

Table 2A - Rolling Stock Minimum Requirements and Specifications - Long Distance Express Service Type

Service Type: Long Distance Express		Min Req applies	Minimum Requirement Introduction Date*		*Where applicable, rolling stock is exempt from the early Minimum Requirement Introduction Date if it can be demonstrated that it will be replaced by new build rolling stock										
			If Not Exempt	If Exempt	Class 67	Mk III rake + DVT	Mk IV rake + DVT	Class 175/0	Class 175/1	Class TBA CAF Civity (2 car)	Class TBA CAF Civity (3 car - standard class only)	Class TBA CAF Civity (3 car - First class ready)	Class TBA CAF Civity (3 car - First class fitted)	Class TBA CAF Civity (3 car - Decommissioned First class)	
Type and Route Information	1	Class													
	2	Type		N/A	N/A	Loco	Other	Other	DMU	DMU	DMU	DMU	DMU	DMU	DMU
	3	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	4	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	5	Lease Start Date		N/A	N/A	14/10/2018	14/10/2018	01/11/2018	14/10/2018	14/10/2018	See R6.7	See R6.7	See R6.7	31/12/2024	See R6.7
	6	Lease End Date		N/A	N/A	16/10/2033[REDACTED]	31/12/2019	16/10/2033	31/05/2022	31/05/2022	16/10/2033	16/10/2033	31/12/2024	16/10/2033	31/12/2024
	7	Number of units at the Start Date		N/A	N/A	3	3	0	11	16	0	0	0	0	0
	8	Number of units (max number used during term of Grant Agreement)		N/A	N/A	3	3	3	11	16	51	12	Up to 7, depending on First Class deployment strategy Total of 14 "First class ready" or "Decommissioned First class"	14	From 7 to 14, depending on First Class deployment strategy Total of 14 "First class ready" or "Decommissioned First class"
	9	Vehicles / Unit		N/A	N/A	1	5	5	2	3	2	3	3	3	3
	10	Specified Routes		N/A	N/A	Cardiff - Holyhead	Cardiff - Holyhead	Cardiff - Holyhead	Milford Haven - Cardiff - Manchester/Holyhead	Milford Haven - Cardiff - Manchester/Holyhead	Milford Haven - Cardiff - Manchester/Holyhead	Milford Haven - Cardiff - Manchester/Holyhead	Milford Haven - Cardiff - Manchester/Holyhead	Milford Haven - Cardiff - Manchester/Holyhead	Milford Haven - Cardiff - Manchester/Holyhead
Minimum Requirements	11	PRM / RVAR Compliant (* Mandatory compliance by December 31st 2019)	✓	31/12/2019	N/A	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	12	Seats aligned with windows	✓	31/10/2020	31/10/2022	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	13	PRM Compliant Toilets	✓	31/12/2019	N/A	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	14	CET Toilet	✓	31/12/2019	N/A	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	15	Baby changing facilities	✓	31/12/2019	N/A	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	16	Power Supply available at all seats	✓	31/10/2020	31/12/2023	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	17	Catering facilities	✓	31/10/2020	N/A	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	18	Overhead racks throughout train for storing small items of luggage	✓	31/10/2020	31/10/2022	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	19	Facilities for storing large items of luggage within sight/proximity of passengers	✓	31/10/2020	N/A	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	20	Storage capacity for pushchairs / prams	✓	31/10/2020	31/10/2022	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	21	Dedicated cycle storage	✓	31/10/2020	31/10/2022	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
	22	Flexible storage for cycles		N/A	N/A	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	23	Vehicle will not affect mobile phone signal	✓	31/10/2020	N/A	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	24	Passenger Counting system	✓	31/10/2020	31/10/2022	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes
	25	CCTV (passenger environment)	✓	31/10/2020	31/10/2022	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	26	Wireless internet access	✓	31/10/2020	N/A	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	27	Air Conditioning System	✓	31/10/2020	31/12/2023	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	28	Pacer removal from service	✓	30/09/2020	N/A	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
29	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	
30	Seat reservation	✓	31/10/2020	N/A	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
31	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	

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			If Not Exempt	If Exempt	Class 67	Mk III rake + DVT	Mk IV rake + DVT	Class 175/0	Class 175/1	Class TBA CAF Civity (2 car)	Class TBA CAF Civity (3 car - standard class only)	Class TBA CAF Civity (3 car - First class ready)	Class TBA CAF Civity (3 car - First class fitted)	Class TBA CAF Civity (3 car - Decommissioned First class)
I	Class													
General Information	32	Vehicle Length in metres	N/A	N/A	19.71	23 - 19	23.4	23.71 - 23.03	23.71 - 23.03	24.026	24.026 - 23.350	24.026 - 23.350	24.026 - 23.350	24.026 - 23.350
	33	Number of vehicles fitted with passenger counting system	N/A	N/A	0	0	8	0	0	100	81	81	81	81
	34	Year built	N/A	N/A	1999 - 2000	1975 (TSO), 1979 (RFM), 1985 (TSO), 1988 (DVT)	1989 - 1992	1999 - 2001	1999 - 2001	2021 - 2022	2021 - 2022	2021 - 2022	2021 - 2022	2021 - 2022
	35	Age at the Start Date	N/A	N/A	19	43 (TSO), 39 (RFM), 33 (TSO), 30 (DVT)	26-29	17-19	17-19	0	0	0	0	0
	36	Max speed in mph	N/A	N/A	125	125	140	100	100	100	100	100	100	100
	37	Vehicle range limiting factor	N/A	N/A	1400 km	N/A	N/A	4300 km	4300 km	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	38	Flexibility to deploy on other routes	N/A	N/A	Limited routes availability	Limited routes availability	Limited routes availability	Cleared for various other routes in Wales	Cleared for various other routes in Wales	Flexible, will go on most routes	Flexible, will go on most routes	Flexible, will go on most routes	Flexible, will go on most routes	Flexible, will go on most routes
	39	Maximum operating length of train in metres	N/A	N/A	18	115	115	211.35	211.35	192.208	214.206	214.206	214.206	214.206
	40	Remote Fault-finding systems	N/A	N/A	KA fitting Altitude fault finding system	KA fitting Altitude fault finding system	KA fitting Altitude fault finding system	KA fitting Altitude fault finding system	KA fitting Altitude fault finding system	TCMS + OTDR	TCMS + OTDR	TCMS + OTDR	TCMS + OTDR	TCMS + OTDR
	41	Vehicle and infrastructure monitoring systems	N/A	N/A	No	Vibration monitoring	Vibration monitoring	Vibration monitoring	Vibration monitoring	Vibration monitoring	Vibration monitoring	Vibration monitoring	Vibration monitoring	Vibration monitoring
	42	CCTV (forward facing)	N/A	N/A	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	43	Acceleration rate in m/s ²	N/A	N/A	0.4	0.46	0.4	0.6	0.6	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	44	Deceleration rate in m/s ²	N/A	N/A	0.67	0.67	0.67	1	1	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	45	Engine Emission Standard	N/A	N/A	Data Not Available	N/A	N/A	Euro Stage II	Euro Stage II	Euro Stage V	Euro Stage V	Euro Stage V	Euro Stage V	Euro Stage V
	46	Unit tare weight in tonnes	N/A	N/A	88	200.5	207	99.297	146.761	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	47	Unit fully laden weight in tonnes	N/A	N/A	93	231	238.04	114.817	170.681	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	48	Diesel emission statement	N/A	N/A	Data Not Available	N/A	N/A	• CO: 4 g/kWh • HC: 1.1 g/kWh • NOx: 7 g/kWh • PM: 0.15 g/kWh	• CO: 4 g/kWh • HC: 1.1 g/kWh • NOx: 7 g/kWh • PM: 0.15 g/kWh	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	Capacity Information	49	Standard Class Fixed Seats	N/A	N/A	0	210	220	118	186	116	188	186	158
50		Standard Class Tip-Up Seats	N/A	N/A	0	0	0	16	20	5	8	8	8	8
51		Standard class seating layout (1+2, 2+2, 2+3, longitudinal, etc.)	N/A	N/A	N/A	2+2	2+2	2+2	2+2	2+2	2+2	2+2	2+2	2+2
52		First / Business Class Fixed Seats	N/A	N/A	0	18	19	0	0	0	0	0	16	0
53		First / Business class seating layout (1+2, 2+2, 2+3, longitudinal, etc.)	N/A	N/A	N/A	1+2	1+2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
54		Wheelchair Spaces per Unit	N/A	N/A	0	1	2	2	2	2	2	2	2	2
55		Standing Capacity	N/A	N/A	Assume 0.45sqm per standing passenger	Assume 0.45sqm per standing passenger	Assume 0.45sqm per standing passenger	Assume 0.45sqm per standing passenger	Assume 0.45sqm per standing passenger	Assume 0.45sqm per standing passenger	Assume 0.45sqm per standing passenger	Assume 0.45sqm per standing passenger	Assume 0.45sqm per standing passenger	Assume 0.45sqm per standing passenger
					0	147	147	58	91	79	118	118	100	118
56		Dedicated cycle storage spaces per unit	N/A	N/A	0	6	6	0	0	1	1	1	1	1
57		Flexible storage spaces for cycles per unit	N/A	N/A	0	0	0	2	2	2	2	2	2	2
58		Toilets per unit	N/A	N/A	0	6	4	2	3	1	2	2	2	2
59		Door position on vehicle (i.e. vehicle end doors or 1/3 and 2/3 positioned doors)	N/A	N/A	N/A	Vehicle end doors	Vehicle end doors	Vehicle end doors	Vehicle end doors	1/3 - 2/3	1/3 - 2/3	1/3 - 2/3	1/3 - 2/3	1/3 - 2/3
60		Facilities for standing passengers	N/A	N/A	N/A	Seat back handles	Seat back handles	Seat back handles	Seat back handles	Seat back handles and grab poles provided	Seat back handles and grab poles provided	Seat back handles and grab poles provided	Seat back handles and grab poles provided	Seat back handles and grab poles provided
61		Number of fixed tables per vehicle	N/A	N/A	N/A	Data Not Available	32 (15 POS, 3 SV, 6 TOD, 8 TOE)	10 (6 DMSL, 4 DMSL)	18 (6 DMSL, 8 MSL, 4 DMSL)	10 (Car A 4, Car B 6)	16 (Car A 4, Car B 6, Car C 6)	16 (Car A 4, Car B 6, Car C 6)	16 (Car A 4, Car B 6, Car C 6)	16 (Car A 4, Car B 6, Car C 6)
62		Number of folding tables per vehicle	N/A	N/A	N/A	Not Available	14 / 18 / 40 / 42	26 / 40	26 / 28 / 40	28 / 44	28 / 46 / 44	28 / 46 / 44	28 / 46 / 44	28 / 46 / 44
63		Type of heating and ventilation fitted (air conditioning, pressure ventilation and body side heater, etc.)	N/A	N/A	N/A	HVAC system	HVAC system	Soprano cab and saloon air conditioning modules	Soprano cab and saloon air conditioning modules	HVAC system	HVAC system	HVAC system	HVAC system	HVAC system
64		Floor covering (i.e. lino, carpet, etc.)	N/A	N/A	N/A	Carpet	Carpet	Carpet	Carpet	Carpet	Carpet	Carpet	Carpet	Carpet
65		Door control system fitted	N/A	N/A	N/A	Manually operated slam-doors	Automatic push-button operated plug-type doors	Guard control panel	Guard control panel	Guard control panel/ Driver control	Guard control panel/ Driver control	Guard control panel/ Driver control	Guard control panel/ Driver control	Guard control panel/ Driver control
66	GPS system fitted	N/A	N/A	N/A	KA fitting Altitude GPS system	KA fitting Altitude GPS system	KA fitting Altitude GPS system	KA fitting Altitude GPS system	TL&M compliant GPS	TL&M compliant GPS	TL&M compliant GPS	TL&M compliant GPS	TL&M compliant GPS	

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67	Refurbishment 1 - Start Date				N/A	N/A	01/09/2019	14/10/2018	14/10/2018	N/A	N/A	14/10/2024	N/A	14/10/2024
68	Refurbishment 1 - End Date				N/A	N/A	31/12/2019	31/12/2019	31/12/2019	N/A	N/A	14/12/2024	N/A	14/12/2024
69	Refurbishment 1 - Scope				N/A	N/A	Install electronic seat reservation and passenger counting system	Train wrap to rebrand, internal refurbishment, including seat cover replacement, grab pole repainting and floor covering replacement, vinyls on toilet walls to match TFW branding.	Train wrap to rebrand, internal refurbishment, including seat cover replacement, grab pole repainting and floor covering replacement, vinyls on toilet walls to match TFW branding.	N/A	N/A	Fitment of 16 first class seats (replacing 28 standard seats) to turn these units into "Class TBA CAF Civity (3 car - First class fitted)"	N/A	First class commissioning to turn these units into "Class TBA CAF Civity (3 car - First class fitted)"
70	Refurbishment 2 - Start Date				N/A	N/A	N/A	14/10/2018	14/10/2018	N/A	N/A	N/A	N/A	N/A
71	Refurbishment 2 - End Date				N/A	N/A	N/A	31/12/2019	31/12/2019	N/A	N/A	N/A	N/A	N/A
72	Refurbishment 2 - Scope				N/A	N/A	N/A	Installation of at seat power	Installation of at seat power	N/A	N/A	N/A	N/A	N/A
73	Passenger Assist Bluetooth Beacon fitted by 2020				N/A	N/A	Yes	Yes	Yes	By vehicle introduction date	By vehicle introduction date	By vehicle introduction date	By vehicle introduction date	By vehicle introduction date
74	[REDACTED] PIS fitted				N/A	No	No, to be fitted with KeTech real time passenger information system	No	No	Yes	Yes	Yes	Yes	Yes
75	3-pin and USB power sockets at every seat				N/A	3-pin sockets fitted	Yes	3-pin and USB sockets to be fitted at every seat	3-pin and USB sockets to be fitted at every seat	Yes	Yes	Yes	Yes	Yes
76	End gangways fitted				N/A	on coaching stock	on coaching stock	No	No	Yes	Yes	Yes	Yes	Yes
77	On-Train Data Recorder (OTDR) data harvester				To be fitted	To be fitted	To be fitted	To be fitted	To be fitted	N/A	N/A	N/A	N/A	N/A
78	Wheel Slip/ Slide Protection (WSP) system fitted				N/A	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
79	On Board Energy Storage (OBES) fitted				No	No	No	No	No	No	No	No	No	No
80	Twin Cat 7 ethernet backbones to enable gigabit transmission fitted				No	No	No	No	No	By vehicle introduction date	By vehicle introduction date	By vehicle introduction date	By vehicle introduction date	By vehicle introduction date
81	Driver Advisory System (DAS) to be fitted if not already installed				Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
82	Selective Door Opening (SDO) fitted				No	No	No	No	No	By vehicle introduction date	By vehicle introduction date	By vehicle introduction date	By vehicle introduction date	By vehicle introduction date
83	ETCS fitted				No	No	No	No	No	To be fitted to 21 CAF Civity units by vehicle introduction date	To be fitted to 21 CAF Civity units by vehicle introduction date	To be fitted to 21 CAF Civity units by vehicle introduction date	To be fitted to 21 CAF Civity units by vehicle introduction date	To be fitted to 21 CAF Civity units by vehicle introduction date