

Mr Steve Leigh
Program Manager
Network Rail Telecoms
The Quadrant, Level 2 Caldecotte,
Eldergate
Milton Keynes
Buckinghamshire
MK9 1HA

Your Ref : OP158365 R00008

Case Ref: PRM-IOP-0333

EIN Number : As listed

Date: 27th August 2020

Contact: Stephen Williams 3rd Floor, Mallard House, Kings Pool, 1-2 Peasholme Green, York. YO1 7PX.

Dear Steve,

THE RAILWAYS (INTEROPERABILITY) REGULATIONS 2011, AS AMENDED TYPE AUTHORISATION OF GSMR V4.0 FITTED TO THE VEHICLES LISTED IN THIS LETTER IN CONFORMITY WITH EUROPEAN REGISTER OF AUTHORISED TYPE REFERENCE 11-095-0001-5-001.

I refer to your application for type authorisation, received on 24th August 2020. Following a review of your application, I can confirm that ORR grants an authorisation under regulation 9 of the Railways (Interoperability) Regulations 2011, as amended.

This authorisation is for the placing in service of V4.0 GSM-R Cab Mobile sub system fitted with an interference resistant transceiver. In addition, there is an option to replace the current GSM-R antenna with a combined GSM-R/GPS antenna and to fit and additional LTE antenna.

- GSM-R Cab Mobile Type GSM-R V4.0 Cab Mobile SVR400+ with NR4.0 software (Build 1127) which incorporate an ETSI TS 102 933 V 2.1.1 compliant transceiver.
- GSM-R/GPS antenna (Fitment of combined GSM-R/GPS antennae is optional)
 - o Huber & Suhner SWA-0825/360/5/30/DFRX30
 - Polomarconi BGLD1/S
- LTE antenna (Fitment of LTE antennae is optional)
 - Huber & Suhner SWA-0825/360/5/30/MIMO
 - o Panorama Antennas TRNM-7-60-NJ
 - o Polomarconi T01811814
 - o Huber & Suhner Sencity Rail MIMO Antenna 1399.17.0222



This conforms to European Register of Authorised Types (ERATV) type 11-095-0001-5-001

This authorisation applies to the following inclusive.

Operator	Class	Vehicle	Cab	V4.0 Installation Date	V4.0 Serial Number	EIN
Arriva Rail London	378	378143	Α	07/08/2020	06103890	UK/51/2020/0039
Arriva Rail London	378	378143	В	07/08/2020	06102030	UK/51/2020/0039
Arriva Rail London	378	378152	Α	21/08/2020	06155623	UK/51/2020/0039
Arriva Rail London	378	378152	В	21/08/2020	06185369	UK/51/2020/0039
Arriva Rail London	378	378205	Α	30/07/2020	06714148	UK/51/2020/0039
Arriva Rail London	378	378205	В	30/07/2020	06084321	UK/51/2020/0039
Arriva Rail London	378	378209	Α	07/08/2020	06419310	UK/51/2020/0039
Arriva Rail London	378	378209	В	07/08/2020	06103903	UK/51/2020/0039
Arriva Rail London	378	378210	Α	17/08/2020	06118148	UK/51/2020/0039
Arriva Rail London	378	378210	В	17/08/2020	06157635	UK/51/2020/0039
Arriva Rail London	378	378211	Α	11/08/2020	06077333	UK/51/2020/0039
Arriva Rail London	378	378211	В	11/08/2020	06077347	UK/51/2020/0039
Arriva Rail London	378	378212	Α	11/08/2020	06105054	UK/51/2020/0039
Arriva Rail London	378	378212	В	11/08/2020	06105053	UK/51/2020/0039
Arriva Rail London	378	378213	Α	16/08/2020	06139115	UK/51/2020/0039
Arriva Rail London	378	378213	В	16/08/2020	06186188	UK/51/2020/0039
Arriva Rail London	378	378214	Α	12/08/2020	06077337	UK/51/2020/0039
Arriva Rail London	378	378214	В	12/08/2020	06136193	UK/51/2020/0039
Arriva Rail London	378	378221	Α	11/08/2020	06103886	UK/51/2020/0039
Arriva Rail London	378	378221	В	11/08/2020	06137413	UK/51/2020/0039
Arriva Rail London	378	378225	Α	30/07/2020	06077346	UK/51/2020/0039
Arriva Rail London	378	378225	В	30/07/2020	06137433	UK/51/2020/0039
Balfour Beatty	072	072211	Α	21/08/2020	06245164	UK/51/2020/0050
Balfour Beatty	072	072211	В	21/08/2020	06178026	UK/51/2020/0050
Balfour Beatty	072	072213	Α	20/08/2020	06168496	UK/51/2020/0050
Balfour Beatty	072	072213	В	20/08/2020	06359239	UK/51/2020/0050
Balfour Beatty	073	073937	Α	13/08/2020	06720042	UK/51/2020/0018
Balfour Beatty	073	073937	В	13/08/2020	06710781	UK/51/2020/0018
Balfour Beatty	073	073939	Α	14/08/2020	06167606	UK/51/2020/0018
Balfour Beatty	073	073939	В	14/08/2020	06163052	UK/51/2020/0018
Balfour Beatty	075	075409	Α	06/08/2020	06602540	UK/51/2020/0016



Balfour Beatty	075	075410	Α	06/08/2020	06710764	UK/51/2020/0016
Balfour Beatty	075	075410	В	06/08/2020	06234209	UK/51/2020/0016
Balfour Beatty	075	075501	Α	07/08/2020	06710777	UK/51/2020/0016
Balfour Beatty	075	075501	В	07/08/2020	06714116	UK/51/2020/0016
Chiltern Railways	165	165001	Α	31/07/2020	06154618	UK/51/2020/0042
Chiltern Railways	165	165001	В	31/07/2020	06172894	UK/51/2020/0042
Chiltern Railways	165	165009	Α	27/07/2020	06177096	UK/51/2020/0042
Chiltern Railways	165	165009	В	27/07/2020	06222600	UK/51/2020/0042
Chiltern Railways	165	165013	Α	03/08/2020	06137032	UK/51/2020/0042
Chiltern Railways	165	165013	В	03/08/2020	06137029	UK/51/2020/0042
Chiltern Railways	165	165015	Α	14/08/2020	06154615	UK/51/2020/0042
Chiltern Railways	165	165015	В	14/08/2020	06235472	UK/51/2020/0042
Chiltern Railways	165	165018	Α	30/07/2020	06136208	UK/51/2020/0042
Chiltern Railways	165	165018	В	30/07/2020	06172891	UK/51/2020/0042
Chiltern Railways	165	165019	Α	11/08/2020	06238441	UK/51/2020/0042
Chiltern Railways	165	165019	В	11/08/2020	06235451	UK/51/2020/0042
Chiltern Railways	165	165024	Α	20/08/2020	06233711	UK/51/2020/0042
Chiltern Railways	165	165024	В	20/08/2020	06267775	UK/51/2020/0042
Chiltern Railways	165	165027	Α	06/08/2020	06174496	UK/51/2020/0042
Chiltern Railways	165	165027	В	06/08/2020	06235446	UK/51/2020/0042
Chiltern Railways	165	165029	Α	20/08/2020	06172656	UK/51/2020/0042
Chiltern Railways	165	165029	В	20/08/2020	06154646	UK/51/2020/0042
Chiltern Railways	165	165030	Α	04/08/2020	06139113	UK/51/2020/0042
Chiltern Railways	165	165030	В	05/08/2020	06136220	UK/51/2020/0042
Chiltern Railways	165	165035	Α	12/08/2020	06232253	UK/51/2020/0042
Chiltern Railways	165	165035	В	12/08/2020	06136219	UK/51/2020/0042
Chiltern Railways	168	168001	Α	21/08/2020	06239112	UK/51/2020/0043
Chiltern Railways	168	168001	В	20/08/2020	06136186	UK/51/2020/0043
Chiltern Railways	168	168002	Α	05/08/2020	06166843	UK/51/2020/0043
Chiltern Railways	168	168002	В	05/08/2020	06229721	UK/51/2020/0043
Chiltern Railways	168	168005	Α	21/08/2020	06238449	UK/51/2020/0043
Chiltern Railways	168	168005	В	22/08/2020	06137030	UK/51/2020/0043
Chiltern Railways	168	168106	Α	30/07/2020	06115286	UK/51/2020/0043
Chiltern Railways	168	168106	В	29/07/2020	06230492	UK/51/2020/0043
Chiltern Railways	168	168107	Α	19/08/2020	06154631	UK/51/2020/0043
Chiltern Railways	168	168107	В	19/08/2020	06229691	UK/51/2020/0043
Chiltern Railways	168	168109	Α	29/07/2020	06230495	UK/51/2020/0043
Chiltern Railways	168	168109	В	28/07/2020	06115295	UK/51/2020/0043
Chiltern Railways	168	168112	Α	10/08/2020	06233049	UK/51/2020/0043



Chiltern Railways	168	168112	В	11/08/2020	06230540	UK/51/2020/0043
Chiltern Railways	168	168113	Α	19/08/2020	06257079	UK/51/2020/0043
Chiltern Railways	168	168113	В	18/08/2020	06236882	UK/51/2020/0043
Chiltern Railways	172	172101	Α	14/08/2020	06136204	UK/51/2020/0029
Chiltern Railways	172	172101	В	13/08/2020	06279264	UK/51/2020/0029
Colas Rail	073	073929	Α	31/07/2020	06602530	UK/51/2020/0018
Colas Rail	073	073929	В	31/07/2020	06357287	UK/51/2020/0018
Colas Rail	073	073930	Α	31/07/2020	06420677	UK/51/2020/0018
Colas Rail	073	073930	В	31/07/2020	06362286	UK/51/2020/0018
Colas Rail	073	073936	Α	01/08/2020	06257070	UK/51/2020/0018
Colas Rail	073	073936	В	01/08/2020	06357272	UK/51/2020/0018
Colas Rail	073	073948	Α	05/08/2020	06720038	UK/51/2020/0018
Colas Rail	073	073948	В	05/08/2020	06324568	UK/51/2020/0018
Cross Country	170	170520	Α	05/08/2020	06190897	UK/51/2020/0051
Network Rail	098	098913	Α	28/07/2020	06257069	UK/51/2020/0022
Network Rail	098	098914	Α	30/07/2020	06232216	UK/51/2020/0022
Network Rail	098	098915	Α	30/07/2020	06135415	UK/51/2020/0022
Network Rail	098	098917	Α	11/08/2020	06128579	UK/51/2020/0022
Network Rail	098	098918	Α	12/08/2020	06606078	UK/51/2020/0022
Network Rail	098	098919	Α	12/08/2020	06602542	UK/51/2020/0022
Network Rail	098	098920	Α	19/08/2020	06123560	UK/51/2020/0022
Network Rail	098	098921	Α	18/08/2020	06128575	UK/51/2020/0022
Network Rail	098	098922	Α	03/08/2020	06796835	UK/51/2020/0022
Network Rail	098	098923	Α	04/08/2020	06606080	UK/51/2020/0022
Network Rail	098	098926	Α	29/07/2020	06134441	UK/51/2020/0022
Network Rail	098	098927	Α	29/07/2020	06223443	UK/51/2020/0022
Network Rail	098	098928	Α	11/08/2020	06710754	UK/51/2020/0022
Network Rail	098	098929	Α	12/08/2020	06229686	UK/51/2020/0022
Network Rail	098	098930	Α	18/08/2020	06207673	UK/51/2020/0022
Network Rail	098	098963	Α	28/07/2020	06234175	UK/51/2020/0022
Network Rail	098	098964	Α	30/07/2020	06234204	UK/51/2020/0022
Network Rail	098	098965	Α	30/07/2020	06207694	UK/51/2020/0022
Network Rail	098	098967	Α	11/08/2020	06369216	UK/51/2020/0022
Network Rail	098	098968	Α	12/08/2020	06401320	UK/51/2020/0022
Network Rail	098	098969	Α	12/08/2020	06225070	UK/51/2020/0022
Network Rail	098	098970	Α	19/08/2020	06159234	UK/51/2020/0022
Network Rail	098	098971	Α	18/08/2020	06154599	UK/51/2020/0022
Network Rail	098	098972	Α	03/08/2020	06273863	UK/51/2020/0022
Network Rail	098	098973	Α	04/08/2020	06796833	UK/51/2020/0022



Network Rail	098	098974	٨	04/09/2020	06235449	LIK /E1 /2020 /0022
	1		Α	04/08/2020		UK/51/2020/0022
Network Rail	098	098976	A	29/07/2020	06238439	UK/51/2020/0022
Network Rail	098	098977	A	29/07/2020	06234738	UK/51/2020/0022
Network Rail	098	098978	Α	11/08/2020	06225088	UK/51/2020/0022
Network Rail	098	098979	Α	12/08/2020	06720036	UK/51/2020/0022
Network Rail	098	098980	Α	18/08/2020	06351989	UK/51/2020/0022
South Western Railway	455	455701	Α	02/08/2020	06239148	UK/51/2020/0010
South Western Railway	455	455701	В	02/08/2020	06239115	UK/51/2020/0010
South Western Railway	455	455704	Α	03/08/2020	06239565	UK/51/2020/0010
South Western Railway	455	455704	В	03/08/2020	06239135	UK/51/2020/0010
South Western Railway	455	455705	Α	16/08/2020	06236884	UK/51/2020/0010
South Western Railway	455	455705	В	16/08/2020	06848219	UK/51/2020/0010
South Western Railway	455	455706	Α	09/08/2020	06236888	UK/51/2020/0010
South Western Railway	455	455706	В	09/08/2020	06230959	UK/51/2020/0010
South Western Railway	455	455708	Α	09/08/2020	06240338	UK/51/2020/0010
South Western Railway	455	455708	В	09/08/2020	06239142	UK/51/2020/0010
South Western Railway	455	455711	Α	31/07/2020	06247584	UK/51/2020/0010
South Western Railway	455	455711	В	31/07/2020	06239554	UK/51/2020/0010
South Western Railway	455	455714	Α	10/08/2020	06251137	UK/51/2020/0010
South Western Railway	455	455714	В	10/08/2020	06230514	UK/51/2020/0010
South Western Railway	455	455715	Α	21/08/2020	06241009	UK/51/2020/0010
South Western Railway	455	455715	В	21/08/2020	06252890	UK/51/2020/0010
South Western Railway	455	455716	Α	28/07/2020	06726976	UK/51/2020/0010
South Western Railway	455	455716	В	28/07/2020	06239128	UK/51/2020/0010
South Western Railway	455	455719	Α	28/07/2020	06239118	UK/51/2020/0010
South Western Railway	455	455719	В	28/07/2020	06236861	UK/51/2020/0010
South Western Railway	455	455722	Α	30/07/2020	06123566	UK/51/2020/0010
South Western Railway	455	455722	В	30/07/2020	06239547	UK/51/2020/0010
South Western Railway	455	455723	Α	29/07/2020	06239122	UK/51/2020/0010
South Western Railway	455	455723	В	29/07/2020	06239144	UK/51/2020/0010
South Western Railway	455	455724	Α	21/08/2020	06731897	UK/51/2020/0010
South Western Railway	455	455724	В	21/08/2020	06240333	UK/51/2020/0010
South Western Railway	455	455726	Α	12/08/2020	06252901	UK/51/2020/0010
South Western Railway	455	455726	В	12/08/2020	06240366	UK/51/2020/0010
South Western Railway	455	455727	Α	09/08/2020	06235442	UK/51/2020/0010
South Western Railway	455	455727	В	09/08/2020	06230873	UK/51/2020/0010
South Western Railway	455	455730	Α	19/08/2020	06126218	UK/51/2020/0010
South Western Railway	455	455730	В	19/08/2020	06236866	UK/51/2020/0010
South Western Railway	455	455734	A	04/08/2020	06240341	UK/51/2020/0010



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South Western Railway	455	455734	В	04/08/2020	06239567	UK/51/2020/0010
South Western Railway	455	455737	Α	22/08/2020	06233714	UK/51/2020/0010
South Western Railway	455	455737	В	22/08/2020	06239552	UK/51/2020/0010
South Western Railway	455	455738	Α	10/08/2020	06245162	UK/51/2020/0010
South Western Railway	455	455738	В	10/08/2020	06254457	UK/51/2020/0010
South Western Railway	455	455740	Α	27/07/2020	06731884	UK/51/2020/0010
South Western Railway	455	455740	В	27/07/2020	06731910	UK/51/2020/0010
South Western Railway	455	455741	Α	04/08/2020	06239139	UK/51/2020/0010
South Western Railway	455	455741	В	04/08/2020	06239555	UK/51/2020/0010
South Western Railway	455	455750	Α	30/07/2020	06239134	UK/51/2020/0010
South Western Railway	455	455750	В	22/08/2020	06239140	UK/51/2020/0010
South Western Railway	455	455848	Α	05/08/2020	06239126	UK/51/2020/0010
South Western Railway	455	455848	В	05/08/2020	06239113	UK/51/2020/0010
South Western Railway	455	455849	Α	08/08/2020	06235428	UK/51/2020/0010
South Western Railway	455	455849	В	08/08/2020	06083257	UK/51/2020/0010
South Western Railway	455	455850	Α	11/08/2020	06230863	UK/51/2020/0010
South Western Railway	455	455850	В	11/08/2020	06231490	UK/51/2020/0010
South Western Railway	455	455851	Α	21/08/2020	06241003	UK/51/2020/0010
South Western Railway	455	455851	В	21/08/2020	06253246	UK/51/2020/0010
South Western Railway	455	455853	Α	16/08/2020	06239155	UK/51/2020/0010
South Western Railway	455	455853	В	16/08/2020	06239133	UK/51/2020/0010
South Western Railway	455	455858	Α	07/08/2020	06253510	UK/51/2020/0010
South Western Railway	455	455858	В	07/08/2020	06231488	UK/51/2020/0010
South Western Railway	455	455860	Α	02/08/2020	06239550	UK/51/2020/0010
South Western Railway	455	455860	В	02/08/2020	06239154	UK/51/2020/0010
South Western Railway	455	455864	Α	07/08/2020	06252880	UK/51/2020/0010
South Western Railway	455	455864	В	07/08/2020	06232276	UK/51/2020/0010
South Western Railway	455	455865	Α	15/08/2020	06240342	UK/51/2020/0010
South Western Railway	455	455865	В	15/08/2020	06235432	UK/51/2020/0010
South Western Railway	455	455867	Α	13/08/2020	06731861	UK/51/2020/0010
South Western Railway	455	455867	В	13/08/2020	06252788	UK/51/2020/0010
South Western Railway	455	455870	Α	17/08/2020	06848233	UK/51/2020/0010
South Western Railway	455	455870	В	17/08/2020	06848217	UK/51/2020/0010
South Western Railway	455	455874	Α	17/08/2020	06848228	UK/51/2020/0010
South Western Railway	455	455874	В	17/08/2020	06235421	UK/51/2020/0010
South Western Railway	455	455906	Α	05/08/2020	06239549	UK/51/2020/0010
South Western Railway	455	455906	В	05/08/2020	06239137	UK/51/2020/0010
South Western Railway	455	455907	Α	22/08/2020	06249058	UK/51/2020/0010
South Western Railway	455	455907	В	22/08/2020	06254425	UK/51/2020/0010



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South Western Railway	455	455909	Α	19/08/2020	06848218	UK/51/2020/0010
South Western Railway	455	455909	В	19/08/2020	06848231	UK/51/2020/0010
South Western Railway	455	455910	Α	31/07/2020	06254481	UK/51/2020/0010
South Western Railway	455	455910	В	31/07/2020	06239566	UK/51/2020/0010
South Western Railway	455	455911	Α	11/08/2020	06254429	UK/51/2020/0010
South Western Railway	455	455911	В	11/08/2020	06232225	UK/51/2020/0010
South Western Railway	455	455912	Α	08/08/2020	06230544	UK/51/2020/0010
South Western Railway	455	455912	В	08/08/2020	06239116	UK/51/2020/0010
South Western Railway	455	455916	Α	15/08/2020	06230906	UK/51/2020/0010
South Western Railway	455	455916	В	15/08/2020	06234758	UK/51/2020/0010
South Western Railway	455	455917	Α	09/08/2020	06241007	UK/51/2020/0010
South Western Railway	455	455917	В	09/08/2020	06230986	UK/51/2020/0010
South Western Railway	456	456001	Α	26/07/2020	06172391	UK/51/2020/0052
South Western Railway	456	456001	В	26/07/2020	06121185	UK/51/2020/0052
South Western Railway	456	456002	Α	15/08/2020	06230985	UK/51/2020/0052
South Western Railway	456	456002	В	15/08/2020	06239563	UK/51/2020/0052
South Western Railway	456	456011	Α	21/08/2020	06253271	UK/51/2020/0052
South Western Railway	456	456011	В	21/08/2020	06254453	UK/51/2020/0052
South Western Railway	456	456012	Α	19/08/2020	06236899	UK/51/2020/0052
South Western Railway	456	456012	В	19/08/2020	06245146	UK/51/2020/0052
South Western Railway	456	456014	Α	26/07/2020	06175339	UK/51/2020/0052
South Western Railway	456	456014	В	26/07/2020	06174536	UK/51/2020/0052
South Western Railway	456	456018	Α	18/08/2020	06252882	UK/51/2020/0052
South Western Railway	456	456018	В	18/08/2020	06848235	UK/51/2020/0052
South Western Railway	458	458504	Α	13/08/2020	06848220	UK/51/2020/0047
South Western Railway	458	458504	В	13/08/2020	06240358	UK/51/2020/0047
South Western Railway	458	458506	Α	01/08/2020	06236868	UK/51/2020/0047
South Western Railway	458	458506	В	01/08/2020	06239119	UK/51/2020/0047
South Western Railway	458	458512	Α	01/08/2020	06239553	UK/51/2020/0047
South Western Railway	458	458512	В	01/08/2020	06236859	UK/51/2020/0047
South Western Railway	458	458513	Α	12/08/2020	06252915	UK/51/2020/0047
South Western Railway	458	458513	В	12/08/2020	06252905	UK/51/2020/0047
South Western Railway	458	458519	Α	17/08/2020	06239545	UK/51/2020/0047
South Western Railway	458	458521	Α	18/08/2020	06245149	UK/51/2020/0047
South Western Railway	458	458521	В	18/08/2020	06737887	UK/51/2020/0047
South Western Railway	458	458531	Α	14/08/2020	06245147	UK/51/2020/0047
South Western Railway	458	458531	В	14/08/2020	06254449	UK/51/2020/0047
South Western Railway	458	458532	Α	14/08/2020	06235420	UK/51/2020/0047
South Western Railway	458	458532	В	14/08/2020	06230864	UK/51/2020/0047



South Western Railway	458	458534	Α	29/07/2020	06236858	UK/51/2020/0047
South Western Railway	458	458534	В	29/07/2020	06236347	UK/51/2020/0047
Southeastern	375	375302	Α	29/07/2020	06228286	UK/51/2020/0035
Southeastern	375	375302	В	29/07/2020	06137409	UK/51/2020/0035
Southeastern	375	375309	Α	22/08/2020	06143372	UK/51/2020/0035
Southeastern	375	375309	В	22/08/2020	06731860	UK/51/2020/0035
Southeastern	375	375310	Α	31/07/2020	06266298	UK/51/2020/0035
Southeastern	375	375310	В	31/07/2020	06227375	UK/51/2020/0035
Southeastern	375	375607	Α	17/08/2020	06140203	UK/51/2020/0035
Southeastern	375	375607	В	17/08/2020	06226377	UK/51/2020/0035
Southeastern	375	375610	Α	03/08/2020	06226519	UK/51/2020/0035
Southeastern	375	375610	В	03/08/2020	06229683	UK/51/2020/0035
Southeastern	375	375616	Α	06/08/2020	06222583	UK/51/2020/0035
Southeastern	375	375616	В	06/08/2020	06229644	UK/51/2020/0035
Southeastern	375	375626	Α	19/08/2020	06180514	UK/51/2020/0035
Southeastern	375	375626	В	19/08/2020	06153543	UK/51/2020/0035
Southeastern	375	375628	Α	02/08/2020	06283470	UK/51/2020/0035
Southeastern	375	375628	В	02/08/2020	06180490	UK/51/2020/0035
Southeastern	375	375705	Α	11/08/2020	06283460	UK/51/2020/0035
Southeastern	375	375705	В	11/08/2020	06125102	UK/51/2020/0035
Southeastern	375	375706	Α	16/08/2020	06227373	UK/51/2020/0035
Southeastern	375	375706	В	16/08/2020	06150299	UK/51/2020/0035
Southeastern	375	375804	Α	21/08/2020	06139418	UK/51/2020/0035
Southeastern	375	375804	В	21/08/2020	06180537	UK/51/2020/0035
Southeastern	375	375811	Α	01/08/2020	06142107	UK/51/2020/0035
Southeastern	375	375811	В	01/08/2020	06226536	UK/51/2020/0035
Southeastern	375	375815	Α	30/07/2020	06226543	UK/51/2020/0035
Southeastern	375	375815	В	30/07/2020	06139783	UK/51/2020/0035
Southeastern	375	375816	Α	07/08/2020	06283468	UK/51/2020/0035
Southeastern	375	375816	В	07/08/2020	06180491	UK/51/2020/0035
Southeastern	375	375817	Α	22/08/2020	06227431	UK/51/2020/0035
Southeastern	375	375817	В	22/08/2020	06731906	UK/51/2020/0035
Southeastern	375	375821	Α	27/07/2020	06143374	UK/51/2020/0035
Southeastern	375	375821	В	27/07/2020	06150569	UK/51/2020/0035
Southeastern	375	375826	Α	04/08/2020	06181248	UK/51/2020/0035
Southeastern	375	375826	В	04/08/2020	06181249	UK/51/2020/0035
Southeastern	375	375908	Α	28/07/2020	06266992	UK/51/2020/0035
Southeastern	375	375908	В	28/07/2020	06152649	UK/51/2020/0035
Southeastern	375	375910	Α	09/08/2020	06283457	UK/51/2020/0035



Southeastern	375	375910	В	09/08/2020	06279286	UK/51/2020/0035
Southeastern	375	375911	A	15/08/2020	06130324	UK/51/2020/0035
Southeastern	375	375911	В	15/08/2020	06142105	UK/51/2020/0035
Southeastern	375	375917	A	05/08/2020	06283450	UK/51/2020/0035
Southeastern	375	375917	В	05/08/2020	06180353	UK/51/2020/0035
Southeastern	375	375925	<u>В</u>	22/08/2020	06229648	UK/51/2020/0035
Southeastern	375	375925	 B	22/08/2020	06181246	UK/51/2020/0035
Southeastern	376	376032	A	15/08/2020	06226540	UK/51/2020/0036
Southeastern	376	376032	 B	15/08/2020	06140238	UK/51/2020/0036
Southeastern	376	376032	A	29/07/2020	06180036	UK/51/2020/0036
Southeastern		376036	B		06283455	
	376 465	465001	A	29/07/2020		UK/51/2020/0036
Southeastern				13/08/2020	06227390	UK/51/2020/0037
Southeastern	465	465001	В	13/08/2020	06266320	UK/51/2020/0037
Southeastern	465	465002	<u>A</u>	28/07/2020	06283466	UK/51/2020/0037
Southeastern	465	465002	В	28/07/2020	06180541	UK/51/2020/0037
Southeastern	465	465005	<u>A</u>	03/08/2020	06180513	UK/51/2020/0037
Southeastern	465	465005	В	03/08/2020	06283465	UK/51/2020/0037
Southeastern	465	465015	Α	10/08/2020	06181252	UK/51/2020/0037
Southeastern	465	465015	В	10/08/2020	06180509	UK/51/2020/0037
Southeastern	465	465018	Α	22/08/2020	06145941	UK/51/2020/0037
Southeastern	465	465018	В	22/08/2020	06139795	UK/51/2020/0037
Southeastern	465	465020	Α	14/08/2020	06145963	UK/51/2020/0037
Southeastern	465	465020	В	14/08/2020	06228314	UK/51/2020/0037
Southeastern	465	465024	Α	01/08/2020	06152623	UK/51/2020/0037
Southeastern	465	465024	В	01/08/2020	06283461	UK/51/2020/0037
Southeastern	465	465026	Α	01/08/2020	06283464	UK/51/2020/0037
Southeastern	465	465026	В	01/08/2020	06180492	UK/51/2020/0037
Southeastern	465	465039	Α	11/08/2020	06180516	UK/51/2020/0037
Southeastern	465	465039	В	11/08/2020	06180506	UK/51/2020/0037
Southeastern	465	465047	Α	11/08/2020	06139430	UK/51/2020/0037
Southeastern	465	465047	В	11/08/2020	06279290	UK/51/2020/0037
Southeastern	465	465050	Α	05/08/2020	06279296	UK/51/2020/0037
Southeastern	465	465050	В	05/08/2020	06180508	UK/51/2020/0037
Southeastern	465	465155	Α	19/08/2020	06143862	UK/51/2020/0037
Southeastern	465	465155	В	19/08/2020	06266989	UK/51/2020/0037
Southeastern	465	465159	Α	22/08/2020	06131407	UK/51/2020/0037
Southeastern	465	465159	В	22/08/2020	06142132	UK/51/2020/0037
Southeastern	465	465162	Α	07/08/2020	06144447	UK/51/2020/0037
Southeastern	465	465162	В	07/08/2020	06283451	UK/51/2020/0037



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Southeastern	465	465176	Α	10/08/2020	06227430	UK/51/2020/0037
Southeastern	465	465176	В	10/08/2020	06227378	UK/51/2020/0037
Southeastern	465	465178	Α	28/07/2020	06140237	UK/51/2020/0037
Southeastern	465	465178	В	28/07/2020	06279285	UK/51/2020/0037
Southeastern	465	465179	Α	13/08/2020	06142157	UK/51/2020/0037
Southeastern	465	465179	В	13/08/2020	06265987	UK/51/2020/0037
Southeastern	465	465185	Α	13/08/2020	06180499	UK/51/2020/0037
Southeastern	465	465185	В	13/08/2020	06137422	UK/51/2020/0037
Southeastern	465	465186	Α	31/07/2020	06229633	UK/51/2020/0037
Southeastern	465	465186	В	31/07/2020	06142143	UK/51/2020/0037
Southeastern	465	465187	Α	21/08/2020	06144414	UK/51/2020/0037
Southeastern	465	465187	В	21/08/2020	06228320	UK/51/2020/0037
Southeastern	465	465188	Α	31/07/2020	06181240	UK/51/2020/0037
Southeastern	465	465188	В	31/07/2020	06226542	UK/51/2020/0037
Southeastern	465	465196	Α	30/07/2020	06142156	UK/51/2020/0037
Southeastern	465	465196	В	30/07/2020	06181251	UK/51/2020/0037
Southeastern	465	465197	Α	22/08/2020	06226374	UK/51/2020/0037
Southeastern	465	465197	В	22/08/2020	06224789	UK/51/2020/0037
Southeastern	465	465239	Α	27/07/2020	06180494	UK/51/2020/0037
Southeastern	465	465239	В	27/07/2020	06267565	UK/51/2020/0037
Southeastern	465	465240	Α	04/08/2020	06229642	UK/51/2020/0037
Southeastern	465	465240	В	04/08/2020	06180346	UK/51/2020/0037
Southeastern	465	465249	Α	14/08/2020	06143864	UK/51/2020/0037
Southeastern	465	465249	В	14/08/2020	06224810	UK/51/2020/0037
Southeastern	465	465906	Α	07/08/2020	06181244	UK/51/2020/0037
Southeastern	465	465906	В	07/08/2020	06229684	UK/51/2020/0037
Southeastern	465	465913	Α	17/08/2020	06181245	UK/51/2020/0037
Southeastern	465	465913	В	17/08/2020	06180493	UK/51/2020/0037
Southeastern	465	465914	Α	30/07/2020	06181247	UK/51/2020/0037
Southeastern	465	465914	В	30/07/2020	06283467	UK/51/2020/0037
Southeastern	465	465915	Α	17/08/2020	06139787	UK/51/2020/0037
Southeastern	465	465915	В	17/08/2020	06289289	UK/51/2020/0037
Southeastern	465	465919	Α	07/08/2020	06181241	UK/51/2020/0037
Southeastern	465	465919	В	06/08/2020	06283456	UK/51/2020/0037
Southeastern	465	465928	Α	18/08/2020	06265477	UK/51/2020/0037
Southeastern	465	465928	В	18/08/2020	06279289	UK/51/2020/0037
Southeastern	465	465929	Α	05/08/2020	06283459	UK/51/2020/0037
Southeastern	465	465929	В	05/08/2020	06180512	UK/51/2020/0037
Southeastern	466	466004	Α	11/08/2020	06152650	UK/51/2020/0041



Southeastern	466	466004	В	11/08/2020	06226517	UK/51/2020/0041
Southeastern	466	466005	Α	12/08/2020	06180347	UK/51/2020/0041
Southeastern	466	466005	В	14/08/2020	06143875	UK/51/2020/0041
Southeastern	466	466010	Α	06/08/2020	06283447	UK/51/2020/0041
Southeastern	466	466010	В	06/08/2020	06180535	UK/51/2020/0041
Southeastern	466	466011	Α	04/08/2020	06180507	UK/51/2020/0041
Southeastern	466	466011	В	04/08/2020	06283448	UK/51/2020/0041
Southeastern	466	466025	Α	29/07/2020	06181253	UK/51/2020/0041
Southeastern	466	466025	В	29/07/2020	06181242	UK/51/2020/0041
Southeastern	466	466038	Α	17/08/2020	06227426	UK/51/2020/0041
Southeastern	466	466038	В	17/08/2020	06145932	UK/51/2020/0041
Southeastern	466	466040	Α	17/08/2020	06142118	UK/51/2020/0041
Southeastern	466	466040	В	17/08/2020	06181243	UK/51/2020/0041
Transport for Wales	230	230009	Α	05/08/2020	06833925	UK/51/2020/0014
Transport for Wales	230	230009	В	10/08/2020	06833937	UK/51/2020/0014
Volker Rail	75	75504	Α	27/07/2020	06880279	UK/51/2020/0016
Volker Rail	75	75504	В	27/07/2020	06905447	UK/51/2020/0016
West Midlands Trains	172	172216	Α	08/08/2020	06142094	UK/51/2020/0029
West Midlands Trains	172	172216	В	08/08/2020	06121187	UK/51/2020/0029
West Midlands Trains	172	172334	Α	13/08/2020	06159578	UK/51/2020/0029
West Midlands Trains	172	172334	В	14/08/2020	06130266	UK/51/2020/0029
West Midlands Trains	172	172339	В	18/08/2020	06139108	UK/51/2020/0029
West Midlands Trains	319	319214	Α	12/08/2020	06159580	UK/51/2020/0053
West Midlands Trains	319	319214	В	12/08/2020	06186425	UK/51/2020/0053
West Midlands Trains	319	319216	Α	13/08/2020	06154657	UK/51/2020/0053
West Midlands Trains	319	319216	В	13/08/2020	06261664	UK/51/2020/0053
West Midlands Trains	319	319217	Α	17/08/2020	06305548	UK/51/2020/0053
West Midlands Trains	319	319217	В	19/08/2020	06120230	UK/51/2020/0053
West Midlands Trains	319	319429	Α	20/08/2020	06119684	UK/51/2020/0053
West Midlands Trains	319	319429	В	20/08/2020	06142079	UK/51/2020/0053
West Midlands Trains	319	319433	Α	14/08/2020	06136201	UK/51/2020/0053
West Midlands Trains	319	319433	В	14/08/2020	06127064	UK/51/2020/0053
West Midlands Trains	323	323216	Α	01/08/2020	06159242	UK/51/2020/0025
West Midlands Trains	323	323216	В	01/08/2020	06142072	UK/51/2020/0025
West Midlands Trains	350	350118	Α	20/08/2020	06131400	UK/51/2020/0026
West Midlands Trains	350	350118	В	20/08/2020	06118952	UK/51/2020/0026
West Midlands Trains	350	350122	Α	18/08/2020	06159808	UK/51/2020/0026
West Midlands Trains	350	350122	В	18/08/2020	06186434	UK/51/2020/0026
West Midlands Trains	350	350123	Α	31/07/2020	06121183	UK/51/2020/0026



West Midlands Trains 350 350125 A 18/08/2020 06126243 UK/51/2020/0026 West Midlands Trains 350 350125 B 18/08/2020 06179749 UK/51/2020/0026 West Midlands Trains 350 350130 A 17/08/2020 06126221 UK/51/2020/0026 West Midlands Trains 350 350130 B 17/08/2020 06126221 UK/51/2020/0026 West Midlands Trains 350 350256 A 18/08/2020 06289280 UK/51/2020/0026 West Midlands Trains 350 350260 B 17/08/2020 06121101 UK/51/2020/0026 West Midlands Trains 350 350264 A 21/08/2020 06121097 UK/51/2020/0026 West Midlands Trains 350 350264 B 21/08/2020 06121097 UK/51/2020/0026 West Midlands Trains 350 350374 A 27/07/2020 06120228 UK/51/2020/0026 West Midlands Trains 350 350374 A 27/07/2020 06120228	West Midlands Trains	350	350123	В	31/07/2020	06120232	UK/51/2020/0026
West Midlands Trains 350 350125 B 18/08/2020 06179749 UK/51/2020/0026 West Midlands Trains 350 350130 A 17/08/2020 06126221 UK/51/2020/0026 West Midlands Trains 350 350130 B 17/08/2020 06186435 UK/51/2020/0026 West Midlands Trains 350 350256 B 18/08/2020 06120234 UK/51/2020/0026 West Midlands Trains 350 350256 B 18/08/2020 06229280 UK/51/2020/0026 West Midlands Trains 350 350266 B 17/08/2020 06121101 UK/51/2020/0026 West Midlands Trains 350 350264 A 21/08/2020 06121101 UK/51/2020/0026 West Midlands Trains 350 350264 A 21/08/2020 06121097 UK/51/2020/0026 West Midlands Trains 350 350374 A 27/07/2020 06120228 UK/51/2020/0026 Mers Midlands Trains 350 350374 B 27/07/2020 06120228							
West Midlands Trains 350 350130 A 17/08/2020 06126221 UK/51/2020/0026 West Midlands Trains 350 350130 B 17/08/2020 06186435 UK/51/2020/0026 West Midlands Trains 350 350256 A 18/08/2020 06120234 UK/51/2020/0026 West Midlands Trains 350 350260 A 17/08/2020 06121101 UK/51/2020/0026 West Midlands Trains 350 350260 B 17/08/2020 06121171 UK/51/2020/0026 West Midlands Trains 350 350264 A 21/08/2020 061221097 UK/51/2020/0026 West Midlands Trains 350 350264 B 21/08/2020 06120238 UK/51/2020/0026 West Midlands Trains 350 350374 A 27/07/2020 06120238 UK/51/2020/0026 West Midlands Trains 350 350374 A 27/07/2020 06186450 UK/51/2020/0012e West Midlands Trains 350 3503174 A 27/17/2019 06737882							
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West Midlands Trains 350 350256 A 18/08/2020 06120234 UK/51/2020/0026 West Midlands Trains 350 350256 B 18/08/2020 06289280 UK/51/2020/0026 West Midlands Trains 350 350260 B 17/08/2020 06121101 UK/51/2020/0026 West Midlands Trains 350 350264 A 21/08/2020 06121171 UK/51/2020/0026 West Midlands Trains 350 350264 B 21/08/2020 06121077 UK/51/2020/0026 West Midlands Trains 350 350374 A 27/07/2020 06120228 UK/51/2020/0026 West Midlands Trains 350 350374 A 27/07/2020 06186450 UK/51/2020/0026 Merseyrail 508 508104 A 30/01/2020 06737884 UK/51/2020/0026 Merseyrail 508 508117 B 22/11/2019 06737884 UK/51/2020/0012 *1 Merseyrail 508 508120 B 22/11/2019 06737882 UK/51/2020/0012**1 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
West Midlands Trains 350 350256 B 18/08/2020 06289280 UK/51/2020/0026 West Midlands Trains 350 350260 A 17/08/2020 06121101 UK/51/2020/0026 West Midlands Trains 350 350264 A 21/08/2020 06121171 UK/51/2020/0026 West Midlands Trains 350 350264 B 21/08/2020 06121097 UK/51/2020/0026 West Midlands Trains 350 350264 B 21/08/2020 0612028 UK/51/2020/0026 West Midlands Trains 350 350374 A 27/07/2020 0612028 UK/51/2020/0026 West Midlands Trains 350 350374 A 27/07/2020 0612028 UK/51/2020/0026 West Midlands Trains 350 3508140 A 30/01/2020 061373881 UK/51/2020/0026 Merseyrail 508 508117 B 22/11/2019 06737881 UK/51/2020/0012 ft Merseyrail 508 508120 B 22/11/2019 06737882 UK/51/2020/00							
West Midlands Trains 350 350260 A 17/08/2020 06121101 UK/51/2020/0026 West Midlands Trains 350 350260 B 17/08/2020 06126278 UK/51/2020/0026 West Midlands Trains 350 350264 A 21/08/2020 06121171 UK/51/2020/0026 West Midlands Trains 350 350374 A 27/07/2020 06120228 UK/51/2020/0026 West Midlands Trains 350 350374 A 27/07/2020 06120228 UK/51/2020/0026 West Midlands Trains 350 350374 B 27/07/2020 06186450 UK/51/2020/0026 Merseyrail 508 508104 A 30/01/2020 06737884 UK/51/2020/0012* Merseyrail 508 508117 B 22/11/2019 06737882 UK/51/2020/0012* Merseyrail 508 508120 B 22/11/2019 06737882 UK/51/2020/0012* Merseyrail 508 508120 A 22/11/2019 06737891 UK/51/2020/0012*							
West Midlands Trains 350 350260 B 17/08/2020 06126278 UK/51/2020/0026 West Midlands Trains 350 350264 A 21/08/2020 06121171 UK/51/2020/0026 West Midlands Trains 350 350264 B 21/08/2020 06121097 UK/51/2020/0026 West Midlands Trains 350 350374 A 27/07/2020 06120228 UK/51/2020/0026 West Midlands Trains 350 350374 B 27/07/2020 06186450 UK/51/2020/0026 Merseyrail 508 508104 A 30/01/2020 06737884 UK/51/2020/0012 ⁸¹ Merseyrail 508 508117 B 22/11/2019 06737880 UK/51/2020/0012 ⁸¹ Merseyrail 508 508120 B 22/11/2019 06737890 UK/51/2020/0012 ⁸¹ Merseyrail 508 508120 A 22/11/2019 06737881 UK/51/2020/0012 ⁸¹ Merseyrail 508 508139 A 29/11/2019 06737885 UK/51/2020/0012 ⁸¹							
West Midlands Trains 350 350264 A 21/08/2020 06121171 UK/51/2020/0026 West Midlands Trains 350 350264 B 21/08/2020 06121097 UK/51/2020/0026 West Midlands Trains 350 350374 A 27/07/2020 06120228 UK/51/2020/0026 West Midlands Trains 350 350374 B 27/07/2020 06186450 UK/51/2020/0026 Merseyrail 508 508104 A 30/01/2020 06737884 UK/51/2020/0012 *1 Merseyrail 508 508117 A 22/11/2019 06737882 UK/51/2020/0012 *1 Merseyrail 508 508120 B 22/11/2019 06737879 UK/51/2020/0012 *1 Merseyrail 508 508120 A 22/11/2019 06737882 UK/51/2020/0012 *1 Merseyrail 508 508139 A 29/11/2019 06737850 UK/51/2020/0012 *1 Merseyrail 508 508140 A 10/01/2020 06737885 UK/51/2020/0012 *1 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>							
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#1 Note: EIN errors have been corrected from previous authorisation letters. Please update your records as required.



The restrictions or limitations of use on the structural subsystem are those referenced in the Determination of Type.

The rolling stock subsystem authorised by this letter must be operated and maintained in accordance with Regulation 20.

You should be aware that any future modifications to the authorised subsystem may constitute a 'renewal' or an 'upgrade' as defined in Regulation 2. If a project entity, in relation to the project, considers that the modification meets either of these definitions they may apply, in accordance with the provisions of Regulation 13, to the Department for Transport (DfT) for a decision on whether a new authorisation will be required. Should DfT decide that an authorisation is not required they must consult with ORR whether authorisation is required on safety grounds.

As the project entity you are responsible for retaining the declaration of conformity to an authorised type of railway vehicle, documentation recording any alterations, and maintenance manuals in relation to the subsystem, keeping them up to date and making them available to the ORR in accordance with Regulation 19.

If you are not the owner of the authorised subsystem you shall within 60 days, in accordance with Regulation 19(3), transfer the declaration of conformity to an authorised type of railway vehicle, documentation recording any alterations, and maintenance manuals in relation to the subsystem to the owner of the subsystem and the owner shall then be regarded as the project entity. If the owner, in accordance with Regulation 19(4), disposes of his interest in the authorised subsystem, he shall within 60 days of the disposal transfer the declaration of conformity to an authorised type of railway vehicle, documentation recording any alterations, and maintenance manuals in relation to the subsystem to the person acquiring that interest and that person shall be regarded as the project entity.

Please note that under Regulation 36, the person who applied for the authorisation shall send particulars to the Registration Entity to enable the registration entity to enter the information on the National Vehicle Register. This will include such further information as the registration entity may reasonably require set out in the relevant standard.



If you are the operator, may I remind you of the need to have adequate arrangements within your Safety Management System to control the risks associated with this rolling stock subsystem.

This decision letter will be published on ORR's website.

Yours sincerely

Steve Fletcher - ORR Deputy Director, Railway Planning and Performance.

Cc

Ian Jones Head of Interoperability, Safety and Standards DfT

Ian Prosser Director, Railway Safety

National Vehicle Register nvr@networkrail.co.uk

David Galloway Head of Vehicle Compatibility, Network Rail.

Pete Gracey Head of Interoperability and Rail Vehicle Engineering,

ORR.

lan Maxwell Head of Train Control Systems, ORR.