57
General Data. . . . .	.57
Dimensions. . . . .	.58
Weights . . . . .	.62
Car Body. . . . .	.63
Coupler & Draft Gear. . . . .	.68
Miscellaneous Car Body Items. . . . .	.69
Door Operation and Control. . . . .	.69
Heating, Cooling & Ventilation Systems. . . . .	.70
Lighting. . . . .	.73
Miscellaneous Electrical Equipment. . . . .	.75
Traction Motor. . . . .	.76
Trucks & Suspensions. . . . .	.79
Performance . . . . .	.80

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Table of Contents (Cont'd.)

	<u>Page No.</u>
Braking. . . . .	.81
Communications . . . . .	.84
Automatic Train Control ATO/ATC. . . . .	.84
 MUCTC (Montreal Urban Community Transit Commission) . . . . .	 .57
General Data . . . . .	.57
Dimensions . . . . .	.58
Weights. . . . .	.62
Car Body . . . . .	.63
Coupler & Draft Gear . . . . .	.68
Miscellaneous Car Body Items . . . . .	.69
Door Operation and Control . . . . .	.69
Heating, Cooling & Ventilation Systems . . . . .	.70
Lighting . . . . .	.73
Miscellaneous Electrical Equipment . . . . .	.75
Traction Motor . . . . .	.76
Trucks & Suspensions . . . . .	.79
Performance. . . . .	.80
Braking. . . . .	.81
Communications . . . . .	.84
Automatic Train Control ATO/ATC. . . . .	.84
 NYCTA (New York City Transit Authority) (R-10 through R-14 only) . . . . .	 .57
General Data . . . . .	.57
Dimensions . . . . .	.58
Weights. . . . .	.62
Car Body . . . . .	.63
Coupler & Draft Gear . . . . .	.68
Miscellaneous Car Body Items . . . . .	.69
Door Operation and Control . . . . .	.69
Heating, Cooling & Ventilation Systems . . . . .	.70
Lighting . . . . .	.73
Miscellaneous Electrical Equipment . . . . .	.75
Traction Motor . . . . .	.76
Trucks & Suspensions . . . . .	.79
Performance. . . . .	.80
Braking. . . . .	.81
Communications . . . . .	.84
Automatic Train Control ATO/ATC. . . . .	.84
 NYCTA (New York City Transit Authority (R-15 through R-32 only) . . . . .	 .85
General Data . . . . .	.85
Dimensions . . . . .	.86
Weights. . . . .	.90

Table of Contents (Cont'd.)

	<u>Page No.</u>
Car Body. . . . .	91
Coupler & Draft Gear. . . . .	96
Miscellaneous Car Body Items. . . . .	97
Door Operation and Control. . . . .	97
Heating, Cooling & Ventilation Systems. . . . .	98
Lighting. . . . .	101
Miscellaneous Electrical Equipment. . . . .	103
Traction Motor. . . . .	104
Trucks & Suspensions. . . . .	107
Performance . . . . .	108
Braking . . . . .	109
Communications. . . . .	112
Automatic Train Control ATO/ATC . . . . .	112
 NYCTA (New York City Transit Authority) (R-32A through R-46 only). . . . .	 113
General Data. . . . .	113
Dimensions. . . . .	114
Weights . . . . .	118
Car Body. . . . .	119
Coupler & Draft Gear. . . . .	124
Miscellaneous Car Body Items. . . . .	125
Door Operation and Control. . . . .	125
Heating, Cooling & Ventilation Systems. . . . .	126
Lighting. . . . .	129
Miscellaneous Electrical Equipment. . . . .	131
Traction Motor. . . . .	132
Trucks & Suspensions. . . . .	135
Performance . . . . .	136
Braking . . . . .	137
Communications. . . . .	140
Automatic Train Control ATO/ATC . . . . .	140
 PATCO (Port Authority Transit Corporation) (201-250 and 101-125 only) . . . . .	 113
General Data. . . . .	113
Dimensions. . . . .	114
Weights . . . . .	118
Car Body. . . . .	119
Coupler & Draft Gear. . . . .	124
Miscellaneous Car Body Items. . . . .	125
Door Operation and Control. . . . .	125
Heating, Cooling & Ventilation Systems. . . . .	126
Lighting. . . . .	129
Miscellaneous Electrical Equipment. . . . .	131
Traction Motor. . . . .	132
Trucks & Suspensions. . . . .	135
Performance . . . . .	136

Table of Contents (cont'd.)

	<u>Page No.</u>
Braking. . . . .	137
Communications . . . . .	140
Automatic Train Control ATO/ATC. . . . .	140
 PATCO (Port Authority Transit Corporation) (251-296 only) . . . . .	  141
General Data . . . . .	141
Dimensions . . . . .	142
Weights. . . . .	146
Car Body . . . . .	147
Coupler & Draft Gear . . . . .	152
Miscellaneous Car Body Items . . . . .	153
Door Operation and Control . . . . .	153
Heating, Cooling & Ventilation Systems . . . . .	154
Lighting . . . . .	157
Miscellaneous Electrical Equipment . . . . .	159
Traction Motor . . . . .	160
Trucks & Suspensions . . . . .	163
Performance. . . . .	164
Braking. . . . .	165
Communications . . . . .	168
Automatic Train Control ATO/ATC. . . . .	168
 PATH (Port Authority Trans-Hudson Corporation). . . . .	 141
General Data . . . . .	141
Dimensions . . . . .	142
Weights. . . . .	146
Car Body . . . . .	147
Coupler & Draft Gear . . . . .	152
Miscellaneous Car Body Items . . . . .	153
Door Operation and Control . . . . .	153
Heating, Cooling & Ventilation Systems . . . . .	154
Lighting . . . . .	157
Miscellaneous Electrical Equipment . . . . .	159
Traction Motor . . . . .	160
Trucks & Suspensions . . . . .	163
Performance. . . . .	164
Braking. . . . .	165
Communications . . . . .	168
Automatic Train Control ATO/ATC. . . . .	168
 SEPTA (Southeastern Pennsylvania Transportation Authority) . . . . .	 141
General Data . . . . .	141
Dimensions . . . . .	142

Table of Contents (cont'd.)

	<u>Page No.</u>
Weights. . . . .	.146
Car Body . . . . .	.147
Coupler & Draft Gear . . . . .	.152
Miscellaneous Car Body Items . . . . .	.153
Door Operation and Control . . . . .	.153
Heating, Cooling & Ventilation Systems . . . . .	.154
Lighting . . . . .	.157
Miscellaneous Electrical Equipment . . . . .	.159
Traction Motor . . . . .	.161
Trucks & Suspensions . . . . .	.163
Performance. . . . .	.164
Braking. . . . .	.165
Communications . . . . .	.168
Automatic Train Control ATO/ATC. . . . .	.168
STC (Sistema de Transporte Colectivo Organismo Publico Descentralizado, Mexico City). . . . .	.141
General Data . . . . .	.141
Dimensions . . . . .	.142
Weights. . . . .	.146
Car Body . . . . .	.147
Coupler & Draft Gear . . . . .	.152
Miscellaneous Car Body Items . . . . .	.153
Door Operation and Control . . . . .	.153
Heating, Cooling & Ventilation Systems . . . . .	.154
Lighting . . . . .	.157
Miscellaneous Electrical Equipment . . . . .	.159
Traction Motor . . . . .	.160
Trucks & Suspensions . . . . .	.163
Performance. . . . .	.164
Braking. . . . .	.165
Communications . . . . .	.168
Automatic Train Control ATO/ATC. . . . .	.168
TTC (Toronto Transit Commission). . . . .	.169
General Data . . . . .	.169
Dimensions . . . . .	.170
Weights. . . . .	.174
Car Body . . . . .	.175
Coupler & Draft Gear . . . . .	.180
Miscellaneous Car Body Items . . . . .	.181
Door Operation and Control . . . . .	.181
Heating, Cooling & Ventilation Systems . . . . .	.182
Lighting . . . . .	.185
Miscellaneous Electrical Equipment . . . . .	.187
Traction Motor . . . . .	.188

Table of Contents (cont'd.)

	<u>Page No.</u>
Trucks & Suspensions . . . . .	.191
Performance. . . . .	.192
Braking. . . . .	.193
Communications . . . . .	.196
Automatic Train Control ATO/ATC. . . . .	.196
 WMATA (Washington Metropolitan Area Transit Authority) . . . . .	 .169
General Data . . . . .	.169
Dimensions . . . . .	.170
Weights. . . . .	.174
Car Body . . . . .	.175
Coupler & Draft Gear . . . . .	.180
Miscellaneous Car Body Items . . . . .	.181
Door Operation and Control . . . . .	.181
Heating, Cooling & Ventilation Systems . . . . .	.182
Lighting . . . . .	.185
Miscellaneous Electrical Equipment . . . . .	.187
Traction Motor . . . . .	.188
Trucks & Suspensions . . . . .	.191
Performance. . . . .	.192
Braking. . . . .	.193
Communications . . . . .	.196
Automatic Train Control ATO/ATC. . . . .	.196

APPENDIX A - NOTES

CTA . . . . .	.199
GCRTA . . . . .	.200
MBTA . . . . .	.201
MUCTC . . . . .	.202
NYCTA . . . . .	.203
PATH. . . . .	.214
PATCO . . . . .	.215
SEPTA . . . . .	.216
SFBART. . . . .	.217
STC . . . . .	.218
TTC . . . . .	.219
WMATA . . . . .	.222

APPENDIX B - RAPID TRANSIT CAR PHOTOGRAPHS. . . . .	.223 - 273
---	------------

INDEX

RAPID TRANSIT CAR PHOTOGRAPHS

	<u>Page No.</u>
Figure 1. San Francisco Bay Area Rapid Transit District Rapid Transit Car. . . . .	223
Figure 2. Baltimore Regional Rapid Transit System. . . . .	224
Figure 3. Chicago Transit Authority 6000 Series. . . . .	225
Figure 4. Chicago Transit Authority 1-50 Series. . . . .	226
Figure 5. Chicago Transit Authority 2000 Series. . . . .	227
Figure 6. Chicago Transit Authority 2200 Series. . . . .	228
Figure 7. Chicago Transit Authority 2400 Series. . . . .	229
Chicago Transit Authority 2600 Series (photo not available)	
Figure 8. Greater Cleveland Regional Transit Authority - Typical of Cars 101-118 and 201-270. . . . .	230
Figure 9. Greater Cleveland Regional Transit Authority - Typical of Cars 150-180. . . . .	231
Figure 10. Metropolitan Atlanta Rapid Transit Authority . . . . .	232
Figure 11. Montreal Urban Community Transit Commission - M-63 Transit Cars (original) . . . . .	233
Figure 12. Montreal Urban Community Transit Commission - M-73 Transit Cars (new). . . . .	234
Figure 13. Montreal Urban Community Transit Commission (Bombardier) . . . . .	235
Figure 14. Massachusetts Bay Transportation Authority - No. 5, Cambridge Dorchester Cars - 01400-01500 Series . . . . .	236
Figure 15. Massachusetts Bay Transportation Authority - No. 1, South Shore Cars - 01500-01600 Series . . . . .	237
Figure 16. Massachusetts Bay Transportation Authority - No. 11, Main Line Cars - 01100 Series. . . . .	238

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	<u>Page No.</u>
Figure 17. Massachusetts Bay Transportation Authority - Blue Line - 0600 Series . . . . .	239
Figure 18. Massachusetts Bay Transportation Authority - Orange Line - 01200 Series . . . . .	240
Figure 19. Metropolitan Dade County Transit Authority . . . . .	241
Figure 20. New York City Transit Authority - R-10 Cars . . . . .	242
Figure 21. New York City Transit Authority - R-11 Cars . . . . .	243
Figure 22. New York City Transit Authority - R-12 Cars . . . . .	244
Figure 23. New York City Transit Authority - R-14 Cars . . . . .	245
Figure 24. New York City Transit Authority - R-15 Cars . . . . .	246
Figure 25. New York City Transit Authority - R-16 Cars . . . . .	247
Figure 26. New York City Transit Authority - R-17 Cars . . . . .	248
Figure 27. New York City Transit Authority - R-21 Cars (R-22 is similar). . . . .	249
Figure 28. New York City Transit Authority - R-26 Cars (R-28 is similar). . . . .	250
Figure 29. New York City Transit Authority - R-27 Cars . . . . .	251
Figure 30. New York City Transit Authority - R-30A Cars (R-30 is similar). . . . .	252
Figure 31. New York City Transit Authority - R-32A Cars (R-32 is similar). . . . .	253
Figure 32. New York City Transit Authority - R-36 Cars (R-29, R-33 are similar except for original paint scheme) .	254
Figure 33. New York City Transit Authority - R-38 Cars . . . . .	255
Figure 34. New York City Transit Authority - R-40 Cars . . . . .	256
Figure 35. New York City Transit Authority - R-42 Cars . . . . .	257
Figure 36. New York City Transit Authority - R-44 Cars . . . . .	258
Figure 37. New York City Transit Authority - R-46 Cars . . . . .	259
Figure 38. Port Authority Trans-Hudson Corporation - PA-2 Cars (PA-1 cars are similar). . . . .	260
Figure 39. Port Authority Trans-Hudson Corporation - PA-3 Cars	261



	<u>Page No.</u>
Figure 40.	Port Authority Trans-Hudson Corporation - K Cars . . . 262
Figure 41.	Port Authority Transit Corporation - Single Car Units - 100 Series . . . . . 263
Figure 42.	Port Authority Transit Corporation - Married Pairs - 200 series . . . . . 264
Figure 43.	Southeastern Pennsylvania Transportation Authority - Market-Frankford Subway Elevated Line. . . . . 265
Figure 44.	Sistema de Transporte Colectivo Organismo Publico Descentralizado (Mexico City Metro) Rapid Transit Cars . . . . . 266
Figure 45.	Toronto Transit Commission - G-1, G-3, G-4 Series (G-2 is similar, except for external color - brushed aluminum). . . . . 267
Figure 46.	Toronto Transit Commission - M-1 Series. . . . . 268
Figure 47.	Toronto Transit Commission - H-1 Series. . . . . 269
Figure 48.	Toronto Transit Commission - H-2 Series (H-3 is similar to H-2). . . . . 270
Figure 49.	Toronto Transit Commission - H-4 Series. . . . . 271
Figure 50.	Toronto Transit Commission - H-5 Series. . . . . 272
Figure 51.	Washington Metropolitan Area Transit Authority 1000 Series. . . . . 273
	Washington Metropolitan Area Transit Authority 2000 Series (photo not available)



## INTRODUCTION

This is the second edition of a compilation of technical data on all rapid transit cars ordered or built in the United States, Canada and Mexico between 1945 and 1980, and in service as of July 1980. It includes such data as car builder, performance, dimensions, weights, trucks and suspension systems, heating and ventilation systems, electrical equipment, cost, etc. Also included is an appendix of photographs of the exterior of each transit car series.

The data book will be useful to those interested in detailed information on postwar rail transit equipment for reference and comparative purposes. The book is arranged alphabetically by transit authority. Under each authority, the car data is presented in chronological order.

APTA would like to extend its appreciation to Mr. Jason Baker of the U.S. Department of Transportation's, Transportation Systems Center, and to those authority staff members who spent a great deal of time and effort revising and updating information from the first edition. APTA regrets any errors or omissions.

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AUTHORITY CAR NOS./ ORDER NO.	NO. OF CARS/ TYPE CAR	YEAR PURCHASED	PLACED IN SERVICE	CAR BUILDER	BID PRICE PER CAR
BART 101-276 "A"cars 501-774 "B"cars	450 Single car	250: 1969 100: 1972 100: 1973	1972-75	Rohr	250: \$266,800 100: \$370,000 100: \$390,000
BRRTS 100-171	72 Married Pair	1979	Scheduled for Dec. '82	Budd Co.	\$616,138
CTA 6001-6200	200 Married pair	1950 & 51	1950 - 51	St. Louis Car Co.	130: \$36,328 70: \$38,983
CTA 5201-6470	270 Married pair	1953 & 54	1954 - 55	St. Louis Car Co.	133: \$46,332 117: \$46,332 20: \$47,604 <i>See note 2</i>
CTA 6471-6510	40 Married pair	1955 & 56	1956 - 57	St. Louis Car Co.	\$53,060 <i>See note 2</i>
CTA 6511-6670	160 Married pair	1956 & 57	1957-58	St. Louis Car Co.	40: \$53,060 50: \$54,940 70: \$58,455 <i>See note 2</i>
CTA 6671-6720	50 Married Pair	1958	1959	St. Louis Car Co.	\$62,882 <i>See note 2</i>
CTA 5-50	46 Single car	1958	1959	St. Louis Car Co.	26: \$67,985 8: \$67,965 12: \$68,585 <i>See notes 2, 4, 5</i>
CTA 2001-2180	180 Married pair	1963	1964	Pullman Stand- ard	\$105,500
CTA 2201-2350	150 Married pair	1967	1969-70	Budd Co.	\$125,000
CTA 2401-2600	200 Married pair	1974	1976-78	Boeing-Vertol	\$300,000 avg.
CTA 2601-2900	300 Married pair	1978	Not delivered	Budd Co.	\$444,295

AUTHORITY CAR NOS./ ORDER NO.	COMPATIBILITY WITH OTHER CARS	DIMENSIONS			
		LENGTH OVER COUPLERS	LENGTH OVER ANTI-CLIMBER	TRUCK CENTERS	WHEEL BASE
BART 101-276 501-774	yes	A: 75'5" Note 1 B: 70'0"	<i>See note 2</i>	50'0"	7'0"
BRRTS 100-171	yes	75'0"	74'8"	52'0"	7'3"
CTA 6001-6200	w/all CTA cars built between 1947 & 1960	48'3"	48'	33'8"	6'
CTA 6201-6470	"	48'3"	48'	33'8"	6'
CTA 6471-6510	"	48'3"	48'	33'8"	6'
CTA 6511-6670	"	48'3"	48'	33'8"	6'3"
CTA 6671-6720	"	48'3"	48'	33'8"	6'3"
CTA 5-50	"	48'3"	48'	33'8"	6'3"
CTA 2001-2180	w/all CTA cars built after 1964	48'3"	48'	33'8"	6'6"
CTA 2201-2350	"	48'3"	48'	33'8"	6'3"
CTA 2401-2600	"	48'3"	48'	33'8"	6'6"
CTA 2601-2900	"	48'3"	48'	33'8"	6'6"

DIMENSIONS					
WIDTH OF CAR BODY MAXIMUM	WHEEL DIAMETER	NO. OF CARS/ TRAIN MIN./MAX.	SEATING CAPACITY	MAX. NO. PSGRS. DESIGN/PRACTICAL (CRUSH)	CLEAR FLOOR AREA SQ. FT. (INCLDG. CABS)
10'6"	30"	2 10	72	120 216	A - 265 B - 232
10'3"	28"	2/6	76	166 275	310 sq. ft.
9'4"	26"	2 8	47 - A 51 - B	125 150	355 sq. ft.
9'4"	26"	2 8	50	125 150	355 sq. ft.
9'4"	26"	2 8	47 - A 51 - B	125 150	355 sq. ft.
9'4"	26"	2 8	47-A 51-B	125 150	355 sq. ft.
9'4"	26"	2 10	47 - A 51 - B	125 150	355 sq. ft.
9'4"	26"	1 10	46	125	355 sq. ft.
9'4"	28"	2 10	47-A 51-B	100 150	355 sq. ft.
9'4"	28"	2 10	47 - A 51 - B	100 150	339 sq. ft.
9'4"	28"	2 10	45-A 49-B	100 150	320 sq. ft.
9'4"	28"	1 10	43-A 49-B	100 150	see Note 9

AUTHORITY CAR NOS./ ORDER NO.	DIMENSIONS				
	MINIMUM HEAD ROOM	HGT. MIN., FLR TO HEADLINING AT CENTER	WIDTH OF SIDE DOOR OPENINGS	HEIGHT OF SIDE DOOR OPENINGS	WIDTH ACROSS THRESHOLD PLATES
BART 101-276 501-774	6'4"	7'3"	4'6"	6'4"	10'1-1/4"
BRRTS 100-171	6'8" (under evaporator fans at car ends)	7'2"	4'1/2"	6'4"	10'2-1/2"
CTA 6001-6200	6'6-1/2"	7'1-3/4"	2'2-3/4"	6'4"	8'8-5/8"
CTA 6201-6470	6'7-1/2"	7'1-3/4"	2'2-5/8"	6'3-3/4"	8'8-5/8"
CTA 6471-6510	6'7-1/2"	7'1-3/4"	2'2-5/8"	6'3-3/4"	8'8-5/8"
CTA 6511-6670	6'7-1/2"	7'1-3/4"	2'2-5/8"	6'3-3/4"	8'8-5/8"
CTA 6671-6720	6'7-1/2"	6'10-3/4"	2'2-5/8"	6'3-3/4"	8'8-5/8"
CTA 5-50	6'7-1/2"	6'10-3/4"	2'2-5/8"	6'3-3/4"	8'8-5/8"
CTA 2001-2180	6'8"	6'9-3/4"	4'2"	6'2-3/8"	8'8"
CTA 2201-2350	7'11"	7'11"	2'1-1/2"	6'3-13/16"	8'8"
CTA 2401-2600	7'1-3/4"	7'5-1/4"	4'2"	6'4"	8'8"
CTA 2601-2900	<i>See Note 9</i>	<i>See Note 9</i>	4'2"	<i>See Note 9</i>	8'8-5/8"



DIMENSIONS					
HEIGHT MAXIMUM		HEIGHT-TOP OF RAIL TO CAR FLOOR	AISLE WIDTH MIN./MAX.	MIN. RADIUS HORIZ. CURVE CAR IS DESIGNED TO NEGOTIATE	MIN. RADIUS VERTICAL CURVE
TOP OF RAIL TO TOP OF ROOF	OVER RADIO ANTENNA, FAN HOUSING, ETC.				
10'6"	A cars: 11'0" B cars: 10'6"	3'3"	2'9"/2'9"	400'	1½% per 100 feet
12'	12'3 1/2"	3'7-1/2"	36-1/4"/36-1/4"	250'	2000'
11'10"	11'10"	3'9-5/8"	2'8"/2'8"	90'	Angularity of drawbar <u>+</u> 4°
11'10"	11'10"	3'9-5/8"	2'11-1/4"/ 2'11-1/4"	90'	Angularity of drawbar <u>+</u> 4°
11'10"	11'10"	3'9-5/8"	2'11-1/4"/ 2'11-1/4"	90'	Angularity of drawbar <u>+</u> 4°
11'10-1/8"	11'10-1/8"	3'9-5/8"	2'11-1/4"/ 2'11-1/4"	90'	Angularity of drawbar <u>+</u> 4°
11'10-1/8"	11'10-1/8"	3'9-5/8"	2'11-1/4"/ 2'11-1/4"	90'	Angularity of drawbar <u>+</u> 4°
11'10-1/8"	11'10-1/8"	3'9-5/8"	2'11-1/4"/ 2'11-1/4"	90'	Angularity of drawbar <u>+</u> 4°
12'	12'2"	3'9-5/8"	2'5-1/4"/ 2'5-1/4"	85'	Angularity of drawbar <u>+</u> 4°
12'	12'	3'9-5/8"	2'5-1/4"/ 2'5-1/4"	85'	Angularity of drawbar <u>+</u> 4°
12'	12'	3'9-5/8"	2'6-3/4"/ 3'10"	85'	Angularity of drawbar <u>+</u> 4°
12'	12'2"	3'9-5/8"	See Note 9	90'	Angularity of drawbar <u>+</u> 4°

AUTHORITY CAR NOS./ ORDER NO.	DIMENSIONS	WEIGHTS			
	TRACK GAUGE	SINGLE CAR AVG.-LT. WT. LBS.	AVG. WT. A/CAR, B/CAR	WEIGHT/ SQ. FT.	WEIGHT/ SEAT
BART 101-276 501-774	5'6"	A: 59,815 lbs. B: 58,368 lbs.	Not applicable	A-76 lbs. B-79 lbs.	A-831 lbs. B-811 lbs.
BRRTS 100-171	4'8-1/4"	77,000 Specified	Info. not available	100 lbs.	1013 lbs. (extrapo- lated)
CTA 6001-6200	4'8-1/2"	not applicable	40,500 lbs.	90 lbs.	A-862 lbs. B-794 lbs.
CTA 6201-6470	4'8-1/2"	not applicable	42,000 lbs.	94 lbs.	840 lbs.
CTA 6471-6510	4'8-1/2"	not applicable	40,800 lbs./ 40,300 lbs.	A-91 lbs. B-90 lbs.	A-868 lbs. B-790 lbs.
CTA 6511-6670	4'8-1/2"	not applicable	A: 42,600/44,400 lbs. B: 42,250/43,900 lbs.	A-95 & 99 lbs. B-94 & 98 lbs.	A-906 lbs. A-945 lbs. B-828 lbs. B-861 lbs.
CTA 6671-6720	4'8-1/2"	not applicable	44,400 lbs./ 43,900 lbs.	A-99 lbs. B-98 lbs.	A-945 lbs. B-861 lbs.
CTA 6-50	4'8-1/2"	44,900 lbs. (26) 44,600 lbs. (8) 45,700 lbs. (12) <i>Notes 4, 5</i>	not applicable	26-100 lbs. 8-100 lbs. 12-102 lbs.	26-976 lbs. 8-970 lbs. 12-993 lbs.
CTA 2001-2180	4'8-1/2"	not applicable	47,300 lbs.	114 lbs.	A-1006 lbs. B-927 lbs.
CTA 2201-2350	4'8-1/2"	not applicable	44,500 lbs.	107 lbs.	A-947 lbs. B-872 lbs.
CTA 2401-2600	4'8-1/2"	not applicable	50,500 lbs.	122 lbs.	A-1122 lbs. B-1031 lbs.
CTA 2601-2900	4'8-1/2"	<i>See Note 9</i>	<i>See Note 9</i>	<i>See Note 9</i>	<i>See Note 9</i>

WEIGHTS			CAR BODY		
WEIGHT/ PASSENGER (CRUSH LOAD)	AVG. WEIGHT OF COMPLETE TRUCKS #1 TRUCK/#2 TRK	LOAD WEIGHING DEVICE	MOTORMAN'S CABS/CAR	WINDSHIELD WIPERS	BODY & FRAMING
A-277 lbs. B-270 lbs.	10,360 lbs.	yes	1 "A" cars only	electric 2 speed	<i>See note 3</i>
280 lbs.	Info. not available	Yes	1	Pneumatic	Stainless steel, Welded
270 lbs.	#6001-6126: 17,200 lbs.; #6129-6130: 18,400 lbs.; #6131-6200:17,200 lbs.	none	1	electric	<i>See note 3</i>
280 lbs.	#6201-6470: 16,900 lbs.	none	1	electric	<i>See note 3</i>
A-272 lbs. B-269 lbs.	#6471-6490: 16,900 lbs. #6491-6510: 16,900 lbs.	none	1	electric	<i>See note 3</i>
A-284 lbs. A-296 lbs. B-282 lbs. B-293 lbs.	#6511-6670: 18,200 lbs.	none	1	electric	<i>See note 3</i>
A-296 lbs. B-293 lbs.	18,200 lbs.	none	1	electric	<i>See note 13</i>
26-299 lbs. 8-297 lbs. 12-305 lbs.	#5-22:18,100 lbs, #23-26:18,300 lbs, #27-28:18,100 lbs, #29-30:18,300, #31-50:18,100	none	2	electric	<i>See note 13</i>
326 lbs.	22,950 lbs. both trucks	none	1	electric	<i>See Note 7</i>
297 lbs.	20,500 lbs. both trucks	none	1	electric	Stainless Steel - LAHT end underframe
343 lbs.	#1-10,000 lbs. #2-9,600 lbs.	none	1	electric	"
<i>See Note 9</i>	<i>See Note 9</i>	none	1	electric	"

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY				
	ROOF CONSTRUCTION	EXTERIOR FINISH (PAINT)	COLOR SCHEME		FLOOR CONSTRUCTION
			INTERIOR	EXTERIOR	
BART 101-276 501-774	Aluminum sand- wich with aluminum carlines	Aluminum	Tan	Brushed, alumi- num, blue strips	Panels of metal sandwich w/2" thick polyure- thane foam
BRRTS 100-171	Stainless steel	Stainless Steel	Info. not available	Brushed Finish with Blue "F" End	Stainless steel & aluminum faced plymetal w/rubber sheet
CTA 6001-6200	Aluminum sheathing	Synthetic enamel	Green	Green & cream, as built	Plywood with rubber floor covering
CTA 6201-6470	Aluminum sheathing	Synthetic enamel	Green	Green & cream, as built	"
CTA 6471-6510	Aluminum sheathing	Synthetic enamel	Green	Green & cream as built	"
CTA 6511-6670	Aluminum sheathing	Synthetic enamel	Green	Green & cream as built	"
CTA 6671-6720	Aluminum sheathing	Synthetic enamel	Green	Green & cream as built	"
CTA 5-50	Aluminum sheathing	Synthetic enamel	Green	Green & cream as built	"
CTA 2001-2180	Aluminum panels on aluminum carlines	Alkyd-acrylic paint	Beige, blue and white	Silver & char- coal	Stainless steel faced plywood, rubber cover- ing
CTA 2201-2350	Corrugated stainless steel on stainless steel carlines	Stainless steel	Beige, grey and white	Natural stain- less steel	"
CTA 2401-2600	"	Stainless steel	Tan, woodgrain and white	Black decal in window, red, white, blue stripe	"
CTA 2601-2900	"	Stainless steel	Tan, woodgrain and white	"	"

CAR BODY					
CEILING FINISH	SIDE WINDOWS, SASH		WINDOWS & DOOR GLAZING MATERIAL	INTERIOR FINISH	SEATS
	TYPE	MANUFACTURER			ARRANGEMENT
Molded fiber-glass	Fixed, glazed in rubber	Not applicable	glass	Molded fiberglass	2-2 for 56, longitudinal for 16
Vinyl faced Aluminum Honeycomb	Info. not available	Info. not available	glass	Polycarbonate	Transverse & longitudinal
Tempered masonite	Lift	Adams-Westlake	glass	Synthetic enamel	Cross
Tempered masonite	Crank lift	Adams-Westlake	glass	Synthetic enamel	Cross
Tempered masonite	Crank lift	Adams-Westlake	glass	Synthetic enamel	Cross
Tempered masonite	Crank lift	Adams-Westlake	glass	Synthetic enamel	Cross
Tempered masonite	Crank lift	Adams-Westlake	glass	Synthetic enamel, aluminum & press-board	Cross
Tempered masonite	Crank lift	Adams-Westlake	glass	"	Cross
1/8" balanced melamine	Fixed, glazed in rubber	Not applicable	glass	Fiberglass, melamine & aluminum <i>See note 8</i>	Cross
1/8" balanced melamine	Fixed, glazed in rubber	Not applicable	glass	Melamine & Kydex <sup>TM</sup>	Cross
1/" balanced melamine	Fixed, glazed in rubber	Not applicable	glass	Melamine & fiberglass	Transverse & longitudinal
1/8" balanced melamine	Fixed, glazed in rubber	Not applicable	glass	Melamine & fiberglass	Transverse & longitudinal

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY				
	SEATS				
	FRAMING	COVERING MATERIAL		COLOR	
ORIGINAL		PRESENT	ORIGINAL	PRESENT	
BART 101-276 501-774	tubular steel, canti- levered	Vinyl-nylon covered poly- urethane foam	90% wool, 10% nylon covered low smoke neoprene	Black traverse Rust-longitu- dinal	Black traverse Rust-longitu- dinal
BRRTS 100-171	Stainless Steel	Vinyl covered neoprene foam	Not applicable	Info. not available	Not applicable
CTA 6001-6200	steel tubing	Cotton, sisel, jute, hair	Cotton, sisel, jute, hair	Green plastic	Green plastic
CTA 6201-6470	steel tubing	Cotton, sisel, jute, hair	Cotton, sisel, jute, hair	Brown leather or plastic	Brown plastic
CTA 6471-6510	steel tubing	cotton, sisel, jute, hair	Cotton, sisel, jute, hair	Brown leather or plastic	Brown plastic
CTA 6511-6670	steel tubing	cotton, sisel jute, hair	Cotton, sisel, jute, hair	Brown leather or plastic	Brown plastic
CTA 6671-6720	steel tubing	cotton, sisel, jute, hair	Cotton, sisel, jute, hair	Brown leather or plastic	Brown Plastic
CTA 5-50	steel tubing	cotton, sisel jute, hair	Cotton, sisel, jute, hair	Brown leather or plastic	Brown plastic.
CTA 2001-2180	Stainless steel tubing	Vinyl-coated fabric	Vinyl-coated fabric	Blue	Black
CTA 2201-2350	Stainless steel tubing	Vinyl-coated fabric	Vinyl-coated fabric	Black	Black
CTA 2401-2600	Stainless steel tubing	Neoprene <sup>TM</sup> foam w/vinyl covered fabric uphostery	Neoprene <sup>TM</sup> foam w/vinyl covered fabric uphols- tery	Brown & orange	Brown & orange
CTA 2601-2900	Stainless steel tubing	"	"	Brown & orange	Brown & orange

CAR BODY					
SEATS					
MANUFACTURER	CEILING HANDHOLDS TYPE/NO./CAR	NO. OF SEAT HANDHOLDS	CEILING TO FLOOR STANCHIONS PER CAR	SIDE DOOR OPENINGS/CAR	NO. OF SIDE DOOR PANELS PER CAR
American Seating Tupperman <i>See note 11</i>	Longitudinal tubular aluminum 6	on each traverse seat	8 around door openings as part of wind-screens	4	8
American Seating	Long bars above seat ends	19/car	24	6	12
Karpen	none	on each seat	12 around door openings	4	16
Karpen, Heywood-Wakefield	none	none	9 attached to seats & 12 around door openings	4	16
Various as used on PCC cars	none	none	9 attached to seats & 14 others	4	16
Various as used on PCC cars	none	none	"	4	16
Karpen, Heywood-Wakefield	none	none	A car: 23 B car: 22	4	16
Karpen, Heywood-Wakefield	none	none	19	4	16
Flxible	none	none	A car: 24 B car: 23	4	16
Flxible	none	on each seat	12, at side doors	4	16
Coach & Car	none	13/A car 15/B car	8, at side doors, 4 at ends of longitudinal seats	4	8
Coach & Car	Longitudinal One above wheel chair seat in "A" car	12/A car 15/B car	"	4	8

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY		COUPLER & DRAFT GEAR		
	DOOR FABRICATION	MANUFACTURER OF DOORS & HANGERS	TYPE COUPLER	COUPLING AT INTERMEDIATE END	DRAFT GEAR
BART 101-276 501-774	Aluminum/foam sandwich	Rohr	WABCO N-3	not applicable	rubber sandwich
BRRTS 100-171	Infor. not available	Info. not available	Walton, hook- type, automatic	Semi-permanent drawbar & an- chorage	rubber sandwich
CTA 6001-6200	Hollow, honey- comb	Doors: Morton Mfg. Hangers:Consol- idated	Ohio Brass Form 5	Semi-permanent rubber cushion- ing w/rubber draft gear & shear bolt assem	rubber cushion
CTA 6201-6470	Hollow, honey- comb	Doors:Morton Mfg.,Hangers: Consol. National Pneumatic	Ohio Brass Form 5	"	rubber cushion
CTA 6471-6510	Hollow, honey- comb	Doors:Morton Mfg.,Hangers: Consolidated	Ohio Brass Form 5	"	rubber cushion
CTA 6511-6670	Hollow, honey- comb	Doors: Morton Mfg., Hangers: Consolidated	Ohio Brass Form 5	"	rubber cushion
CTA 6671-6720	Hollow, honey- comb	Morton Mfg.	Ohio Brass Form 5	"	rubber cushion
CTA 5-50	Hollow, honey- comb	Morton Mfg.	Ohio Brass Form 5	not applicable	rubber cushion
CTA 2001-2180	Hollow, honey- comb	Doors:Morton Mfg., Hangers: Vapor	Ohio Brass Form 5	Semi-permanent with 2 rubber draft gears & shear bolt assembly	rubber cushion
CTA 2201-2350	Hollow, honey- comb	Doors:O.M Ed- wards; Hangers: Vapor	Ohio Brass Form 5	"	rubber cushion
CTA 2401-2600	Hollow, honey- comb	O.M. Edwards	Ohio Brass Form 5	Tubular draw- bar w/shear bolts (90,000 lbs.) & rubber draft gear	rubber cushion
CTA 2601-2900	Hollow, honey- comb	O.M. Edwards	Ohio Brass Form 5	"	rubber cushion



COUPLER & DRAFT GEAR MAXIMUM HORIZONTAL BUFF	MISCELLANEOUS CAR BODY ITEMS			DOOR OPERATION & CONTROL	
	SIDE & END DESTINATION SIGN MANUFACTURER	CURTAIN MATERIAL	NO. AND TYPE FIRE EXTINGUISHER/CAR	LOCATION OF DOOR CONTROL DEVICE	DOOR OPERATORS NO. AND TYPE/CAR
150,000 lbs.	Not applicable	Not applicable	2 dry chemical	A cars only, side wall on console and by left cab window	8 electric
160,000 lbs.	End-Infor. not available Side-Luminator	End-Infor. not available Side-"Flip-Dot"	2 - 10 lb. min. dry powder ABC	Cab and across from cab	12 electric
100,000 lbs.	Electric Service	cotton cloth	water can in cab #5 dry at conductor's position	Inside rear of A car	4 electric
100,000 lbs.	Electric Service	cotton cloth	"	In conductor's cab at rear of each car	4 electric
100,000 lbs.	Electric Service	cotton cloth	"	Inside rear of A car	4 electric
100,000 lbs.	Electric Service	cotton cloth	"	Inside rear of A car	4 electric
100,000 lbs.	Electric Service	cotton cloth	Water can in cab, dry powder type in A car only.	Inside rear of A car	4 Electric
100,000 lbs.	Electric Service	cotton cloth	1 dry powder type and 1 water can per car.	In motorman's cab	4 Electric
200,000 lbs.	Teleweld	mylar	Water can in cab, dry powder type in A car only.	Inside rear of A car	4 Electric
200,000 lbs.	Teleweld	mylar	Dry powder, A car, Water can in each car.	Inside rear of A car	4 Electric
200,000 lbs.	Teleweld	mylar	5 lbs. dry powder in A car, water can in each cab	#2 end of A car	4 Electric
200,000 lbs.	Teleweld	mylar	10 lbs. dry powder in A car, water can in each cab.	#2 end of A car	4 Electric

AUTHORITY CAR NOS./ ORDER NO.	DOOR OPERATION & CONTROL	HEATING, COOLING & VENTILATION SYSTEMS			
	DOOR CONTROL DEVICE	MANUFACTURER	LOCATION	TOTAL KW/CAR	UNDER SEAT WATTAGE
BART 101-276 501-774	DC motor drive- linkage coup- ling to door leaf	Thermo-King	<i>See note 4</i>	30 KW	none
BRRTS 100-171	DC motor drive, 2 leaf sliding with pockets	Safety Elec- tric Company	Overhead & baseboard	Info. not available	18 KW Specified
CTA 6001-6200	Consolidated Car PCC blinker straight	Railway Utility	Overhead & baseboard	16.8 KW	24 truss plank heaters 11.1 KW
CTA 6201-6470	Consolidated Car & National Pneumatic PCC blinker curved	Railway Utility	Overhead & baseboard	16.8 KW	24 truss plank heaters 11.1 KW
CTA 6471-6510	National Pneu- matic PCC blinker curved	Railway Utility	Overhead & baseboard	16.8 KW	24 truss plank heaters 11.1 KW
CTA 6511-6670	Nat'l. Pneumatic & Consolidated Car PCC blinker curved	Railway Utility Vapor Corp. on 6551-6600	Overhead & baseboard	90 cars:16.8KW, 70 cars:21.8KW	24 truss plank heaters 11.1 KW
CTA 6671-6720	Consolidated Car PCC blinker curved	Vapor	Overhead & baseboard	21.8 KW	24 truss plank heaters 11.1 KW
CTA 5-50	Consolidated car PCC blinker curved	Vapor	Overhead & baseboard	21.8 KW	24 truss plank heaters 11.1 KW
CTA 2001-2180	Vapor 2 leaf blinker curved	Vapor	Overhead a/c unit & baseboard	30 KW	12 KW
CTA 2201-2350	Vapor 2 leaf blinker curved	Vapor	Baseboard & undercar a/c unit	30 KW	12 KW
CTA 2401-2600	dc motor - Vapor 2 leaf sliding with pockets	E.L. Weigand & INDEECO	Baseboard & undercar a/c unit	31 KW	13 KW
CTA 2601-2900	dc Motor-Vapor 2 leaf sliding w/pockets	General Electric	Baseboard & undercar a/c unit	31.4 KW	13.4 KW

HEATING, COOLING & VENTILATION SYSTEMS					
HEATING IN PLENUM WATTAGE	CONTROLS		VENTILATION		
	AUTOMATIC HTNG. & VENTILATING SYSTEM	NO. FANS/CAR & MANUFACTURER	TYPE FAN	VOLTAGE, SPEED, OUTPUT	FAN SPEED STEPS
<i>See note 5</i>	Primary htng: Electric Controls: Vapor	6 Thermo-King	<i>See note 6</i>	3-Phase 208 volt, 3600rpm 500cfm	Not applicable
Info. not available	Safety Electric Company	Two (2) Safety Electric Company	centrifugal	650 VDC 1750 RPM 1855 CFM	one (1)
5 KW	Consolidated	1 Sturtevant	centrifugal	battery - 1000 cfm	4
5 KW	Consolidated	1 Sturtevant	centrifugal	battery - 1000 cfm	4
5 KW	Consolidated	1 Sturtevant	centrifugal	battery - 1000 cfm	4
90 cars:5 KW 70 cars:10 KW	Consolidated	90 cars:Sturte- vant, 70 cars: 2 reversible prop. fans	90 centrifugal, 70 axle	battery - 1000 cfm	4
10 KW	Vapor	2 Sturtevant	axial	battery-2000cfm	4
10 KW	Vapor	2 Sturtevant	axial	battery-2000cfm	4
18 KW	Vapor	2/Safety Electric	double centri- fugal	600 volts, 2700 cfm and 2 lower speeds	3
18 KW	Vapor	1/Safety Electric	double centri- fugal	600 volts, 1800 cfm and 3000 cfm	2
18 KW	Vapor	1 Lear Siegler	double centrifugal	230 volts ac 3200 cfm during ac, 1800 cfm during heat & ventilation	2
18 KW	Trane	1 Trane	double centrifugal	<i>See Note 9</i>	2

AUTHORITY CAR NOS./ ORDER NO.	HEATING, COOLING AND VENTILATION SYSTEMS				
	VENTILATION	COOLING SYSTEM			
	TYPE AIR DIFFUSER	AIR CONDITIONED	MANUFACTURER	TYPE	CAPACITY
BART 101-276 501-774	window sill	yes	Thermo-King	mechanical open-type com- pressor	12 ton
BRRTS 100-171	Overhead plenum split duct, flush slot	yes	Safety Electric Equipment Co.	Electro mechanical Vapor cycle	16 ton
CTA 6001-6200	overhead, cen- tral duct	no	not applicable	not applicable	not applicable
CTA 6201-6470	overhead, cen- tral duct	no	not applicable	not applicable	not applicable
CTA 6471-6510	overhead, cen- tral duct	no	not applicable	not applicable	not applicable
CTA 6511-6670	overhead, cen- tral duct	no	not applicable	not applicable	not applicable
CTA 6671-6720	overhead, cen- tral duct	no	not applicable	not applicable	not applicable
CTA 5-50	overhead, cen- tral	no	not applicable	not applicable	not applicable
CTA 2001-2180	overhead, cen- tral air con- ditioning pac- kage	yes	Safety	Electro-mechan- ical	10 ton
CTA 2201-2350	window sill	yes	Safety	Electro-mechan- ical	10 ton
CTA 2401-2600	window sill	yes	Lear-Siegler	Electro-mechan- ical Semi- hermetic	10 ton
CTA 2601-2900	window sill	yes	Trane	Electro - mechanical Semi-hermetic	<i>See Note 9</i>

HEATING, COOLING & VENTILATION SYSTEMS			LIGHTING		
COOLING SYSTEM			TYPE LAMP	NO. OF LAMPS/CAR	OVERHEAD LIGHT FIXTURE TYPE
AIR VOLUME	A/C CONTROL	REFRIGERANT			
3000 CFM incl. 800cfm fresh air	Vapor	R-22	Fluorescent	48	recessed ceiling
3710 CFM including 1400 CFM of outside air	Safety Electric Company	Freon-22	Flourescent	35	recessed louvered
not applicable	not applicable	not applicable	Incandescent	35	recessed
not applicable	not applicable	not applicable	Incandescent	34	recessed
not applicable	not applicable	not applicable	Incandescent	35	recessed
not applicable	not applicable	not applicable	Incandescent	35	recessed
not applicable	not applicable	not applicable	Incandescent	30	recessed
not applicable	not applicable	not applicable	Incandescent	30	recessed
2700 cfm	Vapor	R-22	Flourescent	14 main; 2 cab	cove
3000 cfm	Vapor	R-22	Fluorescent	17 main; 2 cab	cove
3200 cfm	Vapor	R-22	Fluorescent	23	cove
<i>See Note 9</i>	Trane	R-22	Fluorescent	23	cove

AUTHORITY CAR NOS./ ORDER NO.	LIGHTING				
	SPECIFIED INTENSITY AT READING PLANE	LIGHTING POWER SUPPLY	MAIN LIGHTS POLARITY REV. TIMER	HEAD LIGHTS	EMERGENCY LIGHT/CAR
BART 101-276 501-774	30-35 foot can- dles	Battery volt- age with inverter ballast at each fixture	not applicable	<i>See note 7</i>	1/3 of general lighting
BRRTS 100-171	30 foot candles, min., 40 foot candles, max.	static in- verter ballasts	not applicable	2-150W sealed beam	1/3 of normal internal lights
CTA 6001-6200	20 foot candles	600v dc	none	one sealed beam/car	6
CTA 6201-6470	20 foot candles	600v dc	none	one sealed beam/car	4
CTA 6471-6510	20 foot candles	600v dc	none	one sealed beam/car	4
CTA 6511-6670	20 foot candles	600v dc	none	one sealed beam/car	4 <i>Note 1</i>
CTA 6671-6720	none	600v dc	none	one sealed beam/car	4
CTA 5-50	none	600v dc	none	2 sealed beams, 1 each end	4
CTA 2001-2180	25-30 foot candles	inverter	none	2 sealed beams, cab end	4
CTA 2201-2350	25-30 foot candles	inverter ballasts	none	2 sealed beams, cab end	4
CTA 2401-2600	25-30 foot candles	inverter ballasts	none	2 sealed beams, cab end	4
CTA 2601-2900	23 foot candles avg. 15 foot candles min.	inverter ballasts	none	2 sealed beams, cab end	4

MISC. ELECTRICAL EQUIPMENT					
STORAGE BATTERY					
TYPE	AMP/HRS.	COMPARTMENT	BATTERY EQUIPPED CAR	BATTERY CHARGER TYPE	CURRENT COLLECTION
Nickel-cadmium	A car:160 B car:80	Steel/fibre glass	A11	Transformer-rectifier from 208V, 3Ø 60 Hz	Third rail shoes
Nickel-cadmium	Infor. not available	Infor. not available	B cars	Converter-A car Converter-B car	Third rail shoes
Nickel Iron	120	Steel	A11	Low voltage power supply	Third rail shoes
Nickel Iron	120	Steel	A11	Low voltage power supply	Third rail shoes
Nickel Iron	120	Steel	A11	Low vottage power supply	Third rail shoes
Nickel Iron	120	Steel	A11	Low voltage power supply	Third rail shoes
Nickel Iron	120	Steel	A11	Low voltage power supply	Third rail shoes
Nickel Iron	120	Steel	A11	Low voltage power supply	Third rail shoes (Note 5)
Nickel Iron	240	Steel	B cars	Low voltage power supply	Third rail shoes
Nickel Iron	240	Fiberglass	A11	Low voltage power supply	Third rail shoes
Nickel Cadmium	120	Steel	A11	Pulse-boost	Third rail shoes
Nickel-Cadmium	120	Steel	A11	Transformer-rectifier-regulator	Third rail shoes

AUTHORITY CAR NOS./ ORDER NO.	MISC. ELECTRICAL EQUIPMENT AUXILIARY POWER SUPPLY				TRACTION MOTOR
	NO./CAR	CAPACITY	INPUT/OUTPUT	TYPE	MFG. MODEL
BART 101-276 501-774	1	37.5 KVA	See note 8	Motor alter- nator	Westinghouse 1463
BRRTS 100-171	one (1)	120 A 37.5 VDC	700V DC/37.5V dc	Static converter	Westinghouse 1462
CTA 6001-6200	1	1.6 KVA	600V dc/ 40V dc	Motor generator	Westinghouse 1432 LK
CTA 6201-6470	1	1.6 KVA	600 V dc/ 40V dc	Motor generator	Westinghouse 1432 LK
CTA 6471-6510	1	1.6 KVA	600V dc/ 40V dc	Motor generator	Westinghouse 1432 LK or General Elec- tric 1220 F1
CTA 6511-6670	1	1.6 KVA	600V dc/ 40V dc	Motor generator	General Electric 1220 F1
CTA 6671-6720	1	1.6 KVA	600V dc/ 40V dc	Motor generator	General Electric 1220 F1
CTA 5-50	1	1.6 KVA	600V dc/ 40V dc	Motor generator	General Electric 1220 F1 or Westinghouse 1432 LK
CTA 2001-2180	1 B car only	10 KVA	600V dc/ 40V dc	static conver- ter	General Electric 1250 K1
CTA 2201-2350	1	10 KVA	600V dc/ 40V dc	static conver- ter	General Elec- tric 1250 K1
CTA 2401-2600	1	42 KVA	600V dc/ 230V ac, 60 Hz, 3 phase	motor alternator	General Electric 1262 A1
CTA 2601-2900	1	42 KVA	600V dc/ 230V ac, 60 Hz, 3 phase	motor alternator	General Elec- tric 1262 A1



TRACTION MOTOR					
NO./CAR	HORSE POWER	MOTOR MOUNTING	MOTOR BEARINGS	TRACTION GEARING MFG./TYPE	TRACTION GEAR RATIO
4	150	Shock-mounted on gear unit & truck frame	Commutator end: ball - 45 mm, Coupling end: roller - 65 mm	Westinghouse parallel single reduction	5.6:1
4	Info. not available	Resiliently, mounted to trucks	Commutator end-ball Pinion end-roller	Westinghouse parallel drive double reduction	5.723:1
4	55	On truck frame	SKF, pinion end: roller bearing, comm. end: ball bearing	Clark right angle	7.17:1
4	55	On truck frame	"	Clark right angle	7.17:1
4	55	On truck frame	"	Clark right angle	7.17:1
4	55	On separate motor suspension beam	"	Clark right angle	7.17:1
4	55	On separate motor suspension beam	"	Clark right angle	7.17:1
4	55	On separate motor suspension beam	"	Clark right angle	7.17:1
4	100	On truck frame	"	GE, right angle	6.125:1
4	100	On separate motor suspension beam	"	GE, right angle	6.125:1
4	110	Resilient on gear box & truck frame	"	Rockwell parallel	6.166:1
4	110	Resilient on gear box & truck frame	"	GE, parallel	6.157:1

AUTHORITY CAR NOS./ ORDER NO.	TRACTION MOTOR CONTROL				
	MASTER CONTROL- LER MFG./TYPE	CONTROL GROUP MFG.	TYPE PROPULSION CONTROL		WHEEL SLIP CONTROL
BART 101-276 501-774	Mobil-communi- cations/Rohr T handle	Westinghouse	Chopper		Yes
BRRTS 100-171	G-Handle Westinghouse	Westinghouse	Chopper		Yes
CTA 6001-6200	WABCO Cineston rotary handle	Westinghouse	Accelerator		No
CTA 6201-6470	WABCO Cineston rotary handle	Westinghouse	Accelerator		No
CTA 6471-6510	WABCO Cineston rotary handle	Westinghouse	Accelerator		No
CTA 6511-6670	WABCO Cineston rotary handle	Westinghouse	Accelerator		No
CTA 6671-6720	WABCO Cineston rotary handle	Westinghouse	Accelerator		No.
CTA 5-50	WABCO Cineston rotary handle	Westinghouse	Accelerator		No
CTA 2001-2180	WABCO Cineston	General Electric	SCM-1		No
CTA 2201-2350	General Elec- tric T handle	General Elec- tric	SCM-1		No
CTA 2401-2600	General Elec- tric T handle	General Elec- tric	SCM-1		Yes
CTA 2601-2900	General Elec- tric T handle	General Elec- tric	SCM-1		Yes

TRUCKS & SUSPENSIONS					
SIDE BEARINGS	ANTI-FRICTION JOURNAL BEARINGS MFG.	SPRINGING PRIMARY	SPRINGING SECONDARY	TYPE TRUCKS	WEIGHT/ TRUCK
Sliding air seal	Brenco, Inc.	Rubber journal sleeve	air bag	inboard bearing articulated frame	10,360 lbs.
Teflon coated, low-friction material	Timken	Rubber cushion	air bag	inboard bearing	12,875 lbs. Estimated
Not applicable	Timken	Not applicable	Steel coil	inboard bearing	17,200 lbs. & 18,400 lbs.
Not applicable	Timken	Not applicable	Steel coil	inboard bearing	16,900 lbs.
Not applicable	Timken	Not applicable	Steel coil	inboard bearing	16,900 lbs.
Not applicable	Timken	Not applicable	Steel coil & rubber	inboard bearing	18,200 lbs.
Not applicable	Timken	Not applicable	Steel coil & rubber	inboard bearing	18,200 lbs.
Not applicable	Timken	Not applicable	Steel coil & rubber	inboard bearing	18,100 lbs. & 18,300 lbs.
Not applicable	Timken	rubber cushion	Steel coil & rubber	inboard bearing	22,950 lbs.
Budd	SKF	rubber cushion	Steel coil & rubber	inboard bearing	20,500 lbs.
Not applicable	Timken	rubber block	Steel coil & rubber	inboard bearing	19,600 lbs.
Not applicable	Timken	rubber block	Steel coil & rubber	inboard bearing	See Note 9

AUTHORITY CAR NOS./ ORDER NO.	TRUCKS & SUSPENSIONS				PERFORMANCE
	MANUFACTURER	TRUCK MODEL NUMBER	WHEEL BASE	WHEEL DIAMETER	ACCELERATION RATE
BART 101-276 501-774	Rockwell	Not applicable	7'0"	30" Aluminum center	3 mphps
BRRTS 100-171	Budd	Info. not available	7'3"	28"	3.0 mphps
CTA 6001-6200	Clark Equip. Co.	B-2	6'	26"	3.2 mphps
CTA 6201-6470	Clark Equip. Co.	B-2	6'	26"	3.2 mphps
CTA 6471-6510	Clark Equip. Co.	B-2	6'	26"	3.2 mphps
CTA 6511-6670	St. Louis Car Co.	B-3	6'3"	26"	3.2 mphps
CTA 6671-6720	St. Louis Car Co.	B-3	6'3"	26"	3.2 mphps
CTA 5-50	St. Louis Car Co.	B-3	6'3"	26"	3.2 mphps
CTA 2001-2180	LFM Atchinson Div., Rockwell Mfg. Co.	CTA-1	6'6"	28"	3.2 mphps
CTA 2201-2350	Budd	Pioneer III	6'3"	28"	3.2 mphps
CTA 2401-2600	Wegmann	0.4509.04.- 100.001	6'6"	28"	3.2 mphps
CTA 2601-2900	Wegmann	0.4513.04- .100.001	6'6"	28"	3.2 mphps

PERFORMANCE				BRAKING	
MAXIMUM OPERATING SPEED	BALANCING SPEED	BRAKING		FRICTION BRAKE ARRANGEMENT	TYPE BRAKING
		SERVICE	EMERGENCY		
		MIN./MAX.			
80 mph	Speed limited to 80 mph	1.5 mphps (Note 10) 3 mphps	3.0 mphps	1 inboard disc per axle	Regenerative/dynamic & electro/hydraulic disc blended
70 mph	Info. not available	continuously variable to 3 MPH PS	3.2 mphps	WABCO Tread Brake	Regenerative or dynamic, pneumatic friction
49 mph	49 mph	1.2 mphps 3.2 mphps	6 mphps	External drum brake on motor shaft	All elect. dynamic, friction & track
49 mph	49 mph	1.2 mphps 3.2 mphps	6 mphps	External drum brake on motor shaft	All elect. dynamic, friction & track
49 mph	49 mph	1.2 mphps 3.2 mphps	6 mphps	External drum brake on motor shaft	All elect. dynamic, friction & track
49 mph	49 mph	1.2 mphps 3.2 mphps	6.5 mphps	Internal drum brake on motor shaft	All elect. dynamic, friction & track
49 mph	49 mph	1.2 mphps 3.2 mphps	6.5 mphps	Internal drum brake on motor shaft	All elect. dynamic, friction & track
49 mph	49 mph	1.2 mphps 3.2 mphps	6.5 mphps	Internal drum brake on motor shaft	All elect. dynamic, friction & track
55 mph <i>See note 6</i>	65 mph	1.5 mphps 3.2 mphps	6.5 mphps	Disc brake on motor shaft, American Steel Foundries	All elect. dynamic, friction & track
55 mph <i>See note 6</i>	70 mph	1.5 mphps 3.2 mphps	6.5 mphps	disc on motor shaft	All elect. dynamic, friction & track
55 mph <i>See note 6</i>	70 mph	1.5 mphps 3.2 mphps	6.5 mphps	motor speed disc	All elect. dynamic, friction & track
55 mph <i>See note 6</i>	70 mph	1.5 mphps 3.2 mphps	6.5 mphps	motor speed disc	All elect. dynamic, friction & track

AUTHORITY CAR NOS./ ORDER NO.	BRAKING				
	FRICION SUPPLEMENT	MPH FULL SERVICE BRAKE	TYPE BRAKE VALVE	TYPE COMPRESSOR	COMPRESSOR CAPACITY
BART 101-276 501-774	Above 84,000 lb. gross car weight	Regenerative/ dynamic to 4 mph	none	<i>Note 9</i>	5 cfm 17 cfm
BRRTS 100-171	Pneumatic sup- plement below 5 mph	Regenerative or dynamic to 5MPH	WABCO servitrol	WABCO D4s	24 CFM
CTA 6001-6200	none	max. to 1 mph	none	none	none
CTA 6201-6470	none	max. to 1 mph	none	none	none
CTA 6471-6510	none	max. to 1 mph	none	none	none
CTA 6511-6670	none	max. to 1 mph	none	none	none
CTA 6671-6720	none	max. to 1 mph	none	none	none
CTA 5-50	none	max. to 1 mph	none	none	none
CTA 2001-2180	none	max. to 3 mph	none	none	none
CTA 2201-2350	none	max. to 3 mph	none	none	none
CTA 2401-2600	none	max. to less than 3 mph dynamic	none	none	none
CTA 2601-2900	none	max. to less than 3 mph dynamic	none	none	none

BRAKING					
MANUFACTURER BRAKE	TYPE BRAKE SHOES	BRAKE CYLINDERS OR ACTUATOR			MANUFACTURER HAND BRAKE
		LOCATION	DIMENSIONS	NO./TYPE	
Hurst Airheart Westinghouse <i>See note 12</i>	composition molded	on truck ea/ axle caliper assembly	3.5" Dia.	4/car retractor 10-9187	Hurst Airheart Westinghouse <i>See note 12</i>
WABCO	composition molded	on truck frame	Info. not available	8/Car Pneumatic Hydraulic	WABCO
Not applicable	composition molded	on truck frame	Not applicable	Not applicable	none
Not applicable	composition molded	on truck frame	Not applicable	Not applicable	none
Not applicable	composition molded	on truck frame	Not applicable	Not applicable	none
Not applicable	composition molded lining	on truck frame	Not applicable	Not applicable	none
Not applicable	composition molded shoe	on truck frame	Not applicable	Not applicable	none
Not applicable	composition molded lining	on truck frame	Not applicable	Not applicable	none
Not applicable	composition molded shoe	on truck frame	Not applicable	Not applicable	none
Not applicable	composition molded lining	on truck frame	Not applicable	Not applicable	none
Not applicable	composition molded lining	on gear box	Not applicable	Not applicable	none
Not applicable	composition molded lining	on gear box	Not applicable	Not applicable	none

AUTHORITY CAR NOS./ ORDER NO.	COMMUNICATIONS		ATO/ATC		
	PUBLIC ADDRESS SYSTEM	TWO-WAY RADIO COMMUNICATION	CAB SIGNAL	AUTOMATIC TRAIN PROTECTION	AUTOMATIC TRAIN OPERATION
BART 101-276 501-774	yes	yes	none	yes	yes
BRRTS 100-171	yes	yes	yes	yes	yes
CTA 6001-6200	yes	no, all cars carry portable trainphone when in service	some cars	some cars	none
CTA 6201-6470	yes	"	some cars	some cars	none
CTA 6471-6510	yes	"	yes	yes	none
CTA 6511-6670	yes	"	yes	yes	none
CTA 6671-6720	yes	"	yes	yes	none
CTA 5-50	yes	"	yes	yes	none
CTA 2001-2180	yes	portable train- phone when in service	yes	yes	none
CTA 2201-2350	yes	no, built-in trainphone only	yes	yes	none
CTA 2401-2600	yes	provision for portable train- phone	yes	yes	none
CTA 2601-2900	yes	none	yes	yes	none



AUTHORITY CAR NOS./ ORDER NO.	NO. OF CARS/ TYPE CAR	YEAR PURCHASED	PLACED IN SERVICE	CAR BUILDER	BID PRICE PER CAR
GCRTA 201-256	56 married pair	1954	1955	St. Louis Car Co.	\$61,433
GCRTA 101-112	12 Single car units	1954	1955	St. Louis Car Co.	\$70,676
GCRTA 257-270	14 married pair	1957	1958	St. Louis Car Co.	\$76,409
GCRTA 113-118	6 Single car units	1957	1958	St. Louis Car Co.	\$83,117
GCRTA 150-169	20 Single car units	1966	1967	Pullman-Standard	\$171,208
GCRTA 171-180	10 Single car units	1970	1970	Pullman-Standard	\$251,950
MARTA 101-200 Pairs 501-520 Single	50 married prs., 20 single units	1976	1979	Franco Belge	\$563,000
MBTA 01100-01199	100 married pair	1956 & 1957	1957	Pullman-Standard	50: \$74,987 50: \$80,000
MBTA 01490-01491	92 married pair	1962	1963	Pullman-Standard	\$109,626
MBTA 01500-01523	24 Single car units	1968	1969 & 1970	Pullman-Standard	\$175,292
MBTA 01600-01651	52 married pairs	1968	1969	Pullman-Standard	\$161,105

AUTHORITY CAR NOS./ ORDER NO.	COMPATIBILITY WITH OTHER CARS	DIMENSIONS			
		LENGTH OVER COUPLERS	LENGTH OVER ANTI-CLIMBER	TRUCK CENTERS	WHEEL BASE
GCRTA 201-256	w/cars 101-118; 257-270	48'9"	48'6"	31'2"	6'6"
GCRTA 101-112	w/cars 113-118; 201-270	48'9"	48'6"	31'2"	6'6"
GCRTA 257-270	w/cars 101-118; 201-256	48'9"	48'6"	31'2"	6'6"
GCRTA 113-118	w/cars 101-112; 201-270	48'9"	48'6"	31'2"	6'6"
GCRTA 150-169	w/cars 171-180	70'3"	70'	49'6"	6'10"
GCRTA 171-180	w/cars 150-169	70'3"	70'	49'6"	6'10"
MARTA 101-200 Pairs 501-520 Single	Not Req'd. w/ other cars in fleet	A car: 75' B car: 75' C car: 75'4"	74'9" 74'9" 75'1"	52'6"	7'3"
MBTA 01100-01199	no	55'3-3/4"	55'	35'	6'10"
MBTA 01400-01491	no	69'9-3/4"	69'6"	51'	6'10"
MBTA 01500-01523	w/cars 01600- 01651	69'9-3/4"	69'6"	51'	6'10"
MBTA 01600-01651	w/cars 01500- 01523	69'9-3/4"	69'6"	51'	6'10"

DIMENSIONS

WIDTH OF CAR BODY MAXIMUM	WHEEL DIAMETER	NO. OF CARS/ TRAIN MIN./MAX.	SEATING CAPACITY	MAX. NO. PSGRS.		CLEAR FLOOR AREA SQ. FT. (INCLDG. CABS)
				DESIGN	PRACTICAL (CRUSH)	
10'4"	28"	2 8	54	100	197	200 sq. ft. (including cabs: 213 sq. ft.)
10'4"	28"	1 8	52	100	195	200 sq. ft. (including cabs: 213 sq. ft.)
10'4"	28"	2 8	54	100	197	200 sq. ft. (including cabs: 213 sq. ft.)
10'4"	28"	1 8	52	100	195	200 sq. ft. (including cabs: 213 sq. ft.)
10'5"	28"	1 4	80	120	180	258 sq. ft.
10'5"	28"	1 4	80	120	180	258 sq. ft.
10'6"	34"	A } - 2 Max. B } - 8 C - 1 8	68 68 62	140/250 140/250 140/235		290 sq. ft.
9'5-1/2" (gutters), 8'11-3/4" (side sheets)	28"	2 4	46	175	224	267 sq. ft.
10'4-1/4" (gutters), 9'10-1/4" (side sheets)	28"	2 4	54	275	308	328 sq. ft.
10'1-1/2" (gutters), 10'0" (side sheets)	28"	1 4	60	standing 198 total 258		297 sq. ft.
10'1-1/2" (gutters), 10'0" (side sheets)	28"	2 4	64	standing 205 total 269		308 sq. ft.

AUTHORITY CAR NOS./ ORDER NO.	DIMENSIONS				
	MINIMUM HEAD ROOM	HGT. MIN., FLR TO HEADLINING AT CENTER	WIDTH OF SIDE DOOR OPENINGS	HEIGHT OF SIDE DOOR OPENINGS	WIDTH ACROSS THRESHOLD PLATES
GCRTA 201-256	7'2"	7'2"	4'2"	6'3"	10'3-3/16"
GCRTA 101-112	7'2"	7'2"	4'2"	6'3"	10'3-3/16"
GCRTA 257-270	7'2"	7'2"	4'2"	6'3"	10'3-3/16"
GCRTA 113-118	7'2"	7'2"	4'2"	6'3"	10'3-3/16"
GCRTA 150-169	8'0-1/4"	8'0-1/4"	4'2"	6'2-3/4"	10'4"
GCRTA 171-180	8'0-1/4"	8'0-1/4"	4'2"	6'2-3/4"	10'4"
MARTA 101-200 Pairs 501-520 Single	6'8"	6'10"	4'2"	6'7"	10'1-1/4"
MBTA 01100-01199	7'1-27/32"	7'1-23/32"	4'2"	6'3"	8'7-5/8"
MBTA 01400-01491	7'2-7/8"	7'2-7/8"	4'2"	6'3"	9'6"
MBTA 01500-01523	6'7"	High: 7'2" Low: 6'6-3/4"	4'	6'3"	9'6"
MBTA 01600-01651	6'7"	High: 7'2" Low: 6'6-3/4"	4'	6'3"	9'6"

DIMENSIONS					
HEIGHT MAXIMUM		HEIGHT-TOP OF RAIL TO CAR FLOOR	AISLE WIDTH MIN./MAX.	MIN. RADIUS HORIZ. CURVE CAR IS DESIGNED TO NEGOTIATE	MIN. RADIUS VERTICAL CURVE
TOP OF RAIL TO TOP OF ROOF	OVER RADIO ANTENNA, FAN HOUSING, ETC.				
11'9"	13'2-11/16" to top of latched pantograph	3'6"	3'2" 3'2"	120	+2000'
11'9"	13'2-11/16" to top of latched pantograph	3'6"	3'2" 3'2"	120'	+2000'
11'9"	13'2-11/16" to top of latched pantograph	3'6"	3'2" 3'2"	120'	+2000'
11'9"	13'2-11/16" to top of latched pantograph	3'6"	3'2" 3'2"	120'	+ 2000'
12'0"	13'6" to top of latched pantograph	3'6"	2'11-3/8" 2'11-3/8"	120'	+2000'
12'0"	13'6" to top of latched pantograph	3'6"	2'11-3/8" 2'11-3/8"	120'	+2000'
11'10"	12'2"	3'8"	2'10" 2'10"	350'	1.5% max. per 100' (parabolic)
11'11-3/4"	11'11-3/4"	3'9-3/8"	4'3-1/8" 5'3-1/8"	90'	Angularity of drawbar +4°
12'5-13/16"	12'5-13/16"	4'1"	5'10-3/4" 5'10-3/4"	125'	+2000'
12'4-5/16"	12'8-7/16"	4'1"	2'4-3/4" 4'8-3/4"	125'	+2000'
12'4-5/16"	12'8-7/16"	4'11"	2'4-3/4" 4'8-3/4"	125"	+2000'

AUTHORITY CAR NOS./ ORDER NO.	DIMENSIONS		WEIGHTS		
	TRACK GAUGE	SINGLE CAR AVG.-LT. WT. LBS.	AVG. WT. A/CAR, B/CAR	WEIGHT/ SQ. FT.	WEIGHT/ SEAT
GCRTA 201-256	4'8-1/2"	not applicable	54,658 lbs. 53,652 lbs.	A-109 lbs. B-107 lbs.	A-1012 lbs. B-994lbs.
GCRTA 101-112	4'8-1/2"	56,620 lbs.	not applicable	113 lbs.	1089 lbs.
GCRTA 257-270	4'8-1/2"	not applicable	53,245 lbs. 53,990 lbs.	A-106 lbs. B-108 lbs.	A-986 lbs. B-1000 lbs.
GCRTA 113-118	4'8-1/2"	57,050 lbs.	not applicable	114 lbs.	1097 lbs.
GCRTA 150-169	4'8-1/2"	64,775 lbs.	not applicable	90 lbs.	810 lbs.
GCRTA 171-180	4'8-1/2"	64,000 lbs.	not applicable	89 lbs.	800 lbs.
MARTA 101-200 Pairs 501-520 Single	4'8-1/2"	76,000 lbs.	Not applicable	101 lbs.	1117 lbs.
MBTA 01100-01199	4'8-1/2"	not applicable	57,540 lbs. 58,620 lbs.	A: 112 lbs. B: 114 lbs.	A: 1251 lbs. B: 1274 lbs.
MBTA 01400-01491	4'8-1/2"	<i>See note 2</i>	GE: 71,300 lbs. WH: 69,080 lbs. GE: 72,030 lbs. WH: 69,900 lbs.	GE: 99 lbs. WG: 96 lbs.	GE: 1327 lbs. WH: 1287 lbs.
MBTA 01500-01523	4'8-1/2"	64,462 lbs.	not applicable	92 lbs.	1074 lbs.
MBTA 01600-01651	4'8-1/2"	not applicable	61,728 lbs. 60,408 lbs.	97 lbs.	A: 964 lbs. B: 944 lbs.

WEIGHTS			CAR BODY		
WEIGHT/ PASSENGER (CRUSH LOAD)	AVG. WEIGHT OF COMPLETE TRUCKS #1 TRUCK/#2 TRK	LOAD WEIGHING DEVICE	MOTORMAN'S CABS/CAR	WINDSHIELD WIPERS	BODY & FRAMING
A-279 lbs. B-274 lbs.	11,500 lbs.	yes	1	1 air wiper/ car	Welded all steel structure See note 2
292 lbs.	11,500 lbs.	yes	1	2 air wipers/ per car	Welded all steel structure See note 2
A-272 lbs. B-275 lbs.	11,500 lbs.	yes	1	1 air wiper/ car	Welded all steel structure See note 2
294 lbs.	11,500 lbs.	yes	2	2 air wipers/ car	Welded all steel See Note 2
360 lbs.	11,327 lbs. ea.	yes	2	2 air wipers/ car	Stainless steel
356 lbs.	11,327 lbs. ea.	yes	2	2 air wipers/ car	Stainless steel
304 lbs.	12,800 lbs.	yes	A & B = 1 C = 2	1 air wiper	Aluminum
A: 257 lbs. B: 262 lbs.	24,240 lbs.	yes	1	1 air wiper/car	Welded all steel No centersill
A: 233 lbs. B: 226 lbs.	GE: 26,820 lbs. WH: 24,400 lbs.	yes	1	1 air wiper/car	Steel under- frame carlines & posts
283 lbs.	25,960 lbs.	yes	2	2 air wipers/ car	Steel & alumi- num
A: 258 lbs. B: 253 lbs.	25,380 lbs.	yes	1	1 air wiper/car	Steel & alumi- num

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY				
	ROOF CONSTRUCTION	EXTERIOR FINISH (PAINT)	COLOR SCHEME		FLOOR CONSTRUCTION
			INTERIOR	EXTERIOR	
GCRTA 201-256	Louvered with dampers	Synthetic enamel	Blue & grey	Blue & silver	Plywood with rubber floor covering
GCRTA 101-112	Louvered with dampers	Synthetic enamel	Blue & grey	Blue & silver	Plywood with rubber floor covering
GCRTA 257-270	Louvered with dampers	Synthetic enamel	Blue & grey	Blue & silver	Plywood with rubber floor covering
GCRTA 113-118	Louvered with dampers	Synthetic enamel	Blue & grey	Blue & silver	Plywood with rubber floor covering
GCRTA 150-169	Stainless steel	Stainless steel Fiberglass	White ceiling, tan sidewall	Stainless steel w/red trim	Plywood with rubber floor covering
GCRTA 171-180	Stainless steel	Stainless steel	White ceiling, tan sidewall	Stainless steel w/red trim	Plywood with rubber floor covering
MARTA 101-200 Pairs 501-520 Single	Aluminum	Brushed alumi- num	Beige	Brushed alumi- num with black stripe at win- dows	Aluminum faced plywood & car- peting
MBTA 01100-01199	"	Synthetic enamel	Grey White Orange	Grey White Orange	3/4" plywood w/steel plate & vinyl-asbes- tos flr. cover
MBTA 01400-01491	Side sheathing & monitor roof of steel	Synthetic enamel	Grey White Red	Grey White Red	Metal faced ply- wood with vinyl plastic tile
MBTA 01500-01523	Aluminum	Aluminum	Grey Silver	Siler	Plywood
MBTA 01600-01651	Aluminum	Aluminum	Grey Silver	Silver	Plywood



CAR BODY					
CEILING FINISH	SIDE WINDOWS, SASH		WINDOWS & DOOR GLAZING MATERIAL	INTERIOR FINISH	SEATS
	TYPE	MANUFACTURER			ARRANGEMENT
5/32" Formica <sup>TM</sup> headboard	fixed	St. Louis	Glass	Formica <sup>TM</sup> headboard, stainless steel & syn. enamel	Cross
5/32" Formica <sup>TM</sup> headboard	fixed	St. Louis	Glass	"	Cross
5/32" Formica <sup>TM</sup> headboard	fixed	St. Louis	Glass	"	Cross
5/32" Formica <sup>TM</sup>	fixed	St. Louis	Glass	Formica <sup>TM</sup> hardboard & synthetic enamel	Cross
off white	fixed	Teleweld	Polycarbonate	Formica <sup>TM</sup> hardboard	Cross
off white	fixed	Teleweld	Polycarbonate	Stainless steel & melamine	Cross
Non-flammable fiberglass	Stationary	KLIEN (France)	Glass	Fiberglass non-flammable	Transverse & longitudinal
5/32" Formica <sup>TM</sup>	fixed	Ellcon National	Glass	See Note 3	Longitudinal
Formica	fixed	Ellcon National	Glass	Melamine plastic & stainless steel	Longitudinal
.010" Vinyl perforated w/.094" dia. holes @ 3/16" centers	fixed	Ellcon National	Glass	Plastic	Cross & longitudinal
"	fixed	Ellcon National	Glass	Plastic	Cross & longitudinal

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY SEATS				
	FRAMING	COVERING MATERIAL		COLOR	
		ORIGINAL	PRESENT	ORIGINAL	PRESENT
GCRTA 201-256	Stainless steel tubing	Vinyl	Vinyl	Blue plaid	Blue
GCRTA 101-112	Stainless steel tubing	Vinyl	Vinyl	Blue plaid	Blue
GCRTA 257-270	Stainless steel tubing	Vinyl	Vinyl	Blue	Blue
GCRTA 113-118	Stainless steel tubing	Vinyl	Vinyl	Blue	Blue
GCRTA 150-169	Stainless steel tubing	Super Timkote 7500	Super Timkote 7500	Mountain ash, buckeye, lake blue	Mountain ash, buckeye, lake blue
GCRTA 171-180	Stainless steel tubing	Super Timkote 7500	Super Timkote 7500	Mountain ash, buckeye, lake blue	Mountain ash, buckeye, lake blue
MARTA 101-200 Pairs 501-520 Single	Aluminum extru- sions	Non-flammable- low smoke plas- tic over Neo- prene	Non-flammable low smoke plas- tic over Neo- prene	Brown & beige	Brown & beige
MBTA 01100-01199	Built-up	Super Timkote	Super Timkote	Coral and tur- quoise	Coral and tur- quoise
MBTA 01400-01491	Painted steel, built-up	Molded fiber- glass	Molded fiber- glass	Coral	Coral
MBTA 01500-01523	Pedestal	Urethane foam & vinyl	Vinyl Resin base S-13883 Neoprene foam LS-200	Black	Black
MBTA 01600-01651	Pedestal	Urethane foam & vinyl	Vinyl Resin base S-13883 Neoprene foam LS-200	Black	Black

CAR BODY					
SEATS					
MANUFACTURER	CEILING HANDHOLDS TYPE/NO./CAR	NO. OF SEAT HANDHOLDS	CEILING TO FLOOR STANCHIONS PER CAR	SIDE DOOR OPENINGS/CAR	NO. OF SIDE DOOR PANELS PER CAR
Heywood-Wakefield	none	24/car	11	4	8
Heywood-Wakefield	none	24/car	14	4	8
Heywood-Wakefield	none	24/car	11	4	8
Heywood-Wakefield	none	24/car	14	4	8
Flxible Co.	handrails/2 continuous	38/car	4	4	8
Flxible Co.	handrails/2 continuous	38/car	4	4	8
Pullman (France)	handrails/ -	At each seat	12	6	12
Heywood-Wakefield	Waugh/50 no. 24	none	none	6	12
Heywood-Wakefield	Elcon/52 type 48	none	10	8	16
Coach & Car	none	none	12	6	12
Coach & Car	none	none	12	6	12

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY		COUPLER & DRAFT GEAR		
	DOOR FABRICATION	MANUFACTURER OF DOORS & HANGERS	TYPE COUPLER	COUPLING AT INTERMEDIATE END	DRAFT GEAR
GCRTA 201-256	Aluminum	Morton Mfg.	WABCO Type K-1-B	Semi-perm. coupling, rubber cushioning 1-1/4" deflection at 120,000 lbs. load	Rubber cushion <i>Note 3</i>
GCRTA 101-112	Aluminum	Morton Mfg.	WABCO Type K-1-B	none	Rubber cushion <i>Note 3</i>
GCRTA 257-270	Aluminum	Morton Mfg.	WABCO Type K-1-B	Semi-perm. coupling, rubber cushioning 1-1/4" deflection at 120,000 lbs. load	Rubber cushion <i>Note 3</i>
GCRTA 113-118	Aluminum	Morton Mfg.	WABCO Type K-1-B	none	Rubber cushion <i>Note 3</i>
GCRTA 150-169	Stainless steel	Morton Mfg.	WABCO N-2	none	Rubber <i>Note 3</i>
GCRTA 171-180	Stainless steel	Morton Mfg.	WABCO N-2	none	Rubber <i>Note 3</i>
MARTA 101-200 Pairs 501-520 Single	Aluminum	Vapor:Hangers SFB:Doors	Ohio Brass	Ohio Brass Drawbar	Rubber Cushion
MBTA 01100-01199	Corten Steel	O.M. Edwards	Ohio Brass Form 29	Ohio Brass	<i>See note 4</i>
MBTA 01400-01491	Corten Steel	O.M. Edwards	Ohio Brass Form 29	Ohio Brass	<i>See note 5</i>
MBTA 01500-01523	Aluminum	O.M. Edwards	Symington Wayne 8F-7919-C	Symington Wayne, 8F- 7919-C	Rubber
MBTA 01600-01651	Aluminum	O.M. Edwards	Symington Wayne 8F-7919-C	Symington Wayne 8F-7920	Rubber

COUPLER & DRAFT GEAR MAXIMUM HORIZONTAL BUFF	MISCELLANEOUS CAR BODY ITEMS			DOOR OPERATION & CONTROL	
	SIDE & END DESTINATION SIGN		TYPE FIRE EXTINGUISHER	LOCATION OF DOOR CONTROL DEVICE	DOOR OPERATORS NO./CAR/TYPE
MANUFACTURER	CURTAIN MATERIAL				
20,000 lbs. 90,000 & 110,000 lbs. shear bolts, #1 end, 90,000 lbs. shear bolts #2 end	Hunter	cloth	Ansul dry type, #10-C	In motorman's cab and just behind rear side doors both sides	8 Air
"	Hunter	cloth	Ansul dry type, #10-C	In motorman's cab only	8 Air
"	Hunter	cloth	Ansul dry type, #10-C	In motorman's cab and just behind rear side doors both sides	8 Air
200,000 lbs.	Hunter	cloth	Ansul dry type, #10-C	In motorman's cab	8 Air
200,000 lbs.	Teleweld	Mylar	Dry powder	Motorman's cab and opposite side	8 Electric
200,000 lbs.	Teleweld	Mylar	Ansul	Motorman's cab and opposite side	8 Electric
175,000 lbs	Teleweld & Luminator	Cab end - Mylar	Dry powder	Motorman's cab	12 Electric
200,000 lbs.	Hunter	Holland cloth	1 - 5 3/4 lb. & 1 - 18 lb. Dry	Outside on guard's platform	12 Air
200,000 lbs.	Hunter	Holland cloth,	one 5-3/4 lb. & one 18 lb. dry type	In motorman's cab	16 Air
200,000 lbs.	Teleweld	Mylar	one 5-3/4 lb. & one 18 lb. dry type	In motorman's cab	12 Air
200,000 lbs.	Teleweld	Mylar	one 5-3/4 lb. & one 18 lb. dry type	In motorman's cab	12 Air

AUTHORITY CAR NOS./ ORDER NO.	DOOR OPERATION & CONTROL	HEATING, COOLING & VENTILATION SYSTEMS			
	DOOR CONTROL DEVICE	HEATING			
		MANUFACTURER	LOCATION	TOTAL KW/CAR	UNDER SEAT WATTAGE
GCRTA 201-256	Consolidated Car Heating	Car Heating Minneapolis Honeywell	Motor & brake resistors	15 KW Auxilliary	Not applicable
GCRTA 101-112	Consolidated Car Heating	Car Heating Minneapolis Honeywell	Motor & brake resistors	15 KW Auxilliary	Not applicable
GCRTA 257-270	Consolidated Car Heating	Vapor	Motor & brake resistors	20 KW Auxilliary	Not applicable
GCRTA 113-118	Consolidated Car Heating	Vapor	Motor & brake resistors with aux. heat	20 KW Auxilliary	Not applicable
GCRTA 150-169	Vapor	Vapor	Strip heaters under car	41.4 KW	none
GCRTA 171-180	Vapor	Safety Elec- tric	Strip heaters under car	41.4 KW	none
MARTA 101-200 Pairs 501-520 Single	Vapor	Safety Electric French Manufac- turing	Overhead Strip & Tube along wall sides at floor level	29.5 KW	17.5 KW
MBTA 01100-01199	Consolidated Car Heating	Minneapolis Honeywell	Motor & brake resistors	Info. not available	Info. not available
MBTA 01400-01491	Vapor GE-ASO	Vapor GE-ASO	Motor & brake resistors, being replaced by under-seat strip heaters	20 K.W.	20 K.W.
MBTA 01500-01523	Vapor	Vapor	Floor heaters	40 KW	18 over 12 under
MBTA 01600-01651	Vapor	Vapor	Floor heaters	40 KW	18 over 12 under

HEATING, COOLING & VENTILATION SYSTEMS					
HEATING	CONTROLS		VENTILATION		
IN PLENUM WATTAGE	AUTOMATIC HTNG. & VENTILATING SYSTEM	NO. FANS/CAR & MANUFACTURER	TYPE FAN	VOLTAGE, SPEED, OUTPUT	FAN SPEED STEPS
Not applicable	Minneapolis Honeywell	4-23" axiflow ventilation fans	Axial flow	150V, 860 rpm, 3000 cfm	Variable
Not applicable	Minneapolis Honeywell	4-23" axiflow ventilation fans	Axial flow	150V, 860 rpm, 3000 cfm	Variable
Not applicable	Vapor	4-23" axiflow ventilation fans	Axial flow	150V, 860 rpm, 3000 cfm	Variable
Not applicable	Vapor	4-23" axiflow ventilation fans	23" axial flow	150V, 860 rpm, 3000 cfm	Variable
41.4 KW, all in undercar plenum	Vapor	1 Blower motor	part of A/C	600V, 3800 rpm, 3000 cfm	1
41.4 KW, all in undercar plenum	Safety Electric	2 Blower motors	part of A/C	600V, 1425 rpm, 3600 cfm	1
6/2.5 KW	Safety Electric	2/Safety Electric	Axial Flow	650V dc 1940/1820 cfm/Evap, 3880/3640 cfm/car	Two speed
Info. not available	Motor & brake control resistors	Westinghouse 4-23" Axiflow ventilation fans	Axiflow	14,000 cfm	Variable
0	Motor & brake control resistors	6'-23" Axiflow Westinghouse ventilation fans	Axiflow	18,000 CFM	Variable
18 K.W.	Strip floor heaters w/Vapor temperature control, See A/C	none	Part of A/C	Not applicable	Not applicable
18 K.W.	Strip floor heaters w/Vapor temperature control, See A/C	none	Part of A/C	Not applicable	Not applicable

AUTHORITY CAR NOS./ ORDER NO.	HEATING, COOLING AND VENTILATION SYSTEMS				
	VENTILATION	COOLING SYSTEM			
	TYPE AIR DIFFUSER	AIR CONDITIONED	MANUFACTURER	TYPE	CAPACITY AIR CONDITION
GCRTA 201-256	Annular con. vanes	no	Consolidated Car Heating	Not applicable	Not applicable
GCRTA 101-112	Annular con. vanes	no	Consolidated Car Heating	Not applicable	Not applicable
GCRTA 257-270	Annular con. vanes	no	Vapor	Not applicable	Not applicable
GCRTA 113-118	Ceiling fan	no	Vapor	Not applicable	Not applicable
GCRTA 150-169	Lower mask of side window	yes	Safety Carrier	electromechani- cal	10
GCRTA 171-180	Front side of lower side win- dow mask	yes	Safety Carrier	electromechani- cal	12 ton
MARTA 101-200 Pairs 501-520 Single	Linear strip along overhead plenum	yes	Safety Carrier	Mech. Vapor Cycle	18.0 ton
MBTA 01100-01199	Ceiling fan	no	Vapor	Mech. Vapor Cycle	Not applicable
MBTA 01400-01491	Ceiling fan	no	Vapor	Mech. Vapor Cycle	Not applicable
MBTA 01500-01523	Linear strip along overhead plenum	yes	Safety Electric	Vapor Cycle	12 ton
MBTA 01600-01651	Linear strip along overhead plenum	yes	Safety Electric	Vapor Cycle	12 ton



HEATING, COOLING & VENTILATION SYSTEMS			LIGHTING		
COOLING SYSTEM			TYPE LAMP	NO. OF LAMPS/CAR	OVERHEAD LIGHT FIXTURE TYPE
AIR VOLUME	HVAC	REFRIGERANT			
3000 cfm	Vapor	Not applicable	Flourescent F48T8/SW/1 F72T8/SW/1	14	longitudinal strip - glass lens - 2 rows
3000 cfm	Vapor	Not applicable	Fluorescent F48T8/SW/1 F72T8/SW/1	14	longitudinal strip - glass lens - 2 rows
3000 cfm	Vapor	Not applicable	Fluorescent F48T8/SW/1 F72T8/SW/1	14	longitudinal strip - glass lens - 2 rows
3000 cfm	Vapor	Not applicable	Fluorescent F48T8/SW/1 F72T8/SW/1	14	longitudinal strip - glass lens - 2 rows
3000 cfm 2000 Rec. 1000 out.	Therm. control	R22	Fluorescent (28)F40 CW (2)F30T12/CW	30	Car Card back lighting-Luminator
3600 cfm 2640 Rec. 960 out.	Therm. control	R22	Fluorescent (28)F40CW (2)F30T12/CW	30	"
3880 cfm	Safety Electric	R22	Fluorescent	34	Luminator Lexan Polycarbonate
3000 CFM	Vapor	Not applicable	Incandescent	58	Round hinge mounted lens
3000 CFM	Vapor	Not applicable	Incandescent	114	Round hinge mounted lens
3600 CFM	Safety Electric	R22	Fluorescent	28	flush mounted
3600 CFM	Safety Electric	R22	Fluorescent	28	flush mounted

AUTHORITY CAR NOS./ ORDER NO.	LIGHTING				
	SPECIFIED INTENSITY AT READING PLANE	LIGHTING POWER SUPPLY	MAIN LIGHTS POLARITY REV. TIMER	HEAD LIGHTS	EMERGENCY LIGHT/CAR
GCRTA 201-256	15 foot candles	600V dc	on reverser	1 twin sealed beam/car	4
GCRTA 101-112	15 foot candles	600V dc	on reverser	2 twin sealed beams/car	4
GCRTA 257-270	15 foot candles	600V dc	on reverser	1 twin sealed beam/car	4
GCRTA 113-118	15 foot candles	600V dc	on reverser	2 twin sealed beams/car	4
GCRTA 150-169	35 foot candles	Individual in- verter bal- lasts, from battery	none	2 sealed beams, each end	none
GCRTA 171-180	35 foot candles	Individual in- verter bal- lasts, from battery	none	2 sealed beams, each end	none
MARTA 101-200 Pairs 501-520 Single	30 foot candles	37.5V dc with inver	none	2 sealed beams	8
MBTA 01100-01199	30 foot candles	600V dc, third rail	none	none	6
MBTA 01400-01499	30 foot candles	600V dc, third rail	none	1 twin sealed beam/cab end (installed dur- ing overhaul program)	8
MBTA 01500-01523	35 foot candles	Inverter from generator	none	2 sealed beams/ cab end	8
MBTA 01600-01651	35 foot candles	Inverter from generator	none	2 sealed beams/ cab end	8

MISC. ELECTRICAL EQUIPMENT					
STORAGE BATTERY					
TYPE	AMP/HRS.	COMPARTMENT	BATTERY EQUIPPED CAR	LVPS OR BATTERY CHARGER	CURRENT COLLECTION
Nickel iron-alkaline	112.5	Wood	Even numbers	Motor Gen. Westinghouse YX-25-AE	Pantograph WH-S565C
Nickel iron-alkaline	112.5	Wood	All	Motor Gen. Westinghouse YX-25-AE	Pantograph WH-S565C
Nickel iron-alkaline	112.5	Wood	Even numbers	Motor Gen. Westinghouse YX-25-AE	Pantograph WH-S565C
Nickel iron-alkaline	112.5	Wood	All	Motor Gen. Westinghouse YX-25-AE	Pantograph WH-S565-C
Nickel iron-alkaline	112.5	Fiberglass	all	Motor Gen. GE-GMG-179A	Pantograph Brecknal-Willis AM-00041-03-L
Nickel iron-alkaline	112.5	Fiberglass	all	Motor Gen. GE-GMG-179A	Pantograph Brecknal-Willis AM-00041-03-L
Nickel cad mium	240	Stainless steel	A car only	Static converter	Third rail shoes
Nickel iron-alkaline	112.5	wood	Even numbers	none	Third rail shoe
Nickel iron-alkaline	112.5	wood	Even numbers	none	Third rail shoes
Nickel iron-alkaline	240	Stainless steel	All	none	Third rail shoes
Nickel iron-alkaline	340	Stainless steel	Even numbers	none	Third rail shoes

AUTHORITY CAR NOS./ ORDER NO.	MISC. ELECTRICAL EQUIPMENT				TRACTION MOTOR
	AUXILIARY POWER SUPPLY				MFG./MODEL
	NO./CAR	CAPACITY	INPUT/OUTPUT	TYPE	
GCRTA 201-256	1 on even num- bers	1.8 KVA	600V dc/ 40V dc	MG	Westinghouse 1432H
GCRTA 101-112	1	1.8 KVA	600V dc/ 40V dc	MG	Westinghouse 1432H
GCRTA 257-270	1 on even num- bers	1.8 KVA	600V dc/ 40V dc	MG	Westinghouse 1432H
GCRTA 113-118	1	1.8 KVA	550V dc/ 40V dc	MG	Westinghouse 1432H
GCRTA 150-169	1	10 KVA	600V dc/ 37.5V dc	MG	General Electric 1250 M1
GCRTA 171-180	1	10 KVA	600V dc/ 37.5V dc	MG	General Electric 1250 M1
MARTA 101-200 Pairs 501-520 Single	1	8 KVA	750V dc/ 37.5V dc	Chopper (Static)	Garrett
MBTA 01100-01199	1/even car	1.5 KVA	600V dc/ 37.5V dc	MG	General Electric 1250 A-1
MBTA 01400-01491	1/even car	1.5 KVA	600V dc/ 37.5V dc	MG	46 General Electric 1250 J1, 46 West- inghouse 1454 G
MBTA 01500-01523	1 each car	10 KVA	600V dc/ 37.5V dc	MG	Westinghouse 1460A
MBTA 01600-01651	1/even car	10 KVA	600V dc/ 37.5V dc	MG	Westinghouse 1460A

TRACTION MOTOR					
NO./CAR	HORSEPOWER	MOTOR MOUNTING	MOTOR BEARINGS	TRACTION GEARING	TRACTION GEAR RATIO
4	55	On truck frame	commutator end: roller bearing 40mm coupling end:roller bearing 50mm.	Right angle St. Louis	7.17:1
4	55	On truck frame	commutator end: roller bearing 40mm coupling end:roller bearing 50mm.	Right angle St. Louis	7.17:1
4	55	On truck frame	commutator end: roller bearing 40mm coupling end:roller bearing 50mm.	Right angle St. Louis	7.17:1
4	55	On truck frame	commutator end: roller - 40mm coupler end: roller - 50mm	Right angle St. Louis	7.17:1
4	100	On truck frame	commutator end: ball bearing coupler end: roller	Parallel GE-7GA56C1	6.21:1
4	100	On truck frame	commutator end: ball bearing coupler end: roller	Parallel GE-76A56C1	6.21:1
4	160	Resilient on truck	Roller & ball	parallel	5.7647:1
4	100	On truck frame	Com. End 40 M.M. Ball Bearing- Coup. End 60 M.M. Roller	Right angle	7.11:1
4	100	Motor & gear unit suspended between truck frame & axle	"	General Elec.: Right angle Westinghouse: Parallel	General Electric 8.14:1 Westinghouse 8.06:1
4	100	Motor & gear unit suspended between truck frame & axle	"	Parallel	5.783:1
4	100	Motor & gear unit suspended between truck frame & axle	"	Parallel	5.783:1

AUTHORITY CAR NOS./ ORDER NO.	TRACTION MOTOR				
	MASTER CONTROLLER MFG./TYPE	CONTROL GROUP	TYPE PROPULSION CONTROL		WHEEL SLIP CONTROL
GCRTA 201-256	WABCO Cineston Type C-1	Westinghouse	Accelerator		No
GCRTA 101-112	WABCO Cineston Type C-1	Westinghouse	Accelerator		No
GCRTA 257-270	WABCO Cineston Type C-1	Westinghouse	Accelerator		No
GCRTA 113-118	WABCO Cineston Type C-1	Westinghouse Electric	Accelerator		No
GCRTA 150-169	WABCO Cineston Type C-3-A	General Elec- tric	CAM SCM-I		No
GCRTA 171-180	WABCO Cineston Type C-3-A	General Elec- tric	CAM SCM-I		Yes
MARTA 101-200 Pairs 501-520 Single	Manual-Transit Control Systems	Garrett	Chopper		Yes
MBTA 01100-01199	WABCO Cineston Type C-1	General Elec- tric	CAM		No
MBTA 01400-01491	WABCO Cineston Type C-3	46:General Elec- tric 46:Westinghouse	CAM		No
MBTA 01500-01523	WABCO Cineston Type C-3-B	Westinghouse Electric	CAM		Yes
MBTA 01600-01651	WABCO Cineston Type C-3-B	Westinghouse Electric	CAM		Yes

TRUCKS & SUSPENSIONS					
SIDE BEARINGS	ANTI-FRICTION JOURNAL BEARINGS	PRIMARY SPRINGING	SECONDARY SPRINGING	TYPE TRUCKS	WEIGHT/ TRUCK
none	Timken	Twin coils over pedestal	Steel coil w/rubber pads	Cast inside journal truck	11,500 lbs.
none	Timken	Twin coils over pedestal	Steel coil w/rubber pads	Cast inside journal truck	11,500 lbs.
none	Timken	Twin coils over pedestal	Steel coil w/rubber pads	Cast inside journal truck	11,500 lbs.
none	Timken	Twin coils over pedestal	Steel coil w/rubber pads	Cast inside journal truck	11,500 lbs.
none	Timken	Rubber Doughnut	Air & coil	Articulated cast side frames by ball joints	11,327 lbs.
none	Timken	Rubber Doughnut	Air & coil	Articulated cast side frames by ball joints	11,327 lbs.
Gatke	Timken		Journal BRG rubber cush. bolster air	Cast inside journal	12,800 lbs.
none	yes SKF	coil	Air spring at bolster & steel coil spring journ.	inside journal trucks cast	20,800 lbs.
none	yes SKF	coil	"	inside journal trucks cast	General Electric 22,988 lbs. Westinghouse 20,960 lbs.
none	yes SKF	coil	Air & steel bolster	inside journal trucks cast	22,320 lbs.
none	yes SKF	coil	"	inside journal trucks cast	21,740 lbs.

AUTHORITY CAR NOS./ ORDER NO.	TRUCKS & SUSPENSIONS				PERFORMANCE
	MANUFACTURER	TRUCK MODEL NUMBER	WHEEL BASE	WHEEL DIAMETER	ACCELERATION RATE
GCRTA 201-256	General Steel	#858-2027	6'6"	28"	2.75 mphps
GCRTA 101-112	General Steel	#858-2027	6'6"	28"	2.75 mphps
GCRTA 257-270	General Steel	#858-2027	6'6"	28"	2.75 mphps
GCRTA 113-118	General Steel	#858-2029 #858-2029	6'6"	28"	2.75 mphps
GCRTA 150-169	Rockwell	LFM MPT-2 R-300431	6'10"	28"	2.75 mphps
GCRTA 171-180	Rockwell	LFM MPT-2 R-1301146	6'10"	28"	2.75 mphps
MARTA 101-200 Pairs 501-520 Single	Rockwell	none	7'3"	34"	3.0 mphps
MBTA 01100-01199	General Steel Castings Co.	GS-70	6'10"	28"	2.5 mphps
MBTA 01400-01491	General Steel Industries	GSI #32910	6'10"	28"	2.5 mphps
MBTA 01500-01523	General Steel Industries	#33950	6'10"	28"	2.5 mphps
MBTA 01600-01651	General Steel Industries	#33950	6'10"	28"	2.5 mphps



PERFORMANCE				BRAKING	
MAXIMUM OPERATING SPEED	BALANCING SPEED	BRAKING		FRICTION BRAKE ARRANGEMENT	TYPE BRAKING (FUNCTION ONLY)
		SERVICE MIN./MAX.	EMERGENCY		
47 mph+	47 mph <i>See note 1</i>	0.8/3 mphps	3.5 mphps	Single shoe semi-packaged w/auto. slack adjustor	Air
47 mph+	47 mph <i>See note 1</i>	0.8/3 mphps	3.5 mphps	"	Air
47 mph+	47 mph <i>See note 1</i>	0.8/3 mphps	3.5 mphps	WABCO E-4-1/2 tread brake unit	Air
47 mph+	47 mph <i>See note 1</i>	0.8/3.0 mphps	3.5 mphps	"	Air
55 mph	speed limited to 55 mph	0.8/3.0 mphps	3.5 mphps	ASF Package Unit	Air
55 mph	speed limited to 55 mph	0.8/3.0 mphps	3.5 mphps	GL 4-1/2	Air
75 mph	75 mph	air-2.0 hydraulic-3.0/3.0 mphps	3.5 mphps	WABCO HPT	Air-Hydraulic
55 mph	55 mph	-/3.0 mphps	3.5 mphps	WABCO- E-5-1/2 tread brake unit w/auto. slack adjustor	Air tread brake
55 mph	55 mph	-/3.0 mphps	3.5 mphps	WABCO-GH-5-1/2" tread brake unit w/auto. slack adjustor	Air tread SMEE-1
70 mph	70 mph	-/2.75mphps	3.25 mphps	"	Air tread RT2
70 mph	70 mph	-/2.75mphps	3.25 mphps	"	Air tread RT2

AUTHORITY CAR NOS./ ORDER NO.	BRAKING				
	FRICITION SUPPLEMENT	MPH FULL SERVICE BRAKE	TYPE BRAKE VALVE	TYPE COMPRESSOR	COMPRESSOR CAPACITY
GCRTA 201-256	only below 3 mph	Dynamic-mod. to 3 mph	SMEE ( <i>Straight Air Motor Car Electric-Pneu- matic Emergency</i> )	WABCO A-2	24.4 cu. ft. displacement
GCRTA 101-112	only below 3 mph	Dynamic-mod. to 3 mph	"	WABCO A-2	24.4 cu. ft. displacement
GCRTA 257-270	only below 3 mph	Dynamic-mod. to 3 mph	"	WABCO A-3	25.5 cu. ft. displacement
GCRTA 113-118	only below 3 mph	Dynamic-mod. to 3 mph	"	WABCO A-3	25.5 cu. ft. displacement
GCRTA 150-169	only below 8 mph	Fade-out speed: 8 mph	RT-2	WABCO D-3	32 CFM
GCRTA 171-180	only below 8 mph	Fade-out speed: 8 mph	RT-2	WABCO D-3	32 CFM
MARTA 101-200 Pairs 501-520 Single	3.5 in emerg.	not applicable	WABCO N5D & Servotrol	WABCO D-4	25 CFM
MBTA 01100-01199	none	5 mph	"	WABCO D-4	25 CFM
MBTA 01400-01491	none	9-10 mph	"	WABCO D-4	25 CFM
MBTA 01500-01523	none	9-10 mph	"	WABCO D-4	25 CFM
MBTA 01600-01651	none	9-10 mph	"	WABCO D-4	25 CFM

BRAKING					
MANUFACTURER BRAKE	TYPE BRAKE SHOES	BRAKE CYLINDERS OR ACTUATOR			MANUFACTURER HAND BRAKE
		LOCATION	DIMENSIONS	NO./TYPE	
WABCO	cast iron shoe converted to composition	on truck	E 4-1/2"	4/truck	Elcon National (Peacock)
WABCO	cast iron shoe converted to composition	on truck	E 4-1/2"	4/truck	Elcon National (Peacock)
WABCO	composition	on truck	E 4-1/2"	4/truck	Elcon National (Peacock)
WABCO	composition	on truck	E 4-1/2"	4/truck	Elcon National (Peacock)
ASF	composition	on truck frame	6-1/4" roto chamber	4/truck	Elcon National (Peacock)
WABCO	composition	on truck frame	GQ-5H 5-1/2"	4/truck	Elcon National (Peacock)
WABCO	composition	on truck frame	not available	4 hydraulic- pneumatic	WABCO
WABCO	composition	on truck	E 5-1/2"	4 pneumatic	Elcon National (Peacock)
WABCO	composition	on truck	GH 5-1/2"	4 pneumatic	Elcon National (Peacock)
WABCO	composition	on truck	GH 5-1/2"	4 pneumatic	Elcon National (Peacock)
WABCO	composition	on truck	GH 5-1/2"	4 pneumatic	Elcon National (Peacock)

AUTHORITY CAR NOS./ ORDER NO.	COMMUNICATIONS		ATO/ATC		
	PUBLIC ADDRESS SYSTEM	TWO-WAY RADIO COMMUNICATION	CAB SIGNAL	AUTOMATIC TRAIN PROTECTION	AUTOMATIC TRAIN OPERATION
GCRTA 201-256	yes	yes	yes	yes	none
GCRTA 101-112	yes	yes	yes	yes	none
GCRTA 257-270	yes	yes	yes	yes	none
GCRTA 113-118	yes	yes	yes	yes	no
GCRTA 150-169	yes	yes	yes	yes	no
GCRTA 171-180	yes	yes	yes	yes	no
MARTA 101-200 Pairs 501-520 Single	yes	yes	yes	yes	yes
MBTA 01100-01199	no	yes, portable	no	no	no
MBTA 01400-01491	no	yes	no	no	no
MBTA 10500-01523	yes	yes	yes	no	no
MBTA 01600-01651	yes	yes	yes	no	no

AUTHORITY CAR NOS./ ORDER NO.	NO. OF CARS/ TYPE CAR	YEAR PURCHASED	PLACED IN SERVICE	CAR BUILDER	BID PRICE PER CAR
MBTA 0600-0669	70 Married pairs	1976	1979	Hawker Siddeley	\$446,899*
MBTA 01200-01319	120 Married pairs	1976	1980-81	Hawker Siddeley	\$459,453*
MDCTA 101-236	136 Married pairs	1979	Scheduled for 1983 - 84	Budd Co.	\$614,238
MUCTC 81-501- 81-746	246 Motor cars. 3- car unit: motor, trailer, motor	1963	1966	Canadian Vick- ers	\$133,868
MUCTC 80-001- 80-123	123 Trailer cars 3-car unit: mo- tor, trailer, motor	1963	1966	Canadian Vick- ers	\$ 76,973
MUCTC 79-501- 79-782	282 Motor cars. 3- car unit: motor trailer, motor	1973	1976	Bombardier Ltd.	\$334,000
MUCTC 78-001- 78-141	141 Trailer cars. 3- car unit: motor, trailer, motor	1973	1976	Bombardier Ltd.	\$199,220
NYCTA R-10	400 Single Car BMT-IND	1946	1948-49	ACF	\$ 66,675
NYCTA R-11	10 Single Car BMT-IND	1947	1949	Budd Co.	\$108,150
NYCTA R-12	100 Single Car IRT	1946	1948	ACF	\$62,700
NYCTA R-14	150 Single Car IRT	1947	1949-50	ACF	\$67,700

\*Excluding Escalation

AUTHORITY CAR NOS./ ORDER NO.	COMPATIBILITY WITH OTHER CARS	DIMENSIONS			
		LENGTH OVER COUPLERS	LENGTH OVER ANTI-CLIMBER	TRUCK CENTERS	WHEEL BASE
MBTA 0600-0669	No	48'10"	48'6"	31'4"	6'10"
MBTA 01200-01319	No	65'4"	65'0"	46'6"	6'10"
MDCTA 101-236	Yes	75'0"	74'8"	52'0"	7'3"
MUCTC 81-501- 81-746	w/cars 80-001 80-123	56'5"	No anti-climbers 55'0" over car body	36'6"	5'0-5/8"
MUCTC 80-001- 80-123	w/cars 81-501 81-746	53'10-1/2"	No anti-climbers 52'6" over car body	36'6"	5'0-5/8"
MUCTC 79-501- 79-782	w/cars 78-001 78-141	56'5"	no anti-climber 55'0" over car body	36'6"	5'0-5/8"
MUCTC 78-001- 78-141	w/cars 79-501 79-782	53'10-1/2"	no anti-climber 52'6" over car body	36'6"	5'0-5/8"
NYCTA R-10	A11 but R44 and R46	60'6"	60'2-1/2"	44'7"	6'10"
NYCTA R-11	A11 but R44 and R46	60'6"	60'2-1/2"	44'7"	7'0"
NYCTA R-12	A11 but R44 and R46	51'4"	51'1/2"	36'0"	6'10"
NYCTA R-14	A11 but R44 and R46	51'4"	51'1/2"	36'0"	6'10"

DIMENSIONS					
WIDTH OF CAR BODY MAXIMUM	WHEEL DIAMETER	NO. OF CARS/ TRAIN MIN./MAX.	SEATING CAPACITY	MAX. NO. PSGRS.	CLEAR FLOOR AREA SQ. FT. (INCLDG. CABS)
				DESIGN/PRACTI- CAL (CRUSH)	
9'3"	28"	2 4	42	113 113	330 sq. ft.
9'3"	28"	2 4	58	220 220	450 sq. ft.
10'3"	28"	2 8	74	166 275	310 sq. ft.
8'3"	<i>See note 7</i>	3 9	39	157 208	290 sq. ft.
8'3"	<i>See note 7</i>	3 9	40	158 209	280 sq. ft.
8'3"	<i>See note 7</i>	3 9	40	158 209	290 sq. ft.
8'3"	<i>See note 7</i>	3 9	40	158 209	280 sq. ft.
10'	34"	4 10	56	300 220	431 sq. ft.
10'	34"	4 10	54	300 220	464 sq. ft.
8'9-1/2"	34"	4 10	44	200 180	285 sq. ft.
8'9-1/2"	34"	4 10	44	200 180	285 sq. ft.

AUTHORITY CAR NOS./ ORDER NO.	DIMENSIONS				
	MINIMUM HEAD ROOM	HGT. MIN., FLR TO HEADLINING AT CENTER	WIDTH OF SIDE DOOR OPENINGS	HEIGHT OF SIDE DOOR OPENINGS	WIDTH ACROSS THRESHHOLD PLATES
MBTA 0600-0669	6'6-3/4"	7'1"	4'	6'3"	8'7"
MBTA 01200-01319	6'6-3/4"	7'1"	4'	6'3"	8'7"
MDCTA 101-236	6'8" (under eva- porater fans at car ends)	7'2"	4'1/2"	6'4"	10'2-1/2"
MUCTC 81-501- 81-746	7'3"	7'3"	4'3"	6'5"	8'0-11/16"
MUCTC 80-001- 80-123	7'3"	7'3"	4'3"	6'5"	8'0-11/16"
MUCTC 79-501- 79-782	7'	7'	4'3"	6'5"	8'0-11/16"
MUCTC 78-001- 78-141	7'	7'	4'3"	6'5"	8'0-11/16"
NYCTA R-10	6'8-5/8"	6'8-5/8"	4'2"	6'2-5/8"	10'
NYCTA R-11	6'5-1/2"	6'5-1/2"	4'2"	6'2-5/8"	10'
NYCTA R-12	6'7-1/2"	6'7-1/2"	4'2"	6'2-5/8"	8'9-1/2"
NYCTA R-14	6'7-1/2"	6'7-1/2"	4'2"	6'2-5/8"	8'9-1/2"



DIMENSIONS					
HEIGHT MAXIMUM		HEIGHT-TOP OF RAIL TO CAR FLOOR	AISLE WIDTH MIN./MAX.	MIN. RADIUS HORIZ. CURVE CAR IS DESIGNED TO NEGOTIATE	MIN. RADIUS VERTICAL CURVE
TOP OF RAIL TO TOP OF ROOF	OVER RADIO ANTENNA, FAN HOUSING, ETC.				
11'8-1/2"	Over Panto. 213.5 Up 154.5 Down	3'5-1/2"	4'4.86" 4'9.32"	75'	1000 Valley
11'11-3/4"	Over Antenna 12'2-3/4"	3'8-11/16"	4'4.86" 4'9.32"	120'	2000 Summit
12'	Info. not available	3'7-1/2"	36-1/4" 36-1/4"	250'	2000'
12'4"	Not applicable	3'11-1/4"	1'7" 3'9"	150'	Angularity of drawbar +4°
12'4"	Not applicable	3'11-1/4"	1'7" 3'9"	150'	Angularity of drawbar +4°
12'	Not applicable	3'11-1/4"	1'7" 3'9"	150'	Angularity of drawbar +4°
12'	Not applicable	3'11-1/4"	1'7" 3'9"	150'	Angularity of drawbar +4°
12'1-15/16"	12'1-15/16"	3'10-3/8"	3'1-3/16" 5'10-3/4"	125'	+2000' -2000'
12'2-7/16"	12'2-7/16"	3'10-3/8"	3'1-3/16" 5'10-3/4"	125'	+2000' -2000'
11'10-7/8"	11'10-7/8"	3'9-1/2"	4'8-3/16" 4'8-3/16"	90'	+2000' -2000'
11'10-7/8"	11'10-7/8"	3'9-1/2"	4'8-3/16" 4'8-3/16"	90'	+2000' -2000'

AUTHORITY CAR NOS./ ORDER NO.	DIMENSIONS		WEIGHTS		
	TRACK GAUGE	SINGLE CAR AVG.-LT. WT. LBS.	AVG. WT. A/CAR, B/CAR	WEIGHT/ SQ. FT.	WEIGHT/ SEAT
MBTA 0600-0669	4'8-1/2"	not applicable	61,240 lbs. 59,640 lbs.	A=185.5 lbs. B=180.7 lbs.	A=1,458 lbs. B=1,420 lbs.
MBTA 01200-01319	4'8-1/2"	not applicable	68,000 lbs. 66,000 lbs.	A=151.1 lbs. B=146.6 lbs.	A=1,172 lbs. B=1,138 lbs.
MDCTA 101-236	4'8-1/4"	77,000 lbs. max	Info. not avail- able	100 lbs.	1041 lbs.
MUCTC 81-501- 81-746	4'8-1/2" Safety Gauge not Running Gauge	58,900 lbs.	Not applicable	127 lbs.	1482 lbs.
MUCTC 80-001- 80-123	4'8-1/2" Safety Gauge not Running Gauge	43,400 lbs.	Not applicable	104 lbs.	1125 lbs.
MUCTC 79-501- 79-782	4'8-1/2" Safety Gauge not Running Gauge	60,500 lbs.	Not applicable	133 lbs.	1512 lbs.
MUCTC 78-001- 78-141	4'8-1/2" Safety Gauge not Running Gauge	45,000 lbs.	Not applicable	104 lbs.	1125 lbs.
NYCTA R-10	4'8-1/2"	81,200 lbs.	Not applicable	188 lbs.	1450 lbs.
NYCTA R-11	4'8-1/2"	<i>Note 17</i> 82,500 lbs.	Not applicable	178 lbs.	1528 lbs.
NYCTA R-12	4'8-1/2"	73,100 lbs.	Not applicable	256 lbs.	1661 lbs.
NYCTA R-14	4'8-1/2"	72,235 lbs.	Not applicable	257 lbs.	1664 lbs.

WEIGHTS			CAR BODY		
WEIGHT/ PASSENGER (CRUSH LOAD)	AVG. WEIGHT OF COMPLETE TRUCKS #1 TRUCK/#2 TRK	LOAD WEIGHING DEVICE	MOTORMAN'S CABS/CAR	WINDSHIELD WIPERS	BODY & FRAMING
A Car=359 lbs. B Car=384 lbs.	23,700 lbs. One Car Set	Yes	1	pneumatic	Steel
A Car=309 lbs. B Car=300 lbs.	23,700 lbs. One Car Set	Yes	1	pneumatic	Steel
280 lbs.	Info. not avail- able	Yes	1	pneumatic	Stainless steel welded
278 lbs.	14,400 lbs.	no	1	Provision for future instal- lation	Steel, full- length ctr. sill
215 lbs.	7,800 lbs.	no	none	none	Steel, full- length ctr. sill
291 lbs.	14,625 lbs.	no	1	none	Steel, full- length ctr. sill
251 lbs.	8,700 lbs.	no	none	none	Steel, full- length ctr. sill
369 lbs.	19,762/19,521 lbs.	Yes	2	Manually-oper- ated two per car	LAHT
375 lbs.	18,110/18,110 lbs.	Yes	2	Manually- operated two per car	Stainless Steel & LAHT
406 lbs.	19,762/19,521 lbs.	Yes	2	Manually- operated two per car	LAHT
407 lbs.	19,762/19,521 lbs.	Yes	2	Manually- operated two per car	LAHT

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY				
	ROOF CONSTRUCTION	EXTERIOR FINISH (PAINT)	COLOR SCHEME		FLOOR CONSTRUCTION
			INTERIOR	EXTERIOR	
MBTA 0600-0669	Welded Steel	Imron	Blue & Beige	Grey, White Blue	Sheet Rubber on Aluminum Faced Plywood
MBTA 01200-01319	Welded Steel	Imron	Orange Beige	Grey, White Orange	Sheet Rubber on Aluminum Faced Plywood
MDCTA 101-236	Stainless Steel	Stainless Steel	Blue & Green	Brushed Finish with Blue Green & White Decals	Stainless Steel & alumi- num faced ply- metal with rub- ber sheet
MUCTC 81-501- 81-746	Welded struc- ture (mild steel)	Steel sheathing acrylic lacquer	Willow grey	Blue	Aluminum faced plywood w/vin- yl asbestos tile
MUCTC 80-001- 80-123	Welded struc- ture (mild steel)	Steel sheathing acrylic lacquer	Willow grey	Blue	"
MUCTC 79-501- 79-782	Welded struc- ture (mild steel)	Steel sheathing polyurethane lacquer	Beige & red orange	Blue	Steel sheathing
MUCTC 78-001 78-141	Welded struc- ture (mild steel)	Steel sheathing polyurethane lacquer	Beige & red orange	Blue	Steel sheathing
NYCTA R-10	OGEE	Paint	Doors:dark blue, Walls:gray, ceiling:white	Lt. gray, orange belt dark gray	Aluminum Truss Plate & Magne- site
NYCTA R-11	Turtle Back	Stainless Steel Doors Paint	Doors:dark blue, walls:gray, ceiling:white	Stainless steel, doors: blue	"
NYCTA R-12	OGEE	Paint	Doors:dark blue, walls:gray, ceiling:white	Lt. gray, orange belt dark gray	"
NYCTA R-14	OGEE	Paint	Doors:dark blue, walls:gray, ceiling:white	Lt. gray, orange belt dark gray	"

CAR BODY					
CEILING FINISH	SIDE WINDOWS, SASH		WINDOWS & DOOR GLAZING MATERIAL	INTERIOR FINISH	SEATS
	TYPE	MANUFACTURER			ARRANGEMENT
Perforated Vinyl Covered Aluminum	Glass Fixed in Rubber	Ellcon National	Stationary fixed in rubber	Plastic	Longitudinal
"	Glass Fixed in Rubber	Ellcon National	Stationary fixed in rubber	Plastic	Longitudinal
Vinyl Faced Aluminum Honeycomb	Fixed, Mounted in Rubber	Info. not available	Glass	Polycarbonate	Transverse & longitudinal
Laminated plastic panel willow grey	Fixed, mounted in rubber	Canadian Vickers, Ltd.	tempered plate glass	Laminated plastic & stainless steel	Cross & longitudinal
"	Fixed, mounted in rubber	Canadian Vickers, Ltd.	tempered plate glass	Laminated plastic & stainless steel	Cross & longitudinal
Plastic	Fixed, mounted in rubber	Duplicate Canada Ltd.	tempered plate glass	Plastic	Cross & longitudinal
Plastic	Fixed, mounted in rubber	Duplicate Canada Ltd.	tempered plate glass	Plastic	Cross & longitudinal
Paint	Single drop, outside hung	Hunter Sign Corp.	Windows: sheet glass. Cab, side door: lam. End doors: wire	Paint on Aluminum	Cross & longitudinal
Paint	Automotive type mech	Adams and Westlake Co.	"	Paint on Aluminum	Cross & longitudinal
Paint	Single drop, outside hung	Hunter Sign Corp.	"	Paint on Aluminum	Longitudinal
Paint	Single drop, outside hung	Hunter Sign Corp.	"	Paint on Aluminum	Longitudinal

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY				
	SEATS				
	FRAMING MATERIAL	COVERING MATERIAL		COLOR	
ORIGINAL		PRESENT	ORIGINAL	PRESENT	
MBTA 0600-0669	Stainless Steel	Vinyl on Neoprene Foam	Vinyl on Neoprene Foam	Blue	Blue
MBTA 01200-01319	Stainless Steel	Vinyl on Neoprene Foam	Vinyl on Neoprene Foam	Orange	Orange
MDCTA 101-236	Stainless Steel	Fabric Covered Neoprene Foam	not applicable	Blue & Green	not applicable
MUCTC 81-501- 81-746	Steel	Latex foam & vinyl molded fiberglass w/ recessed cush.	Neoprene foam, vinyl leatherette, cushion material past test ASTM E162	Grey for shell; black for cushions	Grey for shell, black for cushions
MUCTC 80-001- 80-123	Steel	"	"	Grey for shell; black for cushions	Grey for shell, black for cushions
MUCTC 79-501- 79-782	Steel	Neoprene foam with neoprene cushions, modacrylic-nylon cover	Neoprene foam with neoprene cushions, modacrylic-nylon cover	Red orange	Red orange
MUCTC 78-001 78-141	Steel	"	"	Red orange	Red orange
NYCTA R-10	Low alloy high tensile strength steel (core ten)	St. Spring Felt - sarran	Fiber glass, polyester <i>See note 39</i>	Green chain & cream background	Dark grey
NYCTA R-11	"	St. Spring Felt - sarran	Fiber glass, polyester <i>See note 39</i>	Chocolate Chain & cream background	Dark grey
NYCTA R-12	"	St. Spring Felt - sarran	Fiber glass, polyester <i>See note 39</i>	Green chain & cream background	Dark grey
NYCTA R-14	"	St. Spring Felt - sarran	Fiber glass, polyester <i>See note 39</i>	Green chain & cream background	Dark grey

CAR BODY					
SEATS					
MANUFACTURER	CEILING HANDHOLDS TYPE/NO./CAR	NO. OF SEAT HANDHOLDS	CEILING TO FLOOR STANCHIONS PER CAR	SIDE DOOR OPENINGS/CAR	NO. OF SIDE DOOR PANELS PER CAR
Lear Siegler	None	None	20	4	8
Lear Siegler	None	None	30	6	12
American Seating	Long Bars Above Seat Ends	19	24	6	12
Heywood-Wakefield Canada (Otaco)	Not applicable	6	24	4	8
Heywood-Wakefield Canada (Otaco)	Not applicable	6	24	4	8
Ville-Marie Rembourrage Ltd.	Not applicable	6	24	4	8
Ville-Marie Rembourrage Ltd.	Not applicable	6	24	4	8
ACF	Swing 40	Stanchions at cross seats	4	8	16
ACF	Swing 36	Stanchions at cross seats	None	8	16
ACF	Fixed Bar & Swing Hndhld. 36	None	3	6	12
ACF	Fixed Bar & Swing Hndhld. 36	None	3	6	12

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY		COUPLER & DRAFT GEAR		
	DOOR FABRICATION	MANUFACTURER OF DOORS & HANGERS	TYPE COUPLER	COUPLING AT INTERMEDIATE END	DRAFT GEAR
MBTA 0600-0669	Steel	O.M. Edwards	Dresser	Dresser	Rubber
MBTA 01200-01319	Steel	O.M. Edwards	Dresser	Dresser	Rubber
MDCTA 101-236	Info. Not Available	Info. not available	Walton, hook- type, automatic	Semi-permanent drawbar & an- chorage	Rubber Sandwich
MUCTC 81-501- 81-746	Two leaf slid- ing in pockets	R. Mitchell Co.	Scharfenberg automatic	Scharfenberg semi-automatic	Rubber
MUCTC 80-001- 80-123	Two leaf slid- ing in pockets	R. Mitchell Co.	none	Scharfenberg semi-automatic	Rubber
MUCTC 79-501- 79-782	Two leaf slid- ing in pockets	Beclawatt Ltd.	Scharfenberg automatic	Scharfenberg semi-automatic	Rubber
MUCTC 78-001- 78-141	Two leaf slid- ing in pockets	Beclawatt Ltd.	none	Scharfenberg semi-automatic	Rubber
NYCTA R-10	hollow aluminum	ACF - doors Otis - hangers	WABCO H2C BL 25B Electric Por- tion	Tite lock both ends	Waughmat E4CL
NYCTA R-11	plywood filler, S.S. skin	Budd Co. - doors Otis - hangers	WABCO H2C BL 25B Electric Por- tion	Tite lock both ends	Waughmat E4-4
NYCTA R-12	hollow aluminum	ACF - doors Otis - hangers	WABCO H2C BL 25B Electric Por- tion	Tite lock both ends	Waughmat E4CL
NYCTA R-14	hollow aluminum	ACF - doors Otis - hangers	WABCO H2C BL 25B Electric Por- tion	Tite lock both ends	Waughmat E4CL



COUPLER & DRAFT GEAR MAXIMUM HORIZONTAL BUFF	MISCELLANEOUS CAR BODY ITEMS		DOOR OPERATION & CONTROL		
	SIDE & END DESTINATION SIGN MANUFACTURER	CURTAIN MATERIAL	NO. AND TYPE FIRE EXTINGUISHER/CAR	LOCATION OF DOOR CONTROL DEVICE	DOOR OPERATORS NO./CAR/TYPE
150,000 lbs.	Teleweld	Mylar	1-5-3/4 lbs. 1-18 lbs. Dry Powder Type	In Motorman's cab	8/Air
150,000 lbs.	Teleweld	Mylar	1-5-3/4 lbs. 1-18 lbs. Dry Powder Type	In Motorman's cab	12/Air
160,000 lbs.	End - N/A Side - Luminator	End - N/A Side - "Flip-Dot"	2-10 lb. min. dry powder ABC	Cab and across from cab	12 Electric
200,000 lbs.	Victory tools	laminated DB litho type A	2 dry powder type & 2 pressurized water type	In Motorman's cab	8/Electric
200,000 lbs.	Victory tools	none	1 dry powder type & 1 pressurized water type	In cab of motor cars	8/Electric
200,000 lbs.	Bombardier Ltd.	laminated card board	2 dry powder type & 2 pressurized water type	Cab and across from cab	8/Electric
200,000 lbs.	Bombardier Ltd.	none	1 dry powder type & 1 pressurized water type	In cab of motor cars	8/Electric
200,000 lbs.	Hunter Sign Corp.	cotton	1-1/2 to 2-3/4 lb. dry chemical pressurized	Outside at corners of car	10/Air elect. control
200,000 lbs.	Hunter Sign Corp.	cotton	1-1/2 to 2-3/4 lb. dry chemical pressurized	Outside at corners of car	10/Electric operated and control
200,000 lbs.	Hunter Sign Corp.	cotton	1-1/2 to 2-3/4 lb. dry chemical pressurized	Outside at corners of car	8/Electric operated and control
200,000 lbs.	Hunter Sign Corp.	cotton	1-1/2 to 2-3/4 lb. dry chemical pressurized	Outside at corners of car	8/Electric operated and control

AUTHORITY CAR NOS./ ORDER NO.	DOOR OPERATION & CONTROL	HEATING, COOLING & VENTILATION SYSTEMS			
	DOOR CONTROL DEVICE	HEATING			
		MANUFACTURER	LOCATION	TOTAL KW/CAR	UNDER SEAT WATTAGE
MBTA 0600-0669	Westcode	Vapor	Floor Strip Heater	18 KW Min.	Not applicable
MBTA 01200-01319	Westcode	Vapor	Floor Strip Heater	12 KW Min.	Not applicable
MDCTA 101-236	D.C. Motor Drive, 2 Leaf Sliding With Pockets	Safety Elec- tric Co.	Overhead	Info. not avail- able	Not applicable
MUCTC 81-501- 81-746	Vapor	none	Not applicable	cab only 750 W	Not applicable
MUCTC 80-001- 80-123	Vapor	none	Not applicable	none	Not applicable
MUCTC 79-501- 79-782	Vapor	none	Not applicable	cab only 1250 W	Not applicable
MUCTC 78-001- 78-141	Vapor	none	Not applicable	none	Not applicable
NYCTA R-10	Trigger type	Con. Car Htg., Gold Car Htg., Railway Util. Co.	Under seats	12.075 KW	H1 - 3675W H2 & H3 - 4200W per cir.
NYCTA R-11	Trigger type	Con. Car Htg. Co.	Under seats	18.2 KW	18.2
NYCTA R-12	Trigger type	Railway Util. Co.	Under seats	12.075 KW	H1 - 3675W H2 & H3 - 4200W per cir.
NYCTA R-14	Trigger	Railway Util. Co.	Under seats	12.075 KW	H1 - 3675W H2 & H3 - 4200W per cir.

HEATING, COOLING & VENTILATION SYSTEMS					
HEATING	CONTROLS		VENTILATION		
IN PLENUM WATTAGE	AUTOMATIC HTNG. & VENTILATING SYSTEM	NO. FANS/CAR & MANUFACTURER	TYPE FAN	VOLTAGE, SPEED, OUTPUT	FAN SPEED STEPS
Not available	Vapor	None	None	not applicable	not applicable
"	Vapor	None	None	not applicable	not applicable
Info. not available	Safety Electric Co.	Two (2) Safety Electric Company	Centrifugal	650 VDC 1750 RPM 1855 CFM	one (1)
not applicable	manual	4 Vapor	Axial flow	190v, 1200 cfm 860 rpm +	3
not applicable	not applicable	4 Vapor	Axial flow	190v, 1200 cfm 860 rpm +	3
not applicable	-Manual -Thermostat Control for Cab Heating only	4 pressure 3 exhaust	Axial flow	1200 cfm	3-pressure 2 exhaust
not applicable	not applicable	4 pressure 3 exhaust	Axial flow	1200 cfm	3-pressure 2 exhaust
none	Heat only, thermostat control	8 General Electric	12" bracket	150V dc 1625 rpm 1200 cfm	1
none	Fans, Heat and Roof Dampers, Vapor Corp.	6 Westinghouse	23" axiflo	200V dc 860 rpm 3000 cfm	4
none	Heat only, thermostat control	6 General Electric	12" bracket	200V dc 1625 rpm 1200 cfm	1
none	Heat only, thermostat control	6 General Electric	12" bracket	200V dc 1625 rpm 1200 cfm	1

AUTHORITY CAR NOS./ ORDER NO.	HEATING, COOLING AND VENTILATION SYSTEMS				
	VENTILATION	COOLING SYSTEM			
	TYPE AIR DIFFUSER	AIR CONDITIONED	MANUFACTURER	TYPE	CAPACITY
MBTA 0600-0669	not applicable	Yes	Safety Electric	Vapor cycle	10 ton
MBTA 01200-01319	not applicable	Yes	Safety Electric	Vapor cycle	12 ton
MDCTA 101-236	Overhead Plenum: Split Duct, Flush Slot	Yes	Safety Electric Equipment Co.	Electro- mechanical Vapor cycle	16 ton
MUCTC 81-501- 81-746	roof top	In motorman's cab only	Westinghouse	Domestic	6,000 BTU
MCUTC 80-001- 80-123	roof top	no	not applicable	not applicable	not applicable
MUCTC 79-501- 79-782	Flush with body sides	In motorman's cab only	Vapor	Domestic	8,900 BTU
MUCTC 78-001- 78-141	Flush with body sides	no	not applicable	not applicable	not applicable
NYCTA R-10	none	no	not applicable	not applicable	not applicable
NYCTA R-11	Annular con. vanes	no	not applicable	not applicable	not applicable
NYCTA R-12	none	no	not applicable	not applicable	not applicable
NYCTA R-14	none	no	not applicable	not applicable	not applicable

HEATING, COOLING & VENTILATION SYSTEMS			LIGHTING		
COOLING SYSTEM			TYPE LAMP	NO. OF LAMPS/CAR	OVERHEAD LIGHT FIXTURE TYPE
AIR VOLUME	HVAC CONTROL	REFRIGERANT			
700 cu. ft. in Fresh Air 200 cu. ft. in Return Air	Vapor	R-22	Fluorescent	22	Back-lit and ceiling flush mounted
800 cu. ft. in Fresh Air 2400 cu. ft. in Return Air	Vapor	R-22	Fluorescent	28	Back-lit and ceiling flush mounted
3710 CFM including 1400 CFM of outside air	Safety Electric Company	Freon R-22	Fluorescent	35	Recessed Louvered
200 CFM	Manual	Freon 22	Fluorescent	32	back-lit transparent card racks
not applicable	not applicable	not applicable	Fluorescent	32	back-lit transparent card racks
275 CFM	Manual	Freon 22	Fluorescent	24	plastic lens
not applicable	not applicable	not applicable	Fluorescent	24	plastic lens
not applicable	not applicable	not applicable	Hot cathode fluorescent	26	Enclosed glass lens, Luminator
not applicable	not applicable	not applicable	Hot cathode fluorescent	26	Enclosed glass lens, Luminator
not applicable	not applicable	not applicable	Hot cathode fluorescent	20	Enclosed glass lens, Luminator
not applicable	not applicable	not applicable	Hot cathode fluorescent	20	Enclosed glass lens, Luminator

AUTHORITY CAR NOS./ ORDER NO.	LIGHTING				
	SPECIFIED INTENSITY AT READING PLANE	LIGHTING POWER SUPPLY	MAIN LIGHTS POLARITY REV. TIMER	HEAD LIGHTS	EMERGENCY LIGHT/CAR
MBTA 0600-0669	50 foot candles high ceiling area 35 foot candles low ceiling area	Inverter from Generator	None	2 car end	4
MBTA 01200-01319	"	Inverter from Generator	None	2 car end	6
MDCTA 101-236	30 foot candles, min., 40 foot candles, max.	Static inverter Ballasts	not applicable	2-150 W Sealed Beams	1/3 of normal internal lights, from battery
MUCTC 81-501- 81-746	32 foot candles	AC motor- alternator set	not applicable	2 reflector type at cab end	16 incandescent/ car in regular fixtures
MUCTC 80-001- 80-123	32 foot candles	AC motor-alter- nator set	not applicable	none	16 incandescent/ car in regular fixtures
MUCTC 79-501- 79-782	35 foot candles	Inverter bal- lasts	not applicable	2 reflector type at cab end	2 tubes
MUCTC 78-001- 78-141	35 foot candles	Inverter bal- lasts	not applicable	none	2 tubes
NYCTA R-10	15 foot candles	600V dc	Jackson Elec. solid state	yes	4 incandescent
NYCTA R-11	17 foot candles	600V dc	Horne Prod. solid state	yes	6 incandescent
NYCTA R-12	15 foot candles	600V dc	Jackson Elec. solid state	yes	3 incandescent
NYCTA R-14	15 foot candles	600V dc	Jackson Elec. solid state	yes	3 incandescent

MISC. ELECTRICAL EQUIPMENT					
STORAGE BATTERY					
TYPE	AMP/HRS.	COMPARTMENT	BATTERY EQUIPPED CAR	BATTERY CHARGER TYPE	CURRENT COLLECTION
Nickel Cadmium Alkaline	75	Steel	A Car	None	Roof pantograph third rail shoe
Nickel Cadmium Alkaline	90	Steel	A Car	None	Third rail shoe
Nickel Cadmium	Info. Not Available	Info. Not Available	B Cars	Converter A car Converter B car	Third rail shoe
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	See note 5
Alkaline nickel cadmium	80	Steel	on trailer car	Motor alternator	See note 5
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	See note 5
Alkaline nickel cadmium	100	Steel	on trailer car	Motor alternator	See note 5
Edison B4H 24 cells	75	seasoned oak	all	None	Third rail shoes
Edison B4H 24 cells	75	seasoned oak	all	None	Third rail shoes
Edison B4H 24 cells	75	seasoned oak	all	None	Third rail shoes
Edison B4H 24 cells	75	seasoned oak	all	None	Third rail shoes

AUTHORITY CAR NOS./ ORDER NO.	MISC. ELECTRICAL EQUIPMENT				TRACTION MOTOR
	AUXILIARY POWER SUPPLY				MFG. & MODEL
	NO./CAR	CAPACITY	INPUT/OUTPUT	TYPE	
MBTA 0600-0669	1/A car	8 KVA	600V dc/ 36.5V dc	Motor generator	General Electric 1264
MBTA 01200-01309	1/A car	8 KVA	600V dc/ 36.5V dc	Motor generator	General Electric 1264
MDCTA 101-236	one (1)	120 A 37.5 VDC	700V dc/37.5Vdc	Static Converter	Westinghouse 1462
MUCTC 81-501- 81-746	Not applicable	Not applicable	750V dc/250V ac, 400 Hz	Not applicable	Tamper-Jeumont CEM
MUCTC 80-001- 80-123	1/unit of 3 cars Motor-trailer Motor	10.5 KVA	750V dc/250V ac, 400 Hz	Motor alternator	none
MUCTC 79-501- 79-782	Not applicable	Not applicable	750V dc/208V ac, 60 Hz	Not applicable	Tamper-BBD-CEM
MUCTC 78-001- 78-141	1/unit of 3 cars Motor-trailer Motor	10.5 KVA	750V dc/208V ac, 60 Hz	Motor alternator	none
NYCTA R-10	1	1.5 KVA	600V dc 37.5 V dc	WHYX 300B GMG153-A1	General Electric 1240 Westinghouse 1447
NYCTA R-11	1	3.0 KVA	600V dc 37.5 V dc	WHYX-304E	General Electric 1240
NYCTA R-12	1	1.5 KVA	600V dc 37.5 V dc	WHYX-300B GMG153 A1	General Electric 1240 Westinghouse 1447
NYCTA R-14	1	1.5 KVA	600V dc 37.5 V dc	WHYX-300B GMG153 A1	General Electric 1240 Westinghouse 1447



TRACTION MOTOR					
NO./CAR	HORSEPOWER	MOTOR MOUNTING	MOTOR BEARINGS	TRACTION GEARING MFG./TYPE	TRACTION GEAR RATIO
4	100	On Truck Frame	Fan End Roller Bearing	Single Reduction Parallel	6.16:1
4	100	On Truck Frame	Fan End Roller Bearing	"	6.16:1
4	Info. not available	Resiliently, mounted to trucks	Commutator End - Ball, Pionion End - Roller	Westinghouse Parallel Drive Double Reduction	5.723:1
4	155	Truck-axle suspension	Roller (collector end) Ball (drive end)	90° spiral conical	9.24:1
none	none	not applicable	not applicable	none	not applicable
4	170	Truck-axle suspension	Roller (collector end) Ball (drive end)	worm gearing	9.25:1
none	none	not applicable	not applicable	none	not applicable
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	100	90° to axle frame mount	Anti-friction	Hypoid 90°	7.17:1
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1

AUTHORITY CAR NOS./ ORDER NO.	TRACTION MOTOR CONTROL				
	TYPE MASTER CONTROLLER MFG./TYPE	CONTROL GROUP	TYPE PROPULSION CONTROL		WHEEL SLIP CONTROL
MBTA 0600-0669	WABCO Cineston	General Elec- tric	Cam Control		No
MBTA 01200-01319	WABCO Cineston	General Elec- tric	Cam Control		Yes
MDCTA 101-236	G-Handle Westinghouse	Westinghouse	Chopper		Yes
MUCTC 81-501- 81-746	Tamper-Jeumont	Jeumont-Schnei- der	cam con- trol		Yes
MUCTC 80-001- 80-123	not applicable	not applicable	not applicable		not applicable
MUCTC 79-501- 79-782	Tamper-Jeumont	Jeumont-Schnei- der	chopper		Yes
MUCTC 78-001- 78-141	not applicable	not applicable	not applicable		not applicable
NYCTA R-10	GE17KC76 WHXM179	Westinghouse General Elec- tric	cam control		none
NYCTA R-11	GE17KC76 WHXM179	Westinghouse	cam control		none
NYCTA R-12	GE17KC76 WHXM179	Westinghouse General Elec- tric	cam control		none
NYCTA R-14	GE17KC76 WHXM179	Westinghouse General Elec- tric	cam control		none

TRUCKS & SUSPENSIONS					
SIDE BEARINGS	ANTI-FRICTION JOURNAL BEARINGS MFG.	SPRINGING		TYPE TRUCKS	WEIGHT/ TRUCK
		PRIMARY	SECONDARY		
Yes	"KOYO"	Chevron	Pure Air	Inside Journal	One Car Set 24,110 lbs. approx.
Yes	"KOYO"	Chevron	Pure Air	Inside Journal	One Car Set 24,110 lbs. approx.
Teflon coated, low-friction material	Timken	Rubber	Air Bag	Inboard Bearing	12,875 lbs. Estimated
Ferrobestos discs	Timken	Rubber Spring	Coil Spring Steel encased in rubber	Rubber tire type-center pivot torsion bar-linked side bearings.	14,400 lbs.
Ferrobestos discs	Timken	Rubber Spring	Coil Spring Steel encased in rubber	"	7,800 lbs.
Cestilite discs	Timken & SKF	Rubber Spring	Coil Spring Steel encased in rubber	"	14,625 lbs.
Cestilite discs	Timken	Rubber Spring	Coil Spring Steel encased in rubber	"	8,700 lbs.
Stucki	Timken	coil	coil	Cast steel equalized out- board journals	#1-20,000 lbs., #2-19,700 lbs. approx.
Stucki	SKF	coil	coil	"	#1-20,000 lbs., #2-19,700 lbs. approx.
Stucki	SKF	coil	coil	"	#1-18,740 lbs., #2-17,460 lbs. approx.
Stucki	SKF	coil	coil	"	#1-18,740 lbs., #2-17,460 lbs. approx.

AUTHORITY CAR NOS./ ORDER NO.	TRUCKS & SUSPENSIONS				PERFORMANCE
	MANUFACTURER	TRUCK MODEL NUMBER	WHEEL BASE	WHEEL DIAMETER	ACCELERATION RATE
MBTA 0600-0669	General Steel Industries/ Buckeye	not applicable	6'10"	28"	2.5 mphps
MBTA 01200-01319	General Steel Industries/ Buckeye	not applicable	6'10"	28"	2.5 mphps
MDCTA 101-236	Budd	Info. not available	7'3"	28"	3.0 mphps
MUCTC 81-501- 81-746	Canadian-Vickers (Atlier Nord France)	12-0001- 12-0520	5'0-5/8"	<i>See note 7</i>	3.0 mphps
MUCTC 80-001- 80-123	Canadian-Vickers (Atlier Nord France)	13-0001- 13-0252	5'0-5/8"	<i>See note 7</i>	3.0 mphps
MUCTC 79-501- 79-782	Bombardier Ltd.	4001- 4582	5'0-5/8"	<i>See note 7</i>	3.0 mphps
MUCTC 78-001- 78-141	Bombardier Ltd.	5001- 5288	5'0-5/8"	<i>See note 7</i>	3.0 mphps
NYCTA R-10	General Steel Castings Co.	3000-3829	6'10"	34"	2.5 mphps
NYCTA R-11	Clark Equip. Co., General Steel Castings Frame	8010-8031	7'	34"	2.5 mphps
NYCTA R-12	General Steel Castings Co.	7023-7232	6'10"	34"	2.5 mphps
NYCTA R-14	General Steel Castings Co.	7233-7542	6'10"	34"	2.5 mphps

PERFORMANCE				BRAKING	
MAXIMUM OPERATING SPEED	BALANCING SPEED	BRAKING		FRICTION BRAKE ARRANGEMENT	TYPE BRAKING
		SERVICE	EMERGENCY		
		MIN./MAX.			
49 mph	49 mph	<i>See Note 6</i> 2.75 mphps	3.25 mphps	WABCO GM 5-1/2	Dynamic Air
65 mph	65 mph	<i>See Note 6</i> 2.75 mphps	3.25 mphps	WABCO GM 5-1/2	Dynamic Air
70 mph	Info. not available	Continuously Variable to 3MPH PS	3.2 mphps	WABCO tread brake	Regenerative or Dynamic, Pneumatic Friction
50 mph	speed limited to 45 mph	2.0 mphps 2.0 mphps	3.8 mphps	Westcode 2 shoes autoslack adjustor	Dynamic-electro pneumatic
50 mph	speed limited to 45 mph	2.0 mphps 2.0 mphps	3.8 mphps	Westcode 2 shoes autoslack adjustor	Electro-pneumatic only
50 mph	speed limited to 45 mph	2.0 mphps 2.0 mphps	3.8 mphps	Westcode 2 shoes autoslack adjustor	Regenerative electro pneumatic
50 mph	speed limited to 45	2.0 mphps 2.0 mphps	3.8 mphps	Westcode 2 shoes autoslack adjustor	Electro-pneumatic only
45 mph	50 mph	1.5/Full Service 3.0 mphps	3.0 mphps	Clasp with automatic slack adj.	Dynamic & electric pneumatic
45 mph	50 mph	1.5/Full Service 3.0 mphps	3.0 mphps	Disc on axle	Dynamic & electric pneumatic
45 mph	50 mph	1.5/Full Service 3.0 mphps	3.0 mphps	Clasp with automatic slack adj.	Dynamic & electric pneumatic
45 mph	50 mph	1.5/Full Service 3.0 mphps	3.0 mphps	Clasp with automatic slack adj.	Dynamic & electric pneumatic

AUTHORITY CAR NOS./ ORDER NO.	BRAKING				
	FRICTION SUPPLEMENT	MPH FULL SERVICE BRAKE	TYPE BRAKE VALVE	TYPE COMPRESSOR	COMPRESSOR CAPACITY
MBTA 0600-0669	none	Not available	WABCO B-3-C	WABCO D-4	30 cfm
MBTA 01200-01319	none	Not available	WABCO B-3-C	WABCO D-4	30 cfm
MDCTA 101-236	Pneumatic supplement below 5 mph	Regenerative or dynamic to 5 MPH	WABCO Servitrol	WABCO D4S	24 CFM
MUCTC 81-501- 81-746	yes	Fade-out speed 8 mph	Electro-pneu- matic EMD (West- code)	1 compressor per 3-car unit on trailer	Not applicable
MUCTC 80-001- 80-123	yes	Fade-out speed 8 mph	Electro-pneu- matic EMD (West- code)	Canadian-Inger- soll-Rand	"V" 2-cylinder 2 stage 25 cfm
MUCTC 79-501- 79-782	yes	Fade-out speed 8 mph	Electro-pneu- matic EMD (West- code)	1 compressor per 3-car unit on trailer	Not applicable
MUCTC 78-001- 78-141	yes	Fade-out speed 8 mph	Electro-pneu- matic EMD (West- code)	Canadian-Inger- soll-Rand	"V" 2-cylinder 2 stage 25 cfm
NYCTA R-10	1.0 mphps	Down to 10.0 mph Westing- house & General Electric	WABCO ME42	WABCO A1	21 cfm
NYCTA R-11	1.0 mphps	Down to 10.0 mph Westing- house & General Electric	WABCO ME42	WABCO A1	21 cfm
NYCTA R-12	1.0 mphps	Down to 10.0 mph Westing- house & General Electric	WABCO ME42	WABCO A1	21 cfm
NYCTA R-14	1.0 mphps	Down to 10.0 mph Westing- house & Elec- tric	WABCO ME42	WABCO A1	21 cfm

BRAKING					
MANUFACTURER BRAKE	TYPE BRAKE SHOES	BRAKE CYLINDERS OR ACTUATOR			MANUFACTURER HAND BRAKE
		LOCATION	DIMENSIONS	NO./TYPE	
WABCO	Composition	On Truck Frame	5 1/2"	4/WABCO Tread	Ellcon National
WABCO	Composition	On Truck Frame	5 1/2"	4/WABCO Tread	Ellcon National
WABCO	Composition Molded	On Truck Frame	Info. not available	8/Car Pneumatic Hydraulic	WABCO
Westinghouse Brake & Signal	wood-oil impregnated	On Truck Frame	5"x5"	8/-car Westcode	Canadian-Vickers Ltd.
Westinghouse Brake & Signal	wood-oil impregnated	On Truck Frame	4"x5"	8/car Westcode	Canadian-Vickers Ltd.
Westinghouse Brake & Signal	wood-oil impregnated	on truck frame	5"x5"	8/car Westcode	Controlex Corporation of America
Westinghouse Brake & Signal	wood-oil impregnated	on truck frame	5"x5"	8/car Westcode	Controlex Corporation of America
WABCO (SMEE)	Cast iron	On truck frame	7"x6"	2/truck UAHT	Ellcon National
WABCO (SMEE)	Comp. pad, disc brakes	On gear unit	50.27" sq.	2/truck Budd	Ellcon National
WABCO (SMEE)	Cast iron	On truck frame	6"x6"	2/truck UAHT	Ellcon National
WABCO (SMEE)	Cast iron	On truck frame	6"x6"	2/truck UAHT	Ellcon National

AUTHORITY CAR NOS. / ORDER NO.	COMMUNICATIONS		ATO/ATC		
	PUBLIC ADDRESS SYSTEM	TWO-WAY RADIO COMMUNICATION	CAB SIGNAL	AUTOMATIC TRAIN PROTECTION	AUTOMATIC TRAIN OPERATION
MBTA 0600-0669	Yes	Yes	No	not available	no
MBTA 01200-01319	Yes	Yes	No	not available	no
MDCTA 101-236	Yes	Yes	Yes	yes	yes
MUCTC 81-501- 81-746	yes	yes	yes	yes	yes
MUCTC 80-001- 80-123	yes	not applicable	not applicable	not applicable	not applicable
MUCTC 79-501- 79-782	yes	yes	yes	yes	yes
MUCTC 78-001- 78-141	yes	not applicable	not applicable	not applicable	not applicable
NYCTA R-10	none	yes	none	none	none
NYCTA R-11	none	yes	none	none	none
NYCTA R-12	none	yes	none	none	none
NYCTA R-14	none	yes	none	none	none



AUTHORITY CAR NOS./ ORDER NO.	NO. OF CARS/ TYPE CAR	YEAR PURCHASED	PLACED IN SERVICE	CAR BUILDER	BID PRICE PER CAR
NYCTA R-15	100 Single Car IRT	1947	1950	ACF	\$69,750
NYCTA R-16	200 Single Car BMT- IND	1953	1955	ACF	\$121,445
NYCTA R-17	400 Single Car IRT	1954	1955-56	St. Louis Car Co.	\$102,000
NYCTA R-21	250 Single Car IRT	1955	1956-57	St. Louis Car Co.	\$101,840
NYCTA R-22	450 Single Car IRT	1956	1957-59	St. Louis Car Co.	\$106,450
NYCTA R-26	110 Married pairs IRT	1958	1959-60	ACF	\$106,605
NYCTA R-27	230 Married pairs BMT-IND	1959	1960-61	St. Louis Car Co.	\$119,375
NYCTA R-28	100 Married pairs IRT	1959	1960-61	ACF	\$114,985
NYCTA R-29	236 Married pairs IRT	1961	1962	St. Louis Car Co.	\$110,790
NYCTA R-30	260 Married pairs BMT-IND	1960	1961-62	St. Louis Car Co.	\$120,950
NYCTA R-30A	60 Married pairs BMT-IND	1960	1961	St. Louis Car Co.	\$121,535
NYCTA R-32	300 Married pairs BMT-IND	1963	1965	Budd Co.	\$114,700

AUTHORITY CAR NOS./ ORDER NO.	COMPATIBILITY WITH OTHER CARS	DIMENSIONS			
		LENGTH OVER COUPLERS	LENGTH OVER ANTI-CLIMBER	TRUCK CENTERS	WHEEL BASE
NYCTA R-15	A11 but R44 and R46	51'4"	51'1/2"	36'	6'10"
NYCTA R-16	A11 but R44 and R46	60'6"	60'2-1/2"	44'7"	6'10"
NYCTA R-17	A11 but R44 and R46	51'4"	51'1/2"	36'	6'10"
NYCTA R-21	A11 but R44 and R46	51'4"	51'1/2"	36'	6'10"
NYCTA R-22	A11 but R44 and R46	51'4"	51'1/2"	36'	6'10"
NYCTA R-26	A11 but R44 and R46	51'4"	51'1/2"	36'	6'10"
NYCTA R-27	A11 but R44 and R46	60'6"	60'2-1/2"	44'7"	6'10"
NYCTA R-28	A11 but R44 and R46	51'4"	51'1/2"	36'	6'10"
NYCTA R-29	A11 but R44 and R46	51'4"	51'1/2"	36'	6'10"
NYCTA R-30	A11 but R44 and R46	60'6"	60'2-1/2"	44'7"	6'10"
NYCTA R-30A	A11 but R44 and R46	60'6"	60'2-1/2"	44'7"	6'10"
NYCTA R-32	A11 but R44 and R46	60'6"	60'2-1/2"	44'7"	6'10"

DIMENSIONS					
WIDTH OF CAR BODY MAXIMUM	WHEEL DIAMETER	NO. OF CARS/ TRAIN MIN./MAX.	SEATING CAPACITY	MAX. NO. PSGRS.	CLEAR FLOOR AREA SQ. FT. (INCLDG. CABS)
				DESIGN/PRACTICAL (CRUSH)	
8'9-1/2"	34"	4 10	44	200 180	285 sq. ft.
10'	34"	4 10	54	300 220	430 sq. ft.
8'9-1/2"	34"	4 10	44	200 180	285 sq. ft.
8'9-1/2"	34"	4 10	44	200 180	285 sq. ft.
8'9-1/2"	34"	4 10	44	200 180	285 sq. ft.
8'9-1/2"	34"	4 10	44	200 180	285 sq. ft.
10'	34"	4 10	50	300 220	410 sq. ft.
8'9-1/2"	34"	4 10	44	200 180	285 sq. ft.
8'9-1/2"	34" <i>See note 35</i>	4 10	44	200 180	285 sq. ft.
10'	34"	4 10	50	300 220	410 sq. ft.
10'0"	34"	4 10	50	300 220	410 sq. ft.
10'0"	34"	4 10	50	300 220	410 sq. ft.

AUTHORITY CAR NOS./ ORDER NO.	DIMENSIONS				
	MINIMUM HEAD ROOM	HGT. MIN., FLR TO HEADLINING AT CENTER	WIDTH OF SIDE DOOR OPENINGS	HEIGHT OF SIDE DOOR OPENINGS	WIDTH ACROSS THRESHHOLD PLATES
NYCTA R-15	6'11-3/16"	6'11-3/16"	4'2"	6'2-5/8"	8'9-1/2"
NYCTA R-16	7'1/2"	7'0-1/2"	4'2"	6'2-5/8"	10'
NYCTA R-17	6'11-7/8"	6'11-7/8"	4'2"	6'2-5/8"	8'9-1/2"
NYCTA R-21	6'11-7/8"	6'11-7/8"	4'2"	6'2-5/8"	8'9-1/2"
NYCTA R-22	6'11-7/8"	6'11-7/8"	4'2"	6'2-5/8"	8'9-1/2"
NYCTA R-26	6'11-7/8"	6'11-7/8"	4'2"	6'2-5/8"	8'9-1/2"
NYCTA R-27	7'1/2"	7'0-1/2"	3'10"	6'2-5/8"	10'
NYCTA R-28	6'11-7/8"	6'11-7/8"	4'2"	6'2-5/8"	8'9-1/2"
NYCTA R-29	6'11-7/8"	6'11-7/8"	4'2"	6'2-5/8"	8'9-1/2"
NYCTA R-30	7'1/2"	7'0-1/2"	3'10"	6'2-5/8"	10'
NYCTA R-30A	7'1/2"	7'0-1/2"	3'10"	6'2-5/8"	10'
NYCTA R-32	7'1/2"	7'0-1/2"	3'10"	6'2-5/8"	10'

HEIGHT MAXIMUM		DIMENSIONS			
TOP OF RAIL TO TOP OF ROOF	OVER RADIO ANTENNA, FAN HOUSING, ETC.	HEIGHT-TOP OF RAIL TO CAR FLOOR	AISLE WIDTH MIN./MAX.	MIN. RADIUS HORIZ. CURVE CAR IS DESIGNED TO NEGOTIATE	MIN. RADIUS VERTICAL CURVE
11'10-7/8"	11'10-7/8"	45'1/2"	4'8-3/16" 4'8-3/16"	90'	+2000' -2000'
12'1-15/16"	12'1-15/16"	46'3/8"	3'3-7/8" 5'10-3/4"	125'	+2000' -2000'
11'10-7/8"	11'10-7/8"	45'1/2"	4'5-3/4" 4'5-3/4"	90'	+2000' -2000'
11'10-7/8"	11'10-7/8"	45'1/2"	4'5-3/4" 4'5-3/4"	90'	+2000' -2000'
11'10-7/8"	11'10-7/8"	45'1/2"	4'5-3/4" 4'5-3/4"	90'	+2000' -2000'
11'10-7/8"	11'10-7/8"	45'1/2"	4'5-3/4" 4'5-3/4"	90'	+2000' -2000'
11'10-7/8"	11'10-7/8"	45'1/2"	4'5-3/4" 4'5-3/4"	90'	+2000' -2000'
12'1-15/16"	12'1-15/16"	46'3/8"	5'6" 5'6"	125'	+2000' -2000'
11'10-7/8"	11'10-7/8"	45'1/2"	4'5-3/4" 4'5-3/4"	90'	+2000' -2000'
11'10-7/8"	11'10-7/8"	45'1/2"	4'5-3/4" 4'5-3/4"	90'	+2000' -2000'
12'1-15/16"	12'1-15/16"	46'3/8"	5'6" 5'6"	125'	+2000' -2000'
12'1-15/16"	12'1-15/16"	46'3/8"	5'6" 5'6"	125'	+2000' -2000'
12'1-15/16"	12'1-15/16"	46'3/8"	5'6" 5'6"	125'	+2000' -2000'

AUTHORITY CAR NOS./ ORDER NO.	DIMENSIONS	WEIGHTS			
	TRACK GAUGE	SINGLE CAR AVG.-LT. WT. LBS.	AVG. WT. A/CAR, B/CAR	WEIGHT/ SQ. FT.	WEIGHT/ SEAT
NYCTA R-15	4'8-1/2"	75,440 lbs.	not applicable	265 lbs.	1715 lbs.
NYCTA R-16	4'8-1/2"	85,000 lbs.	not applicable	198 lbs.	1574 lbs.
NYCTA R-17	4'8-1/2"	78,700 lbs.	not applicable	276 lbs.	1789 lbs.
NYCTA R-21	4'8-1/2"	73,300 lbs.	not applicable	275 lbs.	1780 lbs.
NYCTA R-22	4'8-1/2"	77,240 lbs.	not applicable	271 lbs.	1755 lbs.
NYCTA R-26	4'8-1/2"	not applicable	74,000 lbs. 74,540 lbs.	"A" car:260lbs. "B" car:262lbs.	"A" car:1682lbs. "B" car:1694lbs.
NYCTA R-27	4'8-1/2"	not applicable	80,345 lbs. 81,090 lbs.	"A" car:196lbs. "B" car:198lbs.	"A" car:1607lbs. "B" car:1622lbs.
NYCTA R-28	4'8-1/2"	not applicable	74,150 lbs. 74,750 lbs.	"A" car:260lbs. "B" car:262lbs.	"A" car:1685lbs. "B" car:1699lbs.
NYCTA R-29	4'8-1/2"	not applicable	72,784 lbs. <i>(See note 36)</i> 73,285 lbs.	"A" car:255lbs. "B" car:257lbs.	"A" car:1654lbs. "B" car:1666lbs.
NYCTA R-30	4'8-1/2"	not applicable	79,360 lbs. 80,150 lbs.	"A" car:194lbs. "B" car:195lbs.	"A" car:1587lbs. "B" car:1603lbs.
NYCTA R-30A	4'8-1/2"	not applicable	79,360 lbs. 80,150 lbs.	"A" car:194lbs. "B" car:195lbs.	"A" car:1587lbs. "B" car:1603lbs.
NYCTA R-32	4'8-1/2"	not applicable	69,422 lbs. 70,150 lbs.	A car: 169lbs. B car: 171lbs.	A car: 1389 B car: 1403

WEIGHTS			CAR BODY		
WEIGHT/ PASSENGER (CRUSH LOAD)	AVG. WEIGHT OF COMPLETE TRUCKS #1 TRUCK/#2 TRK	LOAD WEIGHING DEVICE	MOTORMAN'S CABS/CAR	WINDSHIELD WIPERS	BODY & FRAMING
419 lbs.	19,762/19,521 lbs.	Yes	2	Manually oper- ated two per car	LAHT
386 lbs.	19,762/19,521 lbs.	Yes	2	Manually oper- ated two per car	LAHT
437 lbs.	19,762/19,521 lbs.	Yes	2	Manually oper- ated two per car	LAHT
435 lbs.	19,762/19,521 lbs.	Yes	2	Manually oper- ated two per car	LAHT
429 lbs.	19,762/19,521 lbs.	Yes	2	Manually oper- ated two per car	LAHT
"A" car:411lbs. "B" car:414lbs.	19,188/19,030 lbs.	Yes	1	Manually oper- ated 1/car @ no. 1 end	LAHT
"A" car:365lbs. "B" car:369lbs.	19,762/19,521 lbs.	Yes	1	Manually oper- ated 1/car @ no. 1 end	LAHT
"A" car:412lbs. "B" car:415lbs.	19,762/19,521 lbs.	Yes	1	Manually oper- ated 1/car @ no. 1 end	LAHT
"A" car:405lbs. "B" car:407lbs.	19,762/19,521 lbs.	Yes	1	Manually oper- ated 1/car @ no. 1 end	LAHT
"A" car:361lbs. "B" car:364lbs.	19,762/19,521 lbs.	Yes	1	Manually oper- ated 1/car @ no. 1 end	LAHT
A car: 361 lbs. B car: 364 lbs.	19,762/19,521 lbs.	Yes	1	Manually oper- ated 1/car @ no. 1 end	LAHT
A car: 316 lbs. B car: 319 lbs.	19,150/19,000 lbs.	Yes	1	Manually oper- ated 1/car @ no. 1 end	S.S. & LAHT

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY				
	ROOF CONSTRUCTION	EXTERIOR FINISH (PAINT)	COLOR SCHEME		FLOOR CONSTRUCTION
			INTERIOR	EXTERIOR	
NYCTA R-15	Turtle Back	Paint	Doors: dark blue, walls: gray, ceiling: white	Maroon, beige belt	Alum. Truss Plate & Magne- site
NYCTA R-16	Turtle Back Main & Aux. Roof	Paint	"	green	Alum. Truss plate, Underlay- ment, vinyl as- bestos tiles
NYCTA R-17	Turtle Back Main & Aux. Roof	Paint	"	maroon	"
NYCTA R-21	Turtle Back Main & Aux. Roof	Paint	"	green	"
NYCTA R-22	Turtle Back Main & Aux. Roof	Paint	"	green	"
NYCTA R-26	Turtle Back Main & Aux. Roof	Paint	"	green	"
NYCTA R-27	Turtle Back Main & Aux. Roof	Paint	"	green	"
NYCTA R-28	Turtle Back Main & Aux. Roof	Paint	"	green	"
NYCTA R-29	Turtle Back Main & Aux. Roof	Paint	"	tartar red	" <i>Note 38</i>
NYCTA R-30	Turtle Back Main & Aux. Roof	Paint	"	green	Alum. Truss plate, under- layment, vinyl asbestos tiles
NYCTA R-30A	Turtle Back Main & Aux. Roof	Paint	"	green	"
NYCTA R-32	Turtle Back Main & Aux. Roof	S.S., Doors Paint	Doors: dark blue, walls:lt. blue, ceil.: white	Stainless steel	Plywood w/bond- ed alum. under- side.Vinyl as- bestos tiles



CAR BODY					
CEILING FINISH	SIDE WINDOWS, SASH		WINDOWS & DOOR GLAZING MATERIAL	INTERIOR FINISH	SEATS
	TYPE	MANUFACTURER			ARRANGEMENT
Paint	Single drop, outside hung	Hunter Sign Corp.	Cab, side & end doors: lam., Side windows: sheet glass	Paint on Aluminum	longitudinal
Porcelanized Aluminum	Dble. upper drop. Lower - station	O.M. Edwards Co.	"	S.S. & Paint on Aluminum	cross & longitudinal
Porcelanized Aluminum	"	O.M. Edwards Co.	"	S.S. & Paint on Aluminum	longitudinal
Porcelanized Aluminum	"	O.M. Edwards Co.	"	S.S. & Paint on Aluminum	longitudinal
Porcelanized Aluminum	"	O.M. Edwards Co.	"	S.S. & Paint on Aluminum	longitudinal
Porcelanized Aluminum	"	O.M. Edwards Co.	"	S.S. & Paint on Aluminum	longitudinal
Porcelanized Aluminum	"	O.M. Edwards Co.	"	S.S. & Paint on Aluminum	longitudinal
Porcelanized Aluminum	"	Adams & Westlake Co.	"	S.S. & Paint on Aluminum	longitudinal
Porcelanized Aluminum	"	O.M. Edwards Co.	"	S.S. & Paint on Aluminum	longitudinal
Porcelanized Aluminum	"	O.M. Edwards Co.	"	S.S. & Paint on Aluminum	longitudinal
Porcelanized Aluminum	"	O.M. Edwards Co.	"	S.S. & Paint on Aluminum	longitudinal
Porcelanized Aluminum	"	O.M. Edwards Co.	Cab, side & end doors: lam. Side windows: temp.	S.S. & Paint on Aluminum & Plastic	longitudinal

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY SEATS				
	FRAMING	COVERING MATERIAL		COLOR	
		ORIGINAL	PRESENT	ORIGINAL	PRESENT
NYCTA R-15	box frame	St. Spring Felt - vinyl	Fiber glass polyester <i>See note 39</i>	Tan	Dark Grey
NYCTA R-16	box frame	Synthetic foam	Fiber glass polyester <i>See note 39</i>	Red	Dark Grey
NYCTA R-17	box frame	Synthetic foam	Fiber glass polyester <i>See note 40</i>	Red	Dark Grey
NYCTA R-21	box frame	Synthetic foam	Fiber glass polyester <i>See note 39</i>	Red	Dark Grey
NYCTA R-22	box frame	Synthetic foam	Fiber glass polyester <i>See note 39</i>	Red	Dark Grey
NYCTA R-26	box frame	Fiber glass polyester	Fiber glass polyester	Coral	Coral
NYCTA R-27	box frame	Fiber glass polyester	Fiber glass polyester	Coral	Coral
NYCTA R-28	box frame	Fiber glass polyester	Fiber glass polyester	Coral	Coral
NYCTA R-29	box frame	Fiber glass polyester	Fiber glass polyester	Dark grey	Dark grey
NYCTA R-30	box frame	Fiber glass polyester	Fiber glass polyester	Coral	Coral
NYCTA R-30A	box frame	Fiber glass polyester	Fiber glass polyester	Coral	Coral
NYCTA R-32	box frame	Fiber glass polyester	Fiber glass polyester	Aqua	Aqua

CAR BODY					
SEATS	CEILING HANDHOLDS TYPE/NO./CAR	NO. OF SEAT HANDHOLDS	CEILING TO FLOOR STANCHIONS PER CAR	SIDE DOOR OPENINGS/CAR	NO. OF SIDE DOOR PANELS PER CAR
MANUFACTURER					
ACF	Fixed Bar & Swing Handhold/ 36	None	3	6	12
Heywood-Wakefield	Swing 42	Stanchions at cross seats	4 <i>Note 18</i>	8	16
General Seating Corp. & Heywood Wakefield	Swing 60	None	4	6	12
General Seating Corp. & Heywood Wakefield	Swing 56	None	4	6	12
General Seating Corp.	Swing 56	None	4	6	12
American Seating Corp.	Swing 56	None	4	6	12
Heywood-Wakefield	Swing 68	None	10	8	16
American Seating Corp.	Swing 56	None	4	6	12
Heywood-Wakefield	Swing 56	None	4	6	12
Heywood-Wakefield	Swing 68	None	10	8	16
Heywood-Wakefield	Swing 68	None	10	8	16
General Seating Corp.	Swing 68	None	10	8	16

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY		COUPLER & DRAFT GEAR		
	DOOR FABRICATION	MANUFACTURER OF DOORS & HANGERS	TYPE COUPLER	COUPLING AT INTERMEDIATE END	DRAFT GEAR
NYCTA R-15	hollow aluminum	ACF - doors Otis - hangers	WABCO H2C BL 25B Electric Por- tion	Tite lock both ends	Waughmat E4CL
NYCTA R-16	hollow aluminum	ACF - doors Otis - hangers	"	Tite lock both ends	Waughmat E4CL
NYCTA R-17	hollow aluminum	O.M. Edwards - doors; Otis - hangers	"	Tite lock both ends	Waughmat E4CL
NYCTA R-21	hollow aluminum	O.M. Edwards - doors; Otis - hangers	"	Tite lock both ends	Waughmat E4CL
NYCTA R-22	hollow alumi- num <i>See note 41</i>	O.M. Edwards - doors; Otis - hangers	"	Tite lock both ends	Waughmat E4CL
NYCTA R-26	hollow alumi- num	O.M. Edwards - doors; Otis - hangers	WABCO H2C #1 end, WABCO H2CA #2 end <i>Note 42</i>	Tite lock both ends	Waughmat E4CL
NYCTA R-27	hollow alumi- num	O.M. Edwards - doors; Otis - hangers	WABCO H2C #1 end, WABCO H2CA #2 end	Tite lock both ends	Waughmat E4CL
NYCTA R-28	paper honey- comb filler, aluminum skin	Morton Co. - doors, Otis - hangers	WABCO H2C #1 end, WABCO H2CA #2 end	Tite lock both ends	Waughmat E4CL
NYCTA R-29	hollow alumi- num	O.M. Edwards	WABCO H2C BL26B Elect. Port. #1 end only	Link bar be- tween odd and even car	Waughmat E4CL
NYCTA R-30	hollow alumi- num	O.M. Edwards	WABCO H2C #1 end, WABCO H2CA #2 end <i>Note 42</i>	Tite lock both ends	Waughmat E4CL
NYCTA R-30A	hollow alumi- num	O.M. Edwards	WABCO H2C #1 end, WABCO H2CA #2 end	Tite lock both ends	Waughmat E4CL
NYCTA R-32	hollow alumi- num	O.M. Edwards	WABCO H2C BL26B Elect. Port. #1 end only	Link bar be- tween odd and even car	Waughmat E4CL

COUPLER & DRAFT GEAR MAXIMUM HORIZONTAL BUFF	MISCELLANEOUS CAR BODY ITEMS			DOOR OPERATION & CONTROL	
	SIDE & END DESTINATION SIGN MANUFACTURER	CURTAIN MATERIAL	NO. AND TYPE FIRE EXTINGUISHER	LOCATION OF DOOR CONTROL DEVICE	DOOR OPERATORS NO./CAR/TYPE
200,000 lbs.	Hunter Sign Corp.	cotton	1-1/2 to 2-3/4 lb. dry chemical pressurized	In cab	8 Electric
200,000 lbs.	Hunter Sign Corp.	cotton	"	In cab	10 Electric
200,000 lbs.	Hunter Sign Corp.	cotton	"	In cab	8 Electric
200,000 lbs.	Electric Service Corp.	cotton	"	In cab	8 Electric
200,000 lbs.	Electric Service Corp.	cotton	"	In cab	8 Electric
200,000 lbs.	Hunter Sign Corp.	cotton	"	In cab	8 Electric
200,000 lbs.	Teleweld Corp.	cotton	"	In cab	10 Electric
200,000 lbs.	Hunter Sign Corp.	cotton	"	In cab	8 Electric
200,000 lbs.	Hunter Sign Corp.	cotton	"	In cab	8 Electric
200,000 lbs.	Hunter Sign Corp.	cotton	"	In cab	10 Electric
200,000 lbs.	Hunter Sign Corp.	cotton	"	In cab	10 Electric
200,000 lbs.	Transign Corp.	mylar polyester film	"	In cab	10 Electric

AUTHORITY CAR NOS./ ORDER NO.	DOOR OPERATION & CONTROL DOOR CONTROL DEVICE	HEATING, COOLING & VENTILATION SYSTEMS			
		HEATING			
		MANUFACTURER	LOCATION	TOTAL KW/CAR	UNDER SEAT WATTAGE
NYCTA R-15	Lever type	Railway Util. Co.	Under seats	12.075 KW	H1 - 3675W H2 & H3 - 4200W per cir.
NYCTA R-16	Lever type	Gold Car Htg. Co.	Under seats	12.075 KW	H1 - 3675W H2 & H3 - 4200W per cir.
NYCTA R-17	Lever type	Con. Metal Prod. Corp.	Under seats	12.075 KW	H1 - 3675W H2 & H3 - 4200W per cir.
NYCTA R-21	Lever type	Con. Metal Prod. Corp.	Under seats & in Plenum	12.76 KW	H1 - 3340W H2 & H3 - 3570W per cir.
NYCTA R-22	Lever type	Con. Metal Prod. Corp.	Under seats & in Plenum	12.71 KW	H1 - 2982W H2 & H3 - 3744W per cir.
NYCTA R-26	Push buttons	Midland-Ross Corp.	Under seats & in Plenum	12.76 KW	H1 - 3340W H2 & H3 - 3570 W per cir.
NYCTA R-27	Push buttons	Midland-Ross Corp.	Under seats & in Plenum	12.76 KW	H1 - 3340W H2 & H3 - 3570 W per cir.
NYCTA R-28	Push buttons	Midland-Ross Corp.	Under seats & in Plenum	12.76 KW	H1 - 3340W H2 & H3 - 3570 W per cir.
NYCTA R-29	Push buttons	Midland-Ross Corp.	Under seats & in Plenum	12.76 KW	H1 - 3340W H2 & H3 - 3570 W per cir.
NYCTA R-30	Push buttons	Midland-Ross Corp.	Under seats & in Plenum	12.76 KW	H1 - 3340W H2 & H3 - 3570 W per cir.
NYCTA R-30A	Push buttons	Midland-Ross Corp.	Under seats & in Plenum	12.76 KW	H1 - 3340W H2 & H3 - 3570 W per cir.
NYCTA R-32	Push buttons	Vapor Corp.	Under seats & in Plenum	12.76 KW	H1 - 3340W H2 & H3 - 3570 W per cir.

HEATING, COOLING & VENTILATION SYSTEMS					
HEATING	CONTROLS		VENTILATION		
IN PLENUM WATTAGE	AUTOMATIC HTNG. & VENTILATING SYSTEM	NO. FANS/CAR & MANUFACTURER	TYPE FAN	VOLTAGE, SPEED, OUTPUT	FAN SPEED STEPS
none	Fans & Heat, Thermostat con- trol	4 Westinghouse	23" axiflo	150V dc 860 rpm 3000 cfm	54
none	Fans, Heat, Roof Dampers, Minn. Honeywell	6 Westinghouse	23" axiflo	200V dc 860 rpm 3000 cfm	54
none	Fans, Heat, Roof Dampers, Vapor Corp.	4 Westinghouse	23" axiflo	150V dc 860 rpm 3000 cfm	54
H1 - 1140W H2 & H3 - 570W per cir.	Fans, Heat, Roof Dampers, Vapor Corp.	4 Westinghouse	23" axiflo	150V dc 860 rpm 3000 cfm	54
H1 - 1032W H2 & H3 - 604W per cir.	Fans, Heat, Roof Dampers, Vapor Corp.	4 Westinghouse	23" axiflo	150V dc 860 rpm 3000 cfm	54
H1 - 1140W H2 & H3 - 570W per cir.	Fans, Heat, Roof Dampers, Vapor Corp.	4 Westinghouse	23" axiflo	150V dc 860 rpm 3000 cfm	54
H1 - 1140W H2 & H3 - 570W per cir.	Fans, Heat, Roof Dampers, Vapor Corp.	6 Westinghouse	23" axiflo	200V dc 860 rpm 3000 cfm	54
H1 - 1140W H2 & H3 - 570W per cir.	Fans, Heat, Roof Dampers, Vapor Corp.	4 Westinghouse	23" axiflo	150V dc 860 rpm 3000 cfm	54
H1 - 1140W H2 & H3 - 570W per cir.	Fans, Heat, Roof Dampers, Vapor Corp.	4 Westinghouse	23" axiflo	150V dc 860 rpm 3000 cfm	54
H1 - 1140W H2 & H3 - 570W per cir.	Fans, Heat, Roof Dampers, Vapor Corp.	6 Westinghouse <i>See note 44</i>	23" axiflo	200V dc 860 rpm 3000 cfm	54
H1 - 1140W H2 & H3 - 570W per cir.	Fans, Heat, Roof Dampers, Vapor Corp.	6 Westinghouse	23" axiflo	200V dc 860 rpm 3000 cfm	54
H1 - 1140W H2 & H3 - 570W per cir.	Fans, Heat, Roof Dampers, Vapor Corp.	6 Westinghouse	23" axiflo	200V dc 860 rpm 3000 cfm	4

AUTHORITY CAR NOS./ ORDER NO.	HEATING, COOLING AND VENTILATION SYSTEMS				
	VENTILATION	COOLING SYSTEM			
	TYPE AIR DIFFUSER	AIR CONDITIONED	MANUFACTURER	TYPE	CAPACITY
NYCTA R-15	Annular con. vanes	no	Not applicable	Not applicable	Not applicable
NYCTA R-16	Annular con. vanes	no	Not applicable	Not applicable	Not applicable
NYCTA R-17	Annular con.	no	Not applicable	Not applicable	Not applicable
NYCTA R-21	Annular con. vanes	no	Not applicable	Not applicable	Not applicable
NYCTA R-22	Annular con. vanes	no	Not applicable	Not applicable	Not applicable
NYCTA R-26	Annular con. vanes	no	Not applicable	Not applicable	Not applicable
NYCTA R-27	Annular con. vanes	no	Not applicable	Not applicable	Not applicable
NYCTA R-28	Annular con. vanes	no	Not applicable	Not applicable	Not applicable
NYCTA R-29	Annular con. vanes	no	Not applicable	Not applicable	Not applicable
NYCTA R-30	Annular con. vanes	no	Not applicable	Not applicable	Not applicable
NYCTA R-30A	Annular con. vanes	no	Not applicable	Not applicable	Not applicable
NYCTA R-32	Annular con. vanes*	no	Not applicable	Not applicable	Not applicable

\*Cars 3800 to 3949 incl. (150 cars) peripheral discharge air diffusers.



HEATING, COOLING & VENTILATION SYSTEMS			LIGHTING		
COOLING SYSTEM			TYPE LAMP	NO. OF LAMPS/CAR	OVERHEAD LIGHT FIXTURE TYPE
AIR VOLUME	HVAC CONTROL	REFRIGERANT			
Not applicable	Not applicable	Not applicable	Hot cathode fluorescent	14	Enc. glass lens, Electric Serv. Co.
Not applicable	Not applicable	Not applicable	Hot cathode fluorescent	23	Enclosed glass lens, Luminator Co.
Not applicable	Not applicable	Not applicable	Hot cathode fluorescent	19	Enclosed glass lens, Luminator Co.
Not applicable	Not applicable	Not applicable	Hot cathode fluorescent	19	Enclosed glass lens, Luminator Co.
Not applicable	Not applicable	Not applicable	Hot cathode fluorescent	19	Enclosed glass lens, Luminator Co.
Not applicable	Not applicable	Not applicable	Hot cathode fluorescent	19	Enclosed glass lens, Luminator Co.
Not applicable	Not applicable	Not applicable	Hot cathode fluorescent	19	Enclosed glass lens, Luminator Co.
Not applicable	Not applicable	Not applicable	Hot cathode fluorescent	23	Enclosed glass lens, Luminator Co.
Not applicable	Not applicable	Not applicable	Hot cathode fluorescent	19	Enclosed glass lens, Luminator Co.
Not applicable	Not applicable	Not applicable	Hot cathode fluorescent	19	Enclosed glass lens, Luminator Co.
Not applicable	Not applicable	Not applicable	Hot cathode fluorescent	19	Enclosed glass lens, Luminator Co.
Not applicable	Not applicable	Not applicable	Hot cathode fluorescent	23	Enclosed glass lens, Luminator Co.
Not applicable	Not applicable	Not applicable	Hot cathode fluorescent	23	Enclosed glass lens, Luminator Co.
Not applicable	Not applicable	Not applicable	Hot cathode fluorescent	23 (See Note 53)	Enclosed glass lens, Luminator Co. (See Note 54)

AUTHORITY CAR NOS./ ORDER NO.	LIGHTING				
	SPECIFIED INTENSITY AT READING PLANE	LIGHTING POWER SUPPLY	MAIN LIGHTS POLARITY REV. TIMER	HEAD LIGHTS	EMERGENCY LIGHT/CAR
NYCTA R-15	15 foot candles	600V dc	Jackson Elec. solid state	yes	6
NYCTA R-16	25 foot candles	600V dc	Jackson Elec. solid state	yes	8
NYCTA R-17	25 foot candles	600V dc	Jackson Elec. solid state	yes	6
NYCTA R-21	25 foot candles	600V dc	Jackson Elec. solid state	yes	6
NYCTA R-22	25 foot candles	600V dc	Jackson Elec. solid state	yes	6
NYCTA R-26	25 foot candles	600V dc	Jackson Elec. solid state	yes	6
NYCTA R-27	25 foot candles	600V dc	Jackson Elec. solid state	yes	8
NYCTA R-28	25 foot candles	600V dc	Jackson Elec. solid state	yes	6
NYCTA R-29	25 foot candles	600V dc	Jackson Elec. solid state	yes	6
NYCTA R-30	25 foot candles	600V dc	Jackson Elec. solid state	yes	8
NYCTA R-30A	25 foot candles	600V dc	Jackson Elec. solid state	yes	8
NYCTA R-32	25 foot candles	600V dc	Industron solid state (See Note 55)	yes	8

MISC. ELECTRICAL EQUIPMENT					
STORAGE BATTERY					
TYPE	AMP/HRS.	COMPARTMENT	BATTERY EQUIPPED CAR	BATTERY CHARGER TYPE	CURRENT COLLECTION
Edison B4H 24 cells	75	seasoned oak	all	not applicable	Third rail shoes
Edison B4H 24 cells	75	seasoned oak	all	not applicable	Third rail shoes
Edison B4H 24 cells	75	seasoned oak	all	not applicable	Third rail shoes
Edison B4H 24 cells	75	seasoned oak	all	not applicable	Third rail shoes
Edison B4H 24 cells	75	plywood	all	not applicable	Third rail shoes
Edison B4H 24 cells	75	plywood	B car only	not applicable	Third rail shoes
Edison B4H 24 cells	75	plywood	B car only	not applicable	Third rail shoes
Edison B4H 24 cells	75	plywood	B car only	not applicable	Third rail shoes
Edison B4H 24 cells	75	plywood	B car only	not applicable	Third rail shoes
Edison B4H 24 cells	75	plywood	B car only	not applicable	Third rail shoes
Edison B4H 24 cells	75	plywood	B car only	not applicable	Third rail shoes
Edison B4H 24 cells	75	plywood	B car only	not applicable	Third rail shoes
Edison B4H 24 cells	75	fiberglass	B car only	not applicable	Third rail shoes

AUTHORITY CAR NOS./ ORDER NO.	MISC. ELECTRICAL EQUIPMENT				TRACTION MOTOR
	AUXILIARY POWER SUPPLY				
	NO./CAR	CAPACITY	INPUT/OUTPUT	TYPE	MFG./MODEL
NYCTA R-15	1	1.5 KVA	600V dc/ 37-1/2V dc	WHYX-300B GMG153 A1	General Electric 1240 Westinghouse 1447
NYCTA R-16	1	1.5 KVA	600V dc/ 37-1/2V dc	WHYX-300D GMG153 F1	General Electric 1240 Westinghouse 1447
NYCTA R-17	1	1.5 KVA	600V dc/ 37-1/2V dc	WHYX-300D GMG153 F1	General Electric 1240 Westinghouse 1447
NYCTA R-21	1	1.5 KVA	600V dc/ 37-1/2V dc	WHX-300D GMG153 F1	General Electric 1240 Westinghouse 1447
NYCTA R-22	1	3.0 KVA	600V dc/ 37-1/2V dc	WHYX-303A GMG153 H1 <i>See note 45</i>	General Electric 1240 Westinghouse 1447
NYCTA R-26	1 /B car	3.0 KVA	600V dc/ 37-1/2V dc	WHYX-303B GMG153 L1	General Electric 1240 Westinghouse 1447
NYCTA R-27	1/B car	3.0 KVA	600V dc/ 37-1/2V dc	WHYX-304B GHG153 L1	General Electric 1240 Westinghouse 1447
NYCTA R-28	1/B car	3.0 KVA	600V dc/ 37-1/2V dc	WHYX-304B GHG153 L1	General Electric 1240 Westinghouse 1447
NYCTA R-29	1/B car	3.0 KVA	600V dc/ 37-1/2V dc	WHYX-304E GMG153 L1	General Electric 1240 Westinghouse 1447 <i>Note 4</i>
NYCTA R-30	1/B car	3.0 KVA	600V dc/ 37-1/2V dc	WHYX-304E GMG153 L1	General Electric 1240 Westinghouse 1447
NYCTA R-30A	1/B car	3.0 KVA	600V dc/ 37-1/2V dc	WHYX-304E GMG153 L1	General Electric 1240 Westinghouse 1447
NYCTA R-32	1/B car	3.0 KVA	600V dc/ 37-1/2V dc	WHYX-304E1 GMG153 L1	General Electric 1240 Westinghouse 1447 <i>Note 3</i>

TRACTION MOTOR					
NO./CAR	HORSE POWER	MOTOR MOUNTING	MOTOR BEARINGS	TRACTION GEARING MFG./TYPE	TRACTION GEAR RATIO
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44 <i>Note 15</i>	7.235:1 <i>Note 15</i>
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1 *

\*Cars 3946 to 3949 incl. (4 cars) equipped with Pioneer truck disc brakes. Gear ratio 9.39:1.

AUTHORITY CAR NOS./ ORDER NO.	TRACTION MOTOR				
	TYPE MASTER CONTROLLER MFG./TYPE	CONTROL GROUP MFG.	TYPE PROPULSION CONTROL	PROPULSION EQUIPMENT MANUFACTURER	WHEEL SLIP CONTROL
NYCTA R-15	GE17KC76 WHXM179	Westinghouse: General Elec- tric	cam control	Westinghouse: 5953-5976,6200- 6225,Gen. Elec. 5977-5999,6226- 6252	none
NYCTA R-16	GE17KC76 WHXM179	Westinghouse: General Elec- tric	cam control	Westinghouse: 6300-6399, Gen. Electric:6400- 6499	none
NYCTA R-17	GE17KC76 WHXM179	Westinghouse: General Elec- tric	cam control	Westinghouse: 6700-6899, Gen. Elec.:6500- 6699	none
NYCTA R-21	GE17KC76 WHXM179	Westinghouse: General Elec- tric	cam control	Westinghouse: 7175-7299, Gen. Elec.:7050- 7174	none
NYCTA R-22	GE17KC76 WHXM329	Westinghouse: (205 cars) General Elec- tric (20 cars)	cam control	Westinghouse: 7300-7524, Gen. Elec.: 7525- 7749	none
NYCTA R-26	GE17KC76 WHXM379	Westinghouse: General Elec- tric	cam control	Westinghouse: 7804-7859, Gen. Elec.: 7750- 7803	none
NYCTA R-27	GE17KC76 WHXM429	Westinghouse: General Elec- tric	cam control	Westinghouse: 8020-8135, Gen. Elec.:8136- 8249	none
NYCTA R-28	GE17KC76 WHXM479	Westinghouse: General Elec- tric	cam control	Westinghouse: 7860-7909, Gen. Elec.: 7910- 7959	none
NYCTA R-29	GE17KC76 WHXM579	Westinghouse: General Elec- tric	cam control	Westinghouse: 8570-8687, Gen. Elec.: 8688- 8805	none
NYCTA R-30	GE17KC76 WHXM429	Westinghouse: General Elec- tric	cam control	Westinghouse: 8412-8569, Gen. Elec.: 8250- 8351 <i>Note 31</i>	none
NYCTA R-30A	GE17KC76	Westinghouse: General Elec- tric(Note 57)	cam control	Westinghouse: none,Gen.Elec. 8352-8411	none
NYCTA R-32	GE17KC76C2 WHXM729	Westinghouse: General Elec- tric	cam control	Westinghouse: 3800-3949, General Electric: 3650-3799 (Note 56)	none

TRUCKS & SUSPENSIONS					
SIDE BEARINGS	ANTI-FRICTION JOURNAL BEARINGS	SPRINGING PRIMARY	SPRINGING SECONDARY	TYPE TRUCKS	WEIGHT/TRUCK
Stucki	50 cars: SKF 25 cars: Fafnir 25 cars: Hyatt	Monroe Auto Equip. Co. coil	coil	Cast steel equalized out-board journals	#1-18,740 lbs. #2-17,460 lbs.
190 cars: Stucki, 10 cars: Waugh	SKF	coil	coil	Cast steel equalized out-board journals	#1-19,500 lbs. #2-19,000 lbs.
25 cars: Waugh, 375 cars: Stucki	Hyatt	Houdaille Co. coil	coil	Cast steel equalized out-board journals	West.: #1-20,790 lbs., #2-20,464 lbs., GE: #1-19,828 lbs., #2-19,679 lbs.
Waugh	Timken	coil	coil	Cast steel equalized out-board journals	"
Stucki	SKF	coil	coil	Cast steel equalized out-board journals	West.: #1-20,300 lbs., #2-20,024 lbs., GE: #1-19,715 lbs., #2-19,452 lbs.
Waugh	SKF	None, equipped w/Pirelli Springs coil	Pirelli springs	Cast steel equalized out-board journals	West.: #1-19,746 lbs., #2-19,430 lbs., GE: #1-19,346 lbs., #2-19,030 lbs.
Waugh	Hyatt	Houdaille Co. coil	coil	Cast steel equalized out-board journals	West.: #1-20,148 lbs., #2-19,904 lbs., GE: #1-19,451 lbs., #2-19,199 lbs.
Waugh	SKF	Houdaille Co. coil	coil	Cast steel equalized out-board journals	West.: #1-20,072 lbs., #2-19,802 lbs., GE: #1-19,325 lbs., #2-19,185 lbs.
Waugh	220 cars: SKF 15 cars: Timken	coil	coil	Cast steel equalized out-board journals <i>Note 1</i>	West.: #1-19,672 lbs., #2-19,521 lbs., GE: #1-19,362 lbs., #2-19,121 lbs.
Waugh	Hyatt	Houdaille Co. coil <i>See note 48</i>	coil <i>Note 16</i>	Cast steel equalized out-board journals	West.: #1-20,103 lbs., #2-19,831 lbs., GE: #1-19,430 lbs., #2-19,226 lbs.
Waugh	Hyatt	Houdaille Co. coil	coil	Cast steel equalized out-board journals	"
Waugh	SKF	coil	coil	Cast steel equalized out-board journals ( <i>Note 58</i> )	West.: #1-19,345 lbs. GE: #1-19,145 lbs.

AUTHORITY CAR NOS./ ORDER NO.	TRUCKS & SUSPENSIONS				PERFORMANCE
	MANUFACTURER	TRUCK MODEL NUMBER	WHEEL BASE	WHEEL DIAMETER	ACCELERATION RATE
NYCTA R-15	General Steel Castings Co.	7543-7752	6'10"	34"	2.5 mphps
NYCTA R-16	General Steel Castings Co.	3830-4229	6'10"	34"	2.5 mphps
NYCTA R-17	General Steel Castings Co.	7753-8552	6'10"	34"	2.5 mphps
NYCTA R-21	General Steel Castings Co.	8573-9072	6'10"	34"	2.5 mphps
NYCTA R-22	General Steel Castings Co.	9073-9972	6'10"	34"	2.5 mphps
NYCTA R-26	Gen. Steel Cast. & Adirondack Steel Cast.	9973-10192	6'10"	34"	2.5 mphps
NYCTA R-27	Gen. Steel Cast. & Adirondack Steel Cast.	10393-10852	6'10"	34"	2.5 mphps
NYCTA R-28	Gen. Steel Cast. & LFM Co.	10193-10392	6'10"	34"	2.5 mphps
NYCTA R-29	General Steel Castings Co. <i>Note 47</i>	11493-11964 <i>Note 15</i>	6'10"	34"	2.5 mphps
NYCTA R-30	Gen. Steel, Adirondack, & & LFM Co.	10853-11492	6'10"	34"	2.5 mphps
NYCTA R-30A	General Steel Castings Co.	11057-11176	6'10"	34"	2.5 mphps
NYCTA R-32	General Steel Castings Co., Adirondack Steel Casting	14493-15070	6'10"	34"	2.5 mphps



PERFORMANCE				BRAKING	
MAXIMUM OPERATING SPEED	BALANCING SPEED	BRAKING		FRICTION BRAKE ARRANGEMENT	TYPE BRAKING
		SERVICE	EMERGENCY		
		MIN./MAX.			
45 mph	50 mph	1.5 mphps/Full Service 3.0 mphps	3.0 mphps	Clasp with automatic slack adj.	Dynamic & electric pneumatic
45 mph	50 mph	1.5 mphps/Full Service 3.0 mphps	3.0 mphps	Clasp with automatic slack adj.	Dynamic & electric pneumatic
45 mph	50 mph	1.5 mphps/Full Service 3.0 mphps	3.0 mphps	Clasp with automatic slack adj.	Dynamic & electric pneumatic
45 mph	50 mph	1.5 mphps/Full Service 3.0 mphps	3.0 mphps	Clasp with automatic slack adj.	Dynamic & electric pneumatic
45 mph	50 mph	1.5 mphps/Full Service 3.0 mphps	3.0 mphps	Clasp with automatic slack adj.	Dynamic & electric pneumatic
45 mph	50 mph	1.5 mphps/Full Service 3.0 mphps	3.0 mphps	Clasp with automatic slack adj.	Dynamic & electric pneumatic
45 mph	50 mph	0.7 mphps/Full Service 3.0 mphps	3.0 mphps	Clasp with automatic slack adj.	Dynamic & electric pneumatic
45 mph	50 mph	1.5 mphps/Full Service 3.0 mphps	3.0 mphps	Clasp with automatic slack adj.	Dynamic & electric pneumatic
45 mph	50 mph	1.5 mphps/Full Service 4.0 mphps	3.0 mphps	Clasp with automatic slack adj. <i>Note 1</i>	Dynamic & electric pneumatic
45 mph	50 mph	0.7 mphps/Full Service 3.0 mphps	3.0 mphps	Clasp with automatic slack adj.	Dynamic & electric pneumatic
45 mph	50 mph	0.7 mphps/Full Service 3.0 mphps	3.0 mphps	Clasp with automatic slack adj.	Dynamic & electric pneumatic
45 mph	50 mph	0.7 mphps/Full Service 3.0 mphps	3.0 mphps	Clasp with automatic slack adj. (Note 58)	Dynamic & electric pneumatic

AUTHORITY CAR NOS./ ORDER NO.	BRAKING				
	FRICTION SUPPLEMENT	MPH FULL SERVICE BRAKE	TYPE BRAKE VALVE	TYPE COMPRESSOR	COMPRESSOR CAPACITY
NYCTA R-15	1.0 mphps	Down to 10.0 mph	WABCO ME42	WABCO A1	21 cfm
NYCTA R-16	1.0 mphps	Down to 10.0 mph	WABCO ME42	WABCO A2	25 cfm
NYCTA R-17	1.0 mphps	Down to 10.0 mph	WABCO ME42A	WABCO A2A	25 cfm
NYCTA R-21	1.0 mphps	Down to 10.0 mph	WABCO ME42A	WABCO A2A	25 cfm
NYCTA R-22	1.0 mphps	Down to 10.0 mph	WABCO ME42A	WABCO A3	25 cfm
NYCTA R-26	1.0 mphps	General Elec- tric: 6.25 mph Westinghouse: 10.0 mph	WABCO ME42B	WABCO A5 <i>Note 50</i>	31.5 cfm
NYCTA R-27	1.0 mphps	General Elec- tric: 6.25 mph, Westinghouse: 10.0 mph	WABCO ME42B	WABCO A5	31.5 cfm
NYCTA R-28	1.0 mphps	General Elec- tric: 6.25 mph Westinghouse: 10.0 mph	WABCO ME42B	WABCO A5	31.5 cfm
NYCTA R-29	0	General Elec- tric: 9.0 mph Westinghouse: 10.0 mph	WABCO ME42B	WABCO A6	31.5 cfm
NYCTA R-30	0 <i>Note 51</i>	10.0 mph ( <i>Note 59</i> )	WABCO ME42B	WABCO A6	31.5 cfm
NYCTA R-30A	1.0 MPHPS <i>Note 51</i>	10.0 mph	WABCO ME42B	WABCO A6	31.5 cfm
NYCTA R-32	0	General Elec- tric: 9.0 mph, Westinghouse: 10.0 mph	WABCO ME42B	WABCO A6	31.5 cfm

BRAKING					
MANUFACTURER BRAKE	TYPE BRAKE SHOES	BRAKE CYLINDERS OR ACTUATOR			MANUFACTURER HAND BRAKE
		LOCATION	DIMENSIONS	NO./TYPE	
WABCO (SMEE)	Cast iron	On truck frame	6"x6"	2/truck/ UAHT	Ellcon National
WABCO (SMEE)	Cast iron	On truck frame	7"x6"	2/truck/UAHT	Ellcon National
WABCO (SMEE)	Cast iron	On truck frame	6"x6"	2/truck/UAHT	Ellcon National
WABCO (SMEE)	Cast iron	On truck frame	6"x6"	2/truck/UAHT	Ellcon National
WABCO (SMEE)	Cast iron	On truck frame	6"x6"	2/truck/UAHT	Ellcon National
WABCO (SMEE)	Cast iron	On truck frame	6"x6"	2/truck/UAHT	Ellcon National
WABCO (SMEE)	Cast iron	On truck frame	7"x6"	2/truck/UAHT	Ellcon National
WABCO (SMEE)	Cast iron	On truck frame	6"x6"	2/truck/UAHT	Ellcon National
WABCO (SMEE)	Cast iron <i>Note 1</i>	On truck frame <i>Note 1</i>	6"x6" <i>Note 3</i>	2/truck/UAHT	Ellcon National
WABCO (SMEE)	Cast iron	On truck frame	7"x6"	2/truck/UAHT	Ellcon National
WABCO (SMEE)	Cast iron	On truck frame	7"x6"	2/truck/UAHT	Ellcon National
WABCO (SMEE)	Cast iron	On truck frame (Note 58)	7"x6" <i>Note 3</i>	2/truck/UAHT	Ellcon National

AUTHORITY CAR NOS./ ORDER NO.	COMMUNICATIONS		ATO/ATC		
	PUBLIC ADDRESS SYSTEM	TWO-WAY RADIO COMMUNICATION	CAB SIGNAL	AUTOMATIC TRAIN PROTECTION	AUTOMATIC TRAIN OPERATION
NYCTA R-15	none <i>See note 52</i>	yes	none	none	none
NYCTA R-16	yes	yes	none	none	none
NYCTA R-17	yes	yes	none	none	none
NYCTA R-21	yes	yes	none	none	none
NYCTA R-22	yes <i>Note 14</i>	yes	none	none	none
NYCTA R-26	yes	yes	none	none	none
NYCTA R-27	yes	yes	none	none	none
NYCTA R-28	yes	yes	none	none	none
NYCTA R-29	yes	yes	none	none	none
NYCTA R-30	yes	yes	none	none	none
NYCTA R-30A	yes	yes	none	none	none
NYCTA R-32	yes	yes	none	none	none

AUTHORITY CAR NOS./ ORDER NO.	NO. OF CARS/ TYPE CAR	YEAR PURCHASED	PLACED IN SERVICE	CAR BUILDER	BID PRICE PER CAR
NYCTA R-32A	300 married pairs BMT-IND	1963	1964-65	Budd Co.	\$114,700
NYCTA R-33	540 married pairs 40 Cars, Single IRT <i>Note 24</i>	1962	1962-63	St. Louis Car Co.	\$108,500
NYCTA R-36	424 married pairs IRT	1962	1963-64	St. Louis Car Co.	\$109,850
NYCTA R-38	200 married pairs BMT-IND	1965	1966-67	St. Louis Car Co.	\$111,133
NYCTA R-40 (no a/c)	200 married pairs BMT-IND	1966	1968	St. Louis Car Co.	\$115,020
NYCTA R-40 (a/c)	200 married pairs BMT-IND	1966	1968-69	St. Louis Car Co.	\$136,385
NYCTA R-42	400 married pairs BMT-IND	1968	1969-70	St. Louis Car Co.	\$131,615 (200 cars) \$130,165 (200 cars)
NYCTA R-44	300 Four Car Unit Div. B	1970	1972-74	St. Louis Car Co.	\$206,595
NYCTA R-44 (SIRT)*	52 (34 A Cars) (18 B Cars) SIRT	1970	1973	St. Louis Car Co.	\$215,000
NYCTA R-46	754 (390 A Cars) (364 B Cars) Four Car Unit Div. B	1972	1975-77	Pullman Standard	\$275,381
PATCO 201-250	50 married pairs	1966	1969	Budd Co.	\$178,000
PATCO 101-125	25 single units	1966	1969	Budd Co.	\$191,000

\* STATEN ISLAND RAPID TRANSIT

AUTHORITY CAR NOS./ ORDER NO.	COMPATIBILITY WITH OTHER CARS	DIMENSIONS			
		LENGTH OVER COUPLERS	LENGTH OVER ANTI-CLIMBER	TRUCK CENTERS	WHEEL BASE
NYCTA R-32A	A11 but R44 and R46	60'6"	60'2-1/2"	44'7"	6'10"
NYCTA R-33	A11 but R44 and R46	51'4"	51'1/2"	36'0"	6'10"
NYCTA R-36	A11 but R44 and R46	51'4"	51'1/2"	36'0"	6'10"
NYCTA R-38	A11 but R44 and R46	60'6"	60'2-1/2"	44'7"	6'10"
NYCTA R-40 (no a/c)	A11 but R44 and R46	60'6"	60'2-1/2"	44'7"	6'10"
NYCTA R-40 (a/c)	A11 but R44 and R46	60'6"	60'2-1/2"	44'7"	6'10"
NYCTA R-42	A11 but R44 and R46	60'6"	60'2-1/2"	44'7"	6'10"
NYCTA R-44	R46	75'	74'8-1/2"	54'0"	6'10" 7'2" air spring
NYCTA R-44 (SIRT)	R46	75'	74'8-1/2"	54'0"	6'10" 7'2" air spring
NYCTA R-46	R44	75'	74'8-1/2"	54'0"	6'10"
PATCO 201-250	w/cars 101-125	67'10"	67'6"	47'6"	7'6"
PATCO 101-125	w/cars 201-250	67'10"	67'6"	47'6"	7'6"

DIMENSIONS

WIDTH OF CAR BODY MAXIMUM	WHEEL DIAMETER	NO. OF CARS/ TRAIN MIN./MAX.	SEATING CAPACITY	MAX. NO. PSGRS.	CLEAR FLOOR AREA SQ. FT. (INCLDG. CABS)
				DESIGN/PRACTI- CAL (CRUSH)	
10'	34"	4 10	50	300 220	410 sq. ft.
8'9-1/2"	34"	4 10	44	200 180	285 sq. ft.
8'9-1/2"	34"	4 11*	44	200 180	285 sq. ft.
10'	34"	4 10	50	300 220	410 sq. ft.
10'	34"	4 10	46	300 220	417 sq. ft.
10'	34"	4 10	46	300 220	417 sq. ft.
10'	34"	4 10	46	300 220	417 sq. ft.
10'	34"	4 8	A car: 72 B car: 76	350 A car: 272 B car: 280	610 sq. ft.
10'	34"	4 8	A car: 72 B car: 76	350 A car: 272 B car: 280	610 sq. ft.
10'	34"	4 8	A car: 70 B Car: 76	350 A car: 272 B car: 280	610 sq. ft.
10'1-1/2"	28"	2 8	80	100 200	675 sq. ft.
10'1-1/2"	28"	1 8	72	100 200	675 sq. ft.

\*FLUSHING LINE ONLY

AUTHORITY CAR NOS./ ORDER NO.	DIMENSIONS				
	MINIMUM HEAD ROOM	HGT. MIN., FLR TO HEADLINING AT CENTER	WIDTH OF SIDE DOOR OPENINGS	HEIGHT OF SIDE DOOR OPENINGS	WIDTH ACROSS THRESHOLD PLATES
NYCTA R-32A	7'1/2"	7'0-1/2"	3'10"	6'2-5/8"	10'
NYCTA R-33	6'11-7/8"	6'11-7/8"	4'2"	6'2-5/8"	8'9-1/2"
NYCTA R-36	6'11-7/8"	6'11-7/8"	4'2"	6'2-5/8"	8'9-1/2"
NYCTA R-38	7'1/2"	7'0-1/2"	3'10"	6'2-5/8"	10'
NYCTA R-40 (no a/c)	7'1/2" <i>Note 28</i>	7'0-1/2"	4'2"	6'2-5/8"	10'
NYCTA R-40 (a/c)	6'5-1/2"	6'5-1/2"	4'2"	6'2-5/8"	10'
NYCTA R-42	6'5-1/2"	6'5-1/2"	4'2"	6'2-5/8"	10'
NYCTA R-44	6'5-1/2"	6'5-1/2"	4'2"	6'3"	10'
NYCTA R-44 (SIRT)	6'5-1/2"	6'5-1/2"	4'2"	6'3"	10'
NYCTA R-46	6'7-7/16"	6'7-7/16"	4'2"	6'3"	10'
PATCO 201-250	6'8"	7'1-1/2"	4'2"	6'2-1/2"	10'
PATCO 101-125	6'8"	7'1-1/2"	4'2"	6'2-1/2"	10'



DIMENSIONS					
WIDTH OF CAR BODY MAXIMUM	WHEEL DIAMETER	NO. OF CARS/ TRAIN MIN./MAX.	SEATING CAPACITY	MAX. NO. PSGRS.	CLEAR FLOOR AREA SQ. FT. (INCLDG. CABS)
				DESIGN/PRACTICAL (CRUSH)	
10'	34"	4 10	50	300 220	410 sq. ft.
8'9-1/2"	34"	4 10	44	200 180	285 sq. ft.
8'9-1/2"	34"	4 11*	44	200 180	285 sq. ft.
10'	34"	4 10	50	300 220	410 sq. ft.
10'	34"	4 10	46	300 220	417 sq. ft.
10'	34"	4 10	46	300 220	417 sq. ft.
10'	34"	4 10	46	300 220	417 sq. ft.
10'	34"	4 8	A car: 72 B car: 76	350 A car: 272 B car: 280	610 sq. ft.
10'	34"	4 8	A car: 72 B car: 76	350 A car: 272 B car: 280	610 sq. ft.
10'	34"	4 8	A car: 70 B Car: 76	350 A car: 272 B car: 280	610 sq. ft.
10'1-1/2"	28"	2 8	80	100 200	675 sq. ft.
10'1-1/2"	28"	1 8	72	100 200	675 sq. ft.

\*FLUSHING LINE ONLY

AUTHORITY CAR NOS./ ORDER NO.	DIMENSIONS				
	MINIMUM HEAD ROOM	HGT. MIN., FLR TO HEADLINING AT CENTER	WIDTH OF SIDE DOOR OPENINGS	HEIGHT OF SIDE DOOR OPENINGS	WIDTH ACROSS THRESHOLD PLATES
NYCTA R-32A	7'1/2"	7'0-1/2"	3'10"	6'2-5/8"	10'
NYCTA R-33	6'11-7/8"	6'11-7/8"	4'2"	6'2-5/8"	8'9-1/2"
NYCTA R-36	6'11-7/8"	6'11-7/8"	4'2"	6'2-5/8"	8'9-1/2"
NYCTA R-38	7'1/2"	7'0-1/2"	3'10"	6'2-5/8"	10'
NYCTA R-40 (no a/c)	7'1/2" <i>Note 28</i>	7'0-1/2"	4'2"	6'2-5/8"	10'
NYCTA R-40 (a/c)	6'5-1/2"	6'5-1/2"	4'2"	6'2-5/8"	10'
NYCTA R-42	6'5-1/2"	6'5-1/2"	4'2"	6'2-5/8"	10'
NYCTA R-44	6'5-1/2"	6'5-1/2"	4'2"	6'3"	10'
NYCTA R-44 (SIRT)	6'5-1/2"	6'5-1/2"	4'2"	6'3"	10'
NCYTA R-46	6'7-7/16"	6'7-7/16"	4'2"	6'3"	10'
PATCO 201-250	6'8"	7'1-1/2"	4'2"	6'2-1/2"	10'
PATCO 101-125	6'8"	7'1-1/2"	4'2"	6'2-1/2"	10'

DIMENSIONS

WIDTH OF CAR BODY MAXIMUM	WHEEL DIAMETER	NO. OF CARS/ TRAIN MIN./MAX.	SEATING CAPACITY	MAX. NO. PSGRS.	CLEAR FLOOR AREA SQ. FT. (INCLDG. CABS)
				DESIGN/PRACTICAL (CRUSH)	
10'	34"	4 10	50	300 220	410 sq. ft.
8'9-1/2"	34"	4 10	44	200 180	285 sq. ft.
8'9-1/2"	34"	4 11*	44	200 180	285 sq. ft.
10'	34"	4 10	50	300 220	410 sq. ft.
10'	34"	4 10	46	300 220	417 sq. ft.
10'	34"	4 10	46	300 220	417 sq. ft.
10'	34"	4 10	46	300 220	417 sq. ft.
10'	34"	4 8	A car: 72 B car: 76	350 A car: 272 B car: 280	610 sq. ft.
10'	34"	4 8	A car: 72 B car: 76	350 A car: 272 B car: 280	610 sq. ft.
10'	34"	4 8	A car: 70 B Car: 76	350 A car: 272 B car: 280	610 sq. ft.
10'1-1/2"	28"	2 8	80	100 200	675 sq. ft.
10'1-1/2"	28"	1 8	72	100 200	675 sq. ft.

\*FLUSHING LINE ONLY

AUTHORITY CAR NOS./ ORDER NO.	DIMENSIONS				
	MINIMUM HEAD ROOM	HGT. MIN., FLR TO HEADLINING AT CENTER	WIDTH OF SIDE DOOR OPENINGS	HEIGHT OF SIDE DOOR OPENINGS	WIDTH ACROSS THRESHHOLD PLATES
NYCTA R-32A	7'1/2"	7'0-1/2"	3'10"	6'2-5/8"	10'
NYCTA R-33	6'11-7/8"	6'11-7/8"	4'2"	6'2-5/8"	8'9-1/2"
NYCTA R-36	6'11-7/8"	6'11-7/8"	4'2"	6'2-5/8"	8'9-1/2"
NYCTA R-38	7'1/2"	7'0-1/2"	3'10"	6'2-5/8"	10'
NYCTA R-40 (no a/c)	7'1/2" <i>Note 28</i>	7'0-1/2"	4'2"	6'2-5/8"	10'
NYCTA R-40 (a/c)	6'5-1/2"	6'5-1/2"	4'2"	6'2-5/8"	10'
NYCTA R-42	6'5-1/2"	6'5-1/2"	4'2"	6'2-5/8"	10'
NYCTA R-44	6'5-1/2"	6'5-1/2"	4'2"	6'3"	10'
NYCTA R-44 (SIRT)	6'5-1/2"	6'5-1/2"	4'2"	6'3"	10'
NYCTA R-46	6'7-7/16"	6'7-7/16"	4'2"	6'3"	10'
PATCO 201-250	6'8"	7'1-1/2"	4'2"	6'2-1/2"	10'
PATCO 101-125	6'8"	7'1-1/2"	4'2"	6'2-1/2"	10'

DIMENSIONS					
HEIGHT MAXIMUM		HEIGHT-TOP OF RAIL TO CAR FLOOR	AISLE WIDTH MIN./MAX.	MIN. RADIUS HORIZ. CURVE CAR IS DESIGNED TO NEGOTIATE	MIN. RADIUS VERTICAL CURVE
TOP OF RAIL TO TOP OF ROOF	OVER RADIO ANTENNA, FAN HOUSING, ETC.				
12'1-15/16"	12'1-15/16"	3'10-3/8"	5'6"/5'6"	125'	+2000' -2000'
11'10-7/8"	11'10-7/8"	3'8-1/2"	4'3-3/4"/ 4'3-3/4"	90'	+2000' -2000'
11'10-7/8"	11'10-7/8"	3'9-1/2"	4'3-3/4"/ 4'3-3/4"	90'	+2000' -2000'
12'1-15/16"	12'1-15/16"	3'10-3/8"	5'6"/5'6"	125'	+2000' -2000'
12'1-15/16"	12'1-15/16"	3'10-3/8"	5'6"/5'6"	125'	+2000' -2000'
12'1-15/16"	12'1-15/16"	3'10-3/8"	5'6"/5'6"	125'	+2000' -2000'
12'1-15/16"	12'1-15/16"	3'10-3/8"	5'6"/5'6"	125'	+2000' -2000'
12'1-15/16"	12'1-15/16"	3'10-3/8"	5'6"/5'6"	125'	+2000' -2000'
12'1-1/2"	12'1-1/2"	3'10-3/8"	3'3"/ 5'4-3/4"	145'	+2500' -2500'
12'1-1/2"	12'1-1/2"	3'10-3/8"	3'3" 5'4-3/4"	145'	+2500' -2500'
12'1-1/2"	12'1-1/2"	3'10-3/8"	3'3"/ 5'4-3/4"	145'	+2500' -2500'
12'4"	12'4"	3'10"	2'5-1/2"/ 2'5-1/2"	125'	2000'
12'4"	12'4"	3'10"	2'5-1/2"/ 2'5-1/2"	125'	2000'

AUTHORITY CAR NOS./ ORDER NO.	DIMENSIONS		WEIGHTS		
	TRACK GAUGE	SINGLE CAR AVG.-LT. WT. LBS.	AVG. WT. A/CAR, B/CAR	WEIGHT/ SQ. FT.	WEIGHT/ SEAT
NYCTA R-32A	4'8-1/2"	Not applicable	69,572 lbs./ 70,314 lbs.	A car: 170 lbs B car: 171 lbs	A car: 1391 lbs B car: 1406 lbs
NYCTA R-33	4'8-1/2"	Not applicable	72,366 lbs./ 72,938 lbs.	A car: 254 lbs B car: 256 lbs	A car: 1645 lbs B car: 1658 lbs
NYCTA R-36	4'8-1/2"	Not applicable	69,124 lbs./ 68,759 lbs.	A car: 243 lbs B car: 245 lbs	A car: 1571 lbs B car: 1581 lbs
NYCTA R-38	4'8-1/2"	Not applicable	68,520 lbs./ 68,686 lbs.	A car: 167 lbs B car: 168 lbs	A car: 1370 lbs B car: 1374 lbs
NYCTA R-40 (no a/c)	4'8-1/2"	Not applicable	68,021 lbs./ 68,202 lbs. (Note 29)	A car: 163 lbs B car: 164 lbs	A car: 1479 lbs B car: 1483 lbs
NYCTA R-40 (a/c)	4'8-1/2"	Not applicable	74,043 lbs./ 74,204 lbs.	A car: 178 lbs B car: 178 lbs	A car: 1610 lbs B car: 1613 lbs
NYCTA R-42	4'8-1/2"	Not applicable	74,344 lbs./ 74,433 lbs.	A car: 179 lbs B car: 178 lbs	A car: 1616 lbs B car: 1618 lbs
NYCTA R-44	4'8-1/2"	Not applicable	87,025 lbs./ 83,893 lbs.	A car: 143 lbs B car: 138 lbs	A car: 1209 lbs B car: 1104 lbs
NYCTA R-44 (SIRT)	4'8-1/2"	Not applicable	87,025 lbs./ 83,893 lbs.	A car: 143 lbs B car: 138 lbs	A car: 1209 lbs B car: 1104 lbs
NYCTA R-46	4'8-1/2"	Not applicable	88,955 lbs./ 85,270 lbs.	A car: 146 lbs B car: 138 lbs	A car: 1271 lbs B car: 1122 lbs
PATCO 201-250	4'8-1/2"	N/A	74,800 lbs.	111 lbs.	935 lbs.
PATCO 101-125	4'8-1/2"	79,500 lbs.	Not applicable	118 lbs.	1104 lbs.

WEIGHTS			CAR BODY		
WEIGHT/ PASSENGER (CRUSH LOAD)	AVG. WEIGHT OF COMPLETE TRUCKS #1 TRUCK/#2 TRK	LOAD WEIGHING DEVICE	MOTORMAN'S CABS/CAR	WINDSHIELD WIPERS	BODY & FRAMING
A car: 316 lbs B car: 320 lbs	19,150 lbs./ 19,000 lbs.	yes	1	Manual	S.S. & LAHT
A car: 402 lbs B car: 405 lbs	19,361/19,165 19,165 lbs.	yes	1 (Note 60)	Manual	Corten & LAHT
A car: 384 lbs B car: 388 lbs	19,300 lbs./ 19,100 lbs.	yes	1	Manual	T1 & LAHT
A car: 311 lbs B car: 312 lbs	19,369 lbs./ 18,950 lbs.	yes	1	Pneumatic	T1, S.S. LAHT, Alum., Plastic
A car: 309 lbs B car: 310 lbs	19,369 lbs./ 18,950 lbs.	yes	1	Pneumatic	T1, S.S. LAHT, Alum., Plastic
A car: 337 lbs B car: 337 lbs	19,369 lbs./ 18,950 lbs.	yes	1	Pneumatic	T1, S.S. LAHT, Alum., Plastic
A car: 338 lbs B car: 338 lbs	18,102 lbs./ 17,754 lbs.	yes	1	Pneumatic	T1, S.S. LAHT, Alum., Plastic
A car: 320 lbs B car: 300 lbs	18,614 lbs./ 17,832 lbs.	yes	1/A car	Electric	T1, S.S. LAHT, Alum., Plastic
A car: 320 lbs B car: 300 lbs	18,614 lbs./ 17,832 lbs.	yes	1/A car	Electric	T1, S.S. LAHT, Alum., Plastic
A car: 327 lbs B car: 306 lbs	17,900 lbs./ 17,500 lbs.	yes	1/A car	Electric	Columb. Steel, LAHT Plastic
379 lbs.	10,000 lbs.	yes	1	Electric	Stainless Steel
397 lbs.	10,000 lbs.	yes	2	Electric	Stainless Steel

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY				
	ROOF CONSTRUCTION	EXTERIOR FINISH (PAINT)	COLOR SCHEME		FLOOR CONSTRUCTION
			INTERIOR	EXTERIOR	
NYCTA R-32A	Turtle Back, Main & Aux. Roof	S.S., Doors Paint	Doors: dark blue, walls: lt. blue, ceil.: white	Stainless Steel	Plywood w/bonded alum. underside. Vinyl asbestos tiles
NYCTA R-33	Turtle back, Main & Aux. Roof	Paint	"	500 cars: Tar- tar red 40 cars Lt blue & gray Note 61	"
NYCTA R-36	Turtle Back, Main & Aux. Roof	Paint	"	390 cars: lt. gray & blue 35 cars: tartar red Note 62	"
NYCTA R-38	Turtle Back, Main & Aux. Roof	S.S., Doors Paint	"	Stainless steel, blue belt	Plywood w/bond- ed galvanized steel. Vinyl asbestos tiles
NYCTA R-40 (no a/c)	Turtle Back, Main & Aux. Roof	S.S., Doors Paint	"	Stainless steel, blue belt	"
NYCTA R-40 (a/c)	Turtle Back, Main & Aux. Roof	S.S., Doors Paint	Doors: aqua Walls: lt. aqua ceil.: off white	Stainless steel, blue belt	"
NYCTA R-42	Turtle Back, Main & Aux.	S.S., Doors Paint	"	Stainless steel, blue wide stripe	"
NYCTA R-44	Turtle Back Contour, Sus- pended Ceiling	S.S., including doors	Doors: SS Walls: beige Ends: rose- wood, ceiling: off white	Stainless steel, blue wide stripe	Plywd. w/bonded galvnzd. steel. Vinyl w/aloxide abrasive sheet
NYCTA R-44 (SIRT)	Turtle Back Contour, Sus- pended Ceiling	S.S., including doors	Doors: SS Walls: beige Ends: rosewood Ceiling: off white	Stainless steel, blue wide stripe	Plywd. w/bonded galvnzd. steel. Vinyl w/aloxide abrasive sheet
NYCTA R-46	Turtle Back Contour, Sus- pended Ceiling	S.S., including Doors	Doors: SS Walls: beige Ends: rose- wood, ceiling: off white	Stainless steel, blue wide stripe	Plywd. w/bonded galvnzd. steel 1/8" rubber sheet fin. flr.
PATCO 201-250	Stainless steel, corrugated	Stainless Steel	Yellow & wood- grain & green	Stainless steel, dull black trim red stripe	Aluminum faced plywood
PATCO 101-125	Stainless steel, corrugated	Stainless Steel	Yellow & wood- grain & green	Stainless steel, dull black trim red stripe	Aluminum faced plywood



CAR BODY					
CEILING FINISH	SIDE WINDOWS, SASH		WINDOWS & DOOR GLAZING MATERIAL	INTERIOR FINISH	SEATS
	TYPE	MANUFACTURER			ARRANGEMENT
Porcelanized Aluminum	Dbl. upper vent, panel, lower: stationary	O.M. Edwards Co.	Cab, side & end doors: laminated Side windows: tempered	S.S. & Paint on Aluminum & Plastic	longitudinal
Porcelanized Aluminum	Dbl. upper drop lower - stationary	O.M. Edwards Co.	"	S.S. & Paint on Aluminum (Note 63)	longitudinal
Porcelanized Aluminum	Dbl. upper vent panel, lower: stationary	O.M. Edwards Co.	"	S.S. & Paint on Aluminum & Plastic (Note 64)	longitudinal
Porcelanized Aluminum	Dbl. upper vent panel, lower: stationary	A&W (100 cars) O.M. Edwards Co. (100 cars) <i>Note 19</i>	"	S.S. & Paint on Aluminum & Plastic	longitudinal
Porcelanized Aluminum	Dbl. upper vent panel, lower: stationary	O.M. Edwards Co. <i>Note 30</i>	"	S.S. & Paint on Aluminum & Plastic	longitudinal
Porcelanized Aluminum	Dbl. upper drop Lower - stationary	Transportation Sash <i>Note 30</i>	"	S.S. & Paint on Aluminum & Plastic	longitudinal
Porcelanized Aluminum	Dbl. upper drop Lower - stationary	O.M. Edwards Co.	"	S.S. & Paint on Aluminum & Plastic	longitudinal
Porcelanized Aluminum	Single stationary Upper - vent well	O.M. Edwards Co.	Windows, door glass-laminated	S.S., high pressure Laminate & Plastic	cross & longitudinal
Porcelanized Aluminum	Single stationary Upper - vent well	O.M. Edwards Co.	Windows, door glass-laminated	S.S., high pressure Laminate & Plastic	cross & longitudinal
Porcelanized Aluminum	Single stationary Upper - vent well	O.M. Edwards Co.	Windows, incl. M/M's laminated safety glass	Stainless steel, high pressure laminate & plastic	cross & longitudinal
Melamine plastic, smooth	Stationary	Part of car-body. No separate sash.	safety glass converting to tinted polycarbonate	Melamine faced aluminum, stainless steel	Cross
Melamine plastic, smooth	Stationary	Part of car-body. No separate sash.	"	Melamine faced aluminum, stainless steel	Cross

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY				
	SEATS				
	FRAMING	COVERING MATERIAL		COLOR	
ORIGINAL		PRESENT	ORIGINAL	PRESENT	
NYCTA R-32A	box frame	Fiberglass polyester	Fiberglass polyester	Aqua	Aqua
NYCTA R-33	box frame	Fiberglass polyester	Fiberglass polyester	Dark Grey	Dark Grey
NYCTA R-36	box frame	Fiberglass polyester	Fiberglass polyester	Dark Grey	Dark Grey
NYCTA R-38	box frame	Fiberglass polyester	Fiberglass polyester	Aqua	Aqua
NYCTA R-40 (no a/c)	box frame	Fiberglass polyester	Fiberglass polyester	Aqua	Aqua
NYCTA R-40 (a/c)	box frame	Fiberglass re- inforced poly- ester resin	Fiberglass re- inforced poly- ester resin	Aqua	Aqua
NYCTA R-42	box frame	Fiberglass re- inforced poly- ester resin	Fiberglass re- inforced poly- ester resin	Aqua	Aqua
NYCTA R-44	cantilever	Fiberglass re- inforced poly- ester resin	Fiberglass re- inforced poly- ester resin	Beige w/red, orange, and yellow inserts	Beige w/red, orange, and yellow inserts
NYCTA R-44 (SIRT)	cantilever	Fiberglass re- inforced poly- ester resin	Fiberglass re- inforced poly- ester resin	Beige w/red, orange, and yellow inserts	Beige w/red, orange, and yellow inserts
NYCTA R-46	cantilever	Fiberglass re- inforced poly- ester resin	Fiberglass re- inforced poly- ester resin	Beige w/red, orange, and yellow inserts	Beige w/red, orange, and yellow inserts
PATCO 201-250	Stainless Steel	Fabric-covered vinyl	Fabric-covered vinyl	Yellow and green	Yellow and green
PATCO 101-125	Stainless Steel	Fabric-covered vinyl	Fabric-covered vinyl	Yellow and green	Yellow and green

CAR BODY					
SEATS	CEILING HANDHOLDS TYPE/NO./CAR	SEAT HANDHOLDS	CEILING TO FLOOR STANCHIONS PER CAR	SIDE DOOR OPENINGS/ CAR	NO. OF SIDE DOOR PANELS PER CAR
MANUFACTURER					
General Seating Corp.	Swing 68	None	10	8	16
American Seating & Heywood-Wakefield	Swing 56	None	4	6	12
Heywood-Wakefield	Swing 56	None	4	6	12
General Seating Corp.	Swing 68	None	6	8	16
General Seating Corp.	Swing 56	None	6	8	16
General Seating Corp.	Swing & Fixed Bars 47	None	6	8	16
General Seating Corp.	Swing & Fixed Bars 47	None	6	8	16
American Seating Co.	Fixed Bars 47	Stanchions at cross seats windcreens w/ stanchions at doors.	8	8	16
American Seating Co.	Fixed Bars	Stanchions at cross seats windcreens w/ stanchions at doors.	8	8	16
American Seating Co.	Fixed Bars 47	Stanchions at cross seats windcreens w/ stanchions at doors.	8	8	16
American Seating Co.	none	at each seat	8	4	8
American Seating Co.	none	at each seat	10	2 double, plus one single	5/side (4 normally used)

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY		COUPLER & DRAFT GEAR		
	DOOR FABRICATION	MANUFACTURER OF DOORS & HANGERS	TYPE COUPLER	COUPLING AT INTERMEDIATE END	DRAFT GEAR
NYCTA R-32A	hollow aluminum	O.M. Edwards	WABCO H2C BL26B Elect. Port. #1 end only	Link bar be- tween odd and even car	Waughmat E4CL
NYCTA R-33	hollow aluminum	O.M. Edwards	"	(Note 65) Link bar be- tween odd and even car	Waughmat E4CL
NYCTA R-36	hollow aluminum	O.M. Edwards	"	Link bar be- tween odd and even car (Note 66)	Waughmat E4CL
NYCTA R-38	hollow aluminum <i>Note 13</i>	<i>Note 12</i> O.M. Edwards (100 cars), Morton Co. (100 cars)	"	Link bar be- tween odd and even car	Waughmat E4CL
NYCTA R-40 (no a/c)	hollow aluminum	O.M. Edwards (200 cars)	"	Link bar be- tween odd and even car	Waughmat E4CL
NYCTA R-40 (a/c)	hollow aluminum	Morton Co. <i>Note 30</i> (200 cars)	"	Link bar be- tween odd and even car	Waughmat E4CL
NYCTA R-42	hollow aluminum	O.M. Edwards	"	Link bar be- tween odd and even car	Waughmat E4CL
NYCTA R-44	stainless steel bonded paper, honeycomb	O.M. Edwards	Ohio Brass flat face hook, Wal- ton-Elect.	Ohio Brass Flat face hook, Wal- ton Products, Electric Por- tion	Ohio Brass Form 70
NYCTA R-44 (SIRT)	stainless steel bonded paper, honeycomb	O.M. Edwards	Ohio Brass flat face hook, Wal- ton-Elect.	Ohio Brass Flat face hook, Wal- ton Products, Electric Por- tion	Ohio Brass Form 70
NYCTA R-46	stainless steel bonded paper, honeycomb	Morton Mfg. Co.	Dresser, flat face hook, Walton-Elect.	Dresser Ind., flat face hook, Walton Prod. - Elect. Portion	Dresser Rtd.- 107
PATCO 201-250	Stainless Steel	O.M. Edwards Co.	Ohio Brass Form 74	WABCO	rubber
PATCO 101-125	Stainless Steel	O.M. Edwards Co.	Ohio Brass Form 74	WABCO	rubber

COUPLER & DRAFT GEAR MAXIMUM HORIZONTAL BUFF	MISCELLANEOUS CAR BODY ITEMS			DOOR OPERATION & CONTROL	
	SIDE & END DESTINATION SIGN MANUFACTURER	CURTAIN MATERIAL	TYPE FIRE EXTINGUISHER	LOCATION OF DOOR CONTROL DEVICE	DOOR OPERATORS NO./CAR/TYPE
200,000 lbs.	Transign Corp.	mylar polyes- ter film	1-1/2 to 2-3/4 lb. dry chemi- cal pressurized	In cab	10/Electric <i>Note 7</i>
200,000 lbs.	Hunter Sign Corp.	cotton	"	In cab	8/Electric <i>Note 8</i>
200,000 lbs.	Hunter Sign Corp.	cotton	"	In cab	8/Electric <i>Note 9</i>
200,000 lbs.	Transign Corp.	mylar polyes- ter film	"	In cab	10/Electric <i>Note 10</i>
200,000 lbs.	Translite Corp.	mylar polyes- ter film	"	In cab	10/Elect <i>Note 11</i>
200,000 lbs.	Translite Corp.	mylar polyes- ter film	"	In cab	10/Electric
200,000 lbs.	Translite Corp.	mylar polyes- ter film	"	In cab	10 Electric
250,000 lbs.	End: Translite, side: Transign	mylar polyes- ter film	"	In cab	16/Electric
250,000 lbs.	End: Translite, side: Transign	mylar polyester film	"	In cab	16/Electric
250,000 lbs.	Translite Corp.	mylar polyes- ter film	2-3/4 lb. dry chemical	In cab	16/Electric
250,000 lbs.	Translite	linen	Dry powder 1/car 1 CO <sub>2</sub> /car	In motorman's cab	1/leaf Electric
250,000 lbs.	Translite	linen	Dry powder 1/car 1 CO <sub>2</sub> /car	In motorman's cab	1/leaf Electric

AUTHORITY CAR NOS./ ORDER NO.	DOOR OPERATION & CONTROL	HEATING, COOLING & VENTILATION SYSTEMS			
	DOOR CONTROL DEVICE	HEATING			
		MANUFACTURER	LOCATION	TOTAL KW/CAR	UNDER SEAT WATTAGE
NYCTA R-32A	Push buttons	200 Cars Midland-Ross Corp., 100 cars Vapor Corp.	Under seats & In Plenum	12.76 KW	H1 - 3340W H2 & H3 - 3570W per cir.
NYCTA R-33	Push buttons	St. Louis Car	Under seats & In Plenum	12.76 KW	H1 - 3340W H2 & H3 - 3570W per cir.
NYCTA R-36	Push buttons	St. Louis Car	Under seats & In Plenum	12.76 KW	H1 - 3340W H2 & H3 - 3570W per cir.
NYCTA R-38	Push buttons	St. Louis Car	Under seats & In Plenum	12.76 KW	H1 - 3340W H2 & H3 - 3570W per cir.
NYCTA R-40 (no a/c)	Push buttons	St. Louis Car	<i>Note 21</i> Under Seats & In Plenum	12.76 KW <i>Note 21</i>	H1 - 3340W H2 & H3 - 3570W per cir. <i>Note 21</i>
NYCTA R-40 (a/c)	Push buttons	St. Louis Car	Under seats & in blower units	12.075 KW & 24.0 KW	H1 - 3675W H2 & H3 - 4200W per cir.
NYCTA R-42	Push buttons	St. Louis Car Bryant Elec- tric Co.	Under seats & in blower units	12.075 KW & 24.0 KW	H1 - 3675W H2 & H3 - 4200W per cir.
NYCTA R-44	Push buttons	St. Louis Car General Elec- tric Co.	Baseboard along sides & in each blower unit	12.075 KW & 24.0 KW	H1 - 3675W H2 & H3 - 4200W per cir.
NYCTA R-44 (SIRT)	Push buttons	St. Louis Car General Elec- tric Co.	Baseboard along sides & in each blower unit	12.075 KW & 24.0 KW	H1 - 3675W H2 & H3 - 4200W per cir.
NYCTA R-46	Push buttons	E.L. Weigand Co.	Baseboard along sides & in each blower unit	12.075 KW & 24.0 KW	H1 - 3675W H2 - 4200W H3 - 4200W
PATCO 201-250	Vapor Dontrol	Chromolux	strip heaters	46.4 KW	17.8 KW
PATCO 101-125	Vapor Dontrol	Chromolux	strip heaters	44.4 KW	16 KW

HEATING, COOLING & VENTILATION SYSTEMS

HEATING	CONTROLS		VENTILATION		
IN PLENUM WATTAGE	AUTOMATIC HTNG. & VENTILATING SYSTEM	NO. FANS/CAR & MANUFACTURER	TYPE FAN	VOLTAGE, SPEED, OUTPUT	FAN SPEED STEPS
H1 - 1140W H2 & H3 - 570W per cir.	Fans, Heat, Roof Dampers, Vapor Corp.	6 Westing-house	23" axiflo	200V dc 860 rpm 3000 cfm	4
H1 - 1140W H2 & H3 - 570W	Fans; Heat, Roof Dampers, Vapor Corp. (Note 67)	4 Westing-house (Note 68)	23" axiflo <i>Note 33</i>	150V dc 860 rpm 3000 cfm	4
H1 - 1140W H2 & H3 - 570W per cir.	Fans, Heat, Roof Dampers, Vapor Corp.	4 Westing-house	23" axiflo <i>Note 33</i>	150V dc 860 rpm 3000 cfm	4
H1 - 1140W H2 & H3 - 570W per cir.	Fans, Heat, Roof Dampers, Vapor Corp.	6 Westing-house	23" axiflo	200V dc 860 rpm 3000 cfm	4
H1 - 1140W H2 & H3 - 570W per cir. <i>Note 21</i>	Fans, Heat, Roof Dampers, Vapor Corp. (200 cars)	6 Westinghouse (200 cars)	23" axiflo (200)	200V dc 860 rpm 3000 cfm	4 (200 cars)
12 KW in each evap. unit	See air conditioning	See airconditioning	See air conditioning <i>Note 6</i>	See airconditioning	See airconditioning
12 KW in each evap. unit	See air conditioning	See air conditioning	See air conditioning <i>Note 6</i>	See air conditioning	See air conditioning
12 KW in each evap. unit	See air conditioning	See air conditioning	See air conditioning	See air conditioning	See air conditioning
12 KW in each evap. unit	See air conditioning	See air conditioning	See air conditioning	See air conditioning	See air conditioning
12 KW in each evap. unit	See air conditioning	See airconditioning	See air conditioning	See airconditioning	See airconditioning
28.6 KW	Vapor	<sup>2</sup> Safety Electric	Centrifugal	688V dc Line Voltage 2 fans, 250 cfm each	one speed
28.6 KW	Vapor	<sup>2</sup> Safety Electric	Centrifugal	688V dc Line Voltage 2 fans, 250 cfm each	one speed

AUTHORITY CAR NOS./ ORDER NO.	HEATING, COOLING AND VENTILATION SYSTEMS				
	VENTILATION	COOLING SYSTEM			
	TYPE AIR DIFFUSER	AIR CONDITIONED	MANUFACTURER	TYPE	CAPACITY
NYCTA R-32A	Annular con. vanes	no	not applicable	not applicable	not applicable
NYCTA R-33	Annular con. vanes	no	not applicable	not applicable	not applicable
NYCTA R-36	Annular con. vanes	no	not applicable	not applicable	not applicable
NYCTA R-38	Peripheral dis- charge diffu- sers	no <i>Note 5 &amp; 69</i>	not applicable	not applicable	not applicable
NYCTA R-40 (no a/c)	(200 cars) Peripheral dis- charge dif- fusers	<i>Note 5 &amp; 6</i> no	not applicable	not applicable	not applicable
NYCTA R-40 (a/c)	See aircondi- tioning	Yes	Safety Co. Trane Co.	Vapor Cycle	2-9 ton units 2-10 ton units
NYCTA R-42	See air con- ditioning	Yes	Safety Co. Trane Co.	Vapor Cycle	2-9 ton units 2-10 ton units
NYCTA R-44	See air con- ditioning	Yes	Safety Co.	Vapor Cycle	2-10 ton units
NYCTA R-44 (SIRT)	See air con- ditioning	Yes	Trane Co.	Vapor Cycle	2-10 ton units
NYCTA R-46	See aircondi- tioning	Yes	Trane Co.	Vapor Cycle	2-10 ton units
PATCO 201-250	Overhead plenum, longitudinal flush slot	Yes	Vapor (control) Safety/Carrier System	mechanical vapor cycle	10 ton
PATCO 101-125	Overhead plenum, longitudinal flush slot	Yes	Vapor (control) Safety/Carrier System	mechanical vapor cycle	10 ton



HEATING, COOLING & VENTILATION SYSTEMS			LIGHTING		
COOLING SYSTEM			TYPE LAMP	NO. OF LAMPS/CAR	OVERHEAD LIGHT FIXTURE TYPE
AIR VOLUME	HVAC CONTROL	REFRIGERANT			
not applicable	not applicable	not applicable	Hot cathode fluorescent	16 - 72" 7 - 48"	Enclosed glass lens, Luminator
not applicable	not applicable	not applicable	Hot cathode fluorescent	17 - 72" 2 - 48" <i>Note 25</i>	Enclosed glass lens, Luminator
not applicable	not applicable	not applicable	Hot cathode fluorescent	17 - 72" 2 - 48"	Enclosed glass lens, Luminator
not applicable	not applicable	not applicable	Hot cathode fluorescent	2 - 28" 16 - 72" 7 - 48"	Back light sides, ad-acrylic, Ctr. - glass
not applicable	not applicable	not applicable	Hot cathode fluorescent	14 - 72" 9 - 48" 2 - 28"	"
5000 cfm per car	Thermostat control	R-22	Hot cathode T-8 Fluorescent	21 - 72" 6 - 48"	"
5000 cfm per car	Thermostat control	R-22	T-8 fluorescent	21 - 72" 6 - 48"	Back light sides, ad & center - acrylic
5600 cfm	Thermostat control	R-22	T-12 Fluorescent	29 - 72" 4 - 48"	Side-back light, ad & center - acrylic
5600 cfm	Thermostat control	R-22	T-12 Fluorescent	29 - 72" 4 - 48"	Side-back light, ad & center - acrylic
5600 cfm	Thermostat control	R-22	T-12 Fluorescent	25 - 72" A car 12-48" B car 16-48"	Side-back light, ad & ctr. - Polycarb.
3000 cfm	Vapor Mercury thermostat	R-22	Fluorescent	36	Aluminum Acrylic Lens, Translite
3000 cfm	Vapor Mercury thermostat	R-22	Fluorescent	36	Aluminum Acrylic Lens, Translite

AUTHORITY CAR NOS./ ORDER NO.	LIGHTING				
	SPECIFIED INTENSITY AT READING PLANE	LIGHTING POWER SUPPLY	MAIN LIGHTS POLARITY REV. TIMER	HEAD LIGHTS	EMERGENCY LIGHT/CAR
NYCTA R-32A	25 foot candles	600V dc	Industron solid state	yes	8
NYCTA R-33	25 foot candles	600V dc	Jackson Elec. solid state	yes	6
NYCTA R-36	25 foot candles	600V dc	Horne Products solid state	yes	6
NYCTA R-38	25 foot candles	600V dc	Industron solid state	yes	8
NYCTA R-40 (no a/c)	25 foot candles	600V dc	Vapor Corp. solid state	yes	8
NYCTA R-40 (a/c)	25 foot candles	600V dc	Vapor Corp. solid state	yes	8
NYCTA R-42	25 foot candles	550V AC, 1500 Hz WE-TE-5D	not applicable	yes	8
NYCTA R-44	25 foot candles	550V AC, 1500 Hz WE-TW-5E	not applicable	yes	8
NYCTA R-44 (SIRT)	25 foot candles	550V AC, 1500 Hz GE352020 BV104A1	not applicable	yes	8
NYCTA R-46	25 foot candles	550V AC 1500 Hz WE-TE-5D	not applicable	yes	8
PATCO 201-250	25 foot candles	Ballast/ inverters 37-1/2 VDC input	none	yes	6
PATCO 101-125	25 foot candles	Ballast/ inverters 37-1/2 VDC input	none	yes	6

MISC. ELECTRICAL EQUIPMENT					
STORAGE BATTERY					
TYPE	AMP/HRS.	COMPARTMENT	BATTERY EQUIPPED CAR	BATTERY CHARGER	CURRENT COLLECTION
Edison B4H 24 cells (Nickel Iron)	75	fiberglass	B cars	None	Third rail shoes
Edison B4H 24 cells (Nickel Iron)	75	plywood	B cars (Note 70)	None	Third rail shoes
Edison B4H 24 cells (Nickel Iron)	75	plywood	B cars	None	Third rail shoes
Edison B4H 24 cells (Nickel Iron)	75	fiberglass	B cars	None	Third rail shoes
Edison B4H 24 cells (Nickel Iron)	75	fiberglass	B cars	None	Third rail shoes
Edison B4H 24 cells (Nickel Iron)	75	fiberglass	B cars	None	Third rail shoes
Edison B4H 24 cells (Nickel Iron)	75	fiberglass	B cars	None	Third rail shoes
Nickel cadmium	120	fiberglass	A car	None	Third rail shoes
Nickel cadmium	120	fiberglass	A car	None	Third rail shoes
Nickel cadmium	120	fiberglass	A car	McGraw-Edison NYCTA-120A, Gul- ton-EMBC197-1 FSB-FXIDE 25A	Third rail shoes
Nickel-iron- alkaline or Nic- kel cadmium	160	Stainless steel	A car	motor generator	Third rail shoes
Nickel-iron- alkaline or Nickel cadmium	120	Stainless steel	all	motor generator	Third rail shoes

AUTHORITY CAR NOS./ ORDER NO.	MISC. ELECTRICAL EQUIPMENT				TRACTION MOTOR
	AUXILIARY POWER SUPPLY				MFG. & MODEL
	NO./CAR	CAPACITY	INPUT/OUTPUT	TYPE	
NYCTA R-32A	1	3.0 KVA	600V dc/ 37-1/2V dc	WHYX-304E1 GMG153 L1	General Electric 1240 Westinghouse 1447
NYCTA R-33	1	3.0 KVA	600V dc/ 37-1/2V dc	WHYX-304E GMG153 L1 (Note 70)	General Electric 1240 Westinghouse 1447
NYCTA R-36	1	3.0 KVA	600V dc/ 37-1/2V dc	WHYX-304E GMG153 L1 (Note 70)	General Electric 1240 Westinghouse 1447
NYCTA R-38	1	3.0 KVA	600V dc/ 37-1/2V dc	WHYX-304E1 GMG153 L1	General Electric 1240 Westinghouse 1447
NYCTA R-40 (no a/c)	1	3.0 KVA	600V dc/ 37-1/2V dc	WHYX-304E1 GMG153 L1	General Electric 1240 Westinghouse 1447
NYCTA R-40 (a/c)	1	3.0 KVA	600V dc/ 37-1/2V dc	WHYX-304E1 GMG153 L1	General Electric 1240 Westinghouse 1447
NYCTA R-42	1	5.0 KVA	600V dc/ 37-1/2V dc	Static Converter	General Electric 1240 Westinghouse 1447
NYCTA R-44	1	8.8 KVA	600V dc/ 37-1/2V dc	Static Con- verter	General Electric 1257 Westinghouse 1447F
NYCTA R-44 (SIRT)	1	8.8 KVA	600V dc/ 37-1/2V dc	Static Con- verter	General Elec- tric 1257
NYCTA R-46	1	8.8 KVA	600V dc/ 37-1/2V dc	Static Converter	General Electric 1257
PATCO 201-250	1	10 KVA	688V dc/ 37-1/2V dc	GE GMG177A 1 MG Set	General Electric 1255 A3
PATCO 101-125	1	10 KVA	688V dc/ 37-1/2V dc	GE GMG 177A1 M-G	General Electric 1255 A3

TRACTION MOTOR					
NO./CAR	HORSEPOWER	MOTOR MOUNTING	MOTOR BEARINGS	TRACTION GEARING	TRACTION GEAR RATIO
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	100	Keyed to transom	Anti-friction	Helical GE, 7GA25 WH, WN44	7.235:1
4	115	Keyed to transom	Anti-friction	Helical WH, WN 44EGS	5.087:1
4	115	Keyed to transom	Anti-friction	General Electric GA64A	5:087:1
4	115	Keyed to transom	Anti-friction	Helical GE GA-64A	5.087:1
4	140	Resilient on truck	Roller/ball bearing	GE GA56B1 parallel	4.79:1
4	140	Resilient on truck	Roller (pinion) Ball (comm.)	GE parallel GE GA56B1	4.79:1

AUTHORITY CAR NOS./ ORDER NO.	TRACTION MOTOR				WHEEL SLIP CONTROL
	TYPE MASTER CONTROLLER MFG./TYPE	CONTROL GROUP MFG.	TYPE PROPULSION CONTROL		
NYCTA R-32A	General Elec- tric 17KC76C2 Westinghouse WHXM729	Westinghouse General Elec- tric	cam control		none
NYCTA R-33	General Elec- tric 17KC76C2 Westinghouse WHXM579	Westinghouse General Elec- tric	cam control		none
NYCTA R-36	General Elec- tric 17KC76C2 Westinghouse WHXM729	Westinghouse General Elec- tric	cam control		none
NYCTA R-38	General Elec- tric MKC76AD1 Westinghouse XM779	Westinghouse General Elec- tric	cam control		none
NYCTA R-40 (no a/c)	General Elec- tric 17KC76E1 Westinghouse WHXM829	Westinghouse General Elec- tric	cam control		none
NYCTA R-40 (a/c)	General Elec- tric 17KC76E1 Westinghouse WHXM829	Westinghouse General Elec- tric	cam control		none
NYCTA R-42	Westinghouse XM829	Westinghouse	cam control		none
NYCTA R-44	XMA23	Westinghouse	cam control		yes
NYCTA R-44 (SIRT)	17KG295A1	General Electric	cam control		yes
NYCTA R-46	General Elec- tric 17KC111A1	General Elec- tric	cam control		yes
PATCO 201-250	General Elec- tric 17KC104A1	GE 17KG256E1	Cam, Resistors (SCM IV) GE 17KM52A1		yes
PATCO 101-125	General Elec- tric 17KC104A1	GE 17KG256E1	Cam, Resistors (SCM IV) GE 17KM52A1		yes

TRUCKS & SUSPENSIONS					
SIDE BEARINGS	ANTI-FRICTION JOURNAL BEARINGS	SPRINGING		TYPE TRUCKS	WEIGHT/ TRUCK
		PRIMARY	SECONDARY		
Waugh	SKF	coil	coil	Cast steel equalized out-board journals	West.:#1-19,345 lbs., GE:#1-19,145 lbs.
Waugh	140 cars:Timken 200 cars:Hyatt 200 cars: SKF	coil	coil	Cast steel equalized out-board journals	West.:#1-19,199 lbs., #2-18,947 lbs., GE:#1-19,361 lbs., #2-19,165 lbs.
Waugh	SKF	coil	coil	Cast steel equalized out-board journals	West.:#1-19,203 lbs., #2-19,039 lbs., GE:#1-19,003 lbs, #2-18,839 lbs.
Waugh	SKF	coil	coil	Cast steel equalized out-board journals	West.:#1-19,512 lbs., #2-19,088 lbs., GE:#1-19,228 lbs., #2-18,784 lbs.
Waugh	SKF	coil	coil	Cast steel equalized out-board journals	West.:#1-19,512 lbs.,#2-19,088 lbs.,GE:#1-19,228 lbs.,#2-18,784 lbs.
Waugh	SKF	coil	coil	Cast steel equalized out-board journals	pkg. brakes,#1-18,084 lbs.,#2-17,472 lbs.,GE:#1-19,008 lbs.,#2-18,822 lbs.
Waugh	SKF	coil	coil	Cast steel equalized out-board journals	West.:#1-18,102 lbs.,#2-17,754 lbs.
Waugh	SKF	coil	coil	Cast steel equalized out-board journals	West.:#1-18,614 lbs.,#2-17,832 lbs.
Waugh	SKF	coil	coil	Cast steel equalized out-board journals	West.:#1-18,614 lbs.,#2-17,832 lbs.
Dresser	Timken	rubber sleeve	Firestone Air bellows	Cast steel equalized outbd. journals, articulated frame	GE:#1-17,953 lbs.,#2-17,520 lbs.
Gatke or Dayco	SKF 6"x11" converting to Timken 6" x 11"	Rubber shock ring on Journal Bearing	Firestone Bolster: air spring	Budd Co. Pioneer III	10,000 lbs.
Gatke or Dayco	SKF 6"x11" converting to Timken 6" x 11"	Rubber shock ring on Journal Bearing	Firestone Bolster: air spring	Budd Co. Pioneer III	10,000 lbs.

AUTHORITY CAR NOS./ ORDER NO.	TRUCKS & SUSPENSIONS				PERFORMANCE
	MANUFACTURER	TRUCK MODEL NUMBER	WHEEL BASE	WHEEL DIAMETER	ACCELERATION RATE
NYCTA R-32A	LFM, Adirondack & Gen. Steel Casting Co.	13893-15092	6'10"	34"	2.5 mphps
NYCTA R-33	General Steel Castings Co.	11965-13044	6'10"	34"	2.5 mphps
NYCTA R-36	General Steel Castings Co.	13045-13892	6'10"	34"	2.5 mphps
NYCTA R-38	Gen. Steel Cast. & Adirondack Steel Cast.	15093-15492	6'10"	34"	2.5 mphps
NYCTA R-40 (no a/c)	Gen. Steel Cast. & Adirondack Steel Cast.	<i>Note 15</i> 15493-16292	6'10"	34"	2.5 mphps
NYCTA R-40 (a/c)	GSI Castings, Adirondack Steel Cast.	See Note #73 15493-16292	6'10"	34"	2.5 mphps
NYCTA R-42	GSI Castings, Adirondack Steel Cast.	16293-17112	6'10"	34"	2.5 mphps
NYCTA R-44	GSI Castings, Adirondack Steel Cast.	17113-17724	6'10" 7'2" air spring	34"	2.5 mphps
NYCTA R-44 (SIRT)	GSI Castings	S17725-S17832	6'10" 7'2" air spring	34"	2.5 mphps
NYCTA R-46	Rockwell Inter- national Trans. Equip.	17725-19272	6'10"	34"	2.5 mphps
PATCO 201-250	Budd	T-99 57582	7'6"	34"	3.0 mphps
PATCO 101-125	Budd	T-99 57582	7'6"	34"	3.0 mphps



PERFORMANCE				BRAKING	
MAXIMUM OPERATING SPEED	BALANCING SPEED	BRAKING		FRICTION BRAKE ARRANGEMENT	TYPE BRAKING
		SERVICE	EMERGENCY		
		MIN./MAX.			
45 mph	50 mph	0.7/Full Service 3.0 mphps	3.0 mphps	Clasp with auto- matic slack adj.	Dynamic & electric pneu- matic
45 mph	50 mph	1.5/Full Ser- vice 3.0 mphps	3.0 mphps	Clasp with auto- matic slack adj. <i>Note 2</i>	Dynamic & electric pneu- matic
45 mph	50 mph	1.5/Full Ser- vice 3.0 mphps	3.0 mphps	Clasp with auto- matic slack adj.	Dynamic & electric pneu- matic
45 mph	50 mph	0.7/Full Ser- vice 3.0 mphps	3.0 mphps	Clasp with auto- matic slack adj.	Dynamic & electric pneu- matic
45 mph	50 mph	0.7/Full Ser- vice 3.0 mphps	3.0 mphps	Clasp with auto- matic slack adj.	Dynamic & electric pneu- matic
45 mph	50 mph	0.7/Full Ser- vice 3.0 mphps	3.0 mphps	Clasp with auto- matic slack adj. <i>Note #73</i>	Dynamic & electric pneu- matic
45 mph	50 mph	0.7/Full Ser- vice 3.0 mphps	3.0 mphps	Clasp with auto- matic slack adj.	Dynamic & electric pneu- matic
45 mph	80 mph	0.7/3.0 mphps from 40 mph 2.3 mphps from 80 mph	3.0 mphps	Package brakes w/automatic slack adjust- ment	Dynamic & electric pneu- matic
45 mph	80 mph	0.7/3.0 mphps from 40 mph 2.3 mphps from 80 mph	3.0 mphps	Package brakes w/automatic slack adjust- ment	Dynamic & electric pneumatic
45 mph	80 mph	0.7/3.0 mphps from 40 mph 2.3 mphps from 80 mph	3.0 mphps	Package brakes w/automatic slack adjust- ment	Dynamic & electric pneu- matic
75	87 mph <i>See note # 1</i>	1.0 in B1/3.0 mphps	above 3.0 mphps	Package Brake WABCO GN 5-1/2	Dynamic & elec- tro pneumatic WABCO RT-5A
75	87 mph <i>See note #1</i>	1.0 in B1/3.0 mphps	above 3.0 mphps	Package Brake WABCO GN 5-1/2	Dynamic & elec- tro pneumatic WABCO RT-5A

AUTHORITY CAR NOS./ ORDER NO.	BRAKING				
	FRICTION SUPPLEMENT	MPH FULL SERVICE BRAKE	TYPE BRAKE VALVE	TYPE COMPRESSOR	COMPRESSOR CAPACITY
NYCTA R-32A	none	General Elec- tric: 9.0 mph Westinghouse: 10.0 mph	WABCO ME 42B	WABCO A6	31.5 cfm
NYCTA R-33	none	"	WABCO ME 42B	WABCO A6 Note 71	31.5 cfm
NYCTA R-36	none	"	WABCO ME 42B	WABCO A6	31.5 cfm
NYCTA R-38	none	"	WABCO ME43	WABCO D3	31.5 cfm
NYCTA R-40 (no a/c)	none	"	WABCO ME43	WABCO D3	31.5 cfm
NYCTA R-40 (a/c)	none	"	WABCO ME43	WABCO D3	33 cfm
NYCTA R-42	none	Westinghouse: 10.0 mph	WABCO ME43	WABCO D3	33 cfm
NYCTA R-44	none	Westinghouse: 15.0 mph	Note 72	WABCO D3	33 cfm
NYCTA R-44 (SIRT)	none	Westinghouse: 15.0 mph	Note 72	WABCO D3	33 cfm
NYCTA R-46	none	General Elec- tric: 15.0 mph	Note 72	NYAB (40 "A" cars), N-9412 WABCO D4	25 cfm
PATCO 201-250	3.2 emergency B5	Fade-out speed 10 mph	WABCO N4D	WABCO D3	25 cfm
PATCO 101-125	3.2 emergency B5	Fade-out speed 10 mph	WABCO N4D	WABCO D3	25 cfm

BRAKING					
MANUFACTURER BRAKE	TYPE BRAKE SHOES	BRAKE CYLINDERS OR ACTUATOR			MANUFACTURER HAND BRAKE
		LOCATION	DIMENSIONS	NO./TYPE	
WABCO (SMEE)	Cast iron <i>Note 3</i>	On truck frame	7"x6"	2/truck UAHT	Ellcon National
WABCO (SMEE)	Cast iron	On truck frame <i>Note 2</i>	6"x6" <i>Note 3</i>	2/truck UAHT	Ellcon National
WABCO (SMEE)	Cast iron <i>Note 2</i>	On truck frame	6"x6"	2/truck UAHT	Ellcon National
WABCO (SMEE)	Cast iron	On truck frame	7"x6"	2/truck UAHT	Ellcon National
WABCO (SMEE)	Cast iron	On truck frame	7"x6"	2/truck UAHT	Ellcon National
WABCO (SMEE)	Cast iron See Note #73	On truck frame	7"x6"	2/truck UAHT	Ellcon National
WABCO (SMEE)	Cast iron	On truck frame	7"x6"	2/truck UAHT	Ellcon National
WABCO RT-5A	Composition brake shoes	On truck frame	6-3/16"x5/8"	4/truck Roto-Chamber	Ellcon National
WABCO RT-5A	Composition brake shoes	On truck frame	6-3/16"x5/8"	4/truck Roto-Chamber	Ellcon National
GE, Westcode	Composition brake shoes	On truck frame	5"x3/8"	4/truck Roto-Chamber	Ellcon National
WABCO	Composition ABEX Comet or tiger	Unit tread	5-1/2" dia.	8/WABCO GN5-1/2	Ellcon Nation- Inc. Peacock #840 FR.
WABCO	Composition ABEX Comet or tiger	Unit tread	5-1/2" dia.	8/WABCO GN5- 1/2	Ellcon Nation- Inc. Peacock #840 FR.

AUTHORITY CAR NOS. / ORDER NO.	COMMUNICATIONS		ATO/ATC		
	PUBLIC ADDRESS SYSTEM	TWO-WAY RADIO COMMUNICATION	CAB SIGNAL	AUTOMATIC TRAIN PROTECTION	AUTOMATIC TRAIN OPERATION
NYCTA R-32A	Yes	Yes	none	none	none
NYCTA R-33	Yes	Yes	none	none	none
NYCTA R-36	Yes	Yes	none	none	none
NYCTA R-38	Yes	Yes	none	none	none
NYCTA R-40 (no a/c)	Yes	Yes	none	none	none
NYCTA R-40 (a/c)	Yes	Yes	none	none	none
NYCTA R-42	Yes	Yes	none	none	none
NYCTA R-44	Yes	Yes	yes	yes	yes
NYCTA R-44 (SIRT)	Yes	Yes	yes	yes	yes
NYCTA R-46	Yes	Yes	yes	yes	yes
PATCO 201-250	Yes	Yes	Yes	yes	yes
PATCO 101-125	Yes	Yes	Yes	yes	yes

AUTHORITY CAR NOS./ ORDER NO.	NO. OF CARS/ TYPE CAR	YEAR PURCHASED	PLACED IN SERVICE	CAR BUILDER	BID PRICE PER CAR
PATCO 251-296	46 Married Pairs	1977	1980	Vickers Canada Inc.	\$800,000
PATH 1206-1229 1234-1249	40 (K cars) Married pairs (A & B Units) <i>See note 1</i>	1957	1958	St. Louis Car Co.	\$ 86,000
PATH 1200-1205 1230-1233	10 (K cars) Single units <i>See note 1</i>	1957	1958	St. Louis Car Co.	\$ 96,000
PATH 600-709 PA-1	110 (A cars) 2,3, or 4 car units <i>See note 2</i>	1964	1965	St. Louis Car Co.	\$111,485
PATH 100-151 PA-1	52 Motorized trail- er cars (C cars) <i>See note 3</i>	1964	1965	St. Louis Car Co.	\$ 98,729
PATH 710-723 PA-2	14 (A cars) 2,3 or 4 car units <i>See note 2</i>	1966	1967	St. Louis Car Co.	\$128,925
PATH 152-181 PA-2	30 (C cars) Motorized trailer cars <i>See note 3</i>	1966	1967	St. Louis Car Co.	\$116,890
PATH 724-769 PA-3	46 (A cars) 2,3 or 4 car units <i>See note 2</i>	1970	1972	Hawker-Siddeley	\$182,000
SEPTA 601-646	45 (orig. 46) Single car	1959	1960-61	Budd Co.	\$ 97,616
SEPTA 701-924	218 (orig. 224) Married pairs	1959	1960-61	Budd Co.	A - \$88,756 B- \$89,013
STC * Mexico	609			537: CIMT- ALSTHOM 72: CNCF.	\$104,000 n/a
*The information from the first edition (1976) issue is repeated unchanged.					

AUTHORITY CAR NOS./ ORDER NO.	COMPATIBILITY WITH OTHER SERIES OF CARS	DIMENSIONS			
		LENGTH OVER COUPLERS	LENGTH OVER ANTI-CLIMBER	TRUCK CENTERS	WHEEL BASE
PATCO 251-296	Yes, w/101-125 & 201-250	67'10"	67'6"	47'6"	7'6"
PATH 1206-1229 1234-1249	w/K cars only 1200-1249	51'3"	51'	33'	6'10"
PATH 1200-1205 1230-1233	w/K cars only 1200-1249	51'3"	51'	33'	6'10"
PATH 600-709 PA-1	with PA-2 cars & PA-3 cars only 600-769&100-181	51'3"	51'	33'	6'10"
PATH 100-151 PA-1	with PA-2 cars & PA-3 cars only 600-769&100-181	51'3"	51'	33'	6'10"
PATH 710-723 PA-2	with PA-1 cars & PA-3 cars only 600-769&100-181	51'3"	51'	33'	6'10"
PATH 152-181 PA-2	with PA-1 cars & PA-3 cars only 600-769&100-181	51'3"	51'	33'	6'10"
PATH 724-769 PA-3	with PA-1 and PA-2 cars only 600-769&100-181	51'3"	51'	33'	6'10"
SEPTA 601-646	With 2 car units listed below or other 600 series	55'4"	55'	38'	6'8"
SEPTA 701-924	With single cars listed above or other married pair	55'4"	55'	38'	6'8"
STC Mexico	Yes	M: 17.18 m N: 16.18 m R: 16.18 m <i>See note 1</i>	not applicable	11 m	<i>See note 2</i>

DIMENSIONS					
WIDTH OF CAR BODY MAXIMUM	WHEEL DIAMETER	NO. OF CARS/ TRAIN MIN./MAX.	SEATING CAPACITY	MAX. NO. PSGRS. DESIGN/PRACTICAL (CRUSH)	CLEAR FLOOR AREA SQ. FT. (INCLDG. CABS)
10'1-1/2"	28"	2 8	80	100 200	675 sq. ft.
8'10-1/2" (threshold width)	28"	2 10	44	150 185	260 sq. ft.
8'10-1/2" (threshold width)	28"	1 10	44	150 185	260 sq. ft.
9'2-3/4" (at belt line)	28"	2 10 <i>See note 2</i>	41	140 197	260 sq. ft.
9'2-3/4" (at belt line)	28"	3 10 <i>See note 3</i>	42	140 200	260 sq. ft.
9'2-3/4" (at belt line)	28"	2 10 <i>See note 2</i>	41	140 197	212 sq. ft.
9'2-3/4" (at belt line)	28"	3 10 <i>See note 3</i>	42	140 200	212 sq. ft.
9'2-3/4" (at belt line)	28"	2 10 <i>See note 2</i>	35	165 222	212 sq. ft.
9'1"	28"	1 10	54	115 200	435 sq. ft.
9'1"	28"	2 10	56	115 202	435 sq. ft.
2.50 m	metal: 880m pneumatic: 1004 mm	9 9	39	165 237	M: 373.5 sq. ft. N&R: 382.9 sq. ft.

AUTHORITY CAR NOS./ ORDER NO.	DIMENSIONS				
	MINIMUM HEAD ROOM	HGT. MIN., FLR TO HEADLINING AT CENTER	WIDTH OF SIDE DOOR OPENINGS	HEIGHT OF SIDE DOOR OPENINGS	WIDTH ACROSS THRESHHOLD PLATES
PATCO 251-296	6'8"	7'1-1/2"	4'2"	6'2-1/2"	10'0"
PATH 1206-1229 1234-1249	6'4"	6'9-7/8"	4'2"	6'4"	8'10-1/2"
PATH 1200-1205 1230-1233	6'4"	6'9-7/8"	4'2"	6'4"	8'10-1/2"
PATH 600-709 PA-1	6'4"	6'10-7/8"	4'6"	6'4"	8'8-1/8"
PATH 100-151 PA-1	6'4"	6'10-7/8"	4'6"	6'4"	8'8-1/8"
PATH 710-723 PA-2	6'4"	6'10-7/8"	4'6"	6'4"	8'8-1/8"
PATH 152-181 PA-2	6'4"	6'10-7/8"	4'6"	6'4"	8'8-1/8"
PATH 724-769 PA-3	6'4"	6'10-7/8"	4'6"	6'4"	8'8-1/8"
SEPTA 601-646	7'4-5/8" at vent fans: 6'11-3/8"	7'4-5/8"	4'1"	6'3-3/4"	8'6-3/4"
SEPTA 701-924	7'4-5/8" at vent fans: 6'11-3/8"	7'4-5/8"	4'1"	6'3-3/4"	8'6-3/4"
STC Mexico	1.8 m		1300 mm	1900 mm	2.50 m



DIMENSIONS					
HEIGHT MAXIMUM		HEIGHT-TOP OF RAIL TO CAR FLOOR	AISLE WIDTH MIN./MAX.	MIN. RADIUS HORIZ. CURVE CAR IS DESIGNED TO NEGOTIATE	MIN. RADIUS VERTICAL CURVE
TOP OF RAIL TO TOP OF ROOF	OVER RADIO ANTENNA, FAN HOUSING, ETC.				
12'4"	12'4"	3'10"	2'5-1/2" 2'5-1/2"	125'	2000'
11'8-7/16"	11'8-7/16"	3'8-1/2"	3'3"/ 3'3"	90'	900'
11'8-7/16"	11'8-7/16"	3'8-1/2"	3'3"/ 3'3"	90'	900'
11'8-3/8"	11'8-7/16"	3'9-7/16"	2'4"/ 4'10-1/2"	90'	900'
11'8-3/8"	11'8-7/16"	3'9-7/16"	2'4"/ 4'10-1/2"	90'	900'
11'8-3/8"	11'8-7/16"	3'9-7/16"	2'4"/ 4'10-1/2"	90'	900'
11'8-3/8"	11'8-7/16"	3'9-7/16"	2'4"/ 4'10-1/2"	90'	900'
11'8-3/8"	11'8-7/16"	3'9-7/16"	2'4"/ 4'10-1/2"	80'	900'
11'8-3/16"	12'9-7/16"	3'10-1/2"	2'3-1/2"/ 3'2-1/2"	140'	3000'
11'8-3/16"	12'9-7/16"	3'10-1/2"	2'3-1/2"/ 3'2-1/2"	140'	3000'
2.4 m		1.2 m	460mm/ 510mm	45 m	

AUTHORITY CAR NOS./ ORDER NO.	DIMENSIONS	WEIGHTS			
	TRACK GAUGE	SINGLE CAR AVG.-LT. WT. LBS.	AVG. WT. A/CAR, B/CAR	WEIGHT/ SQ. FT.	WEIGHT/ SEAT
PATCO 251-296	4'8-1/2"	N/A	Est. 74,000 lbs.	Est. 111 lbs.	Est. 935 lbs.
PATH 1206-1229 1234-1249	4'8-1/2"	PRR-67,000 lbs. H&M-66,000 lbs. A and B units	not applicable	PRR - 148 lbs. H&M - 146 lbs.	PRR - 1523 lbs. H&M - 1500 lbs.
PATH 1200-1205 1230-1233	4'8-1/2"	PRR-69,500 lbs. H&M-68,000 lbs. singles	not applicable	PRR - 153 lbs. H&M - 150 lbs.	PRR - 1580 lbs. H&M - 1545 lbs.
PATH 600-709 PA-1	4'8-1/2"	58,400 lbs. PA-1 A car	not applicable	124 lbs.	1360 lbs.
PATH 100-151 PA-1	4'8-1/2"	55,800 lbs. PA-1 C car	not applicable	118 lbs.	1210 lbs.
PATH 710-723 PA-2	4'8-1/2"	58,000 lbs. PA-2 A car	not applicable	124 lbs.	1410 lbs.
PATH 152-181 PA-2	4'8-1/2"	55,300 lbs. PA-2 C car	not applicable	118 lbs.	1270 lbs.
PATH 724-769 PA-3	4'8-1/2"	60,000 lbs. PA-3 A car	not applicable	135 lbs.	1714 lbs.
SEPTA 601-646	5'2-1/4"	52,600 lbs.	not applicable	102 lbs.	950 lbs.
SEPTA 701-924	5'2-1/4"	not applicable	46,670	98 lbs.	871 lbs.
STC Mexico	1.5m (rails) 1.993m (pneu.)	M: 62,000 lbs. N: 59,250 lbs. R: 45,500 lbs.		M:138 lbs. N: 140 lbs. R: 107 lbs.	M:1590 lbs. N:1519 lbs. R:1167 lbs.

WEIGHTS			CAR BODY		
WEIGHT/ PASSENGER (CRUSH LOAD)	AVG. WEIGHT OF COMPLETE TRUCKS #1 TRUCK/#2 TRK	LOAD WEIGHING DEVICE	MOTORMAN'S CABS/CAR	WINDSHIELD WIPERS	BODY & FRAMING
Est. 379 lbs.	10,000 lbs.	Yes	1	electric	Stainless steel
PRR - 362 lbs. H&M - 357 lbs.	11,500 lbs.	Yes	1	pneumatic	Welded all steel, no center sill
PRR - 376 lbs. H&M - 368 lbs.	11,500 lbs.	Yes	2	pneumatic	Welded all steel, no center sill
296 lbs.	11,500 lbs.	Yes	1	pneumatic	Aluminum <i>See note 4</i> w/center sill
279 lbs.	11,500 lbs.	Yes	none	none	Aluminum <i>See note 4</i> w/center sill
294 lbs.	11,500 lbs.	Yes	1	pneumatic	Aluminum <i>See note 4</i> w/center sill
277 lbs.	11,500 lbs.	Yes	none	none	Aluminum <i>See note 4</i> w/center sill
270 lbs.	11,500 lbs.	Yes	1	pneumatic	Aluminum <i>See note 12</i> no center sill
257 lbs.	#1 - 10,200 #2 - 10,000	yes	2	pneumatic	<i>See Note 4</i> Stainless Steel
241 lbs.	#1 - 10,200 #2 - 10,000	yes	1	pneumatic	<i>See Note 4</i> Stainless Steel
M: 301 lbs. N: 287 lbs. R: 221 lbs.	M: 14,097 lbs. R: 8,897 lbs.	no	1	pneumatic	Steel

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY				
	ROOF CONSTRUCTION	EXTERIOR FINISH (PAINT)	COLOR SCHEME		FLOOR CONSTRUCTION
			INTERIOR	EXTERIOR	
PATCO 251-296	Stainless steel corrugated	Stainless steel	Champagne, wood grain & green	Stainless steel, dull black trim red stripe	Aluminum & stainless steel faced plywood
PATH 1206-1229 1234-1249	Steel sheathing	Synthetic enamel or lac- quer	Beige & dark brown	Two tone blue	Trussplate w/ 1/8" vinyl as- bestos tile floor covering
PATH 1200-1205 1230-1233	Steel sheathing	Synthetic enamel or lac- quer	Beige & dark brown	Two tone blue	Chanarch magna- site vinyl as- bestos tile floor covering
PATH 600-709 PA-1A	Aluminum sheathing	Synthetic enamel	Beige with black, white & orange	Dark & light blue w/extruded brushed alumi- num trim	Plywood on foam filled corru- gated alum. w/ rubber tile
PATH 100-151 PA-1C	Aluminum sheathing	Synthetic enamel	Beige with black, white & orange	"	"
PATH 710-723 PA-2A	Aluminum	Synthetic enamel	Beige with black, white & orange	"	"
PATH 152-181 PA-2C	Aluminum	Synthetic enamel	Beige with black, white & orange	"	"
PATH 724-769 PA-3A	Aluminum	Synthetic enamel	Beige w/dark brown, white & orange	"	Plywood on fiberglass filled aluminum pans w/rub. tile
SEPTA 601-646	Semi-monocoque corrugated stainless steel	<i>See Note 5</i>	<i>See Note 6</i>	Stainless steel, gray fiberglass polyester	Plymetal floor with rubber covering
SEPTA 701-924	Semi-monocoque corrugated stainless steel	<i>See Note 5</i>	<i>See Note 6</i>	"	"
STC Mexico	treated veneered wood, w/vinyl tiles	Steel sheet	grey & blue	orange	treated veneered wood w/vinyl tiles

CAR BODY					
CEILING FINISH	SIDE WINDOWS, SASH		WINDOWS & DOOR GLAZING MATERIAL	INTERIOR FINISH	SEATS
	TYPE	MANUFACTURER			ARRANGEMENT
Melamine plastic, smooth	Stationary	Sash is part of car. There is no separate sash.	Tinted polycarbonate	Melamine faced aluminum, stainless steel	cross
Formica (TM) headboard	Stationary	Adams and Westlake	Safety glass	See note 5	Longitudinal
Formica (TM) headboard	Stationary	Adams and Westlake	Safety glass	See note 5	Longitudinal
Melamine plastic	Stationary	Adams and Westlake	Safety glass	Melamine plastic w/ stainless steel trim	Transverse & longitudinal
Melamine plastic	Stationary	Adams and Westlake	Safety glass See note 14	"	Transverse & longitudinal
Melamine plastic	Stationary	Adams and Westlake	Safety glass See note 14	"	Transverse & longitudinal
Melamine plastic	Stationary	Adams and Westlake	Safety glass See note 14	"	Transverse & longitudinal
Arborite	Stationary	Adams and Westlake	Safety glass See note 14	"	Transverse & longitudinal
Buff-Westinghouse Micarta	Fixed	O.M. Edwards Co.	glass	Melamine, stainless steel & anodized alum.	Cross & longitudinal
Buff-Westinghouse Micarta	Fixed	O.M. Edwards Co.	glass	"	Cross & longitudinal
blue Formica, non-flammable	guillotine	George Klein & Arquimetalia	roll type	Formica, non-flammable	Mixed

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY				
	SEATS				
	FRAMING	COVERING MATERIAL		COLOR	
ORIGINAL		PRESENT	ORIGINAL	PRESENT	
PATCO 251-s96	Stainless steel	Fabric covered vinyl, over Neoprene	Fabric covered vinyl, over Neoprene	Yellow & green	Yellow & Green
PATH 1206-1229 1234-1249	Built-up	Fire retardant plastic foam - polyurethane	Fire retardant Neoprene foam & fire retardant Naugahyde	Blue	Tan and Black
PATH 1200-1205 1230-1233	Built-up	"	"	Blue	Tan and Black
PATH 600-709 PA-1	Stainless steel	Molded fiberglass with recessed foam cushions	<i>See note 13</i>	Black	Black
PATH 100-151 PA-1	Stainless steel	"	<i>See note 13</i>	Black	Black
PATH 710-723 PA-2	Stainless steel	"	<i>See note 13</i>	Black	Black
PATH 152-181 PA-2	Stainless steel	"	<i>See note 13</i>	Black	Black
PATH 724-769 PA-3	Stainless steel	Molded fiberglass w/recessed naugahyde covered neoprene cushions	Molded fiberglass w/recessed naugahyde covered neoprene cushions	Tan	Tan
SEPTA 601-646	Stainless steel tubing	Fabric supported vinyl	Fabric supported vinyl	Ultramarine and straw	Blue
SEPTA 701-924	Stainless steel tubing	Fabric supported vinyl	Fabric supported vinyl	Ultramarine and straw	Blue
STC Mexico	Steel	wood, spring, polyurethane & vinyl	metal, spring, polyurethane & vinyl	blue	Blue

CAR BODY					
SEATS					
MANUFACTURER	CEILING HANDHOLDS TYPE/NO./CAR	NO. OF SEAT HANDHOLDS	CEILING TO FLOOR STANCHIONS PER CAR	SIDE DOOR OPENINGS/CAR	NO. OF SIDE DOOR PANELS PER CAR
General Seating (Topton, Pa.)	none	one at each seat	8 at doors	4	8
Coach and Car	Horizontal bar	none	3	6	6
Coach and Car	Horizontal bar	none	3	6	6
Haywood Wakefield	18	11/car at each seat	10	4	8
Haywood Wakefield	18	12/car at each seat	10	4	8
Haywood Wakefield	18	11/car at each seat	10	4	8
Haywood Wakefield	18	12/car at each seat	10	4	8
American Seating	14	10/car at each seat	10	4	8
National Seating/Heywood Wakefield	handrails/10	16/car	22	6	12
National Seating/Heywood Wakefield	handrails/10	17/car	23	6	12
Compin & CISA			at cabs only	4	8

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY		COUPLER & DRAFT GEAR		
	DOOR FABRICATION	MANUFACTURER OF DOORS & HANGERS	TYPE COUPLER	COUPLING AT INTERMEDIATE END	DRAFT GEAR
PATCO 251-296	Stainless steel	O.M. Edwards Co.	Ohio Brass Form 74	Ohio Brass Drawbar	115,000 lbs. rubber
PATH 1206-1229 1235-1249	Single leaf in- side hung	O.M. Edwards Co.	WABCO H2C	Same coupling as used on coupling end of car w/o elec.	<i>See note 6</i>
PATH 1200-1205 1230-1233	Single leaf in- side hung	O.M. Edwards Co.	WABCO H2C	none	<i>See note 6</i>
PATH 600-709 PA-1	Two leaf slid- ing in pockets	O.M. Edwards Co.	WABCO H2C	WABCO H2 C	<i>See note 7</i>
PATH 100-151 PA-1	Two leaf slid- ing in pockets	O.M. Edwards Co.	WABCO H2C	WABCO H2 C	<i>See note 7</i>
PATH 710-723 PA-2	Two leaf slid- ing in pockets	O.M. Edwards Co.	WABCO H2C	WABCO H2 C	rubber
PATH 152-181 PA-2	Two leaf slid- ing in pockets	O.M. Edwards Co.	WABCO H2C	WABCO H2 C	rubber
PATH 724-769 PA-3	Two leaf slid- ing in pockets	O.M. Edwards Co.	WABCO H2C	WABCO H2 C	rubber
SEPTA 601-646	In-board slid- ing, bi-parting smooth stainless steel	O.M. Edwards Co.	Ohio Brass Form 27 on A & B end	not applicable	<i>See Note 7</i>
SEPTA 701-924	"	O.M. Edwards Co.	Ohio Brass Form 27 on A & B end	Semi-permanent coupling with rubber draft gear	115,000 lbs. Rubber <i>See Note 7</i>
STC Mexico	Stainless steel, interior of ure- thane	Faively, (Francia), Ar- quimetalica	Scharfenberg	No	Scharfenberg



COUPLER & DRAFT GEAR	MISCELLANEOUS CAR BODY ITEMS			DOOR OPERATION & CONTROL	
	MAXIMUM HORIZONTAL BUFF	SIDE & END DESTINATION SIGN MANUFACTURER	CURTAIN MATERIAL	NO. AND TYPE FIRE EXTINGUISHER/CAR	LOCATION OF DOOR CONTROL DEVICE
200,000 lbs.	Translite	linen	Dry Powder -/ 1/car, CO <sub>2</sub> - 1/car	In motorman's cab	1/leaf Electric
400,000 lbs.	Teleweld	2 illuminated end & 2 signs/ car - mylar	Pressurized dry chemical	In motorman's cab and in conductors position in cab	6 Electric
400,000 lbs.	Teleweld	"	Pressurized dry chemical	In both motorman's cabs	6 Electric
400,000 lbs.	Teleweld, Luminator & Translite	1 end sign & 4 illuminated side signs/car mylar <i>See note 8</i>	Pressurized dry chemical	In motorman's cab and diagonally opposite corner	6 Electric
400,000 lbs.	Teleweld, Luminator & Translite	4 illuminated side signs per car, mylar <i>See note 8</i>	Pressurized dry chemical	Diagonally opposite corners of car	6 Electric
400,000 lbs.	Teleweld, Luminator & Translite	1 end sign, 4 illuminated side/car mylar <i>See note 8</i>	Pressurized dry chemical	In motorman's cab and diagonally opposite corner	6 Electric
400,000 lbs.	Teleweld, Luminator & Translite	4 illuminated side/per car <i>See note 8</i>	Pressurized dry chemical	Diagonally opposite corners of car	6 Electric
400,000 lbs.	Luminator, Translite & Teleweld	1 end sign & 2 interior and 4 signs/car exterior illuminated side mylar <i>See note 8</i>	Pressurized dry chemical	In motorman's cab and diagonally opposite corner	8 Electric
115,000 lbs.	Skip-Stop Indicator	none	5 lbs. dry powder chemical 2 per car	In motorman's cab	12 per car Pneumatic Vapor
115,000 lbs.	Skip-Stop Indicator	none	5 lbs. dry powder chemical 1 per car	In motorman's cab	12 per car Pneumatic Vapor
not applicable	not applicable	destination band: fabric, lateral logo-type: plastic	yes	Interior cabs	8 Pneu. cylinders, double-action

AUTHORITY CAR NOS./ ORDER NO.	DOOR OPERATION & CONTROL	HEATING, COOLING & VENTILATION SYSTEMS			
	DOOR CONTROL DEVICE	HEATING			
		MANUFACTURER	LOCATION	TOTAL KW/CAR	UNDER SEAT WATTAGE
PATCO 251-296	Vapor Dortrol	Chromolux	Strip heaters	40.4 KW	18.4 KW
PATH 1206-1229 1234-1249	Midland-Ross	Vapor	panel heaters	22 KW	8 KW
PATH 1200-1205 1230-1233	Midland-Ross	Vapor	panel heaters	22 KW	8 KW
PATH 600-709 PA-1	Midland-Ross	Vapor	In overhead a/c units & floor	24 KW	6 KW
PATH 100-151 PA-1	Midland-Ross	Vapor	In overhead a/c units & floor	24 KW	6 KW
PATH 710-723 PA-2	Midland-Ross	Vapor	In overhead a/c units & floor	26 KW	8 KW
PATH 152-181 PA-2	Midland-Ross	Vapor	In overhead a/c units & floor	26 KW	8 KW
PATH 724-769 PA-3	Vapor Slim Line	Safety Elec- tric	In overhead a/c units & floor	26 KW	8 KW
SEPTA 601-646	Electro-pneu- matic trainline door engine, one engine/leaf	Vapor	Strip heaters	19.8 KW	6.8 KW
SEPTA 701-924	"	Vapor	Strip heaters	19.8 KW	6.8 KW
STC Mexico	Each side has opening & clos- ing valve-can be simultaneous- ly operated by single key	none	none	18.3 KW	

HEATING, COOLING & VENTILATION SYSTEMS					
HEATING IN PLENUM WATTAGE	CONTROLS		VENTILATION		
	AUTOMATIC HTNG. & VENTILATING SYSTEM	NO. FANS/CAR & MANUFACTURER	TYPE FAN	VOLTAGE, SPEED, OUTPUT	FAN SPEED STEPS
22.0 KW	Vapor	2	Centrifugal	688 V dc line voltage 2 fans- 250 cfm each	one speed
14 KW	Vapor	2/Safety or Trane	Centrifugal	600V, 2HP, 1750 rpm	single speed
14 KW	Vapor	2/Safety or Trane	Centrifugal	600V, 2HP, 1750 rpm	single speed
18 KW	Trane	2/Trane	Centrifugal	600V, 2HP, 1750 rpm	single speed
18 KW	Trane	2/Trane	Centrifugal	600V, 2HP, 1750 rpm	single speed
18 KW	Vapor	2/Trane	Centrifugal	300V, 2HP, 1750 rpm	single speed
18 KW	Vapor	2/Trane	Centrifugal	300V, 2HP, 1750 rpm	single speed
18 KW'	Safety	2/Safety	Centrifugal	600V, 2HP, 1750 RPM	single speed
13 KW	Vapor	4 23" Sturte- vant blades ax- iflo fans West- inghouse motor	Axiflo 150V dc	12,000 cfm vari- able speed 3,000 cfm <u>each</u>	Variable
13 KW	Vapor	"	Axiflo 150V dc	"	Variable
		4	Battery-fed	400 W	

AUTHORITY CAR NOS./ ORDER NO.	HEATING, COOLING AND VENTILATION SYSTEMS				
	VENTILATION	COOLING SYSTEM			
	TYPE AIR DIFFUSER	AIR CONDITIONED	MANUFACTURER	TYPE	CAPACITY
PATCO 251-296	Overhead plenum longitudinal flush slot	yes	Vapor (control) Safety (carrier system)	mechanical vapor cycle	10.7 ton
PATH 1206-1229 1234-1249	linear strip	yes	Safety Indus- tries	Mechanical vapor cycle	9 ton
PATH 1200-1205 1230-1233	linear strip	yes	Safety Indus- tries	Mechanical vapor cycle	9 ton
PATH 600-709 PA-1	linear strip	yes	Trane	Mechanical vapor cycle	10 ton
PATH 100-151 PA-1	linear strip	yes	Trane	Mechanical vapor cycle	10 ton
PATH 710-723 PA-2	linear strip	yes	Trane	Mechanical vapor cycle	10 ton
PATH 152-181 PA-2	linear strip	yes	Trane	Mechanical vapor cycle	10 ton
PATH 724-769 PA-3	linear strip	yes	Safety Indus- tries	Mechanical vapor cycle	10 ton
SEPTA 601-646	Overhead circular	#614 car only	#614 car only carrier/Safety Electric	Mechanical vapor cycle	10 ton
SEPTA 701-924	Overhead circular	no	not applicable	not applicable	not applicable
STC Mexico					

HEATING, COOLING & VENTILATION SYSTEMS			LIGHTING		
COOLING SYSTEM			TYPE LAMP	NO. OF LAMPS/CAR	OVERHEAD LIGHT FIXTURE TYPE
AIR VOLUME	HVAC CONTROL	REFRIGERANT			
3024 cfm	Vapor mercury thermostat	R-22	Fluorescent	36	translite aluminum, polycarbonate lens
2800 cfm	Vapor	R-12	Incandescent	37	Glass lens
2800 cfm	Vapor	R-12	Incandescent	37	Glass lens
2800 cfm	Vapor	R-22	Fluorescent	13	<i>See note 9</i>
2800 cfm	Vapor	R-22	Fluorescent	14	<i>See note 9</i>
2800 cfm	Vapor	R-22	Fluorescent	13	<i>See Note 9</i>
2800 cfm	Vapor	R-22	Fluorescent	14	<i>See Note 9</i>
2800 cfm	Safety	R-22	Fluorescent	13	<i>See Note 9</i>
2800 cfm	Safety	R-22	Fluorescent	16	Glass lens aluminum housing
not applicable	not applicable	not applicable	Fluorescent	16-72" tubes 1 - 48" tube	Glass lens aluminum housing
			Fluorescent	24	

AUTHORITY CAR NOS./ ORDER NO.	LIGHTING				
	SPECIFIED INTENSITY AT READING PLANE	LIGHTING POWER SUPPLY	MAIN LIGHTS POLARITY REV. TIMER	HEAD LIGHTS	EMERGENCY LIGHT/CAR
PATCO 251-296	25 Foot Candles	37.5 VDC ballast to inverters	none	2 sealed beam, 200W cab end	6 incandescent
PATH 1206-1229 1234-1249	30 foot candles	37.5 VDC MG	none	1 twin sealed beam/car	6/car in regu- lar fixtures
PATH 1200-1205 1230-1233	30 foot candles	37.5 VDC MG	none	2 twin sealed beams/car	6/car in regu- lar fixtures
PATH 600-709 PA-1	30 foot candles	Static In- verter	none	2 50W & 2 150W sealed beams	7 incandescent lamps in regu- lar fixtures
PATH 100-151 PA-1	30 foot candles	Static Inver- ter	none	none	7 incandescent lamps in regu- lar fixtures
PATH 710-723 PA-2	30 foot candles	Static Inver- ter	none	4 sealed beam, cab end	7 incandescent
PATH 152-181 PA-2	30 foot candles	Static Inver- ter	none	none	8 incandescent
PATH 724-769 PA-3	30 foot candles	Static Inver- ter	none	4 sealed beam, cab end	7 incandescent
SEPTA 601-646	30 foot candles	600V dc	Timer & Polarity Board	4 sealed beams, 2 each end	8 incandescent , 6, regular fixture, 2 separate
SEPTA 701-924	30 foot candles	600V dc	Timer & Polari- ty Board	2 sealed beams at cab end	"
STC Mexico	not applicable	250 volts, 250 Hz, 40 watts c/l	not applicable	none	16/car

MISC. ELECTRICAL EQUIPMENT

STORAGE BATTERY

TYPE	AMP/HRS.	COMPARTMENT	BATTERY EQUIPPED CAR	BATTERY CHARGER TYPE	CURRENT COLLECTION
Nickel cadmium	160	stainless steel	A cars only (odd Nos.)	Static converter WH TE-209D	third rail shoes
Nickel cadmium	120	Steel	all	Motor generator	Third rail shoes
Nickel cadmium	120	Steel	all	Motor generator	Third rail shoes
Nickel cadmium,	147	Steel	all	static converter	third rail shoes
none	147	Steel	none	none	third rail shoes
Nickel cadmium Alkaline	147	Steel	all	Static converter	third rail shoes
none	147	Steel	none	none	third rail shoes
Nickel cadmium Alkaline	147	Steel	all	static converter	third rail shoes
Nickel cadmium	80 AH	Stainless Steel & Wood frame	all	Motor generator	Underrunning 3rd rail shoes
Nickel cadmium	80 AH	Stainless Steel & Wood frame	"A" cars only on married pairs	Motor generator "A" cars only	Underrunning 3rd rail shoes
Nickel cadmium	60	metal	trailers only (R cars)		T/360 Amp. F/425 Amp.

AUTHORITY CAR NOS./ ORDER NO.	MISC. ELECTRICAL EQUIPMENT AUXILIARY POWER SUPPLY				TRACTION MOTOR
	NO./CAR	CAPACITY	INPUT/OUTPUT	TYPE	MFG./MODEL
PATCO 251-296	1/"A" car (Odd Nos.)	8.5 KVA	688 V dc/ 37.5 V dc	Westinghouse TE-209D Converter	General Electric 1255 A3
PATH 1206-1229 1234-1249	1/"A" car	2 KVA	650 V dc/ 37.5 dc	GEGMG 153K1	General Electric 1250A
PATH 1200-1205 1230-1233	1/"A" car	2 KVA	650 V dc/ 37.5 V dc	GEGMG 153K1	General Electric 1250A
PATH 600-709 PA-1	1	4.5 KVA	650 V dc/ 37.5 V dc	Westinghouse (WH) Converter	Westinghouse 1460A
PATH 100-151 PA-1	none	none	650 V dc/ 37.5 V dc	None	Westinghouse 1460A
PATH 710-723 PA-2	1	4.5 KVA	650 V dc/ 37.5 V dc	Westinghouse Converter	Westinghouse 1460A
PATH 152-181 PA-2	none	none	650 V dc/ 37.5 V dc	None	Westinghouse 1460A
PATH 724-769 PA-3	1	10 KVA	650 V dc/ 37.5 V dc	Westinghouse TE209	Westinghouse 1460 C
SEPTA 601-646	1	3 KVA	600V dc/ 40V dc (75A)	YX304A See Note 9	Westinghouse 1454
SEPTA 701-924	1/"A" car only	3 KVA	600V dc/40V dc (&5A)	GMG753 See Note 9	134:Westing- house 1454, 90:General Elec- tric 1250F
STC Mexico		18.3 LW		Motor G153/155 See note 3	GLM-331 GLM-332 M, -CEM-



TRACTION MOTOR					
NO./CAR	HORSEPOWER	MOTOR MOUNTING	MOTOR BEARINGS	TRACTION GEARING MFG./TYPE	TRACTION GEAR RATIO
4	140	resilient on truck	Roller & ball bearings	General Electric GA56B2 Parallel	4.79:1
4	100	Resilient on truck	Roller/ball bearing	right angle Dana	7.14:1
4	100	Resilient on truck	Roller/ball bearing	right angle Dana	7.14:1
4	100	Resilient on truck	Roller/ball bearing	<i>See note 10</i>	6.53:1
4	100	Resilient on truck	Roller/ball bearing	<i>See note 10</i>	6.53:1
4	100	Resilient on truck	Roller/ball bearing	<i>See note 10</i>	6.53:1
4	100	Resilient on truck	Roller/ball bearing	<i>See note 10</i>	6.53:1
4	100	Resilient on truck	Roller/ball bearing	<i>See note 10</i>	6.53:1
4	100	On truck frame	Roller/Ball bearings	right angle Dana 7-7 type	8.14:1
4	100	Resilient on truck	Roller/ball bearing	right angle Dana 7-7 type	8.13:1
4	M:150 N:160	on axle			1/9.2285

AUTHORITY CAR NOS./ ORDER NO.	TRACTION MOTOR				WHEEL SLIP CONTROL
	MASTER CONTROLLER MFG./TYPE	CONTROL GROUP MFG.	TYPE PROPULSION CONTROL		
PATCO 251-296	General Elec- tric 17KC104A3	GE 17KG261E1	GE 17KM52A1 Cam, resistors SCM IV		yes GE 17FL133D1
PATH 1206-1229 1234-1249	GE Separate master controller	General Elec- tric	Cam control (MCM)		none
PATH 1200-1205 1230-1233	"	General Elec- tric	Cam control (MCM)		none
PATH 600-709 PA-1	Motor: WH, XM- 679, Brake:WABCO, M-42-B	Westinghouse	Cam control		none
PATH 100-151 PA-1	none	Westinghouse	Cam control (from A car)		none
PATH 710-723 PA-2	Motor: WH, XM- 679, Brake:WABCO, M-42-B	Westinghouse	Cam control		none
PATH 152-181 PA-2	none	Westinghouse	Cam control (from A car)		none
PATH 724-769 PA-3	Motor: WH, XM- 679, Brake:WABCO, M-42-B	Westinghouse	Cam control		none
SEPTA 601-646	Westinghouse Note 10	Westinghouse	Cam control		none
SEPTA 701-924	Westinghouse & General Elec- tric (Note 10)	134: Westing- house 90: General Electric	Cam control		none
STC Mexico	Manual	Jeumont- Schneider			yes (relievers)

TRUCKS & SUSPENSIONS					
SIDE BEARINGS	ANTI-FRICTION JOURNAL BEARINGS MFG.	SPRINGING PRIMARY	SPRINGING SECONDARY	TYPE TRUCKS	WEIGHT/TRUCK
Gatke	Timken 6 x 11	Journal bearing rubber Shock ring	Bolster: air firestone	Budd Pioneer III	10,000 lbs.
Steel-to-Steel	Timken	Steel coils	Steel coils w/ rubber pads	Inside journal truck	11,500 lbs.
Steel-to-Steel	Timken	Steel coils	Steel coils w/ rubber pads	Inside journal truck	11,500 lbs.
Firestone	Timken	Steel coils	<i>See note 11</i>	Inside journal truck (GS170)	11,500 lbs.
Firestone	Timken	Steel coils	<i>See note 11</i>	Inside journal truck (GS170)	11,500 lbs.
Firestone	Timken	Steel coils	<i>See note 11</i>	Inside journal truck (GS170)	11,500 lbs.
Firestone	Timken	Steel coils	See Note 11	Inside journal truck (GS170)	11,500 lbs.
Firestone rubber bumpers	Timken	Chevrons	See Note 11	Inside journal truck (GS170) with chevrons (GS170C)	11,500 lbs.
none	SKF	Steel coil at journal	Air spring at Bolster	Adirondack inside journal truck	#1-10,200 lbs. #2-10,000 lbs.
none	SKF	Steel coil at journal	Air spring at Bolster	Adirondack inside journal truck	#1-10,200 lbs. #2-10,000 lbs.
none			Journal bearing, rubber cushion, bolster: no	over pneumatics	M: 14,097 lbs. N&R: 8,897 lbs

AUTHORITY CAR NOS. / ORDER NO.	TRUCKS & SUSPENSIONS				PERFORMANCE
	MANUFACTURER	TRUCK MODEL NUMBER	WHEEL BASE	WHEEL DIAMETER	ACCELERATION RATE
PATCO 251-296	Budd	T-99 57582	7'6"	28"	3.0 mphps
PATH 1206-1229 1234-1249	General Steel Castings	GSI 32035	6'10"	28"	2.5 mphps
PATH 1200-1205 1230-1233	General Steel Castings	GSI 32035	6'10"	28"	2.5 mphps
PATH 600-709 PA-1	General Steel Industries	GSI 33320	6'10"	28"	2.5 mphps
PATH 100-151 PA-1	General Steel Industries	GSI 33320	6'10"	28"	2.5 mphps
PATH 710-723 PA-2	General Steel Industries	GSI 33320	6'10"	28"	2.5 mphps
PATH 152-181 PA-2	General Steel Industries	GSI 33320	6'10"	28"	2.5 mphps
PATH 724-769 PA-3	General Steel Industries	GSI 34450	6'10"	28"	2.5 mphps
SEPTA 601-646	Adirondack Steel Castings	ASC Co. Z 6050	6'8"	28"	3.0 mphps
SEPTA 701-924	Adirondack Steel Castings	ASC Co. Z 6050	6'8"	28"	3.0 mphps
STC Mexico	not applicable			1004 m	1.24 m/sec. <sup>2</sup>

PERFORMANCE				BRAKING	
MAXIMUM OPERATING SPEED	BALANCING SPEED	BRAKING		FRICTION BRAKE ARRANGEMENT	TYPE BRAKING
		SERVICE	EMERGENCY		
		MIN./MAX.			
75 mph	87 mph <i>See note #1</i>	1.0 in P-1 3.0 mphps in P.4	above 3.0 mphps	WABCO GN 5-1/2 Tread Brake Unit	WABCO Dynamic & elec- tro-pneumatic RT5a
45 mph	60 mph (present configuration)	1.0/3.0 mphps	3.0 mphps	tread brake unit	Air tread brake <i>See note 15</i>
45 mph	60 mph (present configuration)	1.0/3.0 mphps	3.0 mphps	tread brake unit	Air tread brake <i>See note 15</i>
55 mph	70 mph	1.0/3.0 mphps	3.0 mphps	air tread brake unit	Dynamic, elec- tro-pneumatic
55 mph	70 mph	1.0/3.0 mphps	3.0 mphps	air tread brake unit	Dynamic, elec- tro-pneumatic
55 mph	70 mph	1.0/3.0 mphps	3.0 mphps	air tread brake unit	Dynamic, elec- tro-pneumatic
55 mph	70 mph	1.0/3.0 mphps	3.0 mphps	air tread brake unit	Dynamic, elec- tro-pneumatic
55 mph	70 mph	0.7/3.0 mphps	3.0 mphps	air tread brake unit	Dynamic, elec- tro-pneumatic
55 mph <i>See note 3</i>	55 mph	2.1/2.75 mphps	2.75 mphps	Air tread A.S.F. Unit	WABCO SMEE A-1-D B-1-D
55 mph <i>See note 3</i>	55 mph	2.1/2.75 mphps	2.75 mphps	Air tread A.S.F. Unit	WABCO SMEE B-1-D odd A-1-D even
80 kph		/1.1 m/sec. <sup>2</sup>	2 m/sec. <sup>2</sup>	Shoe over steel	Normal: rheosta- tic & pneumatic <i>See Note 5</i>

AUTHORITY CAR NOS./ ORDER NO.	BRAKING				
	FRICITION SUPPLEMENT	MPH FULL SERVICE BRAKE	TYPE BRAKE VALVE	TYPE COMPRESSOR	COMPRESSOR CAPACITY
PATCO 251-296	3.2 in emer- gency B5	Fade out speed: 10 mph	WABCO N4D	WABCO D4	25 cfm
PATH 1206-1229 1234-1249	none	Fade out speed: 10 mph	ME 42 WABCO	WABCO A-3	25.5 cubic ft. displacement
PATH 1200-1205 1230-1233	none	Fade out speed: 10 mph	WABCO ME 42	WABCO A-3	25.5 cubic ft. displacement
PATH 600-709 PA-1	none	Fade out speed: 10 mph	WABCO ME 43	WABCO D-2	33.7 cubic ft. displacement 1/car
PATH 100-151 PA-1	none	Fade out speed: 10 mph	WABCO ME 43	none	compressors on cab car only (type A cars)
PATH 710-723 PA-2	none	Fade out speed: 10 mph	WABCO ME 43	WABCO D2	33.7 cubic ft. displacement 1/car
PATH 152-181 PA-2	none	Fade out speed: 10 mph	WABCO ME 43	none	compressor on cab car only type A cars)
PATH 724-769 PA-3	none	Fade out speed: 10 mph	WABCO ME 43	WABCO D3	33.7 cubic ft. displacement 1/car
SEPTA 601-646	4.0 @ 15 mph 61 psi brake cylinder	Fade-out speed: 40 mph	WABCO, R-2	WABCO A-5, 30 cu. ft. dis- placement 1/car all cars	150 psi, A-3 motor
SEPTA 701-924	4.0 @ 15 mph 61 psi brake cylinder	Fade-out speed: 40 mph	WABCO, R-2	WABCO A-5, 30 cu. ft. dis- placement 1/car ("B" only) even	150 psi, A-3 motor
STC Mexico	yes	Fade out speed: 12 kph		Westinghouse 224VM	1000 lt./min.

BRAKING					
MANUFACTURER BRAKE	TYPE BRAKE SHOES	BRAKE CYLINDERS OR ACTUATOR			MANUFACTURER HAND BRAKE
		LOCATION	DIMENSIONS	NO./TYPE	
WABCO	composition Abex tiger H-4	on truck frame	5-1/2" diameter	8 WABCO GN 5-1/2	Ellcon National Peacock #840
WABCO	Cobra shoe	on truck frame	not applicable	8 WABCO E5-1/2	Ellcon National Peacock #840 XBL
WABCO	Cobra shoe	on truck frame	not applicable	8 WABCO E5-1/2	Ellcon National Peacock #840 XBL
WABCO	Composition	on truck frame	not applicable	8 WABCO GK-5 Tread Brake	Ellcon-National 840-FL
WABCO	Composition	on truck frame	not applicable	8 WABCO GK-5 Tread Brake	Ellcon-National 840-FL
WABCO	Composition	on truck frame	not applicable	8 WABCO GK-5 Tread Brake	Ellcon-National 840-FL
WABCO	Composition	on truck frame	not applicable	8 WABCO GK-5 Tread Brake	Ellcon-National 840-FL
WABCO	Composition	on truck frame	not applicable	8 WABCO GK-5 Tread Brake	Ellcon-National 840-FL
WABCO	Composition	on truck frame	High 2-3/4", bore X 2-1/8", Low 5", bore X 2-1/8"	8 WABCO GK-5	Ellcon-National 840-FL
Rigging - ASF unit Tread Brake Control - WABCO	Anchor shoe, Abex Tiger	on truck	6" diameter X 3" stroke	8	Nat'l Brake Co. Ellcon Nat'l. Inc. "Peacock" Model #840 XRL
Rigging - ASF unit Tread Brake Control - WABCO	Anchor shoe	on truck frame	6" diameter X 3" stroke	8	ASF Supplies Bendix/West Type 30 Roto Chamber
	birch wood		M: 5 sq. inches N: 4 sq. inches	4 Pneumatic	CIMT (Francia)

AUTHORITY CAR NOS. / ORDER NO.	COMMUNICATIONS		ATO/ATC		
	PUBLIC ADDRESS SYSTEM	TWO-WAY RADIO COMMUNICATION	CAB SIGNAL	AUTOMATIC TRAIN PROTECTION	AUTOMATIC TRAIN OPERATION
PATCO 251-296	Yes	Yes	Yes	Yes	Yes
PATH 1205-1229 1234-1249	Yes	Yes	no	no	no
PATH 1200-1205 1230-1233	Yes	Yes	no	no	no
PATH 600-709 PA-1	Yes	Yes	no	no	no
PATH 100-151 PA-1	Yes	Yes	no	no	no
PATH 710-723 PA-2	Yes	Yes	no	no	no
PATH 152-181 PA-2	Yes	Yes	no	no	no
PATH 724-769 PA-3	Yes	Yes	no	no	no
SEPTA 601-646	No	Yes	no	no	no
SEPTA 701-924	No	Yes	no	no	no
STC Mexico	Yes	Yes	Yes	Yes	No



AUTHORITY CAR NOS./ ORDER NO.	NO. OF CARS/ TYPE CAR	YEAR PURCHASED	PLACED IN SERVICE	CAR BUILDER	BID PRICE PER CAR
TTC 5000-5099 CLASS G-1	100 <i>See note 1</i> Married pair <i>See note 6,7&amp;8</i>	1952	1953-54	Gloucester Ry. Carriage & Wagon Co.	\$85,742
TTC 5100-5105 CLASS G-2	6 Married pair	1952 (4) 1954 (2)	1954-55	Gloucester Ry. Carriage & Wagon Co.	\$92,222
TTC 5200-5227 CLASS G-3	28 <i>See Note 1</i> <i>See note 7</i> Married pair	1955	1956	Gloucester Ry. Carriage & Wagon Co.	\$90,308
TTC 5110-5115 CLASS G-4	6 Married pair <i>See note 8</i>	1955	1958-59	Gloucester Ry. Carriage & Wagon Co.	\$99,248
TTC 5300-5335 CLASS M-1	36 Married pair	1962	1952-63	Montreal Loco- motive Works	\$110,971
TTC 5336-5499 CLASS H-1	164 <i>See note 2</i> Married pair	1964	1965-66	Hawker-Siddeley Canada Ltd.	\$100,975
TTC 5500-5505 CLASS H-3	6 <i>See note 3</i> Married pair	1970	1971 (orig.) 1973 <i>See note 3</i>	Hawker-Siddeley Canada Ltd.	\$236,968 <i>See note 3</i>
TTC 5506-5575 CLASS H-2	70 <i>See note 3</i> Married pair	1970	1971-72	Hawker-Siddeley Canada Ltd.	\$154,638 <i>See note 3</i>
TTC 5576-5663 CLASS H-4	88 Married pair	1973	1974-75	Hawker-Siddeley Canada Ltd.	\$226,250 (approx.)
TTC 5670-5807 CLASS H-5	138 <i>See note 2</i> Married pair	1975	1977-1980	Hawker-Siddeley Canada Ltd.	\$389,200 (approx.)
WMATA 1000-1299	300 married pair	1972	1976	Rohr Industries	\$297,995
WMATA 2000-2093	94 married pair	1979	1981	Breda Costruzi- oni Ferroviarie	\$740,060 - cam car, \$791,920- chopper car

AUTHORITY CAR NOS./ ORDER NO.	COMPATIBILITY WITH OTHER CARS	DIMENSIONS			
		LENGTH OVER COUPLERS	LENGTH OVER ANTI-CLIMBER	TRUCK CENTERS	WHEEL BASE
TTC 5000-5099 CLASS G-1	with all cars built prior to 1962	57'	No anti-climbers length over body 55'7-1/2"	38'	7'
TTC 5100-5105 CLASS G-2	with all cars built prior to 1962	57'	No anti-climbers length over body 55'7-1/2"	38'	7'
TTC 5200-5227 CLASS G-3	with all cars built prior to 1962	57'	No anti-climbers length over body 55'7-1/2"	38'	7'
TTC 5110-5115 CLASS G-4	with all cars built prior to 1962	57'	No anti-climbers length over body 55'7-1/2"	38'	7'
TTC 5300-5335 CLASS M-1	with all cars built since 1962	74'9-1/8"	74'5-5/8"	54'	6'10"
TTC 5336-5499 CLASS H-1	with all cars built since 1962	74'9-1/8"	74'5-5/8"	54'	6'10"
TTC 5500-5505 CLASS H-3	with all cars built since 1962	74'9-1/8"	74'5-5/8"	54'	6'10"
TTC 5506-5575 CLASS H-2	with all cars built since 1962	74'9-1/8"	74'5-5/8"	54'	6'10"
TTC 5576-5663 CLASS H-4	with all cars built since 1962	74'9-1/8"	74'5-5/8"	54'	6'10"
TTC 5670-5807 CLASS H-5	with all cars built since 1962	74'9-1/8"	74'5-5/8"	54'	6'10"
WMATA 1000-1299	with all cars	75'	74'9"	52'	7'3"
WMATA 2000-2094	with all cars	75'	74'9"	52'	7'3"

DIMENSIONS					
WIDTH OF CAR BODY MAXIMUM	WHEEL DIAMETER	NO. OF CARS/ TRAIN MIN./MAX.	SEATING CAPACITY	MAX. NO. PSGRS. DESIGN/PRACTICAL (CRUSH)	CLEAR FLOOR AREA SQ. FT. (INCLDG. CABS)
10'4"	30"	4 8	62	174 233	257 sq. ft. <i>See note 11</i>
10'4"	30"	4 8	62	174 233	257 sq. ft. <i>See Note 11</i>
10'4"	30"	4 8	62	174 233	257 sq. ft. <i>See note 11</i>
10'4"	30"	4 8	62	174 233	257 sq. ft. <i>See note 11</i>
10'4"	28"	2 6	84	230 310	339 sq. ft. <i>See Note 11</i>
10'4"	28"	2 6	83	230 309	339 sq. ft. <i>See Note 11</i>
10'4"	28"	2 6	83	230 309	339 sq. ft. <i>See Note 11</i>
10'4"	28"	2 6	83	230 309	339 sq. ft. <i>See Note 11</i>
10'4"	28"	2 6	77	235 319	364 sq. ft. <i>See Note 11</i>
10'4"	28"	2 6	76	235 318	364 sq. ft. <i>See Note 11</i>
10'1-3/4"	28"	2 8	80	175 220	630 sq. ft.
10'1-3/4"	28"	2 8	68	187 232	666 sq. ft.

AUTHORITY CAR NOS./ ORDER NO.	DIMENSIONS				
	MINIMUM HEAD ROOM	HGT. MIN., FLR TO HEADLINING AT CENTER	WIDTH OF SIDE DOOR OPENINGS	HEIGHT OF SIDE DOOR OPENINGS	WIDTH ACROSS THRESHHOLD PLATES
TTC 5000-5099 CLASS G-1	7'6" (towards sides)	7'10"	3'9"	6'6"	10'4"
TTC 5100-5105 CLASS G-2	7'6" (towards sides)	7'10"	3'9"	6'6"	10'4"
TTC 5200-5227 CLASS G-3	7'6" (towards sides)	7'10"	3'9"	6'6"	10'4"
TTC 5110-5115 CLASS G-4	7'6" (towards sides)	7'10"	3'9"	6'6"	10'4"
TTC 5300-5335 CLASS M-1	6'11" (over- head fans at ctr.)	7'2"	3'9"	6'4"	10'4"
TTC 5336-5499 CLASS H-1	6'11" (over- head fans at ctr.)	7'2"	3'9"	6'4"	10'4"
TTC 5500-5505 CLASS H-3	6'11" (over- head fans at ctr.)	7'2"	3'9"	6'4"	10'4"
TTC 5506-5575 CLASS H-2	6'11" (over- head fans at ctr.)	7'2"	3'9"	6'4"	10'4"
TTC 5576-5663 CLASS H-4	6'11" (over- head fans at ctr.)	7'2"	3'9"	6'4"	10'4"
TTC 5670-5807 CLASS H-5	6'6" (under evaporator fans at car ends)	7'2"	3'9"	6'4"	10'4"
WMATA 1000-1299	6'4"	6'10"	4'2"	6'4"	10'
WMATA 2000- 2093	6'4"	6'10"	4'2"	6'4"	10'

DIMENSIONS					
HEIGHT MAXIMUM		HEIGHT-TOP OF RAIL TO CAR FLOOR	AISLE WIDTH MIN./MAX.	MIN. RADIUS HORIZ. CURVE CAR IS DESIGNED TO NEGOTIATE	MIN. RADIUS VERTICAL CURVE
TOP OF RAIL TO TOP OF ROOF	OVER RADIO ANTENNA, FAN HOUSING, ETC.				
(light vehicle) 11'11-1/2"	(light vehicle) 11'11-1/2"	(light vehicle) 3'9"	2'7" / 5'5-1/2"	90'	2000'
(light vehicle) 11'11-1/2"	(light vehicle) 11'11-1/2"	(light vehicle) 3'9"	2'7"/ 5'5-1/2"	90'	2000'
(light vehicle) 11'11-1/2"	(light vehicle) 11'11-1/2"	(light vehicle) 3'9"	2'7"/ 5'5-1/2"	90'	2000'
(light vehicle) 11'11-1/2"	(light vehicle) 11'11-1/2"	(light vehicle) 3'9"	2'7"/ 5'5-1/2"	90'	2000'
(light vehicle) 11'11-1/2"	(light vehicle) 11'11-1/2"	3'7-1/2" (light vehicle)	2'6-1/2" / 5'3-1/2"	230'	2000'
(light vehicle) 11'11-1/2"	(light vehicle) 11'11-1/2"	(light vehicle) 3'7-1/2"	2'6-1/2"/ 5'3-1/2"	230'	2000'
(light vehicle) 11'11-1/2"	(light vehicle) 11'11-1/2"	(light vehicle) 3'7-1/2"	2'6-1/2"/ 5'3-1/2"	230'	2000'
(light vehicle) 11'11-1/2"	(light vehicle) 11'11-1/2"	(light vehicle) 3'7-1/2"	2'7"/ 5'3-1/2"	230'	2000'
(light vehicle) 11'11-1/2"	(light vehicle) 11'11-1/2"	(light vehicle) 3'7-1/2"	3'10-1/2" 5'3-1/2"	230'	2000'
(light vehicle) 11'11-1/2"	(light vehicle) 11'11-1/2"	(light vehicle) 3'7-1/2"	3'10-1/2"/ 5'3-1/2"	230'	2000'
10'10"	11'7/8"	3'4"	2'4"/ 2'10"	225'	2000'
10'10"	11'7/8"	3'4"	2'4"/ 2'10"	225'	2000'

AUTHORITY CAR NOS./ ORDER NO.	DIMENSIONS		WEIGHTS		
	TRACK GAUGE	SINGLE CAR AVG.-LT. WT. LBS.	AVG. WT. A/CAR, B/CAR	WEIGHT/ SQ. FT.	WEIGHT/ SEAT
TTC 5000-5099 CLASS G-1	4'10-7/8"	84,085 lbs. (all cars)	85,580 lbs./85, 470 lbs. (5000- 5029), 83,496 lbs./83,440 lbs. (5030-5099)	147 lbs. over carbody	1361 lbs.
TTC 5100-5105 CLASS G-2	4'10-7/8"	73,452 lbs.	73,362 lbs./ 73,542 lbs.	128 lbs. over carbody	1185 lbs.
TTC 5200-5227 CLASS G-3	4'10-7/8"	76,720	76,648 lbs./ 76,792 lbs.	134 lbs. over carbody	1237 lbs.
TTC 5110-5115 CLASS G-4	4'10-7/8"	82,776 lbs.	82,826 lbs./ 82,726 lbs.	144 lbs. over carbody	1335 lbs.
TTC 5300-5335 CLASS M-1	4'10-7/8"	59,900 lbs.	59,850 lbs. 59,950 lbs.	79 lbs. over carbody	713 lbs.
TTC 5336-5499 CLASS H-1	4'10-7/8"	56,515 lbs.	56,885 lbs./ 56,175 lbs.	74 lbs. over carbody	681 lbs.
TTC 5500-5505 CLASS H-3	4'10-7/8"	65,240 lbs.	62,200 lbs./ 68,300 lbs.	86 lbs. over carbody	786 lbs.
TTC 5506-5575 CLASS H-2	4'10-7/8"	56,425 lbs.	56,700 lbs./ 56,150 lbs.	74 lbs. over carbody	680 lbs.
TTC 5576-5663 CLASS H-4	4'10-7/8"	57,724 lbs.	57,800 lbs./ 57,650 lbs.	76 lbs. over carbody	750 lbs.
TTC 5670-5807 CLASS H-5	4'10-7/8"	5670-5803: 67,110 lbs. 5804-5807: 64,260 lbs.	5670-5803: 67,865/66,350 lbs. 5804-5807: 65,015/63,500 lbs.	88 lbs. over carbody	883 lbs.
WMATA 1000-1299	4'8-1/4"	72,000	average 72,000 lbs.	96 lbs.	900 lbs.
WMATA 2000-2093	4'8-1/4"	72,000 CAM 73,000 Chopper	avg. 72,000 lbs.- cam cars, avg. 73,000 lbs.- chopper cars	96 lbs.	900 lbs.

WEIGHTS			CAR BODY		
WEIGHT/ PASSENGER (CRUSH LOAD)	AVG. WEIGHT OF COMPLETE TRUCKS #1 TRUCK/#2 TRK	LOAD WEIGHING DEVICE	MOTORMAN'S CABS/CAR	WINDSHIELD WIPERS	BODY & FRAMING
362 lbs. (See Note 4)	18040 lbs./ 17620 lbs.	See note 17	1 See note 6	one pneumatic	Welded steel
315 lbs. (See Note 4)	18040 lbs./ 17620 lbs.	See note 17	1	one pneumatic	Aluminum
329 lbs. (See Note 4)	17848 lbs./ 17568 lbs.	See note 17	See note 7	none	Welded steel
355 lbs. (See Note 4)	17848 lbs./ 17568 lbs.	See note 17	See note 8	one pneumatic (5110, 5115 only)	Welded steel
193 lbs. (See Note 4)	12484 lbs./ 12544 lbs.	Yes	1	one pneumatic	Alum. & steel See note 15
183 lbs. (See Note 4)	11900 lbs./ 11900 lbs.	Yes	1	one pneumatic	Alum. & steel See note 15
211 lbs. (See Note 4)	12430 lbs./ 12460 lbs.	Yes	1	one pneumatic	Alum. & steel See note 15
183 lbs. (See Note 4)	12430 lbs./ 12460 lbs.	Yes	1	one pneumatic	Alum. & steel See note 15
181 lbs. (See Note 4)	13180 lbs./ 13180 lbs.	Yes	1	one pneumatic	Alum. & steel See note 15
211 lbs. (See Note 4)	13200 lbs./ 13200 lbs.	Yes	1	one pneumatic	Alum. & steel See note 15
150 lbs.	12,500 lbs./ 12,400 lbs.	Yes	1	one pneumatic	See note 1
150 lbs.	have not been designed yet	Yes	1	one pneumatic	Have not been determined yet

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY				
	ROOF CONSTRUCTION	EXTERIOR FINISH (PAINT)	COLOR SCHEME		FLOOR CONSTRUCTION
			INTERIOR	EXTERIOR	
TTC 5000-5099 CLASS G-1	Steel	Paint	Light green & cream	Red	Rubber covered plywood on dovetailed steel
TTC 5100-5105 CLASS G-2	Aluminum	Sanded aluminum	Light green & cream	Unpainted	Rubber covered plywood on dovetailed steel
TTC 5200-5227 CLASS G-3	Aluminum	Paint	Light green & cream	Red	Rubber covered plywood on dovetailed steel
TTC 5110-5115 CLASS G-4	Aluminum	Paint	Light green & cream	Red	Rubber covered plywood on dovetailed steel
TTC 5300-5335 CLASS M-1	Aluminum alloy, double skin	Brushed aluminum	Blue, yellow & grey	Unpainted	Aluminum faced plywood 1/8" rubber sheet
TTC 5336-4399 CLASS H-1	Aluminum alloy, double skin	Brushed aluminum	Beige & cream	Unpainted	Steel faced plywood w/1/8" rubber sheet
TTC 5500-5505 CLASS H-3	Aluminum alloy, double skin	Brushed aluminum	Brown, beige & orange	Unpainted	Aluminum faced plywood w/1/8" rubber sheet
TTC 5506-5575 CLASS H-2	Aluminum alloy, double skin	Brushed aluminum	Brown, beige & orange	Unpainted	Aluminum faced plywood w/1/8" rubber sheet
TTC 5576-5663 CLASS H-4	Aluminum alloy, double skin	Brushed aluminum	Brown, beige & orange	Unpainted	Aluminum faced plywood w/1/8" rubber sheet
TTC 5670-5807 CLASS H-5	Aluminum alloy, single skin	Brushed aluminum	Brown, beige & orange	Unpainted	Alum. pan, fib- erglass filled, plywood w/1/8" rubber sheet
WMATA 1000-1299	Aluminum extrusions	Brush finished aluminum extrusions	Beige-DKE <sup>TM</sup> multi-color seats	Brushed alumi- num w/brown decor sheets	3/4" plymetal w/100% wool pile on synth. backing carpet
WMATA 2000- 2093	Aluminum extrusions	Brush finish aluminum extrusions	Have not been determined yet	Unpainted	Stainless steel faced plymetal covered w/100% wool carpet



CAR BODY					
CEILING FINISH	SIDE WINDOWS, SASH		WINDOWS & DOOR GLAZING MATERIAL	INTERIOR FINISH	SEATS
	TYPE	MANUFACTURER			ARRANGEMENT
Melamine hardboard	Vertical drop	Beclawat	Toughened (laminated in cab)	Melamine hardboard, aluminum, stainless steel & paint	Cross & longitudinal
Melamine hardboard	Vertical drop	Beclawat	Toughened (laminated in cab)	"	Cross & longitudinal
Melamine hardboard	Vertical drop	Beclawat	Toughened (laminated in cab)	"	Cross & longitudinal
Melamine hardboard	Vertical drop	Beclawat	Toughened (laminated in cab)	"	Cross & longitudinal
Melamine hardboard	Fixed	not applicable	Toughened (laminated in cab)	Melamine hardboard, aluminum, stainless steel & ABS window pans	Cross & longitudinal
Melamine hardboard	Fixed	not applicable	Toughened (laminated in cab)	"	Cross & longitudinal
Melamine hardboard	Fixed	not applicable	Toughened (laminated in cab)	"	Cross & longitudinal
Melamine hardboard	Fixed	not applicable	Toughened (laminated in cab)	"	Cross & longitudinal
Melamine hardboard	Fixed	not applicable	Toughened (laminated in cab)	"	Cross & longitudinal
Melamine hardboard	Fixed	not applicable	" <i>See note 12</i>	"	Cross & longitudinal
Pebble textured DKE <sup>TM</sup> material	Double fixed breather	O.M. Edwards Co.	Laminated inner & acrylic outer	DKE material Dupont <sup>TM</sup>	Cross longitudinal Pedestal & Cantilever Support
Have not been determined yet	Have not been designed yet	Have not been designed as yet	Have not been designed yet	Melamine and melamine faced aluminum	Cross & longitudinal

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY				
	SEATS				
	FRAMING	COVERING MATERIAL		COLOR	
ORIGINAL		PRESENT	ORIGINAL	PRESENT	
TTC 5000-5099 CLASS G-1	Cast aluminum, box frame re- movable	Vinyl covered (conv. to foam neoprene)	Vinyl covered (conv. to foam neoprene)	Maroon	Maroon
TTC 4100-5105 CLASS G-2	Cast aluminum, box frame re- movable	Vinyl covered (conv. to foam neoprene)	Vinyl covered (conv. to foam neoprene)	Maroon	Maroon
TTC 5200-5227 CLASS G-3	Cast aluminum, box frame re- movable	Vinyl covered (conv. to foam neoprene)	Vinyl covered (conv. to foam neoprene)	Maroon	Maroon
TTC 5110-5115 CLASS G-4	Cast aluminum, box frame re- movable	Vinyl covered (conv. to foam neoprene)	Vinyl covered (conv. to foam neoprene)	Maroon	Maroon
TTC 5300-5335 CLASS M-1	Fabricated aluminum	Vinyl covered (conv. to foam neoprene)	Vinyl covered (conv. to foam neoprene)	Blue	Blue
TTC 5336-5499 CLASS H-1	Fabricated stain less steel & steel	Vinyl covered (conv. to foam neoprene)	Vinyl covered (conv. to foam neoprene)	Blue & grey	Blue & grey
TTC 5500-5505 CLASS H-3	Fabricated stain less steel & steel	Vinyl covered (conv. to foam neoprene)	Vinyl covered (conv. to foam neoprene)	Orange & beige	Orange & beige
TTC 5506-5575 CLASS H-2	Fabricated stain less steel & steel	Vinyl covered (conv. to foam neoprene)	Vinyl covered (conv. to foam neoprene)	Orange & beige	Orange & beige
TTC 5576-5663 CLASS H-4	Fabricated stain less steel & steel	Vinyl covered foam neoprene	Vinyl covered foam neoprene	Orange & beige	Orange & beige
TTC 5670-5807 CLASS H-5	Fabricated steel (modular)	Vinyl covered foam neoprene	Vinyl covered foam neoprene	Coral	Coral
WMATA 1000-1299	Cast aluminum w/DKE™ trim	Self-skinning polyurethane	Vinyl covered neoprene	Orange, yellow and brown	Orange, yellow and brown
WMATA 2000-2093	Cast aluminum	Vinyl covered neoprene	Vinyl covered neoprene	Have not been selected yet	Have not been selected yet

CAR BODY					
SEATS	CEILING HANDHOLDS TYPE/NO./CAR	NO. OF SEAT HANDHOLDS	CEILING TO FLOOR STANCHIONS PER CAR	SIDE DOOR OPENINGS/CAR	NO. OF SIDE DOOR PANELS PER CAR
MANUFACTURER					
GRC&W	Auster spring 24	4/car	12	6	12
GRC&W	Auster spring 24	4/car	12	6	12
GRC&W	Auster spring 24	4/car	12	6	12
GRC&W	Auster spring 24	4/car	12	6	12
MLW	Handrails/ 16 over longitudinal seats	none	27 at doors & transverse seats	8	16
Heywood-Wakefield	Handrails/ 16 over longitudinal seats	none	27 at doors & transverse seats	8	16
Heywood-Wakefield	Handrails/ 16 over longitudinal seats	none	27 at doors & transverse seats	8	16
Heywood-Wakefield	Handrails/ 16 over longitudinal seats	none	27 at doors & transverse seats	8	16
Otaco	Handrails/ 16 over longitudinal	none	29 at doors, transverse seats, and on car center line	8	16
H-SCL Otaco	Handrails/ 16 over longitudinal seats	none	"	8	16
Frame Teperman Cushions Coach & Car	long bars, center line/none	on top of seat backs of all transverse seats	16 total: 4 at each doorway & 4 dist. center of car	6	12
Undetermined yet	Still in design stage	Still in design stage	Still in design stage	6	12

AUTHORITY CAR NOS./ ORDER NO.	CAR BODY		COUPLER & DRAFT GEAR		
	DOOR FABRICATION	MANUFACTURER OF DOORS & HANGERS	TYPE COUPLER	COUPLING AT INTERMEDIATE END	DRAFT GEAR
TTC 5000-5099 CLASS G-1	Two leaf slid- ing into poc- kets	Light Alloys Ltd.	G.D. Peters Wedglock	Semi-permanent coupling draw- bar	<i>See note 14</i>
TTC 5100-5105 CLASS G-2	Two leaf slid- ing into poc- kets	Light Alloys Ltd.	G.D. Peters Wedglock	Semi-permanent coupling draw- bar	<i>See note 14</i>
TTC 5200-5227 CLASS G-3	Two leaf slid- ing into poc- kets	Light Alloys Ltd.	Ward, non-auto- matic <i>See note</i> 8	Semi-permanent coupling draw- bar	<i>See note 14</i>
TTC 5110-5115 CLASS G-4	Two leaf slid- ing into poc- kets	Light Alloys Ltd.	Ward, non-auto- matic <i>See note</i> 8	Semi-permanent coupling draw- bar	<i>See note 14</i>
TTC 5300-5335 CLASS M-1	Two leaf slid- ing into poc- kets	Light Alloys Ltd.	Canadian Ohio Brass Form 29 automatic	Canadian Ohio Brass Form 29 Manual	<i>See note 16</i>
TTC 5336-5499 CLASS H-1	Two leaf slid- ing into poc- kets	Light Alloys Ltd.	100-COB Form 29; 64-Waugh RT101 auto	100-COB Form 29; 64-Waugh RT101 Manual	<i>See note 16</i>
TTC 5500-5505 CLASS H-3	Two leaf slid- ing into poc- kets	Light Alloys Ltd.	Canadian Ohio Brass Form 29	Canadian Ohio Brass Form 29 Manual	<i>See note 16</i>
TTC 5506-5575 CLASS H-2	Two leaf slid- ing into poc- kets	Light Alloys Ltd.	Canadian Ohio Brass Form 29	Canadian Ohio Brass Form 29 Manual	<i>See note 16</i>
TTC 5576-5663 CLASS H-4	Two leaf slid- ing into poc- kets	Light Alloys Ltd.	Canadian Ohio Brass Form 29	Canadian Ohio Brass Form 29 Manual	<i>See note 16</i>
TTC 5670-5807 CLASS H-5	Two leaf slid- ing into poc- kets	H-S.C. Ltd.	Canadian Ohio Brass Form 29	Canadian Ohio Brass Form 29 Manual	<i>See note 16</i>
WMATA 1000-1299	Leaf, sliding into pockets	Champion Inter- national & Rohr	Ohio Brass	Semi-permanent drawbar & an- chorage between A&B cars	Double acting, rubber cushion
WMATA 2000-2093	Leaf, sliding into pockets	Faiveley	Ohio Brass	mechanical coupler between A&B cars	Double acting, rubber cushion

COUPLER & DRAFT GEAR MAXIMUM HORIZONTAL BUFF	MISCELLANEOUS CAR BODY ITEMS			DOOR OPERATION & CONTROL	
	SIDE & END DESTINATION SIGN MANUFACTURER	CURTAIN MATERIAL	TYPE FIRE EXTINGUISHER	LOCATION OF DOOR CONTROL DEVICE	DOOR OPERATORS NO. AND TYPE/CAR
200,000 lbs.	one illuminated at cab end: Beclawat	Fabric	1 Ansul ABC 2-3/4 lbs.	In cab	12/Air
200,000 lbs.	one illuminated at cab end: Beclawat	Fabric	1 Ansul ABC 2-3/4 lbs.	In cab	12/Air
200,000 lbs.	none	none	1 Ansul ABC 2-3/4 lbs.	In cab	12/Air
200,000 lbs.	As for G-2 on 5110, 5115 only	As for G-2 on 5110, 5115 only	1 Ansul ABC 2-3/4 lbs.	In cab	12/Air
115,000 lbs.	One illuminated at cab end: Beclawat	Fabric	1 Ansul ABC 2-3/4 lbs.	In cab and across from cab	8/Electric
115,000 lbs.	One illuminated at cab end: Beclawat	Fabric	1 Ansul ABC 2-3/4 lbs.	In cab and across from cab	8/Electric
115,000 lbs.	One illuminated at cab end: (Beclawat)	Fabric	1 Ansul ABC 2-3/4 lbs.	In cab and across from cab	8/Electric
115,000 lbs.	One illuminated at cab end: (Beclawat)	Fabric	1 Ansul ABC 2-3/4 lbs.	In cab and across from cab	8/Electric
115,000 lbs.	One illuminated at cab end: Beclawat	Fabric	1 Ansul ABC 2-3/4 lbs.	In cab and across from cab	8/Electric
115,000 lbs.	One illuminated at cab end: Beclawat	Fabric	1 Ansul ABC 2-3/4 lbs.	In cab and across from cab	8/Electric
200,000 lbs.	Teleweld	Mylar	10 lb. min. Dry powder	Motorman's cab and opposite side for manual operation. Relay logic for ATO operation.	12/Electric
300,000 lbs.	Luminator	Electronic Flip Dot	Unknown at this time	"	12/Electric

AUTHORITY CAR NOS./ ORDER NO.	DOOR OPERATION & CONTROL	HEATING, COOLING & VENTILATION SYSTEMS			
	DOOR CONTROL DEVICE	HEATING			
		MANUFACTURER	LOCATION	TOTAL KW/CAR	UNDER SEAT WATTAGE
TTC 5000-5099 CLASS G-1	Push button trainline control	Vapor	Underseat, con- vection	20 KW (plus 2KW cab)	20 KW under seat
TTC 5100-5105 CLASS G-2	Push button trainline control	Vapor	Underseat, con- vection	20 KW (plus 2KW cab)	20 KW under seat
TTC 5200-5227 CLASS G-3	Push button trainline control	Vapor	Underseat, con- vection	20 KW (plus 2KW cab)	20 KW under seat
TTC 5110-5115 CLASS G-4	Push button trainline control	Vapor	Underseat, con- vection	20 KW (plus 2KW cab)	20 KW under seat
TTC 5300-5335 CLASS M-1	Push button trainline control	not applicable	Waste heat re- covery & aux. heat in plenum	24 KW (plus 2KW cab)	not applicable
TTC 5336-5499 CLASS H-1	Push button trainline control	not applicable	Waste heat re- covery & aux. heat in plenum	24 KW (plus 1.5KW cab)	not applicable
TTC 5500-5505 CLASS H-3	Push button trainline control	not applicable	Plenum heater	24 KW (plus 1.5KW cab)	not applicable
TTC 5506-5575 CLASS H-2	Push button trainline control	not applicable	Waste heat re- covery & aux. heat in plenum	24 KW (plus 1.5KW cab)	not applicable
TTC 5576-5663 CLASS H-4	Push button trainline control	not applicable	Waste heat re- covery & aux. heat in plenum	24 KW (plus 1.5KW cab)	not applicable
TTC 5670-5807 CLASS H-5	Push button trainline control	Vapor	Sidewall, con- vection	31.5 KW (Plus 1.5 KW cab)	31.5KW sidewall
WMATA 1000-1299	Vapor located in side doors pockets	Trane	Overhead & at floor	at 700V, 28.4KW at overhead 21.6KW floor	21.6 KW at 700V dc
WMATA 2000-2093	Faiveley	Safety Elec.	Overhead & at floor	at 700V, 28.4KW at overhead 21.6KW floor	21.6 KW at 700V dc

HEATING, COOLING & VENTILATION SYSTEMS					
HEATING	CONTROLS		VENTILATION		
IN PLENUM WATTAGE	AUTOMATIC HTNG. & VENTILATING SYSTEM	NO. FANS/CAR & MANUFACTURER	TYPE FAN	VOLTAGE, SPEED, OUTPUT	FAN SPEED STEPS
not applicable	Thermostat	none	none	not applicable	not applicable
not applicable	Thermostat	none	none	not applicable	not applicable
not applicable	Thermostat	none	none	not applicable	not applicable
not applicable	Thermostat	none	none	not applicable	not applicable
24 KW under-floor aux. heat	Thermostat	5-23" Sheldon Eng. axiflow fans	axiflow	15,000 cfm @ 580 V per car	multi-step
24 KW under-floor aux. heat	Thermostat	5-23" Chicago Blower axiflow fans	axiflow	15,000 cfm @ 580 V per car	4
24 KW under-floor	Thermostat	5-23" Chicago Blower axiflow fans	axiflow	15,000 cfm @ 580 V per car	4
24 KW under-floor aux. heat	Thermostat	5-23" Chicago Blower axiflow fans	axiflow	15,000 cfm @ 580 V per car	4
24 KW under-floor aux. heat	Thermostat	5-23" Sheldon Eng. axiflow fans	axiflow	15,000 cfm @ 580 V per car	4
none	Thermostat	none	none	not applicable	not applicable
28.4 KW at 700V	Trane Company	2 double ended fans, Trane Co.	Centrifugal	700V dc, 2460 rpm, 3700 cfm	one
28.4 KW at 700V	Safety Elec.	2 double ended fans, Safety Elec.	Unknown at this time	Unknown at this time	Unknown at this time

AUTHORITY CAR NOS. / ORDER NO.	HEATING, COOLING AND VENTILATION SYSTEMS				
	VENTILATION	COOLING SYSTEM			
	TYPE AIR DIFFUSER	AIR CONDITIONED	MANUFACTURER	TYPE	CAPACITY
TTC 500-5099 CLASS G-1	not applicable	no	not applicable	not applicable	not applicable
TTC 5100-5105 CLASS G-2	not applicable	no	not applicable	not applicable	not applicable
TTC 5200-5227 CLASS G-3	not applicable	no	not applicable	not applicable	not applicable
TTC 5110-5115 CLASS G-4	not applicable	no	not applicable	not applicable	not applicable
TTC 5300-5335 CLASS M-1	anular	no	not applicable	not applicable	not applicable
TTC 5336-5499 CLASS H-1	anular	no	not applicable	not applicable	not applicable
TTC 5500-5505 CLASS H-3	anular	no	not applicable	not applicable	not applicable
TTC 5506-5575 CLASS H-2	anular	no	not applicable	not applicable	not applicable
TTC 5576-5663 CLASS H-4	anular	no	not applicable	not applicable	not applicable
TTC 5670-5807 CLASS H-5	not applicable	yes	Stone-Platt Canada	Vapor cycle	12 tons
WMATA 1000-1299	overhead plenum	yes	Trane Company	Vapor cycle	16 tons
WMATA 2000-2093	overhead plenum	yes	Safety Elec.	vapor cycle	16 tons



HEATING, COOLING & VENTILATION SYSTEMS			LIGHTING		
COOLING SYSTEM			TYPE LAMP	NO. OF LAMPS/CAR	OVERHEAD LIGHT FIXTURE TYPE
AIR VOLUME	HVAC CONTROL	REFRIGERANT			
not applicable	not applicable	not applicable	Incandescent	47	Ceiling-recessed, protruding convex lens
not applicable	not applicable	not applicable	Incandescent	47	"
not applicable	not applicable	not applicable	Incandescent	47	"
not applicable	not applicable	not applicable	Incandescent	47	"
not applicable	not applicable	not applicable	Fluorescent	24	Continuous strip, non-recessed
not applicable	not applicable	not applicable	Fluorescent	23	Cove recessed for back-lit advertising
not applicable	not applicable	not applicable	Fluorescent	23	"
not applicable	not applicable	not applicable	Fluorescent	23	"
not applicable	not applicable	not applicable	Fluorescent	23	"
3600 cfm (not less than 20% fresh air)	Automatic	Freon <sup>TM</sup>	Fluorescent	23	"
3700 cfm at 700V dc	Trane solid state	R-22	Fluorescent	22: 40 watts 14: 30 watts 4: 20 watts	Polycarbonate lens
Unknown at this time	Safety Elec. solid state	R-22	Fluorescent	Unknown at this time	Polycarbonate lens

AUTHORITY CAR NOS./ ORDER NO.	LIGHTING				
	SPECIFIED INTENSITY AT READING PLANE	LIGHTING POWER SUPPLY	MAIN LIGHTS POLARITY REV. TIMER	HEAD LIGHTS	EMERGENCY LIGHT/CAR
TTC 5000-5099 CLASS G-1	not available	600V dc	not applicable	none	6 in regu- lar fixtures
TTC 5100-5105 CLASS G-2	not available	600V dc	not applicable	none	6 in regular fix- tures
TTC 5200-5227 CLASS G-3	not available	600V dc	not applicable	none	6 in regular fix- tures
TTC 5110-5115 CLASS G-4	not available	600V dc	not applicable	none	6 in regular fix- tures
TTC 5300-5335 CLASS M-1	30 foot candles on plane 33" above flr., 15" in from ctr. line; 40 foot	525V - 400 Hz motor-alternator set, on "A" car	not applicable	none	10 incandescent lamps, 8 regu- lar fix. & 2 outside
TTC 5336-5499 CLASS H-1	candles at sides of car "	"	not applicable	none	10 incandescent lamps, 8 regu- lar fix. & 2 outside
TTC 5500-5505 CLASS H-3	"	"	not applicable	none	10 incandescent lamps, 8 regu- lar fix. & 2 outside
TTC 5506-5575 CLASS H-2	"	"	not applicable	none	10 incandescent lamps, 8 regu- lar fix. & 2 outside
TTC 5576-5663 CLASS H-4	"	"	not applicable	none	10 incandescent lamps, 8 regu- lar fix. & 2 outside
TTC 5670-5807 CLASS H-5	"	Inverter ballast off battery	not applicable	none	4 fluorescent in reg. fixt. & 2 incandescent outside
WMATA 1000-1299	35 foot candles	individual inverter ballast	not applicable	2-200 watt sealed beams	3-40 watt, 1/ea. alt. doorway fed directly by battery
WMATA 2000-2093	35 foot candles	individual inverter ballast	not applicable	2-200 watt sealed beams	"

HEATING, COOLING & VENTILATION SYSTEMS			LIGHTING		
COOLING SYSTEM			TYPE LAMP	NO. OF LAMPS/CAR	OVERHEAD LIGHT FIXTURE TYPE
AIR VOLUME	HVAC CONTROL	REFRIGERANT			
not applicable	not applicable	not applicable	Incandescent	47	Ceiling-recessed, protruding convex lens
not applicable	not applicable	not applicable	Incandescent	47	"
not applicable	not applicable	not applicable	Incandescent	47	"
not applicable	not applicable	not applicable	Incandescent	47	"
not applicable	not applicable	not applicable	Fluorescent	24	Continuous strip, non-recessed
not applicable	not applicable	not applicable	Fluorescent	23	Cove recessed for back-lit advertising
not applicable	not applicable	not applicable	Fluorescent	23	"
not applicable	not applicable	not applicable	Fluorescent	23	"
not applicable	not applicable	not applicable	Fluorescent	23	"
3600 cfm (not less than 20% fresh air)	Automatic	Freon <sup>TM</sup>	Fluorescent	23	"
3700 cfm at 700V dc	Trane solid state	R-22	Fluorescent	22: 40 watts 14: 30 watts 4: 20 watts	Polycarbonate lens
Unknown at this time	Safety Elec. solid state	R-22	Fluorescent	Unknown at this time	Polycarbonate lens

AUTHORITY CAR NOS./ ORDER NO.	LIGHTING				
	SPECIFIED INTENSITY AT READING PLANE	LIGHTING POWER SUPPLY	MAIN LIGHTS POLARITY REV. TIMER	HEAD LIGHTS	EMERGENCY LIGHT/CAR
TTC 5000-5099 CLASS G-1	not available	600V dc	not applicable	none	6 in regu- lar fixtures
TTC 5100-5105 CLASS G-2	not available	600V dc	not applicable	none	6 in regular fix- tures
TTC 5200-5227 CLASS G-3	not available	600V dc	not applicable	none	6 in regular fix- tures
TTC 5110-5115 CLASS G-4	not available	600V dc	not applicable	none	6 in regular fix- tures
TTC 5300-5335 CLASS M-1	30 foot candles on plane 33" above flr., 15" in from ctr. line; 40 foot	525V - 400 Hz motor-alternator set, on "A" car	not applicable	none	10 incandescent lamps, 8 regu- lar fix. & 2 outside
TTC 5336-5499 CLASS H-1	candles at sides of car "	"	not applicable	none	10 incandescent lamps, 8 regu- lar fix. & 2 outside
TTC 5500-5505 CLASS H-3	"	"	not applicable	none	10 incandescent lamps, 8 regu- lar fix. & 2 outside
TTC 5506-5575 CLASS H-2	"	"	not applicable	none	10 incandescent lamps, 8 regu- lar fix. & 2 outside
TTC 5576-5663 CLASS H-4	"	"	not applicable	none	10 incandescent lamps, 8 regu- lar fix. & 2 outside
TTC 5670-5807 CLASS H-5	"	Inverter ballast off battery	not applicable	none	4 fluorescent in reg. fixt. & 2 incandescent outside
WMATA 1000-1299	35 foot candles	individual inverter ballast	not applicable	2-200 watt sealed beams	3-40 watt, 1/ea. alt. doorway fed directly by battery
WMATA 2000-2093	35 foot candles	individual inverter ballast	not applicable	2-200 watt sealed beams	"

HEATING, COOLING & VENTILATION SYSTEMS			LIGHTING		
COOLING SYSTEM			TYPE LAMP	NO. OF LAMPS/CAR	OVERHEAD LIGHT FIXTURE TYPE
AIR VOLUME	HVAC CONTROL	REFRIGERANT			
not applicable	not applicable	not applicable	Incandescent	47	Ceiling-recessed, protruding convex lens
not applicable	not applicable	not applicable	Incandescent	47	"
not applicable	not applicable	not applicable	Incandescent	47	"
not applicable	not applicable	not applicable	Incandescent	47	"
not applicable	not applicable	not applicable	Fluorescent	24	Continuous strip, non-recessed
not applicable	not applicable	not applicable	Fluorescent	23	Cove recessed for back-lit advertising
not applicable	not applicable	not applicable	Fluorescent	23	"
not applicable	not applicable	not applicable	Fluorescent	23	"
not applicable	not applicable	not applicable	Fluorescent	23	"
3600 cfm (not less than 20% fresh air)	Automatic	Freon <sup>TM</sup>	Fluorescent	23	"
3700 cfm at 700V dc	Trane solid state	R-22	Fluorescent	22: 40 watts 14: 30 watts 4: 20 watts	Polycarbonate lens
Unknown at this time	Safety Elec. solid state	R-22	Fluorescent	Unknown at this time	Polycarbonate lens

AUTHORITY CAR NOS./ ORDER NO.	LIGHTING				
	SPECIFIED INTENSITY AT READING PLANE	LIGHTING POWER SUPPLY	MAIN LIGHTS POLARITY REV. TIMER	HEAD LIGHTS	EMERGENCY LIGHT/CAR
TTC 5000-5099 CLASS G-1	not available	600V dc	not applicable	none	6 in regu- lar fixtures
TTC 5100-5105 CLASS G-2	not available	600V dc	not applicable	none	6 in regular fix- tures
TTC 5200-5227 CLASS G-3	not available	600V dc	not applicable	none	6 in regular fix- tures
TTC 5110-5115 CLASS G-4	not available	600V dc	not applicable	none	6 in regular fix- tures
TTC 5300-5335 CLASS M-1	30 foot candles on plane 33" above flr., 15" in from ctr. line; 40 foot	525V - 400 Hz motor-alternator set, on "A" car	not applicable	none	10 incandescent lamps, 8 regu- lar fix. & 2 outside
TTC 5336-5499 CLASS H-1	candles at sides of car "	"	not applicable	none	10 incandescent lamps, 8 regu- lar fix. & 2 outside
TTC 5500-5505 CLASS H-3	"	"	not applicable	none	10 incandescent lamps, 8 regu- lar fix. & 2 outside
TTC 5506-5575 CLASS H-2	"	"	not applicable	none	10 incandescent lamps, 8 regu- lar fix. & 2 outside
TTC 5576-5663 CLASS H-4	"	"	not applicable	none	10 incandescent lamps, 8 regu- lar fix. & 2 outside
TTC 5670-5807 CLASS H-5	"	Inverter ballast off battery	not applicable	none	4 fluorescent in reg. fixt. & 2 incandescent outside
WMATA 1000-1299	35 foot candles	individual inverter ballast	not applicable	2-200 watt sealed beams	3-40 watt, 1/ea. alt. doorway fed directly by battery
WMATA 2000-2093	35 foot candles	individual inverter ballast	not applicable	2-200 watt sealed beams	"

MISC. ELECTRICAL EQUIPMENT					
STORAGE BATTERY					
TYPE	AMP/HRS.	COMPARTMENT	BATTERY EQUIPPED CAR	BATTERY CHARGER	CURRENT COLLECTION
lead acid 23 cell	170 @ 20 hr. rate	Wood and steel	Even numbers ("A" car)	Motor generator set	Third rail shoes
lead acid 23 cell	170 @ 20 hr. rate	Wood and steel	Even numbers ("A" car)	Motor generator set	Third rail shoes
lead acid 23 cell	170 @ 20 hr. rate	Wood and steel	Even numbers ("A" car)	Motor generator set	Third rail shoes
lead acid 23 cell	170 @ 20 hr. rate	Wood and steel	Even numbers ("A" car)	Motor generator set	Third rail shoes
lead acid 16 cell	140 @ 20 hr. rate	Wood and steel	Even numbers ("A" car)	Motor alter- nator set	Third rail shoes
Nickel-cadmium 24 cell	100 @ 8 hr. rate	Wood and steel	Even numbers ("A" car)	Motor alter- nator set	Third rail shoes
Nickel-cadmium 24 cell	110 AH @ 8 hr. rate	Wood and steel	Even numbers ("A" car)	Motor alter- nator set	Third rail shoes
Nickel-cadmium 24 cell	110 @ 8 hr. rate	Wood and steel	Even numbers ("A" car)	Motor alter- nator set	Third rail shoes
Nickel-cadmium 24 cell	110 @ 8 hr. rate	Wood and steel	Even numbers ("A" car)	Motor alter- nator set	Third rail shoes
Nickel-cadmium 24 cell	132 @ 20 hr. rate	Wood and steel	Even numbers ("A" car)	Motor alterna- tor set (con- trolled recti- fication)	Third rail shoes
Nickel cadmium	240 @ 8 hr. rate	Steel w/fire resistant lining	all odd numbered B cars	Motor Genera- tor	Third rail shoes
Nickel-cadmium	240 @ 8 hr. rate	Steel w/fire resistant lining	all odd numbered B cars	DC to DC converter	Third rail shoes

AUTHORITY CAR NOS./ ORDER NO.	MISC. ELECTRICAL EQUIPMENT				TRACTION MOTOR
	AUXILIARY POWER SUPPLY				MFG. AND MODEL
	NO./CAR	CAPACITY	INPUT/OUTPUT	TYPE	
TTC 5000-5099 CLASS G-1	one (A car)	4 KW	580V dc/51 V dc	Motor Generator rotary	Crompton Par- kinson C-95
TTC 5100-5105 CLASS G-2	one (A car)	4 KW	580V dc/51V dc	Motor Generator rotary	Crompton Par- kinson C-95
TTC 5200-5227 CLASS G-3	one (A car)	4 KW	580V dc/51V dc	Motor Generator rotary	Crompton Par- kinson C-95
TTC 5110-5115 CLASS G-4	one (A car)	4 KW	580V dc/51V dc	Motor Generator rotary	Crompton Par- kinson C-95
TTC 5300-5335 CLASS M-1	one (A car)	Dual output 2.7 KW & 2.5 KW	580V dc/525V, 2 $\phi$ , 400 Hz, & 3 $\phi$ rectified at 36V dc	Motor Alter- nator rotary	CGE 1251PA1
TTC 5336-5499 CLASS H-1	one (A car)	Dual output 2.7 KW & 2.5 KW	"	Motor Alter- nator rotary	ACEC ES548
TTC 5500-5505 CLASS H-3	one (A car)	Dual output 2.7 KW & 2.5 KW	"	Motor Alter- nator rotary	Brush Electric TMC-38-42
TTC 5506-5575 CLASS H-2	one (A car)	Dual output 2.7 KW & 2.5 KW	"	Motor Alter- nator rotary	Brush Electric TMC-38-42
TTC 5576-5663 CLASS H-4	one (A car)	Dual output 2.7 KW & 2.5 KW	"	Motor Alter- nator rotary	Brush Electric TMC-38-42
TTC 5670-5807 CLASS H-5	one (each car)	45 KVA	580V dc, 208V 3 $\phi$ 60 Hz	Motor Alter- nator rotary	Garrett 2000794-1
WMATA 1000-1299	1/pair (B-car)	13 KVA	700V dc, 37.5V dc nominal	Safety Elect. Motor Genera- tor rotary	Westinghouse 1462 B
WMATA 2000-2093	1/pair (B-car)	14 KVA	700V d.c., 37.5V d.c. nominal	Westinghouse static convert- er	Westinghouse Electric 1462



TRACTION MOTOR					
NO./CAR	HORSEPOWER	MOTOR MOUNTING	MOTOR BEARINGS	TRACTION GEARING	TRACTION GEAR RATIO
4	68	On truck frame, resilient	Roller-PE Roller-CE	David Brown right angle	7.43:1 (52/7)
4	68	On truck frame, resilient	Roller-PE Roller-CE	David Brown right angle	7.43:1 (52/7)
4	68	On truck frame, resilient	Roller-PE Roller-CE	David Brown right angle	7.43:1 (52/7)
4	68	On truck frame, resilient	Roller-PE Roller-CE	David Brown right angle	7.43:1 (52/7)
4	120	On truck frame, solid	Roller-PE Ball-CE	CGE & Dana right angle	GE-7.14:1 (50/7) Dana-7.11:1 (64/9)
4	121	On truck frame, solid	Ball-PE Roller-CE	Safety Electric, right angle (Dana design)	7.11:1 (64/9)
4	121	On truck frame, resilient	Roller-PE Ball-CE	Safety Electric, right angle (Dana design)	7.11:1 (64/9)
4	121	On truck frame, resilient	Roller-PE Ball-CE	Safety Electric, right angle (Dana design)	7.11:1 (64/9)
4	116	On truck frame, resilient	Roller-PE Ball-CE	Safety Electric, right angle (Dana design)	7.11:1 (64/9)
4	126	On truck frame, resilient	Roller-PE Ball-CE	Safety Electric, right angle (Dana design)	7.11:1 (64/9)
4	175	Resiliently mounted to trucks	Roller-pinion end, Ball-comm. end	Westinghouse parallel	5.414:1
4	175	On truck frame, resilient	"	Westinghouse parallel drive	Unknown at this time

AUTHORITY CAR NOS./ ORDER NO.	TRACTION MOTOR				
	MASTER CONTROLLER MFG./TYPE	CONTROL GROUP MFG.	TYPE PROPULSION CONTROL		WHEEL SLIP CONTROL
TTC 5000-5099 CLASS G-1	BTH C707B	British Thom- son Houston PCM 14A1	PCM camshaft		None
TTC 5100-5105 CLASS G-2	BTH C707B	British Thomson Houston PCM 14A1	PCM camshaft		None
TTC 5200-5227 CLASS G-3	none <i>See note 7</i>	British Thomson Houston PCM 14A1	PCM camshaft		None
TTC 5110-5115 CLASS G-4	BTH C707B <i>See note 8</i>	British Thom- son Houston <i>See note 8</i> PCM 14A1	PCM camshaft <i>See note 8</i>		None
TTC 5300-5335 CLASS M-1	CGE 17KC76CQ2	17KG192E1 CGE	SCM camshaft with rheostat braking		None
TTC 5336-5499 CLASS H-1	WH B&S Co. West- code single handle (power & brake) D75341	XCA-248-LC CAN·WEST	camshaft with rheostat braking		None
TTC 5500-5505 CLASS H-3	"	Hitachi	chopper		None
TTC 5506-5575 CLASS H-2	"	CAN·WEST XCA-248-LC	camshaft with rheostat brak- ing		None
TTC 5576-5663 CLASS H-4	"	XCA-248-LD CAN·WEST	camshaft with rheostat brak- ing		None
TTC 5670-5807 CLASS H-5	WABCO Single handle (power and brake)	Garrett MFG LTD	chopper		None
WMATA 1000-1299	Westinghouse Manual Single handle	Westinghouse Electric	advanced cam control		Yes
WMATA 2000-2093	"	Westinghouse Electric	76-advanced cam control 18-chopper con- trol		Yes

TRUCKS & SUSPENSIONS					
SIDE BEARINGS	ANTI-FRICTION JOURNAL BEARINGS MFG.	SPRINGING		TYPE TRUCKS	WEIGHT/ TRUCK
		PRIMARY	SECONDARY		
Unloaded, roller type	Timken	Semi-elliptic at journal	Steel coil at bolster	Fabricated truck, outboard journals	18,040 lbs./ 17,620 lbs.
Unloaded, roller type	Timken	Semi-elliptic at journal	Steel coil at bolster	Fabricated truck, outboard journals	18,040 lbs./ 17,620 lbs.
Unloaded, roller type	Timken	Semi-elliptic at journal	Steel coil at bolster	Fabricated truck, outboard journals	17,848 lbs./ 17,568 lbs.
Unloaded, roller type	Timken	Semi-elliptic at journal	Steel coil at bolster	Fabricated truck, outboard journals	17,848 lbs./ 17,568 lbs.
Partially loaded, cast iron	SKF	2 steel coil at journal	Air & steel coil at bolster	Cast truck, in-board journals	12,484 lbs./ 12,544 lbs.
Partially loaded, cast iron	Timken	2 steel coil at journal	Air & steel coil at bolster	Cast truck, in-board journals	11,900 lbs./ 11,900 lbs.
Partially loaded, cast iron	Timken	2 steel coil at journal	Air & steel coil at bolster	Cast truck, in-board journals	12,540 lbs./ 12,460 lbs.
Partially loaded, cast iron	Timken	2 steel coil at journal	Air & steel coil at bolster	Cast truck, in-board journals	12,540 lbs./ 12,460 lbs.
Fully loaded; Rulon/stainless steel	Timken	Rubber Chevron at journal	Air & Steel coil at bolster	Cast truck, in-board journals	13,180 lbs./ 13,180 lbs.
" <i>See note 21</i>	Timken <i>See note 21</i>	Rubber Chevron at journal	Air & steel coil at bolster <i>See Note 21</i>	Cast truck, in-board journals <i>See note 21</i>	13,200 lbs./ 13,200 lbs. <i>See Note 21</i>
Fully loaded: Rulon/stainless steel	Timken	Chevron Rubber	<i>See note 3</i>	Cast Steel Articulated Frame	12,500 lbs.
Unknown at this time	Unknown at this time	Chevron Rubber	Air springs	Unknown at this time	Unknown at this time

AUTHORITY CAR NOS./ ORDER NO.	TRUCKS & SUSPENSIONS				PERFORMANCE
	MANUFACTURER	TRUCK MODEL NUMBER	WHEEL BASE	WHEEL DIAMETER	ACCELERATION RATE
TTC 5000-5099 CLASS G-1	GRC&W Co.	#35183-1	7'	30"	2.3 mphps (to 12.5 mph)
TTC 5100-5105 CLASS G-2	GRC&W Co.	#35183-1	7'	30"	2.3 mphps (to 12.5 mph)
TTC 5200-5227 CLASS G-3	GRC&W Co.	#35183-1	7'	30"	2.3 mphps (to 12.5 mph)
TTC 5110-5115 CLASS G-4	GRC&W Co.	#35183-1	7'	30"	2.3 mphps (to 12.5 mph)
TTC 5300-5335 CLASS M-1	Dominion Found- ries & Steel Co.	DRT-1	6'10"	28"	2.5 mphps (to 20 mph) <i>See note 18</i>
TTC 5336-5499 CLASS H-1	Dominion Found- ries & Steel Co.	DRT-2	6'10"	28"	2.5 mphps (to 20 mph) <i>See note 18</i>
TTC 5500-5505 CLASS H-3	Dominion Found- ries & Steel Co.	Mark IV	6'10"	28"	2.5 mphps (to 20 mph) <i>See note 18</i>
TTC 5506-5575 CLASS H-2	Dominion Found- ries & Steel Co.	Mark IA	6'10"	28"	2.5 mphps (to 20 mph) <i>See note 18</i>
TTC 5576-5663 CLASS H-4	Dominion Found- ries & Steel Co.	Mark IV	6'10"	28"	2.5 mphps (to 20 mph) <i>See note 18</i>
TTC 5670-5807 CLASS H-5	Dominion Found- ries & Steel Co. <i>See note 21</i>	Mark VI <i>See note 21</i>	6'10"	28"	2.5 mphps (to 20 mph) <i>See note 18</i>
WMATA 1000-1299	Rockwell Inter- national	301-0083-001 2/car	7'	28"	3.0 mphps
WMATA 2000-2093	Breda	Unknown at this time	7'	28"	3.0 mphps

PERFORMANCE				BRAKING	
MAXIMUM OPERATING SPEED	BALANCING SPEED	BRAKING		FRICTION BRAKE ARRANGEMENT	TYPE BRAKING
		SERVICE	EMERGENCY		
		MIN./MAX.			
55 mph	(light vehicle) 47 mph	0.5 service/ 2.8 mphps	3.3 mphps	WB&S Co. with automatic slack adjustor	EP & service automatic
55 mph	(light vehicle) 47 mph	0.5 service/ 2.8 mphps	3.3 mphps	WB&S Co. with automatic slack adjustor	EP & service automatic
55 mph	(light vehicle) 47 mph	0.5 service/ 2.8 mphps	3.3 mphps	WB&S Co. with automatic slack adjustor	EP & service automatic
55 mph	(light vehicle) 47 mph	0.5 service/ 2.8 mphps	3.3 mphps	WB&S Co. with automatic slack adjustor	<i>See note 8</i> EP & service automatic
55 mph	53 mph	0.4 service/ 2.8 mphps	3.0 mphps	WB&S wheel tread brake unit w/auto. slack adj.	Dynamic (rheo-static) EP & service auto.
55 mph	53 mph	0.4 service/ 2.8 mphps	3.0 mphps	WB&S wheel tread brake unit w/auto. slack adj.	Dynamic (rheo-static) EP & service auto.
55 mph	53 mph	0.4 service/ 2.8 mphps	3.0 mphps	WB&S wheel tread brake unit w/auto. slack adj.	Dyn. (regen. & rheo.) EP & service auto.
55 mph	53 mph	0.4 service/ 2.8 mphps	3.0 mphps	WB&S wheel tread brake unit w/auto. slack adj.	Dyn. (rheo.) EP & service auto-
55 mph	53 mph	0.4 service/ 2.8 mphps	3.0 mphps	WB&S wheel tread brake unit w/auto. slack adj.	Dyn. (rheo.) EP & service auto-
55 mph	53 mph	0.4 service/ 2.8 mphps	3.0 mphps	WABCO wheel tread brake unit w/auto. slack adjustor	Dyn. (regen. & rheo) EP & service auto.
75 mph (regulated)	72 mph	.75 3.0 mphps	3.2 mphps	Disc-wheel mounted 2/axle	Hydraulic out-board Abex
75 mph (regulated)	Unknown	.75/ 3.0 mphps	3.2 mphps	Disc-wheel mounted 2/axle	Pneumatic service brake -WABCO

AUTHORITY CAR NOS./ ORDER NO.	BRAKING				
	FRICITION SUPPLEMENT	MPH FULL SERVICE BRAKE	TYPE BRAKE VALVE	TYPE COMPRESSOR	COMPRESSOR CAPACITY
TTC 5000-5099 CLASS G-1	not applicable	55 to 0 mph (pneumatic)	Westinghouse B&S Co. E-D-3	Westinghouse B&S Co. DHC-2	2 cylinder, 2 stage, 31 cfm
TTC 5100-5105 CLASS G-2	not applicable	55 to 0 mph (pneumatic)	Westinghouse B & S Co. E-D-3	Westinghouse B&S Co. DHC-2	2 cylinder, 2 stage, 31 cfm
TTC 5200-5227 CLASS G-3	not applicable	55 to 0 mph (pneumatic)	none	Westinghouse B&S Co. DHC-2	2 cylinder, 2 stage, 31 cfm
TTC 5110-5115 CLASS G-4	not applicable	55 to 0 mph (pneumatic)	<i>See note 8</i>	Westinghouse B&S Co. DHC-2	2 cylinder, 2 stage, 31 cfm
TTC 5300-5335 CLASS M-1	10 psi inshot down to dynamic fade-out from 8mph	55 to 8 mph (rheostatic)	Westinghouse B&S Co. D 74913/2	Westinghouse B&S Co. 2 BC25	2 cylinder, 2 stage, 18 cfm
TTC 5336-5499 CLASS H-1	10 psi inshot down to dynamic fade-out from 8 mph	55 to 8 mph (rheostatic)	Westinghouse B&S "Westcode" single handle D 75341/1	Canadian-Inger- soll Rand 7T type 30	2 cylinder, 2 stage, 19.6 cfm
TTC 5500-5505 CLASS H-3	Blended above regenerative power limit	Regenerative to standstill, power limited on high speed range	" D 75341/2	Westinghouse B&S Co. 2BC25	2 cylinder, 2 stage, 18 cfm
TTC 5506-5575 CLASS H-2	10 psi inshot down to dynamic fade-out from 8 mph	55 to 8 mph (rheostatic)	" D 75341/2	Westinghouse B&S Co. 2BC25	2 cylinder, 2 stage, 18 cfm
TTC 5576-5663 CLASS H-4	10 psi inshot down to dynamic fade-out from 8 mph	55 to 8 mph (rheostatic)	" D 75341/2	Canadian-Inger- soll Rand 7TX type 30	2 cylinder, 2 stage, 19.3 cfm
TTC 5670-5807 CLASS H-5	Blended above regenerative power limit	Regenerative to standstill, power limited on high speed range	WABCO single handle (power and brake)	" (AC driven)	2 cylinder, 2 stage, 19.3 cfm
WMATA 1000-1299	Hydraulic sup- plement below 15 mph	75-15 mph	Two hydraulic brake control valves/car. Pneumatic pilot for emergency	Ingersoll-Rand	17.0 cfm
WMATA 2000-2093	Friction below 15 mph	75-15 mph	Unknown at this time	WABCO	Unknown at this time

BRAKING					
MANUFACTURER BRAKE	TYPE BRAKE SHOES	BRAKE CYLINDERS OR ACTUATOR			MANUFACTURER HAND BRAKE
		LOCATION	DIMENSIONS	NO./TYPE	
Westinghouse Brake & Signal Co.	composition (2/wheel)	on truck frame (unitized assembly 1/shoe)	5" diameter	16 WB&S Z3	Peacock-National 840-RB
Westinghouse Brake & Signal Co.	composition (2/wheel)	"	5" diameter	16 WB&S Z3	Peacock-National 840-RB
Westinghouse Brake & Signal Co.	composition (2/wheel)	"	5" diameter	16 WB&S Z3	Peacock-National 840-RB
Westinghouse Brake & Signal Co.	composition (2/wheel)	"	5" diameter	16 WB&S Z3	Peacock-National 840-RB
Westinghouse Brake & Signal Co.	composition (1/wheel)	"	5-1/2" diameter	8 WB&S D74965	Peacock-National 840-XB-R
Westinghouse Brake & Signal Co.	composition (1/wheel)	"	5-1/2" diameter	8 WB&S D75340	Peacock-National 840-XB-R
Westinghouse Brake & Signal Co.	composition (1/wheel)	"	5-1/2" diameter	8 WB&S D75340	Peacock-National 840-DR
Westinghouse Brake & Signal Co.	composition (1/wheel)	"	5-1/2" diameter	8 WB&S D75340	Peacock-National 840-DR
Westinghouse Brake & Signal Co.	composition (1/wheel)	"	5-1/2" diameter	8 WB&S D75340	Peacock-Nat'l. 840-FR
WABCO	composition (1/wheel)	"	6" diameter	8 WABCO GM-6	Peacock-Nat'l. 840-FR
ABEX	Composition 2/disc Abex	truck mounted calipers	2.5" diameter x 3.605 in.	2/caliper 8/car Abex 30155-003	Abex-hydraulic- ally applied & released. Mech- anically latched.
WABCO	composition 2 per disc	truck mounted calipers	Unknown at this time	2/caliper 8/car WABCO	Unknown at this time

AUTHORITY CAR NOS./ ORDER NO.	COMMUNICATIONS		ATO/ATC		
	PUBLIC ADDRESS SYSTEM	TWO-WAY RADIO COMMUNICATION	CAB SIGNAL	AUTOMATIC TRAIN PROTECTION	AUTOMATIC TRAIN OPERATION
TTC 5000-5099 CLASS G-1	Yes	Yes	none	none	none
TTC 5100-5105 CLASS G-2	Yes	Yes	none	none	none
TTC 5200-5227 CLASS G-3	Yes	Yes	none	none	none
TTC 5110-5115 CLASS G-4	Yes	Yes	none	none	none
TTC 5300-5335 CLASS M-1	Yes	Yes	none	none	none
TTC 5336-5499 CLASS H-1	Yes	Yes	none	none	none
TTC 5500-5505 CLASS H-3	Yes	Yes	none	none	none
TTC 5506-5575 CLASS H-2	Yes	Yes	none	none	none
TTC 5576-5663 CLASS H-4	Yes	Yes	none	none	none
TTC 5670-5807 CLASS H-5	Yes	Yes	none	none	none
WMATA 1000-1299	Yes	Yes	Yes	Yes	Yes
WMATA 2000-2093	Yes	Yes	Yes	Yes	Yes



APPENDIX

APPENDIX A NOTES; . . . . . 199 - 222  
APPENDIX B PHOTOGRAPHS; . . . . . 223 - 273

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Chicago Transit Authority

- No. 1 One car equipped with rectangular Electric Service glass fixtures.
- No. 2 The cost per car includes a credit of \$14,000 for PCC street car components used in construction.
- No. 3 Cars have steel underframe - full length centersill, aluminum and steel sheathing and steel carlines and posts.
- No. 4 Eight cars (nos. 31-38) are equipped with Westinghouse type XDA-52 straight line accelerators.
- No. 5 Four are equipped with overhead trolley equipment and automatic transfer switch. Six cars are equipped with automatic pan trolleys.
- No. 6 Cars 2001-2900 are capable of higher speeds, but controls are set to cut off at approximately the speed indicated.
- No. 7 Aluminum structural members except underframe and end posts of low alloy steel.
- No. 8 Melamine plastic and leather-grained aluminum with vinyl and stainless steel trim.
- No. 9 Accurate information not available until final design and construction of the cars.

GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY - NOTES

- No. 1 Cars are equipped with 66% field shunting which increases balancing speed to 55 mph when used. This feature is not used at the present time.
- No. 2 No center sills between bolsters.
- No. 3 1-1/4" deflection at 120,000 lbs.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY - NOTES

- No. 1 Each car is a completely equipped, self-contained, single-ended unit, but for normal operation, two cars are always coupled back to back, either directly or with 1 or 2 motorized trailers in between.
- No. 2 46 cars are equipped with General Electric motors and controls and 46 cars with Westinghouse motors and controls.
- No. 3 Formica<sup>TM</sup> hardboard, stainless steel and synthetic enamel.
- No. 4 Rubber cushioned 1-1/4" deflection at 120,000 lbs.
- No. 5 Rubber cushioned 1-5/8" deflection at 150,000 lbs.
- No. 6 Maximum average dynamic braking rate shall be equivalent to 1.5 mphps at 65 mph. Tapered uniformly to 2.75 mphps at 50 mph.

MONTREAL URBAN COMMUNITY TRANSIT COMMISSION - NOTES

- No. 1 39-1/2" (no load) pneumatic tires on 16" rims. 34-21/32" solid steel safety wheels.
- No. 2 These cars are capable of higher speeds, but controls are set to cut off at approximately the speed indicated.
- No. 3 Cushion material passes ASTM E162 test with a flame spread index < 10 and 1 mg of smoke produced by the combustion.
- No. 4 Rubber cushioned 2" deflection at 200,000 lbs.
- No. 5 4 positive pickup shoes on lateral guide rails. 2 negative return & 2 ground shoes on emergency running rails (motor car). Trailer car: Positive pickup by cable from motor car. 2 negative return & 2 ground shoes on emergency running rails.
- No. 6 Dynamic braking presently being installed on cars.
- No. 7 Rubber tire 39-9/16", safety wheel 34-21/32", solid.

NOTES

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NYCTA

- No. 1 Car 8804 equipped with WABCO package brake units & cast iron brake shoes.  
 Car 8805 equipped with ASF package brake units & cast iron brake shoes.  
 Car 8686 equipped with WABCO package brake units & composition brake shoes.  
 Car 8687 equipped with ASF package brake units & composition brake shoes.  
 Cars equipped with standard trucks June 1970.

- No. 2 Sixteen cars, standard T.A. trucks modified to accept package brake units.

<u>Car No.</u>	<u>Truck No. 1</u>	<u>Truck No. 2</u>		
8896	12309	12310	WABCO	composition shoes
8897	12315	12316	WABCO	composition shoes
8898	12311	12312	WABCO	composition shoes
8899	12313	12314	WABCO	composition shoes
*9162	12677	12678	WABCO	cast iron shoes
*9163	12679	12680	WABCO	cast iron shoes
*9164	12683	12684	WABCO	cast iron shoes
*9165	12681	12682	WABCO	cast iron shoes
8900	12319	12320	ASF	composition shoes
8901	12317	12318	ASF	composition shoes
8902	12321	12322	ASF	composition shoes
8903	12323	12324	ASF	composition shoes
*9136	12669	12670	ASF	cast iron shoes
*9137	12671	12672	ASF	cast iron shoes
*9160	12673	12674	ASF	cast iron shoes
*9161	12675	12676	ASF	cast iron shoes

- No.3 ASF package brake cylinder (4/truck) 36 sq. in. effective area with cast iron shoes.  
 ASF package brake cylinder (4/truck) 20 sq. in. effective area with composition shoes.  
 WABCO package brake cylinder (4/truck) n.a. effective area with cast iron shoes.  
 WABCO package brake cylinder (4/truck) 36 sq. in. effective area with composition shoes.

For car numbers refer to Notes No. 1 & No. 2

Budd Co. Pioneer trucks, R-32 cars Nos. 3946-47-48-49. Truck Nos. 15085 to 15092 incl. (8 trucks). Four brake cylinders per truck, 38.5 sq. in. effective area. Four disc brakes per truck. Westinghouse Electric Co. type 1455 traction motors. Average weight of cars 60,140 lbs. each.

\*Package brake units removed 2/24/65, and trucks restored as standard.

NYCTA Notes (cont'd.)

Pioneer trucks scrapped and cars equipped with standard trucks (1976).

No. 4 Eight General 70 trucks equipped as follows:

Truck nos. 11961 to 11964 incl., GE 1253 motors. Gear ratio 9.35:1, GA-53 gear unit.

Truck nos. 11725 to 11728 incl., Westinghouse 1455 motors. Gear ratio 9.39:1, GU-100-1 Track Pak gear unit.

Cars equipped with standard trucks June 1970.

No. 5 Cars 4140-4141-4142-4143-4144 equipped with Trane Co. air conditioning. Cars 4145-4146-4147-4148-4149 equipped with Safety Ind. air conditioning. Vapor cycle type - Trane 10 tons each - Safety 9 tons each - Refrigerant #22.

No. 6 Cars 4350 to 4549 inclusive (total 200 cars) equipped with air conditioning units. Cars 4450 to 4479 incl. (30 cars), 4350 to 4449 incl. (100 cars) equipped with Safety Ind. Cars 4480 to 4549 incl. (70 cars) Trane Co.

No. 7 Cars 3350 to 3549 incl. (200 cars) equipped with Midland-Ross door operators and controls, with the exception of cars 3480 and 3481 which have Vapor door operators and controls. Cars 3350 to 3649 incl. (100 cars) equipped with Vapor Corp. door operators and controls, with the exception of cars 3550 and 3551, which have Midland-Ross Corp. door operators and controls.

No. 8 Cars 9208 to 9211 incl., 9000 to 9075 incl., 9256 to 9345 incl. (170 cars) equipped with Vapor Corp. door operators and controls.

No. 9 Cars 9346 to 9395 incl., 9502, 9504, 9506 to 9513 incl., 9687, 9689 to 9737, 9740 to 9769 incl. (140 cars) equipped with Vapor Corp. door operators and controls.

No. 10 Cars 4100 to 4149 incl. (50 cars), Midland-Ross door operators and controls.

No. 11 Cars 4250 to 4349 incl. (100 cars) equipped with Midland-Ross Corp. door operators and controls.

No. 12 Cars 3950 to 4049 incl. equipped with O. M. Edwards doors, door hangers, and side windows. Cars 4050 to 4149 incl., Morton Mfg. Co. doors of paper honeycomb filler with aluminum skin. Morton door hangers and Adams and Westlake side windows.

No. 13 Cars 3950 to 4049 incl. (100 cars) equipped with O. M. Edwards doors, door hangers and side windows. Cars 4050 to 4149 incl. (100 cars) equipped with Morton Mfg. Co. doors of paper honeycomb filler with aluminum skin. Morton door hangers and Adams and Westlake Co. side windows.



NYCTA Notes (cont'd.)

No. 14 Cars 7300 to 7524 (225 cars) equipped with Raymond Rosen P. A. systems. Cars 7525 to 7749 (225 cars) equipped with Sound Systems P. A. Systems.

No. 15	<u>Contract No.</u>	<u>Truck Numbers</u>	<u>Manufacturer</u>
	R-10	3000 to 3829 incl.	General Steel Castings Co.
	R-11	8010 to 8031 incl.	General Steel Castings Co.
	R-12	7023 to 7232 incl.	General Steel Castings Co.
	R-14	7233 to 7542 incl.	General Steel Castings Co.
	R-15	7543 to 7752 incl.	General Steel Castings Co.
	R-16	3830 to 4229 incl.	General Steel Castings Co.
	R-17	7753 to 8552 incl.	General Steel Castings Co.
	R-21	8573 to 9072 incl.	General Steel Castings Co.
	R-22	9073 to 9972 incl.	General Steel Castings Co.
	R-26	9973 to 10084 incl.	General Steel Castings Co.
		10085 to 10124 incl.	General Steel Castings Co.
		10125 to 10192 incl.	General Steel Castings Co.
	R-27	10393 to 10832 incl.	General Steel Castings Co.
		10833 to 10852 incl.	Adirondack Steel Castings Co.
	R-28	10193 to 10222 incl.	General Steel Castings Co.
		10223 to 10232 incl.	Locomotive & Finish Materials Co.
		11233 to 10392 incl.	General Steel Castings Co.
	R-29	11493 to 11964 incl.	General Steel Castings Co.
	R-30	10853 to 11056 incl.	General Steel Castings Co.
		11177 to 11214 incl.	General Steel Castings Co.
		11215 to 11234 incl.	Locomotive & Finish Materials Co.
		11235 to 11280 incl.	General Steel Castings Co.
		11281 to 11332 incl.	Adirondack Steel Castings Co.
		11333 to 11371 incl.	General Steel Castings Co.
		11372 to 11380 incl.	Adirondack Steel Castings Co.
		11381 to 11404 incl.	General Steel Castings Co.
		11405 to 11412 incl.	Adirondack Steel Castings Co.
		11413 to 11492 incl.	General Steel Castings Co.
	R-30A	11057 to 11176 incl.	General Steel Castings Co.
	R-32	14493 to 14496 incl.	Adirondack Steel Castings Co.
		14497 to 14502 incl.	General Steel Castings Co.
		14503 to 14510 incl.	Adirondack Steel Castings Co.
		14511 to 14522 incl.	General Steel Castings Co.
		14523 to 14526 incl.	Adirondack Steel Castings Co.
		14527 to 14544 incl.	General Steel Castings Co.
		14545 to 14554 incl.	Adirondack Steel Castings Co.
		14555, 14556	General Steel Castings Co.
		14557 to 14560 incl.	Adirondack Steel Castings Co.
		14561 to 14576 incl.	General Steel Castings Co.
		14577 to 14580 incl.	Adirondack Steel Castings Co.
		14581 to 14592 incl.	General Steel Castings Co.
		14593 to 14624 incl.	Adirondack Steel Castings Co.
		14625 to 14666 incl.	General Steel Castings Co.
		14667 to 14696 incl.	Adirondack Steel Castings Co.
		14697 to 14714 incl.	General Steel Castings Co.
		14175, 14716	Adirondack Steel Castings Co.
		14717 to 14720 incl.	General Steel Castings Co.
		14721 to 14740 incl.	Adirondack Steel Castings Co.

NYCTA Notes (cont'd.)

<u>Contract No.</u>	<u>Truck Numbers</u>	<u>Manufacturer</u>
	14741 to 14812 incl.	General Steel Castings Co.
	14813 to 14882 incl.	Adirondack Steel Castings Co.
	14883 to 14954 incl.	General Steel Castings Co.
	14955 to 14968 incl.	Adirondack Steel Castings Co.
	14969 to 15004 incl.	General Steel Castings Co.
	15005, 15006	Adirondack Steel Castings Co.
	15007 to 15070 incl.	General Steel Castings Co.
R-32A	13893 to 13946 incl.	Locomotive & Finish Materials Co.
	13947 to 13978 incl.	Adirondack Steel Castings Co.
	13979 to 14018 incl.	Locomotive & Finish Materials Co.
	14019 to 14036 incl.	Adirondack Steel Castings Co.
	14037 to 14052 incl.	Locomotive & Finish Materials Co.
	14053 to 14064 incl.	Adirondack Steel Castings Co.
	14065 to 14082 incl.	Locomotive & Finish Materials Co.
	14083, 14084	Adirondack Steel Castings Co.
	14085, 14086	Locomotive & Finish Materials Co.
	14087 to 14090 incl.	Adirondack Steel Castings Co.
	14091 to 14114 incl.	Locomotive & Finish Materials Co.
	14115 to 14126 incl.	Adirondack Steel Castings Co.
	14127 to 14176 incl.	Locomotive & Finish Materials Co.
	14177 to 14190 incl.	Adirondack Steel Castings Co.
	14191 to 14234 incl.	Locomotive & Finish Materials Co.
	14235 to 14240 incl.	Adirondack Steel Castings Co.
	14241 to 14248 incl.	Locomotive & Finish Castings Co.
	14249 to 14262 incl.	Adirondack Steel Castings Co.
	14263 to 14312 incl.	Locomotive & Finish Materials Co.
	14313, 14314	Adirondack Steel Castings Co.
	14315, 14316	Adirondack Steel Castings Co.
	14317 to 14326 incl.	Adirondack Steel Castings Co.
	14327 to 14346	Locomotive & Finish Materials Co.
	14347, 14348	Adirondack Steel Castings Co.
	14349 to 14356 incl.	Locomotive & Finish Materials Co.
	14357 to 14372 incl.	Adirondack Steel Castings Co.
	14373 to 14380 incl.	Locomotive & Finish Materials Co.
	14381 to 14398 incl.	Adirondack Steel Castings Co.
	14399 to 14428 incl.	Locomotive & Finish Materials Co.
	14429, 14430	General Steel Castings Co.
	14431 to 14460 incl.	Locomotive & Finish Materials Co.
	14461 to 14490 incl.	Adirondack Steel Castings Co.
	14491, 14492	Locomotive & Finish Materials Co.
	14493 to 14496 incl.	Adirondack Steel Castings Co.
	14497 to 14502 incl.	General Steel Castings Co.
	14503 to 14510 incl.	Adirondack Steel Castings Co.
	14511 to 14522 incl.	General Steel Castings Co.
	14523 to 14526 incl.	Adirondack Steel Castings Co.
	14527 to 14546 incl.	General Steel Castings Co.
	14547 to 14554 incl.	Adirondack Steel Castings Co.
	14555, 14556	General Steel Castings Co.
	14557 to 14560 incl.	Adirondack Steel Castings Co.

NYCTA Notes (cont'd.)

<u>Contract No.</u>	<u>Truck Numbers</u>	<u>Manufacturer</u>
	14561 to 14576 incl.	General Steel Castings Co.
	14577 to 14580 incl.	Adirondack Steel Castings Co.
	14581 to 14592 incl.	General Steel Castings Co.
	14593 to 14624 incl.	Adirondack Steel Castings Co.
	14625 to 14666 incl.	General Steel Castings Co.
	14667 to 14696 incl.	Adirondack Steel Castings Co.
	14697 to 14714 incl.	General Steel Castings Co.
	14715, 14716	Adirondack Steel Castings Co.
	14717 to 14720 incl.	General Steel Castings Co.
	14721 to 14740 incl.	Adirondack Steel Castings Co.
	14741 to 14812 incl.	General Steel Castings Co.
	14813 to 14882 incl.	Adirondack Steel Castings Co.
	14883 to 14954 incl.	General Steel Castings Co.
	14955 to 14968 incl.	Adirondack Steel Castings Co.
	14969 to 15004 incl.	General Steel Castings Co.
	15005, 15006	Adirondack Steel Castings Co.
	15007 to 15084 incl.	General Steel Castings Co.
	15085 to 15092 incl.	Pioneer (Budd Co.)
R-33	11965 to 13044 incl.	General Steel Castings Co.
R-36	13045 to 13892 incl.	General Steel Castings Co.
R-38	15093, 15094	General Steel Castings Co.
	15095, 15096	Adirondack Steel Castings Co.
	15097 to 15100 incl.	General Steel Castings Co.
	15101 to 15158 incl.	General Steel Castings Co.
	15159 to 15194 incl.	Adirondack Steel Co.
	15195 to 15214 incl.	General Steel Castings Co.
	15215 to 15218 incl.	Adirondack Steel Castings Co.
	15219 to 15286 incl.	General Steel Castings Co.
	15287 to 15292 incl.	Adirondack Steel Castings Co.
	15293 to 15360 incl.	General Steel Castings Co.
	15361 to 15366 incl.	Adirondack Steel Castings Co.
	15367, 15368	General Steel Castings Co.
	15369 to 15374 incl.	Adirondack Steel Castings Co.
	15375, 15376	General Steel Castings Co.
	15377, 15378	Adirondack Steel Castings Co.
	15379, 15380	General Steel Castings Co.
	15381, 15382	Adirondack Steel Castings Co.
	15383, 15384	General Steel Castings Co.
	15385 to 15392 incl.	Adirondack Steel Castings Co.
	15393 to 15398 incl.	General Steel Castings Co.
	15399, 15400	Adirondack Steel Castings Co.
	15401 to 15410 incl.	General Steel Castings Co.
	15411, 15412	Adirondack Steel Castings Co.
	15413 to 15420 incl.	General Steel Castings Co.
	15421, 15422	Adirondack Steel Castings Co.
	15423 to 15428 incl.	General Steel Castings Co.
	15429 to 15434 incl.	Adirondack Steel Castings Co.
	15435 to 15438 incl.	General Steel Castings Co.
	15439 to 15454 incl.	Adirondack Steel Castings Co.
	15455 to 15492 incl.	General Steel Castings Co.

NYCTA Notes (cont'd.)

<u>Contract No.</u>	<u>Truck Numbers</u>	<u>Manufacturer</u>
R-40	15493 to 15496 incl.	General Steel Industries Co.
	15497 to 15500 incl.	Adirondack Steel Castings Co.
	15501 to 16168 incl.	General Steel Industries Co.
	16169 to 16274 incl.	Adirondack Steel Castings Co.
	16275 to 16292 incl.	General Steel Industries Co.
R-42	16293 to 16702 incl.	General Steel Industries Co.
	16703 to 16712 incl.	Adirondack Steel Castings Co.
	16713 to 16756 incl.	General Steel Industries Co.
	16756 to 16870 incl.	Adirondack Steel Castings Co.
	16871, 16872	General Steel Industries Co.
	16873 to 16878 incl.	Adirondack Steel Castings Co.
	16879 to 17104 incl.	General Steel Industries Co.
	17109 to 17112 incl.	General Steel Industries Co.
R-44	17113 to 17512 incl.	Standard, Gen. Steel Industries
	17513 to 17630 incl.	Standard, Adirondack & Gen. Steel
	17631 to 17638 incl.	Standard, Gen. Steel Industries
	17639 to 17640 incl.	Standard, Adirondack Steel
	17641 to 17698 incl.	Standard, Gen. Steel Industries
	17699 to 17724 incl.	Air Spring, Gen. Steel Industries
R-44 (SIRT)	S17725 to 17832 incl.	General Steel Industries
R-46	17725 to 19272 incl.	Rockwell International

Eight General 70 trucks equipped as follows:

Truck No. 11961 to 11964 incl., GE 1253 motors. Gear ratio 9.35:1, GA-53 gear unit.

Truck No. 11725 to 11728 incl., Westinghouse 1455 motors. Gear ratio 9.39:1, GU-100-1 Track Pak gear unit.

Cars equipped with standard trucks June 1970.

No. 16 Cars 8560 to 8569 incl. (10 cars) equipped with Pirelli Springs, truck no. 11473 to 11492 incl. (20 trucks)

No. 17 During 1964-1965 contract R-11 cars were renovated under Contract R-34, to the extent of changing the roof structure from a forced air blown ceiling carried duct system with precipitron dust collection units and sterilamps, to the standard pressure and recirculating air system. The interior lighting was converted from the original AC system to the standard DC system. The original motor alternators were replaced with DC generators. The trucks were modified to accept disc brakes. The original weight of the R-11 cars was 81,475 lbs., the weight after conversion is 82,500 lbs.

No. 18 Car nos. 6400 to 6424 incl. (25 cars) have no floor to ceiling stanchions. Stanchions were omitted in connection with tests to determine the feasibility of reducing the number of stanchions in all cars.

NYCTA Notes (cont'd.)

- No. 19        Cars 3950 to 4049 incl. (100 cars) equipped with O. M. Edwards doors, door hangers and side windows. Cars 4050 to 4149 incl. (100 cars) equipped with Morton Mfg. Co. doors, door hangers and Adams and Westlake Co. side windows.
- No. 20        Replacement seats and seat backs made of fibre glass polyester. R-10, 11, 12, 14, 15, 16, 17, 21 and 22 supplied by General Seating Corp. Contract R-17 cars numbered 6500 to 6699 incl. (200 cars) equipped with General Seating Corp. seats and seat backs. Cars 6700 to 6899 incl. (200 cars) equipped with Heywood Wakefield seats and seat backs. Contract R-33 cars 8806 to 9075 incl. (270 cars) equipped with Heywood Wakefield seats and seat backs. Contract R-33 cars 9076 to 9345 incl. (270 cars) equipped with American Seating Corp. seats and seat backs.
- No. 21        Cars 4150 to 4349 incl. (200 cars) equipped with standard heating and ventilating system. Cars 4350 to 4549 incl. (200 cars) equipped with air conditioning units, have under seat strip type heater elements totaling 12.075 kw and 24 kw of reheat per car, a total of 36.075 kw per car.
- No. 22        200 cars, nos. 4150 to 4249 incl., 4250 to 4349 incl., sloped end, no a.c. 100 cars, nos. 4350 to 4449 incl., sloped end with air conditioning. 100 cars, nos. 4450 to 4549 incl., vertical end with air conditioning.
- No. 23        Cars equipped with Monroe Automobile Co., both lateral and vertical shock absorbers are hydraulic.  
Cars equipped with Houdaille, lateral is hydraulic type and vertical is friction type.
- No. 24        Cars 9306 to 9345 incl. (40 cars) are single unit cars with tite lock couplers at both ends.
- No. 25        Car 8970 Chicago type fixture T12 lamps, 1000 ohm resistors.  
Car 8971 Chicago type fixture T12 lamps, 1750 ohm resistors.  
Car 8972 Chicago type fixture T12 lamps, 1750 ohm resistors.  
Car 8973 Chicago type fixture T12 lamps, 1750 ohm resistors.
- In addition to above, each car equipped with six center recessed fixtures, T18 lamps (18" long).
- Car 8974 NYCTA type fixtures, T12 lamps, 1750 ohm resistors.  
Car 8975 NYCTA type fixtures, T8 lamps, 1750 ohm resistors.  
Car 8976 NYCTA type fixtures, T12 lamps, 1750 ohm resistors.  
Car 8977 NYCTA type fixtures, T12 lamps, 1750 ohm resistors.
- No. 26        All post 1946 cars are compatible as far as coupling, door controls, propulsion controls, brake control, etc. The IND-BMT type cars, because of their greater width, cannot be accommodated in the IRT tunnels. The IRT type cars cannot be operated for passenger service on the BMT-IND lines because of their lesser width.

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NYCTA Notes (cont'd.)

- No. 35 Cars 8686-8687-8804-8805 equipped with General 70 trucks have 31" diameter wheels. General 70 truck nos. 11725, 11726, 11727, 11728, 11961, 11962, 11963, 11964.
- No. 36 Average weight of cars 8804, 8805, 8686, 8687 equipped with General 70 trucks, 64,580 lbs.
- No. 37 General 70 trucks - #1 end average weight 14,425 lbs., #2 end average weight 14,215 lbs.
- No. 38 Cars 8690 to 8697 (8 cars) equipped with plywood sub-floor.
- No. 39 Present seats and backs supplied by General Seating Corp.
- No. 40 Present seats and backs supplied by General Seating Corp., cars 6500 to 6699 (200 cars), and Heywood-Wakefield, cars 6700 to 6899 (200 cars).
- No. 41 Cars 7740 to 7749 incl. (10 cars) rigid organic foam core with bonded rigidized aluminum skin, including cab doors.
- No. 42 #1 end BL26B electric portion, #2 end - BL25B electric portion.
- No. 43 Car 8335 equipped with Vapor Corp. (sine curve type output) installed 9/6/61, for purpose of test.
- No. 44 Car 8550 equipped with 6 Vapor Corp. dual flow ventilating test fans.
- No. 45 Static state components on Westinghouse Electric Co. M-G control on contract R-22 cars numbered 7505 to 7524 incl. (20 cars) and all subsequent contracts.
- No. 46 Cars 7300 to 9345 incl. (205 cars) UPE31A. Cars 7505 to 7524 incl. (20 cars) XC248H (cam controllers).
- No. 47 G70 trucks - #1 end average 14,425 lbs, #2 end - 14,215 lbs.
- No. 48 Cars 8560 to 8569 incl. (10 cars) equipped with Pirelli Springs, Truck no. 11473 to 11492 incl. (20 trucks).
- No. 49 Rates refer to light car condition (no load).
- No. 50 Air compressor on odd only from R-26 through R-46.
- No. 51 Rates refer to light car condition (no load). Contract R-30 cars equipped with Westinghouse Electric controls have dynamic brake rates of 1.5 to 4.0 mphps. General Electric Co. equipped R-30 cars have 1.5 to 3.0 mphps brake rate with 1.0 mphps air supplement.
- No. 52 Cars 6216 to 6225 incl. (10 cars) equipped with Raymond-Rosen P.A. systems.

NYCTA Notes (cont'd.)

- No. 53 Cars 3800 to 3949 (150 cars) equipped with back lighted transparent ad cards, with two 28" light fixtures to illuminate end ad cards.
- No. 54 Cars 3800 to 3949 (150 cars) equipped with back lighted transparent ad card fixtures and enclosed glass lenses.
- No. 55 Cars 3946, 3947, 3948, 3949 equipped with inverters for test purposes polarity reversing timer not required.
- No. 56 Cars 3946, 3947, 3948, 3949 equipped with Budd Co. Pioneer Trucks.
- No. 57 Cars 8392 to 8411 (20 cars) equipped with GE Co. SCM control. GE contracts R-10 to R-15, RCM controls (Pneumatic Cam Magnetic), R-16 to R-28, R-30 & R-30A, MCM controls (Cam Magnetic). Motorized R-29, some R-30A, R-33 to R-46 SCM controls (static cam magnetic).
- No. 58 Cars 3946 to 3949 (4 cars) equipped with Pioneer Trucks, with disc brakes.
- No. 59 GE equipped cars (SCM control) full service 9 mph.
- No. 60 Cars 9306 to 9345 (40 cars) 2 motorman's cabs per car.
- No. 61 Cars 9306 to 9345 (40 cars) - light gray and light blue.
- No. 62 Cars 9524 to 9557 (34 cars) - Tartar red.
- No. 63 Cars 9306 to 9345 (40 cars) have fiberglass polyester window masks.
- No. 64 Cars 9524 to 9557 (34 cars) have no fiberglass polyester window masks.
- No. 65 Cars 9306 to 9345 (40 cars) equipped with tite lock couplers both ends.
- No. 66 Cars 9524 to 9557 (34 cars) equipped with tite lock couplers both ends.
- No. 67 Cars 9296 to 9305 (10 cars) equipped with Westinghouse Electric Corp., automatic heating and ventilation control system.
- No. 68 Cars 9266 to 9274, 9281 to 9292, 9302 to 9318, 9338, 9325 (total 40 cars) equipped with France Co. Axiflo fans.
- No. 69 Cars 4140 to 4144 (5 cars) - France Co., A/C, 10 ton each.  
Cars 4145 to 4149 (5 cars) - Safety Ind., A/C, 9 ton each.  
Refrigerant #22 Vapor cycle.



NYCTA Notes (cont'd.)

- No. 70 Cars 9306 to 9345 (40 cars), one M-G and storage battery per car. Car 8971 equipped with static state battery charger.
- No. 71 Cars 9306 to 9345 (40 cars) each equipped with an air compressor.
- No. 72 Master Controller handle through "P" wire current generator varies the current flow in "P" wire.
- No. 73 Cars 4518 - 4533 have WABCO package brakes with composition brake shoes. Cars 4534 - 4549 have ASF package brakes with composition brake shoes.

ASF: Truck No. 15851-15866 and 15877-15892.

WABCO: Truck No. 15829-15850 and 15867-15876.

PORT AUTHORITY TRANS-HUDSON CORPORATION - NOTES

- No. 1 Nos. 1206-1229 were Pennsylvania Railroad Cars, Nos. 1234-1249 Hudson and Manhattan Railroad Cars. Nos. 1200-1205 were Pennsylvania Railroad Cars, Nos. 1230-1233 were Hudson and Manhattan Railroad Cars. All cars are owned by PATH. (Cars numbered 1211, 1213, 1228 were destroyed in an accident. Cars numbered 1201, 1202, 1230, 1231, and 1233 are not in revenue service; they are material cars reserved for work train service.)
- No. 2 Each car is a completely equipped, self-contained, single-ended unit, but for normal operation, two cars are always coupled back to back, either directly or with 1 or 2 motorized trailers in between. (Car number 613 was destroyed in an accident. Cars numbered 670 and 694 are not in revenue service; they are material cars reserved for work train service.)
- No. 3 One or two (but not more than two) of these motorized trailers are coupled between a pair of cab-equipped cars to form a 3 or 4 car unit, respectively.
- No. 4 All aluminum construction welded and Huk-bolted. Cab ends (A cars) and rear bonnets are fibre glass reinforced plastic.
- No. 5 Formica hardboard, stainless steel and synthetic enamel or lacquer.
- No. 6 Rubber cushioned 1-1/8" deflection at 120,000 lbs.
- No. 7 Waugh Twin rubber cushion 1-1/2" deflection at 220,000 lbs. WM-E4, HM.
- No. 8 Side signs on these cars have five individual sections, each with a fixed reading (destination) and no moveable sign curtain. The proper reading (destination) is illuminated by means of a selector switch located in the motorman's cab.
- No. 9 Fluorescent - Plastic lens and back-lighted transparent advertising card racks.
- No. 10 Parallel drive - double reduction. Westinghouse GU-100-16.
- No. 11 Air and steel coil at bolster, steel coil equalizer.
- No. 12 With Cor-ten reinforced side sills at ends of car.
- No. 13 Replacement program of fire retardent fibreglass seats in process.
- No. 14 Side windows being replaced, when required, with Lexan.
- No. 15 Dynamic is cut-out.

PORT AUTHORITY TRANSIT CORPORATION - NOTES

No. 1      Maximum speed attained was 87 mph during tests. Based upon maximum motor RPM.

SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY - NOTES

- No. 1 Car No. 640 has been scrapped, total number of cars in this series is 45.
- No. 2 Deleted.
- No. 3 These cars are capable of higher speeds, but controls are set to cut off at approximately the speed indicated.
- No. 4 Stainless steel side sills and structural members except end underframe units of low alloy steel. No center sill.
- No. 5 Side sheathing and corrugated roof of stainless steel. Upper end sheathing of fiberglass reinforced plastic.
- No. 6 Stainless steel and coral and aquamarine, WH Micarta. Ceiling: buss, Floor: white marblized black rubber.
- No. 7 Rubber cushioned 1-1/2" deflection at 115,000 lbs.
- No. 8 Presently converting to Nickel-cadmium - 80 AH.
- No. 9 All single cars, 600-645, are Westinghouse cam controller types, low voltage generator is a W.H. YX304A.
- Married pairs 701 through 744 are all Westinghouse cam controller types, low voltage generator is a W.H. YX304A on odd numbered cars. (A cars). Even numbered cars (B cars) have air compressors on them.
- Married pair cars 745 through 924 are: (1) odd numbered cars are G.E. cam controller types with a GMG753 motor generator. (2) even numbered cars are W.H. cam controller types with an air compressor on board.
- No. 10 Master controller

Car Numbers

601 to 645 - Westinghouse XC-248  
700 to 744

746 to 924 (even numbered cars only) - Westinghouse XC-248

745 to 925 (odd numbered cars only) - G.E. MCM  
type 17 KG 192D1

SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT - NOTES

- No. 1 Retractable coupler on front end of A car. With coupler retracted, 75'0" anti-climber to rear coupler face.
- No. 2 Buffer faceplate substituted for anti-climber on rear of A car and on B cars. A car anti-climber to faceplate uncoupled 75'1". B car faceplate to faceplate uncoupled 70'2".
- No. 3 Body and Framing: Integrated aluminum extrusions with door framing, body bolster, draft sill, and end sill of LAHT steel.
- No. 4 Evaporator boxes under car, distributed through window diffusers in the car.
- No. 5 None under the true definition of a plenum, otherwise 30 KW, in 6 evaporator boxes.
- No. 6 Forward curve squirrel cage, wheel blower Thermo-king, 2 each/ evaporator box.
- No. 7 Headlights: 2 sealed beams/"A" car, front.  
2 hostling lights/"A" car, rear.  
4 hostling lights/"B" car, 2 each end.
- No. 8 Input/Output: Motor: 75 HP, 1000 VDC, 60 AMP, 1800 RPM; series wound. Alternator: 37.5KVA, 120/208 volts, 3 phase, 60 Hz 104 AMP, 80 PF. Power takeoff: 20 HP for air conditioning compressor.
- No. 9 Compressor not part of braking system. Brake energy supplied by 2 hp hydraulic power unit. Model 1AVC/200 cars 101-250 501-700, 2AVC/400 cars 251-276 701-774.
- No. 10 The demand is for 3.0 mphps. Signalling system uses 1.5 mphps for stopping distance.
- No. 11 American Seating cars 101-250 501-600, Tupperman cars 251-276 601-774.
- No. 12 Hurst Airheart cars 101-250 & 501-600, Westinghouse cars 251-276 601-774.

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SISTEMA DE TRANSPORTE COLECTIVO, MEXICO - NOTES

- No. 1 Numbers start with M for cars with motor with cabin, N for cars with motor without cabin, and R for trailers.
- No. 2 Wheel base: 65 mm (rail), 230 mm (track for pneumatic).
- No. 3 Motor G 153/155 - Statodyn EVR "Cem-oerlikon".
- No. 4 Primary suspension (elastic elements "Paulstra" SC-81 and SC-51).
- No. 5 Emergency: pneumatic.

TORONTO TRANSIT COMMISSION - NOTES

- No. 1 Cars 5004/05/58/59 and 5204/05 were destroyed in March 1943 by fire.
- No. 2 H-1 cars 5388/89/90/91 destroyed in October 1976 by fire. H-5 contract increased by 4 cars 5804-5807 to replace, December 1976. (See also note 21).
- No. 3 Class H-2 purchased in 1970 as 76 identical cars 5500-5575, although 6 cars of the order were to have been completed with chopper controls. Subsequently TTC purchased and installed Hitachi chopper controls in cars 5500-5505 in 1973, reclassifying them as H-3. Data applies to cars as converted; prices include purchase of equipment, TTC installation and testing at \$494,000 gross, without allowance for salvaged cam controls removed and reutilized.
- No. 4 Actual loaded weight calculated at 150 lbs. per passenger, additive to this figure. (See also note 5).
- No. 5 First column - Practical or service loading (W4) is seated passenger load plus standees @ 2.3 sq. ft. of clear standee area, per 150 lbs. passenger.
- 2nd column - Design, safety, maximum performance, or crush loading (W5) is seated passenger load plus standees @ 1.5 sq. ft. of clear standee area, per 150 lb. passenger (equivalent to 100 lbs. per sq. ft.).
- No. 6 Cars 5033-5034 had driving controls removed July 1967. Operated in train as 5032/33/34/35 as 4 car set.
- No. 7 Cars 5200-5227 (class G-3) purchased as non-driving motor (NDM) cars, with cab retained for guard's use. Paired with "mating" numbers 5000-5037 in class G-1 as 4 car sets. (e.g. 5000-5201, 5202-5001).
- No. 8 Cars 5110-5115 (class G-4) purchased as 5 car experimental train, with dynamic (rheostatic) braking to 8 mph; cars 5110, 5115 driving, 5111-5114 non-driving. DB equipment removed 1966/67 and NDM cars paired into 4 car sets as:

- 5028-5113 - 5112-5029  
- 5030-5111 - 5114-5031

and DM cars operated as 2 car unit 5110-5115.

- No. 9 Operated in adjacent numbered pairs:  
 "A" car, with auxiliary power unit, even number } e.g. 5300-5301.  
 "B" car, with compressor, odd number }  
 except where arranged as special sets  
 as noted in notes 6,7, and 8.
- No. 10 Motor HP ratings are one hour:  
 G cars - at 275 volts  
 M&H cars - at 290 volts
- No. 11 Clear standee area in square feet:  
 - does not include cabs  
 - includes knee room for seated passengers  
 - does not include doorway areas on one side of vehicle only
- No. 12 Triplex laminated in cab window to resist 4-lb. solid object  
 at 50 mph.
- No. 13 Price per car is the average of A&B cars, including options  
 and extras negotiated during contracts, preparation for service,  
 and engineering/inspection (but not spares).  
 All were on fixed price contracts, except H-5, which is subject  
 to escalation.  
 Federal Sales Tax (12%) included in all prices up to and including  
 class H-3. FST applicable on part of class H-4 order, averaging  
 an inclusion of 1-1/4% in price per car. FST not applicable and  
 not included in class H-5 prices.  
 Class H-3 prices include conversion of cars by TTC (refer to  
 note 3).
- No. 14 Resilient leafspring and spring loaded bumper.
- No. 15 Aluminum side sills and structural members, except end underframe  
 units of steel. No center sill.
- No. 16 Rubber cushioned 1-1/2" deflection at 115,000 lbs.
- No. 17 Cars 5000-5227 equipped with "Mercury Retardation Controller"  
 which functions similarly to a load weighing device in braking.
- No. 18 By means of a key operated "Dual Rate" switch in the motorman's  
 cab, cars built since 1962 can also be set to operate at a lower  
 performance average rate of 1.9 mphps to 20 mph to give compara-  
 ble speed-time-distance performance to cars 5000-5227 when inter-  
 mixed trains are operated on the same route.
- No. 19 Subway system (signalled) maximum operational speed 50 mph. Car  
 maximum operating speed 55 mph with fully worn wheels (1-1/2"  
 radial wear).
- No. 20 CGE GA-47 gear unit on cars 5300,5302-5330 (30 cars); other  
 6 cars have Dana gear units.



No. 21 Cars 5804-5807 (see note 2) equipped with experimental MAN trucks.  
Details as follows:  
(with reference to tabular data for Dofasco Mark VI truck):

Secondary suspension & Side Bearings:	Torroidal shaped air bags
A/F Journal Bearings:	Tapered, Timken Class D (5½ X 10)
Shock Absorbers:	2 Vertical & 1 Lateral: Houdaille rotary
Type Truck:	Fabricated truck, inboard journals
Weight:	11,775/11,775
Manufacturer:	M.A.N. Werk, Nurnberg, Germany
Truck Number:	NOT KNOWN
Wheel base:	6' 10"
Wheel diameter	28"

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY - NOTES

- No. 1     The car body is constructed from 75' long aluminum extrusions for roof and side walls
- These extrusions serve as the structure and exterior skin
- Lower side wall extrusion also serves as side sills that are connected to steel end underframes at each end of the car
- The end underframe consists of steel bolster, draft sill and end sill
- The underframe for floor & equipment support consists of aluminum beam.
- No. 2     Ohio Brass Mechanical Coupler with ball anchorage. Electric heads on both sides of the mechanical coupler.
- No. 3     Journal Bearings: Elastomeric journal rings. Bolster: Double convolution air springs.

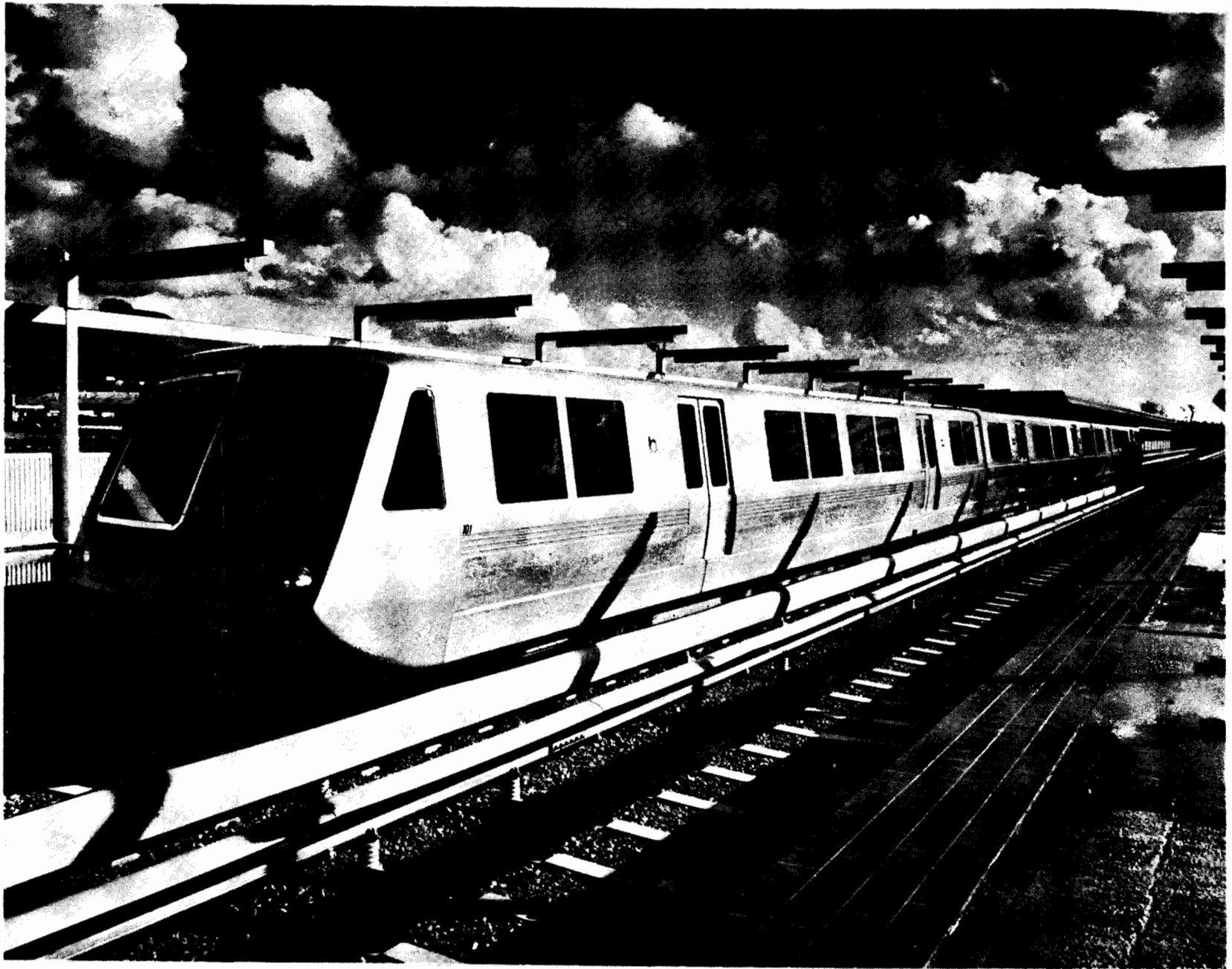


Figure 1. San Francisco Bay Area Rapid Transit District Rapid Transit Car

-223-

NAVY

(SAME AS MIAMI RENDERING, FIGURE 19)

Figure 2. Baltimore Regional Rapid Transit System

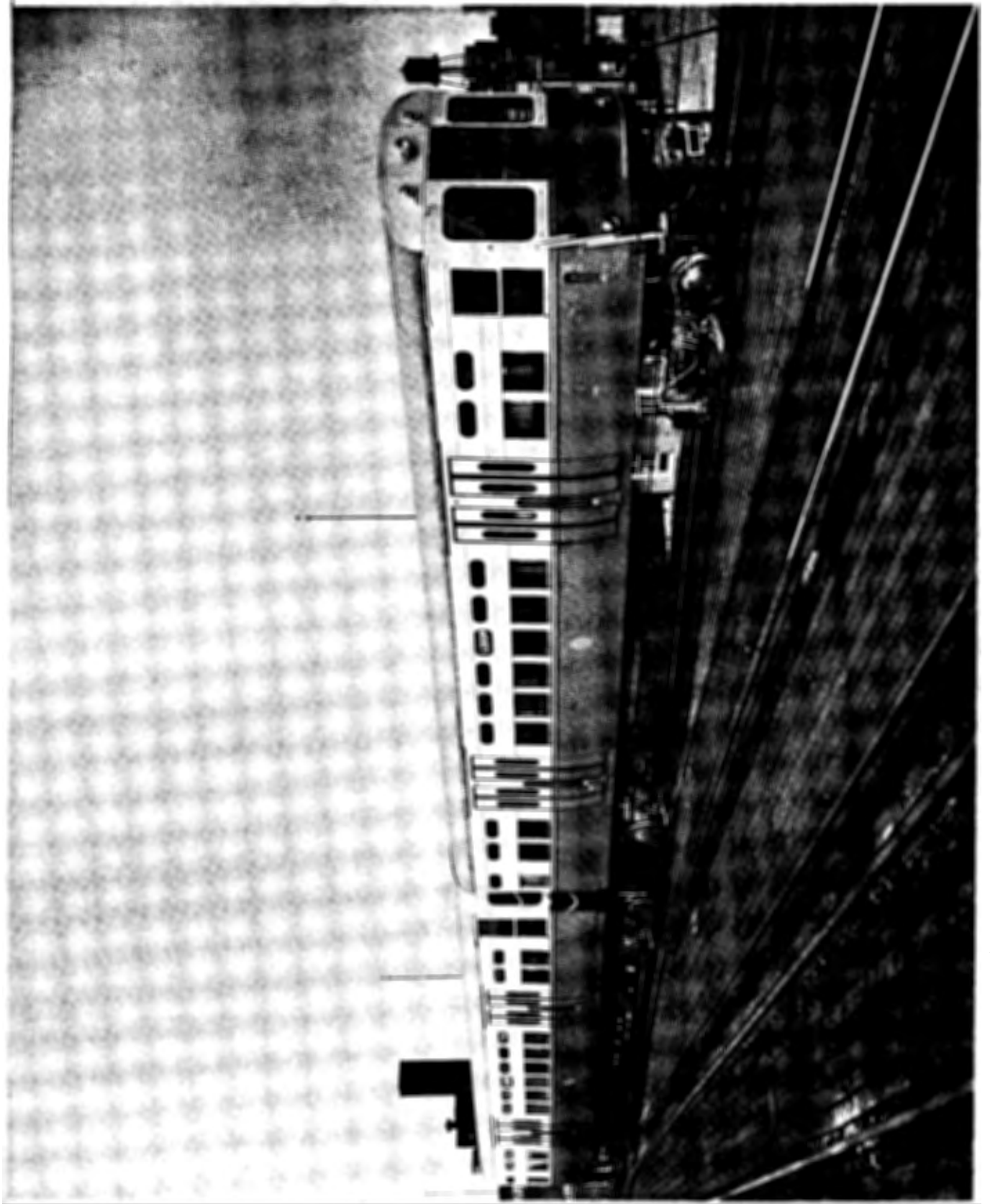


Figure 3. Chicago Transit Authority 6000 Series

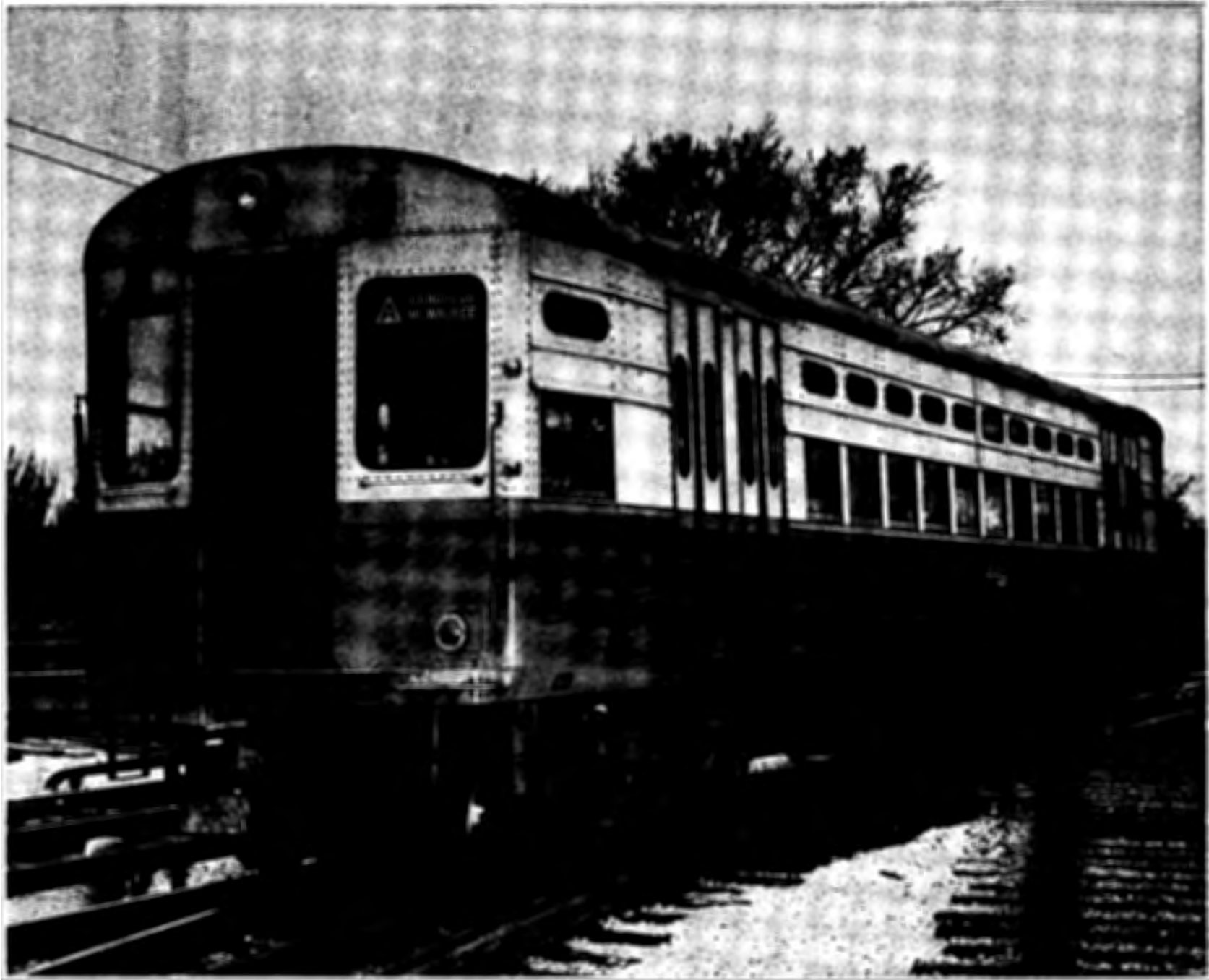


Figure 4. Chicago Transit Authority 1-50 Series

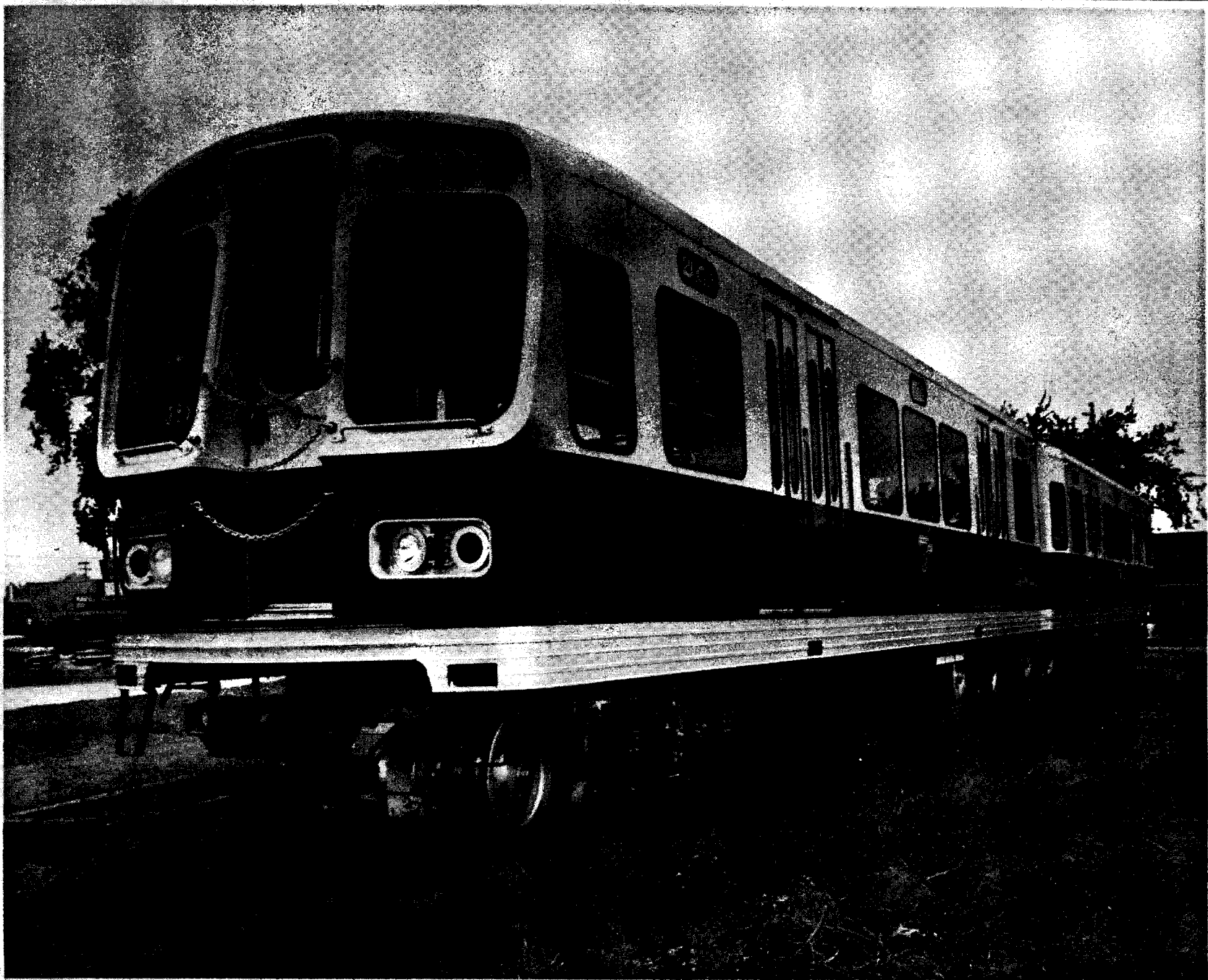


Figure 5. Chicago Transit Authority 2000 Series

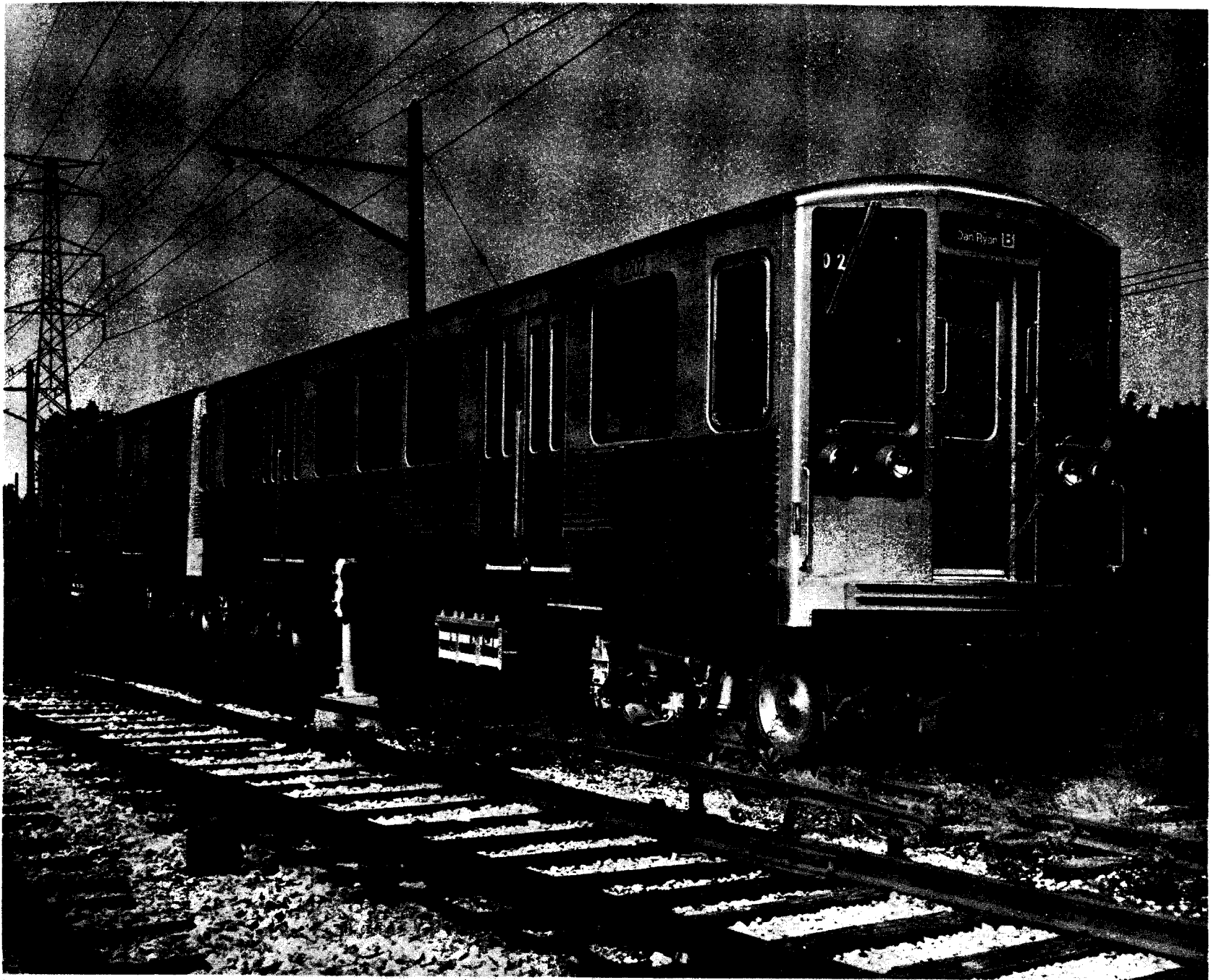


Figure 6. Chicago Transit Authority 2200 Series





Figure 7. Chicago Transit Authority 24000 Series



Figure 8. Greater Cleveland Regional Transit Authority -  
Typical of Cars 101-118 and 201-270





Figure 9. Greater Cleveland Regional Transit Authority -  
Typical of Cars 150-180

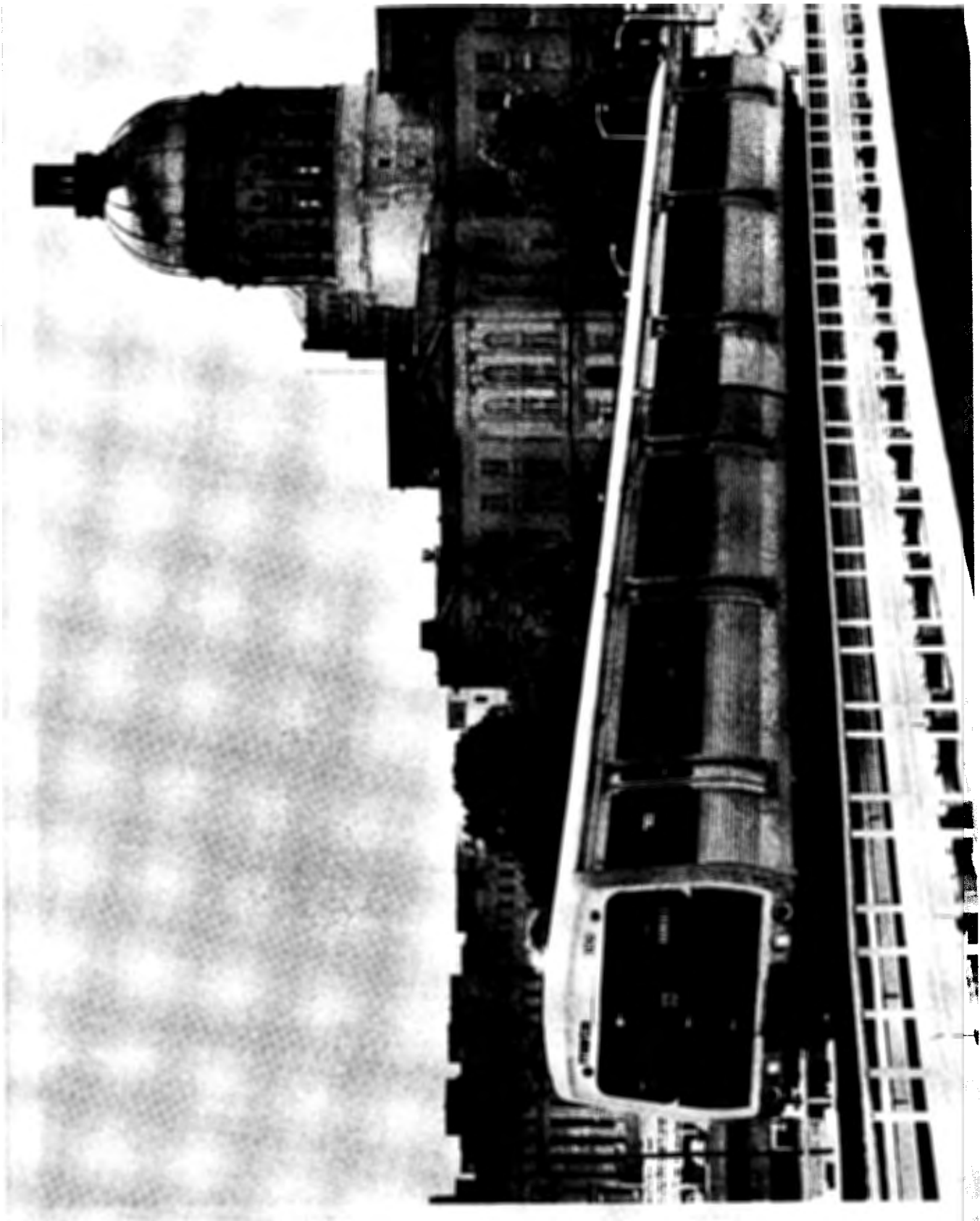


Figure 10. Metropolitan Atlanta Rapid Transit Authority



Figure 11. Montreal Urban Community Transit Commission -  
M-63 Transit Cars (original)

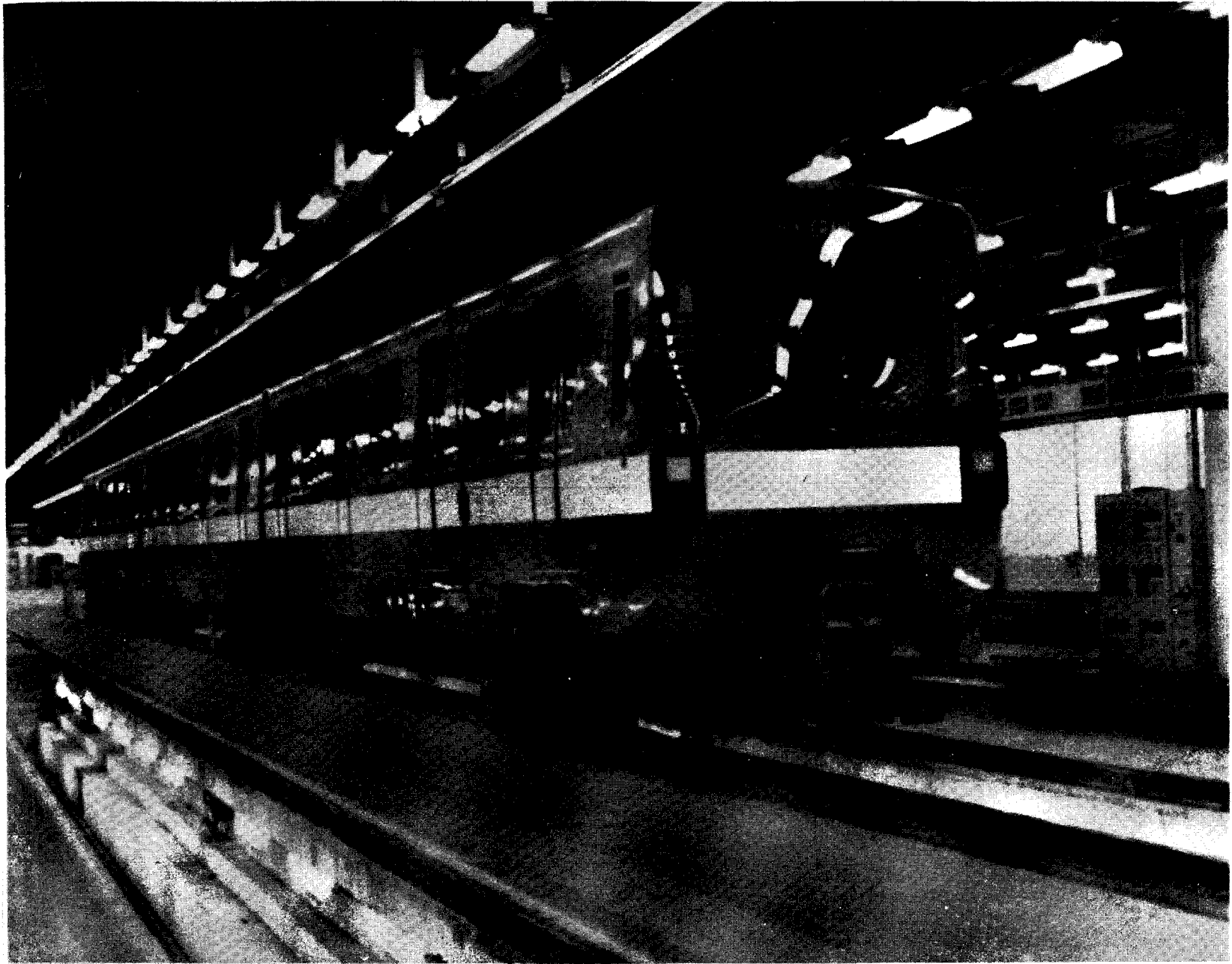


Figure 12. Montreal Urban Community Transit Commission -  
M-73 Transit Cars (new)

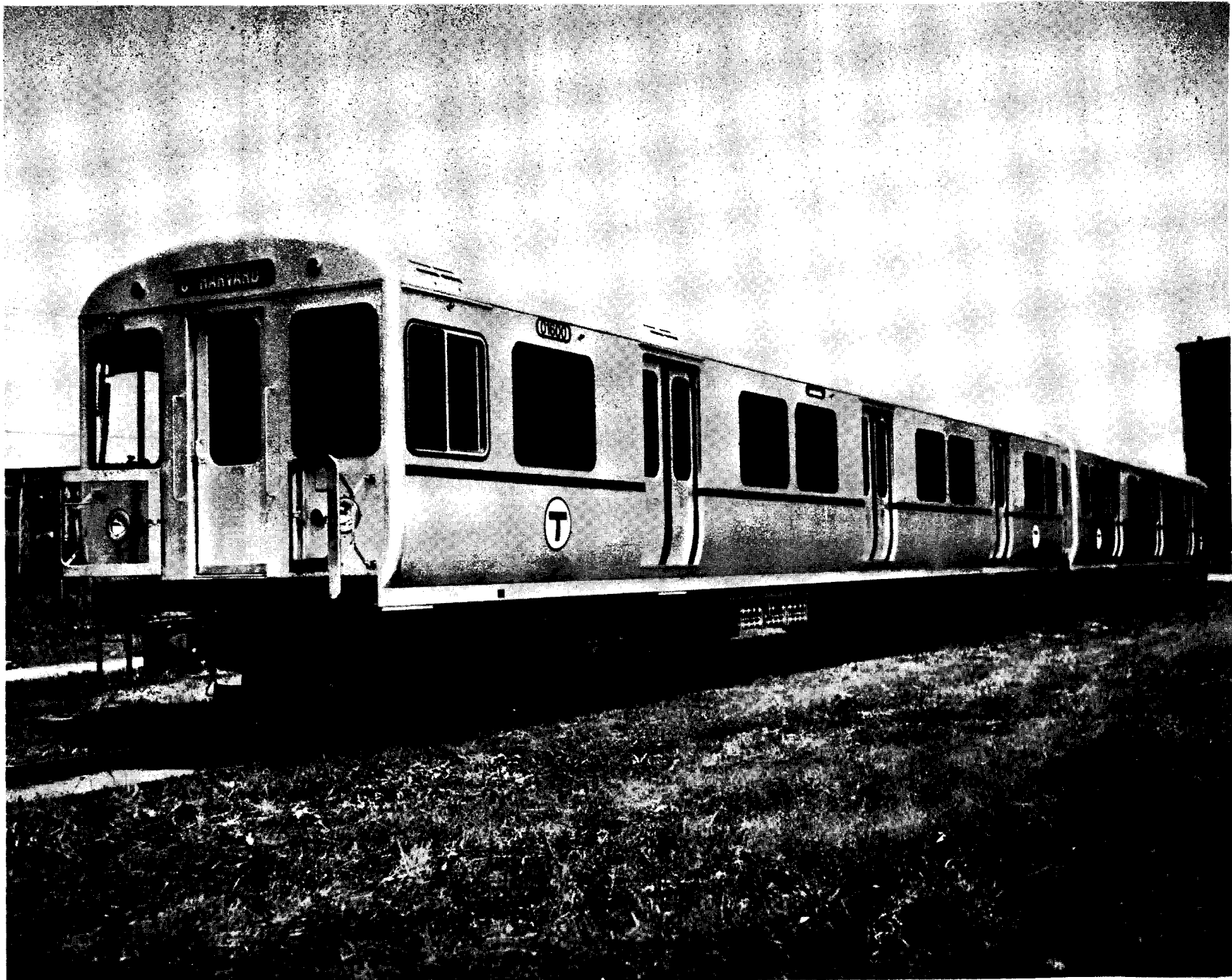


Figure 13. Montreal Urban Community Transit Commission (Bombardier)



Figure 14. Massachusetts Bay Transportation Authority -  
No. 5, Cambridge Dorchester Cars - 01400 Series





-237-

Figure 15. Massachusetts Bay Transportation Authority -  
No. 1, South Shore Cars - 01500-01600 Series

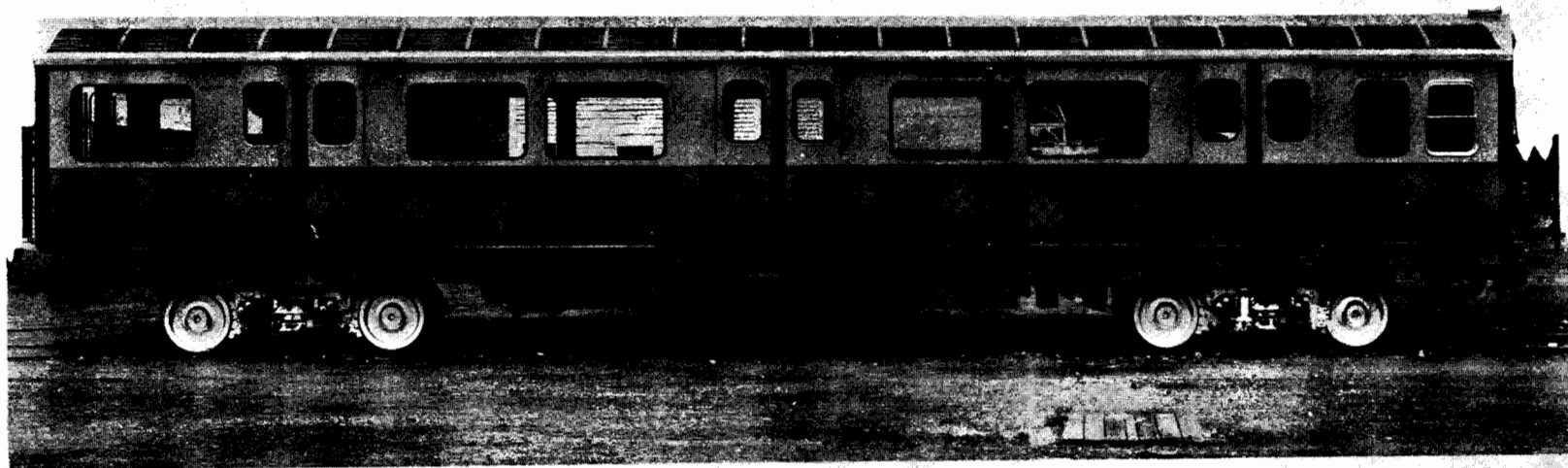


Figure 16. Massachusetts Bay Transportation Authority -  
No. 11, Main Line Cars - 01100 Series

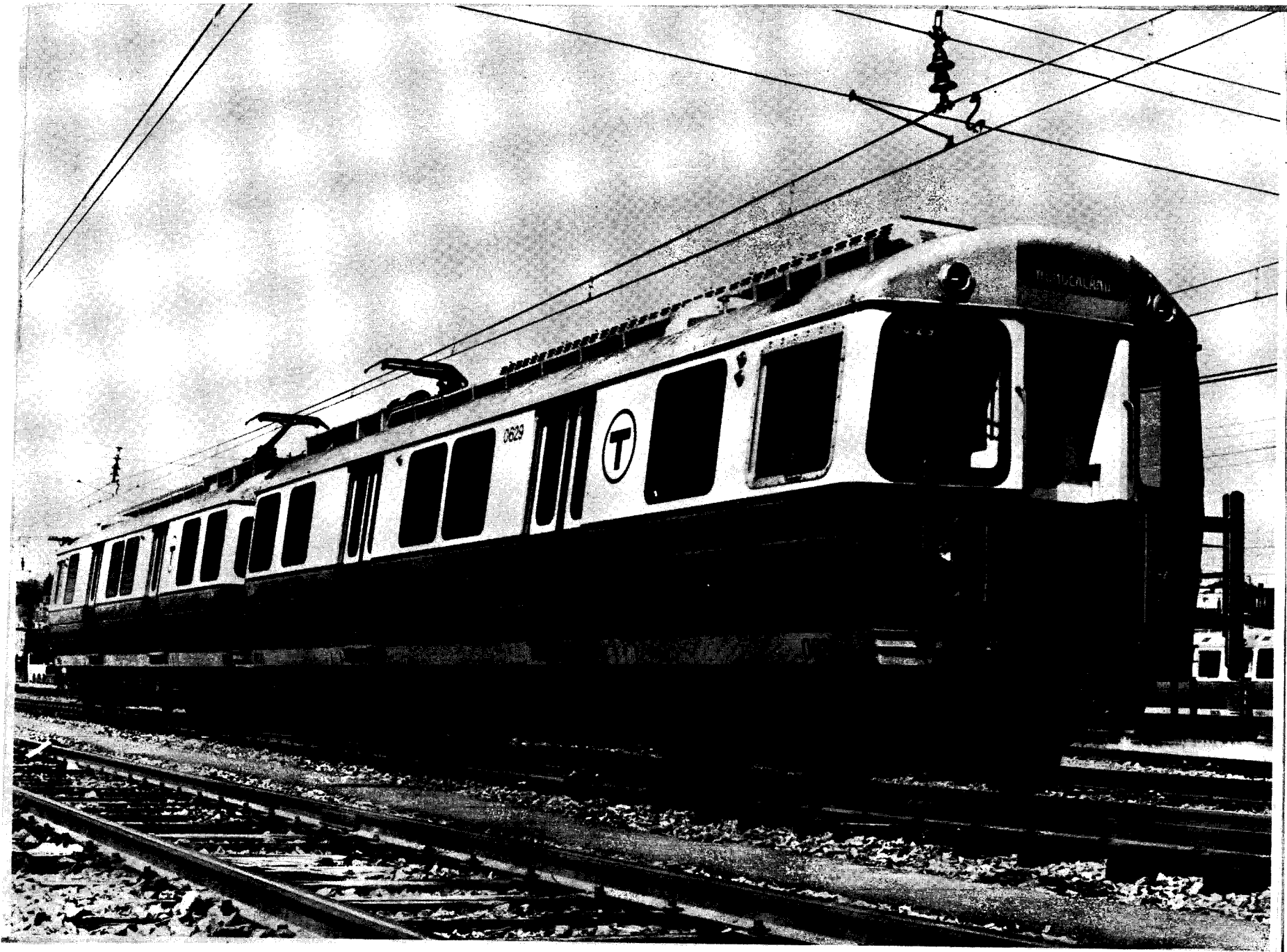


Figure 17. Massachusetts Bay Transportation Authority -  
Blue Line - 0600 Series

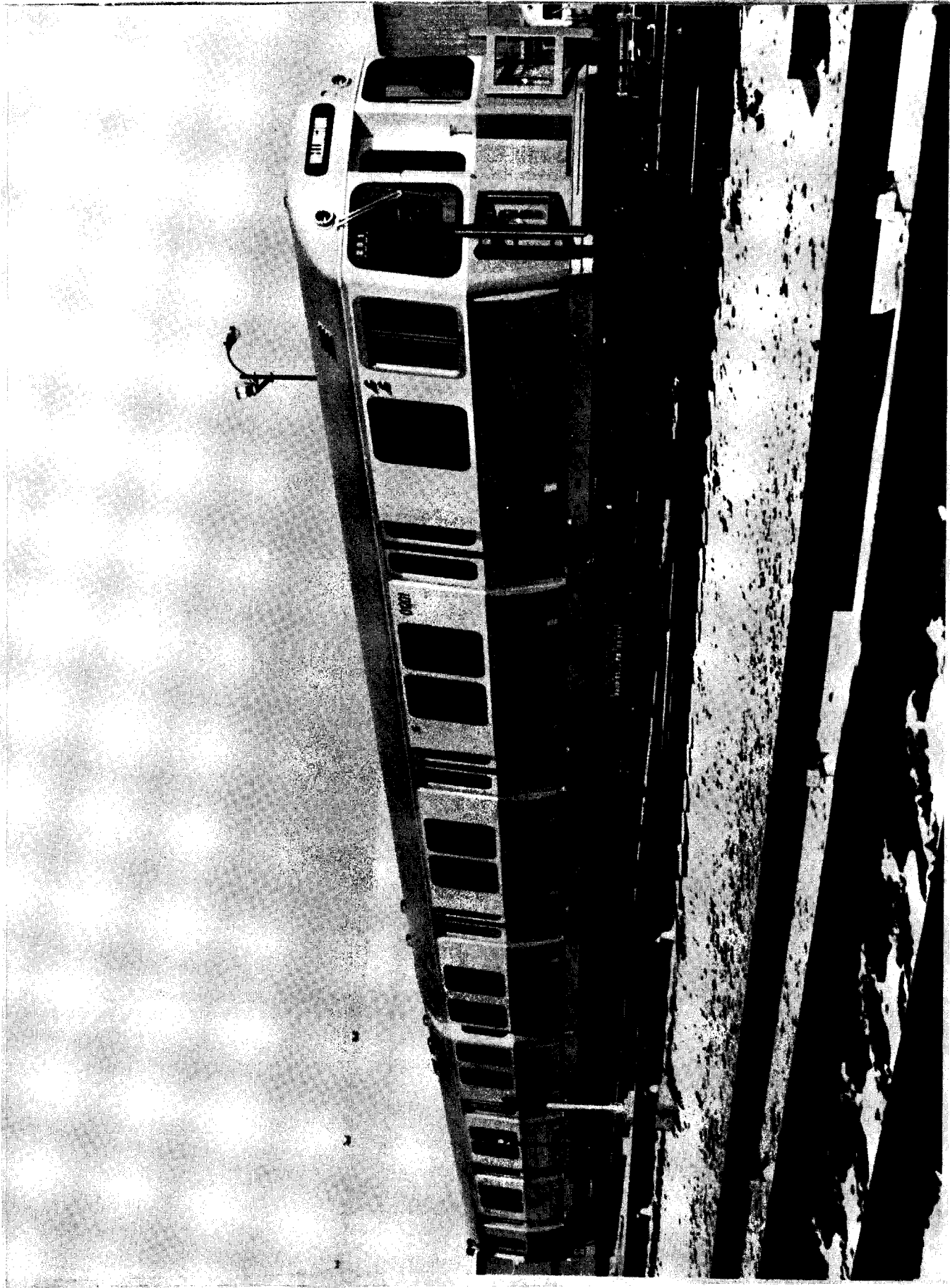


Figure 18. Massachusetts Bay Transportation Authority -  
Orange Line - 01200 Series

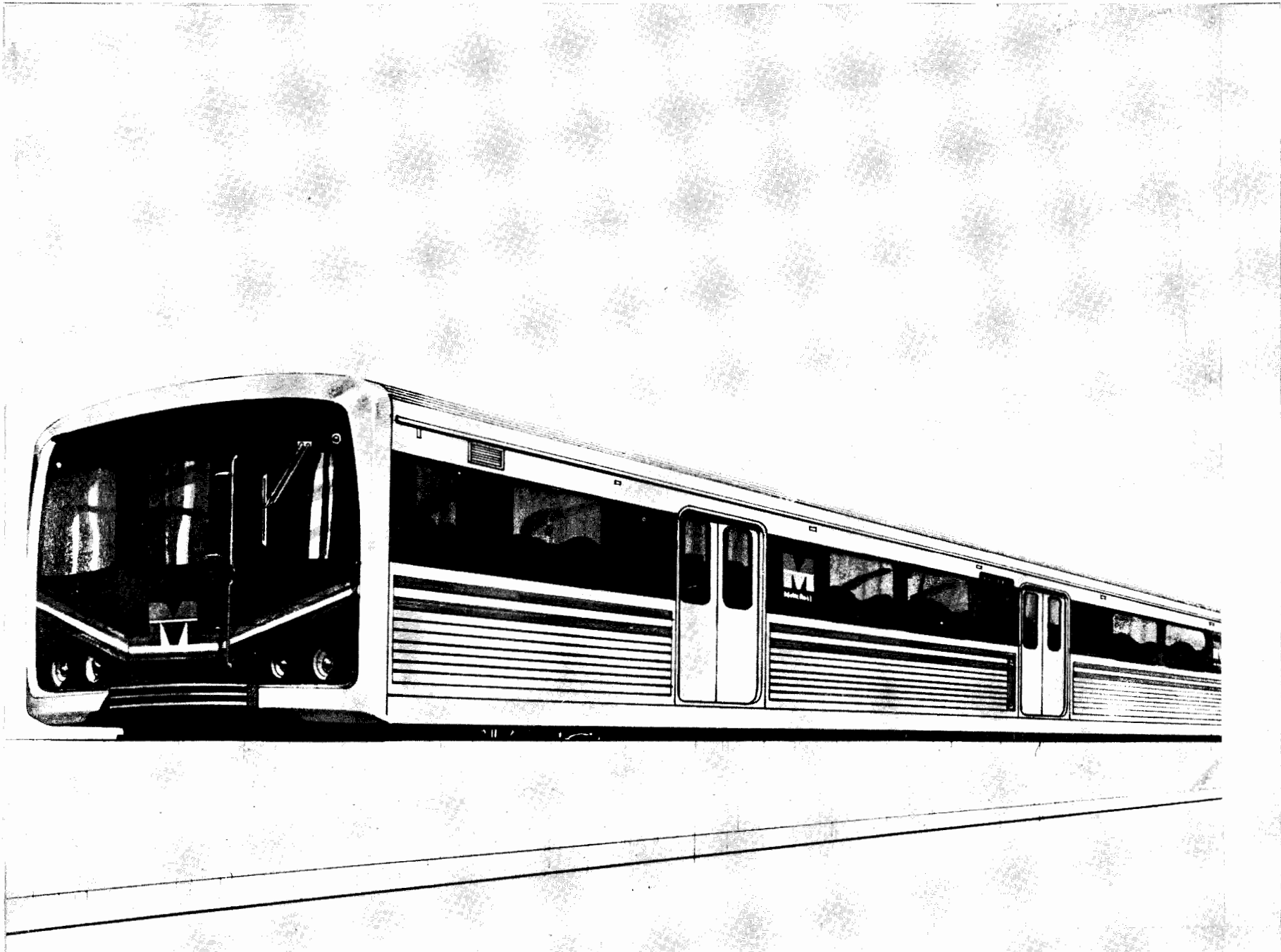


Figure 19. Metropolitan Dade County Transit Authority



Figure 20. New York City Transit Authority - R-10 Cars



Figure 21. New York City Transit Authority - R-11 Cars

-243-

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-244-

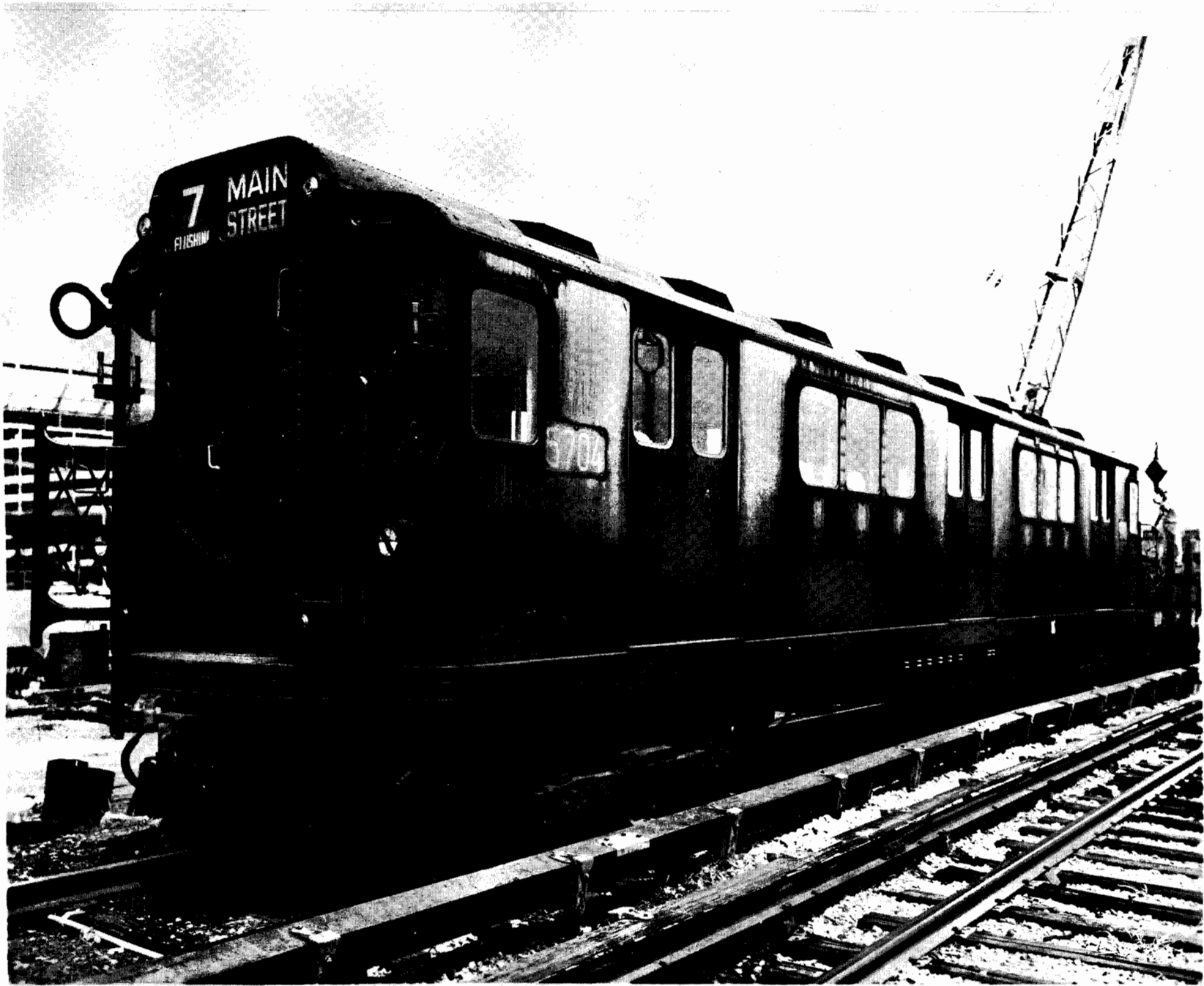


Figure 22. New York City Transit Authority - R-12 Cars





Figure 23. New York City Transit Authority - R-14 Cars



Figure 24. New York City Transit Authority - R-15 Cars

-247-



Figure 25, New York City Transit Authority - R-17 Cars



Figure 26. New York City Transit Authority - R-17 Cars



Figure 27. New York City Transit Authority - R-21 Cars  
(R-22 is similar)

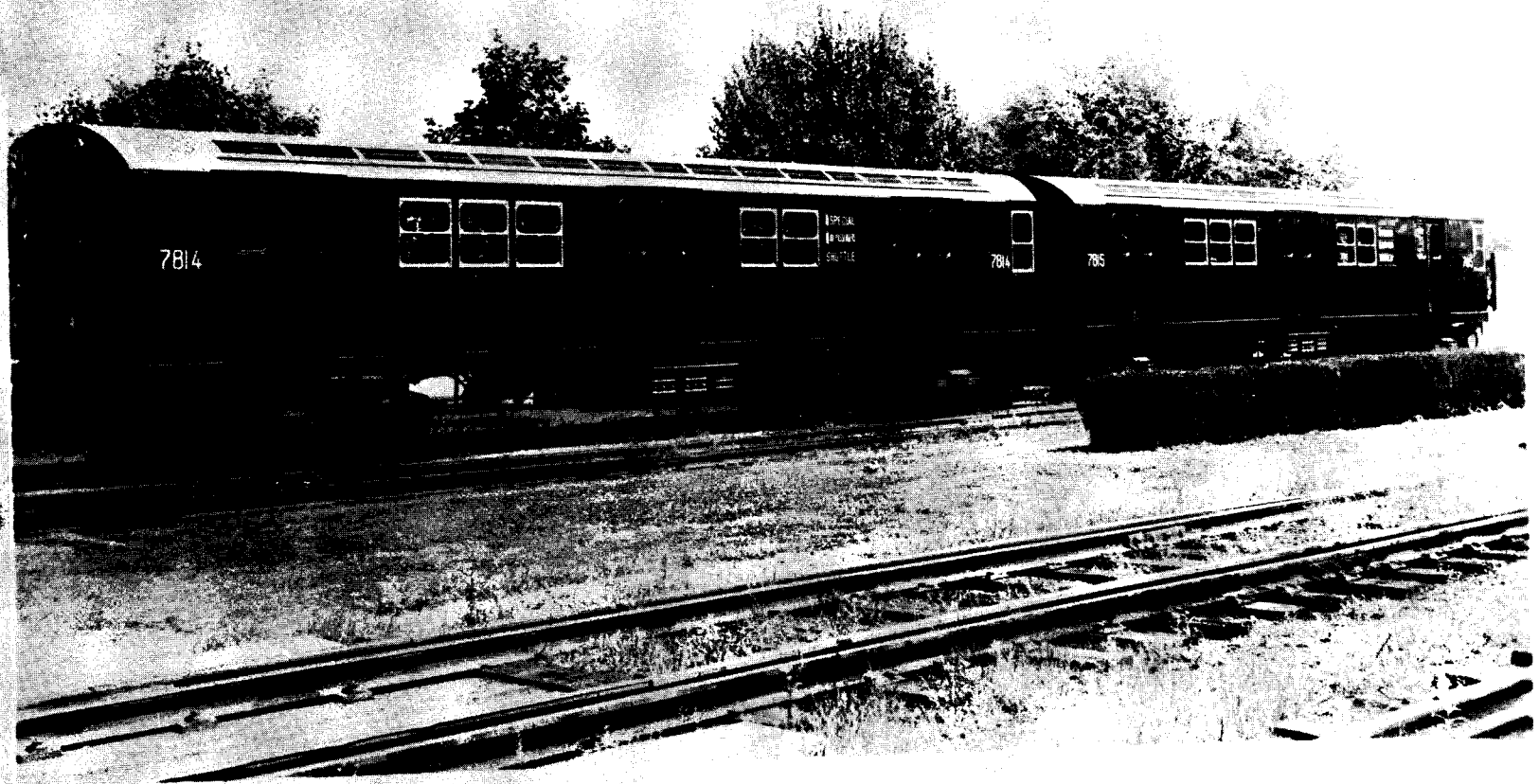


Figure 28. New York City Transit Authority - R-26 Cars  
(R-28 is similar)



Figure 29. New York City Transit Authority - R-27 Cars



Figure 30. New York City Transit Authority - R-30A Cars  
(R-30 is similar)





Figure 31. New York City Transit Authority - R-32A Cars  
(R-32 is similar)

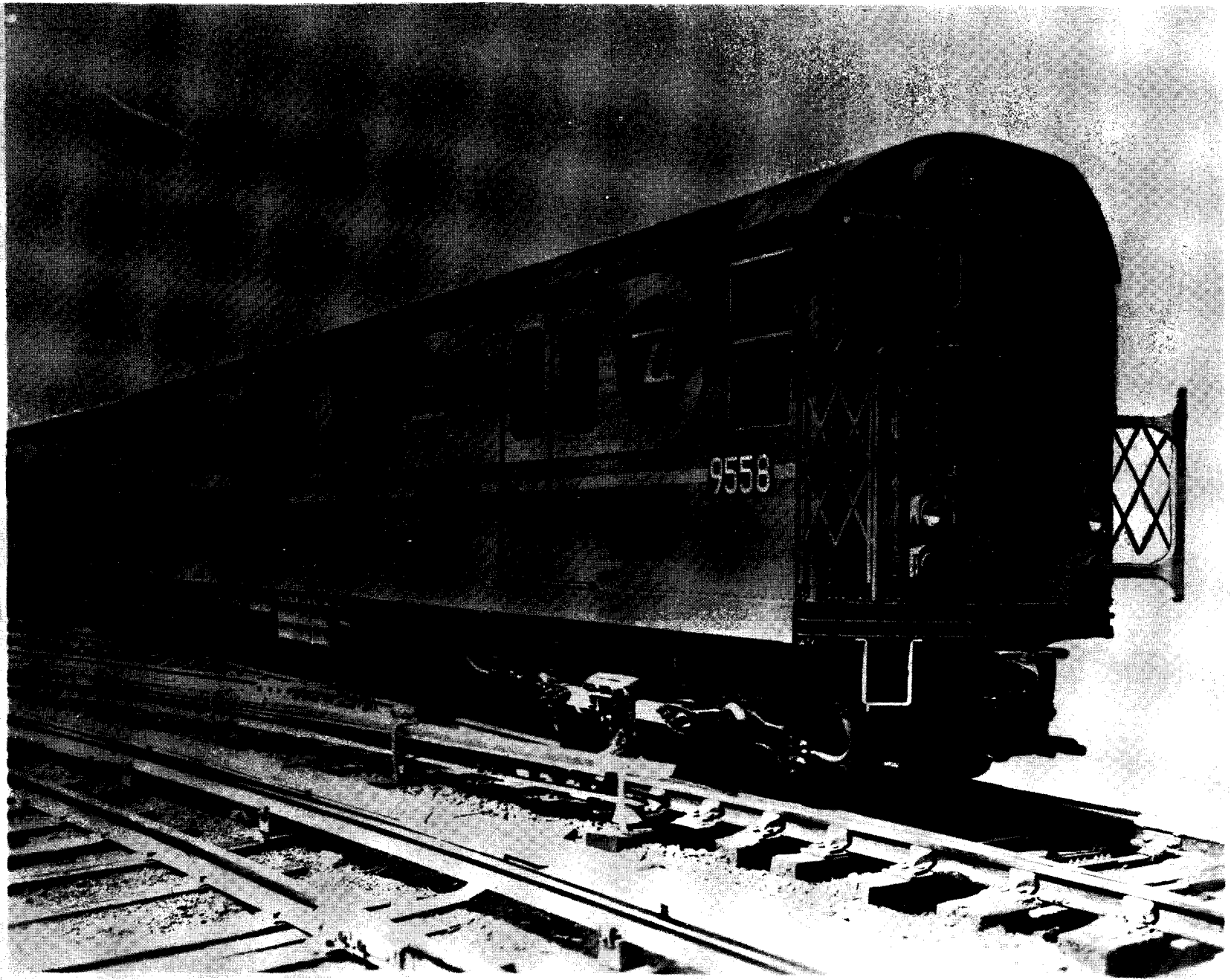


Figure 32. New York City Transit Authority - R-36 Cars  
(R-29, R-33 are similar except for original paint scheme)



Figure 33. New York City Transit Authority - R-38 Cars



Figure 34. New York City Transit Authority - R-40 Cars



Figure 35. New York City Transit Authority - R-42 Cars



Figure 36. New York City Transit Authority - R-44 Cars



Figure 37. New York City Transit Authority - R-46 Cars



Figure 38. Port Authority Trans-Hudson Corporation - PA-2 Cars  
(PA-1 cars are similar)





Figure 39. Port Authority Trans-Hudson Corporation - PA-2 Cars

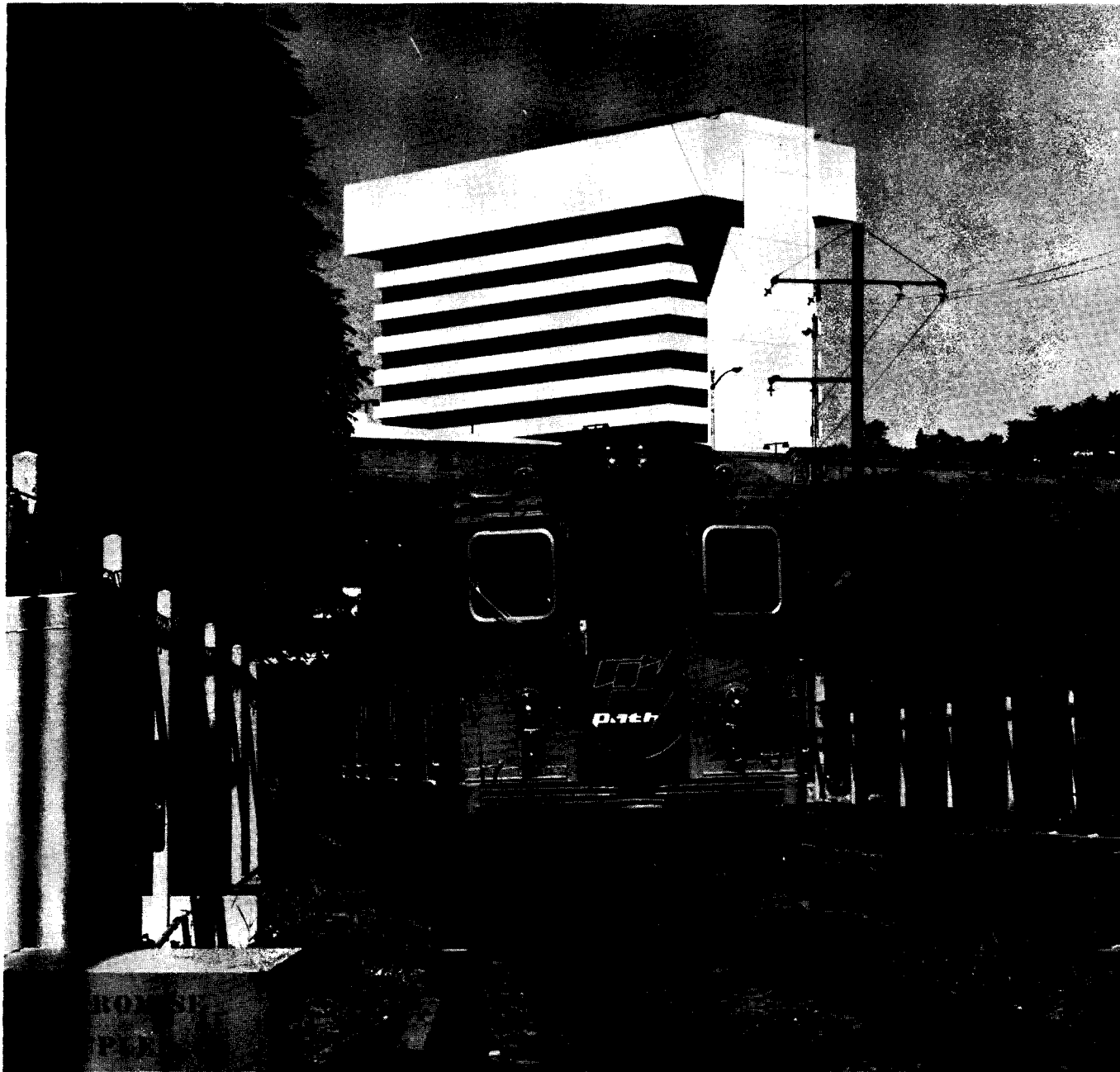


Figure 40. Port Authority Trans-Hudson Corporation - K Cars



Figure 41. Port Authority Transit Corporation - Single Car Units - 100 Series



Figure 42. Port Authority Transit Corporation - Married Pairs - 200 Series



Figure 43. Southeastern Pennsylvania Transportation Authority -  
Market-Frankford Subway Elevated Line

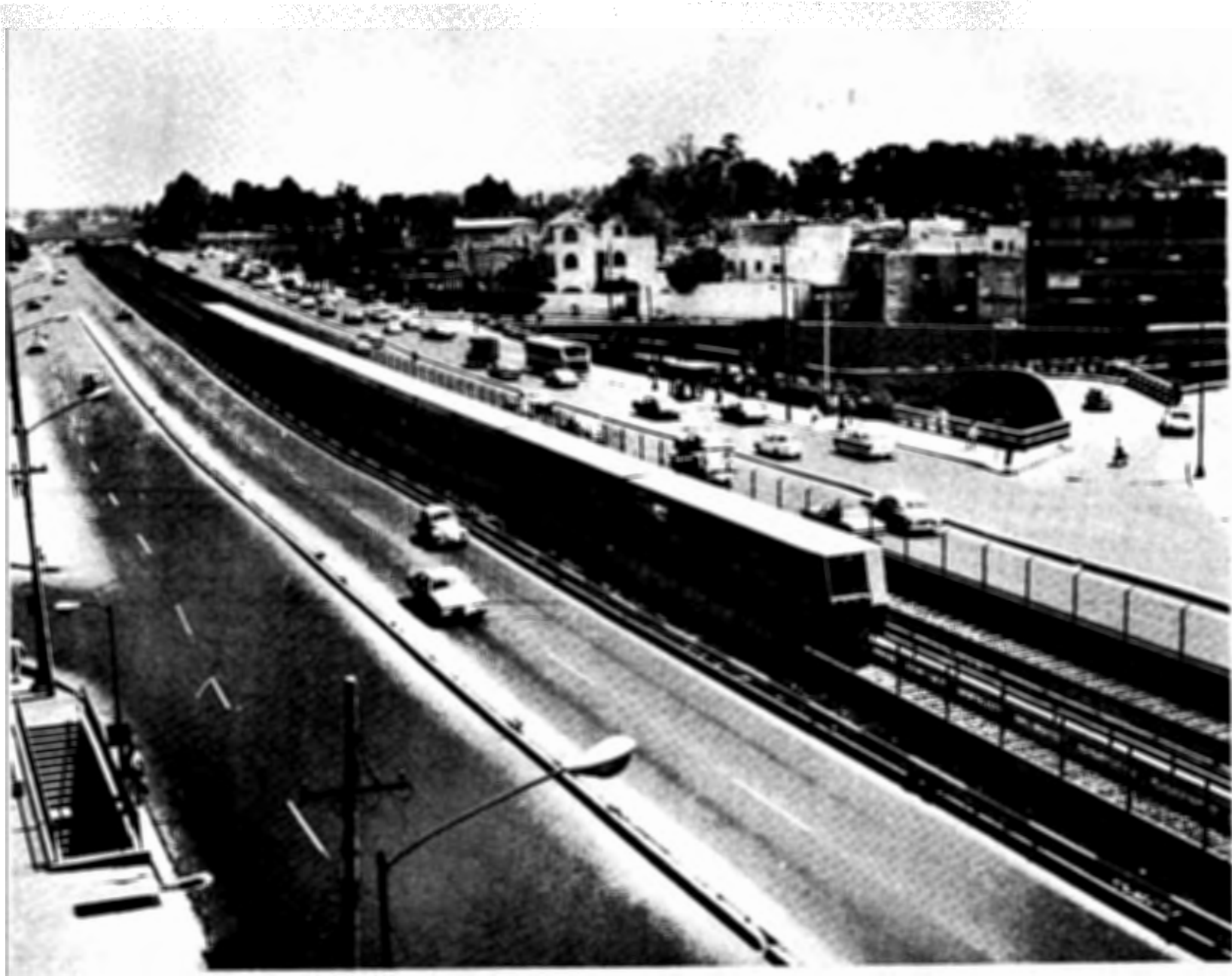


Figure 44. Sistema de Transporte Colectivo Organismo Publico Descentralizado  
(Mexico City Metro) Rapid Transit Cars

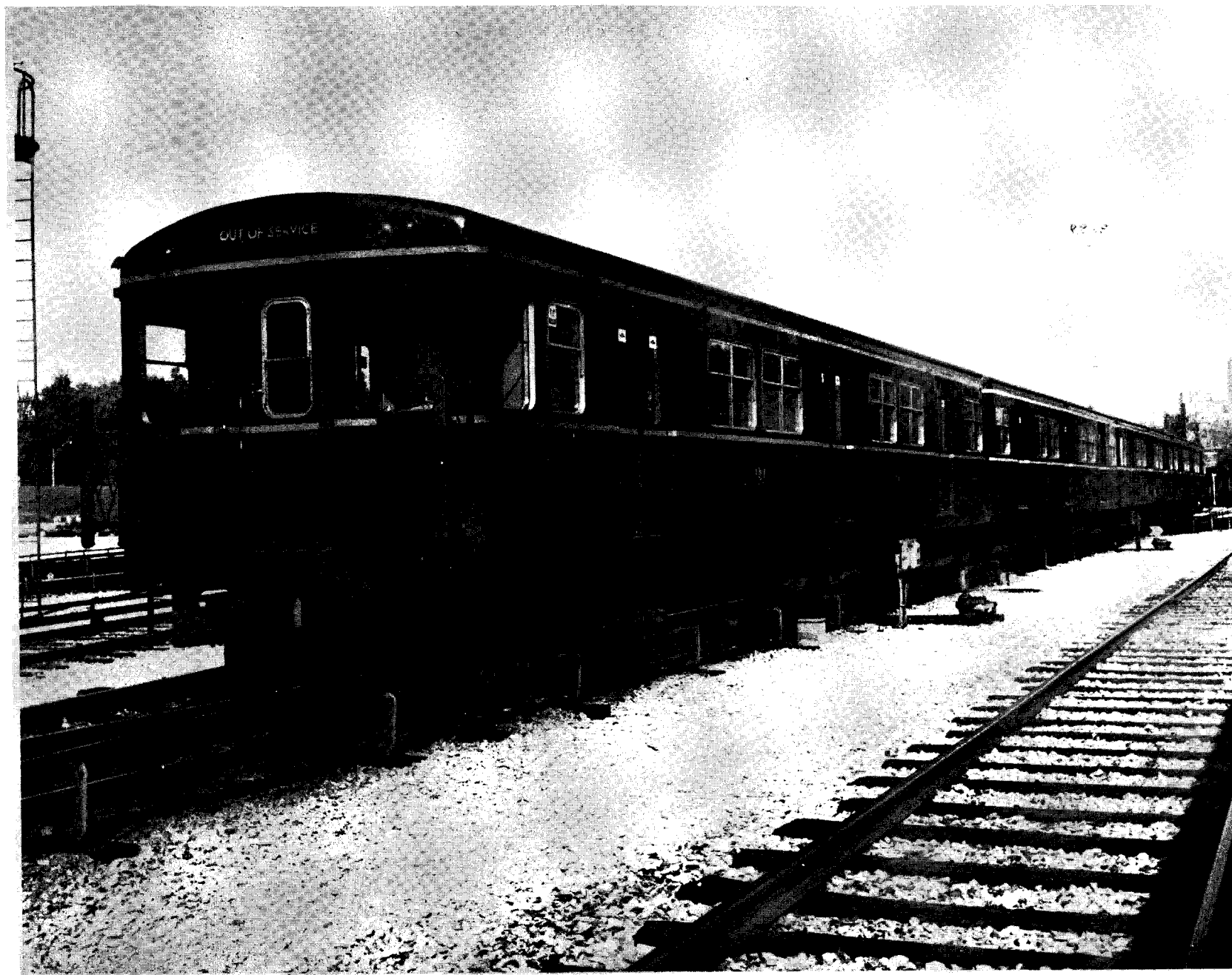


Figure 45. Toronto Transit Commission - G-1, G-3, G-4 Series  
(G-2 is similar, except for external color - brushed aluminum)

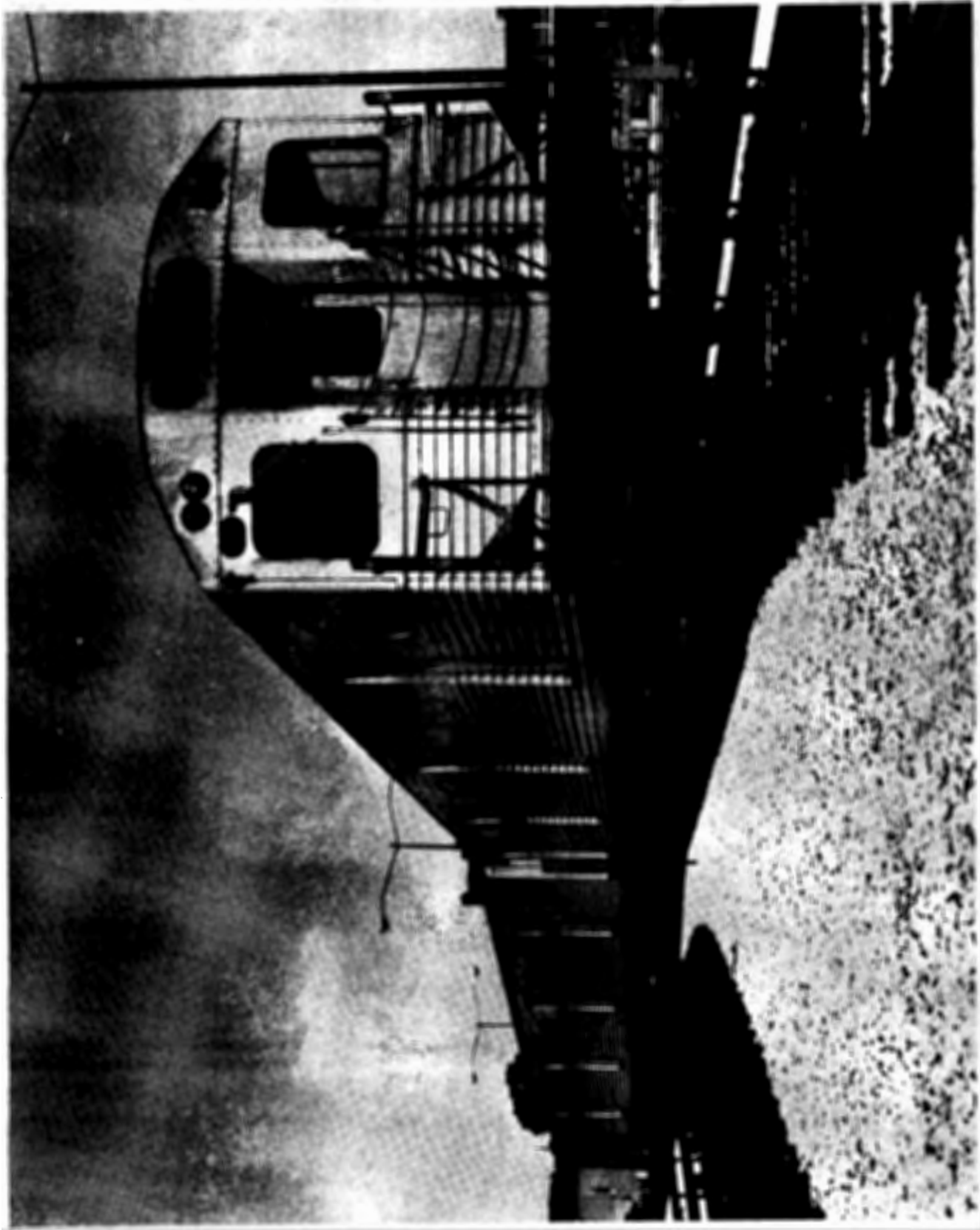


Figure 46. Toronto Transit Commission - M-1 Series



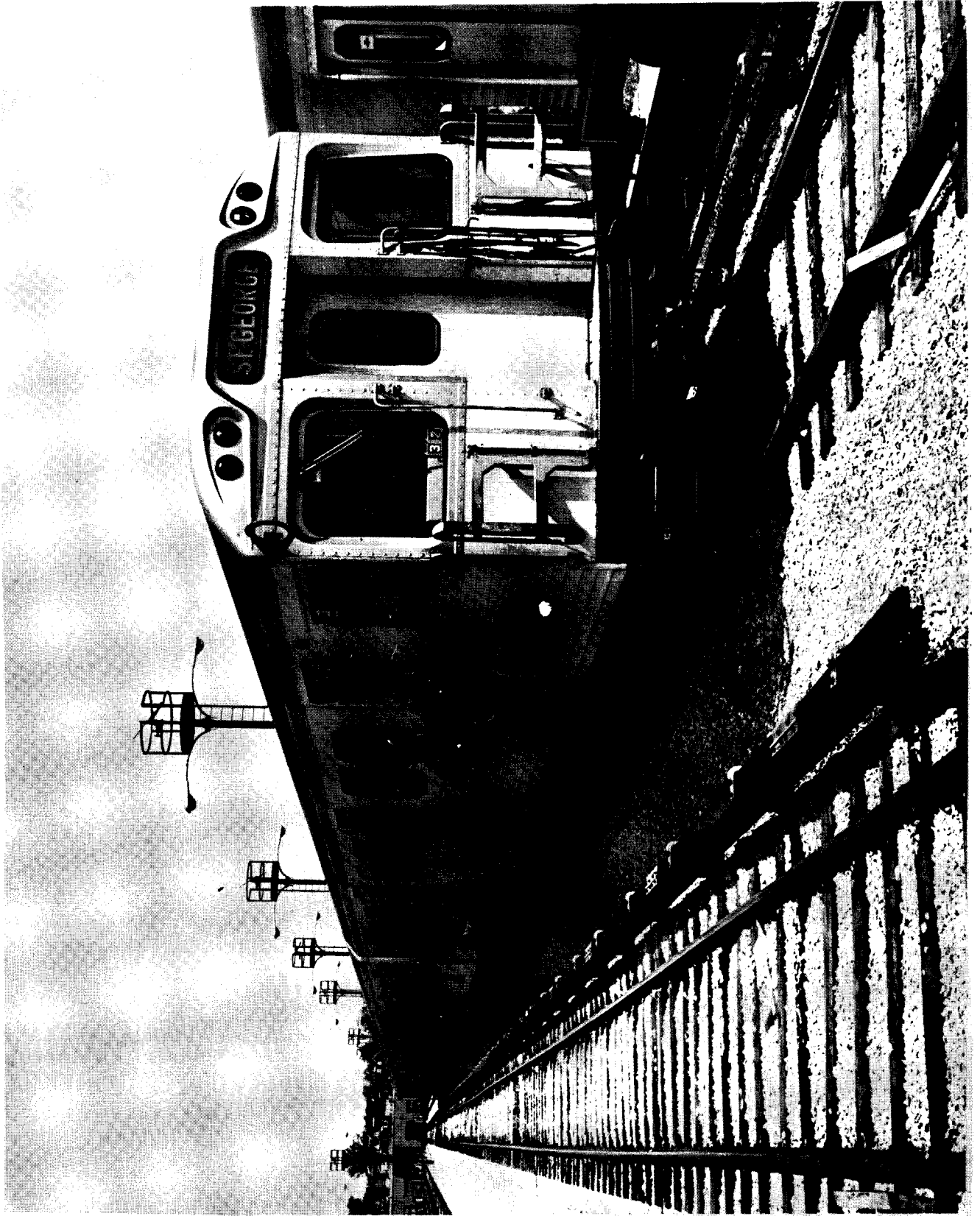


Figure 47. Toronto Transit Commission - H-1 Series

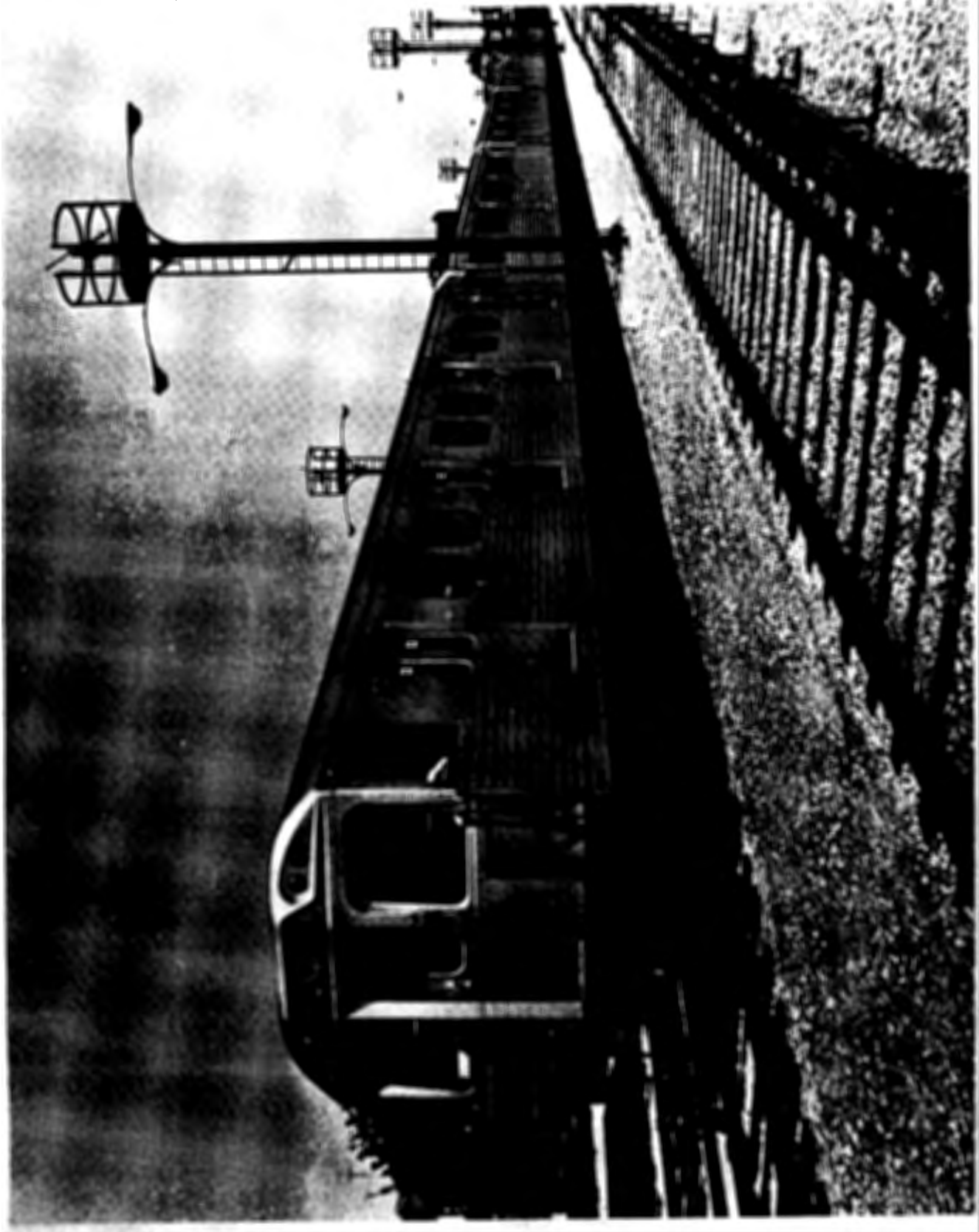


Figure 48. Toronto Transit Commission - H-2 Series  
(H-3 is similar to H-2)



Figure 49. Toronto Transit Commission - H-4 Series



Figure 50. Toronto Transit Commission - H-5 Series



Figure 51. Washington Metropolitan Area Transit Authority - 1000 Series

