



**RAIL COACH FACTORY, KAPURTHALA**  
**ROLLING STOCK CERTIFICATE (LHB)**

(FORM NO. QMF 9454 VER:1.00)

1.	SHELL NO	9088	BOGIE NO	206555 / 206556	DISPATCH DATE	23-APR-20	
2.	RAILWAY	NR	TYPE OF COACH	LLRRMLX	COACH NO	202305	
3.	BOOKED TO	SSE/C&W/DLI					
4.	Tare Weight of Coach	53.4 T					
5.	Carrying Capacity	Seating	5	Sleeping	3	Luggage	3.9 T
6.	6.1	Leading Dimensions:					
	i)	Maximum length over Body	23700+10/-0				
	ii)	Maximum width over Body	3240-8/+0 mm, 3050 mm (for LWSCZDAC)				
	iii)	Maximum height from Rail Level	4250 (for LWACCN), 4039 (for LWACCW, LGS, LWSCN, LWSCZAC, LWFAC, LWCBCAC, LWLRRM), 4366 (for LWSCZDAC)				
	iv)	CBC Height	Specified: 1105 +0/-15 mm	1105	1105		
	v)	CBC (Make)		SANROK	SANROK		
	vi)	Buffer (Make)					
7.	Air Brake Testing:		Description	Specified			
	7.1	Full Brake Application	Reduce pressure of BP from 5.0 to 3.4 kg/cm <sup>2</sup>	06 - 10 Sec			
			Max Pressure in BC	3.80±0.15 Kg/cm <sup>2</sup>			
			All Brake are applied	OK			
	7.2	Insensitivity	Exhaust BP @ 0.3 Kg/cm <sup>2</sup> /mi	No brake application			
	7.3	Sensitivity	Exhaust BP @ 0.1 Kg/cm <sup>2</sup> /Sec, After 02 Sec	Brake must apply			
8.	Painting Details:		Type of Paint	Make	Average Gloss Value		
	8.1	Paint	PU PAINT	GS	87 / 87		
	8.2	Application of PCN-123	SATISFACTORY				
	8.3	Insulation	SATISFACTORY				
9.	Traceability of Furnishing Items:						
	1	FLOOR BOARD	SRI RAM				
	2	PVC	RESPONSIVE				
	3	UIC VESTIBULES	POLYMER				
	4	BODY SIDE DOOR	JVR				
	5	VESTIBULE SLIDING DOOR	KALSI				
	6	WATER TANKS	AMIT, MANOJ				
	7	FUEL TANK	PD STEEL				
	8	COMPOSITE MODULAR TOILET	HINDUSTAN				
	9	LAVATORY DOORS	KALSI				
	10	SEAT & BEARTH	AAR KAY FOAM				
	11	BIO-TOILET	SVARN INFRATEL				
	12	EP BRAK / BRAKE EQUIPMENT	ESCORTS				
	13	BIO DIGESTER/VACUUM EVACUATION SYSTEM	SVARN INFRATEL				
10.	10.1	Modification/ Trial (If any): 1-ASPIRATION FIRE/SMOKE DETECTION WITH ALARM SYSTEM AS PER RDSO SPECIFICATION NO. RDSO/2008/CG-04 REV.04, SUPPLIED AND COMMISSIONED BY M/S- SANROK ENTERPRISES , FARIDABAD, CONTACT NO. 09810566723. 2.AUTOMATIC FIRE DETECTION CUM SUPPRESSION SYSTEM SUPPLIED AND COMMISSIONED BY M/S- SANROK ENTERPRISES , FARIDABAD. 3.VINYL WRAPPING SUPPLIED AND FITTED BY M/S TECHNO EXPERT, JALANDHAR.					
	10.2	Deviations (If any): NIL					



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ROLLING STOCK CERTIFICATE (LHB)

QMF 9829, VER:1.00

<b>11.</b>	<b>Bogie Details:</b>	Shell No.	Railway	Type	Coach No.	Dispatch Date			
		9088	NR	LLRRMLX	202305	23-APR-20			
<b>11.1 Wheel &amp; Axle Details:</b>									
	i. Bogie No.	206555				206556			
	ii. Frame No.	KE-64				KE-31			
	iii. Bolster No.	SECPL-811				SECPL-783			
	iv. Axle No.	RWF - V5900	RWF - V5250		RWF - V4428	RWF - V1205			
	v. Items/locations	Earthing end side	Phonic wheel side	Phonic wheel side	Plain side	Earthing end side	Phonic wheel side	Phonic wheel side	Plain side
	vi. Wheel Dia.	917.00	917.00	917.00	917.00	917.00	917.00	916.80	916.80
	vii. Wheel Disc No.	38848-90G0-TZ	38846-90F3-TZ	84586-9VD1-TZ	34791-9012-TZ	38712-8RQ7-TZ	37025-8RN0-TZ	34790-9012-TZ	34769-90J2-TZ
	viii. RB Nos.	38609	46012	400870	401075	39405	35687	46054	38865
	ix. RB Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	
	x. RB Type	UIC CARTRIDGE TAPER ROLLER BEARING							
<b>11.2 Secondary suspension load deflection Values:</b>									
Description		Lateral Damper Side		Non-Lat. Damper Side		Lateral Damper Side		Non-Lat. Damper Side	
i.	Make & Nos.	TAYAL-19-12-6640		TAYAL-19-12-6666		TAYAL-19-12-6701		TAYAL-19-12-6706	
<b>Items traceability:</b>									
<b>11.3</b>	<b>Sno.</b>	<b>Item</b>					<b>Make</b>		
	i.	Primary Outer Spring		STLI-19-12		STLI-19-12		STLI	
	ii.	Primary inner Spring		STLI-19-08		STLI-19-08		STLI	
	iii.	Primary Damper		270291, 270397, 270683, 270443		270648, 270911, 271117, 270172		IAI	
	iv.	Secondary Damper		1237, 1446		1589, 1593		GABRIEL	
	v.	Lateral Damper		296962		296958		IAI	
	vi.	Brake cylinder & Caliper		55181,55487, 55180,55408		55219,55752, 55218,55797		ESCORTS	
	vii.	Brake Disc						FTI	KBI
	viii.	Contral arm top						KUMAR	
	ix.	Control arm bottom						KUMAR	
	x.	Top rubber Pad						ARYAN	
	xi.	Vertical Bump Stop						GMT	
	xii.	Ball Joint Control arm						AVADH	ARYAN
	xiii.	Lateral Bump stop						AVADH	
	xiv.	Traction center make						SARITA	
	xv.	Traction lever make						TAJ	
	xvi.	Ball joint traction lever						AVADH	
	xvii.	Traction center elastic						AVADH	
	xviii.	Secondary rubber pad						NA	
	xix.	Rubber spring						NA	
	xx.	Anti roll bar make						EMSON	
	xxi.	Ball joint roll link						SARITA	
	xxii.	Fork make						RNG	
<b>11.4</b>	i.	Modification/Trail(if any):		NIL					
	ii.	Deviations (if any):		Deviations (If any): NIL					

LLRRMLX - 9088



**RAIL COACH FACTORY, KAPURTHALA**  
**ROLLING STOCK CERTIFICATE (LHB)**

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB POWER CAR (LOW NOISE) AIR SPRING COACH**

**TYPE OF COACH :** LLRRMLX      **Shell No :** 9088      **COACH\_NO :** 202305

**RAILWAY :** NR      **COUPLING TYPE :** CBC      **DATE OF FITMENT:** 21-MAR-20

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
<b>Group Name PP-SIDE</b>				
1	33635067-1, BOGIE 1	EDTS101 REV-"A"	PRIME ELECTRONICS	206555
1	33635225-1, AC PACKAGE UNIT	EDTS075 TYPE-II	AMIT ENGINEERS	4586-A-20
1	33640312-1, PUBLIC ADDRESSING SYSTEM	EDTS173,TYPE-II	PUNJAB RADIOS/AHUJ A	4795095
0	33641419-0, REGULATED BATTERY CHARGER	EDTS109	IC ELECTRICALS COMPANY PVT.LTD	01/20/0017
<b>Group Name BOGIE PP SIDE</b>				
2	33635067-2, BOGIE 2	EDTS101 REV-"A"	PRIME ELECTRONICS	206556
<b>Group Name ENGINE ROOM</b>				
1	33635146-1, SMOKE SENSOR UNIT	SPEC.NO EDTS087 TYPE-II	AGNI INSTRUMENTS	NA
0	33635183-0, 60 KVA TRANSFORMER	EDTS076	RAMYAA ELECTRO-GEAR PVT. LTD.	1909-82-233
0	33641419-0, REGULATED BATTERY CHARGER	EDTS109	IC ELECTRICALS COMPANY PVT.LTD	NA
0	33641961-0, STARTER BATTERY CHARGING CONTROL PANEL FOR LHB TYPE POWER CAR	EDTS116	LEC	2020/0007
<b>Group Name 500 KVA ALTERNATOR SET A</b>				
1	33635316-1, ENGINE 500KVA	EDTS 102 ,REV-D,AM-4,PART- A	M/S KIRLOSKAR OIL ENGINES LTD	KIRLOSKER DVO-9026/2020010
3	33635316-3, RADIATOR FAN MOTOR	EDTS 102 ,REV-D,AM-4,PART- A	M/S KIRLOSKAR OIL ENGINES LTD	LEROY SOMER LED3L919L-18499 2019
7	33635316-7, ELECTRONIC ENGINE CONTROLLER	EDTS 102 ,REV-D,AM-4,PART- A	M/S KIRLOSKAR OIL ENGINES LTD	NA
11	33635316-11, DATA LOGGER UNIT ( IN CASE OF CUMMINS ENGINE)	EDTS 102 ,REV-D,AM-4,PART- A	M/S KIRLOSKAR OIL ENGINES LTD	DVO-5047/67000...,670 00...



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S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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**Group Name**      **500 KVA ALTERNATOR SET A**

13 33635316-13, RADIATOR FRAME	EDTS 102 ,REV-D,AM-4,PART- A	M/S KIRLOSKAR OIL ENGINES LTD	...
0 33641950-0, CONTROL PANEL FOR RADIATOR FAN MOTOR OF DIESEL ENGINE FOR LHB POWER CA	EDTS114 REV-A	BHASIN PACKARD ELECTRONICS PVT LTD	12196906/1

**Group Name**      **500 KVA ALTERNATOR SET B**

2 33635316-2, ALTERNATOR 500KVA	EDTS 102 ,REV-D,AM-4,PART- A	M/S KIRLOSKAR OIL ENGINES LTD	KIRLOSKER DVO-9026/2022011
4 33635316-4, VENTILATOR FAN MOTOR-1	EDTS 102 ,REV-D,AM-4,PART- A	M/S KIRLOSKAR OIL ENGINES LTD	LEROY SOMER LED3L919L-18441 2019
6 33635316-6, STARTER BATTERY 290AH CAPACITY	EDTS 102 ,REV-D,AM-4,PART- A	CELTEK	11/2019,11/2019
8 33635316-8, FUEL CONSUMPTION METER (INPUT)	EDTS 102 ,REV-D,AM-4,PART- A	M/S KIRLOSKAR OIL ENGINES LTD	FLUIDYNE - 20009/ 20010
12 33635316-12, NEUTRAL REACTOR( IN CASE OF M/S G&C)	EDTS 102 ,REV-D,AM-4,PART- A	M/S KIRLOSKAR OIL ENGINES LTD	NEPL
0 33641950-0, CONTROL PANEL FOR RADIATOR FAN MOTOR OF DIESEL ENGINE FOR LHB POWER CA	EDTS114 REV-A	BHASIN PACKARD ELECTRONICS PVT LTD	12196906/2

**Group Name**      **DRIVING END**

0 33635092-0, EXT.SUPP SOCKET 125 AMP,415V,IP67,5POLE(3P+N+E) WITH PILOT CONTACTS	CATALOGUE NO 1945436/PV 4125-6 &1948036/UIV 4125-6 RES. OF M/S GARO OREQUIVELANT APPROVED MAKE	JAI BALAJI	JAI BALAJI
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**Group Name**      **NON-DRIVING END**

0 33635092-0, EXT.SUPP SOCKET 125 AMP,415V,IP67,5POLE(3P+N+E) WITH PILOT CONTACTS	CATALOGUE NO 1945436/PV 4125-6 &1948036/UIV 4125-6 RES. OF M/S GARO OREQUIVELANT APPROVED MAKE	JAI BALAJI	JAI BALAJI
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**Group Name**      **UNDER FRAME**

1 33635080-1, PUMP	EDTS186	L E CORP. KAPSONS	111-R-1233
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S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
<b>Group Name UNDER FRAME</b>				
0	33635183-0, 60 KVA TRANSFORMER	EDTS076	RAMYAA ELECTRO-GEAR PVT. LTD.	1909-82-270
0	33635183-0, 60 KVA TRANSFORMER	EDTS076	RAMYAA ELECTRO-GEAR PVT. LTD.	1909-82-239
0	33640786-0, BATTERY FUSE BOX +VE	LW71001 ALT"a"	ABROL ENGINEERING COMPANY.PVT .LTD	2019-03-352
0	33641729-0, 70AH,110V, VRLA LEAD ACID MAINTENANCE FREE BATTERY(9 NOSX12V)	RDSO/PE/SPEC/AC/0 09-2008,REV-1 WITH AM-1	AMARA RAJA BATTERIES LTD.	01/2019
0	33650184-0, BATTERY BOX MOUNTING FOR LHB COACH AND 9 HOLES OF DIA 25 mm AS PER SKED-383 IN DRG.NO. 3 10113.0.76	1 10113.0.76.700.005 EXCEPT ITEM NO. 5,22,23,25 TO 27 ALT 'C'.	MEENAKSHI ENGINEERING WORKS	NA
1	35982913-1, CAPACITOR BANK FOR LHB EOG POWER CAR COACHES	EDML130, TABLE-2	NEC SWITCHGEAR S & CONTROLS	2019-05-8006
<b>Group Name UNDER FRAME PP SIDE</b>				
0	33635031-0, FEEDER JUNCTION BOX FOR POWER CAR	EDML021 REV-A	MV ELECTRO SYSTEM PVT LTD	NA
0	33641110-0, ZS COUPLING 500A,750V,3-PHASE 50HZ	EDTS105,,REV-E,AM1&2 WITH ANNEX. A	S INTERNATIONAL	NA
<b>Group Name UNDER FRAME NPP SIDE</b>				
0	33635031-0, FEEDER JUNCTION BOX FOR POWER CAR	EDML021 REV-A	MV ELECTRO SYSTEM PVT LTD	NA.
0	33641110-0, ZS COUPLING 500A,750V,3-PHASE 50HZ	EDTS105,,REV-E,AM1&2 WITH ANNEX. A	S INTERNATIONAL	NA
<b>Group Name CREW ROOM</b>				
0	33501439-0, AXLE MOUNTED DISC BRAKE SYSTEM FOR ALSTOM-LHB DESIGN-POWER CAR COACHES	MDTS077 REV. 02	ESCORT	1906-7061190-0027
	33501439-0, AXLE MOUNTED DISC BRAKE SYSTEM FOR ALSTOM-LHB DESIGN-POWER CAR COACHES	MDTS077 REV. 02		
2	33635080-2, PUMP CONTROLLER	EDTS186	KALSI METAL WORK PVT LTD.	7995/04-2019



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<b>Group Name CREW ROOM</b>				
2	33635146-2, SMOKE SENSOR	SPEC.NO EDTS087 TYPE-II	AGNI INSTRUMENTS	NA
2	33635225-2, MICRO PROCESSOR CONTROLLER	EDTS075 TYPE-II	AMIT ENGINEERS	AE-1912247
0	33635262-0, SINGLE INLET RADIAL BLOWER 415V,3- PHASE,50 HZ,185W,1045 CUBIC METER PER HOUR DISCHARGE FOR EXHAUSTIN	EDTS331,TYPE-2	INTEG	NA
2	33640312-2, SPEAKERS	EDTS173,TYPE-II	PUNJAB RADIOS/AHUJ A	NA
1	33640543-1, DA CONTROL PANEL FOR 2 X 500KVA DGSETS.	EDTS 103, REV-D, AM-3	INTERNATION AL SWITCHGEAR S	PCP-RCF-19-12- 0018
0	33641559-0, 24V STARTER BATTERY CHARGER FOR 500KVA DA SET	EDTS106	ELECROWAVE S	WSBCA-201361
0	33641559-0, 24V STARTER BATTERY CHARGER FOR 500KVA DA SET	EDTS106	ELECROWAVE S	WSBCA-201372
0	33641614-0, TAIL LIGHT LED TYPE WITH FLASHER UNIT & VHF CHARGING SOCKET TO DRG. NO. LP73200 ALT "A"	EDTS215	DHINGRA ENGINEERING WORKS	NA
1	33641936-1, SWITCH BOARD CABINET	EDTS-073, REV.-A	AMIT ENGINEERS	AE-SB-1042
2	33641936-2, DISCONNECTING & EARTHING DEVICE	EDTS-073, REV.-A	AMIT ENGINEERS	L&T
SSE/EL/QC		AME/WM QC/DY CQM I		